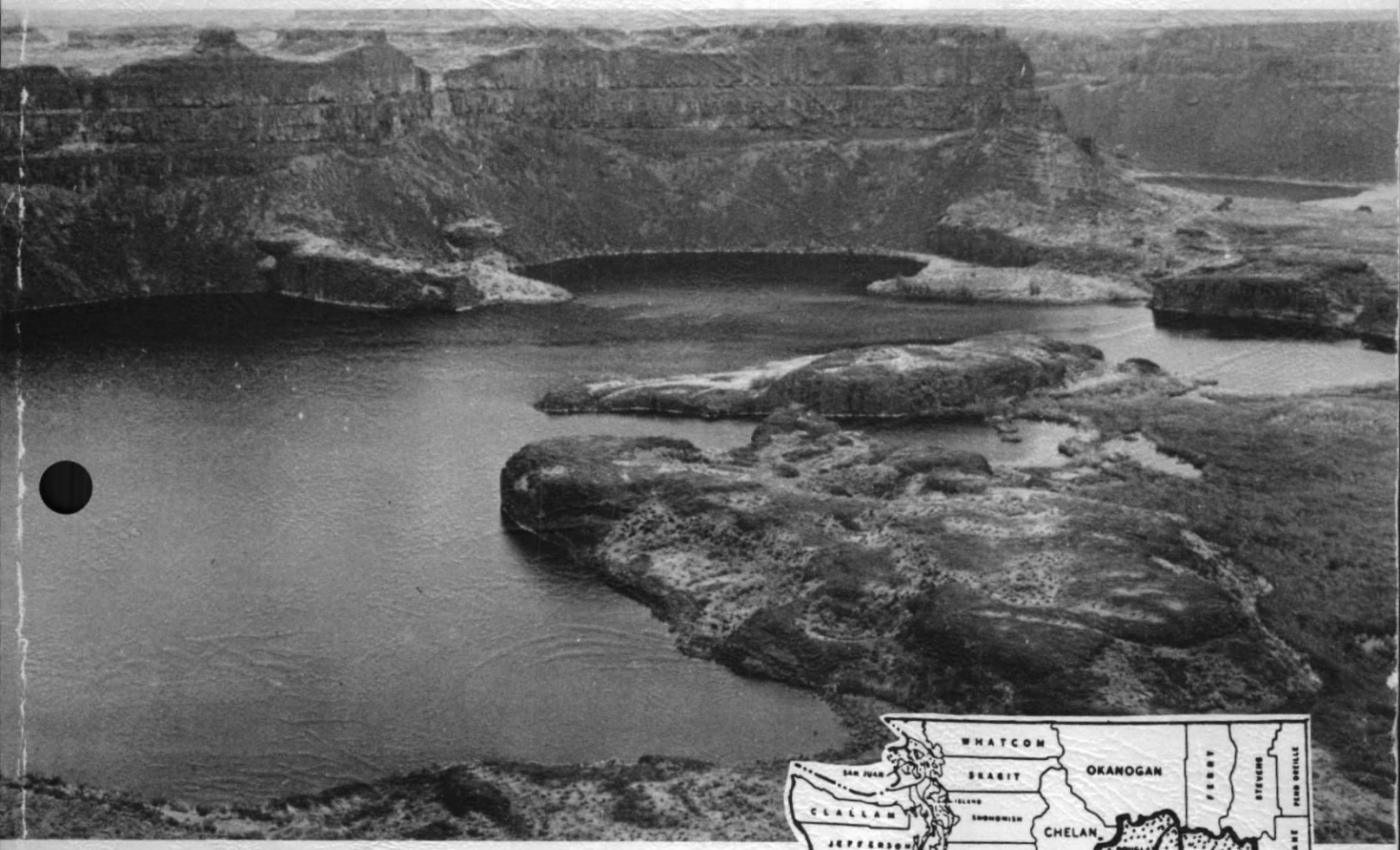
RECONNAISSANCE DATA ON LAKES IN WASHINGTON VOLUME 6

ADAMS, BENTON, DOUGLAS, FRANKLIN, GRANT, LINCOLN, WALLA WALLA, AND WHITMAN COUNTIES



STATE OF WASHINGTON
DANIEL J. EVANS, Governor

DEPARTMENT OF ECOLOGY
JOHN A. BIGGS, Director

Water-Supply Bulletin 43, Vol. 6

Prepared in Cooperation with
United States Department of the Interior
Geological Survey • 1976

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VOLUME 6

ADAMS, BENTON, DOUGLAS, FRANKLIN, GRANT, LINCOLN, WALLA WALLA, AND WHITMAN COUNTIES

By

N. P. Dion, G. C. Bortleson, J. B. McConnell, and L. M. Nelson

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UNITED STATES GEOLOGICAL SURVEY

1976

The following factors are provided for conversion of English values used in this report to metric values:

Multiply	By	To obtain
Inches	2.54	centimetres (cm)
Feet (ft)	.3048	metres (m)
Miles (mi)	1.609	kilometres (km)
Cubic feet (ft^3)	.02832	cubic metres (m^3)
Square miles (sq mi)	2.590	square kilometres (km^2)
Acres	4047.	square metres (m^2)
	.4047	hectares (ha)
Cubic feet per second (ft^3/s)	.02832	cubic metres per second (m^3/s)

CONTENTS

ILLUSTRATION

RECONNAISSANCE DATA ON LAKES IN WASHINGTON
VOLUME 6

ADAMS, BENTON, DOUGLAS, FRANKLIN, GRANT, LINCOLN, WALLA WALLA, AND WHITMAN COUNTIES

By N. P. Dion, G. C. Bortleson, J. B. McConnell, and L. M. Nelson

ABSTRACT

A total of 178 lakes in eight counties of southeastern Washington was sampled using helicopter or boat to obtain information on their physical, cultural, and water-quality conditions. The basic data presented will be useful to planning groups involved in lake management and to sportsmen, tourists, and others interested in Washington's lakes.

INTRODUCTION

The State of Washington has more than 7,800 lakes, ponds, and reservoirs (Wolcott, 1964 and 1965), many of which provide excellent recreational opportunities and supply water for agricultural, municipal, and industrial purposes. These water bodies constitute an important part of the State's total water resources and are an integral part of the hydrology of many drainage basins.

This is the sixth of a seven-volume series of reports on Washington lakes and contains data from 178 lakes in Adams, Benton, Douglas, Franklin, Grant, Lincoln, Walla Walla, and Whitman Counties in the southeastern part of the State (fig. 1).

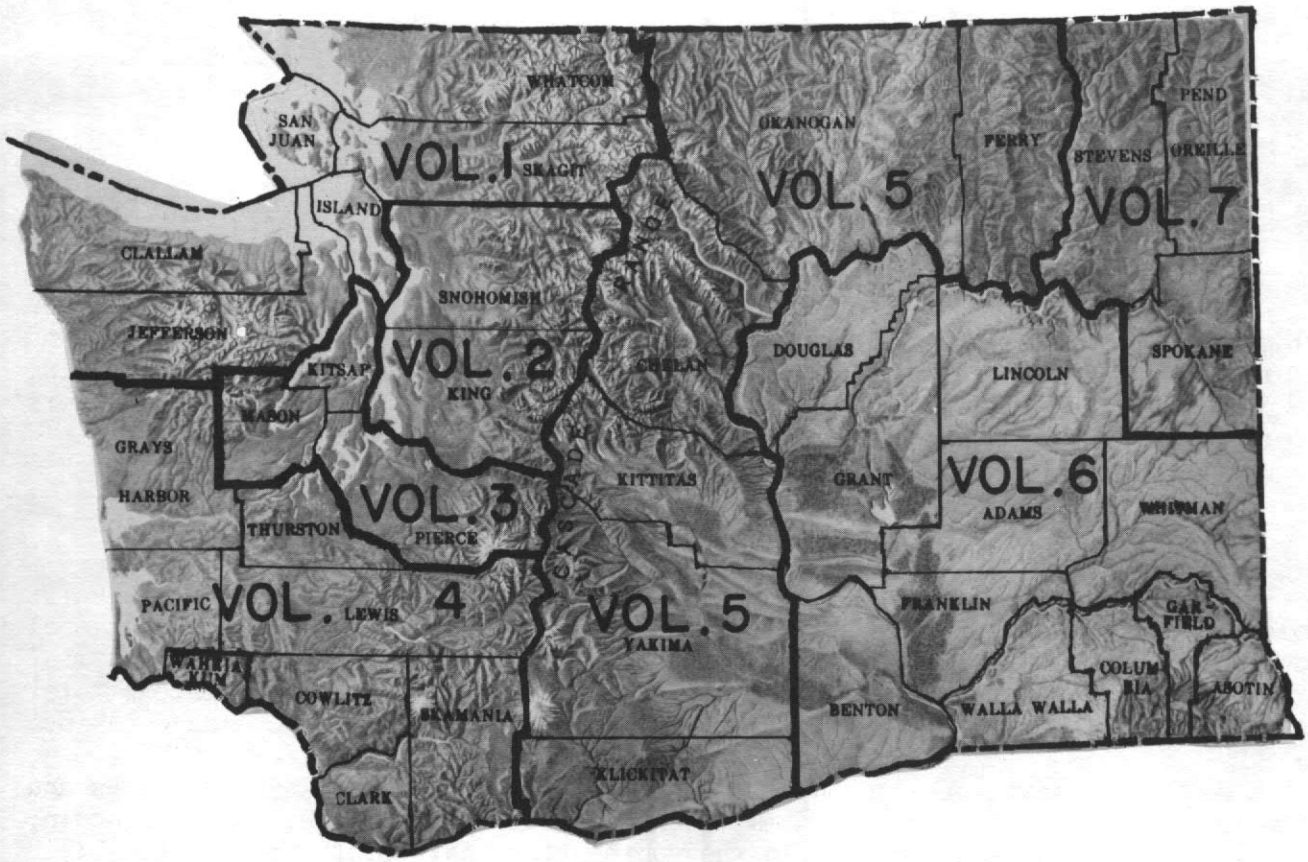

FIGURE 1.--Location of counties covered in each of seven-volume report series.

Purpose and Scope

Although both the importance and value of the Washington lakes are widely recognized, the quantity and types of information currently available for most of the lakes are not adequate to provide the understanding needed for wise management of the lakes. Thus, the need to obtain additional information about lakes resulted in the initiation in 1970 of a cooperative program between the Washington State Department of Ecology and the U.S. Geological Survey, whereby selected lakes in Washington would be investigated (Collings, 1973; Bortleson and others, 1974). Because the program--designed for the study of approximately 25 lakes per year during fiscal years 1970-74--deals with only a small fraction of the total number of lakes in the State, a reconnaissance study involving several hundred lakes was undertaken to provide preliminary information for use by planning groups as well as sportsmen, tourists, and others interested in preserving the water quality of Washington's lakes.

In general, the study consists of a data-collection program designed to (1) document the present water quality and the overall status of the lakes, and (2) provide basic data pertaining to the physical, cultural, and water- quality characteristics of the lakes.

More than 750 lakes in all but four counties of the State were studied; these are equally distributed between western and eastern Washington. Most of the lakes investigated were 20 acres or larger in size and were selected because they constitute shorelines of the State covered under the Shoreline Management Act of 1971 (Washington State Department of Ecology, 1973). However, some of the lakes listed as constituting shorelines of the State were not sampled; these included marshes with no open water or intermittent lakes which were dry at the time of visit.

Acknowledgments

The authors gratefully acknowledge the assistance of the State of Washington Department of Game for permission to reproduce many of the lake bathymetric maps. Many other bathymetric maps were reproduced from those in the reports by Wolcott (1964, 1965).

Occurrence of Lakes in Washington

Lakes in Washington occur under various geologic conditions. In the Puget Sound Lowland of western Washington most lakes occupy depressions in the surface of glacial drift--the sand, gravel, silt, clay, and till laid down by the Puget lobe of continental glaciers during the ice age. These depressions are either elongate troughs cut by the passing ice sheet or are more circular kettles formed by the melting of stagnant ice blocks.

In the adjacent foothills of the Cascade Range and Olympic Mountains, most lakes occupy depressions eroded into the bedrock by the passing continental glacier, while lakes in the higher mountains are in basins cut by local alpine glaciers.

In eastern Washington, lakes in the higher northern areas--the Okanogan Highlands and Selkirk Mountains--and on the eastern slope of the Cascade Range generally occur in glacier-cut depressions in bedrock. In the semiarid Columbia Plateau, underlain by basalt, most lakes occupy the more deeply cut parts of some coulees of the channeled scablands. Most of these coulees were cut by gigantic, catastrophic floods (Bretz, 1959) resulting from the breaking of ice dams and the rapid emptying of large glacial lakes.

Many lakes have been formed, or increased in size, by man's activities. Numerous reservoirs are located in mountain valleys and serve a variety of purposes, including municipal water supply, irrigation, electrical-power generation, flood control, and recreation. In lowland areas some natural lakes have been enlarged or new lakes have been formed by small dams. In the Columbia Basin Irrigation Project area of eastern Washington, several lakes have been enlarged and reservoirs (Banks Lake and Potholes Reservoir) have been created in conjunction with large-scale irrigation by water diverted from the Columbia River at Grand Coulee Dam. Also, numerous small lakes and ponds have resulted from irrigation in the area.

Data Collected and Definitions

The data collected and the lake parameters used in describing the individual lakes are explained here, prior to presentation of the data for each lake. The parameters are discussed in the sequence in which they appear on the data sheets. The definitions of additional limnological and hydrological terms used throughout the report are found in the Glossary (p. 11).

Lake name. The lake name was taken from U.S. Geological Survey topographic maps. Duplicate lake names are followed by location designations for uniqueness. Lakes that are not named on the topographic map and for which no local name is known are referred to as "unnamed," followed by a location designation. Some lakes that are known not to exist all year long are called "intermittent," followed by a location designation. Only the proper name of the lake is given; in common usage the term "Lake" may either precede or follow the proper name. All adjectives (for example, Big, East, and Upper) follow the lake name. When a lake has two names, both are given, but priority is given to the topographic-map name. The lake names and respective data are listed alphabetically by counties.

Location. Latitude, longitude, township, range, and section location were determined from U.S. Geological Survey quadrangle maps. The location point is the lake outlet. For lakes without outlets, the southernmost shoreline point is used. The lakes are presented in the report according to the county in which the location point occurs.

Drainage basin. The major drainage system in which the lake is located was determined. Many of the lakes are in closed basins that have no surface outlets.

Physical data. Physical parameters were determined from topographic and bathymetric (bottom-contour) maps of the lakes. If bathymetric maps were not available, the lakes were sounded and charted by boat using a continuous-recording fathometer. For lakes with no boat access, a helicopter equipped with a fathometer, pontoons, and a conventional outboard motor was used to chart the lake. By use of aerial photographs and lake depths, the bathymetric data were digitized and transferred to computer cards which served as input to a computerized program that calculated lake morphometric parameters (for example, lake volume, surface area, and length of shoreline).

Drainage area.--The surface-drainage area that contributes water to the lake is given in square miles (sq mi). These areas were delineated on U.S. Geological Survey topographic maps and measured by planimeter. Some lakes are in drainage basins of low rainfall in which surface runoff to the lake may not be a significant factor. Nevertheless, in all cases the drainage area was determined according to topographic divide. The natural drainage area is often altered by the existence of canals, ditches, and diversions for irrigation, power supply, and other uses. In such cases the drainage area was not measured.

Surface altitude.--A single altitude in feet (ft) above mean sea level (msl), obtained from topographic maps, is given for each lake. If not specifically shown on the map, altitudes are estimated from the nearest contour line. The altitude of a reservoir is given as the level of the water surface at normal full reservoir capacity.

Surface area (A).--The surface area of the lake, in acres, was obtained from planimetry of the lake outline or from computerized calculations of digitized data.

Volume (V).--Lake volume, in acre-feet, was obtained either by computing and then summing the volumes of each stratum of water between successive contours on the bathymetric map or by calculating from digitized data. Because lake volume can vary between seasons and from year to year, the volume figures reported (as well as other morphometric data) are intended only to describe the general size of the lake.

Mean depth ($\bar{Z}$).--The mean depth, in feet, for a specified lake stage, was obtained by dividing the volume of the lake by its area.

Maximum depth (Z_m).--The difference in elevation, in feet, between the bottom and the surface of the lake. The maximum depth obtained from field surveys may not necessarily be shown on the bathymetric maps.

Length of shoreline (L).--The distance around, or perimeter, in miles, of the water surface touching the shore at a specified lake stage. The shoreline length depends on the fineness of detail of the shore outline on the bathymetric map.

Shoreline configuration (D_L).--A dimensionless ratio of the length of shoreline to the circumference of a circle having an area equal to that of the lake, given as

$$D_L = \frac{L}{2\sqrt{\pi A}} .$$

This quantity may be regarded as an index of the geological and littoral processes affecting the shape of the lake. Nearly circular lakes have values near unity, subcircular lakes have slightly greater D_L values and elongate lakes have the highest D_L values. High D_L values are common to lakes formed along old drainages or by the damming of streams to form a lake in the valley behind a dam.

High values for shoreline configuration suggest the presence of shallow water and protected bays--areas suitable for plant growth--and also indicate an increase in contact between land and water. Therefore, shoreline configuration is often an indirect indicator of plant growth capacity and enrichment potential from nearshore development and runoff.

