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& ASSOCIATES, INC.

Draft Report
CAMP & CENTER LAKES - KENOSHA COUNTY

WATER QUALITY MONITORING PROJECT

FOR

CAMP & CENTER LAKES
REHABILITATION DISTRICT

Project No. 1907791-337

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CAMP AND CENTER LAKES WATER QUALITY REPORT
Camp and Center Lakes, Kenosha County

INTRODUCTION

Camp and Center Lakes are glacial kettle lakes located in southwestern Kenosha Counry. Center Lake is located to the northeast of and flows into Camp Lake. The two lakes are separated by a narrow bermed isthmus that hosts Wisconsin Central LTD. Railroad tracks, County Trunk Highway SA, and some residential properties. A low-head dam located on the southern end of Center Lake acts as an outlet structure controlling flow into Camp Lake across the narrow isthmus. Camp Lake flows over a low-head dam on the west side of the lake to an outlet creek. This creek flows to the south, eventually draining into Channel Lake in Lake County, Illinois. All of these lakes are part of the Fox River Drainage Basin and, therefore, all drainage is eventually directed towards the Fox River, which flows southward into Illinois.

Flow-through lakes are generally less sensitive to pollutant inputs than seepage lakes. Pollutants that enter flow-through lakes are allowed to be flushed through the lake to the outlet in a relatively short period of time. Camp and Center Lakes historically have been considered to he shallow and weedy with average to poor water qualify. Regardless of the historical perspective of these lakes, they hold great value as waterfowl habitats. To maintain or improve the water quality of these lakes and protect waterfowl habitats. it is important to keep pollutant inputs to a minimum.

This report was prepared for the Camp and Center Lake Rehabilitation District (CCLRD). The CCLRD is an incorporated lake property owners' association formed in 1972 with approximately 140 members. The purpose of the organization is to protect the quality of the two lakes. Recent increases in lake usage and changing land use in the lakes' watersheds have resulted in concerns about maintaining a reasonable level of quality of Camp and Center Lakes. This lake water quality report was prepared to help guide local lake and land use decisions.

This lake water quality monitoring project is funded by the CCLRD and the Wisconsin Department of Natural Resources Lake Planning Grant Program.

PHYSICAL DESCRIPTION

Combined, the two lakes are nearly 600 acres in size. The lakes are located in the township of Salem in southwestern Kenosha Cuunty. Camp Lake has an irregular pear shape, with a major axis from north to south. Center Lake has an irregular dogleg shape with a major axis from east to west along the east portion of the lake and north to south along the west portion of the lake (Figure 1). The lakes are relatively shallow. The deepest portion of Camp Lake is in the north section, which reaches a maximum depth of 19 feet. The majority of the southern portion of Camp Lake is relatively flat and shallow, reaching a maximum depth of just over 5 feet. Center Lake is divided into two basins. The east basin is the deeper of the two with a maximum depth of 28 feet, and the south basin has a maximum depth of 22 feet. The two basins are separated by a narrow, which is approximately 15 feet in depth. The physical characteristics for both lakes are summarized in Table 1.

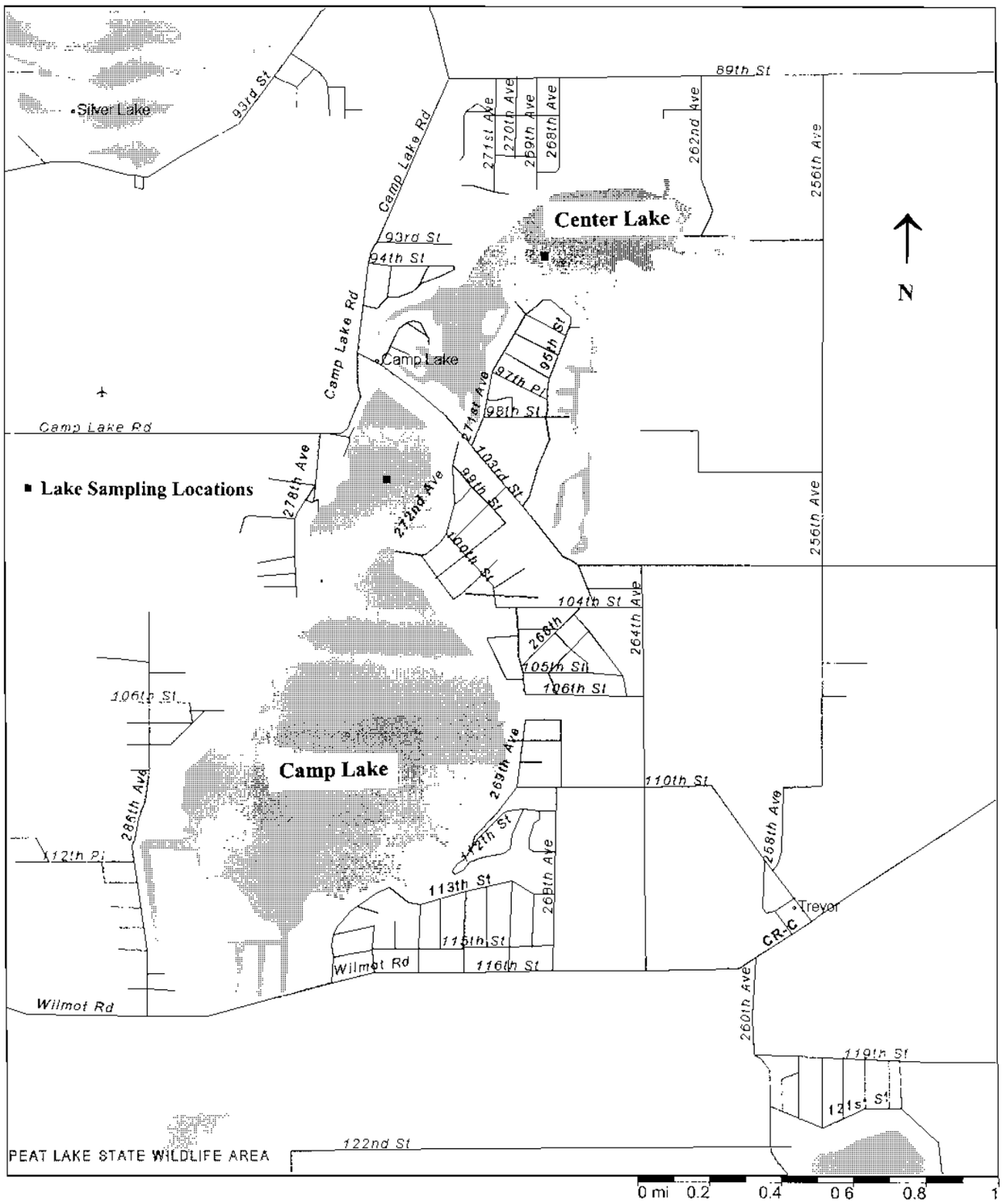


Figure 1 - Location of Camp and Center Lakes

Table 1
Physical Characteristics of Camp and Center Lakes

Parameter	Camp Lake	Center Lake
Area of lake	461acres	129 acres
Lake volume	2,327 acre-feet	1,136 acre-feet
Lake elevation	740 feet above MSL	741 feet above MSL
Maximum depth	19 feet	28 feet
Mean depth	5 feet	8.8 feet

Source: WDNR (1969) and R. A. Smith & Associates, Inc.

WATERSHED CHARACTERISTICS

A lake is a reflection of its watershed. Materials that cause a lake to fill in and age have their origin in the lake's watershed. Sediment that is eroded off the land surface is not just dirt, it also contains nutrients such as nitrogen and phosphorus. Rich soil that can grow agricultural crops and forests can also grow dense aquatic plant beds and cause algae blooms when it is washed into a lake. To protect Camp and Center Lakes, it is important to keep sediment and nutrient inputs to a minimum. The slower the materials enter the lakes, the longer the lakes will maintain good water quality.

Important watershed characteristics that influence pollutant levels in surface runoff and groundwater flow include land use, soil types, steepness of slopes, and vegetative cover.

WATERSHED AREA

The Camp and Center Lakes Watershed is an 8.4 square mile drainage area located in Kenosha County. In the Camp and Center Lakes Priority Watershed Project Water Resource Appraisal prepared by the Wisconsin Department of Natural Resources (WDNR) in 1995, the watershed was divided into direct drainage areas to each of the lakes. Center Lake has a direct drainage area of about 2,400 acres. Camp Lake's direct drainage area consists of approximately 3,010 acres. The total watershed drainage area to Camp Lake, including the Center Lake drainage, is 5,410 acres.

LAND USE

The land use in the Camp and Center Lakes Watershed is approximately 42% agricultural, 17% forest, 7% urban, 10% residential, 12% wetland, and 12% surface water. The water resources located within the boundary of the Camp and Center Lakes Watershed include two lakes, five intermittent tributaries and numerous wetland complexes (WDNR, 1995). The land use tributary to each lake is presented in Table 2.

Table 2
Land Use Tributary to Camp and Center Lakes

Land Use	Center Lake (acres)	Camp Lake (acres)	Total Watershed (acres)
Agriculture	1,212	1,083	2,295
Forest	436	464	900
Urban	151	219	370
Residential	255	310	565
Wetland	203	457	660
Surface Water	143	477	620
Total	2,400	3,010	5,410

Source: WDNR (1995)

GEOLOGIC SETTING

Underlying bedrock geology throughout most of Kenosha County is dominated by undifferentiated Silurian aged dolomite likely to include rocks of the Niagara and Alexandrian series. These units typically include massive cherty dolomite underlain by silty and shaly dolomite. Smaller portions of Kenosha County contain a bedrock complex identifying exposure of the Ordovician aged Maquoketa shale formation. This unit typically includes shale and shaly dolomite. The majority of Camp and Center Lakes are located on the Silurian Dolomites, however, the eastern portions of both lakes lie above the Maquoketa shale.

These two lakes are natural kettle glacial lakes formed during and immediately following the Woodfordian glacial advance of the Wisconsinian drift period as the Lake Michigan Lobe of the continental glacier retreated. The Woodfordian advance occurred between 12,500 - 22,000 years before present, and was followed by the Two Creekan retreats between 11,850 - 12,500 years before present. The melting of large ice blocks that were left in the deposited glacial material formed the lake basins. As the ice blocks melted, depressions in the land surface were formed. The depressions today are Camp and Center Lakes. Surficial geology surrounding the two lakes is dominated by organic deposits and Woodfordian glacial outwash deposits including sand and fine gravel which is usually well-sorted and contains nearly horizontal bedding. The outwash deposits may be covered by alluvium. Geologic information was obtained from Geology Field Guide Series Wisconsin and Upper Michigan by Dr. Richard A. Paull and Dr. Rachel K. Paull, and Water Resources of Racine and Kenosha Counties, Southeastern Wisconsin and Water Resources of Wisconsin Rock-Fox River Basin, both by United States Geological Survey (USGS).

SOILS

According to the United States Department of Agriculture Soil Conservation Service (SCS) Soil Survey of Kenosha and Racine Counties, six soils types surround the two lakes. These soil types are grouped within the Hebron-Montgomery-Aztalan association which are well-drained to poorly drained soils that have a loam to silty clay subsoil underlain by clayey to loamy lacustrine and outwash material. The six soil types include in order of dominance: Houghton Muck (Ht), Navan Silt Loam (Na), Loamy Land (Lu), Casco Loam (CeB), Fox Loam with clayey substratum (FrB), and Fox Sandy Loam (FmB).

The bottom of the lakes consists predominantly of organic muck, lake marl, and glacial outwash, made up of silt, sand and gravel. The sand and gravel areas are kept free of organic sediments by the washing action of wave movement. Waves pick up fine-grained organic matter, and silt and clay-sized particles and move them into deeper water. The bay areas around the lake have bottom sediments that are higher in organic matter and have a greater concentration of muck. The source of the organic sediment is the by-products from the decomposition of plant material in the lake. Organic matter is concentrated in the bay areas due to the lack of water movement. Deep areas of the lake have deposits of fine grained and organic sediments that have migrated to the center of the two basins over many years.

Gentle slopes of glacial material dominate the shoreline of these two lakes. Much of the shoreline is in cottage and residential development. There are approximately 25 year-round residents and 175 seasonal properties on the lakes. Much of the shoreline is wetland, marsh, residential lawn, or wooded. Shoreline erosion is not a major problem.

WETLANDS

Wetlands are one of our most valuable habitats. Some of the more important functions of wetlands are that they harbor a vast array of plant and animal species, recharge groundwater supplies, and filter sediment and nutrient rich water before it enters lakes and streams.

Most of the wetlands within the watershed are highly degraded and of very low quality, being dominated by reed canary grass and cattail.

LAKE WATER QUALITY CONDITIONS

Camp and Center Lakes have had a long history of poor water quality. However, lakes are not in a static condition. All lakes are going through a natural aging process. As lakes age, they are slowly filling in with sediment that is eroded off the land surface and by aquatic plants. Natural erosion and deposition is slowly filling up all lake basins. All natural lakes will someday fill to the point that they become wetlands and no longer function as lakes. Luckily the natural in-filling process is slow and takes thousands of years. Today, Camp and Center Lakes are estimated to be approximately 12,500 years old. The natural aging process of lakes is called **eutrophication.**

Humans can accelerate the natural aging process of a lake by increasing the erosion of sediment in the watershed and allowing excess nutrients to enter the lake. Many lakes have outlets that allow a portion of the material that enters the lake to exit as the lake is flushed. Center Lake's outlet enters Camp Lake, which in turn has a surface outlet creek, which flows south, into Channel Lake in Illinois. Most water leaves Camp and Center Lakes through surface outlets rather than by groundwater seepage and evaporation. Polluted material that enters the lake from the watershed and surrounding homes in time will be recycled with new freshwater providing the correct conditions exist. Some pollutants leave the lake's water columns through deposition in the deep-water sediments. Camp and Center Lakes are less sensitive to pollution than most lakes in Wisconsin. Understanding the water quality of these lakes is however, important to protecting the quality of the lake and maximizing the lake's life expectancy.

HISTORICAL DATA

Sediment cores from the deep hole of each lake provide information about the water quality of the lakes 100 to 150 years ago by showing diatom frustales (algal cell walls comprised of silica). Historical diatom communities at Camp Lake indicate maximum phosphorus concentrations in the 25 micrograms per liter (ug/l) range.

Historical water quality data for Center Lake indicate fertile or eutrophic conditions with surface spring phosphorus concentrations near 100 ug/l. More recent surface phosphorus concentrations from 1994 are in the 45 to 60 ug/l range with an average spring turnover concentration of 48 ug/l. Average annual surface phosphorus in 1994 was 31.3 ug/l. The values ranged between 17 ug/l and 60 ug/l and correlate to Trophic State Index (TSI) values ranging from 47 to 63, respectively. The average annual phosphorus concentration was 32.9 ug/l, which is slightly lower than the regional average.

The lakes and tributaries were sampled from April 1993 to July 1996. Copies of the raw data are presented as Appendices A-D of this report and are discussed in detail in the following sections.

THERMAL STRATIFICATION

Water is unique in that it reaches its maximum density at 4 degrees Centigrade (39° F). It is lighter at both warmer and colder temperatures. Density variances at different temperatures within a lake can be sufficient to prevent mixing of warm and cold water. This effect, known as thermal stratification, occurs during the summer and winter months in Camp and Center Lakes and has significant impact on both chemical and biological conditions in the lakes.

As summer approaches, the surface waters of Camp and Center Lakes warm rapidly, expand and become lighter than the lower waters. A barrier begins to form between the lighter, warmer surface water and the heavier, cooler bottom water. Summer stratification is evident as depicted in Figure 2. A rapid drop in temperature marks the barrier as depth increases to a line known as the **thermocline**.

The zone of transition between warm and cold water, on either side of the thermocline, is known as the **metalimnion**. It separates the warmer, lighter surface water known as the **epilimnion** from the colder, heavier bottom layer of water known as the **hypolimnion**. As shown in Figure 2, in April there is relatively uniform temperature from the top to the bottom of the lake. However by July, the temperature profile changes with warmer water at the surface of the lake and cooler water at the bottom. The thermocline becomes a physical barrier in the lake. The barrier is easily crossed by fish, but essentially prohibits the exchange of water between the epilimnion and hypolimnion.

The development of the thermocline begins in early summer and reaches its maximum in late summer on Camp and Center Lakes. This stratification period lasts until autumn when air temperatures cool the surface of the lake and wind action results in the disappearance of the thermocline. As the surface water cools, it becomes more dense, sinking and mixing under wind action to erode the thermocline until the entire water volume of the lake is of uniform temperature. This phenomenon which follows summer stratification is known as fall turnover.

As the water temperature cools below 4° C (39° F), it becomes less dense and floats on the more dense warmer water. Eventually, the water near the surface is cooled to 0° C (32° F) at which temperature ice begins to form on the surface lake, sealing it off to the atmosphere for about four months. Winter

stratification occurs as the cooler, lighter water and ice remain close to the lake surface, separated from the relatively warmer, heavier water near the bottom of the lake.

The arrival of spring brings warmer weather and the reversal of the stratification process, known as spring turnover. As the surface waters warm, they become denser and begin to approach the temperature of the warmer, lower water until the entire volume of the lake reaches the same temperature. Wind action serves to mix the lake until it reaches a uniform temperature of 4° C (39° F). Beyond this point, the surface waters continue to warm, become lighter, and float on top of the cooler water. This begins the summer stratification process over again.

Stratification is important to the water quality of a lake. During stratification, the bottom waters of a lake are cut off from the atmosphere and new sources of oxygen. Oxygen levels can drop to low levels as discussed in the next section. In addition, chemical processes such as nutrient cycling in a lake are impacted by stratification. These will be discussed later in this report.

Using 1994 as an example, the stratification process in Center Lake is illustrated in Figure 2. Profiles for each sample date are illustrated in Appendices A and B.

Figure 2
Temperature Stratification in Center Lake

DISSOLVED OXYGEN

Dissolved oxygen levels are one of the most important factors affecting water quality. Dissolved oxygen is required by all aquatic animals and effects the chemical form of many compounds in the water. Concentrations in Camp and Center Lakes are generally higher at the surface where there is an interchange between water and the atmosphere and stirring by the wind. Rooted aquatic plants and algae also release oxygen into the lake as they photosynthesize. Dissolved oxygen concentrations in Camp and Center Lakes are the lowest near the bottom of the lake where decomposition uses up oxygen in the decay of organic matter that is deposited from the surface of the lake. When oxygen levels become zero, the condition is known as anoxic.

The depleted level in the bottom waters causes many fish species to move upward near the surface of the lake, where higher dissolved levels exist. Most warm water fish species require oxygen concentrations above 3.0 milligrams per liter (mg/l) to survive. Cold water species require higher oxygen levels and require 5.0 mg/l of dissolved oxygen for long-term survival.

Using 1994 as an example, the dissolved oxygen profile in Center Lake is illustrated in Figure 3. Profiles for each sample date are illustrated in Appendices A and B.

Figure 3
Dissolved Oxygen Profile Center Lake

SPECIFIC CONDUCTANCE

Specific conductance is an indicator of the concentration of dissolved solids in the water. As the amount of dissolved solids increases, specific conductance, a measurement of water's ability to conduct an electrical current, also increases. Table 3 outlines the specific conductance levels in Camp and Center Lakes. The values for specific conductance are within the range of normal values for this region of Wisconsin.

Table 3
Specific Conductance Levels at the Surface of Camp and Center Lakes

Sample Date	Camp Lake	Center Lake
April 27, 1993	548	575
June 21, 1993	499	592
July 14, 1993	786	362
February 22, 1994	215	228
April 12, 1994	529	618
June 13, 1994	525	623
July 12, 1994	566	-
August 16, 1994	436	499
February 28, 1995	292	366
April 19, 1995	512	643
August 31, 1995	550	635
February 22, 1996	413	302
May 1, 1996	498	519
June 27, 1996	652	695
July 24, 1996	582	610
August 20, 1996	658	686
July 30, 1997	434	517
August 28, 1997	487	542

Source: R. A. Smith & Associates, Inc.

ALKALINITY AND HARDNESS

Alkalinity is an index of the buffering capacity of a lake, or the ability to absorb and neutralize acid. The alkalinity of a lake depends on the level of bicarbonate, carbonate, and hydroxide ions present in the water. Lakes in Central and Southern Wisconsin are typically high in alkalinity because of the limestone bedrock in the region. Hardness is the measure of dissolved ions in the water, such as calcium and magnesium. The sampling results for alkalinity and hardness are summarized in Table 4.

Table 4
Alkalinity and Hardness

Camp Lake

Sample Date	Alkalinity (mg/l $CaCO_3$)	Hardness (mg/l $CaCO_3$)
4/28/93	185 mg/l	260 mg/l
4/19/95	158 mg/l	220 mg/l

Center Lake

Sample Date	Alkalinity (mg/l $CaCO_3$)	Hardness (mg/l $CaCO_3$)
4/27/93	201 mg/l	270 mg/l
4/19/95	203 mg/l	280 mg/l

Source: R. A. Smith & Associates, Inc.

pH

The pH is a measure of the hydrogen ion concentration on a scale from 0 to 14 standard units. A pH of 7 indicates neutral conditions. A pH above 7 indicates basic water; below 7 indicates acidic conditions. Most aquatic life requires a pH range between 6.5 and 9.0 to survive. When pH values rise to the range of 8.0 to 9.0, this is indicative of rapid algae growth. Low levels of pH can cause some toxic metal to become more soluble in water. The pH levels are summarized in Table 5.

Table 5
pH Levels in Camp and Center Lakes

Date	Camp Lake		Center Lake	
	pH - Surface	pH – Bottom	pH – Surface	pH - Bottom
6/21/93	8.5	7.5	8.4	7.6
7/14/93	7.9	7.5	8.4	7.2
4/12/94	8.1	8.2	7.8	7.7
6/13/94	8.7	7.7	8.6	7.5
7/12/94	8.9	7.7	8.7	7.5
8/16/94	9.1	8.4	8.8	7.4
2/28/95	8.2	7.8	8.2	7.4
4/19/95	7.0	8.7	8.4	8.4
2/22/96	7.6	7.6	7.7	7.3
7/24/96	6.2	6.3	6.4	6.7

Source: R. A. Smith & Associates, Inc.

WATER CLARITY (SECCHI DISK)

Water clarity or transparency is a measure of the overall water quality of the lake. Clarity is measured with a Secchi disk, which is a black and white eight-inch disk that is lowered into the water until a depth is reached at which the disk is no longer visible. The depth is known as the Secchi disk reading.

The Secchi disk readings are illustrated in Figure 4. In Camp Lake during the period from 4/27/93 to 7/24/96, the Secchi readings varied from 0.4 to 3 meters. In Center Lake over the same time period, the readings varied from 0.4 to 4 meters. On both lakes, the water had the most clarity on the 4/27/93 sampling date. The Secchi reading averages for both lakes fall into the "poor" water clarity zone in comparison to other Wisconsin lakes.

CHLOROPHYLL -a

Chlorophyll-a is a major photosynthetic pigment in algae. The amount of Chlorophyll-a present is an indicator of the biomass of live algae in the water. Chlorophyll-a concentrations are usually lowest in the winter and reach their peak in the summer, when alga populations reach their maximum. Chlorophyll-a concentrations in Camp and Center Lakes are summarized in Table 6. The Chlorophyll-a concentrations during the spring and summer months in Camp Lake ranged from 9.3 to 21.0 ug/l and in Center Lake from 7.1 to 37.4 ug/l, suggesting some high levels of algae growth which in part explains the lower water clarity values discussed previously.

Table 6
Chlorophyll-a Concentrations in Camp and Center Lakes

Date	Camp Lake (ug/l)	Center Lake (ug/l)
4/27/93	13.70	29.90
6/21/93	9.76	16.20
7/14/93	18.00	37.40
8/18/93	10.40	15.70
2/22/94	13.00	11.60
3/1/94	61.00	79.40
4/12/94	21.30	31.50
6/13/94	10.40	na
7/12/94	10.10	na
8/16/94	9.34	7.06
4/19/95	16.40	24.70
6/27/96	17.80	31.40

Source: R. A. Smith & Associates, Inc.

