



June 15, 1999

Mr. Paul Kozol
Wisconsin Department of Natural Resources
3911 Fish Hatchery Road
Fitchburg, WI 53590



Re: Monthly Monitoring Report for the Oconomowoc Groundwater Treatment Facility

Dear Mr. Kozol:

Attached is the Monthly Monitoring Report for May, 1999 for the above referenced project. Questions regarding these reports should be directed to James Chang of APL, Inc. at (414) 355-5800.

Thank you for your continued cooperation and assistance with this project.

Sincerely,

Dean Groleau, Plant Superintendent
APL, Inc.

cc: Arne Thomsen, USACE, St. Paul District
Steve Peterson, USACE, Omaha District
Steve Padovani, USEPA
James Chang, APL, Inc.
Mike Boehlhar, Black and Veatch
David Brodzinski, WDNR, Horicon

**MONTHLY MONITORING REPORT
FOR THE
OCONOMOWOC ELECTROPLATING
GROUNDWATER TREATMENT FACILITY**

ASHIPPUN, WISCONSIN 53003

Prepared for:

**U.S. ARMY CORPS OF ENGINEERS
ST. PAUL DISTRICT
HASTINGS, MINNESOTA
CONTRACT DACW37-98-C-0009**

Prepared by:

**APL, Inc.
8222 West Calumet Road
Milwaukee, WI 53223**

June 15, 1999

1.0 Introduction

This report summarizes the monthly effluent monitoring results for the Oconomowoc Electroplating Groundwater Treatment Plant (OEGTP) for May, 1999. The OEGTP is located at the site of the former Oconomowoc Electroplating Company, in ASHIPPUN, WI.

Laboratory results of effluent sampling can be found in the Discharge Monitoring Report Form, sent under separate cover. The effluent sampling was conducted by Scott Harrison, Tony Goodman, and Dave Dugan of APL, Inc. Laboratory analysis was provided by APL, Inc., 8222 W. Calumet Road, Milwaukee WI 53223. All sampling and analyses were conducted in accordance with the Oconomowoc Electroplating Groundwater Treatment System's Chemical Data Acquisition Plan (CDAP). The parameters tested for, frequency of testing, sample type, and limits are set forth in the Final Discharge Limits, Table 1 of the Oconomowoc Electroplating Superfund Site Limits and Requirements for Discharge of Treated Groundwater, issued by the Wisconsin Department of Natural Resources (WDNR) on September 24, 1996. This report is submitted in accordance with the reporting requirements of the WDNR permit.

1.1 Site Background Review

The OEGTP is located at 2572 Oak Street in Ashippun, Wisconsin, in the NW 1/4 of the SE 1/4 of Section 30, Township 30 North, Range 17 East. The site consists of approximately 10 acres, which includes approximately 3.5 acres of the former electroplating facility. The site is bounded by Oak Street (Highway 'O') and Eva Street to the North, and Davey Creek and the Town of Ashippun's garage facilities to the South. The property directly across Oak Street is occupied by Thermogas, Inc. A residential area is located across Eva Street, and a wetlands surrounds Davey Creek.

The contact person is Arne Thomsen of the U.S. Army Corps of Engineers (USACE). Mr. Thomsen's phone number is (612) 438-3076, Fax (612) 438-2464. APL, Inc. is contracted by the USACE to operate and maintain the plant. The contact for the Treatment Plant is Dean Groleau who can be reached at (920) 474-3212, Fax (920) 474-4241. The contact for APL, Inc. is James Chang, who can be reached at (414) 355-5800, Fax (414) 355-3099.

1.2 Project Objectives

The objective of this project is to prevent the spreading of any plume of contamination that may exist at the site. Contaminated groundwater is pumped from five extraction wells, treated for cyanide, metals, suspended solids, and volatile organic compounds (VOC's). The treated water is then transferred to a groundwater effluent gallery, located south of Elm Street, near Davey Creek.

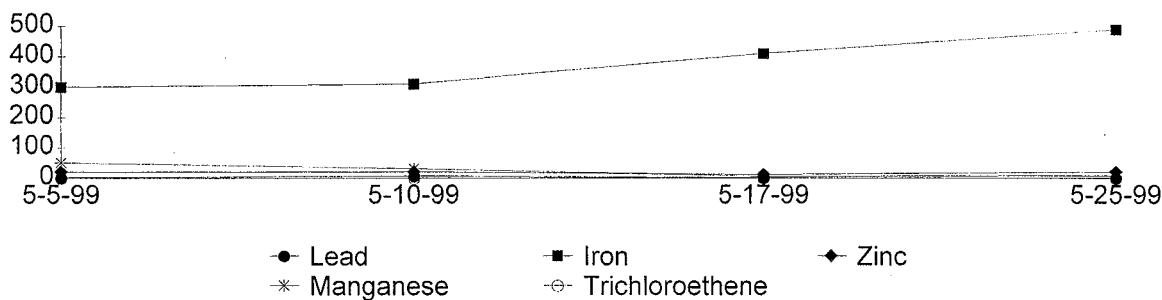
1.3 Effluent Monitoring

Weekly monitoring was conducted on May 5, 10, 17, and 25. The weekly samples for May were tested by APL, Inc. The results of the effluent monitoring tests for the samples taken on May 10 showed that Lead exceeded the limit of 1.5ug/l on the WDNR effluent discharge permit. The May 10 effluent testing showed a result of 6ug/l, the sample was retested and showed a result of 5ug/l, and the effluent was resampled on May 14 and showed a result of <1.1ug/l. "The possible cause of the high level is discussed in Section 2.0.

1.4 Monitoring Results

Results from weekly effluent monitoring can be found in the Discharge Monitoring Report Form, sent under a separate cover. Chart 1, below, shows the results of effluent monitoring for five important indicator parameters listed in the Monitoring Requirements of the Oconomowoc Electroplating Superfund Site Substantive WPDES Permit Requirements Summary (9/96). The May sampling results showed 1 exceedence in Lead.

Chart 1 - 5 Important Indicator Parameters



2.0 Plant Permit Exceedences

The possible cause for the high level of Lead in the May samplings may be due to the by-passing of the Tertiary Filtration System (TF-600) because of media binding problems. On April 9, Paul Kozol, WDNR, authorized operating the Treatment Plant with TF-600 by-passed. The Treatment Plant can continue to operate as long as there are no exceedences of Metals in the effluent. The reason for the by-passing of TF-600 was that the media has hardened below the diffuser heads and above the media up-lift system, preventing the media from being cleansed. After several media acid cleanings with little or no success, Arne Thomsen, USACE, authorized the purchase of new media to be installed after the current process modifications have been completed and tested. The new media has been ordered but will take several weeks for delivery.

Another possible reason for the Lead exceedence may be due to the Treatment System having been shut down for about 2 weeks to install the new processes. The metal piping from the Diffused Air Stripper (DAS-500) to the NPDES Station is slowly deteriorating. While the Treatment System was not activating, the stagnate water may have further deteriorated the insides of the piping, causing an exceedence on Lead. The Lead did not show up prior to the Sample Point #09 and disappeared after the Treatment System continued operations.

2.1 Treatment Plant Shut Downs

The Treatment Plant was shut down three times for a total of 68 hours in May, 1999. The shut downs were due to the Installation of Process Modifications and High Effluent pH. Table 1 shows the summary of the plant down time for the month of May, 1999.

Table 1 - Plant Down Time Summary

Date(s)	Number Hours Shut Down	Reason
5/1-3	54	Installed New Process Modifications
5/3-4	13	High Effluent pH
5/19	1	Installed New Process Modifications
TOTAL	68	

2.1.1. Shut Down Due To Installation of New Process Modifications

On April 19 to 30, the Treatment System had been shut down to install the new process modifications. During the shut down, the Metals Package had been drained to the Sludge Holding Tank (ST-820) and the sludge had been removed. The Tertiary Filter (TF-600) had the polymer-bound sand removed and added to the sludge hopper. The Sulfuric Acid Pumping Station (SAP-751/752) had been completely rebuilt and a new Sulfuric Acid Pump (SAP-753) had been added for the new Neutralization Stage (RMT-451). The Sodium Hypochlorite Pumping Station (SCP-251/252) had been completely rebuilt. The old Polymer Pumping Station (PFU-350/351) had been moved and the new Dilute Polymer Pumping Station (PFU-352/353) had been installed. The Granulated Activated Carbon Filters (GAC-650/651) had the spent Carbon removed and the new activated Carbon installed. The Treatment Plant was restarted on May 3 in the automatic mode. The total down time was 331 hours (277 hours in April and 54 hours in May).

2.1.2. Shut Down Due To High Effluent pH

On May 3, the Treatment System was shut down automatically due to a pH of 9.2 in the Effluent Holding Tank (EHT-700). The Treatment System was operated in the manual mode and the effluent was recirculated back to the Equalization Tank (EQT-100) to be retreated. The USACE, WDNR, and APL were notified and the Treatment System was shut down at 5P.M. At 6A.M. on May 4, the Treatment System was restarted in the manual mode and the effluent was recirculated back to the (EQT-100) until the pH was <9.0. At 8A.M., the Treatment System was put back into the automatic mode and the USACE, WDNR, and APL were notified. The total down time was 13 hours.

2.1.3. Shut Down Due To Installation of New Process Modifications

On May 19, while attempting to install wiring for the Neutralization Stage Mixer, the operator grounded out the Control Panel for the Metals Package (CP-440) and blew out a fuse. After searching for and finding the blown fuse, a replacement fuse needed to be purchased and installed. The Treatment System and Metals Package returned to normal operating parameters. The total down time was 1 hour.

4.0 Summary

Groundwater Treatment Plant effluent monitoring was conducted on May 5, 10, 17, and 25 of 1999. The laboratory results of these samples show that all contaminants listed in the Requirements of the Oconomowoc Electroplating Superfund Site Substantive WPDES Permit Requirements Summary (9/96) comply with the permit except for Lead on May 10. See Chart 1, Section 1.4 for important indicator parameters.

During the month of May, 1999, the plant was shut down three times for a total of 68 hours. See Table 1, Section 2.1 for shut down times. All equipment operation and maintenance related issues are detailed in a separate report, entitled "*Monthly Operation and Maintenance Report for the Oconomowoc Electroplating Groundwater Treatment Facility*". That report will be submitted by June 15, 1999.

OCONOMOWOC GROUNDWATER TREATMENT PLANT

Weekly Sampling Results

Date: 5-5-99

Parameter	Influent	After Metals Package	After Stripper	Between Carbon Filters	Effluent	WDNR Site Permit ug/l
pH	7.1	11.3	N/A	N/A	7.3	Monitor
TSS	NT	NT	NT	NT	NT	Monitor
Arsenic	ND	NT	NT	NT	ND	5
Barium	130	NT	NT	NT	50	400
Cadmium	ND	NT	NT	NT	ND	0.5
Cadmium Total	ND	NT	NT	NT	ND	Monitor
Recoverable						
Chromium +6	ND	NT	NT	NT	10	Monitor
Chromium Total	ND	NT	NT	NT	ND	10
Copper	ND	NT	NT	NT	10	Monitor
Iron	1100	NT	NT	NT	300	Monitor
Lead	ND	NT	NT	NT	1.4	1.5
Manganese	200	NT	NT	NT	50	Monitor
Mercury	ND	NT	NT	NT	ND	0.2
Nickel	60	NT	NT	NT	ND	20
Selenium	ND	NT	NT	NT	ND	10
Silver	ND	NT	NT	NT	ND	10
Thallium	ND	NT	NT	NT	ND	0.4
Zinc	10	NT	NT	NT	20	Monitor
Cyanide	ND	NT	NT	NT	ND	40
Cyanide Free	ND	NT	NT	NT	ND	Monitor
1,1-dichloroethane	19	NT	NT	NT	ND	85
1,2-dichloroethane	ND	NT	NT	NT	ND	0.5
1,1-dichloroethene	14	NT	NT	NT	ND	0.7
1,2-dichloroethene cis	47	NT	NT	NT	ND	7
1,2-dichloroethene trans	22	NT	NT	NT	ND	20
Ethylbenzene	ND	NT	NT	NT	ND	140
Methylene Chloride	ND	NT	NT	NT	ND	0.5
Tetrachloroethene	14	NT	NT	NT	ND	0.5
Toluene	ND	NT	NT	NT	ND	68
1,1,1-trichloroethane	279	NT	NT	NT	ND	40
1,1,2-trichloroethane	ND	NT	NT	NT	ND	0.5
TCE	745	NT	NT	NT	ND	0.5
Vinyl Chloride	ND	NT	NT	NT	ND	0.2
Xylene Total	ND	NT	NT	NT	ND	124
COD	NT	NT	NT	NT	NT	Monitor
Phosphorus total	NT	NT	NT	NT	NT	Monitor
Nitrate + Nitrite	NT	NT	NT	NT	NT	Monitor
Ammonia Nitrogen	NT	NT	NT	NT	NT	Monitor

mg/l

mg/l

mg/l

mg/l

OCONOMOWOC GROUNDWATER TREATMENT PLANT

Weekly Sampling Results

Date: 5-10-99

Parameter	Influent	After Metals Package	After Stripper	Between Carbon Filters	Effluent	WDNR Site Permit ug/l
pH	6.9	11.2	N/A	N/A	7.5	Monitor
TSS	6	NT	NT	NT	2	Monitor
Arsenic	ND	NT	NT	NT	ND	5
Barium	110	NT	NT	NT	60	400
Cadmium	ND	NT	NT	NT	ND	0.5
Cadmium Total Recoverable	ND	NT	NT	NT	ND	Monitor
Chromium +6	ND	NT	NT	NT	ND	Monitor
Chromium Total	ND	NT	NT	NT	ND	10
Copper	ND	NT	NT	NT	10	Monitor
Iron	1600	NT	NT	NT	310	Monitor
Lead	ND	NT	NT	NT	6/5*	1.5
Manganese	120	NT	NT	NT	30	Monitor
Mercury	ND	NT	NT	NT	ND	0.2
Nickel	33	NT	NT	NT	ND	20
Selenium	ND	NT	NT	NT	ND	10
Silver	ND	NT	NT	NT	ND	10
Thallium	ND	NT	NT	NT	ND	0.4
Zinc	20	NT	NT	NT	20	Monitor
Cyanide	ND	NT	NT	NT	ND	40
Cyanide Free	ND	NT	NT	NT	ND	Monitor
1,1-dichloroethane	28	NT	ND	NT	ND	85
1,2-dichloroethane	ND	NT	ND	NT	ND	0.5
1,1-dichloroethene	13	NT	ND	NT	ND	0.7
1,2-dichloroethene cis	53	NT	ND	NT	ND	7
1,2-dichloroethene trans	14	NT	ND	NT	ND	20
Ethylbenzene	2.8	NT	ND	NT	ND	140
Methylene Chloride	ND	NT	ND	NT	ND	0.5
Tetrachloroethene	7.4	NT	ND	NT	ND	0.5
Toluene	11	NT	ND	NT	ND	68
1,1,1-trichloroethane	211	NT	ND	NT	ND	40
1,1,2-trichloroethane	ND	NT	ND	NT	ND	0.5
TCE	612	NT	0.7	NT	ND	0.5
Vinyl Chloride	2.9	NT	ND	NT	ND	0.2
Xylene Total	6.5	NT	ND	NT	ND	124
COD	18	NT	NT	NT	8	Monitor
Phosphorus total	NT	NT	NT	NT	0.51	Monitor
Nitrate + Nitrite	NT	NT	NT	NT	0.2	Monitor
Ammonia Nitrogen	NT	NT	NT	NT	ND	Monitor

mg/l

mg/l
mg/l
mg/l
mg/l

* Original sample was retested. Another 24-hour composite sample was tested on May 14 and the result was less than the level of detection.