Development of volume (D_V).--The development of volume is defined as the ratio of the mean depth ($\bar{Z}$) to the maximum depth (Z_m). Thus, lakes with a low D_V ratio are usually conical-shaped depressions, and lakes with a high D_V ratio are steep-sided with flat bottoms. Shallow lakes, which have large D_V values, tend to provide a greater opportunity for exposure of bottom sediments to overlying water and for circulation of bottom nutrients.

Bottom slope (Z_r).--The slope profile of a lake bottom, expressed as a percentage ratio of the maximum depth to the mean lake diameter (referred to by Hutchinson, 1957, p. 167, as relative depth) and given as

$$Z_r = \frac{Z_m \times 50\sqrt{\pi}}{\sqrt{A}} .$$

Bottom slope is a measure of the extent of shallow water and is important to the growth of rooted aquatic plants and potential for wind mixing of water with bottom sediments.

Basin geology. The predominant geology of the lake's drainage basin was obtained from a geologic map of the State of Washington (Huntting and others, 1961). The drainage basin is indicated as being underlain by either (1) unconsolidated sedimentary deposits and (or) metasedimentary rocks, or (2) igneous rocks.

Inflow. Perennial or intermittent surface inflow is indicated, if known. Some lakes have no visible inflow, and water gain is from direct precipitation on the lake and (or) from ground-water seepage.

Outflow. The presence or absence of a surface-water outflow channel is indicated, if known. Some lakes have no surface-water outflow, and water loss is through evaporation, transpiration, and (or) ground-water seepage.

Cultural data. Data related to cultural development were obtained from topographic maps, aerial photographs, and shoreline reconnaissance by helicopter or boat.

Nearshore residential development.--The percentage of shoreline occupied by residential development was determined from aerial photographs.

Number of nearshore homes.--A count of the number of nearshore homes adjoining the lakefront was made from field observations, topographic maps, or aerial photographs.

Land use.--The drainage basins of the lakes were partitioned into various generalized land-use categories. Values given reflect the percentages of the basin used primarily for forest or for residential urban, residential suburban, or agricultural development. The lake surface is also given as a percentage of the total drainage basin. A general description of the land-use categories is as follows:

a. Residential urban.--Predominant use is for single-family residences, where apartment complexes and commercial or industrial activities also may be present.

b. Residential suburban.--Predominant use is single-family residences.

c. Agricultural.--Pasture or cropland.

d. Forest or unproductive.--Public and private forest lands and tree farms. Lands may include cleared or fallow unproductive land, meadows, wetlands, and seasonal recreational areas.

e. Lake surface.--Includes surface area of the lake and of upstream tributary lakes.

Public boat access to lake.--The presence of a public boat access is indicated. Most public boat access facilities are maintained by the State of Washington Department of Game. The location of the boat access (symbol ▲) is shown on the bathymetric map.

Water-quality data. From helicopters fitted with pontoons or from boats, vertical profiles of temperature and DO (dissolved oxygen) concentration were measured in the deepest part of each lake. Multiple sites were sampled on lakes with areas greater than 1,000 acres and on irregular-shaped lakes. Secchi-disc visibility was also determined. Water samples were collected for color, nutrient, and specific-conductance analyses at depths 3.0 feet below the water surface and 3-5 feet above the lake bottom. Lakes less than 5 feet deep were sampled at about one-third and two-thirds the depth of the lake. For most lakes, estimates of the percentage of both lake area and lake shoreline covered by emersed and (or) floating rooted aquatic plants were made by a visual inspection of the lake during aerial reconnaissance. Samples for fecal-coliform bacteria were collected at selected nearshore sites, approximately 100 feet offshore at a depth of 1 foot below the water surface.

Information from most of the lakes was collected during the periods of July-September 1973 or May-September 1974. All samples were collected and analyzed according to accepted standardized procedures (American Public Health Association and others, 1971; Brown and others, 1970; and Slack and others, 1973).

Nutrients.--A nutrient is any chemical element, ion, or compound that is required by an organism for the continuation of growth, reproduction, and other life processes. Many elements and compounds act as nutrients to supply the food for aquatic plants and algae. However, nitrogen and phosphorus usually are considered the limiting nutrients to plant growth and as such received the most emphasis in this study. Whatever nutrient is limiting aquatic plant growth, the concentrations of nitrogen and phosphorus are useful in evaluating the trophic conditions of a lake (Lee, 1970). The nutrient concentrations that were determined at top and bottom sampling depths included total nitrate, nitrite, ammonia and organic nitrogen, phosphorus, and orthophosphate.

Specific conductance.--Specific conductance is a measure of the water's ability to conduct an electric current and is expressed in micromhos per centimetre at 25°C (Celsius). Because the specific conductance is related to the number and specific chemical types of ions in solution, it can be used for approximating the dissolved-solids concentration in the water.

Water temperature.--Temperature, which varies in lakes with depth and time of year, is an important controlling factor for life processes and chemical-reaction rates, as well as many physical events that occur in the aquatic environment.

For most lakes, the water temperatures listed for the upper, near-surface water were probably close to the maximum for the year when sampled. Temperature profiles in lakes during midsummer, when thermal stratification is marked, generally follow one of two common patterns. In shallow lakes, well exposed to the wind, temperatures will be found to be practically constant from top to bottom. This uniformity of temperature indicates that the waters are well mixed throughout. The other common pattern occurs in deeper lakes, where three characteristic thermal layers are present: (1) an upper zone (epilimnion) of generally warmer water in which temperature is more or less uniform throughout; (2) an intermediate zone (metalimnion) in which temperature decreases rapidly with depth; and (3) a lower zone (hypolimnion) of colder water in which temperature is again more or less uniform throughout.

The temperature of the deep-water layer (hypolimnion) during midsummer is of biological significance because (1) temperature stratification and water circulation affect the vertical distribution of nutrients, and (2) water temperatures affect the potential of cold-water fisheries resources.

Color.--Color is one control of light transmission through water. High color values often result from the decomposition of vegetation, giving the water a brown, tea-like color and reducing water clarity. Color value is determined by a comparison of the water with standardized colored-glass discs and is reported in platinum-cobalt (Pt-Co) units.

Secchi-disc visibility.--Secchi-disc visibility is the depth at which a black and white disc (8 inches in diameter) disappears from view when lowered into the water. Secchi-disc visibility is a measure of water transparency or clarity. Because changes in biological production can cause changes in the color and turbidity of a lake, Secchi-disc visibility often is used as a gross measure of the quantity of plankton in the water. Secchi-disc depths preceded by the symbol ">" indicate the disc was resting on the bottom of the lake and was still visible.

Dissolved oxygen.--The concentration of DO in a lake varies with time of year and depth of water and is a function of many factors, including the water temperature, atmospheric pressure, and salinity of the water. Oxygen concentration in water is continually being altered by life processes, such as photosynthesis and respiration, and by complex chemical reactions. Of special biological significance is the amount of DO in the hypolimnion during midsummer. The organisms in the lighted upper layers of water produce organic matter which eventually settles to the bottom where bacteria consume oxygen to degrade the organic materials, thereby reducing the DO concentration in the hypolimnion. The hypolimnetic-oxygen deficit frequently is related to the biomass or plant growth in the upper waters (Hutchinson, 1957). For good growth and general health of trout, salmon, and other species of cold-water biota, the DO concentrations should not be less than 6.0 mg/l (milligrams per litre) according to the Federal Water Pollution Control Administration (1968).

Emersed plants.--These are large plants that can be seen without magnification. Examples of emersed plants include cattails and sedges in which the leaves or other structures extend above the water surface. In this report, rooted floating aquatic plants such as waterlilies and watershield are considered emersed. The rooted aquatic-plant growth was assessed according to the percentage of the lakeshore and water surface covered by emersed and (or) floating plants.

Remarks. This includes other useful lake information that was obtained during the reconnaissance. Such topics as the following might be included:

1. Descriptive information.
2. Qualifying statements.
3. Availability of additional information.
4. Unusual lake or drainage-basin characteristics.

Bathymetric maps. Bathymetric maps are presented for most of the lakes. The map source and date of the survey are indicated. Some of the bathymetric maps were traced from topographic maps of the lake basins as they existed before irrigation runoff and seepage filled the basins and created the lakes.

Aerial photographs. Vertical aerial photographs are presented for many of the lakes. Black-and-white photographs at approximate scales of 1:12,000 and 1:63,000 were obtained from the State of Washington Department of Natural Resources. For some of the lakes for which vertical photographs were not available, oblique photos taken in the field at the time of sampling were substituted.

GLOSSARY

Acre-foot. Volume of water required to cover 1 acre to a depth of 1 foot, and equal to 43,560 ft^3 (325,851 gallons).

Algae. Simple plants, many microscopic; contain chlorophyll and lack roots, stems, and leaves. Most algae are aquatic and may become a nuisance when environmental conditions are suitable for prolific growth.

Algal bloom. A large number of a particular algal species. A condition when water looks green because of the abundance of planktonic algae.

Bathymetric. Relating to the measurement of water depths, as for a lake.

Cultural eutrophication. The acceleration of the natural process of nutrient enrichment in a lake as a result of man's activities.

Emersed plant. These are large plants that can be seen without magnification. Examples of emersed plants include cattails and sedges in which the leaves or other structures extend above the water surface. In this report, rooted floating aquatic plants such as waterlilies and watershield are considered emersed.

Eutrophication, eutrophic. The enrichment of water, a natural process that may be accelerated by the activities of man; pertains to waters in which primary productivity is generally high as a consequence of a large supply of available nutrients.

Hydrogen sulfide. A gas with a distinctive "rotten egg" odor which can be detected in the hypolimnetic water containing only a few tenths of a milligram per litre of sulfide.

Intermittent or seasonal stream. Flows at certain times of the year when it receives water from springs or from some surface source, such as melting snow in mountainous areas.

Limnology. The study of fresh waters, especially that of lakes.

Littoral. The shoreward region of a body of water.

Macrophyte. Large plants that can be seen without magnification; includes mosses and seed plants.

Marsh. Periodically wet or continually flooded areas where the surface is not deeply submerged, covered dominantly with sedges, cattails, rushes, or other plants that require marshy conditions for their growth.

Meromictic Lake. A lake in which dissolved substances have significantly increased the density of the deep water and as a consequence undergoes only partial mixing.

Morphometry. Definition of physical shape and size, as of a water body.

Muck. A mixture containing highly decomposed organic material in which the original plant parts are not recognizable. Contains more mineral matter, and is usually darker, than peat.

Phytoplankton. The plant portion of the plankton.

Plankton. Suspended organisms that drift with the water currents.

Production. The total amount of living matter produced in an area per unit time regardless of the fate of the living matter.

Submersed plant. A rooted aquatic plant that lives and completes its life cycle entirely below the surface of the water. Examples of submersed plants include water milfoil, pondweed, and elodea.

Thermal stratification. The layering of water masses owing to different densities in response to temperature.

Zooplankton. The animal portion of the plankton.

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BASIC DATA

AKLALI (PINES) LAKE ADAMS COUNTY

LATITUDE 47°14' 3" LONGITUDE 117°58'57" T20N-R38E-14
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	1.33 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1874. FT		
LAKE AREA	110. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	240. ACRE-FT		
MEAN DEPTH	2. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	5. FT		
SHORELINE LENGTH	3.4 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.3	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.43	AGRICULTURAL	86 %
BOTTOM SLOPE	0.20 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	13 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

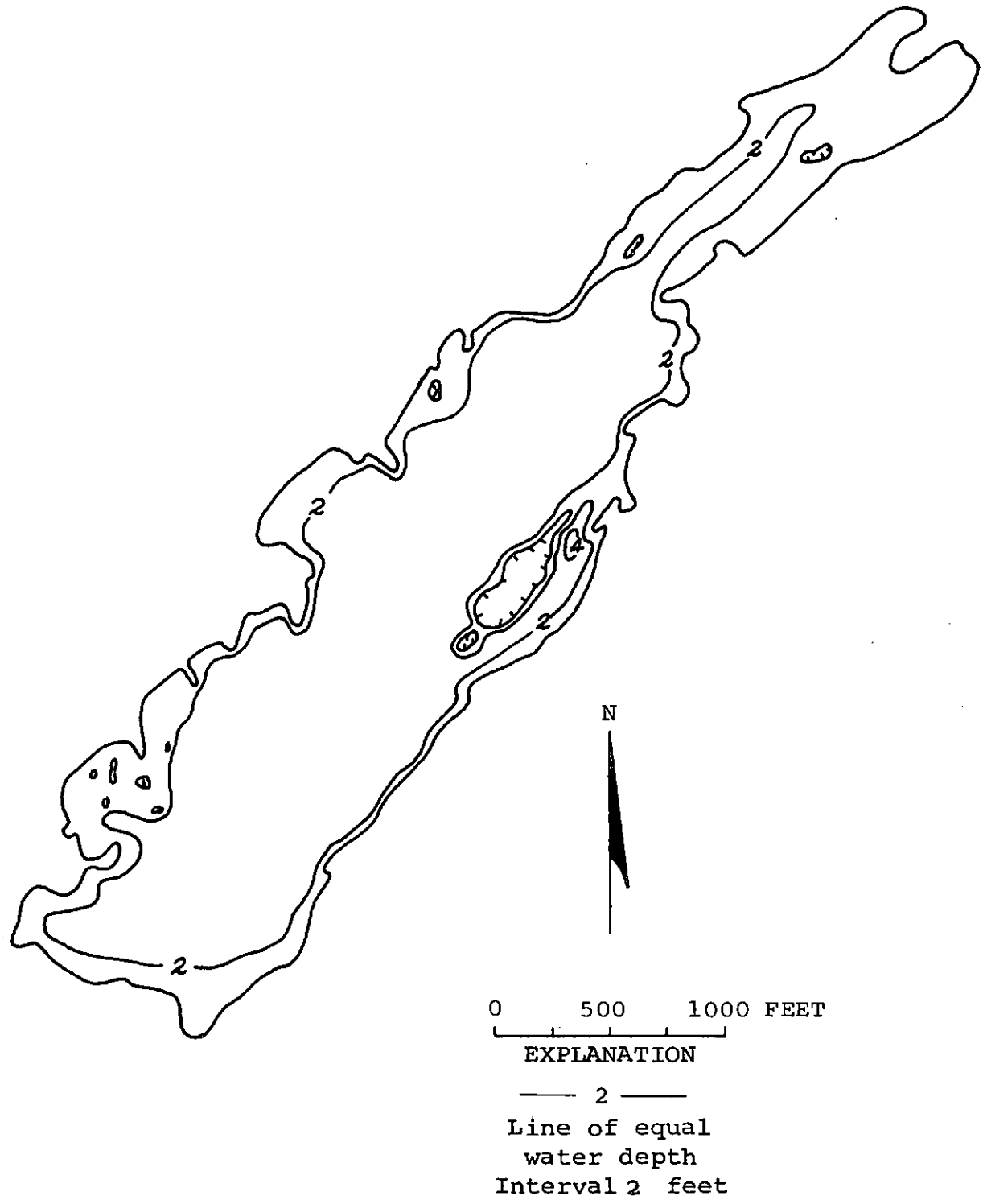
SAMPLE SITE	1	
DATE	6/21/74	
TIME	1105	1110
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	0.06	0.06
TOTAL NITRITE (N)	0.02	0.02
TOTAL AMMONIA (N)	0.28	0.28
TOTAL ORGANIC NITROGEN (N)	2.8	3.0
TOTAL PHOSPHORUS (P)	1.7	2.0
TOTAL ORTHOPHOSPHATE (P)	1.5	1.7
SPECIFIC CONDUCTANCE (MICROMHOS)	4200	4200
WATER TEMPERATURE (DEG C)	20.3	20.3
COLOR (PLATINUM-COBALT UNITS)	90	85
SECCHI-DISC VISIBILITY (FT)	2	
DISSOLVED OXYGEN	6.8	6.8

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/21/74
TIME	1110
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	<1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

NO SUBMERSED AQUATIC PLANTS WERE OBSERVED. THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (SEDGE, RUSHES).



Alkali (Pines) Lake, Adams County. From
U.S. Geological Survey, October 8, 1974.