Figure 4 Water Clarity Readings Camp Lake

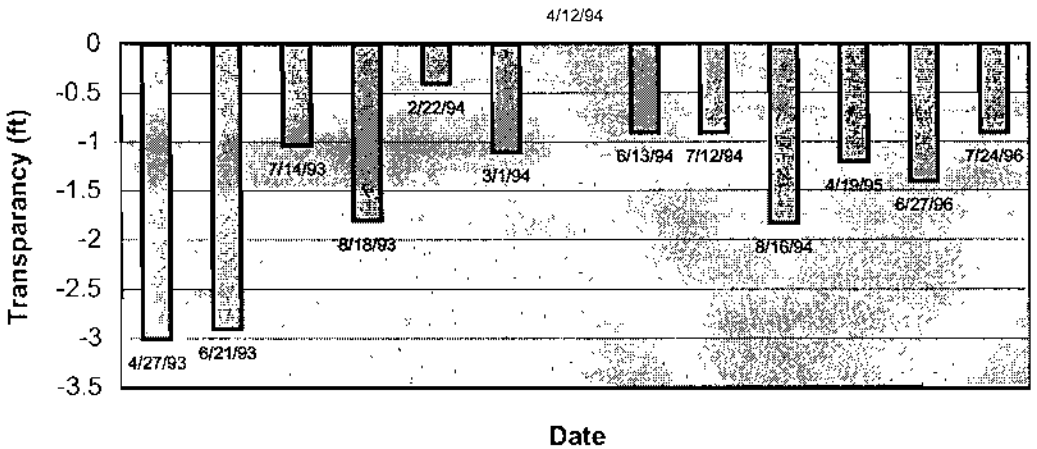
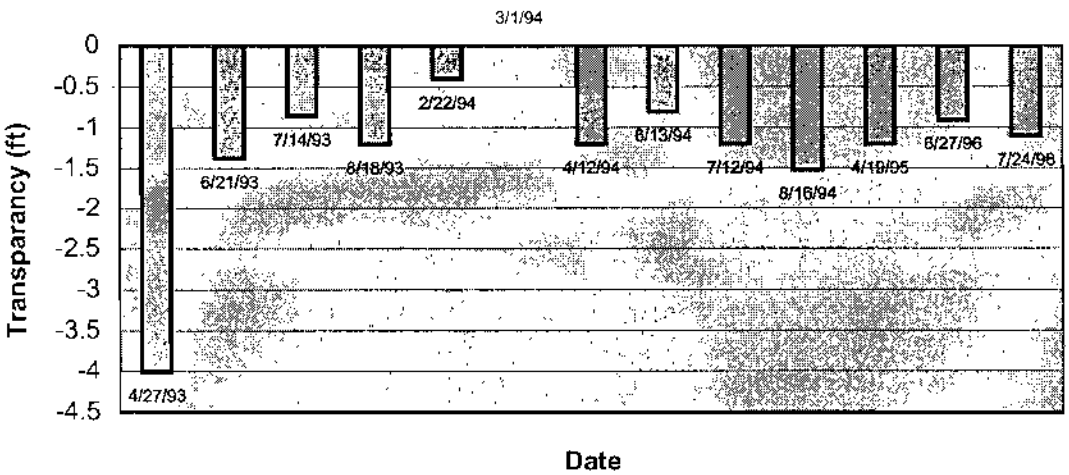


Figure 4 Water Clarity Readings Center Lake



NUTRIENTS CHARACTERISTICS

Aquatic plants and algae require nutrients such as phosphorus, nitrogen, carbon, calcium, chlorides, iron, magnesium, sulfur, and silica for growth.

In lakes where the supply of one or more of these nutrients is limited, plant growth is also limited. The two nutrients that most often limit and control the growth of plants are nitrogen and phosphorus. If you add more nitrogen or phosphorus, you will get more plant growth in the lake.

The ratio of total nitrogen to total phosphorus in the lake can indicate which nutrient is likely limiting aquatic growth. When the total nitrogen to total phosphorus ratio is greater than 15:1, the lake is likely phosphorus limited, while a ratio of less than 10:1 indicates nitrogen is probably the limiting nutrient. Table 7 summarizes the nitrogen to phosphorus ratios for those dates nitrogen was sampled.

Table 7
Nitrogen to Phosphorus Ratios for Camp Lake

Parameter (mg/l)	4/27/93 Surface	4/27/93 Bottom	4/12/94	7/12/94	8/17/94	4/19/95 Surface	4/19/95 Bottom
Ammonia - N	0.041	.045	.035	0.015	0.015	ND	ND
Nitrate-Nitrite-N	1.02	1.04	.050	ND	ND	0.093	0.155
Total Kjeldahl-N	1.0	1.0	1.1	0.8	1.16	1.0	1.0
Total Phosphorus	.038	.044	.04	0.04	0.031	0.034	0.031
N:P Ratio	**26.3**	**22.7**	**27.5**	**20.0**	**37.4**	**29.4**	**32.3**

Nitrogen to Phosphorus Ratios for Center Lake

Parameter (mg/l)	4/27/93 Surface	4/27/93 Bottom	4/12/94 Surface	4/12/94 Bottom	4/19/95 Surface	4/19/95 Bottom
Ammonia - N	0.016	0.390	0.035	0.027	ND	ND
Nitrate-Nitrite-N	1.31	1.24	0.531	0.546	0.870	0.859
Total Kjeldahl-N	1.1	1.3	1.2	1.1	1.3	1.3
Total Phosphorus	0.054	0.057	0.06	0.06	0.043	0.040
N:P Ratio	**20.4**	**22.8**	**20**	**18.3**	**30.2**	**32.5**

ND – below detectable limits
Source: R. A. Smith & Associates, Inc.

As can be seen in Table 7, all of the N:P ratios in both lakes are greater than 15:1, indicating that phosphorus is likely the limiting nutrient controlling algae growth in both lakes. Additional phosphorus in the lakes will result in increased algal growth.

Recent studies in Wisconsin lakes have shown that while phosphorus is usually the limiting nutrient for algae, nitrogen is typically the limiting nutrient for rooted aquatic plants; therefore, both nitrogen and phosphorus should be of concern when developing a protection plan.

Table 8 summarizes the total phosphorus concentrations monitored in Camp and Center Lakes for the study period. The bottom phosphorus concentrations increase as the summer progresses and reach a maximum in July and August. When organisms die, they sink to the bottom of the lake and

decompose. Phosphorus from these organisms is stored in the bottom sediments. Phosphorus is not highly soluble in water and readily forms insoluble precipitates with calcium, iron, and aluminum. However, when the bottoms of Center and Camp Lakes become depleted of oxygen during stratification, phosphorus changes chemical form and is released from the sediments, resulting in the increased concentrations observed. During the period of stratification, these nutrients are trapped at the bottom of the lake and are not available for algae growth. However, at spring and fall turnover, the phosphorus is mixed throughout the lake and is recycled for new algae growth the following year.

From the data, we see that the concentrations of total phosphorus at the surface of the lakes are relatively high – resulting in high algae production during the summer months. The Southeastern Wisconsin Regional Planning Commission has recommended that total phosphorus concentrations not exceed 0.020 mg/l at spring turnover to maintain healthy lake conditions. This concentration was exceeded on both lakes throughout the sampling period.

Table 8
Camp and Center Lakes Total Phosphorus Concentrations

Date	Camp Lake		Center Lake	
	Surface (mg/l)	Bottom (mg/l)	Surface (mg/l)	Bottom (mg/l)
4/27/93	0.038	0.044	0.054	0.057
6/21/93	0.022	0.025	0.029	0.087
7/14/93	0.023	0.037	0.041	0.300
8/18/93	0.020		0.026	0.290
2/22/94	0.310		0.520	0.140
3/1/94	0.260		0.470	
4/12/94	0.040	0.040	0.050	0.060
6/13/94	0.029	0.052	0.027	0.340
7/12/94	0.024	0.024	0.023	0.394
8/16/94	0.021		0.017	
2/28/95	0.013	0.011	0.024	0.075
4/19/95	0.034	0.031	0.043	0.040
2/22/96	0.037	0.031	0.034	0.175
6/27/96	0.023	0.031	0.031	0.029
7/24/96	0.033	0.051	0.296	

Source: R. A. Smith & Associates, Inc.

TROPHIC STATE INDEX

The trophic state index (TSI) assigns a trophic condition rating based on Secchi disk, total phosphorus, and Chlorophyll-a and can be used to summarize the quality of a lake. The trophic state index was developed by Carlson in 1977 to compare the three water quality values on a scale from 0 to 100. Values from 0 to 35 describe lakes defined as **oligotrophic**—lakes that are generally clear, deep, and free of rooted aquatic plants and algae blooms. Values above 50 define **eutrophic** lakes—lakes that are high in nutrients and tend to support large biomass of rooted aquatic plants and algae. **Mesotrophic** lakes with values from 35 to 50 lie between oligotrophic and eutrophic lakes.

The TSI value based on the average of the Secchi disc, Chlorophyll-a, and total phosphorus are summarized in Table 9. Based on these averages, both lakes are classified as eutrophic using Carlson's system.

Table 9
Average TSI Values for Camp and Center Lakes

Parameter	Camp Lake	Center Lake
Secchi disc	56	56
Chlorophyll-a	59	59
Total phosphorus	59	66
Average of all 3 parameters	58	60

Source: R. A. Smith & Associates, Inc.

RESULTS OF TRIBUTARY MONITORING

As part of the lake-monitoring project, two tributary streams were monitored for nutrients, suspended solids and pesticides. The two monitoring stations, one upstream of Camp Lake and one upstream of Center Lake, are shown on Figure 5. The results of the sampling are summarized in Table 10.

During the project, two storm events were monitored in the Camp Lake watershed and three in the Center Lake watershed. Base flow was monitored on three dates in each watershed.

The results indicate low concentrations for phosphorus, suspended solids and pesticides. Table 11 outlines the event mean concentrations for runoff based on the studies conducted by U.S. Environmental Protection Agency and the Wisconsin Department of Natural Resources.

TABLE 11
Mean Storm Pollutant Concentrations for Various Land Use Categories

Land Use	Concentrations					
	Total Suspended Solids (mg/l)	Total Phosphorus (mg/l)	Total Nitrogen (mg/l)	Total Lead (µg/l)	Total Copper (µg/l)	Total Zinc (µG/L)
Urban	100	0.33	2.18	144	34	160
Wetland	0	0	0	0	0	0
Agricultural	780	1.2	9	--	--	--

"—" not available
Source: Novotny, 1994

As can be seen in the data in Table 10, the phosphorus and suspended solids concentrations during storm events are below the mean values found in other studies. Reference numbers for base flow concentrations in Southeastern Wisconsin are not available.

Pesticide sampling indicated that most parameters were below detection for the four samples taken. Pesticides sampled included Atrazine, Cyanazine (Badex), Metolachlor (Dual), and Alachlor (Lasso). Deethylatrazine, Deisopropylatrazi, and Diaminoatrazine are break down products of Atrazine, a commonly used corn herbicide. All parameters were below detection, except Atrazine on June 13, 1994, which was measured at 0.44 ug/l. May and June is a common period for the application of Atrazine. The presence of Atrazine in the June sample is likely due to a recent application. Atrazine is a very volatile herbicide and is rarely present in soil or water soon after application.

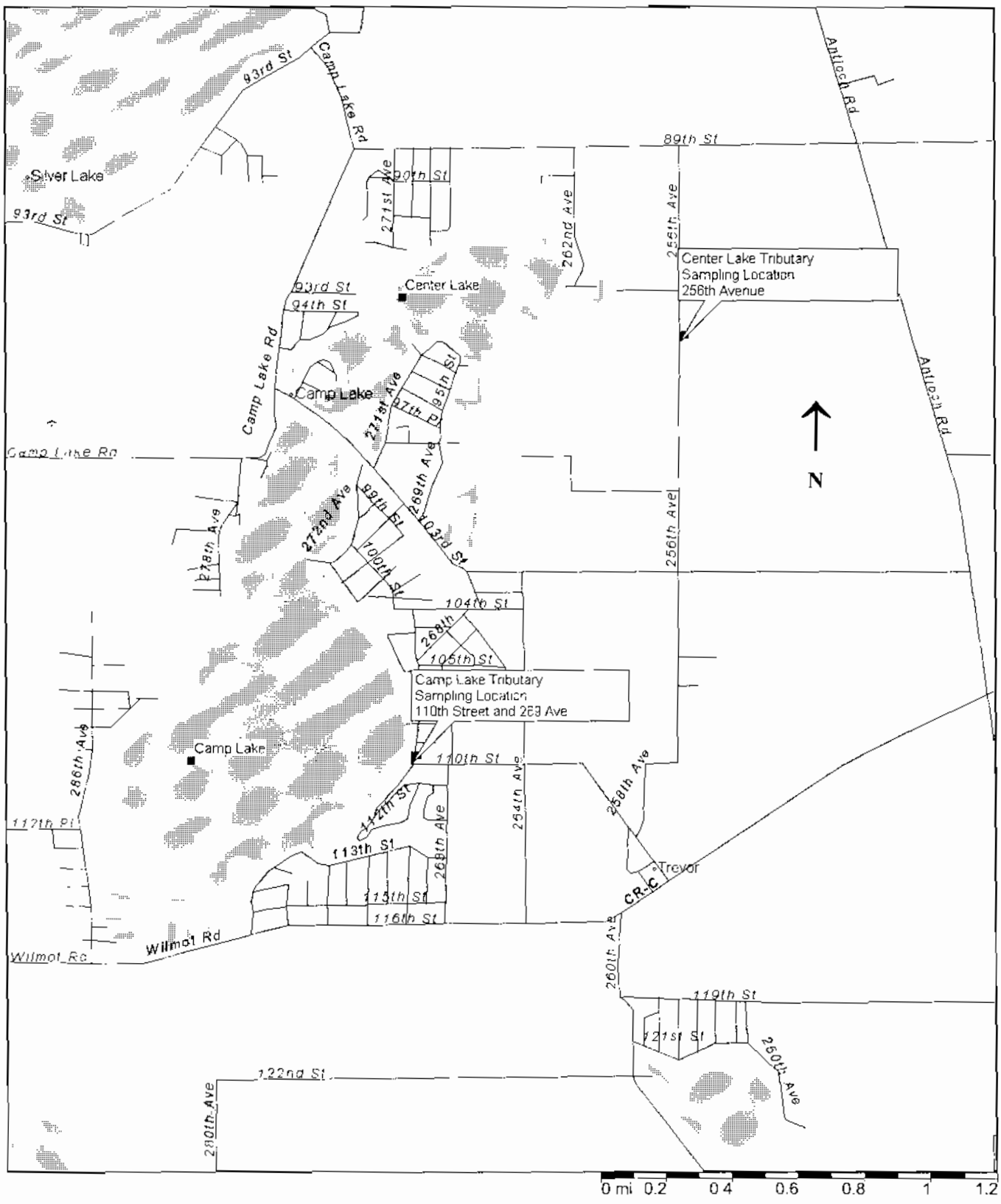


Figure 5 – Location of Tributary Monitoring Sites
Camp and Center Lakes

Table 10
Results of Tributary Monitoring

Date	Event Type	Flow (cfs)	Total Phosphorus (mg/l)	Suspended Solids (mg/l)	Pesticides						
					Atrazine (ug/l)	Deethylatrazine (ug/l)	Deisopropylatrazi (ug/l)	Diaminoatrazine (ug/l)	Cyanazine (Badex (ug/l)	Metolachlor (Dual) (ug/l)	Alachlor (Lasso) (ug/l)
Camp Lake (110th Street & 269th Avenue)											
6/9/93	Storm	9	0.09	22							
9/14/93	Base flow	0.2	0.22	28	<0.37	<0.03	<0.05	<0.05	<0.03	<1.3	<0.71
8/31/94	Base flow	0	0.315	28							
4/20/95	Storm	4.5	0.02	ND							
8/20/96	Base flow	0	Stream dry no sample								
Center Lake (256th Avenue)											
9/14/93	Base flow	0.5	0 24	20							
4/12/94	Storm				<0.10	<0.30	<0.05	<0.05	,0.03	<0.02	<0.10
6/13/94	Storm		*	60	0 44	<0.30	<0.05	<0.05	,0.03	<0 02	<0.10
8/31/94	Base flow	0	0.131	355							
4/19/95	Storm	2.4	0.04	ND							
8/20/96	Base flow	0.14	0.174	120	0.14	<0.30	<0.05	<0.05	,0.03	<0.02	<0.10

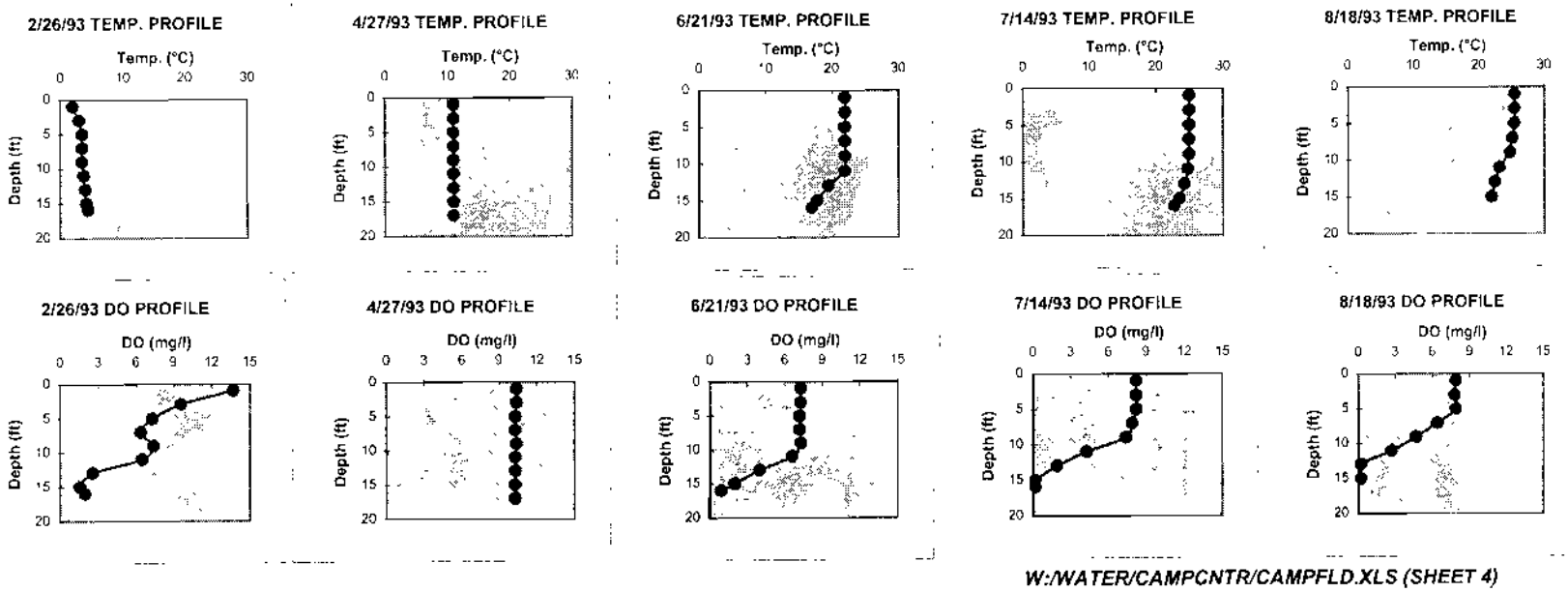
Source: R A Smith & Associates, Inc

APPENDIX A

CAMP LAKE
TEMPERATURE AND DISSOLVED OXYGEN PROFILES

1993 CAMP LAKE FIELD WATER SAMPLING RESULTS

Depth	2/26/93				4/27/93				6/21/93				7/14/93				8/18/93			
	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH
1	2.0	13.7			11.0	10.4			22.0	7.3	499.0	8 5	25.0	8.2	786.0	7.9	25.5	7.9		8.3
3	3.0	9.6			11 0	10.4			22.0	7.3			25.0	8.2			25.5	7.8		
5	3.5	7.3			11.0	10 3			22.0	7.2			25.0	8.2			25.5	7.9		
7	3.5	6.4			11.0	10.3			22.0	7.2			25.0	7.9			25.2	6.4		
9	3.5	7.4			11.0	10.4			22.0	7.3			25.0	7.4			24.8	4.7		
11	3.8	6.5			11.0	10.3			22.0	6.6			24.8	4.3			23 2	2.7		
13	4.0	2.6			11.0	10.3			19.5	4.0			24.3	1.9			22.5	0.2		
15	4 2	1.6			11.0	10.3			17.8	2.0			23.5	0 2			22.0	0.2		7.6
16	4.5	2.0							17.0	0.9	483.0	7.5	22.8	0.2	760.0	7.5				
17					11.0	10.3														



W:/WATER/CAMPCNTR/CAMPFLD.XLS (SHEET 4)

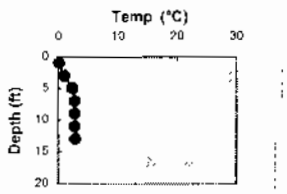
Temp. = Temperature in degrees Celsius.
DO = Dissolved Oxygen in milligrams per liter (mg/l).
Cond. = Conductivity in microsiemens (uS).

[ ] = No data obtained at this depth interval.
Note: Bottom Depth changes with date and sampling location.

1994 CAMP LAKE FIELD WATER SAMPLING RESULTS

Depth	3/1/94				4/12/94				6/13/94				7/12/94				8/16/94			
	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp. (°C)	DO (Mg/l)	Cond (uS)	pH
1	0.1	12.8			8.2	11.4	480.0	8 1	24.8	9.9	525.0	8.7	24.3	8.5		8.9	21.0	10.3	436.0	9 1
3	1.0	6.4			8.2	11.4							24.3	8 5			21.2	10.3		
5	2.4	3.5			8.2	11.4			24.0	24.0			24.2	8.5			21.2	10 2		
7	2.8	2.7			8.2	11.4							24.2	8.4			21.2	10.2		
9	2.8	2.1			8.2	11.3							24.2	8.4		8.9	21.0	9.3	400.0	9.2
11	2.8	1.8			8.2	11.3			20.2	6.3			24.2	8.2			20.8	7.0		
13	2.9	1.5			8.2	11.2														
15					8.2	11.1			17.9	0.3			21.0	0.2			20.2	0.9		
15.5																				
16					8.2	11.1	456.0	8.2												
16.5																				
17									15.0	0.0			18.3	0.1			19.2	0.2	417.0	8.4

2/28/95 TEMP PROFILE



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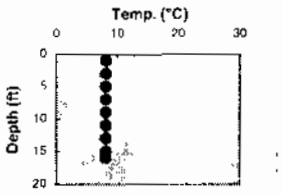

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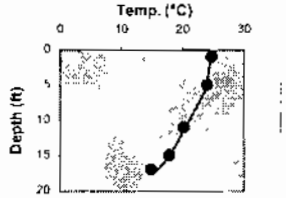

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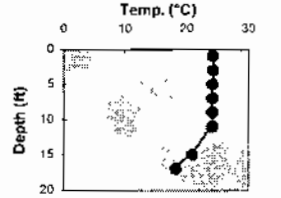

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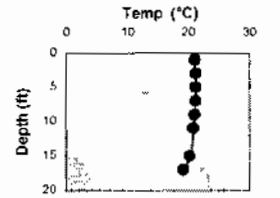

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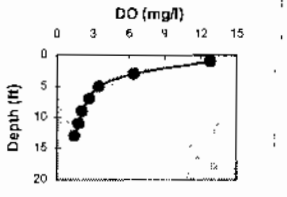

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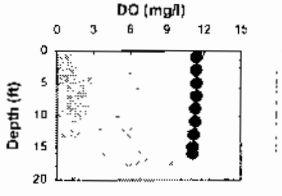
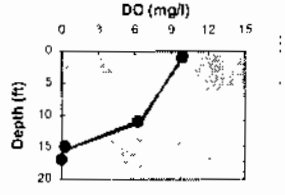


6/13/94 DO PROFILE



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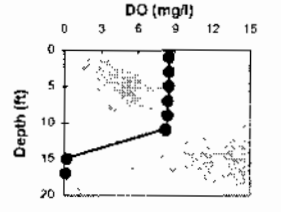

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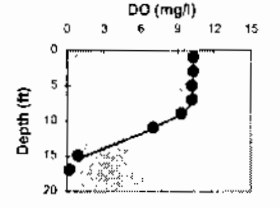


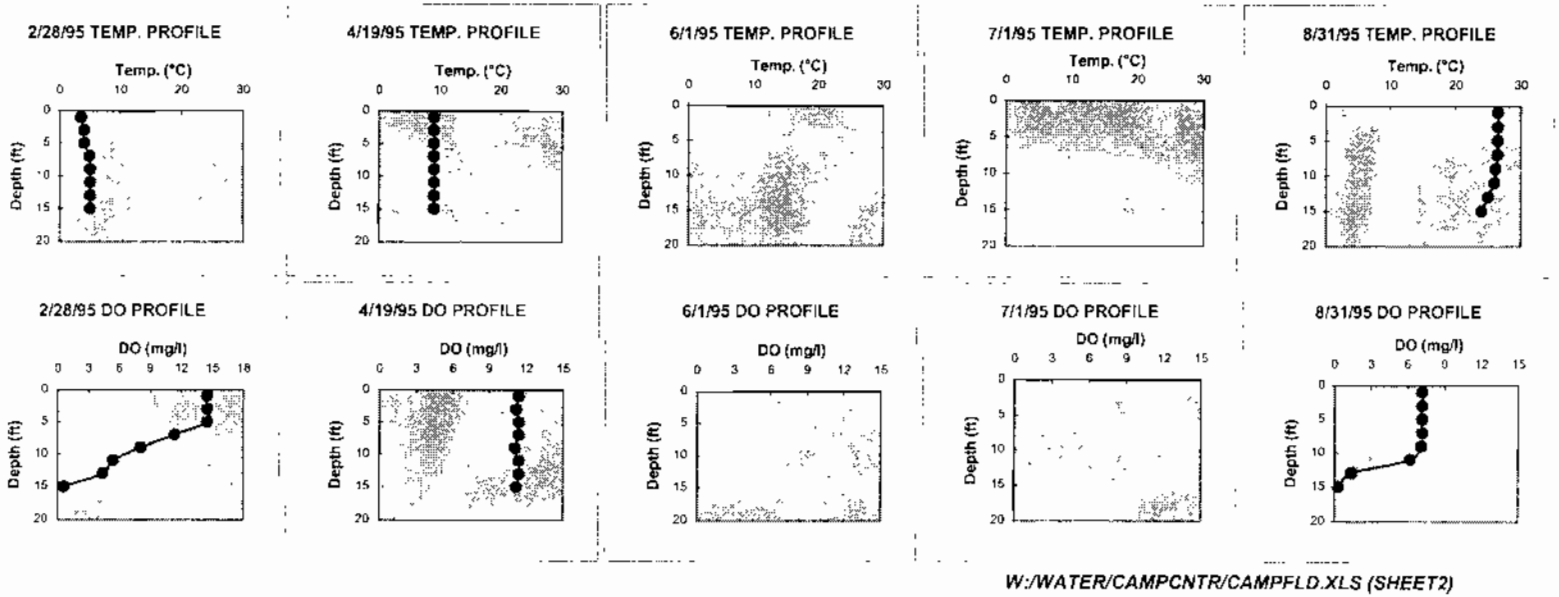
W:/WATER/CAMPCNTR/CAMPFLD.XLS (SHEET3)

Temp. = Temperature in degrees Celsius
DO = Dissolved Oxygen in milligrams per liter (mg/l).
Cond. = Conductivity in microsiemens (uS).