OCONOMOWOC GROUNDWATER TREATMENT PLANT

Weekly Sampling Results

Date: 5-17-99

Parameter	Influent	After Metals Package	After Stripper	Between Carbon Filters	Effluent	WDNR Site Permit ug/l
pH	7.2	11	N/A	N/A	8.1	Monitor
TSS	NT	NT	NT	NT	NT	Monitor
Arsenic	ND	NT	NT	NT	ND	5
Barium	110	NT	NT	NT	50	400
Cadmium	ND	NT	NT	NT	ND	0.5
Cadmium Total Recoverable	ND	NT	NT	NT	ND	Monitor
Chromium +6	ND	NT	NT	NT	ND	Monitor
Chromium Total	ND	NT	NT	NT	ND	10
Copper	ND	NT	NT	NT	ND	Monitor
Iron	980	NT	NT	NT	410	Monitor
Lead	ND	NT	NT	NT	ND	1.5
Manganese	190	NT	NT	NT	4	Monitor
Mercury	ND	NT	NT	NT	ND	0.2
Nickel	40	NT	NT	NT	ND	20
Selenium	21	NT	NT	NT	ND	10
Silver	ND	NT	NT	NT	ND	10
Thallium	ND	NT	NT	NT	ND	0.4
Zinc	20	NT	NT	NT	10	Monitor
Cyanide	ND	NT	NT	NT	ND	40
Cyanide Free	ND	NT	NT	NT	ND	Monitor
1,1-dichloroethane	22	NT	ND	NT	ND	85
1,2-dichloroethane	ND	NT	ND	NT	ND	0.5
1,1-dichloroethene	15	NT	ND	NT	ND	0.7
1,2-dichloroethene cis	52	NT	0.3	NT	ND	7
1,2-dichloroethene trans	21	NT	ND	NT	ND	20
Ethylbenzene	3.2	NT	ND	NT	ND	140
Methylene Chloride	ND	NT	ND	NT	ND	0.5
Tetrachloroethene	11	NT	ND	NT	ND	0.5
Toluene	ND	NT	ND	NT	ND	68
1,1,1-trichloroethane	246	NT	0.35	NT	ND	40
1,1,2-trichloroethane	ND	NT	ND	NT	ND	0.5
TCE	697	NT	1.6	NT	0.34	0.5
Vinyl Chloride	ND	NT	ND	NT	ND	0.2
Xylene Total	ND	NT	ND	NT	ND	124
COD	NT	NT	NT	NT	NT	Monitor
Phosphorus total	NT	NT	NT	NT	NT	Monitor
Nitrate + Nitrite	NT	NT	NT	NT	NT	Monitor
Ammonia Nitrogen	NT	NT	NT	NT	NT	Monitor

mg/l

mg/l

mg/l

mg/l

OCONOMOWOC GROUNDWATER TREATMENT PLANT

Weekly Sampling Results

Date: 5-25-99

Parameter	Influent	After Metals Package	After Stripper	Between Carbon Filters	Effluent	WDNR Site Permit ug/l
pH	7.4	11	N/A	N/A	8.9	Monitor
TSS	NT	NT	NT	NT	NT	Monitor
Arsenic	ND	NT	NT	NT	ND	5
Barium	90	NT	NT	NT	30	400
Cadmium	ND	NT	NT	NT	ND	0.5
Cadmium Total	ND	NT	NT	NT	ND	Monitor
Recoverable Chromium +6	ND	NT	NT	NT	ND	Monitor
Chromium Total	ND	NT	NT	NT	ND	10
Copper	ND	NT	NT	NT	ND	Monitor
Iron	860	NT	NT	NT	490	Monitor
Lead	ND	NT	NT	NT	ND	1.5
Manganese	160	NT	NT	NT	7	Monitor
Mercury	ND	NT	NT	NT	ND	0.2
Nickel	40	NT	NT	NT	ND	20
Selenium	ND	NT	NT	NT	ND	10
Silver	ND	NT	NT	NT	ND	10
Thallium	ND	NT	NT	NT	ND	0.4
Zinc	10	NT	NT	NT	20	Monitor
Cyanide	ND	NT	NT	NT	ND	40
Cyanide Free	ND	NT	NT	NT	ND	Monitor
1,1-dichloroethane	25	NT	ND	NT	ND	85
1,2-dichloroethane	ND	NT	ND	NT	ND	0.5
1,1-dichloroethene	17	NT	ND	NT	ND	0.7
1,2-dichloroethene cis	56	NT	ND	NT	ND	7
1,2-dichloroethene trans	23	NT	ND	NT	ND	20
Ethylbenzene	ND	NT	ND	NT	ND	140
Methylene Chloride	ND	NT	ND	NT	ND	0.5
Tetrachloroethene	ND	NT	ND	NT	ND	0.5
Toluene	12	NT	ND	NT	ND	68
1,1,1-trichloroethane	294	NT	ND	NT	ND	40
1,1,2-trichloroethane	ND	NT	ND	NT	ND	0.5
TCE	715	NT	0.54	NT	ND	0.5
Vinyl Chloride	ND	NT	ND	NT	ND	0.2
Xylene Total	ND	NT	ND	NT	1.09	124
COD	NT	NT	NT	NT	NT	Monitor
Phosphorus total	NT	NT	NT	NT	NT	Monitor
Nitrate + Nitrite	NT	NT	NT	NT	NT	Monitor
Ammonia Nitrogen	NT	NT	NT	NT	NT	Monitor

mg/l

mg/l

mg/l

mg/l

MONITOR WELL DEPTHS

OCONOMOWOC GROUNDWATER TREATMENT PLANT						
MONITORING WELLS		WATER LEVEL		FEET		
DATE	MW02DP	MW03SP	MW05P	MW05DP	MW06P	MW11BP
July 31, 1998	6.64	DRY	3.74	4.26	8.00	COVERED
Aug. 31, 1998	7.70	DRY	DRY	5.34	8.70	COVERED
Sept. 17, 1998	7.50	DRY	DRY	5.00	8.66	COVERED
Oct. 7, 1998	6.50	DRY	3.75	4.10	8.34	COVERED
Nov. 23, 1998	6.66	DRY	DRY	4.37	8.17	COVERED
Dec. 15, 1998	5.90	DRY	3.40	3.75	8.20	COVERED
Jan. 18, 1999	6.60	DRY	3.75	4.72	8.25	COVERED
Feb. 3, 1999	5.36	6.10	3.15	2.90	7.15	COVERED
Mar 3-4, 1999	5.51	DRY	3.20	3.04	7.40	COVERED
Apr. 15, 1999	5.30	6.20	3.25	4.40	6.92	COVERED
May 10, 1999	5.50	6.35	3.35	3.40	7.05	COVERED

MONITOR WELL DEPTHS

OCONOMOWOC GROUNDWATER TREATMENT PLANT						
MONITORING WELLS	WATER LEVEL		FEET			
DATE	MW12BP	MW12DP	MW13SP	MW14DP	MW15DP	MW16SP
July 31, 1998	4.75	3.78	5.75	4.80	10.49	UNACCESS.
Aug. 31, 1998	5.64	4.48	6.38	4.80	11.64	UNACCESS.
Sept. 17, 1998	5.35	3.20	6.31	4.86	11.10	UNACCESS.
Oct. 7, 1998	4.75	3.65	5.79	4.75	10.60	UNACCESS.
Nov. 23, 1998	4.73	3.70	5.82	4.56	10.46	UNACCESS.
Dec. 15, 1998	4.10	3.00	5.85	4.70	9.95	UNACCESS.
Jan. 18, 1999	4.70	3.70	5.70	5.00	10.50	UNACCESS.
Feb. 3, 1999	3.50	2.48	4.85	3.00	9.27	UNACCESS.
Mar. 3-4, & 16, 1999	3.50	2.70	5.15	3.40	9.20	2.95
Apr. 15, 1999	3.61	3.20	4.84	2.60	9.25	2.63
May 10, 1999	3.85	3.05	4.95	2.80	9.45	3.80

FLOW FROM EXTRACTION WELLS

YEAR: 1999				
MONTH: MAY	FE-100 FLOW TOTALIZER	TOTAL DAY'S FLOW (GAL.)	DAILY FLOW MGD	
1	3,216,295.50	0.00	0.000	SHUT DOWN
2	3,216,295.50	5,664.00	0.006	SHUT DOWN
3	3,221,959.50	12,867.75	0.013	SHUT DOWN
4	3,234,827.25	23,025.50	0.023	SHUT DOWN
5	3,257,852.75	22,844.25	0.023	
6	3,280,697.00	19,469.00	0.019	
7	3,300,166.00	14,904.00	0.015	
8	3,315,070.00	25,956.00	0.026	
9	3,341,026.00	20,970.00	0.021	
10	3,361,996.00	7,082.00	0.007	SHUT DOWN
11	3,369,078.00	26,895.00	0.027	SHUT DOWN
12	3,395,973.00	22,890.00	0.023	
13	3,418,863.00	23,146.00	0.023	
14	3,442,009.00	17,850.00	0.018	
15	3,459,859.00	27,711.00	0.028	
16	3,487,570.00	19,639.00	0.020	
17	3,507,209.00	21,721.00	0.022	SHUT DOWN
18	3,528,930.00	27,797.00	0.028	
19	3,556,727.00	20,746.00	0.021	
20	3,577,473.00	22,381.00	0.022	SHUT DOWN
21	3,599,854.00	24,279.00	0.024	
22	3,624,133.00	31,179.00	0.031	
23	3,655,312.00	23,060.00	0.023	
24	3,678,372.00	21,604.00	0.022	
25	3,699,976.00	22,502.00	0.023	
26	3,722,478.00	22,772.00	0.023	
27	3,745,250.00	23,164.00	0.023	
28	3,768,414.00	20,302.00	0.020	
29	3,788,716.00	24,497.00	0.024	
30	3,813,213.00	29,516.00	0.030	
31	3,842,729.00	21,012.00	0.021	
June 01	3,863,741.00			
		TOTAL	0.647	
		AVERAGE	0.021	

FLOW FROM EQT-100

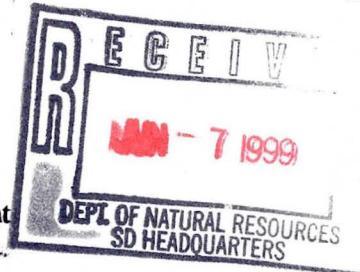
YEAR: 1999			
MONTH: MAY	FE-112 FLOW TOTALIZER	TOTAL DAY'S FLOW (GAL.)	DAILY FLOW MGD
1	9,196,245.00	0.00	0.000
2	9,196,245.00	6,626.00	0.007
3	9,202,871.00	9,921.00	0.010
4	9,212,792.00	28,760.00	0.029
5	9,241,552.00	27,990.00	0.028
6	9,269,542.00	23,414.00	0.023
7	9,292,956.00	18,132.00	0.018
8	9,311,088.00	33,051.00	0.033
9	9,344,139.00	30,214.00	0.030
10	9,374,353.00	24,296.00	0.024
11	9,398,649.00	30,948.00	0.031
12	9,429,597.00	26,536.00	0.027
13	9,456,133.00	26,423.00	0.026
14	9,482,556.00	21,082.00	0.021
15	9,503,638.00	32,927.00	0.033
16	9,536,565.00	31,906.00	0.032
17	9,568,471.00	24,597.00	0.025
18	9,593,068.00	32,081.00	0.032
19	9,625,149.00	23,358.00	0.023
20	9,648,507.00	28,694.00	0.029
21	9,677,201.00	30,533.00	0.031
22	9,707,734.00	39,251.00	0.039
23	9,746,985.00	28,107.00	0.028
24	9,775,092.00	25,024.00	0.025
25	9,800,116.00	27,126.00	0.027
26	9,827,242.00	26,365.00	0.026
27	9,853,607.00	27,012.00	0.027
28	9,880,619.00	24,596.00	0.025
29	9,905,215.00	28,850.00	0.029
30	9,934,065.00	34,829.00	0.035
31	9,968,894.00	24,969.00	0.025
June 01	9,993,863.00		

TOTAL 0.798
AVERAGE 0.026

EFFLUENT FLOW FROM PLANT

YEAR: 1999				
MONTH: MAY	NPDES STATION TOTALIZER	TOTAL DAY'S FLOW (GAL.)	X2	DAILY FLOW MGD
DAY				
1	2,574,723.25	0.00	0.00	0.000
2	2,574,723.25	3582.75	7,165.50	0.007
3	2,578,306.00	4526.25	9,052.50	0.009
4	2,582,832.25	13239.00	26,478.00	0.026
5	2,596,071.25	13078.75	26,157.50	0.026
6	2,609,150.00	10259.00	20,518.00	0.021
7	2,619,409.00	10259.00	20,518.00	0.021
8	2,629,668.00	14585.00	29,170.00	0.029
9	2,644,253.00	14562.00	29,124.00	0.029
10	2,658,815.00	10393.00	20786.00	0.021
11	2,669,208.00	14360.00	28720.00	0.029
12	2,683,568.00	12654.00	25308.00	0.025
13	2,696,222.00	12415.00	24830.00	0.025
14	2,708,637.00	10552.00	21104.00	0.021
15	2,719,189.00	15803.00	31606.00	0.032
16	2,734,992.00	14870.00	29740.00	0.030
17	2,749,862.00	11935.00	23870.00	0.024
18	2,761,797.00	13233.00	26466.00	0.026
19	2,775,030.00	15033.00	30066.00	0.030
20	2,790,063.00	9948.00	19896.00	0.020
21	2,800,011.00	14201.00	28402.00	0.028
22	2,814,212.00	16992.00	33984.00	0.034
23	2,831,204.00	14751.00	29502.00	0.030
24	2,845,955.00	10053.00	20106.00	0.020
25	2,856,008.00	10741.00	21482.00	0.021
26	2,866,749.00	13375.00	26750.00	0.027
27	2,880,124.00	12080.00	24160.00	0.024
28	2,892,204.00	12026.00	24052.00	0.024
29	2,904,230.00	14230.00	28460.00	0.028
30	2,918,460.00	15886.00	31772.00	0.032
31	2,934,346.00	11651.00	23302.00	0.023
June 01	2,945,997.00			
			TOTAL	0.743
			AVERAGE	0.024

James Chang
 Oconomowoc Groundwater Treatment Plant
 2572 Oak St.
 Ashippun, WI 53003



WDNR# 241340550

INVOICE NUMBER 990331
 DATE REPORTED: 13-May-99
 DATE RECEIVED: 05-May-99
 SAMPLE TEMP (C) Rec On Ice
 PROJECT ID: weekly sampling
 PROJECT NAME: OGTP

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
Nova Sample Number: 14927										
Client ID: 990505WA01P										
Arsenic - Furnace AA	<9.9	ug/l	RJ	9.9	31	206.2	dmd	5/12/99	990904	Collection: 5/5/99 Time: 08:10
Barium - ICAP	0.13	mg/l	RJ	0.002	0.006	200.7	dmd	5/12/99	990906	Sample Description:
Cadmium - Furnace AA	<0.7	ug/l	TTR	0.7	2.2	213.2	dmd	5/11/99	990896	
Chromium, Total - ICAP	<0.012	mg/l	RJ	0.012	0.04	200.7	dmd	5/12/99	990906	
Copper- ICAP	<0.01	mg/l	RJ	0.01	0.03	200.7	dmd	5/12/99	990906	
Iron - ICAP	1.1	mg/l	RJ	0.078	0.25	200.7	dmd	5/12/99	990906	
Lead - Furnace AA	<1.1	ug/l		1.1	3.5	239.2	dmd	5/11/99	990893	
Manganese - ICAP	0.2	mg/l	RJ	0.004	0.01	200.7	dmd	5/12/99	990906	
Mercury CV	<0.0002	mg/l	RJ	0.0002	0.0006	245.1	dmd	5/7/99	990858	
Nickel - ICAP	0.06	mg/l	RJ	0.01	0.03	200.7	dmd	5/12/99	990906	
Selenium - Furnace AA	<7.8	ug/l	RJ	7.8	25	270.2	dmd	5/12/99	990905	
Silver - ICAP	<0.009	mg/l	RJ	0.009	0.03	200.7	dmd	5/12/99	990906	
Thallium - Furnace AA	<5.0	ug/l	RJ	5	16	279.2	dmd	5/11/99	990894	
Zinc - ICAP	0.01	mg/l	J RJ	0.01	0.03	200.7	dmd	5/12/99	990906	
Chromium, Hexavalent	<0.0042	mg/l		0.004	0.01	SM 3500	805353	5/5/99	990852	
Cyanide, Amenable	<0.018	mg/l		0.018	0.06	335.2	van	5/11/99	990890	
Cyanide, Total	<0.018	mg/l		0.018	0.06	335.2	van	5/11/99	990889	
pH (water)	7.1	n.u.	#			150.1	srh	5/5/99	990849	

Nova Sample Number: 14928										
Client ID: 990505WA09R										
Arsenic - Furnace AA	<9.9	ug/l	RJ	9.9	31	206.2	dmd	5/12/99	990904	Collection: 5/5/99 Time:
Barium - ICAP	0.05	mg/l	RJ	0.002	0.006	200.7	dmd	5/12/99	990906	Sample Description:
Cadmium - Furnace AA	<0.7	ug/l	TTR	0.7	2.2	213.2	dmd	5/11/99	990896	
Chromium, Total - ICAP	<0.012	mg/l	RJ	0.012	0.04	200.7	dmd	5/12/99	990906	
Copper- ICAP	0.01	mg/l	J RJ	0.01	0.03	200.7	dmd	5/12/99	990906	
Iron - ICAP	0.3	mg/l	RJ	0.078	0.25	200.7	dmd	5/12/99	990906	
Lead - Furnace AA	1.4	ug/l	J	1.1	3.5	239.2	dmd	5/11/99	990893	
Manganese - ICAP	0.05	mg/l	RJ	0.004	0.01	200.7	dmd	5/12/99	990906	
Mercury CV	<0.0002	mg/l	RJ	0.0002	0.0006	245.1	dmd	5/7/99	990858	
Nickel - ICAP	<0.01	mg/l	RJ	0.01	0.03	200.7	dmd	5/12/99	990906	
Selenium - Furnace AA	<7.8	ug/l	RJ	7.8	25	270.2	dmd	5/12/99	990905	



INORGANIC REPORT

WDNR# 241340550

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun, WI 53003

INVOICE NUMBER 990331
DATE REPORTED: 13-May-99
DATE RECEIVED: 05-May-99
SAMPLE TEMP (C) Rec On Ice
PROJECT ID: weekly sampling
PROJECT NAME: OGTP

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
Silver - ICAP	<0.009	mg/l	RJ	0.009	0.03	200.7	dmd	5/12/99	990906	
Thallium - Furnace AA	<5.0	ug/l	RJ	5	16	279.2	dmd	5/11/99	990894	
Zinc - ICAP	0.02	mg/l	J RJ	0.01	0.03	200.7	dmd	5/12/99	990906	

Nova Sample Number: 14929

Client ID: 990505WA02P

pH (water)

9.9 s.u. #

150.1

Collection: 5/5/99 Time: 08:15
Sample Description:

Nova Sample Number: 14930

Client ID: 990505WA03P

pH (water)

11 s.u. #

150.1

Collection: 5/5/99 Time: 08:16
Sample Description:

Nova Sample Number: 14931

Client ID: 990505WA05P

pH (water)

7.1 s.u. #

150.1

Collection: 5/5/99 Time: 08:35
Sample Description:

Nova Sample Number: 14932

Client ID: 990505WA09P

Chromium, Hexavalent

0.01 mg/l J

0.004 0.01 SM 3500

805353 5/5/99 990852

Collection: 5/5/99 Time: 08:05

Sample Description:

Cyanide, Amenable

<0.018 mg/l

0.018 0.06 335.2

van 5/11/99 990890

Cyanide, Total

<0.018 mg/l

0.018 0.06 335.2

van 5/11/99 990889

pH (water)

7.3 s.u. #

150.1

srh 5/5/99 990849

Approved By:

James Chang, Ph.D., Lab Director

Date: 5/13/99

RJ Result expressed as Total.