BLACK LAKE ADAMS COUNTY

LATITUDE 46°54'18" LONGITUDE 119°17'41" T16N-R28E-3
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	790. FT		
LAKE AREA	28. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	350. ACRE-FT		
MEAN DEPTH	13. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	23. FT		
SHORELINE LENGTH	2.6 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	3.4		
DEVELOPMENT OF VOLUME	0.55		
BOTTOM SLOPE	1.8 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

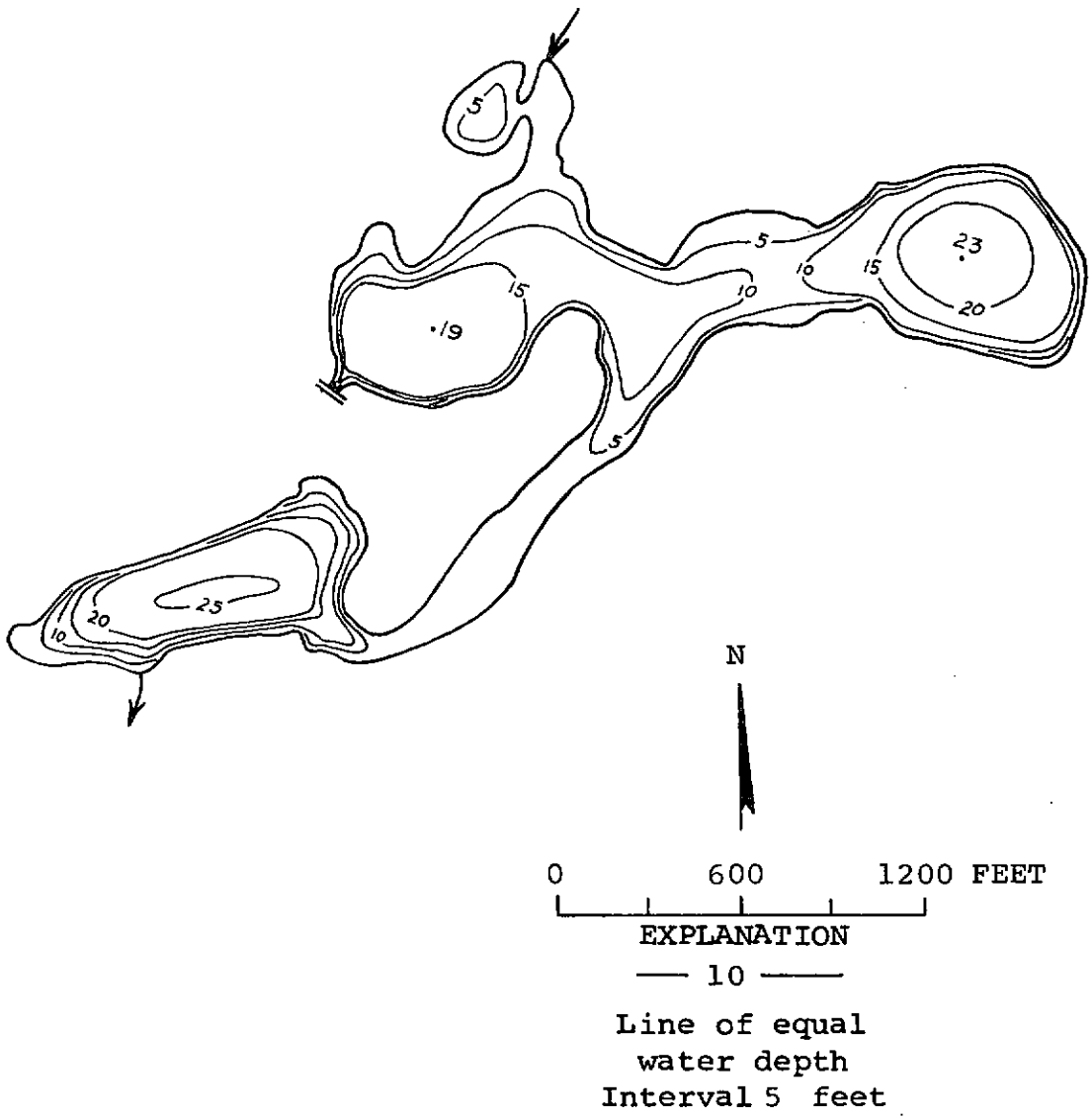
SAMPLE SITE	1	
DATE	5/31/74	
TIME	1000	1005
DEPTH (FT)	3.	23.
TOTAL NITRATE (N)	0.01	0.02
TOTAL NITRITE (N)	0.00	0.01
TOTAL AMMONIA (N)	0.04	0.28
TOTAL ORGANIC NITROGEN (N)	0.54	0.35
TOTAL PHOSPHORUS (P)	0.023	0.041
TOTAL ORTHOPHOSPHATE (P)	0.003	0.005
SPECIFIC CONDUCTANCE (MICROMHOS)	300	460
WATER TEMPERATURE (DEG C)	17.8	11.8
COLOR (PLATINUM-COBALT UNITS)	5	5
SECCHI-DISC VISIBILITY (FT)	7	
DISSOLVED OXYGEN	10.0	0.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	1- 9 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	5/31/74
TIME	930
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	5
FECAL COLIFORM, MEAN (COL./100ML)	2

REMARKS

THE LAKE IS PART OF AN OLD IRRIGATION SYSTEM BUT IS NO LONGER USED FOR THAT PURPOSE. IT IS FED BY IRRIGATION RUNOFF WATER FROM LOWER GOOSE LAKE IN GRANT COUNTY AND IS SEPARATED FROM LOWER BLACK LAKE BY A CONCRETE WEIR. HYDROGEN SULFIDE WAS DETECTED IN THE HYPOLIMNION. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE IRRIGATION WATER IS IMPORTED FROM OUTSIDE THE NATURAL DRAINAGE AREA.



Black Lake, Adams County. From Washington Department of Game, February 4, 1951.

COW LAKE ADAMS COUNTY

LATITUDE 47° 7'44" LONGITUDE 118°10'28" T19N-R37E-20
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	315. SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1749. FT		
LAKE AREA	240. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	1400. ACRE-FT		
MEAN DEPTH	6. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	21. FT		
SHORELINE LENGTH	7.6 MI	RESIDENTIAL URBAN	1 %
SHORELINE CONFIGURATION	3.5	RESIDENTIAL SUBURBAN	<1 %
DEVELOPMENT OF VOLUME	0.28	AGRICULTURAL	90 %
BOTTOM SLOPE	0.58 %	FOREST OR UNPRODUCTIVE	8 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

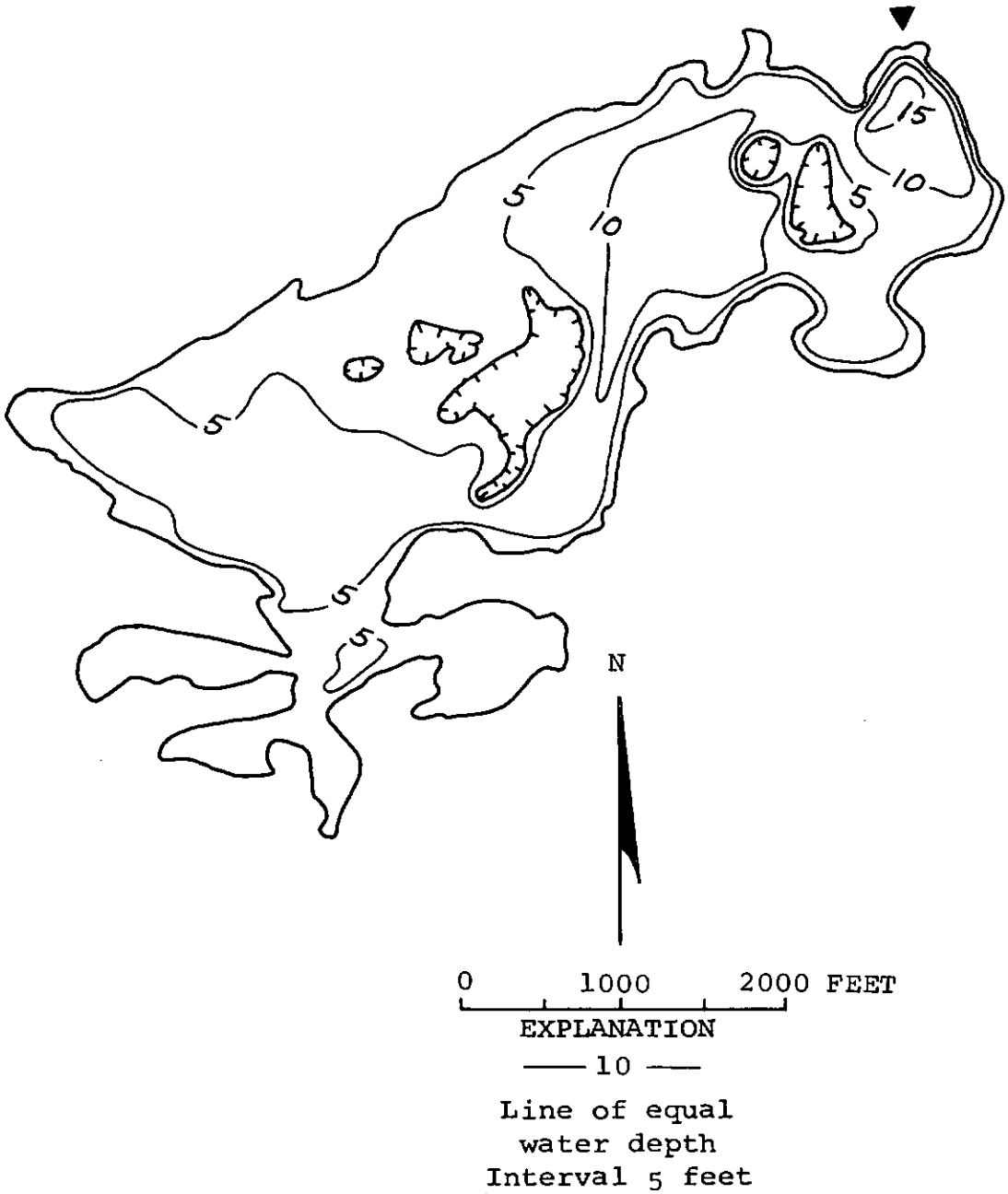
SAMPLE SITE	1	
DATE	6/20/74	
TIME	1430	1435
DEPTH (FT)	2.	5.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.13	0.15
TOTAL ORGANIC NITROGEN (N)	1.2	1.4
TOTAL PHOSPHORUS (P)	0.15	0.18
TOTAL ORTHOPHOSPHATE (P)	0.037	0.039
SPECIFIC CONDUCTANCE (MICROMHOS)	420	420
WATER TEMPERATURE (DEG C)	22.0	22.0
COLOR (PLATINUM-COBALT UNITS)	25	25
SECCHI-DISC VISIBILITY (FT)	2	
DISSOLVED OXYGEN	7.3	7.4

LAKE SHORELINE COVERED BY EMERSED PLANTS	1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/20/74
TIME	1400
NUMBER OF FECAL COLIFORM SAMPLES	5
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	248
FECAL COLIFORM, MEAN (COL./100ML)	63

REMARKS

THE LAKE IS AN ENLARGEMENT OF COW CREEK AND IS CONTROLLED BY A DAM AT THE OUTLET. THE LITTORAL BOTTOM IS SILT. THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION.



Cow Lake, Adams County. From
U.S. Geological Survey, April 23, 1974.

FINNEL LAKE ADAMS COUNTY

LATITUDE 47° 5'29" LONGITUDE 118°13'52" T19N-R36E-36
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	326. SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1674. FT		
LAKE AREA	40. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	230. ACRE-FT		
MEAN DEPTH	6. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	13. FT		
SHORELINE LENGTH	2.0 MI	RESIDENTIAL URBAN	1 %
SHORELINE CONFIGURATION	2.3	RESIDENTIAL SUBURBAN	<1 %
DEVELOPMENT OF VOLUME	0.45	AGRICULTURAL	90 %
BOTTOM SLOPE	0.88 %	FOREST OR UNPRODUCTIVE	8 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

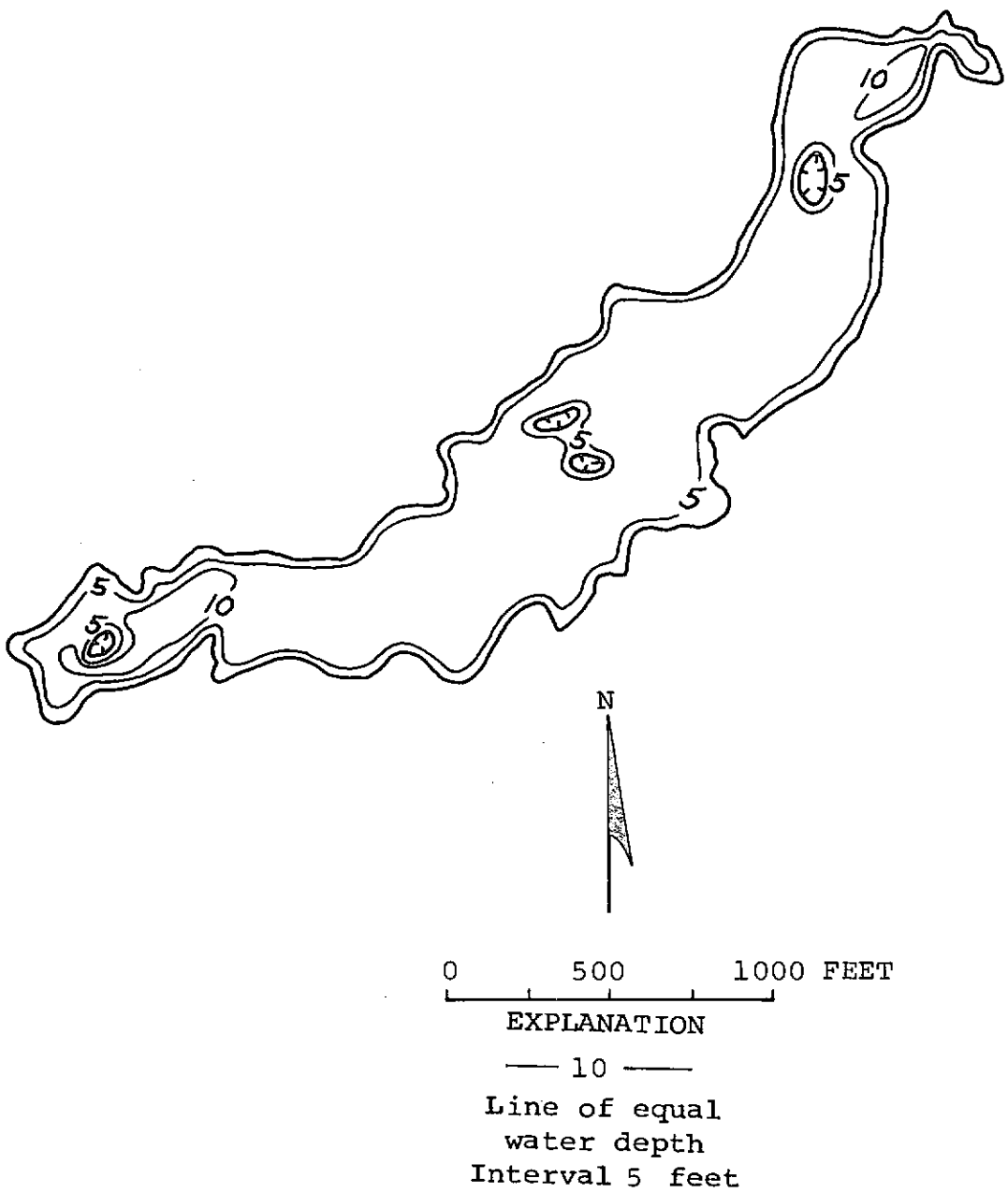
SAMPLE SITE	1	
DATE	6/20/74	
TIME	1330	1335
DEPTH (FT)	3.	5.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.10	0.11
TOTAL ORGANIC NITROGEN (N)	1.1	1.2
TOTAL PHOSPHORUS (P)	0.10	0.10
TOTAL ORTHOPHOSPHATE (P)	0.037	0.052
SPECIFIC CONDUCTANCE (MICROMHOS)	400	400
WATER TEMPERATURE (DEG C)	22.8	22.8
COLOR (PLATINUM-COBALT UNITS)	35	40
SECCHI-DISC VISIBILITY (FT)	2	
DISSOLVED OXYGEN	6.4	6.3

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/20/74
TIME	1340
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	15
FECAL COLIFORM, MAXIMUM (COL./100ML)	--
FECAL COLIFORM, MEAN (COL./100ML)	--

REMARKS

THE LAKE IS AN ENLARGEMENT OF COW CREEK. FILAMENTOUS GREEN ALGAE, BUT NO SUBMERSED AQUATIC PLANTS, WERE OBSERVED. THE FECAL COLIFORM COLONIES IN ONE SAMPLE WERE TOO NUMEROUS TO COUNT.



Finnel Lake, Adams County. From
U.S. Geological Survey, April 23, 1974.