= No data obtained at this depth interval.
Note: Bottom Depth changes with date and sampling location.

1995 CAMP LAKE FIELD WATER SAMPLING RESULTS

Depth	2/28/95				4/19/95				6/1/95				7/1/95				8/31/95			
	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp (°C)	DO (Mg/l)	Cond. (uS)	pH
1	3.5	14.5	292.0	8.2	9.0	11.4	542.0	7.0									26.5	7.2	550.0	8.5
3	4.0	14.5			9.0	11.2			No Sampling				No Sampling				26.5	7.2		
5	4.0	14.5			9.0	11.4											26.5	7 2		
7	4.9	11.4			9.0	11.4											26 5	7 2		
9	5.0	8.1			9.0	11.1											26.2	7.1		
11	5.0	5.4			9.0	11.4											26.0	6.2		
13	5.0	4.4			9.0	11.4											25.0	1.4		
15	5.0	0 6	338.0	7.8	9.0	11.2	330.0	8.7									24.0	0.3	548.0	8.0
15.5																				
16																				
16 5																				
17																				



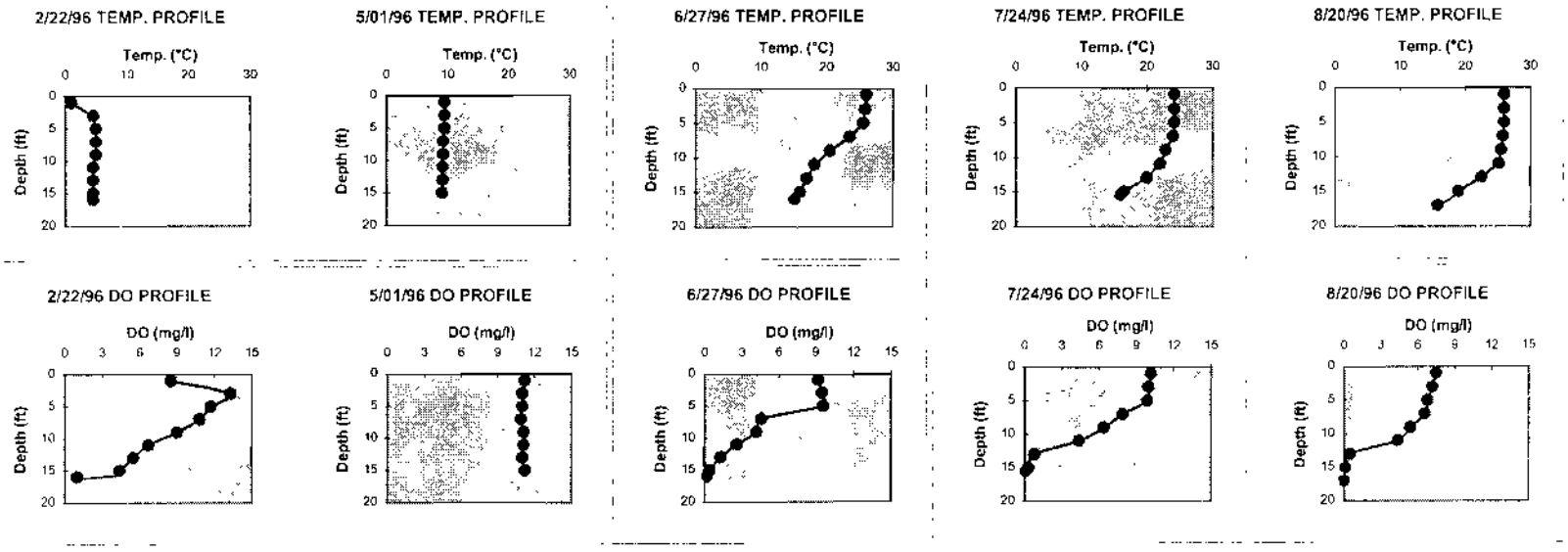
W:/WATER/CAMPCNTR/CAMPFLD.XLS (SHEET2)

Temp. = Temperature in degrees Celsius.
DO = Dissolved Oxygen in milligrams per liter (mg/l).
Cond. = Conductivity in microsiemens (uS).

= No data obtained at this depth interval.
Note: Bottom Depth changes with date and sampling location.

1996 CAMP LAKE FIELD WATER SAMPLING RESULTS

Depth	2/22/96				5/1/96				6/27/96				7/24/96				8/20/96			
	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH
1	1.0	8.5	413.0	7.6	9.5	11.2	498.0	6.6	26.0	9.2	652.0	7.1	24.2	10.2	582.0	6.2	26.0	7.5	658.0	5.7
3	4.5	13.3			9.5	11.0			25.8	9.5			24.2	10.0			26.0	7.2		
5	5.0	11.7			9.5	11.0			25.5	9.6			24.2	9.9			26.0	6.8		
7	5.0	10.8			9.3	10.9			23.5	4.6			24.0	7.9			25.8	6.6		
9	5.0	9.0	439.0	7.6	9.3	11.1			20.5	4.2			22.9	6.4			25.5	5.4		
11	4.5	6.7			9.2	11.1			18.2	2.6			22.0	4.4			25.2	4.4		
13	4.5	5.5			9.2	11.0			17.0	1.3			20.0	0.8			22.5	0.5		
15	4.5	4.4			9.1	11.2	452.0	6.6	16.0	0.4			16.5	0.3			19.0	0.1		
15.5													16.0	0.1	582.0	6.3				
16	4.5	1.0	439.0	7.6					15.2	0.2	638.0	6.4								
17																	15.8	0.0	639.0	5.8



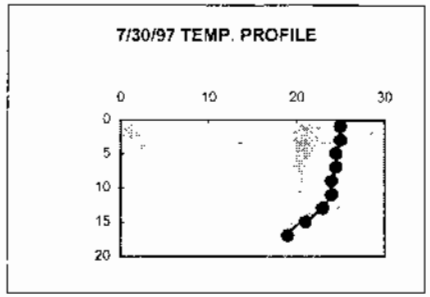
W:/WATER/CAMPCNTR/CAMPFLD.XLS (SHEET 1)

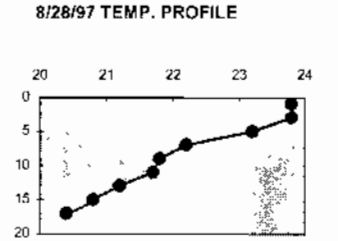
Temp. = Temperature in degrees Celsius.
DO = Dissolved Oxygen in milligrams per liter (mg/l).
Cond. = Conductivity in microsiemens (uS).

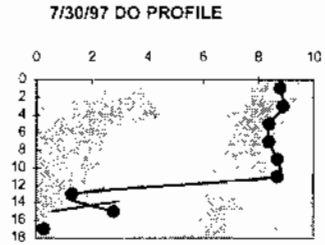
= No data obtained at this depth interval.
Note: Bottom Depth changes with date and sampling location.

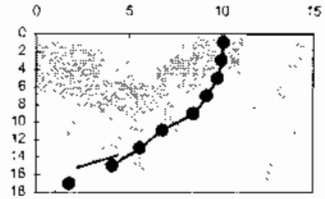
1997 CAMP LAKE FIELD WATER SAMPLING RESULTS

Depth	7/30/97				8/28/97			
	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp (°C)	DO (Mg/l)	Cond. (uS)	pH
1	25.0	8.8			23.8	10.1		
3	25.0	8.9			23.8	10.0		
5	24.5	8.4			23.2	9.8		
7	24.5	8.4			22.2	9.2		
9	24.0	8.7			21.8	8.5		
11	24.0	8.7			21.7	6.8		
13	23.0	1.3			21.2	5.6		
15	21.0	2.8			20.8	4.1		
16								
17	19.0	0.3			20.4	1.8		









Temp. = Temperature in degrees Celsius.
DO = Dissolved Oxygen in milligrams per liter (mg/l).
Cond = Conductivity in microsiemens (uS).

= No data obtained at this depth interval.
Note: Bottom Depth changes with date and sampling location.

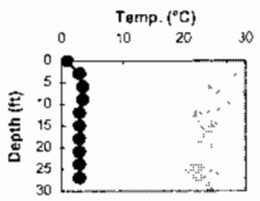
APPENDIX B

CENTER LAKE
TEMPERATURE AND DISSOLVED OXYGEN PROFILES

1993 CENTER LAKE FIELD WATER SAMPLING RESULTS

Depth	2/26/93				4/27/93				6/21/93				7/14/93				8/18/93			
	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp. (°C)	DO (Mg/l)	Cond (uS)	pH	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH
0	1.0	11.9			11.0	12.6			22.2	7.9	592.0	8.4	25.2	9 5	362.0	8.4	25.5	7.5		8.4
3	3.0	8.4			11.0	12.6			22.0	7.9			25.0	9.5			25.5	7.3		
6	3 5	6.4			11.0	12.8			22.0	7.8			25.0	9.5			25.5	6.8		
9	3.5	6.0			11 0	12.7			21.5	6.8			24.2	4.2			24.3	4.8		
12	3.0	5.3			11.0	12.4			20.0	4.6			23.2	0.3			22.2	0.6		
15	3 0	4.2			10.0	11.6			17.0	2.4			19.7	0.1			20.7	0.2		
18	3.0	3.3			10.0	11.1			15.0	0.7			16.8	0.1			17 0	0.2		
21	3.0	2.4			9.5	11.0			14.0	0.2			14.0	0 1			14.2	0.1		
24	3.0	2.8			9 0	9.8			12.5	0.1	506.0	7.6	13.0	0.1	372.0	7.2	12.8	0.0		7.4
27	3.0	0.7			7.5	8.5														

2/26/93 TEMP. PROFILE



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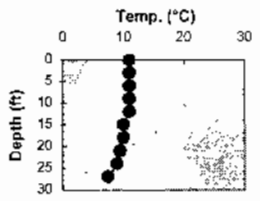

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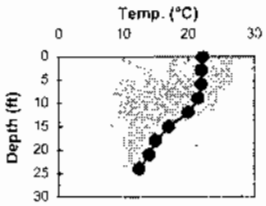

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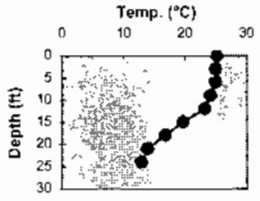
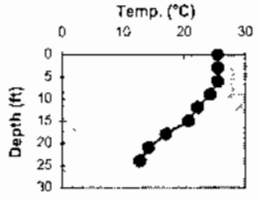


8/18/93 TEMP. PROFILE



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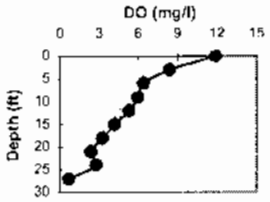

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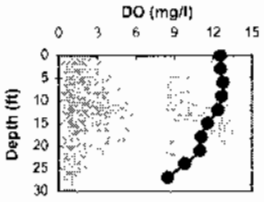

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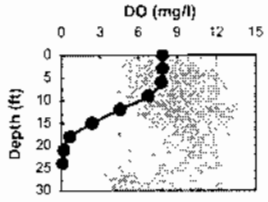
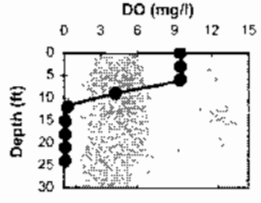
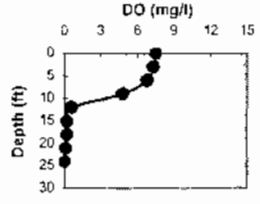


7/14/93 DO PROFILE



8/18/93 DO PROFILE



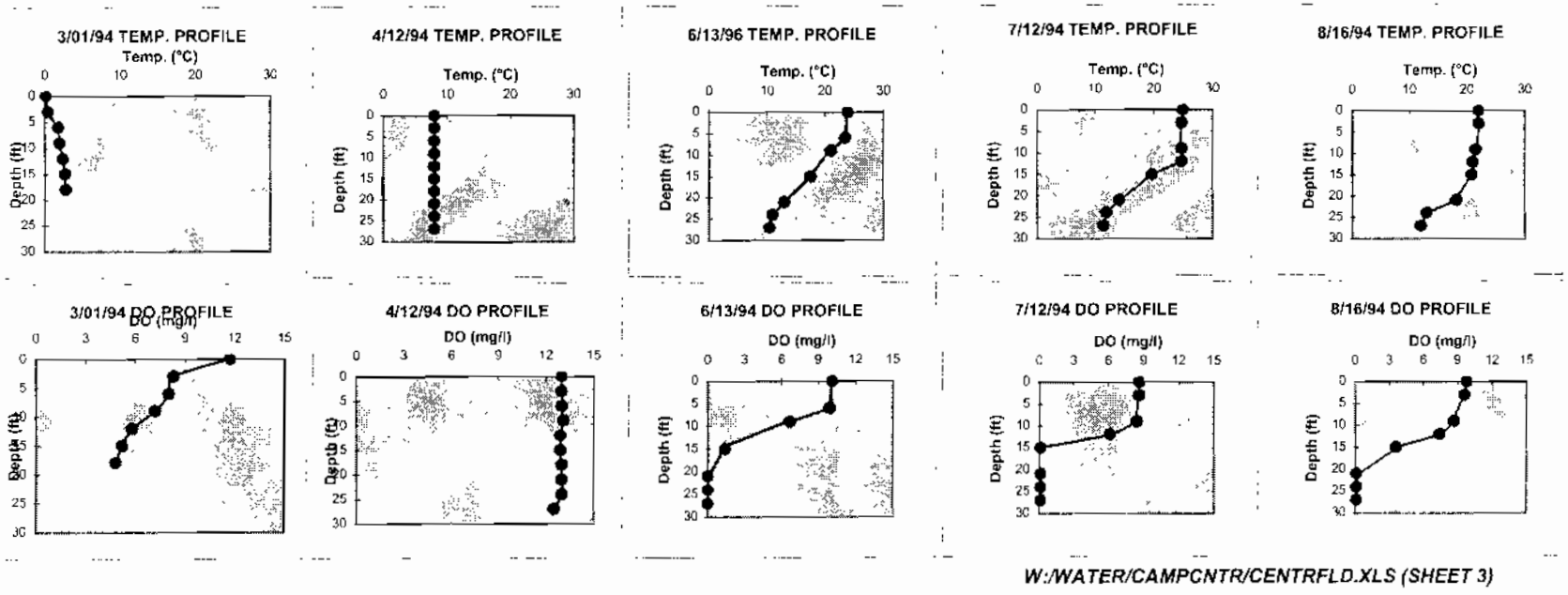
W:/WATER/CAMPCNTR/CENTRFLD.XLS (SHEET 4)

Temp. = Temperature in degrees Celsius.
DO = Dissolved Oxygen in milligrams per liter (mg/l).
Cond. = Conductivity in microsiemens (uS).

[ ] = No data obtained at this depth interval.
Note: Bottom Depth changes with date and sampling location.

1994 CENTER LAKE FIELD WATER SAMPLING RESULTS

Depth	3/1/94				4/12/94				6/13/94				7/12/94				8/16/94			
	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH
0	0.1	11.7			8.0	13.0	501.0	7.8	23.9	10.1	623.0	8 7	25.0	8.6		8.7	22.0	9 8	499.0	8.8
3	0.4	8.3			8.0	13.0							24.8	8.6			22.0	9.6		
6	1 8	8.0			8.0	13.0			23.5	9.9										
9	2.0	7.2			8.0	13.1			21.0	6.7			24.8	8.4			21.5	8 7		
12	2.4	5 8			8.0	12.9							24 8	6.1		8.6	21.0	7.4		
15	2.7	5.2			8.0	12.9			17.5	1.4	8.3	573.0	19.7	0.1			20.8	3.6	499.0	8.3
18	2.8	4.8			8.0	13.0														
21					8 0	13.0			13.0	0.0			14.2	0.1			18.2	0.1		
24					8.0	13.0			11.0	0.0			12.0	0.1			13.0	0.1		
27					8.0	12.5	298.0	7.7	10.5	0.0	7.5	532.0	11.5	0 1		7.5	12.0	0.1	508.0	7.4



W:/WATER/CAMPCNTR/CENTRFLD.XLS (SHEET 3)

Temp. = Temperature in degrees Celsius.
DO = Dissolved Oxygen in milligrams per liter (mg/l).
Cond. = Conductivity in microsiemens (uS).

= No data obtained at this depth interval.
Note: Bottom Depth changes with date and sampling location.

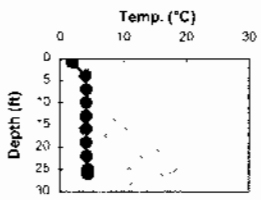
1995 CENTER LAKE FIELD WATER SAMPLING RESULTS

Depth	2/28/95				4/19/95				6/1/95				7/1/95				8/31/95			
	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH
1	2.0	10.4	366.0	8.2	9.0	11.5	382.0	8.4									26.8	8.7	635.0	8.6
4	4.1	11 4			9.0	11.4											26.7	8.4		
7	4.2	10.2			9.0	11.4											26.6	7.8		
10	4.2	9 6			9.0	11.5											26 0	7 3		
13	4.2	8.6			9.0	11.3											25.5	4.1		
16	4.2	6.1			9.0	11 4											22.5	0.2		
19	4 2	4.9			9.0	11.3											17.8	0.2		
22	4.3	0.8			9 0	11.4											15.0	0.1		
25	4.5	0.5			9.0	11.2											12.5	0.1		
26	4.5	0.4	470.0	7.4	9.0	11.4	387.0	8.4									12.0	0.1	587.0	6.9
27																				

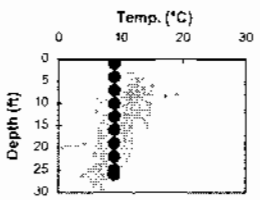
No Sampling

No Sampling

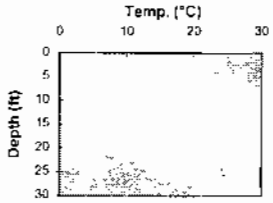
2/28/95 TEMP. PROFILE



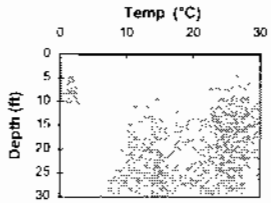
4/19/95 TEMP. PROFILE



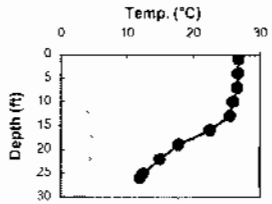
6/27/95 TEMP. PROFILE



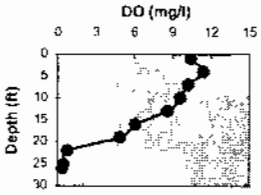
7/24/95 TEMP. PROFILE



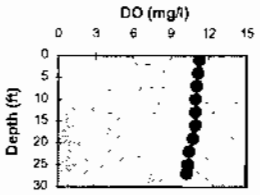
8/31/55 TEMP. PROFILE



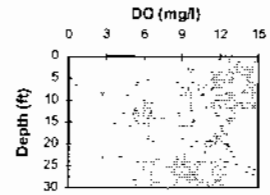
2/28/95 DO PROFILE



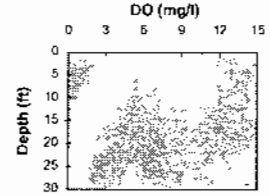
4/19/95 DO PROFILE



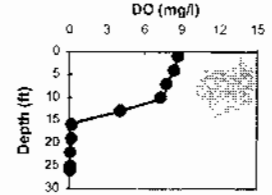
6/27/95 DO PROFILE



7/24/95 DO PROFILE



8/31/95 DO PROFILE



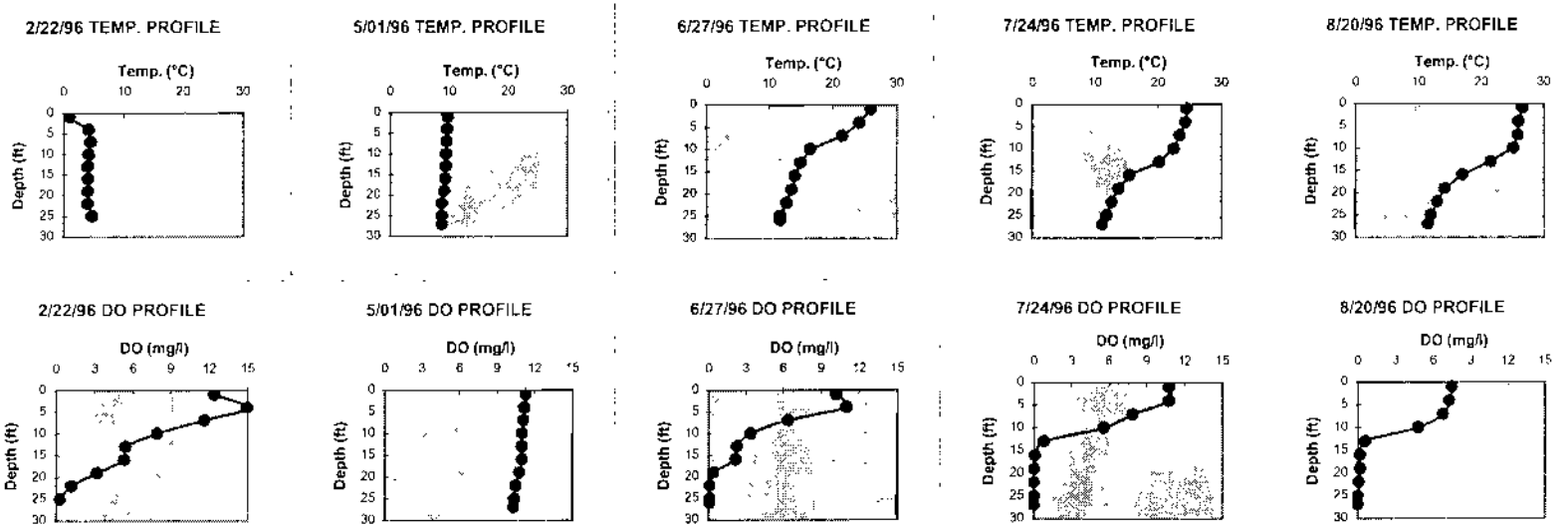
W:/WATER/CAMPCNTR/CENTRFLD.XLS (SHEET 2)

Temp. = Temperature in degrees Celsius.
DO = Dissolved Oxygen in milligrams per liter (mg/l).
Cond. = Conductivity in microsiemens (uS).