TTR Result expressed as total and total recoverable.

MDL: Method Detection Limit determined by 40CFR Part 136 Appendix B "J" = Results between LOD and LOQ "#" = no LOD or LOQ required.

LOQ = 10 (S) x Dilution Factor, where "S" is the Standard Deviation from the MDL Study

LOD = 3.143 (S) x Dilution Factor, where "S" is the Standard Deviation from the MDL Study

Rounding Rules: Three significant figures were used for concentrations above 99 ug/L, two significant figures for concentrations between 1-99 ug/L, and one significant figure for lower concentrations.

DNR Analytical Detection Limit Guidance, April 1995.

APL Environmental

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ORGANIC REPORT

James Chang
 Oconomowoc Groundwater Treatment Plant
 2572 Oak St.
 Ashippun, WI 53003

WDNR# 241340550

BATCH NUMBER: 990331
 DATE REPORTED: 06-May-99
 DATE RECEIVED: 05-May-99
 SAMPLE TEMP (C): Rec On Ice
 PROJECT ID: weekly sampling
 PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Sample Number: 14927										
Cheat ID: 990305WA01P	Sample Description:	QC Prep Batch Number:	990338	Sample analyzed within 0 days from collection			Collection:	5/5/99	Time:	08:10
1,1,1,2-Tetrachloroethane	<2	ug/l	2	6.4	ns	10		8260	srh	5/5/99
1,1,1-Trichloroethane	279	ug/l	2.3	7.3	40	10		8260	srh	5/5/99
1,1,2,2-Tetrachloroethane	<2.9	ug/l	2.9	9.2	0.02	10		8260	srh	5/5/99
1,1,2-Trichloroethane	<2.9	ug/l	2.9	9.2	0.5	10		8260	srh	5/5/99
1,1-Dichloroethane	19	ug/l	1.5	4.8	85	10		8260	srh	5/5/99
1,1-Dichloroethene	14	ug/l	3.6	11	0.7	10		8260	srh	5/5/99
1,1-Dichloropropene	<4.9	ug/l	4.9	16	ns	10		8260	srh	5/5/99
1,2,3-Trichlorobenzene	<2.2	ug/l	2.2	7	ns	10		8260	srh	5/5/99
1,2,3-Trichloropropane	<6	ug/l	6	19	ns	10		8260	srh	5/5/99
1,2,4-Trichlorobenzene	<1.6	ug/l	1.6	5.1	14	10		8260	srh	5/5/99
1,2,4-Trimethylbenzene	<2.9	ug/l	2.9	9.2	ns	10		8260	srh	5/5/99
1,2-Dibromoethane	<2.4	ug/l	2.4	7.6	0.005	10		8260	srh	5/5/99
1,2-Dichlorobenzene	<2	ug/l	2	6.4	60	10		8260	srh	5/5/99
1,2-Dichloroethane	<1.9	ug/l	1.9	6	0.5	10		8260	srh	5/5/99
1,2-Dichloropropane	<2.3	ug/l	2.3	7.3	0.5	10		8260	srh	5/5/99
1,3,5-Trimethylbenzene	<2.3	ug/l	2.3	7.3	ns	10		8260	srh	5/5/99
1,3-Dichlorobenzene	<1.9	ug/l	1.9	6	125	10		8260	srh	5/5/99
1,3-Dichloropropane	<2.1	ug/l	2.1	6.7	ns	10		8260	srh	5/5/99
1,4-Dichlorobenzene	<1.5	ug/l	1.5	4.8	15	10		8260	srh	5/5/99
1,2-Dibromo-3-chloropropan	<5.9	ug/l	5.9	19	0.02	10		8260	srh	5/5/99
2,2-Dichloropropane	<4	ug/l	4	13	ns	10		8260	srh	5/5/99
2-Butanone (MEK)	<14	ug/l	14	44	90	10		8260	srh	5/5/99
2-Chloroethyl Vinyl Ether	<2.9	ug/l	2.9	9.2	ns	10		8260	srh	5/5/99
2-Chlorotoluene	<1.5	ug/l	1.5	4.8	ns	10		8260	srh	5/5/99
4-Chlorotoluene	<2.5	ug/l	2.5	8	ns	10		8260	srh	5/5/99
4-Methyl-2-Pentanone	<8.4	ug/l	8.4	27	50	10		8260	srh	5/5/99
Acetone	<16	ug/l	16	49	200	10		8260	srh	5/5/99
Benzene	<1.9	ug/l	1.9	6	0.5	10		8260	srh	5/5/99
Bromobenzene	<1.9	ug/l	1.9	6	ns	10		8260	srh	5/5/99
Bromochloromethane	<3.4	ug/l	3.4	11	ns	10		8260	srh	5/5/99
Bromodichloromethane	<2.6	ug/l	2.6	8.3	0.06	10		8260	srh	5/5/99
Bromoform	<4.7	ug/l	4.7	15	0.44	10		8260	srh	5/5/99
Bromomethane	<2.1	ug/l	2.1	6.7	1	10		8260	srh	5/5/99
Carbon tetrachloride	<2.2	ug/l	2.2	7	0.5	10		8260	srh	5/5/99
Chlorobenzene	<2	ug/l	2	6.4	20	10		8260	srh	5/5/99
Chloroethane	<12	ug/l	12	37	80	10		8260	srh	5/5/99
Chloroform	<2.7	ug/l	2.7	8.6	0.6	10		8260	srh	5/5/99
Chloromethane	<7.7	ug/l	7.7	24	0.3	10		8260	srh	5/5/99
cis-1,2-Dichloroethene	47	ug/l	2	6.4	7	10		8260	srh	5/5/99
cis-1,3-Dichloropropene	<2.4	ug/l	2.4	7.6	0.02	10		8260	srh	5/5/99

APL Environmental

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ORGANIC REPORT

James Chang
 Oconomowoc Groundwater Treatment Plant
 2572 Oak St.
 Ashippun, WI 53003

WDNR# 241340550

BATCH NUMBER: 990331
 DATE REPORTED: 06-May-99
 DATE RECEIVED: 05-May-99
 SAMPLE TEMP (C): Rec On Ice
 PROJECT ID: weekly sampling
 PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Dibromochloromethane	<2.1	ug/l	2.1	6.7	6	10		8260	srh	5/5/99
Dibromomethane	<3.5	ug/l	3.5	11	ns	10		8260	srh	5/5/99
Dichlorodifluoromethane	<3.6	ug/l	3.6	11	200	10		8260	srh	5/5/99
Ethylbenzene	<1.6	ug/l	1.6	5.1	140	10		8260	srh	5/5/99
Hexachlorobutadiene	<2.2	ug/l	2.2	7	ns	10		8260	srh	5/5/99
Isopropyl Ether	<3.2	ug/l	3.2	10	ns	10		8260	srh	5/5/99
Isopropylbenzene	<1.6	ug/l	1.6	5.1	ns	10		8260	srh	5/5/99
m&p-xylene	<3.6	ug/l	3.6	11	124	10		8260	srh	5/5/99
Methyl-t-butyl ether	<2.1	ug/l	2.1	6.7	12	10		8260	srh	5/5/99
Methylene chloride	<7.6	ug/l	7.6	24	0.5	10		8260	srh	5/5/99
n-Butylbenzene	<2.3	ug/l	2.3	7.3	ns	10		8260	srh	5/5/99
n-Propylbenzene	<2.5	ug/l	2.5	8	ns	10		8260	srh	5/5/99
Naphthalene	<4.6	ug/l	4.6	15	8	10		8260	srh	5/5/99
o-xylene	<1.8	ug/l	1.8	5.7	124	10		8260	srh	5/5/99
p-Isopropyltoluene	<1.8	ug/l	1.8	5.7	ns	10		8260	srh	5/5/99
sec-Butylbenzene	<3	ug/l	3	9.5	ns	10		8260	srh	5/5/99
Styrene	<2.1	ug/l	2.1	6.7	10	10		8260	srh	5/5/99
tert-Butylbenzene	<2	ug/l	2	6.4	ns	10		8260	srh	5/5/99
Tetrachloroethene	14	ug/l	2.9	9.2	0.5	10		8260	srh	5/5/99
Toluene	<3.3	ug/l	3.3	10	68.6	10		8260	srh	5/5/99
trans-1,2-Dichloroethene	22	ug/l	1.6	5.1	20	10		8260	srh	5/5/99
trans-1,3-Dichloropropene	<2	ug/l	2	6.4	0.02	10		8260	srh	5/5/99
Trichloroethene	745	ug/l	1.6	5.1	0.5	10		8260	srh	5/5/99
Trichlorofluoromethane	<3.4	ug/l	3.4	11	ns	10		8260	srh	5/5/99
Vinyl chloride	<2.1	ug/l	2.1	6.7	0.02	10		8260	srh	5/5/99

Sample Number	14932	QC Prep Batch Number	9908338	Sample analyzed within	0 Day(s) from collection	Collection	5/5/99	Time	08:05	
Client ID	990505WA09P	Sample Description:								
1,1,1,2-Tetrachloroethane	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	5/5/99
1,1,1-Trichloroethane	<0.2	ug/l	0.2	0.7	40	1		8260	srh	5/5/99
1,1,2,2-Tetrachloroethane	<0.3	ug/l	0.3	0.9	0.02	1		8260	srh	5/5/99
1,1,2-Trichloroethane	<0.3	ug/l	0.3	0.9	0.5	1		8260	srh	5/5/99
1,1-Dichloroethane	<0.2	ug/l	0.2	0.5	85	1		8260	srh	5/5/99
1,1-Dichloroethene	<0.4	ug/l	0.4	1.1	0.7	1		8260	srh	5/5/99
1,1-Dichloropropene	<0.5	ug/l	0.5	1.6	ns	1		8260	srh	5/5/99
1,2,3-Trichlorobenzene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	5/5/99
1,2,3-Trichloropropane	<0.6	ug/l	0.6	1.9	ns	1		8260	srh	5/5/99
1,2,4-Trichlorobenzene	<0.2	ug/l	0.2	0.5	14	1		8260	srh	5/5/99
1,2,4-Trimethylbenzene	<0.3	ug/l	0.3	0.9	ns	1		8260	srh	5/5/99
1,2-Dibromoethane	<0.2	ug/l	0.2	0.8	0.005	1		8260	srh	5/5/99
1,2-Dichlorobenzene	<0.2	ug/l	0.2	0.6	60	1		8260	srh	5/5/99
1,2-Dichloroethane	<0.2	ug/l	0.2	0.6	0.5	1		8260	srh	5/5/99

APL Environmental

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James Chang
 Oconomowoc Groundwater Treatment Plant
 2572 Oak St.
 Ashippun, WI 53003

ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 990331
 DATE REPORTED: 06-May-99
 DATE RECEIVED: 05-May-99
 SAMPLE TEMP (C): Rec On Ice
 PROJECT ID: weekly sampling
 PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
1,2-Dichloropropane	<0.2	ug/l	0.2	0.7	0.5	1		8260	srh	5/5/99
1,3,5-Trimethylbenzene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	5/5/99
1,3-Dichlorobenzene	<0.2	ug/l	0.2	0.6	125	1		8260	srh	5/5/99
1,3-Dichloropropane	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	5/5/99
1,4-Dichlorobenzene	<0.2	ug/l	0.2	0.5	15	1		8260	srh	5/5/99
12Dibromo-3-chloropropan	<0.6	ug/l	0.6	1.9	0.02	1		8260	srh	5/5/99
2,2-Dichloropropane	<0.4	ug/l	0.4	1.3	ns	1		8260	srh	5/5/99
2-Butanone (MEK)	<1.4	ug/l	1.4	4.4	90	1		8260	srh	5/5/99
2-Chloroethyl Vinyl Ether	<0.3	ug/l	0.3	0.9	ns	1		8260	srh	5/5/99
2-Chlorotoluene	<0.2	ug/l	0.2	0.5	ns	1		8260	srh	5/5/99
4-Chlorotoluene	<0.3	ug/l	0.3	0.8	ns	1		8260	srh	5/5/99
4-Methyl-2-Pentanone	<0.8	ug/l	0.8	2.7	50	1		8260	srh	5/5/99
Acetone	<1.6	ug/l	1.6	4.9	200	1		8260	srh	5/5/99
Benzene	<0.2	ug/l	0.2	0.6	0.5	1		8260	srh	5/5/99
Bromobenzene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	5/5/99
Bromochloromethane	<0.3	ug/l	0.3	1.1	ns	1		8260	srh	5/5/99
Bromodichloromethane	<0.3	ug/l	0.3	0.8	0.06	1		8260	srh	5/5/99
Bromoform	<0.5	ug/l	0.5	1.5	0.44	1		8260	srh	5/5/99
Bromomethane	<0.2	ug/l	0.2	0.7	1	1		8260	srh	5/5/99
Carbon tetrachloride	<0.2	ug/l	0.2	0.7	0.5	1		8260	srh	5/5/99
Chlorobenzene	<0.2	ug/l	0.2	0.6	20	1		8260	srh	5/5/99
Chloroethane	<1.2	ug/l	1.2	3.7	80	1		8260	srh	5/5/99
Chloroform	<0.3	ug/l	0.3	0.9	0.6	1		8260	srh	5/5/99
Chloromethane	<0.8	ug/l	0.8	2.4	0.3	1		8260	srh	5/5/99
cis-1,2-Dichloroethene	<0.2	ug/l	0.2	0.6	7	1		8260	srh	5/5/99
cis-1,3-Dichloropropene	<0.2	ug/l	0.2	0.8	0.02	1		8260	srh	5/5/99
Dibromochloromethane	<0.2	ug/l	0.2	0.7	6	1		8260	srh	5/5/99
Dibromomethane	<0.4	ug/l	0.4	1.1	ns	1		8260	srh	5/5/99
Dichlorodifluoromethane	<0.4	ug/l	0.4	1.1	200	1		8260	srh	5/5/99
Ethylbenzene	<0.2	ug/l	0.2	0.5	140	1		8260	srh	5/5/99
Hexachlorobutadiene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	5/5/99
Isopropyl Ether	<0.3	ug/l	0.3	1	ns	1		8260	srh	5/5/99
Isopropylbenzene	<0.2	ug/l	0.2	0.5	ns	1		8260	srh	5/5/99
m&p-xylene	<0.4	ug/l	0.4	1.1	124	1		8260	srh	5/5/99
Methyl-t-butyl ether	<0.2	ug/l	0.2	0.7	12	1		8260	srh	5/5/99
Methylene chloride	<0.8	ug/l	0.8	2.4	0.5	1		8260	srh	5/5/99
n-Butylbenzene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	5/5/99
n-Propylbenzene	<0.3	ug/l	0.3	0.8	ns	1		8260	srh	5/5/99
Naphthalene	<0.5	ug/l	0.5	1.5	8	1		8260	srh	5/5/99
o-xylene	<0.2	ug/l	0.2	0.6	124	1		8260	srh	5/5/99
p-Isopropyltoluene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	5/5/99
sec-Butylbenzene	<0.3	ug/l	0.3	1	ns	1		8260	srh	5/5/99
Styrene	<0.2	ug/l	0.2	0.7	10	1		8260	srh	5/5/99