FOURTH OF JULY LAKE ADAMS COUNTY

LATITUDE 47°14'45" LONGITUDE 117°58'56" T20N-R38E-11
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	1.25 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1900. FT		
LAKE AREA	110. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	2200. ACRE-FT		
MEAN DEPTH	20. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	40. FT		
SHORELINE LENGTH	4.7 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	3.1	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.50	AGRICULTURAL	85 %
BOTTOM SLOPE	1.6 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	14 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

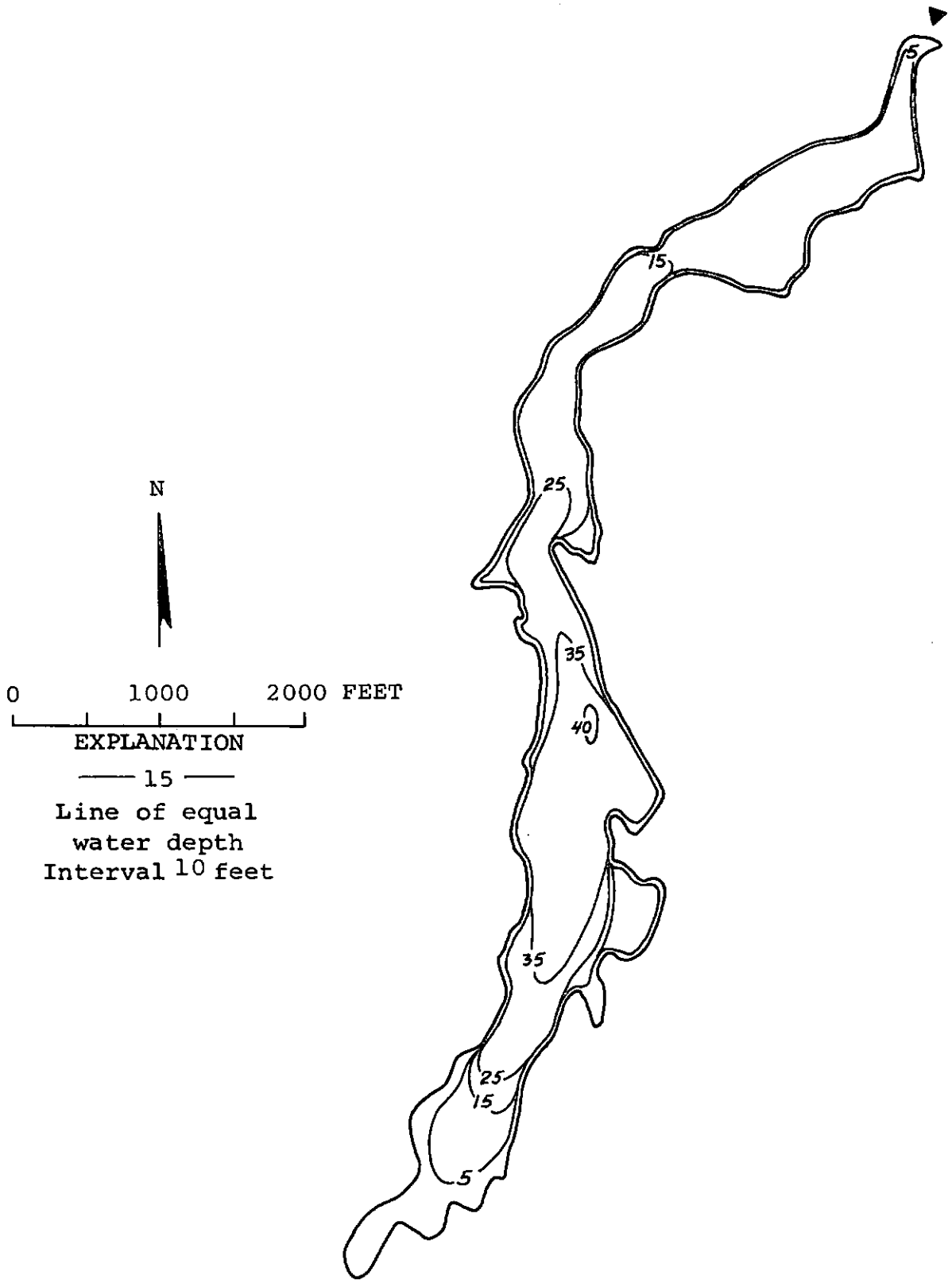
SAMPLE SITE	1	
DATE	6/21/74	
TIME	1010	1015
DEPTH (FT)	3.	33.
TOTAL NITRATE (N)	0.02	0.00
TOTAL NITRITE (N)	0.01	0.00
TOTAL AMMONIA (N)	0.08	0.54
TOTAL ORGANIC NITROGEN (N)	1.6	1.7
TOTAL PHOSPHORUS (P)	0.068	0.29
TOTAL ORTHOPHOSPHATE (P)	0.020	0.25
SPECIFIC CONDUCTANCE (MICROMHOS)	1000	1200
WATER TEMPERATURE (DEG C)	21.0	12.4
COLOR (PLATINUM-COBALT UNITS)	10	15
SECCHI-DISC VISIBILITY (FT)	15	
DISSOLVED OXYGEN	9.3	0.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	11- 25 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/21/74
TIME	1020
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	3
FECAL COLIFORM, MAXIMUM (COL./100ML)	<1
FECAL COLIFORM, MEAN (COL./100ML)	1

REMARKS

THE LAKE IS PARTLY IN LINCOLN COUNTY. HYDROGEN SULFIDE WAS DETECTED IN THE HYPOLIMNION.



Fourth of July Lake, Adams County. From Washington Department of Game, February 12, 1957.

GREEN LAKE ADAMS COUNTY

LATITUDE 47° 9' 6" LONGITUDE 118° 1'36" T19N-R38E-9
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	5.72 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1784. FT		
LAKE AREA	97. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	1200. ACRE-FT		
MEAN DEPTH	13. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	26. FT		
SHORELINE LENGTH	3.5 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.5	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.48	AGRICULTURAL	97 %
BOTTOM SLOPE	1.1 %	FOREST OR UNPRODUCTIVE	<1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	3 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

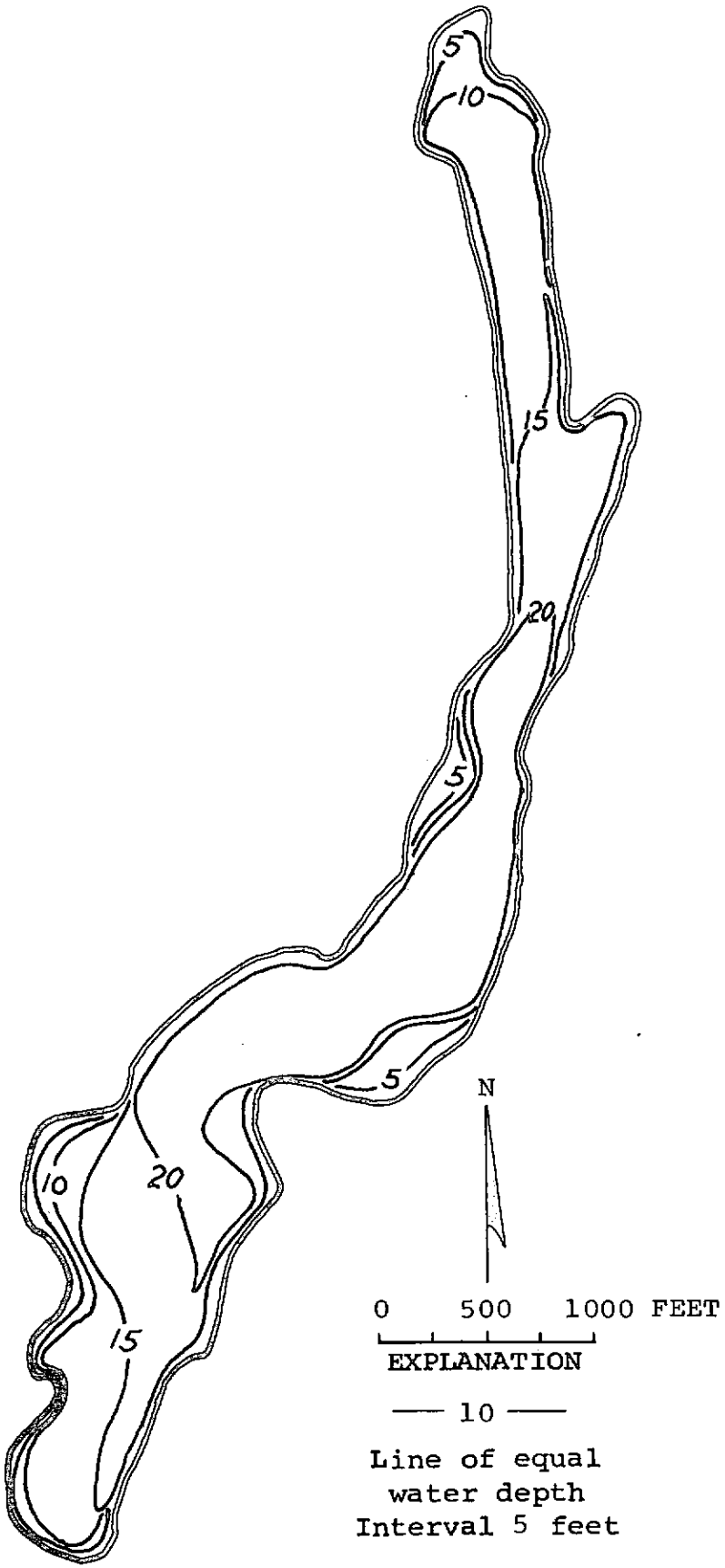
SAMPLE SITE	1	
DATE	6/20/74	
TIME	1200	1205
DEPTH (FT)	3.	10.
TOTAL NITRATE (N)	0.01	0.00
TOTAL NITRITE (N)	0.00	0.01
TOTAL AMMONIA (N)	0.13	0.11
TOTAL ORGANIC NITROGEN (N)	1.1	1.1
TOTAL PHOSPHORUS (P)	0.081	0.084
TOTAL ORTHOPHOSPHATE (P)	0.009	0.008
SPECIFIC CONDUCTANCE (MICROMHOS)	340	340
WATER TEMPERATURE (DEG C)	22.0	22.0
COLOR (PLATINUM-COBALT UNITS)	20	25
SECCHI-DISC VISIBILITY (FT)	4	
DISSOLVED OXYGEN	7.5	7.4

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/20/74
TIME	1100
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	5
FECAL COLIFORM, MAXIMUM (COL./100ML)	9
FECAL COLIFORM, MEAN (COL./100ML)	9

REMARKS

THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (POLYGONUM).
THE DO CONCENTRATION WAS HIGH THROUGHOUT THE ENTIRE WATER COLUMN.



Green Lake, Adams County. From
U.S. Geological Survey, April 26, 1974.

HALLIN LAKE ADAMS COUNTY

LATITUDE 47° 8' 9" LONGITUDE 118° 9'11" T19N-R37E-16
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	313. SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1760. FT		
LAKE AREA	36. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	87. ACRE-FT		
MEAN DEPTH	2. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	14. FT		
SHORELINE LENGTH	1.6 MI	RESIDENTIAL URBAN	1 %
SHORELINE CONFIGURATION	1.9	RESIDENTIAL SUBURBAN	<1 %
DEVELOPMENT OF VOLUME	0.17	AGRICULTURAL	90 %
BOTTOM SLOPE	1.0 %	FOREST OR UNPRODUCTIVE	8 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

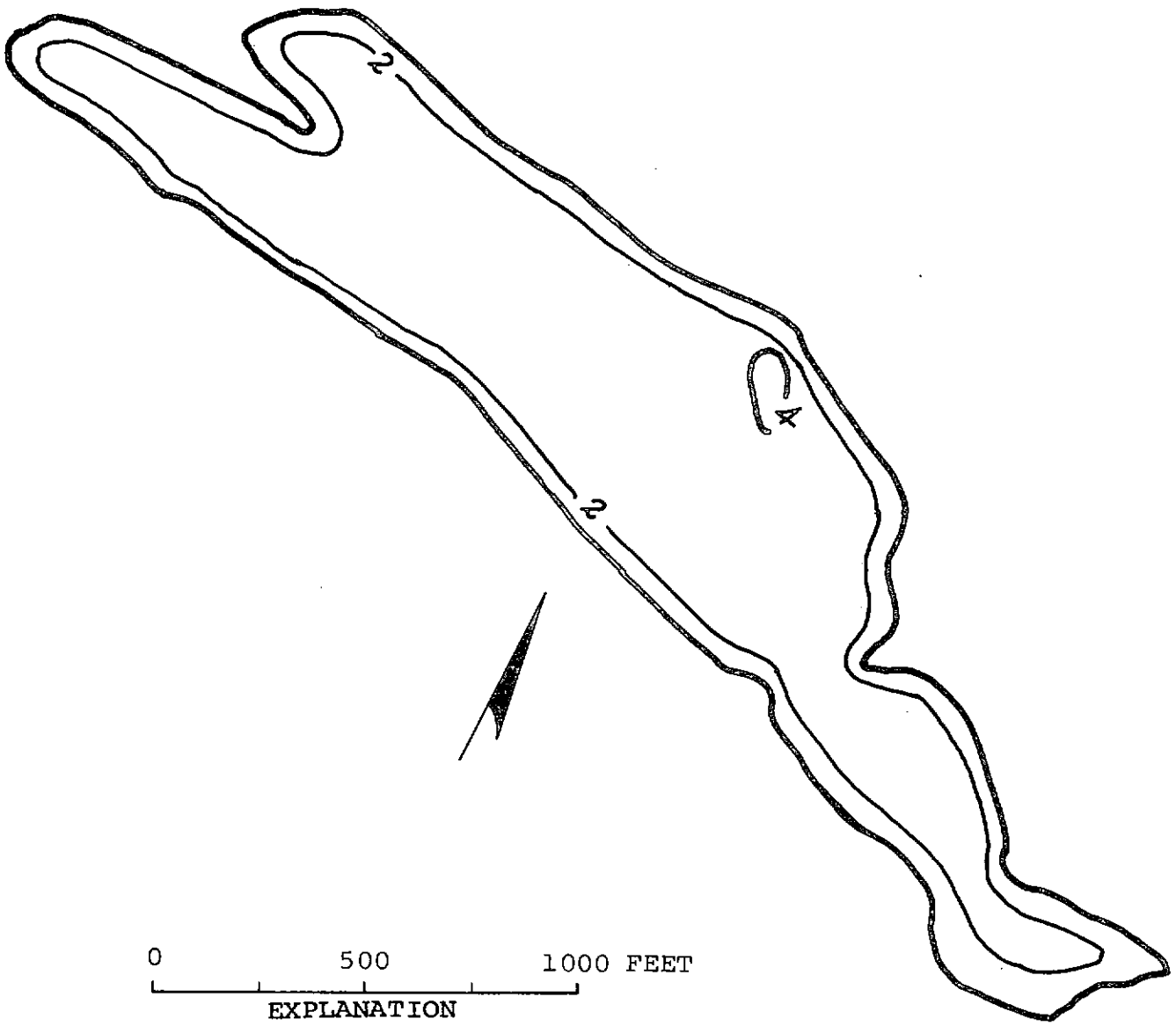
SAMPLE SITE	1	
DATE	6/20/74	
TIME	1530	1535
DEPTH (FT)	1.	2.
TOTAL NITRATE (N)	0.13	0.12
TOTAL NITRITE (N)	0.05	0.05
TOTAL AMMONIA (N)	0.46	0.40
TOTAL ORGANIC NITROGEN (N)	1.5	1.6
TOTAL PHOSPHORUS (P)	0.26	0.25
TOTAL ORTHOPHOSPHATE (P)	0.14	0.14
SPECIFIC CONDUCTANCE (MICROMHOS)	400	400
WATER TEMPERATURE (DEG C)	21.0	21.0
COLOR (PLATINUM-COBALT UNITS)	55	55
SECCHI-DISC VISIBILITY (FT)	2	
DISSOLVED OXYGEN	6.2	6.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	26- 50 %
LAKE SURFACE COVERED BY EMERSED PLANTS	51- 75 %

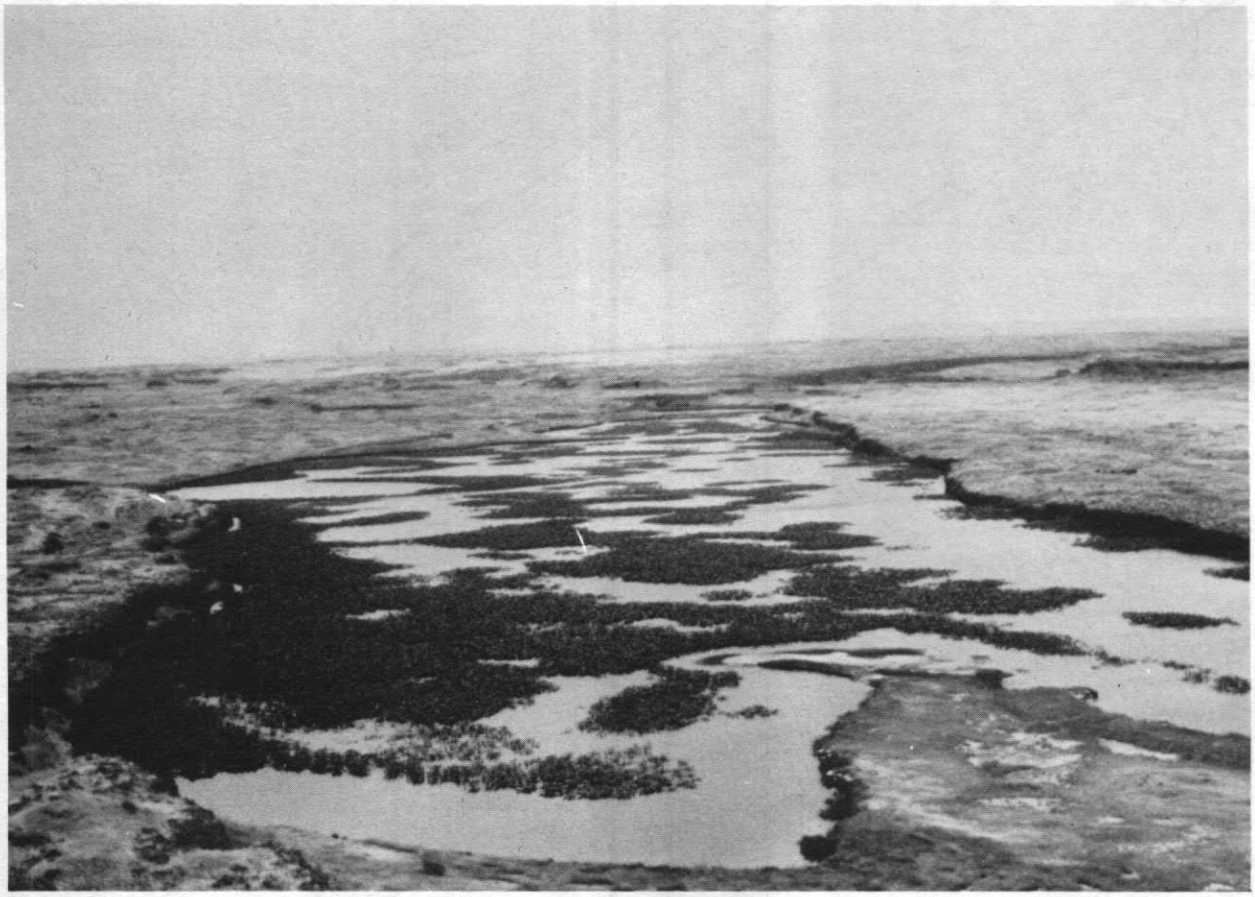
DATE	6/20/74
TIME	1500
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	4
FECAL COLIFORM, MAXIMUM (COL./100ML)	81
FECAL COLIFORM, MEAN (COL./100ML)	36

REMARKS

THE LAKE IS AN ENLARGEMENT OF COW CREEK. THE LITTORAL BOTTOM IS SILT.