= No data obtained at this depth interval.
Note: Bottom Depth changes with date and sampling location.

1996 CENTER LAKE FIELD WATER SAMPLING RESULTS

Depth	2/22/96				5/1/96				6/27/96				7/24/96				8/20/96			
	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH
1	1.0	12.4	302.0	7.7	9.8	11.3	519.0	6.7	26.0	10.2	695.0	6.4	24.6	10.8	610.0	6.4	26.6	7.5	686.0	5.3
4	4.2	15.0			9.7	11.2			24.2	11.0			24.4	10.8			26.0	7.3		
7	4.5	11.6			9 6	11 1			21.5	6.4			23.5	7.9			25.9	6.8		
10	4.2	7.9			9.5	11.0			16.5	3.4			22.5	5.6			25.2	4 8		
13	4.0	5.4	440.0	7.7	9.5	11.0			15.0	2.3			20.2	0.8			21.5	0.6		
16	4.0	5.3			9 4	11.0			14.1	2.2			15.5	0.1			17.0	0.2		
19	4.0	3.2			9.2	10.8			13.6	0.4			13.8	0.0			14.2	0 2		
22	4.0	1.2			8.8	10.5			12.8	0.1			12.7	0.0			13.0	0.1		
25	4.7	0.3	559.0	7.3	8 8	10 4			11.8	0.1			11.9	0.0			12.0	0 0		
26									11.8	0.1	627.0	6.3								
27					8.8	10.3	498.0	6.6					11.2	0.0	592.0	6.7	11.5	0.0	673.0	5.3



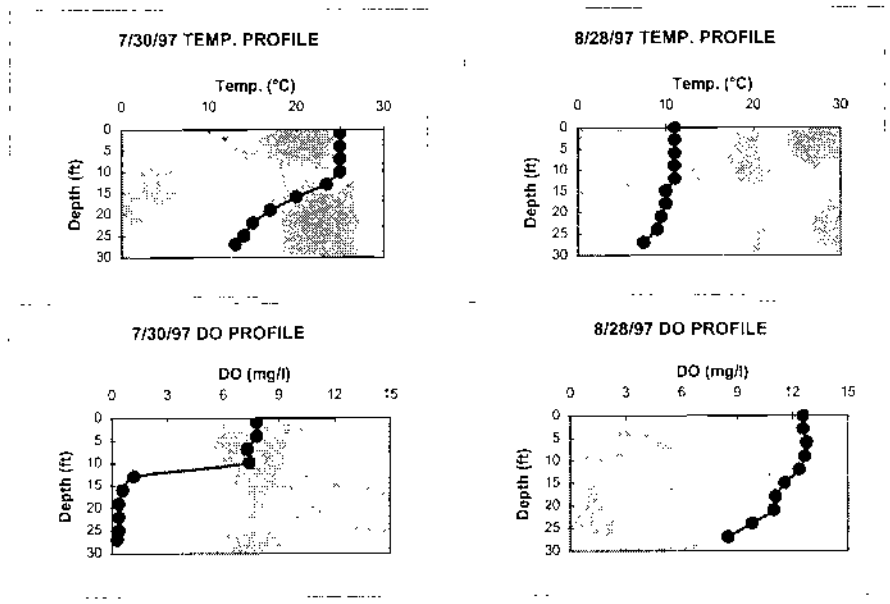
W:/WATER/CAMPCNTR/CENTRFLD.XLS (SHEET 1)

Temp. = Temperature in degrees Celsius.
DO = Dissolved Oxygen in milligrams per liter (mg/l).
Cond. = Conductivity in microsiemens (uS).

= No data obtained at this depth interval.
Note: Bottom Depth changes with date and sampling location.

1997 CENTER LAKE FIELD WATER SAMPLING RESULTS

Depth	7/30/97				8/28/97			
	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH	Temp. (°C)	DO (Mg/l)	Cond. (uS)	pH
1	25.0	7.8			23.5	9.4		
4	25.0	7.8			23.5	9 4		
7	25.0	7.3			23.2	9.2		
10	25.0	7.4			21.8	7.6		
13	23.5	1.2			21.2	4.8		
16	20.0	0.6			20.5	0.8		
19	17.0	0.4			19.0	0 5		
22	15.0	0.4			15.5	0.5		
25	14.0	0.4			13.7	0.5		
27	13.0	0.3			13.0	0.4		



Temp. = Temperature in degrees Celsius.
DO = Dissolved Oxygen in milligrams per liter (mg/l).
Cond. = Conductivity in microsiemens (uS).

[ ] = No data obtained at this depth interval.
Note: Bottom Depth changes with date and sampling location.

APPENDIX C

CAMP LAKE
State Laboratory of Hygiene Analytical Reports

State Laboratory of Hygiene
University of Wisconsin Center for Health Sciences
465 Henry Mall, Madison, WI 53706
R.H. Laessig, Ph.D., Director S.L. Inhorn, M.D., Medical Director

Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#32 of 85 on 06/03/93, unseen)

Id: Point/Well/..: 020 Field #: SURFACE Route: WR21
Collection Date: 04/27/93 Time: 11:32 County: 30 (Kenosha)
End Date: 04/27/93 Time: 11:44
From: CAMP LAKE - DEEP WATER STATION
Description: WIS. LAKE MGMT. PLAN. GRANT PROG.
To: MARK DONEUX
DNR Source: Other
MILWAUKEE Sample depth: 1 Feet
Account number: WR133 Collected by: R.A. SMITH & ASSOC.
Waterbody/permit/..: 0747100
Date Received: 04/28/93 Labslip #: ID088830 Reported: 05/24/93

CALCIUM, ICP	56.	MG/L
CHLORIDE	40.	MG/L
CHLOROPHYLL A UNCORRECTED	13.7	UG/L
COLOR TRUE PT-CO	30.	SU
CONDUCTIVITY (AT 25 DEG C)	548.	UMHOS/CM
PH, LAB	8.27	SU
ALKALINITY	185.	MG/L
DIGEST 730.1, LIQUIDS, EPTOX, ICP EXCEPT AS,AG,SE	DIG MET	
HARDNESS, CALCULATION METHOD	260.	MG/L
IRON, ICP	0.27	MG/L
MAGNESIUM, ICP	29.	MG/L
MANGANESE, ICP	<40.	UG/L
AMMONIA-N	0.041	MG/L
NITRATE PLUS NITRITE-N	1.02	MG/L
TOTAL KJELDAHL NITROGEN	1.0	MG/L
TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.038	MG/L
DISSOLVED PHOSPHORUS, LOW RANGE	0.006	MG/L
SODIUM, ICP	17.	MG/L
SULFATE, HIGH RANGE	45.	MG/L
TOTAL SOLIDS	356.	MG/L
SUSPENDED SOLIDS	8.	MG/L
TURBIDITY	5.6	NTU
TEMPERATURE FIELD	11.0	C
DISSOLVED OXYGEN FIELD	10.4	MG/L
SECCHI DEPTH	3.0	M
CLOUD COVER %	100	%

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#33 of 85 on 06/03/93, unseen)

Id: Point/Well/..: 020 Field #: SURFACE Route: WR21
Collection Date: 04/27/93 Time: 11:48 County: 30 (Kenosha)
End Date: 04/27/93 Time: 11:5[illegible]
From: CAMP LAKE - DEEP WATER STATION (Q.A. SAMPLE - DUPLICATE)
Description: WIS. LAKE MGMT. PLAN. GRANT PROG.
To: MARK DONEUX
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 1 Feet
Account number: WR133
Collected by: R.A. SMITH & ASSOC.
Waterbody/permit/..: 0747100
Date Received: 04/28/93 Labslip #: ID088831 Reported: 05/24/93

CHLORIDE	41.	MG/L
CHLOROPHYLL A UNCORRECTED	12.4	UG/L
COLOR TRUE PT-CO	30.	SU
CONDUCTIVITY (AT 25 DEG C)	548.	UMHOS/CM
PH, LAB	8.25	SU
ALKALINITY	184.	MG/L
AMMONIA-N	0.042	MG/L
NITRATE PLUS NITRITE-N	1.03	MG/L
TOTAL KJELDAHL NITROGEN	0.9	MG/L
TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.040	MG/L
[illegible]SSOLVED PHOSPHORUS, LOW RANGE	0.006	MG/L
SULFATE, HIGH RANGE	45.	MG/L
TOTAL SOLIDS	360.	MG/L
SUSPENDED SOLIDS	9.	MG/L
TURBIDITY	5.7	NTU
TEMPERATURE FIELD	11.0	C
DISSOLVED OXYGEN FIELD	10.4	MG/L
[illegible]CHI DEPTH	3.0	M
[illegible]D COVER %	100	%

CAMP SURF

4-27

Q.A.

State Laboratory of Hygiene
University of Wisconsin Center for Health Sciences
465 Henry Mall, Madison, WI 53706
R.H. Laessig, Ph.D., Director S.L. Inhorn, M.D., Medical Director

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#34 of 85 on 06/03/93, unseen)

Id: Point/Well/..: 020 Field #: BOTTOM Route: WR21
Collection Date: 04/27/93 Time: 11:15 County: 30 (Kenosha)
End Date: 04/27/93 Time: 11:20
From: CAMP LAKE - DEEP WATER STATION
Description: WIS. LAKE MGMT. PLAN. GRANT PROG.
To: MARK DONEUX
DNR Source: Other
MILWAUKEE Sample depth: 16 Feet
Account number: WR133 Collected by: R.A. SMITH & ASSOC.
Waterbody/permit/..: 0747100
Date Received: 04/28/93 Labslip #: ID088832 Reported: 05/24/93

CALCIUM, ICP	58.	MG/L
CHLORIDE	41.	MG/L
COLOR TRUE PT-CO	30.	SU
CONDUCTIVITY (AT 25 DEG C)	551.	UMHOS/CM
PH, LAB	8.24	SU
ALKALINITY	186.	MG/L
DIGEST 730.1, LIQUIDS, EPTOX, ICP EXCEPT AS,AG,SE	DIG MET	
HARDNESS, CALCULATION METHOD	270.	MG/L
IRON, ICP	0.29	MG/L
MAGNESIUM, ICP	30.	MG/L
MANGANESE, ICP	<40.	UG/L
[illegible]-N	0.045	MG/L
[illegible]US NITRITE-N	1.04	MG/L
[illegible]HL NITROGEN	1.0	MG/L
TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.044	MG/L
DISSOLVED PHOSPHORUS, LOW RANGE	0.003	MG/L
detected between 0.002 (LOD) and 0.005 (LOQ) MG/L		
SODIUM, ICP	17.	MG/L
SULFATE, HIGH RANGE	45.	MG/L
TOTAL SOLIDS	372.	MG/L
SUSPENDED SOLIDS	12.	MG/L
TURBIDITY	3.0	NTU
TEMPERATURE FIELD	11	C
DISSOLVED OXYGEN FIELD	8.3	MG/L
SECCHI DEPTH	3.5	M
CLOUD COVER %	100	%

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#81 of 161 on 07/07/93, unseen)

Id: Point/Well/..: 020 Field #: SURFACE Route: WR21
Collection Date: 06/21/93 Time: 09:15 County: 30 (Kenosha)
End Date: 06/21/93 Time: 09:20
From: CAMP LAKE - DEEP WATER STATION
To:
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 1 Feet
Account number: WR133
Collected by: R.A. SMITH (DONEUX)
Waterbody/permit/..: 0747100
Date Received: 06/22/93 Labslip #: ID107816 Reported: 07/01/93

CHLOROPHYLL A UNCORRECTED	9.76	UG/L
TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.022	MG/L
TEMPERATURE FIELD	22	C
DISSOLVED OXYGEN FIELD	7.2	MG/L
PH FIELD	8.5	SU
SECCHI DEPTH	2.9	M
CLOUD COVER %	75	%
CONDUCTIVITY FIELD	499	UMHOS/CM

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#82 of 161 on 07/07/93, unseen)

Id: Point/Well/..: 020 Field #: BOTTOM Route: WR21
Collection Date: 06/21/93 Time: 09:20 County: 30 (Kenosha)
End Date: 06/21/93 Time: 09:25
From: CAMP LAKE - DEEP WATER STATION
To:
DNR
MILWAUKEE
Account number: WR133
Waterbody/permit/..: 0747100
Source: Surface Water
Sample depth: 16 Feet
Collected by: R.A. SMITH (DONEUX)
Date Received: 06/22/93 Labslip #: ID107817 Reported: 06/29/93

TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.025	MG/L
TEMPERATURE FIELD	17	C
DISSOLVED OXYGEN FIELD	0.9	MG/L
PH FIELD	7.5	SU
SECCHI DEPTH	2.9	M
CLOUD COVER %	75	%
CONDUCTIVITY FIELD	483	UMHOS/CM

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#68 of 106 on 08/09/93, unseen)

Id: Point/Well/..: 020 Field #: SURFACE Route: WR21
Collection Date: 07/14/93 Time: 09:30 County: 30 (Kenosha)
End Date: 07/14/93 Time: 09:35
From: CAMP LAKE - DEEP WATER STATION
Description: WIS. LAKE MGMT. PLAN. GRANT PROG.
To: MARK DONEUX
DNR Source: Surface Water
MILWAUKEE Sample depth: 1 Feet
Account number: WR176 Collected by: R.A. SMITH & ASSOC.
Waterbody/permit/..: 0747100
Date Received: 07/15/93 Labslip #: IE001700 Reported: 08/04/93

CHLOROPHYLL A UNCORRECTED	18.0	UG/L
TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.023	MG/L
TEMPERATURE FIELD	25	C
DISSOLVED OXYGEN FIELD	8.2	MG/L
PH FIELD	7.9	SU
SECCHI DEPTH	1.03	M
CLOUD COVER %	50	%
CONDUCTIVITY FIELD	786	UMHOS/CM

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#67 of 106 on 08/09/93, unseen)

Id: Point/Well/..: 020 Field #: BOTTOM Route: WR21
Collection Date: 07/14/93 Time: 09:40 County: 30 (Kenosha)
End Date: 07/14/93 Time: 09:45
From: CAMP LAKE - DEEP WATER STATION
Description: WIS. LAKE MGMT. PLAN. GRANT PROG.
To: MARK DONEUX
DNR Source: Surface Water
MILWAUKEE Sample depth: 17 Feet
Account number: WR176 Collected by: R.A. SMITH & ASSOC.
Waterbody/permit/..: 0747100
Date Received: 07/15/93 Labslip #: IE001699 Reported: 07/28/93

TAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.037	MG/L
EMPERATURE FIELD	22.8	C
DISSOLVED OXYGEN FIELD	0.2	MG/L
PH FIELD	~~2.5~~ ~~7.5~~	SU
SECCHI DEPTH	1.03	M
CLOUD COVER %	50	%
CONDUCTIVITY FIELD	760	UMHOS/CM

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#71 of 105 on 09/20/93, unseen)

Id: Point/Well/..: 020 Field #: SURFACE Route: WR21
Collection Date: 08/18/93 Time: 09:00 County: 30 (Kenosha)
End Date: 08/18/93 Time: 09:25
From: 0747100 CAMP LAKE - DEEP WATER STATION
To: MARK DONEUX
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 1 Feet
Account number: WR176
Collected by: R.A. SMITH & ASSOC.
Waterbody/permit/..: 0747100
Date Received: 08/19/93 Labslip #: IE005234 Reported: 09/14/93

CHLOROPHYLL A UNCORRECTED	10.4	UG/L
TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.020	MG/L
TEMPERATURE FIELD	25.5	C
DISSOLVED OXYGEN FIELD	7.9	MG/L
PH FIELD	8.3	SU
SECCHI DEPTH	1.8	M
CLOUD COVER %	100	%

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#31 of 31 on 03/31/94, unseen)

Id: Point/Well/..: 020 Field #: SURF Route: WR21
Collection Date: 03/01/94 Time: 08:00 County: 30 (Kenosha)
End Date: 03/01/94 Time: 08:25
From: CAMP LAKE - QA SAMPLE
Description: WIS. LAKE PLANNING GRANT PROGRAM
To: MARK DONEUX
DNR Source: Surface Water
MILWAUKEE Sample depth: 1 Feet
Account number: WR204 Collected by: RA SMITH/DONEUX
Waterbody/permit/..: 0747100
Date Received: 03/02/94 Labslip #: IE019266 Reported: 03/30/94

CHLOROPHYLL A UNCORRECTED	56.7	UG/L
TOTAL PHOSPHORUS	0.26	MG/L
TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	**	MG/L #1
analysis rejected		
TEMPERATURE FIELD	0.1	C
DISSOLVED OXYGEN FIELD	12.8	MG/L
COVER %	100	%
TEMPERATURE	ICED	C

--- Footnotes ---
Remark #1: RESULTS TOO HIGH REANALYZED ON BLOCK

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#13 of 31 on 03/31/94, unseen)

Id: Point/Well/..: Field #: SURF Route: WR21
Collection Date: 02/22/94 Time: 10:00 County: 30 (Kenosha)
From: CAMP LAKE - DEEP HOLE
To: BOB WAKEMAN
DNR Source: Surface Water
MILWAUKEE Sample depth: 1 Feet
Account number: WR051 Collected by: WAKEMAN
Waterbody/permit/..: 0747100
Date Received: 02/24/94 Labslip #: IE018956 Reported: 03/30/94

CHLOROPHYLL A UNCORRECTED	13.0	UG/L
TOTAL PHOSPHORUS	0.31	MG/L
TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	**	MG/L #1
analysis rejected		
TOTAL SOLIDS	248.	MG/L
SUSPENDED SOLIDS	22.	MG/L
TURBIDITY	21.	NTU
TEMPERATURE FIELD	1.5	C
DISSOLVED OXYGEN FIELD	9.8	MG/L
PH FIELD	8.2	SU
SECCHI DEPTH	0.4	M
CLOUD COVER %	100	%
CONDUCTIVITY FIELD	215	UMHOS/CM
TEMPERATURE	ICED	C

Footnotes ---
Remark #1: RESULTS TOO HIGH REANALYZED ON BLOCK

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#30 of 31 on 03/31/94, unseen)

Id: Point/Well/..: 020 Field #: SURFACE Route: WR21
Collection Date: 03/01/94 Time: 08:00 County: 30 (Kenosha)
End Date: 03/01/94 Time: 08:25
From: CAMP LAKE - DEEP WATER STATION
Description: WIS. LAKE PLANNING GRANT PROGRAM
To: MARK DONEUX
DNR Source: Surface Water
MILWAUKEE Sample depth: 1 Feet
Account number: WR204 Collected by: RA SMITH/DONEUX
erbody/permit/..: 0747100
ate Received: 03/02/94 Labslip #: IE019263 Reported: 03/30/94

CHLOROPHYLL A UNCORRECTED	61.0	UG/L
TOTAL PHOSPHORUS	0.26	MG/L
TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	**	MG/L #1
analysis rejected		
TEMPERATURE FIELD	0.1	C
DISSOLVED OXYGEN FIELD	12.8	MG/L
D COVER %	100	%
ATURE	ICED	C

--- Footnotes ---
Remark #1: RESULTS TOO HIGH REANALYZED ON BLOCK

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#18 of 33 on 03/28/94, unseen)

Id: Point/Well/..: 020 Field #: MID Route: WR21
Collection Date: 03/01/94 Time: 08:00 County: 30 (Kenosha)
End Date: 03/01/94 Time: 08:25
From: CAMP LAKE - DEEP WATER STATION
Description: WIS. LAKE PLANNING GRANT PROGRAM
To: MARK DONEUX
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 8 Feet
Account number: WR204
Collected by: RA SMITH/DONEUX
Waterbody/permit/..: 0747100
Date Received: 03/02/94 Labslip #: IE019264 Reported: 03/25/94

TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL analysis rejected	*0.049	MG/L #1
TEMPERATURE FIELD	2.8	C
DISSOLVED OXYGEN FIELD	3.1	MG/L
CLOUD COVER %	100	%
TEMPERATURE	ICED	C

--- Footnotes ---
Remark #1: Q.C. LIMITS EXCEEDED RESULTS APPROX

duplicate beyond QA limit

.079 | DUPLICATE
.07

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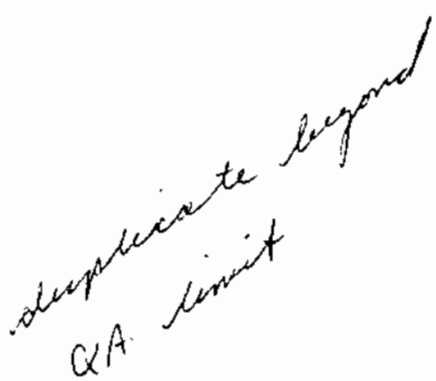
Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#19 of 33 on 03/28/94, unseen)

Id: Point/Well/..: 020 Field #: BOTTOM Route: WR21
Collection Date: 03/01/94 Time: 08:00 County: 30 (Kenosha)
End Date: 03/01/94 Time: 08:25
From: CAMP LAKE - DEEP WATER STATION
Description: WIS. LAKE PLANNING GRANT PROGRAM
To: MARK DONEUX
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 16 Feet
Account number: WR204
Collected by: RA SMITH/DONEUX
Waterbody/permit/..: 0747100
Date Received: 03/02/94 Labslip #: IE019265 Reported: 03/25/94

TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	*0.033	MG/L #1
analysis rejected		
TEMPERATURE FIELD	3.1	C
DISSOLVED OXYGEN FIELD	0.9	MG/L
CLOUD COVER %	100	%
TEMPERATURE	ICED	C

--- Footnotes ---
Remark #1: Q.C.LIMITS EXCEEDED RESULTS APPROX



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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#40 of 51 on 07/20/94, unseen)

Id: Point/Well/..: 020 Field #: SURFACE Route: WR21
Collection Date: 04/12/94 Time: 09:30 County: 30 (Kenosha)
End Date: 04/12/94 Time: 09:45
From: CAMP LAKE DEEP WATER STATION
To: R.A. SMITH & ASSOC.
DNR
MILWAUKEE
Source: Other
Sample depth: 1 Feet
Account number: WR204
Collected by: MARK DONEUX
Waterbody/permit/..: 0747100
Date Received: 04/13/94 Labslip #: IE022506 Reported: 07/19/94

CALCIUM, ICP	50.	MG/L
CHLORIDE, AUTOMATED	37.5	MG/L
CHLOROPHYLL A UNCORRECTED	21.3	UG/L
COLOR TRUE PT-CO	20.	SU
CONDUCTIVITY (AT 25 DEG C)	529	UMHOS/CM
PH, LAB	8.31	SU
ALKALINITY	195	MG/L
DIGEST 730.1, LIQUIDS, EPTOX, ICP EXCEPT AS,AG,SE	DIG MET	
HARDNESS, CALCULATION METHOD	230.	MG/L
IRON, ICP	0.09	MG/L
MAGNESIUM, ICP	27.	MG/L
MANGANESE, ICP	<40.	UG/L
AMMONIA-N	0.035	MG/L
NITRATE PLUS NITRITE-N	0.050	MG/L
TOTAL KJELDAHL NITROGEN	1.1	MG/L
TOTAL PHOSPHORUS	0.04	MG/L
DISSOLVED PHOSPHORUS, LOW RANGE	ND (LOD=0.002 MG/L)	
SODIUM, ICP	17.	MG/L
SULFATE	*28.	MG/L #1
TOTAL SOLIDS	350	MG/L
SUSPENDED SOLIDS	9.	MG/L
TURBIDITY	4.9	NTU
TEMPERATURE FIELD	8.2	C
DISSOLVED OXYGEN FIELD	11.4	MG/L
PH FIELD	8.1	SU
SECCHI DEPTH	1.1	M
CLOUD COVER %	100	%
CONDUCTIVITY FIELD	480	UMHOS/CM
TEMPERATURE	ICED	C