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ORGANIC REPORT

James Chang
 Oconomowoc Groundwater Treatment Plant
 2572 Oak St.
 Ashippun, WI 53003

WDNR# 241340550

BATCH NUMBER: 990331
 DATE REPORTED: 06-May-99
 DATE RECEIVED: 05-May-99
 SAMPLE TEMP (C): Rec On Ice
 PROJECT ID: weekly sampling
 PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
tert-Butylbenzene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	5/5/99
Tetrachloroethene	<0.3	ug/l	0.3	0.9	0.5	1		8260	srh	5/5/99
Toluene	<0.3	ug/l	0.3	1	68.6	1		8260	srh	5/5/99
trans-1,2-Dichloroethene	<0.2	ug/l	0.2	0.5	20	1		8260	srh	5/5/99
trans-1,3-Dichloropropene	<0.2	ug/l	0.2	0.6	0.02	1		8260	srh	5/5/99
Trichloroethene	<0.2	ug/l	0.2	0.5	0.5	1		8260	srh	5/5/99
Trichlorofluoromethane	<0.3	ug/l	0.3	1.1	ns	1		8260	srh	5/5/99
Vinyl chloride	<0.2	ug/l	0.2	0.7	0.02	1		8260	srh	5/5/99

Sample Number:	14933	OC Prep Batch Number:	990838	Sample analyzed within	0 Days	from collection
Client ID:	trip blank	Sample Description:		Collection:	5/5/99	Time:
1,1,1,2-Tetrachloroethane	<0.2	ug/l	0.2	0.6	ns	1
1,1,1-Trichloroethane	<0.2	ug/l	0.2	0.7	40	1
1,1,2,2-Tetrachloroethane	<0.3	ug/l	0.3	0.9	0.02	1
1,1,2-Trichloroethane	<0.3	ug/l	0.3	0.9	0.5	1
1,1-Dichloroethane	<0.2	ug/l	0.2	0.5	85	1
1,1-Dichloroethene	<0.4	ug/l	0.4	1.1	0.7	1
1,1-Dichloropropene	<0.5	ug/l	0.5	1.6	ns	1
1,2,3-Trichlorobenzene	<0.2	ug/l	0.2	0.7	ns	1
1,2,3-Trichloropropane	<0.6	ug/l	0.6	1.9	ns	1
1,2,4-Trichlorobenzene	<0.2	ug/l	0.2	0.5	14	1
1,2,4-Trimethylbenzene	<0.3	ug/l	0.3	0.9	ns	1
1,2-Dibromoethane	<0.2	ug/l	0.2	0.8	0.005	1
1,2-Dichlorobenzene	<0.2	ug/l	0.2	0.6	60	1
1,2-Dichloroethane	<0.2	ug/l	0.2	0.6	0.5	1
1,2-Dichloropropane	<0.2	ug/l	0.2	0.7	0.5	1
1,3,5-Trimethylbenzene	<0.2	ug/l	0.2	0.7	ns	1
1,3-Dichlorobenzene	<0.2	ug/l	0.2	0.6	125	1
1,3-Dichloropropane	<0.2	ug/l	0.2	0.7	ns	1
1,4-Dichlorobenzene	<0.2	ug/l	0.2	0.5	15	1
12Dibromo-3-chloropropan	<0.6	ug/l	0.6	1.9	0.02	1
2,2-Dichloropropane	<0.4	ug/l	0.4	1.3	ns	1
2-Butanone (MEK)	<1.4	ug/l	1.4	4.4	90	1
2-Chloroethyl Vinyl Ether	<0.3	ug/l	0.3	0.9	ns	1
2-Chlorotoluene	<0.2	ug/l	0.2	0.5	ns	1
4-Chlorotoluene	<0.3	ug/l	0.3	0.8	ns	1
4-Methyl-2-Pentanone	<0.8	ug/l	0.8	2.7	50	1
Acetone	<1.6	ug/l	1.6	4.9	200	1
Benzene	<0.2	ug/l	0.2	0.6	0.5	1
Bromobenzene	<0.2	ug/l	0.2	0.6	ns	1
Bromochloromethane	<0.3	ug/l	0.3	1.1	ns	1
Bromodichloromethane	<0.3	ug/l	0.3	0.8	0.06	1

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ORGANIC REPORT

James Chang
 Oconomowoc Groundwater Treatment Plant
 2572 Oak St.
 Ashippun, WI 53003

WDNR# 241340550

BATCH NUMBER: 990331
 DATE REPORTED: 06-May-99
 DATE RECEIVED: 05-May-99
 SAMPLE TEMP (C): Rec On Ice
 PROJECT ID: weekly sampling
 PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Bromoform	<0.5	ug/l	0.5	1.5	0.44	1		8260	srh	5/5/99
Bromomethane	<0.2	ug/l	0.2	0.7	1	1		8260	srh	5/5/99
Carbon tetrachloride	<0.2	ug/l	0.2	0.7	0.5	1		8260	srh	5/5/99
Chlorobenzene	<0.2	ug/l	0.2	0.6	20	1		8260	srh	5/5/99
Chloroethane	<1.2	ug/l	1.2	3.7	80	1		8260	srh	5/5/99
Chloroform	<0.3	ug/l	0.3	0.9	0.6	1		8260	srh	5/5/99
Chloromethane	<0.8	ug/l	0.8	2.4	0.3	1		8260	srh	5/5/99
cis-1,2-Dichloroethene	<0.2	ug/l	0.2	0.6	7	1		8260	srh	5/5/99
cis-1,3-Dichloropropene	<0.2	ug/l	0.2	0.8	0.02	1		8260	srh	5/5/99
Dibromochloromethane	<0.2	ug/l	0.2	0.7	6	1		8260	srh	5/5/99
Dibromomethane	<0.4	ug/l	0.4	1.1	ns	1		8260	srh	5/5/99
Dichlorodifluoromethane	<0.4	ug/l	0.4	1.1	200	1		8260	srh	5/5/99
Ethylbenzene	<0.2	ug/l	0.2	0.5	140	1		8260	srh	5/5/99
Hexachlorobutadiene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	5/5/99
Isopropyl Ether	<0.3	ug/l	0.3	1	ns	1		8260	srh	5/5/99
Isopropylbenzene	<0.2	ug/l	0.2	0.5	ns	1		8260	srh	5/5/99
m&p-xylene	<0.4	ug/l	0.4	1.1	124	1		8260	srh	5/5/99
Methyl-t-butyl ether	<0.2	ug/l	0.2	0.7	12	1		8260	srh	5/5/99
Methylene chloride	<0.8	ug/l	0.8	2.4	0.5	1		8260	srh	5/5/99
n-Butylbenzene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	5/5/99
n-Propylbenzene	<0.3	ug/l	0.3	0.8	ns	1		8260	srh	5/5/99
Naphthalene	<0.5	ug/l	0.5	1.5	8	1		8260	srh	5/5/99
o-xylene	<0.2	ug/l	0.2	0.6	124	1		8260	srh	5/5/99
p-Isopropyltoluene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	5/5/99
sec-Butylbenzene	<0.3	ug/l	0.3	1	ns	1		8260	srh	5/5/99
Styrene	<0.2	ug/l	0.2	0.7	10	1		8260	srh	5/5/99
tert-Butylbenzene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	5/5/99
Tetrachloroethene	<0.3	ug/l	0.3	0.9	0.5	1		8260	srh	5/5/99
Toluene	<0.3	ug/l	0.3	1	68.6	1		8260	srh	5/5/99
trans-1,2-Dichloroethene	<0.2	ug/l	0.2	0.5	20	1		8260	srh	5/5/99
trans-1,3-Dichloropropene	<0.2	ug/l	0.2	0.6	0.02	1		8260	srh	5/5/99
Trichloroethene	<0.2	ug/l	0.2	0.5	0.5	1		8260	srh	5/5/99
Trichlorofluoromethane	<0.3	ug/l	0.3	1.1	ns	1		8260	srh	5/5/99
Vinyl chloride	<0.2	ug/l	0.2	0.7	0.02	1		8260	srh	5/5/99

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ORGANIC REPORT

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun, WI 53003

WDNR# 241340550

BATCH NUMBER: 990331
DATE REPORTED: 06-May-99
DATE RECEIVED: 05-May-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: weekly sampling
PROJECT NAME: OGTP

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
										Approved By: _____ Date: 5/13/99 James Chang, Ph.D., Lab Director

MDL: Method Detection Limit determined by 40CFR Part 136 Appendix B "e" = Estimate value, over calibration range.

LOQ = $10(S)$ x Dilution Factor, where "S" is the Standard Deviation from the MDL Study

LOD = $3.143(S)$ x Dilution Factor, where "S" is the Standard Deviation from the MDL Study

PAL: Preventive Action Limit, NR 140.10 Public health related groundwater standards. "ns" = not specified

RQ : Run Qualifier; "J" = Results between LOD and LOQ. "RR" = Re-extract Rerun sample, "B" = Showed in Blank sample.

Rounding Rules: Three significant figures were used for concentrations above 99 ug/L, two significant figures for

concentrations between 1-99 ug/L, and one significant figure for lower concentrations.

DNR Analytical Detection Limit Guidance, April 1995.

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ORGANIC REPORT

James Chang
 Oconomowoc Groundwater Treatment Plant
 2572 Oak St.
 Ashippun, WI 53003

WDNR# 241340550



BATCH NUMBER: 990344
 DATE REPORTED: 14-May-99
 DATE RECEIVED: 11-May-99
 SAMPLE TEMP (C): Rec On Ice
 PROJECT ID: OGTP
 PROJECT NAME: Monthly Sampling

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Sample Number: 14993										
Client ID: 990510WA01P	Sample Description:			QC Prep Batch Number: 990924			Sample analyzed within 4 Day(s) from collection.			
1,1,1,2-Tetrachloroethane	<2	ug/l	2	6.4	ns	10		8260	srh	5/14/99
1,1,1-Trichloroethane	211	ug/l	2.3	7.3	40	10		8260	srh	5/14/99
1,1,2,2-Tetrachloroethane	<2.9	ug/l	2.9	9.2	0.02	10		8260	srh	5/14/99
1,1,2-Trichloroethane	<2.9	ug/l	2.9	9.2	0.5	10		8260	srh	5/14/99
1,1-Dichloroethane	28	ug/l	1.5	4.8	85	10		8260	srh	5/14/99
1,1-Dichloroethene	13	ug/l	3.6	11	0.7	10		8260	srh	5/14/99
1,1-Dichloropropene	<4.9	ug/l	4.9	16	ns	10		8260	srh	5/14/99
1,2,3-Trichlorobenzene	<2.2	ug/l	2.2	7	ns	10		8260	srh	5/14/99
1,2,3-Trichloroproppane	<6	ug/l	6	19	ns	10		8260	srh	5/14/99
1,2,4-Trichlorobenzene	<1.6	ug/l	1.6	5.1	14	10		8260	srh	5/14/99
1,2,4-Trimethylbenzene	<2.9	ug/l	2.9	9.2	ns	10		8260	srh	5/14/99
1,2-Dibromoethane	<2.4	ug/l	2.4	7.6	0.005	10		8260	srh	5/14/99
1,2-Dichlorobenzene	<2	ug/l	2	6.4	60	10		8260	srh	5/14/99
1,2-Dichloroethane	<1.9	ug/l	1.9	6	0.5	10		8260	srh	5/14/99
1,2-Dichloropropane	<2.3	ug/l	2.3	7.3	0.5	10		8260	srh	5/14/99
1,3,5-Trimethylbenzene	<2.3	ug/l	2.3	7.3	ns	10		8260	srh	5/14/99
1,3-Dichlorobenzene	<1.9	ug/l	1.9	6	125	10		8260	srh	5/14/99
1,3-Dichloropropane	<2.1	ug/l	2.1	6.7	ns	10		8260	srh	5/14/99
1,4-Dichlorobenzene	<1.5	ug/l	1.5	4.8	15	10		8260	srh	5/14/99
12Dibromo-3-chloropropan	<5.9	ug/l	5.9	19	0.02	10		8260	srh	5/14/99
2,2-Dichloropropane	<4	ug/l	4	13	ns	10		8260	srh	5/14/99
2-Butanone (MEK)	<14	ug/l	14	44	90	10		8260	srh	5/14/99
2-Chloroethyl Vinyl Ether	<2.9	ug/l	2.9	9.2	ns	10		8260	srh	5/14/99
2-Chlorotoluene	<1.5	ug/l	1.5	4.8	ns	10		8260	srh	5/14/99
4-Chlorotoluene	<2.5	ug/l	2.5	8	ns	10		8260	srh	5/14/99
4-Methyl-2-Pentanone	<8.4	ug/l	8.4	27	50	10		8260	srh	5/14/99
Acetone	<16	ug/l	16	49	200	10		8260	srh	5/14/99
Benzene	<1.9	ug/l	1.9	6	0.5	10		8260	srh	5/14/99
Bromobenzene	<1.9	ug/l	1.9	6	ns	10		8260	srh	5/14/99
Bromochloromethane	<3.4	ug/l	3.4	11	ns	10		8260	srh	5/14/99
Bromodichloromethane	<2.6	ug/l	2.6	8.3	0.06	10		8260	srh	5/14/99
Bromoform	<4.7	ug/l	4.7	15	0.44	10		8260	srh	5/14/99
Bromomethane	<2.1	ug/l	2.1	6.7	1	10		8260	srh	5/14/99
Carbon tetrachloride	<2.2	ug/l	2.2	7	0.5	10		8260	srh	5/14/99
Chlorobenzene	<2	ug/l	2	6.4	20	10		8260	srh	5/14/99
Chloroethane	<12	ug/l	12	37	80	10		8260	srh	5/14/99
Chloroform	<2.7	ug/l	2.7	8.6	0.6	10		8260	srh	5/14/99
Chloromethane	<7.7	ug/l	7.7	24	0.3	10		8260	srh	5/14/99
cis-1,2-Dichloroethene	53	ug/l	2	6.4	7	10		8260	srh	5/14/99
cis-1,3-Dichloropropene	<2.4	ug/l	2.4	7.6	0.02	10		8260	srh	5/14/99

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James Chang
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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 990344
 DATE REPORTED: 14-May-99
 DATE RECEIVED: 11-May-99
 SAMPLE TEMP (C): Rec On Ice
 PROJECT ID: OGTP
 PROJECT NAME: Monthly Sampling

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Dibromochloromethane	< 2.1	ug/l	2.1	6.7	6	10		8260	srh	5/14/99
Dibromomethane	< 3.5	ug/l	3.5	11	ns	10		8260	srh	5/14/99
Dichlorodifluoromethane	< 3.6	ug/l	3.6	11	200	10		8260	srh	5/14/99
Ethylbenzene	2.8	ug/l	1.6	5.1	140	10	J	8260	srh	5/14/99
Hexachlorobutadiene	< 2.2	ug/l	2.2	7	ns	10		8260	srh	5/14/99
Isopropyl Ether	< 3.2	ug/l	3.2	10	ns	10		8260	srh	5/14/99
Isopropylbenzene	< 1.6	ug/l	1.6	5.1	ns	10		8260	srh	5/14/99
m&p-xylene	6.5	ug/l	3.6	11	124	10	J	8260	srh	5/14/99
Methyl-t-butyl ether	< 2.1	ug/l	2.1	6.7	12	10		8260	srh	5/14/99
Methylene chloride	< 7.6	ug/l	7.6	24	0.5	10		8260	srh	5/14/99
n-Butylbenzene	< 2.3	ug/l	2.3	7.3	ns	10		8260	srh	5/14/99
n-Propylbenzene	< 2.5	ug/l	2.5	8	ns	10		8260	srh	5/14/99
Naphthalene	< 4.6	ug/l	4.6	15	8	10		8260	srh	5/14/99
o-xylene	< 1.8	ug/l	1.8	5.7	124	10		8260	srh	5/14/99
p-Isopropyltoluene	< 1.8	ug/l	1.8	5.7	ns	10		8260	srh	5/14/99
sec-Butylbenzene	< 3	ug/l	3	9.5	ns	10		8260	srh	5/14/99
Styrene	< 2.1	ug/l	2.1	6.7	10	10		8260	srh	5/14/99
tert-Butylbenzene	< 2	ug/l	2	6.4	ns	10		8260	srh	5/14/99
Tetrachloroethene	7.4	ug/l	2.9	9.2	0.5	10	J	8260	srh	5/14/99
Toluene	11	ug/l	3.3	10	68.6	10		8260	srh	5/14/99
trans-1,2-Dichloroethene	14	ug/l	1.6	5.1	20	10		8260	srh	5/14/99
trans-1,3-Dichloropropene	< 2	ug/l	2	6.4	0.02	10		8260	srh	5/14/99
Trichloroethene	612	ug/l	1.6	5.1	0.5	10		8260	srh	5/14/99
Trichlorofluoromethane	< 3.4	ug/l	3.4	11	ns	10		8260	srh	5/14/99
Vinyl chloride	2.9	ug/l	2.1	6.7	0.02	10	J	8260	srh	5/14/99