Hallin Lake, Adams County. From
U.S. Geological Survey, July 23, 1974.



Hallin Lake, Adams County. From
U.S. Geological Survey, June 20, 1974.

LINDA LAKE ADAMS COUNTY

LATITUDE 46°45' 2" LONGITUDE 119°12'24" T15N-R29E-32
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	832. FT		
LAKE AREA	140. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	1100. ACRE-FT		
MEAN DEPTH	8. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	20. FT		
SHORELINE LENGTH	3.? MI	NOT DETERMINED	
SHORELINE CONFIGURATION	1.9		
DEVELOPMENT OF VOLUME	0.40		
BOTTOM SLOPE	0.72 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

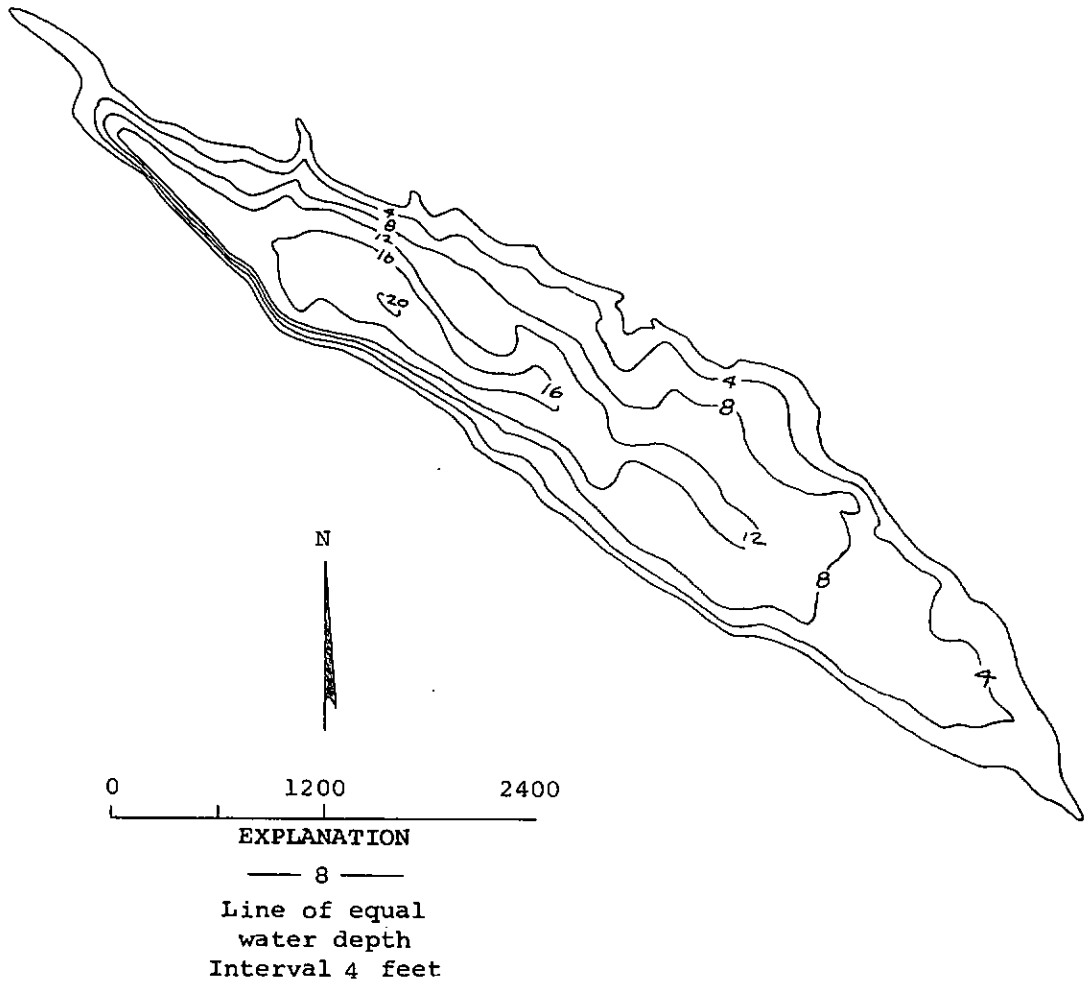
SAMPLE SITE	1	
DATE	5/23/74	
TIME	1730	1735
DEPTH (FT)	3.	10.
TOTAL NITRATE (N)	0.38	0.38
TOTAL NITRITE (N)	0.03	0.03
TOTAL AMMONIA (N)	0.08	0.08
TOTAL ORGANIC NITROGEN (N)	0.73	0.61
TOTAL PHOSPHORUS (P)	0.056	0.060
TOTAL ORTHOPHOSPHATE (P)	0.007	0.008
SPECIFIC CONDUCTANCE (MICROMHOS)	750	750
WATER TEMPERATURE (DEG C)	17.0	17.0
COLOR (PLATINUM-COBALT UNITS)	30	30
SECCHI-DISC VISIBILITY (FT)	4	
DISSOLVED OXYGEN	13.1	13.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	11- 25 %

DATE	5/23/74
TIME	1700
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	15
FECAL COLIFORM, MAXIMUM (COL./100ML)	--
FECAL COLIFOPM, MEAN (COL./100ML)	--

REMARKS

THE LAKE IS FED BY IRRIGATION WATER AND SUPPORTS A LARGE WATERFOWL POPULATION. THE LITTORAL BOTTOM IS SILT AND CLAY. THE FECAL COLIFORM COLONIES IN ONE SAMPLE WERE TOO NUMEROUS TO COUNT. THE NORTHEASTERN SHORE IS MARSHY. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE IRRIGATION WATER IS IMPORTED FROM OUTSIDE THE NATURAL DRAINAGE AREA.



Linda Lake, Adams County. From
U.S. Geological Survey, March 10, 1975.

MCELROY LAKE ADAMS COUNTY

LATITUDE 47* 0'40" LONGITUDE 118*27'26" T18N-R35E-31
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	33.5 SQ MI	RESIDENTIAL DEVELOPMENT	2 %
ALTITUDE	1650. FT		
LAKE AREA	42. ACRES	NUMBER OF NEARSHORE HOMES	1
LAKE VOLUME (EST.)	58. ACRE-FT		
MEAN DEPTH (EST.)	1. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	3. FT		
SHORELINE LENGTH	1.5 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.7	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.53	AGRICULTURAL	100 %
BOTTOM SLOPE	0.17 %	FOREST OR UNPRODUCTIVE	0 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	<1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1	
DATE	6/20/74	
TIME	1200	1205
DEPTH (FT)	1.	2.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.46	0.46
TOTAL ORGANIC NITROGEN (N)	2.7	2.9
TOTAL PHOSPHORUS (P)	2.1	2.2
TOTAL ORTHOPHOSPHATE (P)	2.0	2.0
SPECIFIC CONDUCTANCE (MICROMHOS)	1250	1250
WATER TEMPERATURE (DEG C)	21.2	21.2
COLOR (PLATINUM-COBALT UNITS)	60	65
SECCHI-DISC VISIBILITY (FT)	2	
DISSOLVED OXYGEN	4.8	4.8

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	6/20/74
TIME	1210
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	5
FECAL COLIFORM, MAXIMUM (COL./100ML)	--
FECAL COLIFORM, MEAN (COL./100ML)	--

REMARKS

THE LAKE HAS NO FISH AND OCCASIONALLY DRIES UP. THE VALUES GIVEN FOR MEAN DEPTH AND VOLUME ARE ESTIMATED. THE FECAL COLIFORM COLONIES FROM ONE SAMPLE WERE TOO NUMEROUS TO COUNT. THE LITTORAL BOTTOM IS SILT AND MUCK.

NIGGER LAKE ADAMS COUNTY

LATITUDE 46*50'54" LONGITUDE 118* 4'50" T16N-R38E-30
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	5.57 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1438. FT		
LAKE AREA	14. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	24. ACRE-FT		
MEAN DEPTH	2. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	3. FT		
SHORELINE LENGTH	0.88 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.7	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.56	AGRICULTURAL	100 %
BOTTOM SLOPE	0.34 %	FOREST OR UNPRODUCTIVE	0 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	<1 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

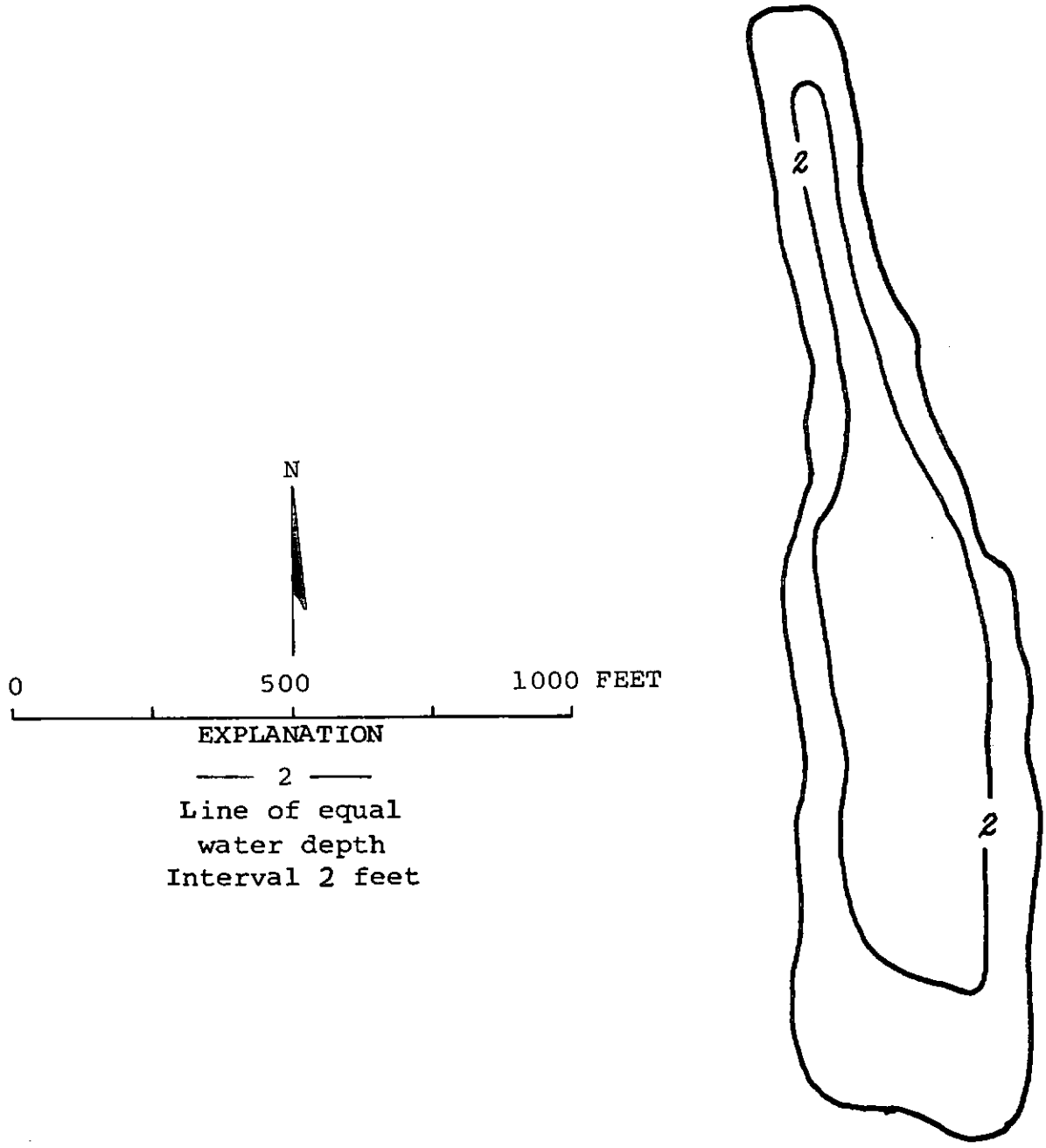
SAMPLE SITE	1	
DATE	6/20/74	
TIME	940	945
DEPTH (FT)	0.3	1.
TOTAL NITRATE (N)	0.00	0.03
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.18	0.17
TOTAL ORGANIC NITROGEN (N)	2.8	2.4
TOTAL PHOSPHORUS (P)	1.2	1.2
TOTAL ORTHOPHOSPHATE (P)	0.75	0.72
SPECIFIC CONDUCTANCE (MICROMHOS)	790	790
WATER TEMPERATURE (DEG C)	18.7	18.7
COLOR (PLATINUM-COBALT UNITS)	50	50
SECCHI-DISC VISIBILITY (FT)	0.3	
DISSOLVED OXYGEN	7.9	7.9

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/20/74
TIME	945
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	23
FECAL COLIFORM, MAXIMUM (COL./100ML)	--
FECAL COLIFORM, MEAN (COL./100ML)	--

REMARKS

LAKE LEVELS ARE STABILIZED BY AN EARTHEN DAM AT THE SOUTH END OF THE LAKE. NO SUBMERSED AQUATIC PLANTS WERE OBSERVED. THE LITTORAL BOTTOM IS CLAY AND SILT. THE FECAL COLIFORM COLONIES FROM ONE SAMPLE WERE TOO NUMEROUS TO COUNT.



Nigger Lake, Adams County. From
U.S. Geological Survey, April 27, 1974.

OWL LAKE ADAMS COUNTY

LATITUDE 46°50'11" LONGITUDE 119°13'23" T16N-R29E-31
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	10.2 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	825. FT		
LAKE AREA	21. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	340. ACRE-FT		
MEAN DEPTH	16. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	35. FT		
SHORELINE LENGTH	1.7 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.7	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.46	AGRICULTURAL	61 %
BOTTOM SLOPE	3.2 %	FOREST OR UNPRODUCTIVE	39 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	<1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

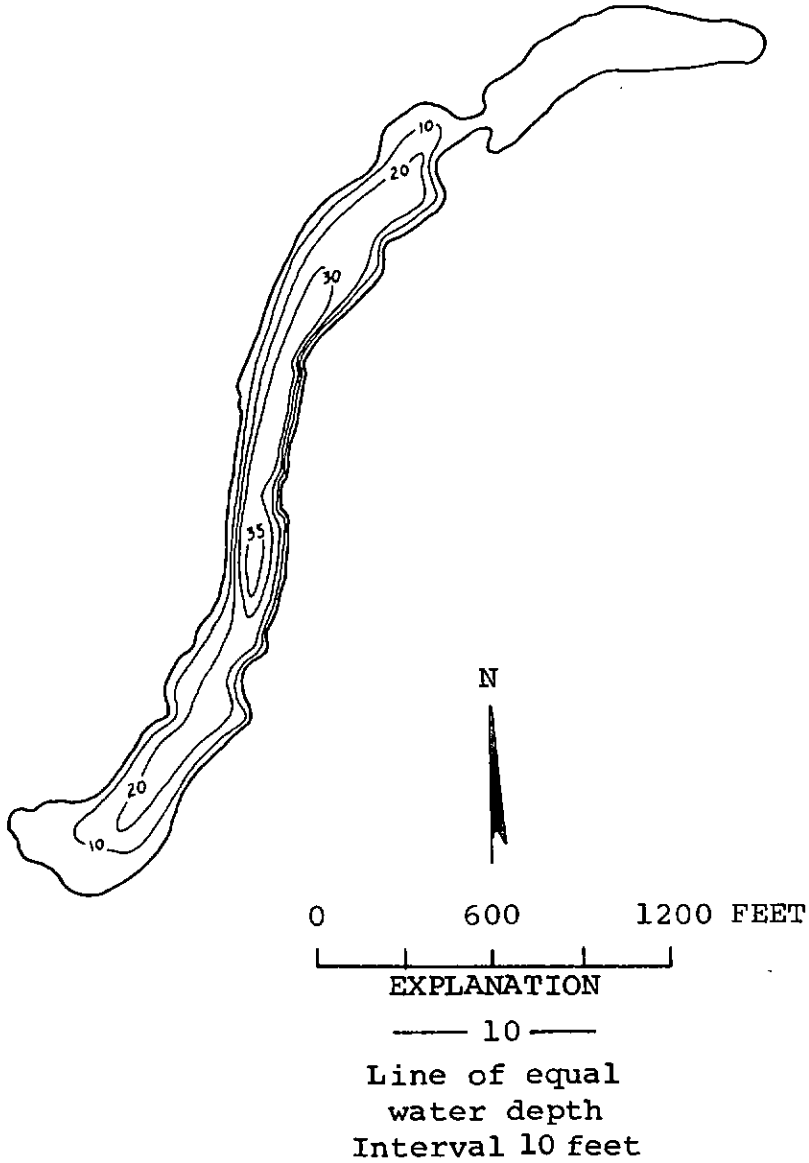
SAMPLE SITE	1	
DATE	5/24/74	
TIME	1100	1105
DEPTH (FT)	3.	26.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.00	0.01
TOTAL AMMONIA (N)	0.12	0.17
TOTAL ORGANIC NITROGEN (N)	2.1	2.3
TOTAL PHOSPHORUS (P)	0.20	0.18
TOTAL ORTHOPHOSPHATE (P)	0.012	0.020
SPECIFIC CONDUCTANCE (MICROMHOS)	1200	1500
WATER TEMPERATURE (DEG C)	16.0	11.5
COLOR (PLATINUM-COBALT UNITS)	50	50
SECCHI-DISC VISIBILITY (FT)	1	
DISSOLVED OXYGEN	11.8	0.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	5/24/74
TIME	1110
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	10
FECAL COLIFORM, MAXIMUM (COL./100ML)	135
FECAL COLIFORM, MEAN (COL./100ML)	53

REMARKS

THE LAKE FORMED ABOUT 1953 FROM IRRIGATION SEEPAGE. NO SUBMERSED AQUATIC PLANTS WERE OBSERVED. HYDROGEN SULFIDE WAS DETECTED IN THE HYPOLIMNION.