--- Footnotes ---
Remark #1: HOLDING TIME EXCEEDED, RESULT APPROXIMATE

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#36 of 51 on 07/20/94, unseen)

Id: Point/Well/..: 020 Field #: SURF Route: WR21
Collection Date: 04/12/94 Time: 09:30 County: 30 (Kenosha)
End Date: 04/12/94 Time: 09:45
From: (CAMP LAKE Q.A.) SAMPLE
To: R.A. SMITH & ASSOC
DNR Source: Other
MILWAUKEE Sample depth: 1 Feet
Account number: WR204 Collected by: MARK DONEUX
Waterbody/permit/..: 0747100
Date Received: 04/13/94 Labslip #: IE022500 Reported: 07/19/94

CALCIUM, ICP	51.	MG/L
CHLORIDE, AUTOMATED	37.8	MG/L
CHLOROPHYLL A UNCORRECTED	**	UG/L #1
analysis rejected		
COLOR TRUE PT-CO	20.	SU
CONDUCTIVITY (AT 25 DEG C)	529.	UMHOS/CM
PH, LAB	8.33	SU
ALKALINITY	196.	MG/L
DIGEST 730.1, LIQUIDS, EPTOX, ICP EXCEPT AS,AG,SE	DIG MET	
HARDNESS, CALCULATION METHOD	240.	MG/L
IRON, ICP	0.12	MG/L
MAGNESIUM, ICP	27.	MG/L
MANGANESE, ICP	40.	UG/L
AMMONIA-N	0.036	MG/L
NITRATE PLUS NITRITE-N	0.074	MG/L
TOTAL KJELDAHL NITROGEN	0.9	MG/L
TOTAL PHOSPHORUS	0.04	MG/L
DISSOLVED PHOSPHORUS, LOW RANGE	0.003	MG/L
detected between 0.002 (LOD) and 0.005 (LOQ) MG/L		
SODIUM, ICP	17.	MG/L
SULFATE	*29.	MG/L #2
TOTAL SOLIDS	346.	MG/L
SUSPENDED SOLIDS	10.	MG/L
TURBIDITY	4.7	NTU
TEMPERATURE FIELD	8.2	C
DISSOLVED OXYGEN FIELD	11.4	MG/L
PH FIELD	8.1	SU
SECCHI DEPTH	1.1	M
CLOUD COVER	100	%
CONDUCTIVITY FIELD	480	UMHOS/CM
TEMPERATURE	ICED	C

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
... continuing Labslip # IE022500, Field # SURF

--- Footnotes ---
Remark #1: NO BOTTLE RECEIVED
Remark #2: HOLDING TIME EXCEEDED, RESULT APPROXIMATE

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Inorganic chemistry (#35 of 51 on 07/20/94, unseen)

Id: Point/Well/..: 020 Field #: BOTTOM Route: WR21
Collection Date: 04/12/94 Time: 09:30 County: 30 (Kenosha)
End Date: 04/12/94 Time: 09:45
From: CAMP LAKE DEEP WATER STATION
To: R.A. SMITH & ASSOC
DNR Source: Other
MILWAUKEE Sample depth: 16 Feet
Account number: WR204 Collected by: MARK DONEUX
Waterbody/permit/..: 0747100
Date Received: 04/13/94 Labslip #: IE022499 Reported: 07/19/94

CALCIUM, ICP	50.	MG/L
CHLORIDE, AUTOMATED	37.7	MG/L
COLOR TRUE PT-CO	20.	SU
CONDUCTIVITY (AT 25 DEG C)	529	UMHOS/CM
PH, LAB	8.27	SU
ALKALINITY	195	MG/L
DIGEST 730.1, LIQUIDS, EPTOX, ICP EXCEPT AS,AG,SE	DIG MET	
HARDNESS, CALCULATION METHOD	240.	MG/L
IRON, ICP	0.14	MG/L
MAGNESIUM, ICP	27.	MG/L
MANGANESE, ICP	<40.	UG/L
AMMONIA-N	0.044	MG/L
NITRATE PLUS NITRITE-N	0.071	MG/L
TOTAL KJELDAHL NITROGEN	0.8	MG/L
TOTAL PHOSPHORUS	0.04	MG/L
DISSOLVED PHOSPHORUS, LOW RANGE	0.007	MG/L
SODIUM, ICP	17.	MG/L
SULFATE	*28.	MG/L #1
TOTAL SOLIDS	350	MG/L
SUSPENDED SOLIDS	10	MG/L
TURBIDITY	1.9	NTU
TEMPERATURE FIELD	3.0	C
DISSOLVED OXYGEN FIELD	11.1	MG/L
PH FIELD	[illegible]	SU
SECCHI DEPTH	[illegible]	M
CLOUD COVER %	[illegible]	%
CONDUCTIVITY FIELD	[illegible]	UMHOS/CM
TEMPERATURE	ICED	C

--- Footnotes ---
Remark #1: HOLDING TIME EXCEEDED, RESULT APPROXIMATE

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#42 of 46 on 07/28/94, unseen)

Id: Point/Well/..: 020 Field #: TOP Route: WR21
Collection Date: 06/13/94 Time: 18:00 County: 30 (Kenosha)
From: 0747100 ~~CAMP LAKE~~ DEEP WATER STATION
To: MARK DONEUX
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 01 Feet
Account number: WR204
Collected by: R.A. SMITH & ASSOC
Waterbody/permit/..: 0747100
Date Received: 06/14/94 Labslip #: IE029802 Reported: 07/27/94

CHLOROPHYLL A UNCORRECTED	10.4	UG/L
TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.029	MG/L
TEMPERATURE FIELD	24.8	C
DISSOLVED OXYGEN FIELD	9.9	MG/L
PH FIELD	8.7	SU
SECCHI DEPTH	0.9	M
MUD COVER %	40	%
CONDUCTIVITY FIELD	525	UMHOS/CM
TEMPERATURE	ICED	C

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#43 of 51 on 07/20/94, unseen)

Id: ~~Point/Well/~~ .: 020 Field #: MID Route: WR21
Collection Date: 06/13/94 Time: 18:00 County: 30 (Kenosha)
From: 0747100 CAMP LAKE DEEP WATER STATION
To: MARK DONEUX
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 10 Feet
Account number: WR204
Collected by: R.A. SMITH & ASSOC
Waterbody/permit/..: 0747100
Date Received: 06/14/94 Labslip #: IE029803 Reported: 07/19/94

TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.033	MG/L
TEMPERATURE FIELD	20.2	C
DISSOLVED OXYGEN FIELD	6.3	MG/L
PH FIELD	8.5	SU
SECCHI DEPTH	0.9	M
CLOUD COVER %	40	%
CONDUCTIVITY FIELD	546	UMHOS/CM
TEMPERATURE	ICED	C

1/4/94

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#44 of 51 on 07/20/94, unseen)

Id: Point/Well/..: 020 Field #: BOT Route: WR21
Collection Date: 06/13/94 Time: 18:00 County: 30 (Kenosha)
From: CAMP LAKE ~~DEEP WATER~~ STATION
To: MARK DONEUX
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 18 Feet
Account number: WR204
Collected by: R.A. SMITH & ASSOC
Waterbody/permit/..: 0747100
Date Received: 06/14/94 Labslip #: IE029804 Reported: 07/19/94

TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.052	MG/L
TEMPERATURE FIELD	15	C
DISSOLVED OXYGEN FIELD	0.0	MG/L
PH FIELD	7.7	SU
SECCHI DEPTH	0.9	M
CLOUD COVER %	40	%
CONDUCTIVITY FIELD	528	UMHOS/CM
TEMPERATURE	ICED	C

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#59 of 60 on 08/12/94, unseen)

Id: Point/Well/..: 020 Field #: ~~BOTTOM~~ SURFACE Route: WR21
Collection Date: 07/12/94 Time: 09:00 County: 30 (Kenosha)
From: CAMP LAKE DEEP WATER STATION TOP
To: R.A. SMITH & ASSOC.
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 1.0 Feet
Account number: WR225
Collected by: MARK DONEUX
Waterbody/permit/..: 0747100
Date Received: 07/13/94 Labslip #: IF001400 Reported: 08/11/94

Comment: Partial report; RESULTS ARE PROVISIONAL AND MAY CHANGE.

TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.024	MG/L
TEMPERATURE FIELD	24.3	C
DISSOLVED OXYGEN FIELD	8.5	MG/L
PH FIELD	8.9	SU
SECCHI DEPTH	0.9	M
CLOUD COVER %	25	%
TEMPERATURE	ICED	C

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#12 of 18 on 08/26/94, unseen)

Id: Point/Well/..: 020 Field #: ~~BOTTOM~~ SURFACE Route: WR21
Collection Date: 07/12/94 Time: 09:00 County: 30 (Kenosha)
From: CAMP LAKE DEEP WATER STATION TOP
To: R.A. SMITH & ASSOC.
DNR Source: ~~Surface Water~~
MILWAUKEE Sample depth: 1.0 Feet
Account number: WR225 Collected by: MARK DONEUX
Waterbody/permit/..: 0747100
Date Received: 07/13/94 Labslip #: IF001400 Reported: 08/25/94

CHLOROPHYLL A UNCORRECTED	*11.7	UG/L #1
analysis rejected		
TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.024	MG/L
TEMPERATURE FIELD	24.3	C
DISSOLVED OXYGEN FIELD	8.5	MG/L
PH FIELD	8.9	SU
SECCHI DEPTH	0.9	M
CLOUD COVER %	25	%
TEMPERATURE	ICED	C

--- Footnotes ---
Remark #1: QC LIMIT EXCEEDED, USED AVERAGE OF 2 VALUES

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#31 of 68 on 09/13/94, unseen)

Id: 303055 Point/Well/..: 020 Field #: 1 Route: WR21
Collection Date: 07/12/94 Time: 07:30 County: 30 (Kenosha)
From: CAMP LAKE DEEP HOLE - NPS APPRAISAL MONITORING
To: DAN HELSEL
DNR Source: Surface Water
MILWAUKEE Sample depth: 2 Feet
Account number: WR050 Collected by: HELSEL
Waterbody/permit/..: 0747100
Date Received: 07/13/94 Labslip #: IF001322 Reported: 09/12/94

CHLOROPHYLL A UNCORRECTED	10.1	UG/L
CONDUCTIVITY (AT 25 DEG C)	566.	UMHOS/CM
PH, LAB	8.51	SU
ALKALINITY	193.	MG/L
AMMONIA-N	0.015	MG/L
detected between 0.005 (LOD) and 0.019 (LOQ) MG/L		
NITRATE PLUS NITRITE-N	ND (LOD=0.007 MG/L)	
TOTAL KJELDAHL NITROGEN	0.8	MG/L
TOTAL PHOSPHORUS	0.04	MG/L
DISSOLVED PHOSPHORUS, LOW RANGE	0.003	MG/L
detected between 0.002 (LOD) and 0.005 (LOQ) MG/L		
TOTAL SOLIDS	418.	MG/L
SUSPENDED SOLIDS	7.	MG/L
TURBIDITY	2.6	NTU
TEMPERATURE	ICED	C

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#6 of 24 on 09/15/94, unseen)

Id: 303055 Point/Well/..: 020 Field #: 4 Route: WR21
Collection Date: 07/12/94 Time: 07:00 County: 30 (Kenosha)
From: CAMP LAKE DEEP HOLE - NPS APPRAISAL MONITORING
To: DAN HELSEL
DNR Source: Surface Water
MILWAUKEE Sample depth: 2 Feet
Account number: WR050 Collected by: HELSEL
Waterbody/permit/..: 0747100
Date Received: 07/13/94 Labslip #: IF001325 Reported: 09/14/94

CHLOROPHYLL A UNCORRECTED	11.0	UG/L
CONDUCTIVITY (AT 25 DEG C)	483.	UMHOS/CM
COLOR, LAB	8.62	CU
ALKALINITY	162.	MG/L
AMMONIA-N	0.018	MG/L
detected between 0.005 (LOD) and 0.019 (LOQ) MG/L		
NITRATE PLUS NITRITE-N	ND (LOD=0.007 MG/L)	
TOTAL KJELDAHL NITROGEN	*1.2	MG/L #1
analysis rejected		
TOTAL PHOSPHORUS	*0.04	MG/L #1
analysis rejected		
DISSOLVED PHOSPHORUS, LOW RANGE	ND (LOD=0.002 MG/L)	
TOTAL SOLIDS	350.	MG/L
SUSPENDED SOLIDS	6.	MG/L
TURBIDITY	3.0	NTU
TEMPERATURE	ICED	C

--- Footnotes ---
Remark #1: HOLDING TIME EXCEEDED. RESULT APPROXIMATE

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#7 of 24 on 09/15/94, unseen)

Id: 303055 Point/Well/..: 020 Field #: 5 Route: WR21
Collection Date: 07/12/94 Time: 07:10 County: 30 (Kenosha)
From: CAMP LAKE DEEP HOLE - NPS APPRAISAL MONITORING
To: DAN HELSEL
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 15 Feet
Account number: WR050
Collected by: HELSEL
Waterbody/permit/..: 0747100
Date Received: 07/13/94 Labslip #: IF001326 Reported: 09/14/94

CONDUCTIVITY (AT 25 DEG C)	516.	UMHOS/CM
PH, LAB	7.94	SU
ALKALINITY	179.	MG/L
AMMONIA-N	0.209	MG/L
NITRATE PLUS NITRITE-N	ND (LOD=0.007 MG/L)	
TOTAL KJELDAHL NITROGEN	*1.3	MG/L #1
analysis rejected		
TOTAL PHOSPHORUS	*0.05	MG/L #1
analysis rejected		
DISSOLVED PHOSPHORUS, LOW RANGE	0.003	MG/L
detected between 0.002 (LOD) and 0.005 (LOQ) MG/L		
TOTAL SOLIDS	366.	MG/L
SUSPENDED SOLIDS	9.	MG/L
TURBIDITY	8.1	NTU
TEMPERATURE	ICED	?

--- Footnotes ---
Remark #1: HOLDING TIME EXCEEDED, RESULT APPROXIMATE

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#5 of 24 on 09/15/94, unseen)

Id: 303055 Point/Well/..: 020 Field #: 3 Route: WR21
Collection Date: 07/12/94 Time: 07:50 County: 30 (Kenosha)
From: CAMP LAKE DEEP HOLE - NPS APPRAISAL MONITORING
To: DAN HELSEL
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 17 Feet
Account number: WR050 Collected by: HELSEL
Waterbody/permit/..: 0747100
Date Received: 07/13/94 Labslip #: IF001324 Reported: 09/14/94

CONDUCTIVITY (AT 25 DEG C)	859.	UMHOS/CM
PH, LAB	7.66	SU
ALKALINITY	256.	MG/L
AMONIA-N	2.40	MG/L
NITRATE PLUS NITRITE-N	ND (LOD=0.007 MG/L)	
TOTAL KJELDAHL NITROGEN	3.3	MG/L #1
analysis rejected		
TOTAL PHOSPHORUS	1.71	MG/L #1
analysis rejected		
DISSOLVED PHOSPHORUS, LOW RANGE	1.298	MG/L
TOTAL SOLIDS	138.	MG/L
SUSPENDED SOLIDS	8.	MG/L
TURBIDITY	20.	NTU
TEMPERATURE	ICED	C

--- Footnotes ---
Remark #1 HOLDING TIME EXCEEDED, RESULT APPROXIMATE

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#8 of 24 on 09/15/94, unseen)

Id: 303055 Point/Well/..: 020 Field #: 6 Route: WR21
Collection Date: 07/12/94 Time: 07:15 County: 30 (Kenosha)
From: CAMP LAKE DEEP HOLE - NPS APPRAISAL MONITORING
To: DAN HELSEL
DNR
MILWAUKEE
Source: Surface Water
Account number: WR050 Collected by: HELSEL
Waterbody/permit/..: 0747100
Date Received: 07/13/94 Labslip #: IF001327 Reported: 09/14/94

CONDUCTIVITY AT 25 DEG C)	527.	UMHOS/CM
PH, LAB	7.96	SU
ALKALINITY	186.	MG/L
AMMONIA-N	0.329	MG/L
NITRATE PLUS NITRITE-N	ND (LOD=0.007 MG/L.	
TOTAL KJELDAHL NITROGEN	*1.4	MG/L #1
analysis rejected		
TOTAL PHOSPHORUS	*0.06	MG/L #1
analysis rejected		
DISSOLVED PHOSPHORUS, LOW RANGE	0.003	MG/L
detected between 0.002 (LOD) and 0.005 (LOQ) MG/L		
TOTAL SOLIDS	372.	MG/L
SUSPENDED SOLIDS	8.	MG/L
TURBIDITY	6.1	NTU
TEMPERATURE	ICED	C

--- Footnotes ---
Remark #1: HOLDING TIME EXCEEDED, RESULT APPROXIMATE

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#24 of 26 on 08/17/94, unseen)

Id: Point/Well/..: 020 Field #: ~~BOTTOM~~ MIDDLE Route: WR21
Collection Date: 07/12/94 Time: 09:00 County: 30 (Kenosha)
From: CAMP LAKE DEEP WATER STATION MIDDLE
To: R.A. SMITH & ASSOC.
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 9.0 Feet
Account number: WR225
Collected by: MARK DONEUX
Waterbody/permit/..: 0747100
Date Received: 07/13/94 Labslip #: IF001401 Reported: 08/16/94

TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.025	MG/L
TEMPERATURE FIELD	24.2	C
DISSOLVED OXYGEN FIELD	8.4	MG/L
PH FIELD	8.9	SU
SECCHI DEPTH	0.9	M
CLOUD COVER %	25	%
TEMPERATURE	ICED	C

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#25 of 26 on 08/17/94, unseen)

Id: Point/Well/..: 020 Field #: BOTTOM Route: WR21
Collection Date: 07/12/94 Time: 09:00 County: 30 (Kenosha)
From: CAMP LAKE DEEP WATER STATION BOTTOM
To: R.A. SMITH & ASSOC.
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 18 Feet
Account number: WR225 Collected by: MARK DONEUX
Waterbody/permit/..: 0747100
Date Received: 07/13/94 Labslip #: IF001402 Reported: 08/16/94

TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.101	MG/L
TEMPERATURE FIELD	18.3	C
DISSOLVED OXYGEN FIELD	0.1	MG/L
PH FIELD	7.7	SU
SECCHI DEPTH	0.9	M
CLOUD COVER %	25	%
TEMPERATURE	ICED	C

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#24 of 25 on 10/13/94, unseen)

Id: — Point/Well/..: 020 Field #: TOP Route: WR21
Collection Date: 08/16/94 Time: 08:25 County: 30 (Kenosha)
From: CAMP LAKE - DEEP WATER STATION
Description: WIS LAKE PLANNING GRANT PROGRAM
To: MARK DONEUX
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 1 Feet
Account number: WR225
Collected by: RA SMITH & ASSOC INC
Waterbody/permit/..: 0747100
Date Received: 08/17/94 Labslip #: IF005516 Reported: 10/11/94

CHLOROPHYLL A UNCORRECTED	9.34	UG/L
TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	*0.0210	MG/L #1
analysis rejected		
DISSOLVED PHOSPHORUS, LOW RANGE	**	MG/L #2
analysis rejected		
TEMPERATURE FIELD	20.4	C
DISSOLVED OXYGEN FIELD	10.3	MG/L
PH FIELD	9.1	SU
SECCHI DEPTH	1.83	M
CLOUD COVER %	0	%
CONDUCTIVITY FIELD	436.0	UMHOS/CM
TEMPERATURE	18	C

--- Footnotes ---
Remark #1: HOLDING TIME EXCEEDED BETWEEN 13 TO 16 DAYS
Remark #2: NO BOTTLE RECEIVED

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#37 of 65 on 10/19/94, unseen)

Id: 303055 Point/Well/..: 020 Field #: CA1 Route: WR21
Collection Date: 08/17/94 Time: 13:30 County: 30 (Kenosha)
From: CAMP LAKE DEEP HOLE
To: DAN HELSEL
DNR Source: Surface Water
MILWAUKEE Sample depth: 1 Feet
Account number: WR050 Collected by: HELSEL
Waterbody/permit/..: 0747100
Date Received: 08/18/94 Labslip #: IF005842 Reported: 10/18/94

CHLOROPHYLL A UNCORRECTED	8.71	UG/L
CONDUCTIVITY (AT 25 DEG C)	454	UMHOS/CM
PH, LAB	8.86	SU
ALKALINITY	147	MG/L
AMMONIA-N	0.015	MG/L
detected between 0.005 (LOD) and 0.019 (LOQ) MG/L		
NITRATE PLUS NITRITE-N	ND (LOD=0.007 MG/L)	
TOTAL KJELDAHL NITROGEN	*1.16	MG/L #1
TOTAL PHOSPHORUS	*0.031	MG/L #1
TEMPERATURE	15	C

--- Footnotes ---
Remark #1: HOLDING TIME EXCEEDED BY APPROX. 11 DAYS.