Sample Number:	Client ID:	QC Prep Batch Number:	Sample analyzed within	Collection:	Days(s) from collection:	Time:			
14997	990510WA07P	990924	4 Days	5/10/99	11:33				
1,1,1,2-Tetrachloroethane	< 0.2	ug/l	0.2	0.6	ns	1	8260	srh	5/14/99
1,1,1-Trichloroethane	< 0.2	ug/l	0.2	0.7	40	1	8260	srh	5/14/99
1,1,2,2-Tetrachloroethane	< 0.3	ug/l	0.3	0.9	0.02	1	8260	srh	5/14/99
1,1,2-Trichloroethane	< 0.3	ug/l	0.3	0.9	0.5	1	8260	srh	5/14/99
1,1-Dichloroethane	< 0.2	ug/l	0.2	0.5	85	1	8260	srh	5/14/99
1,1-Dichloroethene	< 0.4	ug/l	0.4	1.1	0.7	1	8260	srh	5/14/99
1,1-Dichloropropene	< 0.5	ug/l	0.5	1.6	ns	1	8260	srh	5/14/99
1,2,3-Trichlorobenzene	< 0.2	ug/l	0.2	0.7	ns	1	8260	srh	5/14/99
1,2,3-Trichloropropane	< 0.6	ug/l	0.6	1.9	ns	1	8260	srh	5/14/99
1,2,4-Trichlorobenzene	< 0.2	ug/l	0.2	0.5	14	1	8260	srh	5/14/99
1,2,4-Trimethylbenzene	< 0.3	ug/l	0.3	0.9	ns	1	8260	srh	5/14/99
1,2-Dibromoethane	< 0.2	ug/l	0.2	0.8	0.005	1	8260	srh	5/14/99
1,2-Dichlorobenzene	< 0.2	ug/l	0.2	0.6	60	1	8260	srh	5/14/99
1,2-Dichloroethane	< 0.2	ug/l	0.2	0.6	0.5	1	8260	srh	5/14/99

APL Environmental

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James Chang
 Oconomowoc Groundwater Treatment Plant
 2572 Oak St.
 Ashippun, WI 53003

ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 990344
 DATE REPORTED: 14-May-99
 DATE RECEIVED: 11-May-99
 SAMPLE TEMP (C): Rec On Ice
 PROJECT ID: OGTP
 PROJECT NAME: Monthly Sampling

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
1,2-Dichloropropane	<0.2	ug/l	0.2	0.7	0.5	1		8260	srh	5/14/99
1,3,5-Trimethylbenzene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	5/14/99
1,3-Dichlorobenzene	<0.2	ug/l	0.2	0.6	125	1		8260	srh	5/14/99
1,3-Dichloropropane	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	5/14/99
1,4-Dichlorobenzene	<0.2	ug/l	0.2	0.5	15	1		8260	srh	5/14/99
12Dibromo-3-chloropropan	<0.6	ug/l	0.6	1.9	0.02	1		8260	srh	5/14/99
2,2-Dichloropropane	<0.4	ug/l	0.4	1.3	ns	1		8260	srh	5/14/99
2-Butanone (MEK)	<1.4	ug/l	1.4	4.4	90	1		8260	srh	5/14/99
2-Chloroethyl Vinyl Ether	<0.3	ug/l	0.3	0.9	ns	1		8260	srh	5/14/99
2-Chlorotoluene	<0.2	ug/l	0.2	0.5	ns	1		8260	srh	5/14/99
4-Chlorotoluene	<0.3	ug/l	0.3	0.8	ns	1		8260	srh	5/14/99
4-Methyl-2-Pentanone	<0.8	ug/l	0.8	2.7	50	1		8260	srh	5/14/99
Acetone	<1.6	ug/l	1.6	4.9	200	1		8260	srh	5/14/99
Benzene	<0.2	ug/l	0.2	0.6	0.5	1		8260	srh	5/14/99
Bromobenzene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	5/14/99
Bromochloromethane	<0.3	ug/l	0.3	1.1	ns	1		8260	srh	5/14/99
Bromodichloromethane	1.3	ug/l	0.3	0.8	0.06	1		8260	srh	5/14/99
Bromoform	<0.5	ug/l	0.5	1.5	0.44	1		8260	srh	5/14/99
Bromomethane	<0.2	ug/l	0.2	0.7	1	1		8260	srh	5/14/99
Carbon tetrachloride	<0.2	ug/l	0.2	0.7	0.5	1		8260	srh	5/14/99
Chlorobenzene	<0.2	ug/l	0.2	0.6	20	1		8260	srh	5/14/99
Chloroethane	<1.2	ug/l	1.2	3.7	80	1		8260	srh	5/14/99
Chloroform	3.6	ug/l	0.3	0.9	0.6	1		8260	srh	5/14/99
Chloromethane	<0.8	ug/l	0.8	2.4	0.3	1		8260	srh	5/14/99
cis-1,2-Dichloroethene	<0.2	ug/l	0.2	0.6	7	1		8260	srh	5/14/99
cis-1,3-Dichloropropene	<0.2	ug/l	0.2	0.8	0.02	1		8260	srh	5/14/99
Dibromochloromethane	1.2	ug/l	0.2	0.7	6	1		8260	srh	5/14/99
Dibromomethane	<0.4	ug/l	0.4	1.1	ns	1		8260	srh	5/14/99
Dichlorodifluoromethane	<0.4	ug/l	0.4	1.1	200	1		8260	srh	5/14/99
Ethylbenzene	<0.2	ug/l	0.2	0.5	140	1		8260	srh	5/14/99
Hexachlorobutadiene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	5/14/99
Isopropyl Ether	<0.3	ug/l	0.3	1	ns	1		8260	srh	5/14/99
Isopropylbenzene	<0.2	ug/l	0.2	0.5	ns	1		8260	srh	5/14/99
m&p-xylene	<0.4	ug/l	0.4	1.1	124	1		8260	srh	5/14/99
Methyl-t-butyl ether	<0.2	ug/l	0.2	0.7	12	1		8260	srh	5/14/99
Methylene chloride	<0.8	ug/l	0.8	2.4	0.5	1		8260	srh	5/14/99
n-Butylbenzene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	5/14/99
n-Propylbenzene	<0.3	ug/l	0.3	0.8	ns	1		8260	srh	5/14/99
Naphthalene	<0.5	ug/l	0.5	1.5	8	1		8260	srh	5/14/99
o-xylene	<0.2	ug/l	0.2	0.6	124	1		8260	srh	5/14/99
p-Isopropyltoluene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	5/14/99
sec-Butylbenzene	<0.3	ug/l	0.3	1	ns	1		8260	srh	5/14/99
Styrene	<0.2	ug/l	0.2	0.7	10	1		8260	srh	5/14/99

APL Environmental

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James Chang
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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 990344
 DATE REPORTED: 14-May-99
 DATE RECEIVED: 11-May-99
 SAMPLE TEMP (C): Rec On Ice
 PROJECT ID: OGTP
 PROJECT NAME: Monthly Sampling

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
tert-Butylbenzene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	5/14/99
Tetrachloroethene	<0.3	ug/l	0.3	0.9	0.5	1		8260	srh	5/14/99
Toluene	<0.3	ug/l	0.3	1	68.6	1		8260	srh	5/14/99
trans-1,2-Dichloroethene	<0.2	ug/l	0.2	0.5	20	1		8260	srh	5/14/99
trans-1,3-Dichloropropene	<0.2	ug/l	0.2	0.6	0.02	1		8260	srh	5/14/99
Trichloroethene	0.7	ug/l	0.2	0.5	0.5	1		8260	srh	5/14/99
Trichlorofluoromethane	<0.3	ug/l	0.3	1.1	ns	1		8260	srh	5/14/99
Vinyl chloride	<0.2	ug/l	0.2	0.7	0.02	1		8260	srh	5/14/99

Sample Number: 14998	QC Prep Batch Number:	990924	Sample analyzed within	4 Day(s)	from collection					
Client ID: 990510WA09P	Sample Description:		Collection:	5/10/99	Time: 11:43					
1,1,1,2-Tetrachloroethane	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	5/14/99
1,1,1-Trichloroethane	<0.2	ug/l	0.2	0.7	40	1		8260	srh	5/14/99
1,1,2,2-Tetrachloroethane	<0.3	ug/l	0.3	0.9	0.02	1		8260	srh	5/14/99
1,1,2-Trichloroethane	<0.3	ug/l	0.3	0.9	0.5	1		8260	srh	5/14/99
1,1-Dichloroethane	<0.2	ug/l	0.2	0.5	85	1		8260	srh	5/14/99
1,1-Dichloroethene	<0.4	ug/l	0.4	1.1	0.7	1		8260	srh	5/14/99
1,1-Dichloropropene	<0.5	ug/l	0.5	1.6	ns	1		8260	srh	5/14/99
1,2,3-Trichlorobenzene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	5/14/99
1,2,3-Trichloropropane	<0.6	ug/l	0.6	1.9	ns	1		8260	srh	5/14/99
1,2,4-Trichlorobenzene	<0.2	ug/l	0.2	0.5	14	1		8260	srh	5/14/99
1,2,4-Trimethylbenzene	<0.3	ug/l	0.3	0.9	ns	1		8260	srh	5/14/99
1,2-Dibromoethane	<0.2	ug/l	0.2	0.8	0.005	1		8260	srh	5/14/99
1,2-Dichlorobenzene	<0.2	ug/l	0.2	0.6	60	1		8260	srh	5/14/99
1,2-Dichloroethane	<0.2	ug/l	0.2	0.6	0.5	1		8260	srh	5/14/99
1,2-Dichloropropane	<0.2	ug/l	0.2	0.7	0.5	1		8260	srh	5/14/99
1,3,5-Trimethylbenzene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	5/14/99
1,3-Dichlorobenzene	<0.2	ug/l	0.2	0.6	125	1		8260	srh	5/14/99
1,3-Dichloropropane	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	5/14/99
1,4-Dichlorobenzene	<0.2	ug/l	0.2	0.5	15	1		8260	srh	5/14/99
1,2-Dibromo-3-chloropropan	<0.6	ug/l	0.6	1.9	0.02	1		8260	srh	5/14/99
2,2-Dichloropropane	<0.4	ug/l	0.4	1.3	ns	1		8260	srh	5/14/99
2-Butanone (MEK)	<1.4	ug/l	1.4	4.4	90	1		8260	srh	5/14/99
2-Chloroethyl Vinyl Ether	<0.3	ug/l	0.3	0.9	ns	1		8260	srh	5/14/99
2-Chlorotoluene	<0.2	ug/l	0.2	0.5	ns	1		8260	srh	5/14/99
4-Chlorotoluene	<0.3	ug/l	0.3	0.8	ns	1		8260	srh	5/14/99
4-Methyl-2-Pentanone	<0.8	ug/l	0.8	2.7	50	1		8260	srh	5/14/99
Acetone	<1.6	ug/l	1.6	4.9	200	1		8260	srh	5/14/99
Benzene	<0.2	ug/l	0.2	0.6	0.5	1		8260	srh	5/14/99
Bromobenzene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	5/14/99
Bromochloromethane	<0.3	ug/l	0.3	1.1	ns	1		8260	srh	5/14/99
Bromodichloromethane	<0.3	ug/l	0.3	0.8	0.06	1		8260	srh	5/14/99

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ORGANIC REPORT

James Chang
 Oconomowoc Groundwater Treatment Plant
 2572 Oak St.
 Ashippun, WI 53003

WDNR# 241340550

BATCH NUMBER: 990344
 DATE REPORTED: 14-May-99
 DATE RECEIVED: 11-May-99
 SAMPLE TEMP (C): Rec On Ice
 PROJECT ID: OGTP
 PROJECT NAME: Monthly Sampling

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Bromoform	<0.5	ug/l	0.5	1.5	0.44	1		8260	srh	5/14/99
Bromomethane	<0.2	ug/l	0.2	0.7	1	1		8260	srh	5/14/99
Carbon tetrachloride	<0.2	ug/l	0.2	0.7	0.5	1		8260	srh	5/14/99
Chlorobenzene	<0.2	ug/l	0.2	0.6	20	1		8260	srh	5/14/99
Chloroethane	<1.2	ug/l	1.2	3.7	80	1		8260	srh	5/14/99
Chloroform	<0.3	ug/l	0.3	0.9	0.6	1		8260	srh	5/14/99
Chloromethane	<0.8	ug/l	0.8	2.4	0.3	1		8260	srh	5/14/99
cis-1,2-Dichloroethene	<0.2	ug/l	0.2	0.6	7	1		8260	srh	5/14/99
cis-1,3-Dichloropropene	<0.2	ug/l	0.2	0.8	0.02	1		8260	srh	5/14/99
Dibromochloromethane	<0.2	ug/l	0.2	0.7	6	1		8260	srh	5/14/99
Dibromomethane	<0.4	ug/l	0.4	1.1	ns	1		8260	srh	5/14/99
Dichlorodifluoromethane	<0.4	ug/l	0.4	1.1	200	1		8260	srh	5/14/99
Ethylbenzene	<0.2	ug/l	0.2	0.5	140	1		8260	srh	5/14/99
Hexachlorobutadiene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	5/14/99
Isopropyl Ether	<0.3	ug/l	0.3	1	ns	1		8260	srh	5/14/99
Isopropylbenzene	<0.2	ug/l	0.2	0.5	ns	1		8260	srh	5/14/99
m&p-xylene	<0.4	ug/l	0.4	1.1	124	1		8260	srh	5/14/99
Methyl-t-butyl ether	<0.2	ug/l	0.2	0.7	12	1		8260	srh	5/14/99
Methylene chloride	<0.8	ug/l	0.8	2.4	0.5	1		8260	srh	5/14/99
n-Butylbenzene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	5/14/99
n-Propylbenzene	<0.3	ug/l	0.3	0.8	ns	1		8260	srh	5/14/99
Naphthalene	<0.5	ug/l	0.5	1.5	8	1		8260	srh	5/14/99
o-xylene	<0.2	ug/l	0.2	0.6	124	1		8260	srh	5/14/99
p-Isopropyltoluene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	5/14/99
sec-Butylbenzene	<0.3	ug/l	0.3	1	ns	1		8260	srh	5/14/99
Styrene	<0.2	ug/l	0.2	0.7	10	1		8260	srh	5/14/99
tert-Butylbenzene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	5/14/99
Tetrachloroethene	<0.3	ug/l	0.3	0.9	0.5	1		8260	srh	5/14/99
Toluene	<0.3	ug/l	0.3	1	68.6	1		8260	srh	5/14/99
trans-1,2-Dichloroethene	<0.2	ug/l	0.2	0.5	20	1		8260	srh	5/14/99
trans-1,3-Dichloropropene	<0.2	ug/l	0.2	0.6	0.02	1		8260	srh	5/14/99
Trichloroethene	<0.2	ug/l	0.2	0.5	0.5	1		8260	srh	5/14/99
Trichlorofluoromethane	<0.3	ug/l	0.3	1.1	ns	1		8260	srh	5/14/99
Vinyl chloride	<0.2	ug/l	0.2	0.7	0.02	1		8260	srh	5/14/99

Sample Number:	14999	OC Prep Batch Number:	590924	Sample analyzed within:	4 Day(s)	from collection:
Client ID:	trip blank	Sample Description:		Collection:	5/10/99	Time:
1,1,1,2-Tetrachloroethane	<0.2	ug/l	0.2	0.6	ns	1
1,1,1-Trichloroethane	<0.2	ug/l	0.2	0.7	40	1
1,1,2,2-Tetrachloroethane	<0.3	ug/l	0.3	0.9	0.02	1
1,1,2-Trichloroethane	<0.3	ug/l	0.3	0.9	0.5	1
1,1-Dichloroethane	<0.2	ug/l	0.2	0.5	85	1

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James Chang
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ORGANIC REPORT

WDNR# 241340550

BATCH NUMBER: 990344
 DATE REPORTED: 14-May-99
 DATE RECEIVED: 11-May-99
 SAMPLE TEMP (C): Rec On Ice
 PROJECT ID: OGTP
 PROJECT NAME: Monthly Sampling