Owl Lake, Adams County. From Washington Department of Game, August 28, 1958.

PALM LAKE ADAMS COUNTY

LATITUDE 47*11' 1" LONGITUDE 118* 3' 0" T20N-R38E-32
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	1.24 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1851. FT		
LAKE AREA	86. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	410. ACRE-FT		
MEAN DEPTH	5. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	7. FT		
SHORELINE LENGTH	2.6 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.0	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.68	AGRICULTURAL	89 %
BOTTOM SLOPE	0.32 %	FOREST OR UNPRODUCTIVE	0 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	11 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

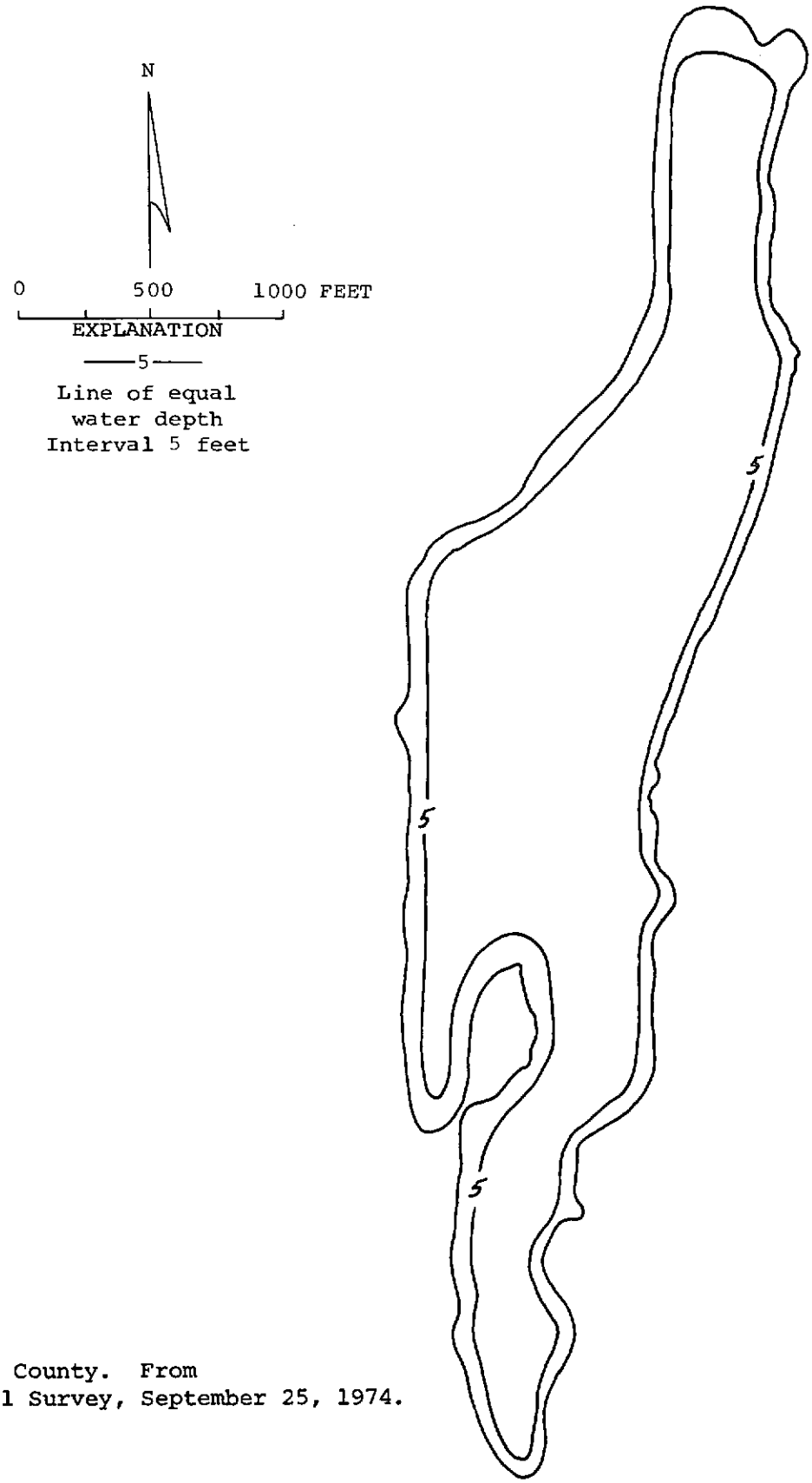
SAMPLE SITE	1	
DATE	6/20/74	
TIME	1030	1035
DEPTH (FT)	2.	5.
TOTAL NITRATE (N)	0.15	0.17
TOTAL NITRITE (N)	0.03	0.03
TOTAL AMMONIA (N)	0.36	0.37
TOTAL ORGANIC NITROGEN (N)	2.1	2.2
TOTAL PHOSPHORUS (P)	0.32	0.32
TOTAL ORTHOPHOSPHATE (P)	0.26	0.26
SPECIFIC CONDUCTANCE (MICROMHOS)	680	680
WATER TEMPERATURE (DEG C)	20.8	21.0
COLOR (PLATINUM-COBALT UNITS)	60	60
SECCHI-DISC VISIBILITY (FT)	3	
DISSOLVED OXYGEN	6.8	6.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	11- 25 %

DATE	6/20/74
TIME	930
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	5
FECAL COLIFORM, MAXIMUM (COL./100ML)	73
FECAL COLIFORM, MEAN (COL./100ML)	37

REMARKS

THE BOTTOM WAS COMPLETELY COVERED WITH SUBMERSED AQUATIC PLANTS (PONDWEED AND WATER MILFOIL). THE SHORELINE WAS COMPLETELY COVERED WITH EMERSED AQUATIC PLANTS (YELLOW LILY AND SEDGE). THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION. THE LITTORAL BOTTOM IS SILT AND MUCK. BLUE-GREEN ALGAL SCUM WAS OBSERVED.



Palm Lake, Adams County. From
U.S. Geological Survey, September 25, 1974.

RODEO LAKE ADAMS COUNTY

LATITUDE 46°48'42" LONGITUDE 119°11'31" T15N-R29E-4
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	0.33 SQ MI	RESIDENTIAL DEVELOPMENT	36 %
ALTITUDE	962. FT		
LAKE AREA	48. ACRES	NUMBER OF NEARSHORE HOMES	13
LAKE VOLUME	140. ACRE-FT		
MEAN DEPTH	3. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	5. FT		
SHORELINE LENGTH	1.5 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.5	RESIDENTIAL SUBURBAN	10 %
DEVELOPMENT OF VOLUME	0.62	AGRICULTURAL	67 %
BOTTOM SLOPE	0.28 %	FOREST OR UNPRODUCTIVE	0 %
BASIN GEOLOGY	SED./META.	LAKE SURFACE	23 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1	
DATE	5/24/74	
TIME	1600	1605
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.15	0.16
TOTAL ORGANIC NITROGEN (N)	1.6	0.84
TOTAL PHOSPHORUS (P)	0.40	0.29
TOTAL ORTHOPHOSPHATE (P)	0.066	0.074
SPECIFIC CONDUCTANCE (MICROMHOS)	750	750
WATER TEMPERATURE (DEG C)	18.2	18.2
COLOR (PLATINUM-COBALT UNITS)	80	85
SECCHI-DISC VISIBILITY (FT)	1	
DISSOLVED OXYGEN	10.0	10.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	5/24/74
TIME	1630
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	28
FECAL COLIFORM, MAXIMUM (COL./100ML)	--
FECAL COLIFORM, MEAN (COL./100ML)	--

REMARKS

A MARSHY LAKE THAT COVERS THE SITE OF THE FORMER OTHELLO RODEO GROUNDS. THE LAKE HAS BEEN PARTIALLY FILLED WITH TRASH AND THERE IS EVIDENCE OF PARTIALLY SUBMERGED POWER POLES, BUILDINGS, FENCES, ETC. THE SHORELINE WAS COMPLETELY COVERED WITH EMERSED AQUATIC PLANTS (CATTAIL AND SEDGE) AND FLOATING TRASH AND DEBRIS. AN ALGAL BLOOM WAS OBSERVED. THE LITTORAL BOTTOM IS MUCK AND SILT BUT NO SUBMERSED AQUATIC PLANTS WERE OBSERVED. THE FECAL COLIFORM COLONIES FROM ONE SAMPLE WERE TOO NUMEROUS TO COUNT.

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

WATER QUALITY LABORATORY

DATA SUMMARY

ORIGINAL TO: CLOUD
COPIES TO:
LAB FILES

Source RODEO LAKE Collected By CLOUD

Date Collected 4/15/74 Goal, Pro./Obj.

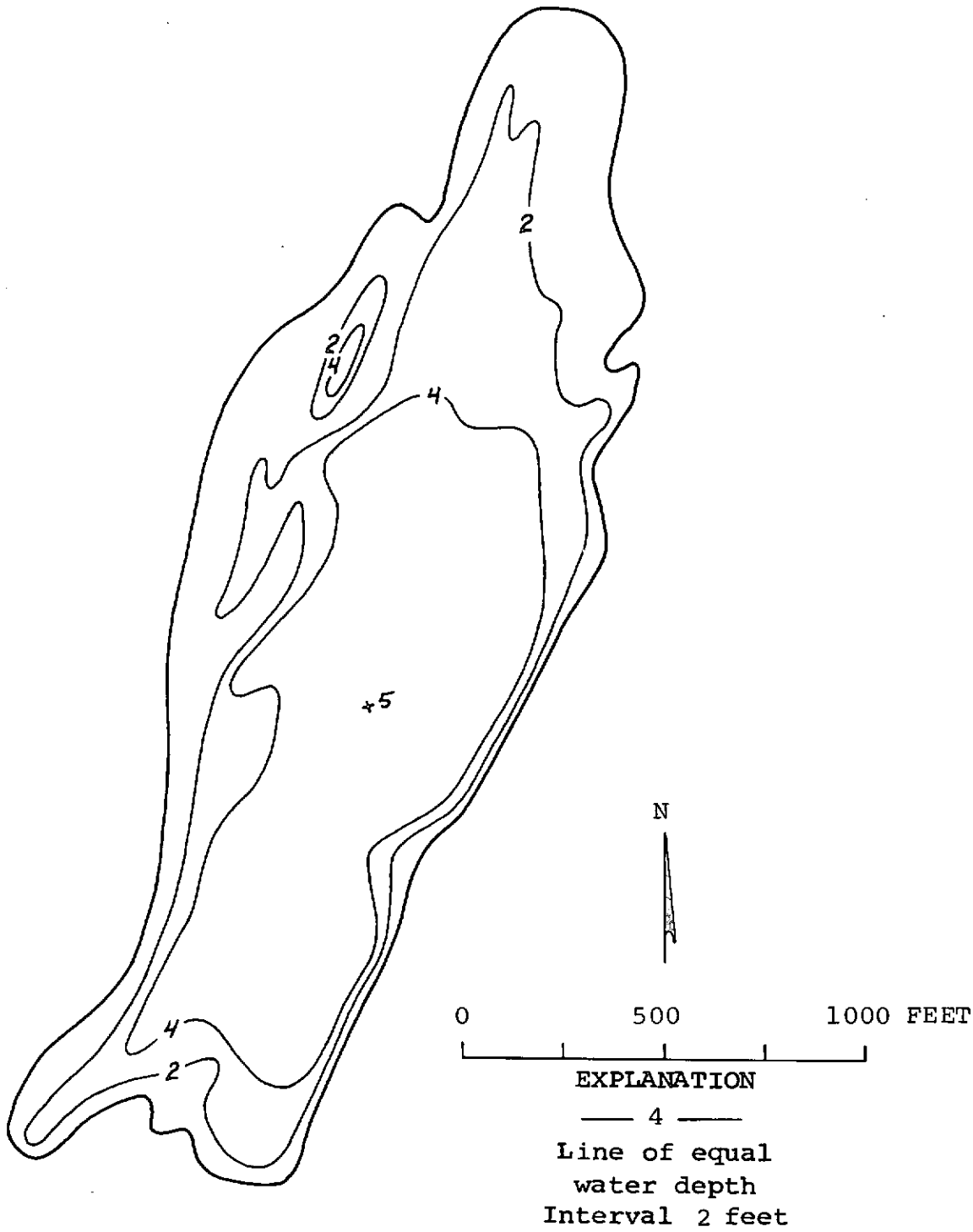
Log Number: 74 1217

	Station:										STORET
pH	8.6										00403
Turbidity (JTU)											00070
Conductivity (umhos/cm)@25°C											00095
COD											00340
BOD (5 day)											00310
Total Coliform (Col./100ml)	200*										31504
Fecal Coliform (Col./100ml)											31616
[illegible]-N (Filtered)	.01										00620
NO2-N (Filtered)	.00										00615
NH3-N (Unfiltered)											00610
T. Kjeldahl-N (Unfiltered)	—										00625
O-PO4-P (Filtered)	.01										00671
Total Phos.-P (Unfiltered)	.03										00665
Total Solids											00500
Total Non Vol. Solids											
Total Suspended Solids											00530
Total Sus. Non Vol. Solids											

Note: All results are in PPM unless otherwise specified. ND is "None Detected"
Convert those marked with a * to PPB (PPM X 10^3) prior to entry into STORET

* ESTIMATED

Summary By Mary Holcomb Date 4/30/74



Rodeo Lake, Adams County.
From U.S. Geological Survey, March 3, 1975.

Rodeo Lake, Adams County.
From U.S. Geological Survey, May 24, 1974.