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#35 of 39 on 10/10/94, unseen)

Id: Point/Well/..: 020 Field #: MID Route: WR21
Collection Date: 08/16/94 Time: 08:30 County: 30 (Kenosha)
End Date: 08/16/94 Time: 08:30
From: CAMP LAKE - DEEP WATER STATION
Description: WIS LAKE PLANNING GRANT PROGRAM
To: MARK DONEUX
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 9 Feet
Account number: WR225
Collected by: RA SMITH & ASSOC INC
Waterbody/permit/..: 0747100
Date Received: 08/17/94 Labslip #: IF005517 Reported: 10/06/94

TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	*0.0250	MG/L #1
analysis rejected		
DISSOLVED PHOSPHORUS, LOW RANGE	**	MG/L #2
analysis rejected		
TEMPERATURE FIELD	20.6	C
DISSOLVED OXYGEN FIELD	9.3	MG/L
PH FIELD	9.2	SU
SECCHI DEPTH	1.83	M
CLOUD COVER %	0	%
CONDUCTIVITY FIELD	400.0	UMHOS/CM
TEMPERATURE	18	C

--- Footnotes ---
#1: HOLDING TIME EXCEEDED BETWEEN 13 TO 16 DAYS
#2: NO BOTTLE RECEIVED

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#36 of 39 on 10/10/94, unseen)

Id: Point/Well/..: 020 Field #: BOTTOM Route: WR21
Collection Date: 08/16/94 Time: 08:35 County: 30 (Kenosha)
From: CAMP LAKE - DEEP WATER STATION
Description: WIS LAKE PLANNING GRANT PROGRAM
To: MARK DONEUX
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 19 Feet
Account number: WR225
Collected by: RA SMITH & ASSOC INC
Waterbody/permit/..: 0747100
Date Received: 08/17/94 Labslip #: IF005518 Reported: 10/06/94

TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	*0.0690	MG/L #1
analysis rejected		
DISSOLVED PHOSPHORUS, LOW RANGE	**	MG/L #2
analysis rejected		
TEMPERATURE FIELD	19.2	C
DISSOLVED OXYGEN FIELD	0.2	MG/L
PH FIELD	8.4	SU
SECCHI DEPTH	1.83	M
CLOUD COVER %	0	%
CONDUCTIVITY FIELD	417.0	UMHOS/CM
TEMPERATURE	18	C

--- Footnotes ---
Remark #1: HOLDING TIME EXCEEDED BETWEEN 13 TO 16 DAYS
Remark #2: NO BOTTLE RECEIVED

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#2 of 5 on 03/31/95, unseen)

Id: Point/Well/..: 020 Field #: SURFACE Route: WR21
Collection Date: 02/28/95 Time: 09:30 County: 30 (Kenosha)
End Date: 02/28/95 Time: 09:58
From: CAMP LAKE - DEEP WATER STATION
Description: WIS LAKE MGMT PLAN GRANT PROG
To: MARK DONEUX
DNR Source: Surface Water
MILWAUKEE Sample depth: 1 Feet
Account number: WR225 Collected by: RA SMITH & ASSOC INC
Waterbody/permit/..: 0747100
Date Received: 03/01/95 Labslip #: IF019701 Reported: 03/30/95

TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.013	MG/L
detected between 0.007 (LOD) and 0.022 (LOQ) MG/L		
TEMPERATURE FIELD	3.5	C
DISSOLVED OXYGEN FIELD	14.5	MG/L
PH FIELD	8.2	SU
CLOUD COVER %	50	%
CONDUCTIVITY FIELD	292	UMHOS/CM
TEMPERATURE	ICED	C

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#3 of 5 on 03/31/95, unseen)

Id: Point/Well/..: 020 Field #: BOTTOM Route: WR21
Collection Date: 02/28/95 Time: 09:30 County: 30 (Kenosha)
End Date: 02/28/95 Time: 09:58
From: CAMP LAKE - DEEP WATER STATION
Description: WIS LAKE MGMT PLAN GRANT PROG
To: MARK DONEUX
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 14 Feet
Account number: WR225
Collected by: RA SMITH & ASSOC INC
Waterbody/permit/..: 0747100
Date Received: 03/01/95 Labslip #: IF019702 Reported: 03/30/95

TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.011	MG/L
detected between 0.007 (LOD) and 0.022 (LOQ) MG/L		
TEMPERATURE FIELD	5.0	C
DISSOLVED OXYGEN FIELD	0.6	MG/L
PH FIELD	7.8	SU
CLOUD COVER %	50	%
CONDUCTIVITY FIELD	338	UMHOS/CM
TEMPERATURE	10	C

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#15 of 38 on 05/25/95, unseen)

Id: Point/Well/..: Field #: SURF Route: WR21
Collection Date: 04/19/95 Time: 10:00 County: 30 (Kenosha)
End Date: 04/19/95 Time: 10:05
From: CAMP LAKE - WIS LAKE PLANNING GRANT PROG
To: BOB WAKEMAN
DNR Source: Surface Water
MILWAUKEE Sample depth: 1 Feet
Account number: WR225 Collected by: RA SMITH/CLEARY
Waterbody/permit/..: 0747100
L, P, L, 0, 9, 8
Date Received: 04/20/95 Labslip #: IF023342 Reported: 05/24/95

BOD 5 DAY	*3.2	MG/L #1
analysis rejected		
CALCIUM, DIG, ICP	36.	MG/L
CHLORIDE, AUTOMATED	48.9	MG/L
CHLOROPHYLL A, UNCORRECTED, LAB FILTERED	16.4	UG/L
COLOR TRUE PT-CO	15.	SU
CONDUCTIVITY (AT 25 DEG C)	512.	UMHOS/CM
PH, LAB	8.64	SU
ALKALINITY	158.	MG/L
DIGEST 730.1, LIQUIDS, ICP EXCEPT AS,SE,AG	DIG MET	
HARDNESS, CALCULATION METHOD, DIG	220.	MG/L
IRON, ICP, DIG	0.09	MG/L
FILTRATION (MULTI-ANALYTE)	FILTERED	
MAGNESIUM, ICP, DIG	31.	MG/L
MANGANESE, ICP, DIG	6.	UG/L
AMMONIA-N	ND (LOD=0.027 MG/L)	
NITRATE PLUS NITRITE-N	0.093	MG/L
TOTAL KJELDAHL NITROGEN	1.0	MG/L
TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.034	MG/L
DISSOLVED REACTIVE PHOSPHORUS AS P (ORTHO-P)	0.002	MG/L
detected between 0.002 (LOD) and 0.005 (LOQ) MG/L		
SODIUM, ICP, DIG	21.	MG/L
SULFATE	41.	MG/L
SUSPENDED SOLIDS	5.0	MG/L
detected between 4.88 (LOD) and 19.8 (LOQ) MG/L		
TURBIDITY	*2.84	NTU #2
analysis rejected		
TEMPERATURE FIELD	9.0	C
DISSOLVED OXYGEN FIELD	11.4	MG/L

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
... continuing Labslip # IF023342, Field # SURF

PH FIELD	7.0	SU
SECCHI DEPTH	1.2	M
CLOUD COVER %	100	%
CONDUCTIVITY FIELD	542	UMHOS/CM
TEMPERATURE	14	C

--- Footnotes ---
Remark #1: DIL. H2O & GGA EXCEED Q.C., RESULT APPROXIMATE
Remark #2: READING UNSTABLE, RESULT APPROXIMATE

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#17 of 38 on 05/25/95, unseen)

Id: Point/Well/..: Field #: BOTTOM Route: WR21
Collection Date: 04/19/95 Time: 10:10 County: 30 (Kenosha)
End Date: 04/19/95 Time: 10:15
From: CAMP LAKE - WIS LAKE PLANNING GRANT PROG
To: BOB WAKEMAN
DNR Source: Surface Water
MILWAUKEE Sample depth: 15 Feet
Account number: WR225 Collected by: RA SMITH/DONEUX
Waterbody/permit/..: 0747100
L, P, L, 0, 9, 8
Date Received: 04/20/95 Labslip #: IF023341 Reported: 05/24/95

CALCIUM, DIG, ICP	37.	MG/L
CHLORIDE, AUTOMATED	49.1	MG/L
COLOR TRUE PT-CO	20.	SU
CONDUCTIVITY (AT 25 DEG C)	517.	UMHOS/CM
PH, LAB	8.58	SU
ALKALINITY	158.	MG/L
DIGEST 730.1, LIQUIDS, ICP EXCEPT AS,SE,AG	DIG MET	
HARDNESS, CALCULATION METHOD, DIG	220.	MG/L
IRON, ICP, DIG	0.09	MG/L
LAB FILTRATION (MULTI-ANALYTE)	FILTERED	
MAGNESIUM, ICP, DIG	31.	MG/L
MANGANESE, ICP, DIG	6.	UG/L
AMMONIA-N	ND (LOD=0.027 MG/L)	
NITRATE PLUS NITRITE-N	0.155	MG/L
TOTAL KJELDAHL NITROGEN	1.0	MG/L
detected between 0.21 (LOD) and 1.0 (LOQ) MG/L		
[illegible] PHOSPHORUS, PERSULFATE, LOW LEVEL	0.031	MG/L
DISSOLVED REACTIVE PHOSPHORUS AS P (ORTHO-P)	0.002	MG/L
detected between 0.002 (LOD) and 0.005 (LOQ) MG/L		
SODIUM, ICP, DIG	21.	MG/L
SULFATE	41.	MG/L
SUSPENDED SOLIDS	6.0	MG/L
detected between 4.88 (LOD) and 19.8 (LOQ) MG/L		
TURBIDITY	3.4	NTU
TEMPERATURE FIELD	9.0	C
DISSOLVED OXYGEN FIELD	11.2	MG/L
PH FIELD	8.7	SU
SECCHI DEPTH	1.2	M
CLOUD COVER %	100	%
CONDUCTIVITY FIELD	330	UMHOS/CM
TEMPERATURE	13	C

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#54 of 64 on 03/11/96, unseen)

Id: Point/Well/..: 020 Field #: SURFACE Route: WR21
Collection Date: 02/22/96 Time: 09:30 County: 30 (Kenosha)
End Date: 02/22/96 Time: 09:55
From: CAMP LAKE - DEEP WATER STATION (NO SNOW COVER)
Description: WIS LAKE MGMT PLAN GRANT PROG
To: SOUTHERN DISTRICT HEADQUARTERS
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 1 Feet
Account number: WR266
Collected by: RA SMITH/DONEUX
Waterbody/permit/..: 0747100
L, P, L, 0, 9, 7
Date Received: 02/23/96 Labslip #: IG022430 Reported: 03/08/96

TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.037	MG/L
DEPTH OF SAMPLE - FEET	1	FT
SAMPLE TEMPERATURE - FIELD	1.0	C
DISSOLVED OXYGEN - FIELD	8.5	MG/L
PH - FIELD	7.6	SU
CLOUD COVER - %	100	%
CONDUCTIVITY - FIELD	413	UMHOS/CM
TEMPERATURE	13	C

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#55 of 64 on 03/11/96, unseen)

Id: Point/Well/..: 020 Field #: BOTTOM Route: WR21
Collection Date: 02/22/96 Time: 09:30 County: 30 (Kenosha)
End Date: 02/22/96 Time: 09:55
From: CAMP LAKE - DEEP WATER STATION (NO SNOW COVER)
Description: WIS LAKE MGMT PLAN GRANT PROG
To: SOUTHERN DISTRICT HEADQUARTERS
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 16 Feet
Account number: WR266
Collected by: RA SMITH/DONEUX
Waterbody/permit/..: 0747100
L, P, L, 0, 9, 7
Date Received: 02/23/96 Labslip #: IG022432 Reported: 03/08/96

TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.031	MG/L
DEPTH OF SAMPLE - FEET	16	FT
SAMPLE TEMPERATURE - FIELD	4.5	C
DISSOLVED OXYGEN - FIELD	4.1	MG/L
PH - FIELD	7.6	SU
CLOUD COVER - %	100	%
CONDUCTIVITY - FIELD	439	UMHOS/CM
TEMPERATURE	13	C

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Environmental Sciences Section   (608) 262-[illegible]   DNR LAB ID [illegible]
Inorganic Chemistry (#75 of 78 on [illegible], unseen)

ID: [illegible]   Point/Well/...: 020   Field #: SURFACE   Route: WR21
Collection Date: 06/27/98 Time: 09:45 County: 30 (Kenosha)
End Date: 06/27/98 Time: 10:15
From: CAMP LAKE DEEP WATER STATION WI LAKE MGT PLAN GRANT PROGRAM
To: HILT/RA SMITH & ASSOC
DNR   Source: Surface Water
MILWAUKEE
Account number: WR2[illegible]   Collected by: AFH & JJH
Waterbody/permit/...: [illegible]
L, F, L, 0, 9, 7
Date Received: [illegible]   Labslip #: [illegible]   Reported: 07/[illegible]

CHLOROPHYLL A, UNCORRECTED, LAB FILTERED	17.3	UG/L
TOTAL PHOSPHORUS, UNFILTERED, LOW LEVEL	[illegible]	MG/L
DEPTH OF SAMPLE FEET	[illegible]	FT
WATER TEMPERATURE FIELD	28.0	[illegible]
AMBIENT AIR TEMPERATURE FIELD	[illegible]	[illegible]
DISSOLVED OXYGEN FIELD	9.0	MG/L
PH FIELD	[illegible]	SU
SECCHI DEPTH FEET	4.5	FT
CLOUD COVER %	[illegible]	%
CONDUCTIVITY FIELD	652	UMHOS/CM
TEMPERATURE	[illegible]	[illegible]

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#133 of 143 on 07/19/96, unseen)

Id: Point/Well/..: 020 Field #: BOTTOM Route: WR21
Collection Date: 06/27/96 Time: 10:00 County: 30 (Kenosha)
End Date: 06/27/96 Time: 10:30
From: CAMP LAKE DEEP WATER STATION WI LAKE MGT PLAN GRANT PROGRAM
To: HILT/RA SMITH & ASSOC
DNR Source: Surface Water
MILWAUKEE
Account number: WR266 Collected by: RA SMITH
Waterbody/permit/..: 0747100
L, P, L, 0, 9, 7
Date Received: 06/28/96 Labslip #: IG033591 Reported: 07/18/96

TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.031	MG/L
DEPTH OF SAMPLE - FEET	15.0	FT
SAMPLE TEMPERATURE - FIELD	16.0	C
AMBIENT AIR TEMPERATURE - FIELD	80 F	C
DISSOLVED OXYGEN - FIELD	0.2	MG/L
PH - FIELD	6.4	SU
SECCHI DEPTH - FEET	4.5	FT
CLOUD COVER - %	0	%
CONDUCTIVITY - FIELD	638	UMHOS/CM
TEMPERATURE	ICED	C

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#7 of 109 on 08/22/96, unseen)

Id: 303055 Point/Well/...: 020 Field #: SURFACE Route: WR21
Collection Date: 07/24/96 Time: 09:00 County: 30 (Kenosha)
End Date: 07/24/96 Time: 09:30
From: CAMP LAKE DEEP WATER STATION
Description: WISCONSIN LAKE MANAGEMENT PLAN GRANT PROGRAM
To: BOB WAKEMAN
DNR Source: Surface Water
MILWAUKEE
Account number: LM003 Collected by: RA SMITH & ASSOC
Waterbody/permit/...: 0747100
L, P, L, 0, 9, 7
Date Received: 07/25/96 Labslip #: IH002899 Reported: 08/21/96

CHLOROPHYLL A, UNCORRECTED, LAB FILTERED	21.9	UG/L
TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.033	MG/L
DEPTH OF SAMPLE - FEET	0.5	FT
SAMPLE TEMPERATURE - FIELD	24.2	C
AMBIENT AIR TEMPERATURE - FIELD	28.0	C
DISSOLVED OXYGEN - FIELD	10.2	MG/L
PH - FIELD	8.2	SU
SECCHI DEPTH - FEET	3.0	FT
CLOUD COVER - %	10	%
CONDUCTIVITY - FIELD	582	UMHOS/CM
TEMPERATURE	ICED	C

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Environmental Science Section (608, 262 3459 DNR LAB ID 113133790
Inorganic Chemistry (#8 of 109 on 09/20/96, unseen)

Id: 303055 Point/Well/.. 029 Field #. BOTTOM Route: WR21
Collection Date: 07/24/96 Time: 09:00 County: 30 (Kenosha)
End Date: 07/24/96 Time: 09:30
From: CAMP LAKE DEEP WATER STATION
Description. WISCONSIN LAKE MANAGEMENT PLAN GRANT PROGRAM
To: BOB WAKEMAN
DNR Source: Surface Water
MILWAUKEE
Account number: LM003 Collected by: RA SMITH & ASSOC
Waterbody/permit/..: 0747100
L, P, L, O, S, T
Date Received: 07/25/96 Labslip #: IH002900 Reported: 08/01/96

TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	.051	MG/L
DEPTH OF SAMPLE - FEET	13.5	FT
SAMPLE TEMPERATURE - FIELD	16.9	C
AMBIENT AIR TEMPERATURE - FIELD	23.1	C
DISSOLVED OXYGEN - FIELD	7.1	MG/L
PH - FIELD	7.1	SU
SECCHI DEPTH - FEET	3.3	FT
COVER - %	10	%
CONDUCTIVITY - FIELD	592	UMHOS/CM
WATER TEMPERATURE	ICED	C

APPENDIX D

CENTER LAKE
State Laboratory of Hygiene Analytical Reports

LKS 0903.000

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#30 of 85 on 06/03/93, unseen)

Id: Point/Well/..: 020 Field #: SURF Route: WR21
Collection Date: 04/27/93 Time: 02:39 County: 30 (Kenosha)
End Date: 04/27/93 Time: 02:52
From: CENTER LAKE - DEEP WATER STATION (Q.A. SAMPLE - DUPLICATE)
Description: WIS. LAKE PLAN. GRANT PROG.
To: MARK DONEUX
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 1 Feet
Account number: WR133
Collected by: R.A. SMITH & ASSOC.
Waterbody/permit/..: 0747300
Date Received: 04/28/93 Labslip #: ID088827 Reported: 05/24/93

CHLORIDE	41.	MG/L
CHLOROPHYLL A UNCORRECTED	29.9	UG/L
COLOR TRUE PT-CO	30.	SU
CONDUCTIVITY (AT 25 DEG C)	575.	UMHOS/CM
PH, LAB	8.33	SU
ALKALINITY	198.	MG/L
AMMONIA-N	0.016	MG/L
detected between 0.005 (LOD) and 0.019 (LOQ) MG/L		
NITRATE PLUS NITRITE-N	1.31	MG/L
TOTAL KJELDAHL NITROGEN	1.1	MG/L
TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.054	MG/L
DISSOLVED PHOSPHORUS, LOW RANGE	0.012	MG/L
SULFATE, HIGH RANGE	46.	MG/L
TOTAL SOLIDS	392.	MG/L
SUSPENDED SOLIDS	8.	MG/L
TURBIDITY	4.2	NTU
TEMPERATURE FIELD	11.0	C
DISSOLVED OXYGEN FIELD	12.6	MG/L
SECCHI DEPTH	4.0	M
CLOUD COVER %	100	%

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#31 of 85 on 06/03/93, unseen)

Id: Point/Well/..: 020 Field #: BOTTOM Route: WR21
Collection Date: 04/27/93 Time: 02:15 County: 30 (Kenosha)
End Date: 04/27/93 Time: 02:25
From: CENTER LAKE - DEEP WATER STATION
Description: WIS. LAKE PLAN. GRANT PROG.
To: MARK DONEUX
DNR Source: Other
MILWAUKEE Sample depth: 27 Feet
Account number: WR133 Collected by: R.A. SMITH & ASSOC.
Waterbody/permit/..: 0747300
Date Received: 04/28/93 Labslip #: ID088828 Reported: 05/24/93

CALCIUM, ICP	59.	MG/L
CHLORIDE	42.	MG/L
COLOR TRUE PT-CO	30.	SU
CONDUCTIVITY (AT 25 DEG C)	588.	UMHOS/CM
PH, LAB	8.14	SU
ALKALINITY	201.	MG/L
DIGEST 730.1, LIQUIDS, EPTOX, ICP EXCEPT AS,AG,SE	DIG MET	
HARDNESS, CALCULATION METHOD	270.	MG/L
IRON, ICP	0.30	MG/L
MAGNESIUM, ICP	30.	MG/L
MANGANESE, ICP	43.	UG/L
AMMONIA-N	0.390	MG/L
NITRATE PLUS NITRITE-N	1.24	MG/L
TOTAL KJELDAHL NITROGEN	1.3	MG/L
TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.057	MG/L
DISSOLVED PHOSPHORUS, LOW RANGE	0.018	MG/L
SODIUM, ICP	16.	MG/L
SULFATE, HIGH RANGE	48.	MG/L
TOTAL SOLIDS	402.	MG/L
SUSPENDED SOLIDS	4.	MG/L
TURBIDITY	4.4	NTU
TEMPERATURE FIELD	7.5	C
DISSOLVED OXYGEN FIELD	8.5	MG/L
SECCHI DEPTH	4.0	M
CLOUD COVER %	100	%

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#83 of 161 on 07/07/93, unseen)

Id: Point/Well/..: 020 Field #: SURF Route: WR21
Collection Date: 06/21/93 Time: 11:30 County: 30 (Kenosha)
End Date: 06/21/93 Time: 11:35
From: CENTER LK - DEEP WATER STATION
To:
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 1 Feet
Account number: WR133
Collected by: R.A. SMITH (DONEUX)
Waterbody/permit/..: 0747300
Date Received: 06/22/93 Labslip #: ID107818 Reported: 07/01/93

CHLOROPHYLL A UNCORRECTED	16.2	UG/L
TOTAL PHOSPHORUS, PERSULFATE. LOW LEVEL	0.029	MG/L
TEMPERATURE FIELD	22.2	C
DISSOLVED OXYGEN FIELD	7.9	MG/L
ELD	8.4	SU
SECCHI DEPTH	1.37	M
CLOUD COVER %	50	%
CONDUCTIVITY FIELD	592	UMHOS/CM

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#84 of 161 on 07/07/93, unseen)

Id: Point/Well/..: 020 Field #: BOTTOM Route: WR21
Collection Date: 06/21/93 Time: 11:25 County: 30 (Kenosha)
End Date: 06/21/93 Time: 11:30
From: CENTER LK - DEEP WATER STATION
To:
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 27 Feet
Account number: WR133
Collected by: R.A. SMITH (DONEUX)
Waterbody/permit/..: 0747300
Date Received: 06/22/93 Labslip #: ID107819 Reported: 06/29/93

TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.087	MG/L
TEMPERATURE FIELD	12.5	C
DISSOLVED OXYGEN FIELD	0.1	MG/L
PH FIELD	7.6	SU
SECCHI DEPTH	1.37	M
CLOUD COVER %	50	%
CONDUCTIVITY FIELD	506	UMHOS/CM

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#70 of 106 on 08/09/93, unseen)

Id: Point/Well/..: 020 Field #: SURF Route: WR21
Collection Date: 07/14/93 Time: 11:45 County: 30 (Kenosha)
End Date: 07/14/93 Time: 11:55
From: CENTER LAKE - DEEP WATER STATION
Description: WIS. LAKE PLAN GRANT PROG.
To: MARK DONEUX
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 1 Feet
Account number: WR176
Collected by: R.A. SMITH & ASSOC.
Waterbody/permit/..: 0747300
Date Received: 07/15/93 Labslip #: IE001702 Reported: 08/04/93

CHLOROPHYLL A UNCORRECTED	37.4	UG/L
TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.041	MG/L
TEMPERATURE FIELD	25.2	C
DISSOLVED OXYGEN FIELD	9.5	MG/L
PH FIELD	8.4	SU
SECCHI DEPTH	0.85	M
CLOUD COVER %	90	%
CONDUCTIVITY FIELD	362	UMHOS/CM

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#69 of 106 on 08/09/93, unseen)

Id: Point/Well/..: 020 Field #: BOTTOM Route: WR21
Collection Date: 07/14/93 Time: 12:00 County: 30 (Kenosha)
End Date: 07/14/93 Time: 12:10
From: CENTER LAKE - DEEP WATER STATION
Description: WIS. LAKE PLAN GRANT PROGRAM
To: MARK DONEUX
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 27 Feet
Account number: WR176
Collected by: R.A. SMITH & ASSOC.
Waterbody/permit/..: 0747300
Date Received: 07/15/93 Labslip #: IE001701 Reported: 07/28/93

TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.300	MG/L
TEMPERATURE FIELD	11.8	C
DISSOLVED OXYGEN FIELD	0.1	MG/L
PH FIELD	7.2	SU
SECCHI DEPTH	0.85	M
LOUD COVER %	90	%
CONDUCTIVITY FIELD	372	UMHOS/CM

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#72 of 105 on 09/20/93, unseen)

Id: Point/Well/..: 020 Field #: SURF Route: WR21
Collection Date: 08/18/93 Time: 10:27 County: 30 (Kenosha)
End Date: 08/18/93 Time: 10:50
From: CENTER LK - DEEP WATER STATION
To: MARK DONEUX
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 1 Feet
Account number: WR176
Collected by: R.A. SMITH & ASSOC.
Waterbody/permit/..: 0747300
Date Received: 08/19/93 Labslip #: IE005235 Reported: 09/14/93

CHLOROPHYLL A UNCORRECTED	15.7	UG/L
TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.026	MG/L
TEMPERATURE FIELD	25.5	C
DISSOLVED OXYGEN FIELD	8.6	MG/L
PH FIELD	8.4	SU
SECCHI DEPTH	1.2	M
CLOUD COVER %	90	%

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#70 of 105 on 09/20/93, unseen)

Id: Point/Well/..: 020 Field #: BOTTOM Route: WR21
Collection Date: 08/18/93 Time: 10:27 County: 30 (Kenosha)
End Date: 08/18/93 Time: 10:50
From: CENTER LAKE - DEEP WATER STATION
To: MARK DONEUX
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 27 Feet
Account number: WR176
Collected by: R.A. SMITH & ASSOC.
Waterbody/permit/..: 0747300
Date Received: 08/19/93 Labslip #: IE005233 Reported: 09/13/93

TOTAL PHOSPHORUS	0.29	MG/L
TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	**	MG/L #1
TEMPERATURE FIELD	12.0	C
DISSOLVED OXYGEN FIELD	0.1	MG/L
PH FIELD	7.4	SU
SECCHI DEPTH	1.2	M
CLOUD COVER %	90	%

--- Footnotes ---
Remark #1: REANALYZED ON HIGH RANGE METHOD

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#11 of 31 on 03/31/94, unseen)

Id: Point/Well/..: Field #: SURF Route: WR21
Collection Date: 02/22/94 Time: 10:30 County: 30 (Kenosha)
From: CENTER LAKE
To: BOB WAKEMAN
DNR Source: Surface Water
MILWAUKEE Sample depth: 1 Feet
Account number: WR051 Collected by: WAKEMAN
Waterbody/permit/..: 0747300
Date Received: 02/24/94 Labslip #: IE018947 Reported: 03/30/94

CHLOROPHYLL A UNCORRECTED	11.6	UG/L
TOTAL PHOSPHORUS	0.52	MG/L
TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	**	MG/L #1
analysis rejected		
TEMPERATURE FIELD	1.3	C
DISSOLVED OXYGEN FIELD	11.0	MG/L
PH FIELD	8.2	SU
SECCHI DEPTH	0.4	M
CLOUD COVER %	100	%
CONDUCTIVITY FIELD	228	UMHOS/CM
TEMPERATURE	ICED	C

-- Footnotes ---
Mark #1: RESULTS TOO HIGH REANALYZED ON BLOCK

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#12 of 31 on 03/31/94, unseen)

Id: Point/Well/..: Field #: BOT Route: WR21
Collection Date: 02/22/94 Time: 10:30 County: 30 (Kenosha)
From: CENTER LAKE
To: BOB WAKEMAN
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 28 Feet
Account number: WR051 Collected by: WAKEMAN
Waterbody/permit/..: 0747300
Date Received: 02/24/94 Labslip #: IE018949 Reported: 03/30/94