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
1,1-Dichloroethene	<0.4	ug/l	0.4	1.1	0.7	1		8260	srh	5/14/99
1,1-Dichloropropene	<0.5	ug/l	0.5	1.6	ns	1		8260	srh	5/14/99
1,2,3-Trichlorobenzene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	5/14/99
1,2,3-Trichloropropane	<0.6	ug/l	0.6	1.9	ns	1		8260	srh	5/14/99
1,2,4-Trichlorobenzene	<0.2	ug/l	0.2	0.5	14	1		8260	srh	5/14/99
1,2,4-Trimethylbenzene	<0.3	ug/l	0.3	0.9	ns	1		8260	srh	5/14/99
1,2-Dibromoethane	<0.2	ug/l	0.2	0.8	0.005	1		8260	srh	5/14/99
1,2-Dichlorobenzene	<0.2	ug/l	0.2	0.6	60	1		8260	srh	5/14/99
1,2-Dichloroethane	<0.2	ug/l	0.2	0.6	0.5	1		8260	srh	5/14/99
1,2-Dichloropropane	<0.2	ug/l	0.2	0.7	0.5	1		8260	srh	5/14/99
1,3,5-Trimethylbenzene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	5/14/99
1,3-Dichlorobenzene	<0.2	ug/l	0.2	0.6	125	1		8260	srh	5/14/99
1,3-Dichloropropane	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	5/14/99
1,4-Dichlorobenzene	<0.2	ug/l	0.2	0.5	15	1		8260	srh	5/14/99
12Dibromo-3-chloropropan	<0.6	ug/l	0.6	1.9	0.02	1		8260	srh	5/14/99
2,2-Dichloropropane	<0.4	ug/l	0.4	1.3	ns	1		8260	srh	5/14/99
2-Butanone (MEK)	<1.4	ug/l	1.4	4.4	90	1		8260	srh	5/14/99
2-Chloroethyl Vinyl Ether	<0.3	ug/l	0.3	0.9	ns	1		8260	srh	5/14/99
2-Chlorotoluene	<0.2	ug/l	0.2	0.5	ns	1		8260	srh	5/14/99
4-Chlorotoluene	<0.3	ug/l	0.3	0.8	ns	1		8260	srh	5/14/99
4-Methyl-2-Pentanone	<0.8	ug/l	0.8	2.7	50	1		8260	srh	5/14/99
Acetone	<1.6	ug/l	1.6	4.9	200	1		8260	srh	5/14/99
Benzene	<0.2	ug/l	0.2	0.6	0.5	1		8260	srh	5/14/99
Bromobenzene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	5/14/99
Bromochloromethane	<0.3	ug/l	0.3	1.1	ns	1		8260	srh	5/14/99
Bromodichloromethane	<0.3	ug/l	0.3	0.8	0.06	1		8260	srh	5/14/99
Bromoform	<0.5	ug/l	0.5	1.5	0.44	1		8260	srh	5/14/99
Bromomethane	<0.2	ug/l	0.2	0.7	1	1		8260	srh	5/14/99
Carbon tetrachloride	<0.2	ug/l	0.2	0.7	0.5	1		8260	srh	5/14/99
Chlorobenzene	<0.2	ug/l	0.2	0.6	20	1		8260	srh	5/14/99
Chloroethane	<1.2	ug/l	1.2	3.7	80	1		8260	srh	5/14/99
Chloroform	<0.3	ug/l	0.3	0.9	0.6	1		8260	srh	5/14/99
Chloromethane	<0.8	ug/l	0.8	2.4	0.3	1		8260	srh	5/14/99
cis-1,2-Dichloroethene	<0.2	ug/l	0.2	0.6	7	1		8260	srh	5/14/99
cis-1,3-Dichloropropene	<0.2	ug/l	0.2	0.8	0.02	1		8260	srh	5/14/99
Dibromochloromethane	<0.2	ug/l	0.2	0.7	6	1		8260	srh	5/14/99
Dibromomethane	<0.4	ug/l	0.4	1.1	ns	1		8260	srh	5/14/99
Dichlorodifluoromethane	<0.4	ug/l	0.4	1.1	200	1		8260	srh	5/14/99
Ethylbenzene	<0.2	ug/l	0.2	0.5	140	1		8260	srh	5/14/99
Hexachlorobutadiene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	5/14/99
Isopropyl Ether	<0.3	ug/l	0.3	1	ns	1		8260	srh	5/14/99
Isopropylbenzene	<0.2	ug/l	0.2	0.5	ns	1		8260	srh	5/14/99
m&p-xylene	<0.4	ug/l	0.4	1.1	124	1		8260	srh	5/14/99

APL Environmental

8222 W. Calumet Rd., Milwaukee, WI 53223
 Phone: (414) 355-5800 Fax: (414) 355-3099

ORGANIC REPORT

WDNR# 241340550

James Chang
 Oconomowoc Groundwater Treatment Plant
 2572 Oak St.
 Ashippun, WI 53003

BATCH NUMBER: 990344
 DATE REPORTED: 14-May-99
 DATE RECEIVED: 11-May-99
 SAMPLE TEMP (C): Rec On Ice
 PROJECT ID: OGTP
 PROJECT NAME: Monthly Sampling

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Methyl-t-butyl ether	<0.2	ug/l	0.2	0.7	12	1		8260	srh	5/14/99
Methylene chloride	<0.8	ug/l	0.8	2.4	0.5	1		8260	srh	5/14/99
n-Butylbenzene	<0.2	ug/l	0.2	0.7	ns	1		8260	srh	5/14/99
n-Propylbenzene	<0.3	ug/l	0.3	0.8	ns	1		8260	srh	5/14/99
Naphthalene	<0.5	ug/l	0.5	1.5	8	1		8260	srh	5/14/99
o-xylene	<0.2	ug/l	0.2	0.6	124	1		8260	srh	5/14/99
p-Isopropyltoluene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	5/14/99
sec-Butylbenzene	<0.3	ug/l	0.3	1	ns	1		8260	srh	5/14/99
Styrene	<0.2	ug/l	0.2	0.7	10	1		8260	srh	5/14/99
tert-Butylbenzene	<0.2	ug/l	0.2	0.6	ns	1		8260	srh	5/14/99
Tetrachloroethene	<0.3	ug/l	0.3	0.9	0.5	1		8260	srh	5/14/99
Toluene	<0.3	ug/l	0.3	1	68.6	1		8260	srh	5/14/99
trans-1,2-Dichloroethene	<0.2	ug/l	0.2	0.5	20	1		8260	srh	5/14/99
trans-1,3-Dichloropropene	<0.2	ug/l	0.2	0.6	0.02	1		8260	srh	5/14/99
Trichloroethene	<0.2	ug/l	0.2	0.5	0.5	1		8260	srh	5/14/99
Trichlorofluoromethane	<0.3	ug/l	0.3	1.1	ns	1		8260	srh	5/14/99
Vinyl chloride	<0.2	ug/l	0.2	0.7	0.02	1		8260	srh	5/14/99

Approved By: James Chang Date: 5/14/99
 James Chang, Ph.D., Lab Director

MDL: Method Detection Limit determined by 40CFR Part 136 Appendix B "e" = Estimate value, over calibration range.

LOQ = 10 (S) x Dilution Factor, where "S" is the Standard Deviation from the MDL Study

LOD = 3.143 (S) x Dilution Factor, where "S" is the Standard Deviation from the MDL Study

PAL: Preventive Action Limit, NR 140.10 Public health related groundwater standards. "ns" = not specified

RQ : Run Qualifier; "J" = Results between LOD and LOQ. "RR" = Re-extract Rerun sample, "B" = Showed in Blank sample.

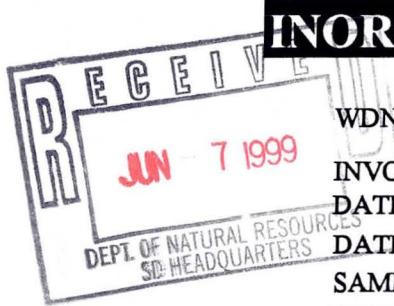
Rounding Rules: Three significant figures were used for concentrations above 99 ug/L, two significant figures for concentrations between 1-99 ug/L, and one significant figure for lower concentrations.

DNR Analytical Detection Limit Guidance, April 1995.



INORGANIC REPORT

James Chang
 Oconomowoc Groundwater Treatment Plant
 2572 Oak St.
 Ashippun , WI 53003



WDNR# 241340550

INVOICE NUMBER 990344
 DATE REPORTED: 28-May-99
 DATE RECEIVED: 11-May-99
 SAMPLE TEMP (C) Rec On Ice
 PROJECT ID: OGTP
 PROJECT NAME: Monthly Sampling

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
Nova Sample Number: 14992										
Client ID: 990510WA09R										
Collection: 5/10/99 Time: 11:36										
Sample Description:										
Arsenic - Furnace AA	<9.9	ug/l	RJ	9.9	31	206.2	dmd	5/12/99	990904	
Barium - ICAP	0.06	mg/l	RJ	0.002	0.006	200.7	dmd	5/12/99	990906	
Cadmium - Furnace AA	<0.7	ug/l	TTR	0.7	2.2	213.2	dmd	5/11/99	990896	
Chromium, Total - ICAP	<0.012	mg/l	RJ	0.012	0.04	200.7	dmd	5/12/99	990906	
Copper- ICAP	0.01	mg/l	J RJ	0.01	0.03	200.7	dmd	5/12/99	990906	
Iron - ICAP	0.31	mg/l	RJ	0.078	0.25	200.7	dmd	5/12/99	990906	
Lead - Furnace AA	6	ug/l		1.1	3.5	239.2	dmd	5/11/99	990893	
Manganese - ICAP	0.01	mg/l	J RJ	0.004	0.01	200.7	dmd	5/12/99	990906	
Mercury CV	<0.0002	mg/l	RJ	0.0002	0.0006	245.1	dmd	5/14/99	990935	
Nickel - ICAP	<0.01	mg/l	RJ	0.01	0.03	200.7	dmd	5/12/99	990906	
Selenium - Furnace AA	<7.8	ug/l	RJ	7.8	25	270.2	dmd	5/12/99	990905	
Silver - ICAP	<0.009	mg/l	RJ	0.009	0.03	200.7	dmd	5/12/99	990906	
Thallium - Furnace AA	<5.0	ug/l	RJ	5	16	279.2	dmd	5/11/99	990894	
Zinc - ICAP	0.02	mg/l	J RJ	0.01	0.03	200.7	dmd	5/12/99	990906	
COD. Total	8	mg/l	J	3.4	11	410.4-CT	van	5/14/99	990926	
Nitrate + Nitrite Nitrogen	0.17	mg/l		0.04	0.13	353.3	dmd	5/21/99	990995	
Nitrogen, Ammonia	<0.1	mg/l		0.1	0.32	350.1	128053	5/13/99	990933	
Phosphorus, Total	0.51	mg/l		0.033	0.10	365.2	van	5/19/99	990975	
Solids, Total Suspended	2	mg/l		0.5	1.6	SM 2540	rf	5/17/99	990956	

Nova Sample Number: 14993										
Client ID: 990510WA01P										
Collection: 5/10/99 Time: 11:30										
Sample Description:										
Arsenic - Furnace AA	<9.9	ug/l	RJ	9.9	31	206.2	dmd	5/12/99	990904	
Barium - ICAP	0.11	mg/l	RJ	0.002	0.006	200.7	dmd	5/12/99	990906	
Cadmium - Furnace AA	<0.7	ug/l	TTR	0.7	2.2	213.2	dmd	5/11/99	990896	
Chromium, Total - ICAP	<0.012	mg/l	RJ	0.012	0.04	200.7	dmd	5/12/99	990906	
Copper- ICAP	<0.01	mg/l	RJ	0.01	0.03	200.7	dmd	5/12/99	990906	
Iron - ICAP	1.6	mg/l	RJ	0.078	0.25	200.7	dmd	5/12/99	990906	
Lead - Furnace AA	<1.1	ug/l		1.1	3.5	239.2	dmd	5/11/99	990893	
Manganese - ICAP	0.12	mg/l	RJ	0.004	0.01	200.7	dmd	5/12/99	990906	
Mercury CV	<0.0002	mg/l	RJ	0.0002	0.0006	245.1	dmd	5/14/99	990935	
Nickel - ICAP	13	ug/l	J RJ	20	64	200.7	dmd	5/12/99	990906	



INORGANIC REPORT

WDNR# 241340550

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun, WI 53003

INVOICE NUMBER 990344
DATE REPORTED: 28-May-99
DATE RECEIVED: 11-May-99
SAMPLE TEMP (C) Rec On Ice
PROJECT ID: OGTP
PROJECT NAME: Monthly Sampling

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
Selenium - Furnace AA	<7.8	ug/l	RJ	7.8	25	270.2	dmd	5/12/99	990905	
Silver - ICAP	<0.009	mg/l	RJ	0.009	0.03	200.7	dmd	5/12/99	990906	
Thallium - Furnace AA	<5.0	ug/l	RJ	5	16	279.2	dmd	5/11/99	990894	
Zinc - ICAP	0.02	mg/l	J RJ	0.01	0.03	200.7	dmd	5/12/99	990906	
Chromium, Hexavalent	<0.0042	mg/l		0.004	0.01	SM 3500	128053	5/11/99	990931	
COD. Total	18	mg/l		3.4	11	410.4-CT	van	5/14/99	990926	
Cyanide, Amenable	<0.018	mg/l		0.018	0.06	335.2	van	5/14/99	990919	
Cyanide, Total	<0.018	mg/l		0.018	0.06	335.2	van	5/13/99	990918	
pH (water)	6.9	s.u.	#			150.1	srh	5/10/99	990962	
Solids, Total Suspended	6	mg/l		0.5	1.6	SM 2540	rf	5/17/99	990956	

Nova Sample Number: 14994

Client ID: 990510WA02P

pH (water) 10 s.u. #

Collection: 5/10/99 Time: 11:31
Sample Description:

srh 5/10/99 990962

Nova Sample Number: 14995

Client ID: 990510WA03P

pH (water) 11 s.u. #

Collection: 5/10/99 Time: 11:32
Sample Description:

srh 5/10/99 990962

Nova Sample Number: 14996

Client ID: 990510WA05P

pH (water) 7.1 s.u. #

Collection: 5/10/99 Time: 11:40
Sample Description:

srh 5/10/99 990962

Nova Sample Number: 14998

Client ID: 990510WA09P

Chromium, Hexavalent <0.0042 mg/l 0.004 0.01 SM 3500 128053 5/11/99 990931
Cyanide, Amenable <0.018 mg/l 0.018 0.06 335.2 van 5/14/99 990919
Cyanide, Total <0.018 mg/l 0.018 0.06 335.2 van 5/13/99 990918
pH (water) 7.5 s.u. # 150.1 5/10/99Collection: 5/10/99 Time: 11:35
Sample Description:



INORGANIC REPORT

WDNR# 241340550

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun, WI 53003

INVOICE NUMBER 990344
DATE REPORTED: 28-May-99
DATE RECEIVED: 11-May-99
SAMPLE TEMP (C) Rec On Ice
PROJECT ID: OGTP
PROJECT NAME: Monthly Sampling

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
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Approved By: James Chang Date: 5/28/99

James Chang, Ph.D., Lab Director

RJ Result expressed as Total.

TTR Result expressed as total and total recoverable.

MDL: Method Detection Limit determined by 40CFR Part 136 Appendix B "J" = Results between LOD and LOQ "#" = no LOD or LOQ required.

LOQ = 10 (S) x Dilution Factor, where "S" is the Standard Deviation from the MDL Study

LOD = 3.143 (S) x Dilution Factor, where "S" is the Standard Deviation from the MDL Study

Rounding Rules: Three significant figures were used for concentrations above 99 ug/L, two significant figures for concentrations between 1-99 ug/L, and one significant figure for lower concentrations.

DNR Analytical Detection Limit Guidance, April 1995.



INORGANIC REPORT

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun, WI 53003



WDNR# 241340550

INVOICE NUMBER 990309
DATE REPORTED: 19-May-99
DATE RECEIVED: 30-Apr-99
SAMPLE TEMP (C) Rec On Ice
PROJECT ID: TCLP Sampling
PROJECT NAME: OGTP

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
Nova Sample Number: 14882										
Client ID: 990429SC13P										
Cadmium - ICAP	<0.006	mg/l	TC	0.006	0.02	200.7	dmd	5/7/99	990856	%rec=85
Chromium, Total - ICAP	<0.012	mg/l	TC	0.012	0.04	200.7	dmd	5/7/99	990856	%rec=84
Lead - ICAP	<0.051	mg/l	TC	0.051	0.16	200.7	dmd	5/7/99	990856	%rec=80
Nickel - ICAP	0.01	mg/l	J TC	0.01	0.03	200.7	dmd	5/7/99	990856	%rec=84
Silver - ICAP	<0.009	mg/l	TC	0.009	0.03	200.7	dmd	5/7/99	990856	%rec=82
Cyanide, Amenable	<0.9	mg/kg		0.9	2.9	335.2	van	5/14/99	990922	
Cyanide, Total	<0.9	mg/kg		0.9	2.9	9010	van	5/14/99	990921	
Free Liquids (paint filter test)	pass	#			9095		sp	5/4/99	990822	
pH (Solids)	10	s.u.	#		9045		rf	5/5/99	990861	
Specific Gravity	1.3	s.u.	#		SM 2710		rf	5/10/99	990888	
TCLP extraction	done	#			1311		rf	5/4/99	990843	

Approved By:

Date: 5/19/99

James Chang, Ph.D., Lab Director

TC Result is expressed as concentration of TCLP extract.