SPRAGUE LAKE ADAMS COUNTY

LATITUDE 47°14'24" LONGITUDE 118° 6' 4" T20N-R37E-12
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	288. SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1878. FT		
LAKE AREA	1800. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	19000. ACRE-FT		
MEAN DEPTH	11. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	20. FT		
SHORELINE LENGTH	15. MI	RESIDENTIAL URBAN	<1 %
SHORELINE CONFIGURATION	2.5	RESIDENTIAL SUBURBAN	1 %
DEVELOPMENT OF VOLUME	0.54	AGRICULTURAL	89 %
BOTTOM SLOPE	0.20 %	FOREST OR UNPRODUCTIVE	9 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

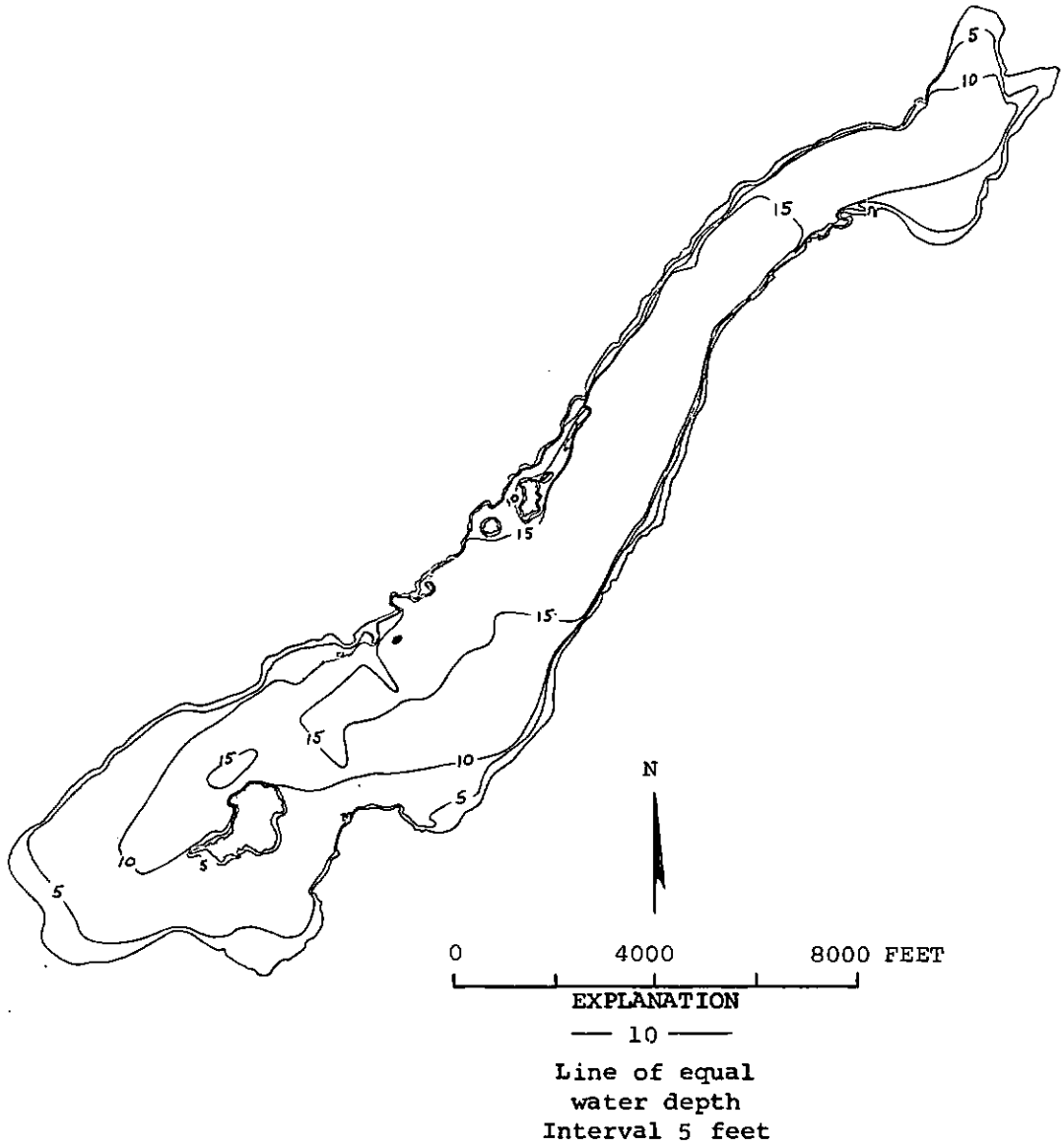
SAMPLE SITE	1	
DATE	6/21/74	
TIME	900	905
DEPTH (FT)	3.	15.
TOTAL NITRATE (N)	0.09	0.09
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.24	0.22
TOTAL ORGANIC NITROGEN (N)	0.96	0.74
TOTAL PHOSPHORUS (P)	0.11	0.055
TOTAL ORTHOPHOSPHATE (P)	0.066	0.058
SPECIFIC CONDUCTANCE (MICROMHOS)	340	340
WATER TEMPERATURE (DEG C)	20.0	19.9
COLOR (PLATINUM-COBALT UNITS)	30	30
SECCHI-DISC VISIBILITY (FT)	3	
DISSOLVED OXYGEN	7.3	6.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/21/74
TIME	830
NUMBER OF FECAL COLIFORM SAMPLES	5
FECAL COLIFORM, MINIMUM (COL./100ML)	1
FECAL COLIFORM, MAXIMUM (COL./100ML)	3
FECAL COLIFORM, MEAN (COL./100ML)	2

REMARKS

THE LAKE IS PARTLY IN LINCOLN COUNTY AND IS GENERALLY CONSIDERED TO BE THE HEAD OF COW CREEK. LAKE LEVELS ARE STABILIZED BY A SMALL DAM AT THE OUTLET. THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS AND A BLUE-GREEN ALGAL BLOOM WAS OBSERVED. THERE IS A MARSH AT THE SOUTHWEST END OF THE LAKE. THE U.S. GEOLOGICAL SURVEY HAS MAINTAINED A STAFF GAGE ON THE LAKE SINCE 1958.



Sprague Lake, Adams County. From
U.S. Geological Survey, September 24, 1974.

Sprague Lake, Adams County. June 3, 1970. Approx. scale 1:63,000.

THREAD LAKE ADAMS COUNTY

LATITUDE 46°52'12" LONGITUDE 119°11'34" T16N-R29E-16
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	3.99 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	910. FT		
LAKE AREA	15. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	73. ACRE-FT		
MEAN DEPTH	5. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	17. FT		
SHORELINE LENGTH	1.7 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	3.1	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.29	AGRICULTURAL	13 %
BOTTOM SLOPE	1.9 %	FOREST OR UNPRODUCTIVE	83 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	4 %
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

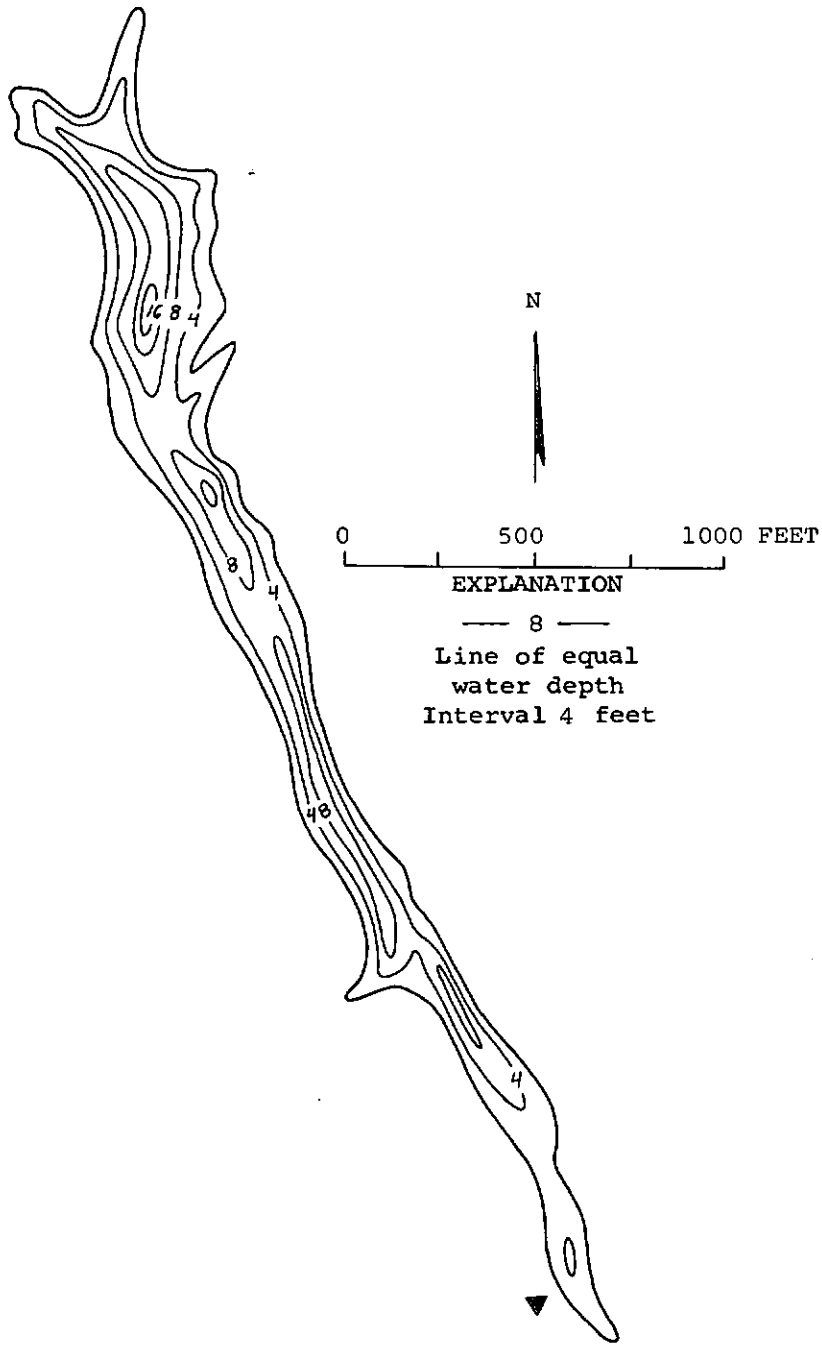
SAMPLE SITE	1	
DATE	5/23/74	
TIME	1430	1435
DEPTH (FT)	3.	7.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.00	0.01
TOTAL AMMONIA (N)	0.05	0.05
TOTAL ORGANIC NITROGEN (N)	0.50	0.46
TOTAL PHOSPHORUS (P)	0.030	0.054
TOTAL ORTHOPHOSPHATE (P)	0.005	0.005
SPECIFIC CONDUCTANCE (MICROMHOS)	650	650
WATER TEMPERATURE (DEG C)	18.0	17.9
COLOR (PLATINUM-COBALT UNITS)	20	15
SECCHI-DISC VISIBILITY (FT)	10	
DISSOLVED OXYGEN	9.6	9.6

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	5/23/74
TIME	1440
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	2
FECAL COLIFORM, MAXIMUM (COL./100ML)	3
FECAL COLIFORM, MEAN (COL./100ML)	3

REMARKS

THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (CATTAIL AND SEDGE). THE LITTORAL BOTTOM IS MUCK.



Thread Lake, Adams County. From
U.S. Geological Survey, March 10, 1975.

Thread Lake, Adams County. From
U.S. Geological Survey, May 23, 1974.

TWELVE MILE LAKE ADAMS COUNTY

LATITUDE 46*58'50" LONGITUDE 118* 1'48" T17N-R38E-9
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	6.70 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1553. FT		
LAKE AREA	33. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME (EST.)	80. ACRE-FT		
MEAN DEPTH (EST.)	2. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	4. FT		
SHORELINE LENGTH	1.5 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.8	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.56	AGRICULTURAL	99 %
BOTTOM SLOPE	0.32 %	FOREST OR UNPRODUCTIVE	0 %
BASIN GEOLOGY	SED./META.	LAKE SURFACE	1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1	
DATE	6/20/74	
TIME	1105	1110
DEPTH (FT)	1.	3.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.08	0.08
TOTAL ORGANIC NITROGEN (N)	1.3	1.3
TOTAL PHOSPHORUS (P)	0.043	0.044
TOTAL ORTHOPHOSPHATE (P)	0.020	0.019
SPECIFIC CONDUCTANCE (MICROMHOS)	1050	1050
WATER TEMPERATURE (DEG C)	21.3	21.3
COLOR (PLATINUM-COBALT UNITS)	75	70
SECCHI-DISC VISIBILITY (FT)	> 4	
DISSOLVED OXYGEN	8.1	8.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	6/20/74
TIME	1115
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	10
FECAL COLIFORM, MAXIMUM (COL./100ML)	88
FECAL COLIFORM, MEAN (COL./100ML)	50

REMARKS

THE VALUES GIVEN FOR MEAN DEPTH AND VOLUME ARE ESTIMATED. THE LAKE HAS NO FISH BUT SUPPORTS A LARGE WATERFOWL POPULATION. THE BOTTOM IS CLAY AND MUCK AND COMPLETELY COVERED WITH SUBMERSED AQUATIC PLANTS (PONDWEED AND CHARA). THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (RUSHES AND SEDGE).

TWELVE-MILE SLOUGH LAKE ADAMS COUNTY

LATITUDE 46*57'52" LONGITUDE 118* 2'30" T17N-R38E-16
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	14.2 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1550. FT		
LAKE AREA	200. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME (EST.)	360. ACRE-FT		
MEAN DEPTH (EST.)	2. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	3. FT		
SHORELINE LENGTH	5.4 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.7	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.56	AGRICULTURAL	98 %
BOTTOM SLOPE	0.10 %	FOREST OR UNPRODUCTIVE	0 %
BASIN GEOLOGY	SED./META.	LAKE SURFACE	2 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1	
DATE	6/20/74	
TIME	1020	1025
DEPTH (FT)	1.	2.
TOTAL NITRATE (N)	0.01	0.01
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.13	0.12
TOTAL ORGANIC NITROGEN (N)	1.8	1.9
TOTAL PHOSPHORUS (P)	0.13	0.12
TOTAL ORTHOPHOSPHATE (P)	0.023	0.042
SPECIFIC CONDUCTANCE (MICROMHOS)	1000	1000
WATER TEMPERATURE (DEG C)	21.8	21.8
COLOR (PLATINUM-COBALT UNITS)	65	70
SECCHI-DISC VISIBILITY (FT)	2	
DISSOLVED OXYGEN	7.0	7.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/20/74
TIME	1035
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	17
FECAL COLIFORM, MAXIMUM (COL./100ML)	103
FECAL COLIFORM, MEAN (COL./100ML)	48

REMARKS

AN INTERMITTENT, MARSHY LAKE THAT SUPPORTS A LARGE WATERFOWL POPULATION. THE VALUES GIVEN FOR MEAN DEPTH AND VOLUME ARE ESTIMATED. THE BOTTOM IS CLAY AND SILT AND WAS COMPLETELY COVERED WITH SUBMERSED AQUATIC PLANTS (CHARA).

UNNAMED (16N-29E-29) LAKE ADAMS COUNTY

LATITUDE 46*50'37" LONGITUDE 119*12'49" T16N-R29E-29
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	9.66 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	825. FT		
LAKE AREA	36. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	130. ACRE-FT		
MEAN DEPTH	4. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	12. FT		
SHORELINE LENGTH	1.8 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.2	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.30	AGRICULTURAL	58 %
BOTTOM SLOPE	0.86 %	FOREST OR UNPRODUCTIVE	39 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	3 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

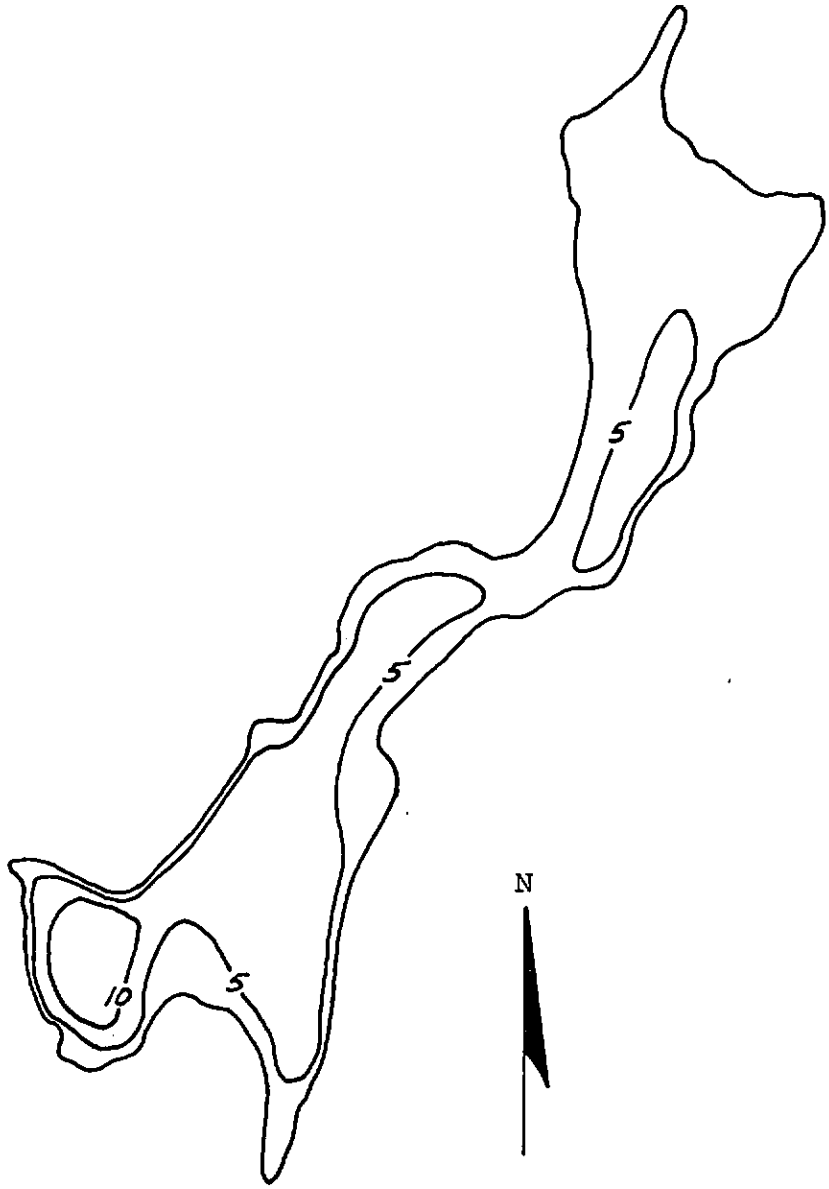
SAMPLE SITE	1	
DATE	5/24/74	
TIME	1230	1235
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	0.08	0.05
TOTAL NITRITE (N)	0.02	0.02
TOTAL AMMONIA (N)	0.17	0.17
TOTAL ORGANIC NITROGEN (N)	1.8	1.1
TOTAL PHOSPHORUS (P)	0.16	0.15
TOTAL ORTHOPHOSPHATE (P)	0.049	0.046
SPECIFIC CONDUCTANCE (MICROMHOS)	750	750
WATER TEMPERATURE (DEG C)	17.0	17.2
COLOR (PLATINUM-COBALT UNITS)	30	30
SECCHI-DISC VISIBILITY (FT)	2	
DISSOLVED OXYGEN	10.9	10.8

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	5/24/74
TIME	1300
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	23
FECAL COLIFORM, MAXIMUM (COL./100ML)	--
FECAL COLIFORM, MEAN (COL./100ML)	--

REMARKS

THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION. NO SUBMERSED AQUATIC PLANTS WERE OBSERVED. THE FECAL COLIFORM COLONIES FROM ONE SAMPLE WERE TOO NUMEROUS TO COUNT.