TOTAL PHOSPHORUS	0.14	MG/L
TEMPERATURE FIELD	4.2	C
DISSOLVED OXYGEN FIELD	0.6	MG/L
PH FIELD	7.8	SU
SECCHI DEPTH	0.4	M
CLOUD COVER %	100	%
TEMPERATURE	ICED	C

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#29 of 31 on 03/31/94, unseen)

Id: Point/Well/..: 020 Field #: SURF Route: WR21
Collection Date: 03/01/94 Time: 08:50 County: 30 (Kenosha)
End Date: 03/01/94 Time: 09:15
From: CENTER LAKE - DEEP WATER STATION
Description: WIS. LAKE PLANNING GRANT PROGRAM
To: MARK DONEUX
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 1 Feet
Account number: WR204
Collected by: RA SMITH/DONEUX
Waterbody/permit/..: 0747300
Date Received: 03/02/94 Labslip #: IE019260 Reported: 03/30/94

CHLOROPHYLL A UNCORRECTED	79.4	UG/L
TOTAL PHOSPHORUS	0.47	MG/L
TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	**	MG/L #1
analysis rejected		
TEMPERATURE FIELD	0.1	C
DISSOLVED OXYGEN FIELD	11.7	MG/L
CLOUD COVER %	100	%
TEMPERATURE	ICED	C

--- Footnotes ---
Remark #1: RESULTS TOO HIGH REANALYZED ON BLOCK

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#16 of 33 on 03/28/94, unseen)

Id: Point/Well/..: 020 Field #: MID Route: WR21
Collection Date: 03/01/94 Time: 08:50 County: 30 (Kenosha)
End Date: 03/01/94 Time: 09:15
From: CENTER LAKE - DEEP WATER STATION
Description: WIS. LAKE PLANNING GRANT PROGRAM
To: MARK DONEUX
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 13 Feet
Account number: WR204
Collected by: RA SMITH/DONEUX
Waterbody/permit/..: 0747300
Date Received: 03/02/94 Labslip #: IE019261 Reported: 03/25/94

TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL analysis rejected	*0.034	MG/L #1
TEMPERATURE FIELD	2.5	C
DISSOLVED OXYGEN FIELD	5.7	MG/L
CLOUD COVER %	100	%
TEMPERATURE	ICED	C

--- Footnotes ---
Remark #1: Q.C.LIMITS EXCEEDED RESULTS APPROX

duplicate beyond Q.A. limit

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#17 of 33 on 03/28/94, unseen)

Id: Point/Well/..: 020 Field #: BOTTOM Route: WR21
Collection Date: 03/01/94 Time: 08:50 County: 30 (Kenosha)
End Date: 03/01/94 Time: 09:15
From: CENTER LAKE - DEEP WATER STATION
Description: WIS. LAKE PLANNING GRANT PROGRAM
To: MARK DONEUX
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 27 Feet
Account number: WR204
Collected by: RA SMITH/DONEUX
Waterbody/permit/..: 0747300
Date Received: 03/02/94 Labslip #: IE019262 Reported: 03/25/94

TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	*0.081	MG/L #1
analysis rejected		
TEMPERATURE FIELD	3.2	C
DISSOLVED OXYGEN FIELD	0.2	MG/L
CLOUD COVER %	100	%
TEMPERATURE	ICED	C

--- Footnotes ---
Remark #1: Q.C.LIMITS EXCEEDED RESULTS APPROX

duplicate beyond
Q.A limit

12/1 C

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#38 of 51 on 07/20/94, unseen)

Id: Point/Well..: 020 Field #: SURF Route: WR21
Collection Date: 04/12/94 Time: 11:50 County: 30 (Kenosha)
End Date: 04/12/94 Time: 12:10
From: CENTER LK/Q A. SAMPLE
To: R.A. SMITH & ASSOC.
DNR Source: Other
MILWAUKEE Sample depth: 1 Feet
Account number: WR204 Collected by: MARK DONEUX
Waterbody/permit/..: 0747300
Date Received: 04/13/94 Labslip #: IE022502 Reported: 07/19/94

CALCIUM, ICP	61.	MG/L
CHLORIDE, AUTOMATED	41.9	MG/L
CHLOROPHYLL A UNCORRECTED	**	UG/L #1
analysis rejected		
COLOR TRUE PT-CO	30.	SU
CONDUCTIVITY (AT 25 DEG C)	618	UMHOS/CM
PH, LAB	8.37	SU
ALKALINITY	227	MG/L
DIGEST 730.1, LIQUIDS, EPTOX, ICP EXCEPT AS,AG,SE	DIG MET	
HARDNESS, CALCULATION METHOD	290.	MG/L
IRON, ICP	0.17	MG/L
MAGNESIUM, ICP	32.	MG/L
MANGANESE, ICP	<40.	UG/L
AMMONIA-N	0.029	MG/L
ITRATE PLUS NITRITE-N	0.610	MG/L
OTAL KJELDAHL NITROGEN	1.1	MG/L
TOTAL PHOSPHORUS	0.05	MG/L
DISSOLVED PHOSPHORUS, LOW RANGE	0.002	MG/L
detected between 0.002 (LOD) and 0.005 (LOQ) MG/L		
SODIUM, ICP	19.	MG/L
SULFATE	*41.	MG/L #2
TOTAL SOLIDS	418.	MG/L
SPENDED SOLIDS	9.	MG/L
BIDITY	3.4	NTU
TEMPERATURE FIELD	8.0	C
DISSOLVED OXYGEN FIELD	13.0	MG/L
PH FIELD	7.8	SU
SECCHI DEPTH	1.2	M
CLOUD COVER %	100	%
CONDUCTIVITY FIELD	501	UMHOS/CM
TEMPERATURE	ICED	C

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R.H. Laessig, Ph.D., Director S.L. Inhorn, M.D., Medical Director

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
... continuing Labslip # IE022502, Field # SURF

--- Footnotes ---
Remark #1: NO BOTTLE RECEIVED
Remark #2: HOLDING TIME EXCEEDED. RESULT APPROXIMATE

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#37 of 51 on 07/20/94, unseen)

Id: Point/Well/..: 020 Field #: SURF Route: WR21
Collection Date: 04/12/94 Time: 11:50 County: 30 (Kenosha)
End Date: 04/12/94 Time: 12:10
From: CENTER LK DEEP WATER STATION
To: R.A. SMITH & ASSOC.
DNR
MILWAUKEE
Source: Other
Sample depth: 1 Feet
Account number: WR204
Collected by: MARK DONEUX
Waterbody/permit/..: 0747300
Date Received: 04/13/94 Labslip #: IE022501 Reported: 07/19/94

CALCIUM, ICP	62.	MG/L
CHLORIDE, AUTOMATED	42.2	MG/L
CHLOROPHYLL A UNCORRECTED	31.5	UG/L
COLOR TRUE PT-CO	30.	SU
CONDUCTIVITY (AT 25 DEG C)	617.	UMHOS/CM
PH, LAB	8.38	SU
ALKALINITY	227.	MG/L
DIGEST 730.1, LIQUIDS, EPTOX, ICP EXCEPT AS,AG,SE	DIG MET	
HARDNESS, CALCULATION METHOD	290.	MG/L
IRON, ICP	0.08	MG/L
MAGNESIUM, ICP	33.	MG/L
MANGANESE, ICP	<40.	UG/L
NITRATE-N	0.035	MG/L
NITRATE PLUS NITRITE-N	0.531	MG/L
TOTAL KJELDAHL NITROGEN	1.2	MG/L
TOTAL PHOSPHORUS	0.06	MG/L
DISSOLVED PHOSPHORUS, LOW RANGE	ND (LOD=0.002 MG/L)	
SODIUM, ICP	19.	MG/L
SULFATE	*41.	MG/L #1
TOTAL SOLIDS	420.	MG/L
SUSPENDED SOLIDS	10.	MG/L
TURBIDITY	3.3	NTU
TEMPERATURE FIELD	8.0	C
DISSOLVED OXYGEN FIELD	13.0	MG/L
PH FIELD	7.8	SU
SECCHI DEPTH	1.2	M
CLOUD COVER %	100	%
CONDUCTIVITY FIELD	501	UMHOS/CM
TEMPERATURE	ICED	C

--- Footnotes ---
Remark #1: HOLDING TIME EXCEEDED, RESULT APPROXIMATE

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#39 of 51 on 07/20/94, unseen)

Id: Point/Well/..: 020 Field #: BOTTOM Route: WR21
Collection Date: 04/12/94 Time: 11:50 County: 30 (Kenosha)
End Date: 04/12/94 Time: 12:10
From: CENTER LK DEEP WATER STATION
To: R.A. SMITH & ASSOC.
DNR Source: Other
MILWAUKEE Sample depth: 27 Feet
Account number: WR204 Collected by: MARK DONEUX
Waterbody/permit/..: 0747300
Date Received: 04/13/94 Labslip #: IE022503 Reported: 07/19/94

CALCIUM, ICP	61.	MG/L
CHLORIDE, AUTOMATED	42.5	MG/L
COLOR TRUE PT-CO	30.	SU
CONDUCTIVITY (AT 25 DEG C)	629.	UMHOS/CM
PH, LAB	8.43	SU
ALKALINITY	226.	MG/L
DIGEST 730.1, LIQUIDS, EPTOX, ICP EXCEPT AS,AG,SE	DIG MET	
HARDNESS, CALCULATION METHOD	290.	MG/L
IRON, ICP	0.08	MG/L
MAGNESIUM, ICP	32.	MG/L
MANGANESE, ICP	<40.	UG/L
AMMONIA-N	0.027	MG/L
NITRATE PLUS NITRITE-N	0.546	MG/L
TOTAL KJELDAHL NITROGEN	1.1	MG/L
TOTAL PHOSPHORUS	0.06	MG/L
DISSOLVED PHOSPHORUS, LOW RANGE	ND (LOD=0.002 MG/L)	
SODIUM, ICP	19.	MG/L
SULFATE	*40.	MG/L #1
TOTAL SOLIDS	418.	MG/L
SUSPENDED SOLIDS	10.	MG/L
TURBIDITY	3.4	NTU
TEMPERATURE FIELD	8.0	C
DISSOLVED OXYGEN FIELD	12.5	MG/L
PH FIELD	7.7	SU
SECCHI DEPTH	1.2	M
CLOUD COVER %	100	%
CONDUCTIVITY FIELD	398	UMHOS/CM
TEMPERATURE	ICED	F

--- Footnotes ---
Remark #1: HOLDING TIME EXCEEDED, RESULT APPROXIMATE

12/1 ✓

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#41 of 51 on 07/20/94, unseen)

Id: Point/Well/..: 020 Field #: SURF Route: WR21
Collection Date: 06/13/94 Time: 19:00 County: 30 (Kenosha)
From: CENTER LAKE DEEP WATER STATION
To: MARK DONEUX
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 1 Feet
Account number: WR204
Collected by: R.A. SMITH & ASSOC
Waterbody/permit/...: 0747300
Date Received: 06/14/94 Labslip #: IE029799 Reported: 07/19/94

CHLOROPHYLL A UNCORRECTED	**	UG/L #1
analysis rejected		
TOTAL PHOSPHORUS, PERSULFATE. LOW LEVEL	0.027	MG/L
TEMPERATURE FIELD	23.9	C
DISSOLVED OXYGEN FIELD	10.1	MG/L
PH FIELD	8.7	SU
SECCHI DEPTH	0.8	M
CLOUD COVER %	40	%
CONDUCTIVITY FIELD	623	UMHOS/CM
TEMPERATURE	ICED	C

--- Footnotes ---
Remark #1: NO BOTTLE RECEIVED

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#42 of 51 on 07/20/94, unseen)

Id: Point/Well/..: 020 Field #: ~~SURF~~ middle #2 Route: WR21
Collection Date: 06/13/94 Time: 19:00 County: 30 (Kenosha)
From: CENTER LAKE ~~DEEP WATER~~ STATION
To: MARK DONEUX
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 15 Feet
Account number: WR204 Collected by: R.A. SMITH & ASSOC
Waterbody/permit/..: 0747300
Date Received: 06/14/94 Labslip #: IE029800 Reported: 07/19/94

TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.034	MG/L
TEMPERATURE FIELD	17.5	C
DISSOLVED OXYGEN FIELD	1.4	MG/L
PH FIELD	8.3	SU
SECCHI DEPTH	0.8	M
CLOUD COVER %	40	%
CONDUCTIVITY FIELD	573	UMHOS/CM
TEMPERATURE	ICED	C

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#37 of 42 on 07/26/94, unseen)

Id: Point/Well/..: 020 Field #: ~~SURF~~ BOTTOM Route: WR21
Collection Date: 06/13/94 Time: 19:00 County: 30 (Kenosha)
From: 0747300 CENTER LK DEEP WATER STATION
To: MARK DONEUX
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 28 Feet
Account number: WR204
Collected by: R.A. SMITH & ASSOC
Waterbody/permit/..: 0747300
Date Received: 06/14/94 Labslip #: IE029801 Reported: 07/22/94

TOTAL PHOSPHORUS	0.34	MG/L
TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	**	MG/L #1
analysis rejected		
TEMPERATURE FIELD	10.5	C
DISSOLVED OXYGEN FIELD	0.0	MG/L
PH FIELD	7.5	SU
SECCHI DEPTH	0.8	M
CLOUD COVER %	40	%
CONDUCTIVITY FIELD	532	UMHOS/CM
TEMPERATURE	ICED	C

Footnotes ---
Remark #1: RESULTS TOO HIGH REANALYZED ON BLOCK

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#58 of 60 on 08/12/94, unseen)

Id: Point/Well/..: 020 Field #: SURF Route: WR21
Collection Date: 07/12/94 Time: 10:30 County: 30 (Kenosha)
From: CENTER LK DEEP WATER STATION TOP
To: R.A. SMITH & ASSOC.
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 1 Feet
Account number: WR225
Collected by: MARK DONEUX
Waterbody/permit/..: 0747300
Date Received: 07/13/94 Labslip #: IF001397 Reported: 08/11/94

Comment: Partial report; RESULTS ARE PROVISIONAL AND MAY CHANGE.

TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.023	MG/L
TEMPERATURE FIELD	25.0	C
DISSOLVED OXYGEN FIELD	8.6	MG/L
PH FIELD	8.7	SU
SECCHI DEPTH	1.2	M
CLOUD COVER %	25	%
TEMPERATURE	ICED	C

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#22 of 26 on 08/17/94, unseen)

Id: Point/Well/..: 020 Field #: ~~SURF~~ MIDDLE #1 Route: WR21
Collection Date: 07/12/94 Time: 10:30 County: 30 (Kenosha)
From: CENTER LK DEEP WATER STATION MIDDLE
To: R.A. SMITH & ASSOC.
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 12 Feet
Collected by: MARK DONEUX
Account number: WR225
Waterbody/permit/..: 0747300
Date Received: 07/13/94 Labslip #: IF001398 Reported: 08/16/94

TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.028	MG/L
TEMPERATURE FIELD	24.8	C
DISSOLVED OXYGEN FIELD	6.1	MG/L
PH FIELD	8.6	SU
SECCHI DEPTH	1.2	M
CLOUD COVER %	25	%
TEMPERATURE	ICED	C

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#23 of 26 on 08/17/94, unseen)

Id: Point/Well/..: 020 Field #: ~~SURF~~ BOTTOM Route: WR21
Collection Date: 07/12/94 Time: 10:30 County: 30 (Kenosha)
From: CENTER LAKE DEEP WATER STATION BOTTOM
To: R.A. SMITH & ASSOC.
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 26 Feet
Account number: WR225
Collected by: MARK DONEUX
Waterbody/permit/..: 0747300
Date Received: 07/13/94 Labslip #: IF001399 Reported: 08/16/94

TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.394	MG/L
TEMPERATURE FIELD	11.5	C
DISSOLVED OXYGEN FIELD	0.1	MG/L
PH FIELD	7.5	SU
SECCHI DEPTH	1.2	M
CLOUD COVER %	25	%
TEMPERATURE	ICED	C

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#23 of 25 on 10/13/94, unseen)

Id: Point/Well/..: 020 Field #: SURF Route: WR21
Collection Date: 08/16/94 Time: 09:25 County: 30 (Kenosha)
From: CENTER LAKE - DEEP WATER STATION
Description: WIS LAKE PLANNING GRANT PROGRAM
To: MARK DONEUX
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 1 Feet
Account number: WR225
Collected by: RA SMITH & ASSOC INC
Waterbody/permit/..: 0747300
Date Received: 08/17/94 Labslip #: IF005513 Reported: 10/11/94

CHLOROPHYLL A UNCORRECTED	7.06	UG/L
TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	*0.0170	MG/L #1
analysis rejected		
DISSOLVED PHOSPHORUS, LOW RANGE	**	MG/L #2
analysis rejected		
TEMPERATURE FIELD	21.8	C
DISSOLVED OXYGEN FIELD	9.8	MG/L
PH FIELD	8.8	SU
SECCHI DEPTH	1.52	M
CLOUD COVER %	0	%
CONDUCTIVITY FIELD	499.0	UMHOS/CM
TEMPERATURE	18	C

-- Footnotes ---
#1: HOLDING TIME EXCEEDED BETWEEN 13 TO 16 DAYS
#2: NO BOTTLE RECEIVED

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#33 of 39 on 10/10/94, unseen)

Id: ~~Point~~/Well/..: 020 Field #: MID Route: WR21
Collection Date: 08/16/94 Time: 09:30 County: 30 (Kenosha)
From: CENTER LAKE - DEEP WATER STATION
Description: WIS LAKE PLANNING GRANT PROGRAM
To: MARK DONEUX
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 16 Feet
Account number: WR225
Collected by: RA SMITH & ASSOC INC
Waterbody/permit/..: 0747300
Date Received: 08/17/94 Labslip #: IF005514 Reported: 10/06/94

TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	*0.0220	MG/L #1
analysis rejected		
DISSOLVED PHOSPHORUS, LOW RANGE	**	MG/L #2
analysis rejected		
TEMPERATURE FIELD	20.8	C
DISSOLVED OXYGEN FIELD	3.6	MG/L
PH FIELD	8.3	SU
SECCHI DEPTH	1.52	M
CLOUD COVER %	0	%
CONDUCTIVITY FIELD	499.0	UMHOS/CM
TEMPERATURE	18	C

Footnotes ---
Remark #1: HOLDING TIME EXCEEDED BETWEEN 13 TO 16 DAYS
Remark #2: NO BOTTLE RECEIVED

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#34 of 39 on 10/10/94, unseen)

Id: Point/Well/..: 020 Field #: BOT Route: WR21
Collection Date: 08/16/94 Time: 09:35 County: 30 (Kenosha)
From: CENTER LAKE - DEEP WATER STATION
Description: WIS LAKE PLANNING GRANT PROGRAM
To: MARK DONEUX
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 28 Feet
Account number: WR225
Collected by: RA SMITH & ASSOC INC
Waterbody/permit/..: 0747300
Date Received: 08/17/94 Labslip #: IF005515 Reported: 10/06/94

TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	*0.3660	MG/L #1
analysis rejected		
DISSOLVED PHOSPHORUS, LOW RANGE	**	MG/L #2
analysis rejected		
TEMPERATURE FIELD	12.0	C
DISSOLVED OXYGEN FIELD	0.1	MG/L
PH FIELD	7.4	SU
SECCHI DEPTH	1.52	M
CLOUD COVER %	0	%
CONDUCTIVITY FIELD	508.0	UMHOS/CM
TEMPERATURE	18	C

--- Footnotes ---
Remark #1: HOLDING TIME EXCEEDED BETWEEN 13 TO 16 DAYS
Remark #2: NO BOTTLE RECEIVED

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#4 of 5 on 03/31/95, unseen)

Id: Point/Well/..: 020 Field #: SURF Route: WR21
Collection Date: 02/28/95 Time: 10:28 County: 30 (Kenosha)
End Date: 02/28/95 Time: 10:45
From: CENTER LAKE - DEEP WATER STATION
Description: WIS LAKE MGMT PLAN GRANT PROG
To: MARK DONEUX
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 1 Feet
Account number: WR225
Collected by: RA SMITH & ASSOC INC
Waterbody/permit/..: 0747300
Date Received: 03/01/95 Labslip #: IF019703 Reported: 03/30/95

TOTAL PHOSPHORUS, PERSULFATE. LOW LEVEL	0.024	MG/L
TEMPERATURE FIELD	2.0	C
DISSOLVED OXYGEN FIELD	10.4	MG/L
PH FIELD	8.2	SU
CLOUD COVER %	25	%
CONDUCTIVITY FIELD	366	UMHOS/CM
TEMPERATURE	9	C

Bob

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#5 of 5 on 03/31/95, unseen)

Id: Point/Well/..: 020 Field #: BOTTOM Route: WR21
Collection Date: 02/28/95 Time: 10:28 County: 30 (Kenosha)
End Date: 02/28/95 Time: 10:45
From: CENTER LAKE - DEEP WATER STATION
Description: WIS LAKE MGMT PLAN GRANT PROG
To: MARK DONEUX
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 27 Feet
Account number: WR225
Collected by: RA SMITH & ASSOC INC
Waterbody/permit/..: 0747300
Date Received: 03/01/95 Labslip #: IF019704 Reported: 03/30/95

TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.075	MG/L
TEMPERATURE FIELD	4.5	C
DISSOLVED OXYGEN FIELD	0.4	MG/L
PH FIELD	7.4	SU
CLOUD COVER %	25	%
CONDUCTIVITY FIELD	470	UMHOS/CM
TEMPERATURE	9	C

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#16 of 38 on 05/25/95, unseen)

Id: Point/Well/..: Field #: SURFACE Route: WR21
Collection Date: 04/19/95 Time: 12:15 County: 30 (Kenosha)
End Date: 04/19/95 Time: 12:15
From: CENTER LAKE - WIS LAKE PLANNING GRANT PROG
To: BOB WAKEMAN
DNR Source: Surface Water
MILWAUKEE Sample depth: 1 Feet
Account number: WR225 Collected by: RA SMITH/DONEUX
Waterbody/permit/..: 0747300
L, P, L, 0, 9, 9
Date Received: 04/20/95 Labslip #: IF023339 Reported: 05/24/95

BOD 5 DAY	*4.6	MG/L #1
analysis rejected		
CALCIUM, DIG, ICP	55.	MG/L
CHLORIDE, AUTOMATED	55.1	MG/L
CHLOROPHYLL A, UNCORRECTED, LAB FILTERED	24.7	UG/L
COLOR TRUE PT-CO	15.	SU
CONDUCTIVITY (AT 25 DEG C)	643.	UMHOS/CM
LAB	8.29	SU
ALKALINITY	201.	MG/L
DIGEST 730.1, LIQUIDS, ICP EXCEPT AS,SE,AG	DIG MET	
HARDNESS, CALCULATION METHOD, DIG	290.	MG/L
IRON, ICP, DIG	0.08	MG/L
detected between 0.02 (LOD) and 0.08 (LOQ) MG/L		
LAB FILTRATION (MULTI-ANALYTE)	FILTERED	
MAGNESIUM, ICP, DIG	35.	MG/L
MANGANESE, ICP, DIG	11.	UG/L
AMMONIA-N	ND (LOD=0.027 MG/L)	
NITRATE PLUS NITRITE-N	0.870	MG/L
KJELDAHL NITROGEN	1.3	MG/L
, PHOSPHORUS, PERSULFATE, LOW LEVEL	0.043	MG/L
SOLVED REACTIVE PHOSPHORUS AS P (ORTHO-P)	0.002	MG/L
detected between 0.002 (LOD) and 0.005 (LOQ) MG/L		
SODIUM, ICP, DIG	22.	MG/L
SULFATE	57.	MG/L
SUSPENDED SOLIDS	5.0	MG/L
detected between 4.88 (LOD) and 19.8 (LOQ) MG/L		
TURBIDITY	*3.31	NTU #2
analysis rejected		
TEMPERATURE FIELD	9.0	C
DISSOLVED OXYGEN FIELD	11.5	MG/L

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
... continuing Labslip # IF023339, Field # SURFACE

PH FIELD	8.4	SU
SECCHI DEPTH	1.2	M
CLOUD COVER %	100	%
CONDUCTIVITY FIELD	382	UMHOS/CM
TEMPERATURE	13	C

--- Footnotes ---
Remark #1: DIL. H2O & GGA EXCEED Q.C., RESULT APPROXIMATE
Remark #2: VARIES. RESULT APPROXIMATE