MDL: Method Detection Limit determined by 40CFR Part 136 Appendix B "J" = Results between LOD and LOQ "#" = no LOD or LOQ required.
LOQ = 10 (S) x Dilution Factor, where "S" is the Standard Deviation from the MDL Study
LOD = 3.143 (S) x Dilution Factor, where "S" is the Standard Deviation from the MDL Study

Rounding Rules: Three significant figures were used for concentrations above 99 ug/L, two significant figures for concentrations between 1-99 ug/L, and one significant figure for lower concentrations.
DNR Analytical Detection Limit Guidance, April 1995.



INORGANIC REPORT

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun, WI 53003

WDNR# 241340550

INVOICE NUMBER 990366
DATE REPORTED: 19-May-99
DATE RECEIVED: 14-May-99
SAMPLE TEMP (C) Rec On Ice
PROJECT ID: OGTP
PROJECT NAME:

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
Nova Sample Number: 15081										
Client ID: 990514WA09R										

Lead - Furnace AA <1.1 ug/l RJ 1.1 3.5 239.2 dmd 5/17/99 990949

Collection: 5/14/99 Time: 13:00
Sample Description:

Approved By:

James Chang, Ph.D., Lab Director

Date: 5/18/99

RJ Result expressed as Total.

MDL: Method Detection Limit determined by 40CFR Part 136 Appendix B "J" = Results between LOD and LOQ "#" = no LOD or LOQ required.

LOQ = 10 (S) x Dilution Factor, where "S" is the Standard Deviation from the MDL Study

LOD = 3.143 (S) x Dilution Factor, where "S" is the Standard Deviation from the MDL Study

Rounding Rules: Three significant figures were used for concentrations above 99 ug/L, two significant figures for concentrations between 1-99 ug/L, and one significant figure for lower concentrations.

DNR Analytical Detection Limit Guidance, April 1995.



INORGANIC REPORT

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun, WI 53003

WDNR# 241340550

INVOICE NUMBER 990370
DATE REPORTED: 28-May-99
DATE RECEIVED: 18-May-99
SAMPLE TEMP (C) Rec On Ice
PROJECT ID: OGTP
PROJECT NAME: Weekly Sample May

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
Nova Sample Number: 15124										
Client ID: 990517WA01P										
Arsenic - Furnace AA	<9.9	ug/l	RJ	9.9	31	206.2	dmd	5/24/99	991021	Collection: 5/17/99 Time: 14:10
Barium - ICAP	0.11	mg/l	RJ	0.002	0.006	200.7	dmd	5/19/99	990977	Sample Description:
Cadmium - Furnace AA	<0.7	ug/l	RJ	0.7	2.2	213.2	dmd	5/24/99	991011	
Chromium, Total - ICAP	<0.012	mg/l	RJ	0.012	0.04	200.7	dmd	5/19/99	990977	
Copper- ICAP	<0.01	mg/l	RJ	0.01	0.03	200.7	dmd	5/19/99	990977	
Iron - ICAP	0.98	mg/l	RJ	0.078	0.25	200.7	dmd	5/19/99	990977	
Lead - Furnace AA	<1.1	ug/l	RJ	1.1	3.5	239.2	dmd	5/26/99	991031	
Manganese - ICAP	0.19	mg/l	RJ	0.004	0.01	200.7	dmd	5/19/99	990977	
Mercury CV	<0.0002	mg/l	RJ	0.0002	0.0006	245.1	dmd	5/21/99	991003	
Nickel - ICAP	0.04	mg/l	RJ	0.01	0.03	200.7	dmd	5/19/99	990977	
Selenium - Furnace AA	21	ug/l	J RJ	7.8	25	270.2	dmd	5/24/99	991022	
Silver - ICAP	<0.009	mg/l	RJ	0.009	0.03	200.7	dmd	5/19/99	990977	
Thallium - Furnace AA	<5.0	ug/l	RJ	5	16	279.2	dmd	5/26/99	991039	
Zinc - ICAP	0.02	mg/l	J RJ	0.01	0.03	200.7	dmd	5/19/99	990977	
Chromium, Hexavalent	<0.0042	mg/l		0.004	0.01	SM 3500	128053	5/19/99	990985	
Cyanide, Amenable	<0.018	mg/l		0.018	0.06	335.2	van	5/26/99	991034	
Cyanide, Total	<0.018	mg/l		0.018	0.06	335.2	van	5/26/99	991033	
pH (water)	7.2	s.u.	#			150.1	tg	5/17/99	990962	

Nova Sample Number: 15125										
Client ID: 990517WA09R										
Arsenic - Furnace AA	<9.9	ug/l	RJ	9.9	31	206.2	dmd	5/24/99	991021	Collection: 5/17/99 Time: 15:10
Barium - ICAP	0.05	mg/l	RJ	0.002	0.006	200.7	dmd	5/19/99	990977	Sample Description:
Cadmium - Furnace AA	<0.7	ug/l	RJ	0.7	2.2	213.2	dmd	5/24/99	991011	
Chromium, Total - ICAP	<0.012	mg/l	RJ	0.012	0.04	200.7	dmd	5/19/99	990977	
Copper- ICAP	<0.01	mg/l	RJ	0.01	0.03	200.7	dmd	5/19/99	990977	
Iron - ICAP	0.41	mg/l	RJ	0.078	0.25	200.7	dmd	5/19/99	990977	
Lead - Furnace AA	<1.1	ug/l	RJ	1.1	3.5	239.2	dmd	5/26/99	991031	
Manganese - ICAP	0.004	mg/l	J RJ	0.004	0.01	200.7	dmd	5/19/99	990977	
Mercury CV	<0.0002	mg/l	RJ	0.0002	0.0006	245.1	dmd	5/21/99	991003	
Nickel - ICAP	<0.01	mg/l	RJ	0.01	0.03	200.7	dmd	5/19/99	990977	
Selenium - Furnace AA	<7.8	ug/l	RJ	7.8	25	270.2	dmd	5/24/99	991022	



INORGANIC REPORT

WDNR# 241340550

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun, WI 53003

INVOICE NUMBER 990370
DATE REPORTED: 28-May-99
DATE RECEIVED: 18-May-99
SAMPLE TEMP (C) Rec On Ice
PROJECT ID: OGTP
PROJECT NAME: Weekly Sample May

Test	Result	Units	RQ	LOD	LOQ	Method	Analyst	Date Anal	QC#	Comments
Silver - ICAP	<0.009	mg/l	RJ	0.009	0.03	200.7	dmd	5/19/99	990977	
Thallium - Furnace AA	<5.0	ug/l	RJ	5	16	279.2	dmd	5/26/99	991039	
Zinc - ICAP	0.01	mg/l	J RJ	0.01	0.03	200.7	dmd	5/19/99	990977	

Nova Sample Number: 15126

Client ID: 990517WA02P

pH (water) 9.2 s.u. #

150.1

Collection: 5/17/99

Time: 14:20

Sample Description:

tg 5/17/99 990962

Nova Sample Number: 15127

Client ID: 990517WA03P

pH (water) 11 s.u. #

150.1

Collection: 5/17/99

Time: 14:30

Sample Description:

tg 5/17/99 990962

Nova Sample Number: 15128

Client ID: 990517WA05P

pH (water) 7.3 s.u. #

150.1

Collection: 5/17/99

Time: 14:40

Sample Description:

tg 5/17/99 990962

Nova Sample Number: 15130

Client ID: 990517WA09P

Chromium, Hexavalent <0.0042 mg/l 0.004 0.01 SM 3500 128053 5/19/99 990985
Cyanide, Amenable <0.018 mg/l 0.018 0.06 335.2 van 5/26/99 991034
Cyanide, Total <0.018 mg/l 0.018 0.06 335.2 van 5/26/99 991033
pH (water) 8.1 s.u. #

150.1

Collection: 5/17/99

Time: 15:00

Sample Description:

tg 5/17/99 990962

Approved By: 

Date: 5/28/99

James Chang, Ph.D., Lab Director

RJ Result expressed as Total.

MDL: Method Detection Limit determined by 40CFR Part 136 Appendix B "J" = Results between LOD and LOQ "#" = no LOD or LOQ required.

LOQ = 10 (S) x Dilution Factor, where "S" is the Standard Deviation from the MDL Study

LOD = 3.143 (S) x Dilution Factor, where "S" is the Standard Deviation from the MDL Study

Rounding Rules: Three significant figures were used for concentrations above 99 ug/L, two significant figures for concentrations between 1-99 ug/L, and one significant figure for lower concentrations.

DNR Analytical Detection Limit Guidance, April 1995.



8222 W. Calumet Rd., Milwaukee, WI 53223
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ORGANIC REPORT

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun, WI 53003

WDNR# 241340550

BATCH NUMBER: 990370
DATE REPORTED: 24-May-99
DATE RECEIVED: 18-May-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: OGTP
PROJECT NAME: Weekly Sample May

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Sample Number: 15124										
Client ID: 990517WA01P	Sample Description:			QC Prep Batch Number: 991002			Sample analyzed within	2 Day(s) from collection.		
							Collection: 5/17/99	Time: 14:10		
1,1,1,2-Tetrachloroethane	< 2	ug/l	2	6.4	ns	10	8260	srh	5/19/99	
1,1,1-Trichloroethane	246	ug/l	2.3	7.3	40	10	8260	srh	5/19/99	
1,1,2,2-Tetrachloroethane	< 2.9	ug/l	2.9	9.2	0.02	10	8260	srh	5/19/99	
1,1,2-Trichloroethane	< 2.9	ug/l	2.9	9.2	0.5	10	8260	srh	5/19/99	
1,1-Dichloroethane	22	ug/l	1.5	4.8	85	10	8260	srh	5/19/99	
1,1-Dichloroethene	15	ug/l	3.6	11	0.7	10	8260	srh	5/19/99	
1,1-Dichloropropene	< 4.9	ug/l	4.9	16	ns	10	8260	srh	5/19/99	
1,2,3-Trichlorobenzene	< 2.2	ug/l	2.2	7	ns	10	8260	srh	5/19/99	
1,2,3-Trichloropropane	< 6	ug/l	6	19	ns	10	8260	srh	5/19/99	
1,2,4-Trichlorobenzene	< 1.6	ug/l	1.6	5.1	14	10	8260	srh	5/19/99	
1,2,4-Trimethylbenzene	< 2.9	ug/l	2.9	9.2	ns	10	8260	srh	5/19/99	
1,2-Dibromoethane	< 2.4	ug/l	2.4	7.6	0.005	10	8260	srh	5/19/99	
1,2-Dichlorobenzene	< 2	ug/l	2	6.4	60	10	8260	srh	5/19/99	
1,2-Dichloroethane	< 1.9	ug/l	1.9	6	0.5	10	8260	srh	5/19/99	
1,2-Dichloropropane	< 2.3	ug/l	2.3	7.3	0.5	10	8260	srh	5/19/99	
1,3,5-Trimethylbenzene	< 2.3	ug/l	2.3	7.3	ns	10	8260	srh	5/19/99	
1,3-Dichlorobenzene	< 1.9	ug/l	1.9	6	125	10	8260	srh	5/19/99	
1,3-Dichloropropane	< 2.1	ug/l	2.1	6.7	ns	10	8260	srh	5/19/99	
1,4-Dichlorobenzene	< 1.5	ug/l	1.5	4.8	15	10	8260	srh	5/19/99	
1,2Dibromo-3-chloropropan	< 5.9	ug/l	5.9	19	0.02	10	8260	srh	5/19/99	
2,2-Dichloropropane	< 4	ug/l	4	13	ns	10	8260	srh	5/19/99	
2-Butanone (MEK)	< 14	ug/l	14	44	90	10	8260	srh	5/19/99	
2-Chloroethyl Vinyl Ether	< 2.9	ug/l	2.9	9.2	ns	10	8260	srh	5/19/99	
2-Chlorotoluene	< 1.5	ug/l	1.5	4.8	ns	10	8260	srh	5/19/99	
4-Chlorotoluene	< 2.5	ug/l	2.5	8	ns	10	8260	srh	5/19/99	
4-Methyl-2-Pentanone	< 8.4	ug/l	8.4	27	50	10	8260	srh	5/19/99	
Acetone	< 16	ug/l	16	49	200	10	8260	srh	5/19/99	
Benzene	2.8	ug/l	1.9	6	0.5	10	8260	srh	5/19/99	
Bromobenzene	< 1.9	ug/l	1.9	6	ns	10	8260	srh	5/19/99	
Bromochloromethane	< 3.4	ug/l	3.4	11	ns	10	8260	srh	5/19/99	
Bromodichloromethane	< 2.6	ug/l	2.6	8.3	0.06	10	8260	srh	5/19/99	
Bromoform	< 4.7	ug/l	4.7	15	0.44	10	8260	srh	5/19/99	
Bromomethane	< 2.1	ug/l	2.1	6.7	1	10	8260	srh	5/19/99	
Carbon tetrachloride	< 2.2	ug/l	2.2	7	0.5	10	8260	srh	5/19/99	
Chlorobenzene	< 2	ug/l	2	6.4	20	10	8260	srh	5/19/99	
Chloroethane	< 12	ug/l	12	37	80	10	8260	srh	5/19/99	
Chloroform	< 2.7	ug/l	2.7	8.6	0.6	10	8260	srh	5/19/99	
Chloromethane	< 7.7	ug/l	7.7	24	0.3	10	8260	srh	5/19/99	
cis-1,2-Dichloroethene	52	ug/l	2	6.4	7	10	8260	srh	5/19/99	
cis-1,3-Dichloropropene	< 2.4	ug/l	2.4	7.6	0.02	10	8260	srh	5/19/99	



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ORGANIC REPORT

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun, WI 53003

WDNR# 241340550

BATCH NUMBER: 990370
DATE REPORTED: 24-May-99
DATE RECEIVED: 18-May-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: OGTP
PROJECT NAME: Weekly Sample May

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Dibromochloromethane	< 2.1	ug/l	2.1	6.7	6	10		8260	srb	5/19/99
Dibromomethane	< 3.5	ug/l	3.5	11	ns	10		8260	srb	5/19/99
Dichlorodifluoromethane	< 3.6	ug/l	3.6	11	200	10		8260	srb	5/19/99
Ethylbenzene	3.2	ug/l	1.6	5.1	140	10	J	8260	srb	5/19/99
Hexachlorobutadiene	< 2.2	ug/l	2.2	7	ns	10		8260	srb	5/19/99
Isopropyl Ether	< 3.2	ug/l	3.2	10	ns	10		8260	srb	5/19/99
Isopropylbenzene	< 1.6	ug/l	1.6	5.1	ns	10		8260	srb	5/19/99
m&p-xylene	< 3.6	ug/l	3.6	11	124	10		8260	srb	5/19/99
Methyl-t-butyl ether	< 2.1	ug/l	2.1	6.7	12	10		8260	srb	5/19/99
Methylene chloride	< 7.6	ug/l	7.6	24	0.5	10		8260	srb	5/19/99
n-Butylbenzene	< 2.3	ug/l	2.3	7.3	ns	10		8260	srb	5/19/99
n-Propylbenzene	< 2.5	ug/l	2.5	8	ns	10		8260	srb	5/19/99
Naphthalene	< 4.6	ug/l	4.6	15	8	10		8260	srb	5/19/99
o-xylene	< 1.8	ug/l	1.8	5.7	124	10		8260	srb	5/19/99
p-Isopropyltoluene	< 1.8	ug/l	1.8	5.7	ns	10		8260	srb	5/19/99
sec-Butylbenzene	< 3	ug/l	3	9.5	ns	10		8260	srb	5/19/99
Styrene	< 2.1	ug/l	2.1	6.7	10	10		8260	srb	5/19/99
tert-Butylbenzene	< 2	ug/l	2	6.4	ns	10		8260	srb	5/19/99
Tetrachloroethene	11	ug/l	2.9	9.2	0.5	10		8260	srb	5/19/99
Toluene	< 3.3	ug/l	3.3	10	68.6	10		8260	srb	5/19/99
trans-1,2-Dichloroethene	21	ug/l	1.6	5.1	20	10		8260	srb	5/19/99
trans-1,3-Dichloropropene	< 2	ug/l	2	6.4	0.02	10		8260	srb	5/19/99
Trichloroethene	697	ug/l	1.6	5.1	0.5	10		8260	srb	5/19/99
Trichlorofluoromethane	< 3.4	ug/l	3.4	11	ns	10		8260	srb	5/19/99
Vinyl chloride	< 2.1	ug/l	2.1	6.7	0.02	10		8260	srb	5/19/99

Sample Number:	15129	QC Prep Batch Number:	991002	Sample analyzed within	2 Day(s)	from collection
Client ID:	990517WA07P	Sample Description:		Collection:	5/17/99	Time:

1,1,1,2-Tetrachloroethane	< 0.2	ug/l	0.2	0.64	ns	1		8260	srb	5/19/99
1,1,1-Trichloroethane	0.35	ug/l	0.23	0.73	40	1	J	8260	srb	5/19/99
1,1,2,2-Tetrachloroethane	< 0.29	ug/l	0.29	0.92	0.02	1		8260	srb	5/19/99
1,1,2-Trichloroethane	< 0.29	ug/l	0.29	0.92	0.5	1		8260	srb	5/19/99
1,1-Dichloroethane	< 0.15	ug/l	0.15	0.48	85	1		8260	srb	5/19/99
1,1-Dichloroethene	< 0.36	ug/l	0.36	1.1	0.7	1		8260	srb	5/19/99
1,1-Dichloropropene	< 0.49	ug/l	0.49	1.6	ns	1		8260	srb	5/19/99
1,2,3-Trichlorobenzene	< 0.22	ug/l	0.22	0.7	ns	1		8260	srb	5/19/99
1,2,3-Trichloropropane	< 0.6	ug/l	0.6	1.9	ns	1		8260	srb	5/19/99
1,2,4-Trichlorobenzene	< 0.16	ug/l	0.16	0.51	14	1		8260	srb	5/19/99
1,2,4-Trimethylbenzene	< 0.29	ug/l	0.29	0.92	ns	1		8260	srb	5/19/99
1,2-Dibromoethane	< 0.24	ug/l	0.24	0.76	0.005	1		8260	srb	5/19/99
1,2-Dichlorobenzene	< 0.2	ug/l	0.2	0.64	60	1		8260	srb	5/19/99
1,2-Dichloroethane	< 0.19	ug/l	0.19	0.6	0.5	1		8260	srb	5/19/99



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ORGANIC REPORT

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun, WI 53003

WDNR# 241340550

BATCH NUMBER: 990370
DATE REPORTED: 24-May-99
DATE RECEIVED: 18-May-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: OGTP
PROJECT NAME: Weekly Sample May

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
1,2-Dichloropropane	< 0.23	ug/l	0.23	0.73	0.5	1		8260	srb	5/19/99
1,3,5-Trimethylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	srb	5/19/99
1,3-Dichlorobenzene	< 0.19	ug/l	0.19	0.6	125	1		8260	srb	5/19/99
1,3-Dichloropropane	< 0.21	ug/l	0.21	0.67	ns	1		8260	srb	5/19/99
1,4-Dichlorobenzene	< 0.15	ug/l	0.15	0.48	15	1		8260	srb	5/19/99
12Dibromo-3-chloropropan	< 0.59	ug/l	0.59	1.9	0.02	1		8260	srb	5/19/99
2,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	ns	1		8260	srb	5/19/99
2-Butanone (MEK)	< 1.4	ug/l	1.4	4.4	90	1		8260	srb	5/19/99
2-Chloroethyl Vinyl Ether	< 0.29	ug/l	0.29	0.92	ns	1		8260	srb	5/19/99
2-Chlorotoluene	< 0.15	ug/l	0.15	0.48	ns	1		8260	srb	5/19/99
4-Chlorotoluene	< 0.25	ug/l	0.25	0.8	ns	1		8260	srb	5/19/99
4-Methyl-2-Pentanone	< 0.84	ug/l	0.84	2.7	50	1		8260	srb	5/19/99
Acetone	< 1.6	ug/l	1.6	4.9	200	1		8260	srb	5/19/99
Benzene	< 0.19	ug/l	0.19	0.6	0.5	1		8260	srb	5/19/99
Bromobenzene	< 0.19	ug/l	0.19	0.6	ns	1		8260	srb	5/19/99
Bromochloromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	srb	5/19/99
Bromodichloromethane	0.6	ug/l	0.26	0.83	0.06	1	J	8260	srb	5/19/99
Bromoform	< 0.47	ug/l	0.47	1.5	0.44	1		8260	srb	5/19/99
Bromomethane	< 0.21	ug/l	0.21	0.67	1	1		8260	srb	5/19/99
Carbon tetrachloride	< 0.22	ug/l	0.22	0.7	0.5	1		8260	srb	5/19/99
Chlorobenzene	< 0.2	ug/l	0.2	0.64	20	1		8260	srb	5/19/99
Chloroethane	< 1.2	ug/l	1.2	3.7	80	1		8260	srb	5/19/99
Chloroform	0.74	ug/l	0.27	0.86	0.6	1	J	8260	srb	5/19/99
Chloromethane	< 0.77	ug/l	0.77	2.4	0.3	1		8260	srb	5/19/99
cis-1,2-Dichloroethene	0.3	ug/l	0.2	0.64	7	1	J	8260	srb	5/19/99
cis-1,3-Dichloropropene	< 0.24	ug/l	0.24	0.76	0.02	1		8260	srb	5/19/99
Dibromochloromethane	0.62	ug/l	0.21	0.67	6	1	J	8260	srb	5/19/99
Dibromomethane	< 0.35	ug/l	0.35	1.1	ns	1		8260	srb	5/19/99
Dichlorodifluoromethane	< 0.36	ug/l	0.36	1.1	200	1		8260	srb	5/19/99
Ethylbenzene	< 0.16	ug/l	0.16	0.51	140	1		8260	srb	5/19/99
Hexachlorobutadiene	< 0.22	ug/l	0.22	0.7	ns	1		8260	srb	5/19/99
Isopropyl Ether	< 0.32	ug/l	0.32	1	ns	1		8260	srb	5/19/99
Isopropylbenzene	< 0.16	ug/l	0.16	0.51	ns	1		8260	srb	5/19/99
m&p-xylene	< 0.36	ug/l	0.36	1.1	124	1		8260	srb	5/19/99
Methyl-t-butyl ether	< 0.21	ug/l	0.21	0.67	12	1		8260	srb	5/19/99
Methylene chloride	< 0.76	ug/l	0.76	2.4	0.5	1		8260	srb	5/19/99
n-Butylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	srb	5/19/99
n-Propylbenzene	< 0.25	ug/l	0.25	0.8	ns	1		8260	srb	5/19/99
Naphthalene	< 0.46	ug/l	0.46	1.5	8	1		8260	srb	5/19/99
o-xylene	< 0.18	ug/l	0.18	0.57	124	1		8260	srb	5/19/99
p-Isopropyltoluene	< 0.18	ug/l	0.18	0.57	ns	1		8260	srb	5/19/99
sec-Butylbenzene	< 0.3	ug/l	0.3	0.95	ns	1		8260	srb	5/19/99
Styrene	< 0.21	ug/l	0.21	0.67	10	1		8260	srb	5/19/99



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ORGANIC REPORT

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun, WI 53003

WDNR# 241340550

BATCH NUMBER: 990370
DATE REPORTED: 24-May-99
DATE RECEIVED: 18-May-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: OGTP
PROJECT NAME: Weekly Sample May

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
tert-Butylbenzene	< 0.2	ug/l	0.2	0.64	ns	1		8260	srb	5/19/99
Tetrachloroethene	< 0.29	ug/l	0.29	0.92	0.5	1		8260	srb	5/19/99
Toluene	< 0.33	ug/l	0.33	1	68.6	1		8260	srb	5/19/99
trans-1,2-Dichloroethene	< 0.16	ug/l	0.16	0.51	20	1		8260	srb	5/19/99
trans-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.64	0.02	1		8260	srb	5/19/99
Trichloroethene	1.6	ug/l	0.16	0.51	0.5	1		8260	srb	5/19/99
Trichlorofluoromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	srb	5/19/99
Vinyl chloride	< 0.21	ug/l	0.21	0.67	0.02	1		8260	srb	5/19/99

Sample Number:	15130	QC Prep Batch Number:	991002	Sample analyzed within	2 Day(s), from collection.			
Client ID:	990517WA09P	Sample Description:		Collection:	5/17/99 Time: 15:00			
1,1,1,2-Tetrachloroethane	< 0.2	ug/l	0.2	0.64	ns 1	8260	srb	5/19/99
1,1,1-Trichloroethane	< 0.23	ug/l	0.23	0.73	40 1	8260	srb	5/19/99
1,1,2,2-Tetrachloroethane	< 0.29	ug/l	0.29	0.92	0.02 1	8260	srb	5/19/99
1,1,2-Trichloroethane	< 0.29	ug/l	0.29	0.92	0.5 1	8260	srb	5/19/99
1,1-Dichloroethane	< 0.15	ug/l	0.15	0.48	85 1	8260	srb	5/19/99
1,1-Dichloroethene	< 0.36	ug/l	0.36	1.1	0.7 1	8260	srb	5/19/99
1,1-Dichloropropene	< 0.49	ug/l	0.49	1.6	ns 1	8260	srb	5/19/99
1,2,3-Trichlorobenzene	< 0.22	ug/l	0.22	0.7	ns 1	8260	srb	5/19/99
1,2,3-Trichloropropane	< 0.6	ug/l	0.6	1.9	ns 1	8260	srb	5/19/99
1,2,4-Trichlorobenzene	< 0.16	ug/l	0.16	0.51	14 1	8260	srb	5/19/99
1,2,4-Trimethylbenzene	< 0.29	ug/l	0.29	0.92	ns 1	8260	srb	5/19/99
1,2-Dibromoethane	< 0.24	ug/l	0.24	0.76	0.005 1	8260	srb	5/19/99
1,2-Dichlorobenzene	< 0.2	ug/l	0.2	0.64	60 1	8260	srb	5/19/99
1,2-Dichloroethane	< 0.19	ug/l	0.19	0.6	0.5 1	8260	srb	5/19/99
1,2-Dichloropropane	< 0.23	ug/l	0.23	0.73	0.5 1	8260	srb	5/19/99
1,3,5-Trimethylbenzene	< 0.23	ug/l	0.23	0.73	ns 1	8260	srb	5/19/99
1,3-Dichlorobenzene	< 0.19	ug/l	0.19	0.6	125 1	8260	srb	5/19/99
1,3-Dichloropropane	< 0.21	ug/l	0.21	0.67	ns 1	8260	srb	5/19/99
1,4-Dichlorobenzene	< 0.15	ug/l	0.15	0.48	15 1	8260	srb	5/19/99
1,2-Dibromo-3-chloropropan	< 0.59	ug/l	0.59	1.9	0.02 1	8260	srb	5/19/99
2,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	ns 1	8260	srb	5/19/99
2-Butanone (MEK)	< 1.4	ug/l	1.4	4.4	90 1	8260	srb	5/19/99
2-Chloroethyl Vinyl Ether	< 0.29	ug/l	0.29	0.92	ns 1	8260	srb	5/19/99
2-Chlorotoluene	< 0.15	ug/l	0.15	0.48	ns 1	8260	srb	5/19/99
4-Chlorotoluene	< 0.25	ug/l	0.25	0.8	ns 1	8260	srb	5/19/99
4-Methyl-2-Pentanone	< 0.84	ug/l	0.84	2.7	50 1	8260	srb	5/19/99
Acetone	< 1.6	ug/l	1.6	4.9	200 1	8260	srb	5/19/99
Benzene	< 0.19	ug/l	0.19	0.6	0.5 1	8260	srb	5/19/99
Bromobenzene	< 0.19	ug/l	0.19	0.6	ns 1	8260	srb	5/19/99
Bromochloromethane	< 0.34	ug/l	0.34	1.1	ns 1	8260	srb	5/19/99
Bromodichloromethane	< 0.26	ug/l	0.26	0.83	0.06 1	8260	srb	5/19/99

James Chang
 Oconomowoc Groundwater Treatment Plant
 2572 Oak St.
 Ashippun, WI 53003

WDNR# 241340550

BATCH NUMBER: 990370
 DATE REPORTED: 24-May-99
 DATE RECEIVED: 18-May-99
 SAMPLE TEMP (C): Rec On Ice
 PROJECT ID: OGTP
 PROJECT NAME: Weekly Sample May

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
Bromoform	< 0.47	ug/l	0.47	1.5	0.44	1		8260	srh	5/19/99
Bromomethane	< 0.21	ug/l	0.21	0.67	1	1		8260	srh	5/19/99
Carbon tetrachloride	< 0.22	ug/l	0.22	0.7	0.5	1		8260	srh	5/19/99
Chlorobenzene	< 0.2	ug/l	0.2	0.64	20	1		8260	srh	5/19/99
Chloroethane	< 1.2	ug/l	1.2	3.7	80	1		8260	srh	5/19/99
Chloroform	< 0.27	ug/l	0.27	0.86	0.6	1		8260	srh	5/19/99
Chloromethane	< 0.77	ug/l	0.77	2.4	0.3	1		8260	srh	5/19/99
cis-1,2-Dichloroethene	< 0.2	ug/l	0.2	0.64	7	1		8260	srh	5/19/99
cis-1,3-Dichloropropene	< 0.24	ug/l	0.24	0.76	0.02	1		8260	srh	5/19/99
Dibromochloromethane	< 0.21	ug/l	0.21	0.67	6	1		8260	srh	5/19/99
Dibromomethane	< 0.35	ug/l	0.35	1.1	ns	1		8260	srh	5/19/99
Dichlorodifluoromethane	< 0.36	ug/l	0.36	1.1	200	1		8260	srh	5/19/99
Ethylbenzene	< 0.16	ug/l	0.16	0.51	140	1		8260	srh	5/19/99
Hexachlorobutadiene	< 0.22	ug/l	0.22	0.7	ns	1		8260	srh	5/19/99
Isopropyl Ether	< 0.32	ug/l	0.32	1	ns	1		8260	srh	5/19/99
Isopropylbenzene	< 0.16	ug/l	0.16	0.51	ns	1		8260	srh	5/19/99
m&p-xylene	< 0.36	ug/l	0.36	1.1	124	1		8260	srh	5/19/99
Methyl-t-butyl ether	< 0.21	ug/l	0.21	0.67	12	1		8260	srh	5/19/99
Methylene chloride	< 0.76	ug/l	0.76	2.4	0.5	1		8260	srh	5/19/99
n-Butylbenzene	< 0.23	ug/l	0.23	0.73	ns	1		8260	srh	5/19/99
n-Propylbenzene	< 0.25	ug/l	0.25	0.8	ns	1		8260	srh	5/19/99
Naphthalene	< 0.46	ug/l	0.46	1.5	8	1		8260	srh	5/19/99
o-xylene	< 0.18	ug/l	0.18	0.57	124	1		8260	srh	5/19/99
p-Isopropyltoluene	< 0.18	ug/l	0.18	0.57	ns	1		8260	srh	5/19/99
sec-Butylbenzene	< 0.3	ug/l	0.3	0.95	ns	1		8260	srh	5/19/99
Styrene	< 0.21	ug/l	0.21	0.67	10	1		8260	srh	5/19/99
tert-Butylbenzene	< 0.2	ug/l	0.2	0.64	ns	1		8260	srh	5/19/99
Tetrachloroethene	< 0.29	ug/l	0.29	0.92	0.5	1		8260	srh	5/19/99
Toluene	< 0.33	ug/l	0.33	1	68.6	1		8260	srh	5/19/99
trans-1,2-Dichloroethene	< 0.16	ug/l	0.16	0.51	20	1		8260	srh	5/19/99
trans-1,3-Dichloropropene	< 0.2	ug/l	0.2	0.64	0.02	1		8260	srh	5/19/99
Trichloroethene	0.34	ug/l	0.16	0.51	0.5	1	J	8260	srh	5/19/99
Trichlorofluoromethane	< 0.34	ug/l	0.34	1.1	ns	1		8260	srh	5/19/99
Vinyl chloride	< 0.21	ug/l	0.21	0.67	0.02	1		8260	srh	5/19/99



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ORGANIC REPORT

James Chang
Oconomowoc Groundwater Treatment Plant
2572 Oak St.
Ashippun, WI 53003

WDNR# 241340550

BATCH NUMBER: 990370
DATE REPORTED: 24-May-99
DATE RECEIVED: 18-May-99
SAMPLE TEMP (C): Rec On Ice
PROJECT ID: OGTP
PROJECT NAME: Weekly Sampl May

Compound	Result	Units	LOD	LOQ	PAL	Dil	RQ	Method	Analyst	Date Anal
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Approved By:


James Chang, Ph.D., Lab Director

Date: 5/24/99

MDL: Method Detection Limit determined by 40CFR Part 136 Appendix B "e" = Estimate value, over calibration range.

LOQ = 10 (S) x Dilution Factor, where "S" is the Standard Deviation from the MDL Study

LOD = 3.143 (S) x Dilution Factor, where "S" is the Standard Deviation from the MDL Study

PAL: Preventive Action Limit, NR 140.10 Public health related groundwater standards. "ns" = not specified

RQ : Run Qualifier; "J" = Results between LOD and LOQ. "RR" = Re-extract Rerun sample, "B" = Showed in Blank sample.

Rounding Rules: Three significant figures were used for concentrations above 99 ug/L, two significant figures for concentrations between 1-99 ug/L, and one significant figure for lower concentrations.
DNR Analytical Detection Limit Guidance, April 1995.