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#18 of 38 on 05/25/95, unseen)

Id: Point/Well/..: Field #: BOTTOM Route: WR21
Collection Date: 04/19/95 Time: 12:15 County: 30 (Kenosha)
End Date: 04/19/95 Time: 12:15
From: CENTER LAKE - WIS LAKE PLANNING GRANT PROG
To: BOB WAKEMAN
DNR Source: Surface Water
MILWAUKEE Sample depth: 26 Feet
Account number: WR225 Collected by: RA SMITH/DONEUX
Waterbody/permit/..: 0747300
L, P, L, 0, 9, 9
Date Received: 04/20/95 Labslip #: IF023344 Reported: 05/24/95

CALCIUM, DIG, ICP	55.	MG/L
CHLORIDE, AUTOMATED	55.0	MG/L
COLOR TRUE PT-CO	30.	SU
CONDUCTIVITY (AT 25 DEG C)	637.	UMHOS/CM
PH, LAB	8.34	SU
ALKALINITY	203.	MG/L
DIGEST 730.1, LIQUIDS, ICP EXCEPT AS,SE,AG	DIG MET	
HARDNESS, CALCULATION METHOD, DIG	280.	MG/L
IRON, ICP, DIG	0.09	MG/L
LAB FILTRATION (MULTI-ANALYTE)	FILTERED	
MAGNESIUM, ICP, DIG	36.	MG/L
MANGANESE, ICP, DIG	14.	UG/L
AMMONIA-N	ND (LOD=0.027 MG/L)	
NITRATE PLUS NITRITE-N	0.859	MG/L
TOTAL KJELDAHL NITROGEN	1.3	MG/L
PHOSPHORUS, PERSULFATE, LOW LEVEL	0.040	MG/L
DISSOLVED REACTIVE PHOSPHORUS AS P (ORTHO-P)	0.002	MG/L
detected between 0.002 (LOD) and 0.005 (LOQ) MG/L		
SODIUM, ICP, DIG	22.	MG/L
SULFATE	58.	MG/L
SUSPENDED SOLIDS	6.0	MG/L
detected between 4.88 (LOD) and 19.8 (LOQ) MG/L		
TURBIDITY	*4.30	NTU #1
analysis rejected		
TEMPERATURE FIELD	9.0	C
DISSOLVED OXYGEN FIELD	11.4	MG/L
PH FIELD	8.4	SU
SECCHI DEPTH	1.2	M
CLOUD COVER %	100	%
CONDUCTIVITY FIELD	387	UMHOS/CM
TEMPERATURE	12	C

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#56 of 64 on 03/11/96, unseen)

Id: Point/Well/..: 020 Field #: SURFACE Route: WR21
Collection Date: 02/22/96 Time: 10:45 County: 30 (Kenosha)
End Date: 02/22/96 Time: 11:02
From: CENTER LAKE - DEEP WATER STATION (NO SNOW COVER)
Description: WIS LAKE MGMT PLAN GRANT PROG
To: SOUTHERN DISTRICT HEADQUARTERS
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 1 Feet
Account number: WR266
Collected by: RA SMITH/DONEUX
Waterbody/permit/..: 0747300
L, P, L, 0, 9, 8
Date Received: 02/23/96 Labslip #: IG022433 Reported: 03/08/96

TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.034	MG/L
DEPTH OF SAMPLE - FEET	1	FT
SAMPLE TEMPERATURE - FIELD	1.0	C
DISSOLVED OXYGEN - FIELD	12.4	MG/L
PH - FIELD	7.7	SU
CLOUD COVER - %	100	%
CONDUCTIVITY - FIELD	302	UMHOS/CM
TEMPERATURE	9	C

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#57 of 64 on 03/11/96, unseen)

Id: Point/Well/..: 020 Field #: BOTTOM Route: WR21
Collection Date: 02/22/96 Time: 10:45 County: 30 (Kenosha)
End Date: 02/22/96 Time: 11:02
From: CENTER LAKE - DEEP WATER STATION (NO SNOW COVER)
Description: WIS LAKE MGMT PLAN GRANT PROG
To: SOUTHERN DISTRICT HEADQUARTERS
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 26 Feet
Account number: WR266
Collected by: RA SMITH/DONEUX
Waterbody/permit/..: 0747300
L, P, L, 0, 9, 8
Date Received: 02/23/96 Labslip #: IG022435 Reported: 03/08/96

TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.175	MG/L
DEPTH OF SAMPLE - FEET	26	FT
SAMPLE TEMPERATURE - FIELD	4.7	C
DISSOLVED OXYGEN - FIELD	0.3	MG/L
PH - FIELD	7.3	SU
CLOUD COVER - %	100	%
CONDUCTIVITY - FIELD	559	UMHOS/CM
TEMPERATURE	9	C

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Environmental Science Section   (608) 262-3[illegible]   DNR LAB ID [illegible]
Inorganic Chemistry #75 of 75 on 07/01/96, [illegible]

ID: Point,Well/.. 020   Field #: SURFACE   Route: WR01
Collection Date: 06/27/96 Time: 11:30 County: 30 (Kenosha)
End Date: 06/27/96 Time: 11:45
From: CENTER LAKE DEEP WATER STATION WI LAKE MGT PLAN GRANT PROGRAM
To: HILT/RA SMITH & ASSOC
DNR   Source: Surface Water
MILWAUKEE
Account number: WR266   Collected by: RA SMITH
Waterbody/permit...: [illegible]
[illegible]
Date Received: 06/28/96   Labslip #: IG033591   Reported: 07/0[illegible]/96

CHLOROPHYLL A, UNCORRECTED, LAB FILTERED	[illegible].4	UG/L
TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	[illegible]	MG/L
DEPTH OF SAMPLE (FEET)	[illegible]	FT
SAMPLE TEMPERATURE - FIELD	[illegible]	C
AMBIENT AIR TEMPERATURE - FIELD	15.[illegible]	C
DISSOLVED OXYGEN - FIELD	10.[illegible]	MG/L
PH - FIELD	8.4	SU
SECCHI DEPTH - FEET	[illegible]	FT
CLOUD COVER %	[illegible]	%
CONDUCTIVITY - FIELD	[illegible]95	UMHOS/CM
TEMPERATURE	ICED	[illegible]

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#9 of 109 on 08/22/96, unseen)

Id. 303059 Point/Well/...: 020 Field #: SURFACE Route: WR21
Collection Date: 07/24/96 Time: 10:30 County: 30 (Kenosha)
End Date: 07/24/96 Time: 11:00
From: CENTER LAKE DEEP WATER STATION
Description: WISCONSIN LAKE MANAGEMENT PLAN GRANT PROGRAM
To: BOB WAKEMAN
DNR Source: Surface Water
MILWAUKEE
Account number: LM003 Collected by: RA SMITH & ASSOC
Waterbody/permit/...: 0747200
P. L. 9, 3, 8
Date Received: 07/25/96 Labslip #: IH002901 Reported: 08/21/96

CHLOROPHYLL A, UNCORRECTED, LAB FILTERED	31.5	UG/L
TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	0.029	MG/L
DEPTH OF SAMPLE - FEET	0.5	FT
SAMPLE TEMPERATURE FIELD	24.8	C
AMBIENT AIR TEMPERATURE FIELD	34.0	C
DISSOLVED OXYGEN - FIELD	10.9	MG/L
PH - FIELD	8.4	SU
SECCHI DEPTH - FEET	3.5	FT
CLOUD COVER %	20	%
CONDUCTIVITY FIELD	610	UMHOS/CM
	ICED	Y

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#10 of 109 on 08/22/96, unseen)

Id: 303053 Point/Well/...: 020 Field #: BOTTOM Route: WR21
Collection Date: 07/24/96 Time: 10:30 County: 30 (Kenosha)
End Date: 07/24/96 Time: 11:00
From: CENTER LAKE DEEP WATER STATION
Description: WISCONSIN LAKE MANAGEMENT PLAN GRANT PROGRAM
To: BOB WAKEMAN
DNR Source: Surface Water
MILWAUKEE
Account number: LM003 Collected by: RA SMITH & ASSOC
[illegible]terbody/permit/...: 0747300
[illegible], P, L, 3, 9, 8
Date Received: 07/25/96 Labslip #: IH002900 Reported: 08/21/96

TOTAL PHOSPHORUS	0.206	MG/L
TOTAL PHOSPHORUS, PERSULFATE, LOW LEVEL	**	MG/L #1
DEPTH OF SAMPLE - FEET	27	FT
SAMPLE TEMPERATURE - FIELD	11.2	C
AMBIENT AIR TEMPERATURE - FIELD	24.0	C
DISSOLVED OXYGEN - FIELD	9.3	MG/L
PH - FIELD	8.7	SU
SECCHI DEPTH - FEET	9.5	FT
CLOUD COVER - %	20	%
CONDUCTIVITY - FIELD	500	UMHOS/CM
[illegible]TRATURE	ICED	C

[illegible]
NUMBER #1 RESULTS TOO HIGH REANALYZED ON DILUTION

APPENDIX E

CAMP LAKE TRIBUTARY
State Laboratory of Hygiene Analytical Reports

State Laboratory of Hygiene
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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#32 of 43 on 07/14/93. unseen)

Id: Point/Well/..: Field #: TRIB-2 Route: WR21
Collection Date: 06/08/93 Time: 11:50 County: 30 (Kenosha)
End Date: 06/08/93 Time: 00:00
From: CAMP LAKE - 110TH STREET/269TH AVE. INTERSECTION
Description: WIS. LAKE MGMT. PLAN GRANT PROG.
To: MARK DONEUX
DNR Source: Surface Water
MILWAUKEE Sample depth: 1 Feet
Account number: WR133 Collected by: R.A. SMITH & ASSOC.
Date Received: 06/09/93 Labslip #: ID103430 Reported: 07/08/93

TOTAL PHOSPHORUS	0.09	MG/L
SUSPENDED SOLIDS	22.	MG/L
FLOW CFS	9.0	CFS

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#33 of 43 on 07/14/93, unseen)

Id: Point/Well/..: 020 Field #: 1-32 Route: WR21
Collection Date: 06/07/93 Time: 19:00 County: 68 (Waukesha)
From: COCO CR HWY JJ - PEWAUKEE LK - 3.2 INCH RAIN IN 24 HR PERIOD
To: CHARLES SHONG
DNR Source: Surface Water
MILWAUKEE Sample depth: 0.5 Feet
Account number: WR133 Collected by: SHONG
Date Received: 06/09/93 Labslip #: ID103461 Reported: 07/08/93

TOTAL PHOSPHORUS	0.38	MG/L
TOTAL SOLIDS	386.	MG/L
FLOW CFS	75.6	CFS

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Environmental Science Section (608) 262-2797 DNR LAB ID 113133790
Organic chemistry (#3 of 6 on 10/21/93, unseen)

Id: Point/Well/..: 30 MISC Field #: TRIB 2 Route: WR21
Collection Date: Time: County: 30 (Kenosha)
From: CAMP LAKE - TRIB 2, 269TH/110TH INTERSECTION, SILVER LAKE
Description: WIS. LAKE MGMT PLAN GRANT
To: DNR - SED
P.O. BOX 12436 Source: Surface Water
MILWAUKEE, WI 53212
Account number: WR199 Collected by: R. A. SMITH & ASSOC.
Date Received: 09/15/93 Labslip #: OE000647 Reported: 10/15/93

---- test: ATRAZINE AND ATRAZINE METABOLITES - 1206		
ATRAZINE	*<0.37	UG/L #1
DEETHYLATRAZINE	ND (LOD=0.30	UG/L) #1
DEISOPROPYLATRAZI	ND (LOD=0.50	UG/L) #1
DIAMINOATRAZINE	*ND	UG/L #1
---- test: NEUTRAL EXTRACTABLE - CYANAZINE (BLADEX) - 1206		
CYANAZINE (BLADEX)	ND (LOD=0.30	UG/L)
---- test: NEUTRAL EXTRACTABLE - METOLACHLOR (DUAL) - 1206		
METOLACHLOR (DUAL)	*<1.3	UG/L #2
---- test: NEUTRAL EXTRACTABLE - ALACHLOR (LASSO) - 1206		
ALACHLOR (LASSO)	*<0.71	UG/L #2
NEUTRAL EXTRACTABLE PESTICIDES & METABOLITES -PREP	C	
GCMS PREP : CONFIRMATION	C	

--- Footnotes ---
Remark #1: SEE OE000647.MM1
Remark #2: INTERFERENCE INDICATED BY *.

Memo for OE000647

--- OE000647.MM1/1 - ATRAZINE AND ATRAZINE METABOLITES - 1206 ---

The following qualifiers exist for the data that is reported for State Laboratory of Hygiene sample OE000647.

Interference indicated by *.
Quality control limit is exceeded indicated by *ND.

If you have any questions, contact David Degenhardt at (608) 262-2797.

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#31 of 45 on 10/13/93, unseen)

Id: Point/Well/..: Field #: TRIB-2 Route: WR21
Collection Date: 09/14/93 Time: 09:15 County: 30 (Kenosha)
End Date: 09/14/93 Time: 09:18
From: CAMP LAKE - WIS. LAKE MGMT. PLAN. GRANT PROG.
To: MARK DONEUX
DNR Source: Surface Water
MILWAUKEE Sample depth: 1 Feet
Account number: WR176 Collected by: R.A. SMITH & ASSOC.
Date Received: 09/15/93 Labslip #: IE007794 Reported: 10/07/93

TOTAL PHOSPHORUS	0.22	MG/L
SUSPENDED SOLIDS	28.	MG/L
FLOW CFS	0.2	CFS

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#32 of 45 on 10/13/93, unseen)

Id: Point/Well/..: Field #: TRIB-1 Route: WR21
Collection Date: 09/14/93 Time: 09:05 County: 30 (Kenosha)
End Date: 09/14/93 Time: 09:07
From: CENTER LAKE - WIS. LAKE MGMT. PLAN. GRANT PROG.
To: MARK DONEUX
DNR Source: Surface Water
MILWAUKEE Sample depth: 1 Feet
Account number: WR176 Collected by: R.A. SMITH & ASSOC.
Date Received: 09/15/93 Labslip #: IE007795 Reported: 10/07/93

TOTAL PHOSPHORUS	0.24	MG/L
SUSPENDED SOLIDS	20.	MG/L
FLOW CFS	0.5	CFS

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Environmental Science Section (608) 262-2797 DNR LAB ID 113133790
Organic chemistry (#33 of 39 on 05/02/94, unseen)

Id: Point/Well/..: Field #: TRIB1 Route: WR21
Collection Date: 04/12/94 Time: 14:20 County: 30 (Kenosha)
From: CAMP LK - TRIB 1
Description: WIS. LAKE MGMT PLAN GRANT PROGRAM
To: DNR - SED
PO BOX 12436 Source: Surface Water
MILWAUKEE, WI 53212
Account number: WR205 Collected by: R.A. SMITH & ASSOC.;
Date Received: 04/13/94 Labslip #: OE002398 Reported: 04/29/94

---- test: TEMPERATURE - 0950

TEMPERATURE	6	C

---- test: ATRAZINE AND ATRAZINE METABOLITES - 1206

ATRAZINE	ND (LOD=0.10 UG/L)
DEETHYLATRAZINE	ND (LOD=0.30 UG/L)
DEISOPROPYLATRAZI	ND (LOD=0.50 UG/L)
DIAMINOATRAZINE	ND (LOD=0.50 UG/L)

---- test: NEUTRAL EXTRACTABLE - CYANAZINE (BLADEX) - 1206

CYANAZINE (BLADEX)	ND (LOD=0.30 UG/L)

---- test: NEUTRAL EXTRACTABLE - METOLACHLOR (DUAL) - 1206

METOLACHLOR (DUAL)	ND (LOD=0.20 UG/L)

---- test: NEUTRAL EXTRACTABLE - ALACHLOR (LASSO) - 1206

ALACHLOR (LASSO)	ND (LOD=0.10 UG/L)
NEUTRAL EXTRACTABLE PESTICIDES & METABOLITES -PREP	C

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#31 of 38 on 10/26/94, unseen)

Id: Point/Well/..: Field #: TRIB-2 Route: WR21
Collection Date: 08/31/94 Time: 14:00 County: 30 (Kenosha)
From: CAMP LAKE - 110TH & 269TH
Description: WIS LAKE PLAN GRANT PROG
To: MARK DONEUX
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 1 Feet
Account number: WR225 Collected by: RA SMITH & ASSOC
Date Received: 09/01/94 Labslip #: IF007397 Reported: 10/25/94

TOTAL PHOSPHORUS	*0.315	MG/L #1
SUSPENDED SOLIDS	28.	MG/L
FLOW CFS	0.0	CFS
TEMPERATURE	8	C

--- Footnotes ---
Remark #1: HOLDING TIME EXCEEDED BY APPROX. 8 DAYS.

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#32 of 38 on 10/26/94, unseen)

Id: Point/Well/..: Field #: Route: WS21
Collection Date: 10/17/94 Time: 00:00 County: 68 (Waukesha)
[illegible] BIB BASEMENT 611 E WISCONSIN
[illegible]ONOMOWOC
[illegible]: WS020 Collected by:
Date Received: 10/19/94 Labslip #: IF011884 Reported: 10/25/94

FLUORIDE, OPERATOR RESULT	1.32	MG/L
FLUORIDE	1.38	MG/L

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Environmental Science Section (608) 262-3458 DNR LAB ID 113133790
Inorganic chemistry (#58 of 98 on 05/01/95, unseen)

Id: Point/Well/..: Field #: TRIB-2 Route: WR21
Collection Date: 04/19/95 Time: 10:50 County: 30 (Kenosha)
End Date: 04/19/95 Time: 10:50
From: CAMP LAKE - 110TH ST/269TH AVE INTERSECTION
Description: WIS LAKE PLANNING GRANT PROG
To: BOB WAKEMAN
DNR
MILWAUKEE
Source: Surface Water
Sample depth: 1 Feet
Account number: WR225
Collected by: RA SMITH/DONEUX
L, P, L, 0, 9, 8
Date Received: 04/20/95 Labslip #: IF023340 Reported: 04/28/95

TOTAL PHOSPHORUS	0.02	MG/L
detected between 0.008 (LOD) and 0.031 (LOQ) MG/L		
SUSPENDED SOLIDS	ND (LOD=4.88 MG/L)	
FLOW CFS	4.5	CFS
TEMPERATURE	13	C

Department of Natural Resources

INORGANIC TEST REQUEST FORM - Form 4800-inorganic

Rev. 1-96

Bill To: ☐ Solid Waste ☐ Hazardous Waste ☐ ERF ☐ Lust ☐ Spills ☐ Wastewater ☐ Water Supply ☐ Water Resources ☐ Other

I.D. Number, Permit or STORET: ~~303055~~

Point, Well or Outfall #: 020

Field No.: Trib

County #: 30

Route Code: WR21

Waterbody Number: 0747100

Sample Address or Location: Camp Lake - ~~[illegible]~~ Tributary

Sample Point Description: Wisconsin Lake Management Plan - Grant Program

Send Report To:

DEPARTMENT OF NATURAL RESOURCES
Southeast District Headquarters
P.O. Box 12436
Milwaukee, WI 53212
Attn: Bob Wakeman

Account Number: LM003 ~~WR266~~

Collected By: R.A. Smith & Associates, Inc.

Lake Grant or WR Project # LPL097

Phone: (414) 786-1777

Sample Type (Non WS):

- X SU Surface Water
- ___ EF Effluent
- ___ IF Influent
- ___ WW Wastewater
- ___ SE Sediment
- ___ SL Sludge
- ___ TI Tissue
- ___ MW Monitoring Well
- ___ LY Lysimeter
- ___ LE Leachate
- ___ SO Soil
- ___ OI Oil
- ___ OW Waste

For Lab Use: Priority

Water System Type (Water Supply Use ONLY)

- ___ MC Community-Municipality
- ___ OC Com.-Other than Municipal
- ___ TN Transient Non-Community
- ___ NN Non-Transient Non-Community
- ___ P Private
- ___ X Non-Potable

Sample Sources (WS ONLY):

- ___ D Distribution
- ___ E Entry Point
- ___ W Well

Sample Type (SDWA Only):

- ___ D Compliance Sample
- ___ C Confirmation
- ___ W Raw Water Sample
- ___ I Investigation

Is Sample Chlorinated? ☐ Yes ☐ No

Check if appropriate: ___ S Split ___ B Field Blank ___ E Enforcement ___ C Compliance

Depth of Sample (feet or meters) ___ F or M ___ ___ ___

NO SAMPLE Tributary Dry

X Begin or Grab Date	08/20/96 (M M D D Y Y)
X Begin Time (24 hr clock)	10:30
X End Date - For Composite Samples Only	08/20/96 (M M D D Y Y)
X End Time (24 hr clock) - For Composite Samples Only	10:30

Field Parameters - Optional

X Depth of Sample-feet or Meters (Circle one)	0
X Sample Temperature-field (°C)	___ ___ . ___
X Ambient Air Temperature (°C)	___ ___ . ___
X DO field (mg/l)	___ . ___
X pH (su) field	___ . ___
Secchi Depth-feet or Meters (Circle one)	___ ___ . ___
X Cloud Cover %	___ ___
X Cond-fld (µMHOS/CM@25°C)	___ ___ ___
Gage Height (ft)	___ ___ . ___
X Flow cfs	___ ___ . ___
Flow MGD	___ ___ . ___
Depth to Groundwater (ft)	___ ___ ___
Turbidity (FTU)	___ ___ . ___ ___

Nutrient Bottle

☐ Sample Bottle Field Filtered? (Check box if yes.)

- X Tot.-Phosphorus
- ___ Tot.-Phosphorus Low Level
- ___ Total Kjeldahl-N
- ___ Ammonia-N
- ___ NO_2+NO_3 as Nitrogen
- ___ Nitrite (NO_2) as Nitrogen
- ___ Chemical Oxygen Demand (COD)

60 ml Bottle

☐ Sample Bottle Field Filtered? (Check box if yes.)

- ___ Diss.-Orthophosphate
- ___ Diss. Silica
- ___ NO_2+NO_3 as Nitrogen (Drinking Water)

Bacti Bottle

- ___ MFFCC*
- ___ Fecal Strep.*

MFFCC Estimate ___ ___

*Samples for both water chemistry and water bacteriology should be submitted in separate bottles with separate test request forms

Miscellaneous 710 ml Bottle

☐ Sample Bottle Field Filtered? (Check box if yes.)

- ___ Total Solids
- X Vol. Total Solids
- ___ Susp. Solids
- ___ Vol. Susp. Solids
- ___ Total Dissolved Solids
- ___ BOD_5 Total
- ___ BOD_5 Dissolved

BOD Estimate ___

- ___ Alkalinity, pH, & Conductivity
- ___ Chloride
- ___ Color
- ___ Fluoride
- ___ Sulfate
- ___ Sulfide (notify lab before collecting sample)
- ___ Turbidity

Quart Mason Jar (Also TCLP)

- ___ Oil & Grease
- ___ pH (Waste Samples Only)

Plastic Quart Bottle

- ___ Cyanide, Total
- ___ Cyanide, Amenable to Chlorination
- ___ Chlorophyl A (___ Uncorrected or ___ Corrected)
- (if Field Filtered, give ml ___ filtered)

250 ml Metals Bottle Check each of the following boxes that apply.

☐ Sample Bottle Field Filtered?

☐ Low Level Metals (e.g. Surface Waters by ICP/MS) - Note. Special Bottles Needed.

☐ TCLP (Toxicity Characteristic Leaching Procedure)(*TC Regulated Metals)(Use Mason Jar)

☐ Total Recoverable Metals

- ___ Aluminum
- ___ Antimony
- ___ Arsenic*
- ___ Barium*
- ___ Beryllium
- ___ Boron
- ___ Cadmium*
- ___ Calcium
- ___ Chromium, Total*
- ___ Chromium, Hexavalent
- ___ Copper
- ___ Hardness-as $CaCO_3$
- ___ Iron
- ___ Lead*
- ___ Magnesium
- ___ Manganese
- ___ Mercury*
- ___ Molybdenum
- ___ Nickel
- ___ Potassium
- ___ Selenium*
- ___ Silver*
- ___ Sodium
- ___ Thallium
- ___ Zinc

For Lab Use:

Temp °C ___

Analyst ___

Please indicate which analyte groups (if any) have been field filtered by checking the box and on the lid of the sample bottle

Additional Parameters