Unnamed (16N-29E-29) Lake, Adams County. From U.S. Geological Survey, April 15, 1974.

UNNAMED (19N-38E-15) LAKE ADAMS COUNTY

LATITUDE 47* 8'48" LONGITUDE 118* 1'14" T19N-R38E-15
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	6.32 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1785. FT		
LAKE AREA	100. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	240. ACRE-FT		
MEAN DEPTH	2. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	7. FT		
SHORELINE LENGTH	4.5 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	3.2	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.34	AGRICULTURAL	95 %
BOTTOM SLOPE	0.30 %	FOREST OR UNPRODUCTIVE	3 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	2 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

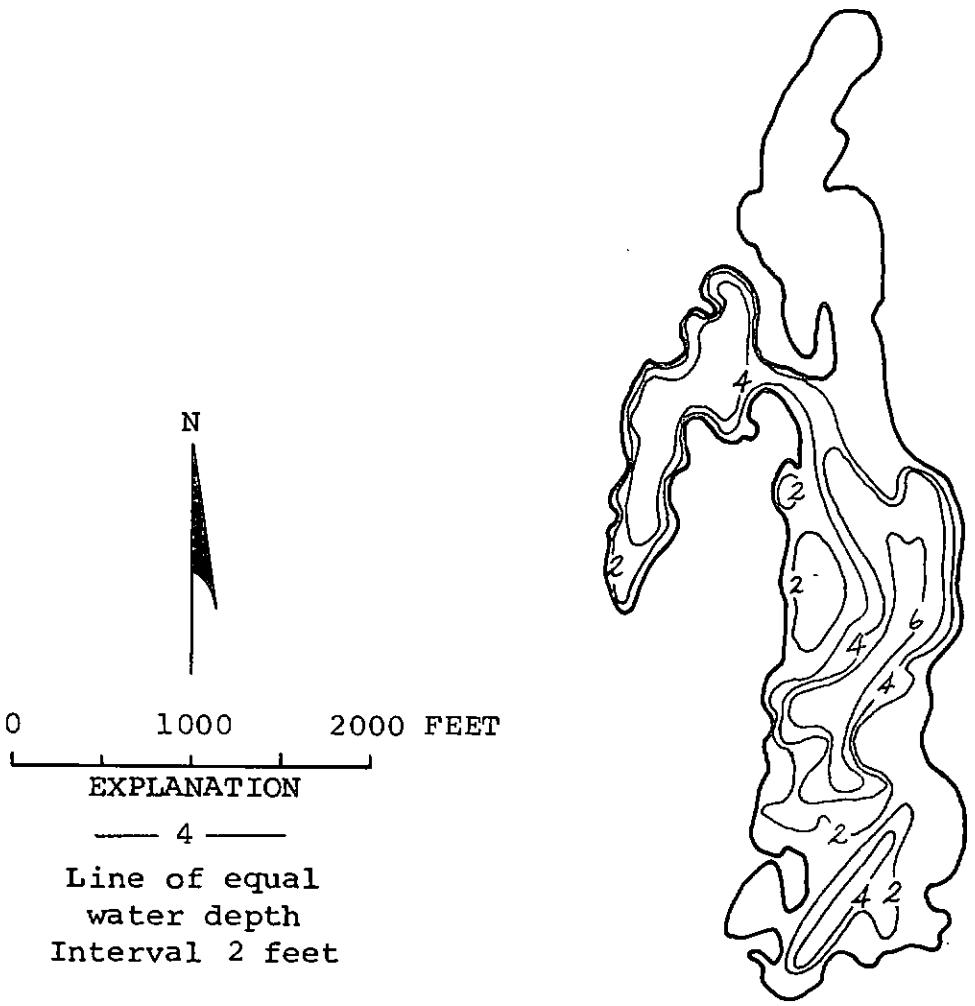
SAMPLE SITE	1	
DATE	6/20/74	
TIME	1300	1305
DEPTH (FT)	2.	4.
TOTAL NITRATE (N)	0.01	0.00
TOTAL NITRITE (N)	0.00	0.01
TOTAL AMMONIA (N)	0.09	0.09
TOTAL ORGANIC NITROGEN (N)	1.4	1.2
TOTAL PHOSPHORUS (P)	0.081	0.070
TOTAL ORTHOPHOSPHATE (P)	0.008	0.008
SPECIFIC CONDUCTANCE (MICROMHOS)	360	360
WATER TEMPERATURE (DEG C)	21.0	21.0
COLOR (PLATINUM-COBALT UNITS)	30	30
SECCHI-DISC VISIBILITY (FT)	3	
DISSOLVED OXYGEN	8.2	8.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	11- 25 %

DATE	6/24/74
TIME	1310
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	8
FECAL COLIFORM, MEAN (COL./100ML)	5

REMARKS

THE BOTTOM IS SILT AND MUCK AND WAS COMPLETELY COVERED WITH SUBMERSED AQUATIC PLANTS (PONDWEED AND WATER MILFOIL). THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (SEDGE AND POLYGONUM). THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION.



Unnamed (19N-38E-15) Lake, Adams County.
From U.S. Geological Survey, April 24, 1974.

MOUND LAKE BENTON COUNTY

LATITUDE 46* 1°28" LONGITUDE 118*58° 6" T6N-R31E-5
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	350. FT		
LAKE AREA	33. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	460. ACRE-FT		
MEAN DEPTH	14. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	24. FT		
SHORELINE LENGTH	1.3 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.6	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.58	AGRICULTURAL	0 %
BOTTOM SLOPE	1.8 %	FOREST OR UNPRODUCTIVE	88 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	12 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

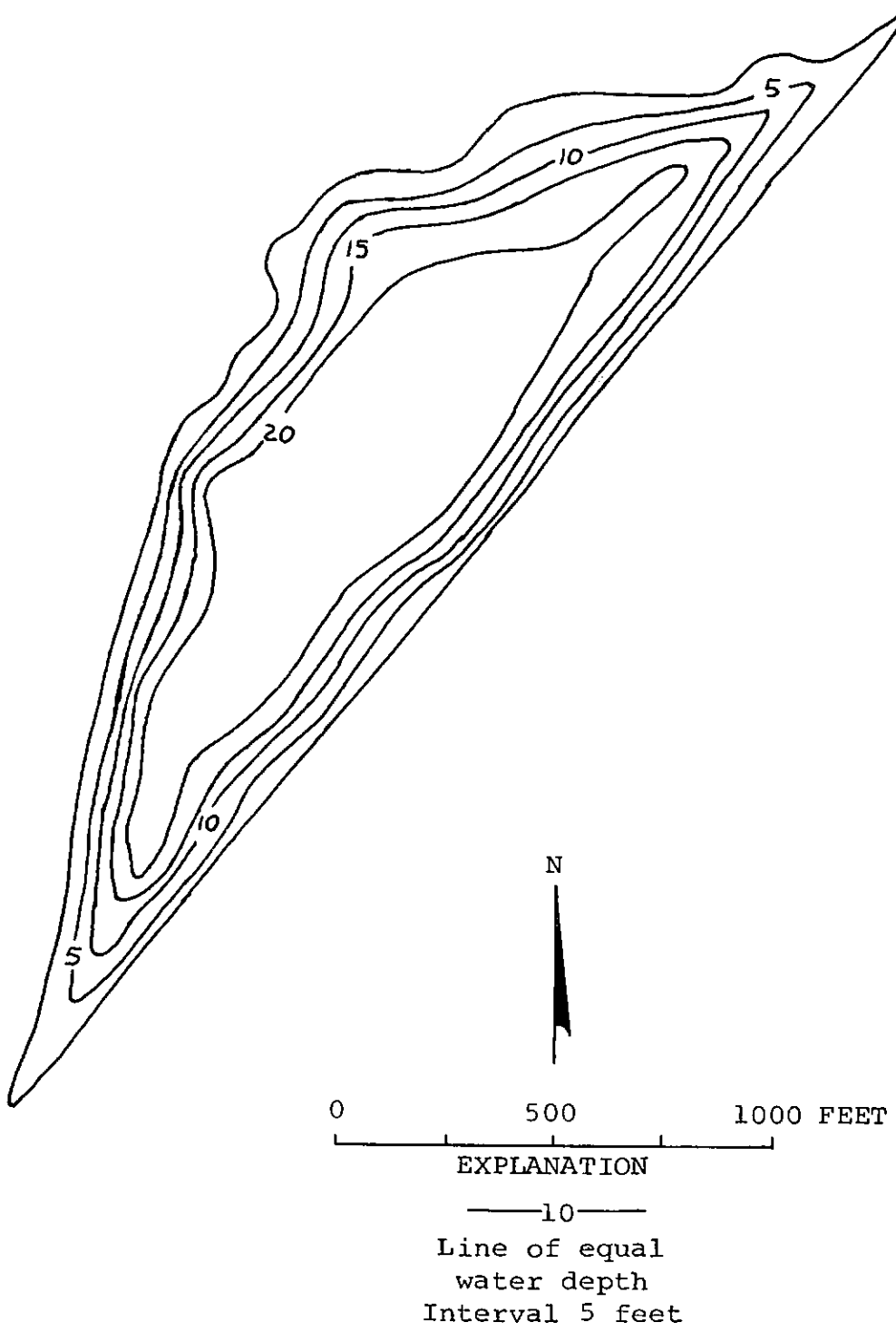
SAMPLE SITE	1	
DATE	5/17/74	
TIME	1415	1420
DEPTH (FT)	3.	16.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.06	0.07
TOTAL ORGANIC NITROGEN (N)	0.32	0.50
TOTAL PHOSPHORUS (P)	0.080	0.093
TOTAL ORTHOPHOSPHATE (P)	0.007	0.011
SPECIFIC CONDUCTANCE (MICROMHOS)	180	118
WATER TEMPERATURE (DEG C)	12.2	12.2
COLOR (PLATINUM-COBALT UNITS)	15	15
SECCHI-DISC VISIBILITY (FT)	4	
DISSOLVED OXYGEN	11.6	11.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	5/17/74
TIME	1430
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	80
FECAL COLIFORM, MEAN (COL./100ML)	27

REMARKS

THE LAKE IS SEPARATED FROM LAKE WALLULA (COLUMBIA RIVER) BY A RAILROAD FILL BUT CONNECTED TO IT BY A CULVERT. NO AQUATIC MACROPHYTES WERE OBSERVED. THE DO CONCENTRATION WAS HIGH THROUGHOUT THE ENTIRE WATER COLUMN. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE LAKE IS FED IN PART BY WATER FROM OUTSIDE THE NATURAL DRAINAGE AREA.



Mound Lake, Benton County. From
U.S. Geological Survey, September 25, 1974.

Mound Lake, Benton County. June 11, 1969. Approx. scale 1:12,000.

YELLEPIT LAKE BENTON COUNTY

LATITUDE 46* 0'56" LONGITUDE 118*58'54" T6N-R31E-7
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	350. FT		
LAKE AREA	36. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	410. ACRE-FT		
MEAN DEPTH	11. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	25. FT		
SHORELINE LENGTH	1.8 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.1	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.45	AGRICULTURAL	66 %
BOTTOM SLOPE	1.8 %	FOREST OR UNPRODUCTIVE	32 %
BASIN GEOLOGY	SED./META.	LAKE SURFACE	2 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

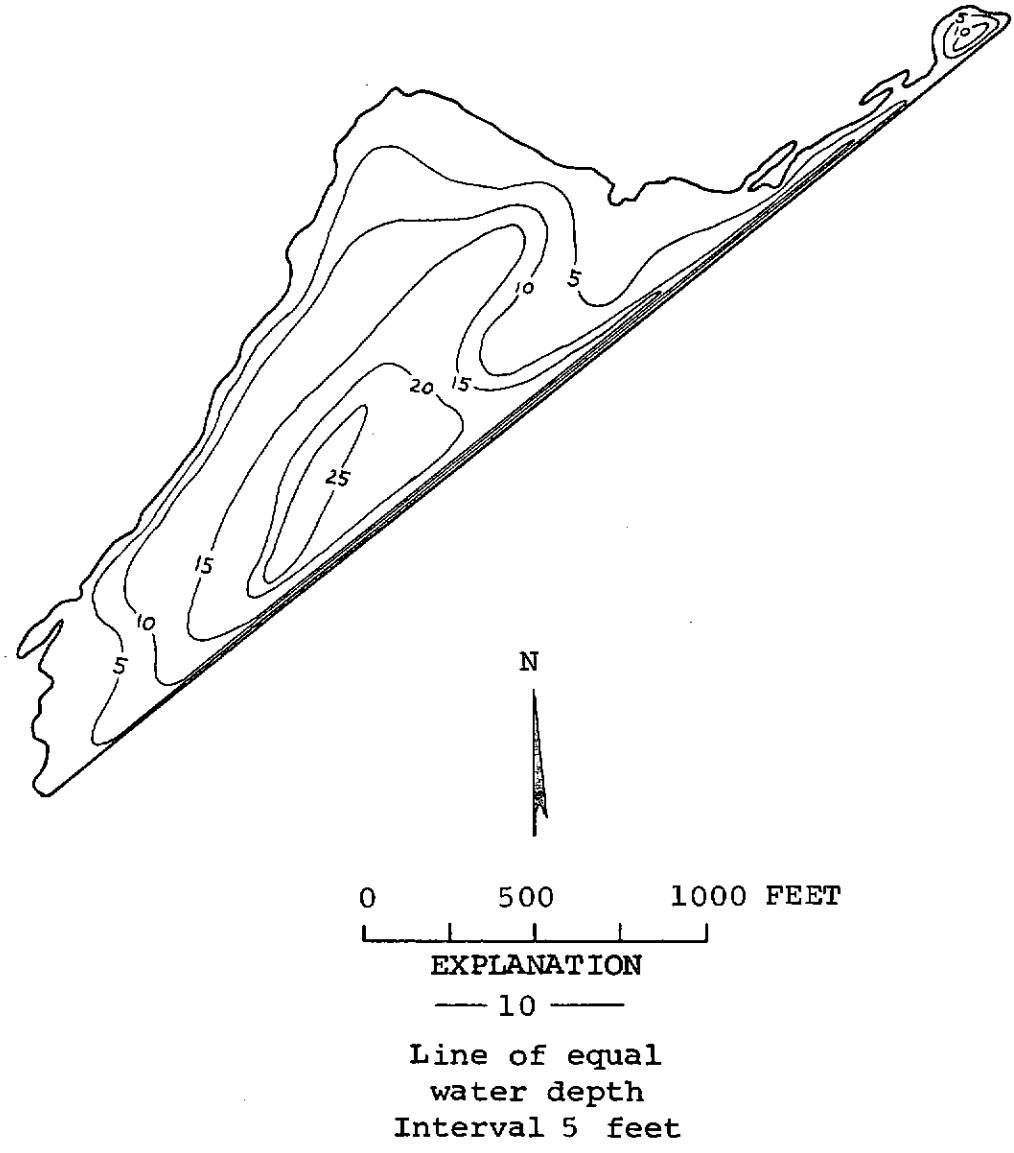
SAMPLE SITE	1	
DATE	5/17/74	
TIME	1545	1550
DEPTH (FT)	3.	21.
TOTAL NITRATE (N)	0.01	0.01
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.05	0.06
TOTAL ORGANIC NITROGEN (N)	0.55	0.48
TOTAL PHOSPHORUS (P)	0.069	0.072
TOTAL ORTHOPHOSPHATE (P)	0.005	0.008
SPECIFIC CONDUCTANCE (MICROMHOS)	250	260
WATER TEMPERATURE (DEG C)	13.0	12.0
COLOR (PLATINUM-COBALT UNITS)	5	10
SECCHI-DISC VISIBILITY (FT)	4	
DISSOLVED OXYGEN	12.2	10.5

LAKE SHORELINE COVERED BY EMERSED PLANTS	1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	5/17/74
TIME	1600
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	80
FECAL COLIFORM, MEAN (COL./100ML)	27

REMARKS

THE LAKE IS SEPARATED FROM LAKE WALLULA (COLUMBIA RIVER) BY A RAILROAD FILL BUT CONNECTED TO IT BY A CULVERT. THE DO CONCENTRATION WAS HIGH THROUGHOUT THE ENTIRE WATER COLUMN. THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE LAKE IS FED IN PART BY WATER FROM OUTSIDE THE NATURAL DRAINAGE AREA.



Yellepit Lake, Benton County. From Washington Department of Game, December 8, 1958.

Yellepit Lake, Benton County. June 11, 1969. Approx. scale 1:12,000.

BLACK LAKE DOUGLAS COUNTY

LATITUDE 48* 6'36" LONGITUDE 119* 5' 7" T30N-R30E-7
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	1.79 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1980. FT		
LAKE AREA	33. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	64. ACRE-FT		
MEAN DEPTH	2. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	3. FT		
SHORELINE LENGTH	1.2 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.5	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.65	AGRICULTURAL	86 %
BOTTOM SLOPE	0.22 %	FOREST OR UNPRODUCTIVE	11 %
BASIN GEOLOGY	SED./META.	LAKE SURFACE	3 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

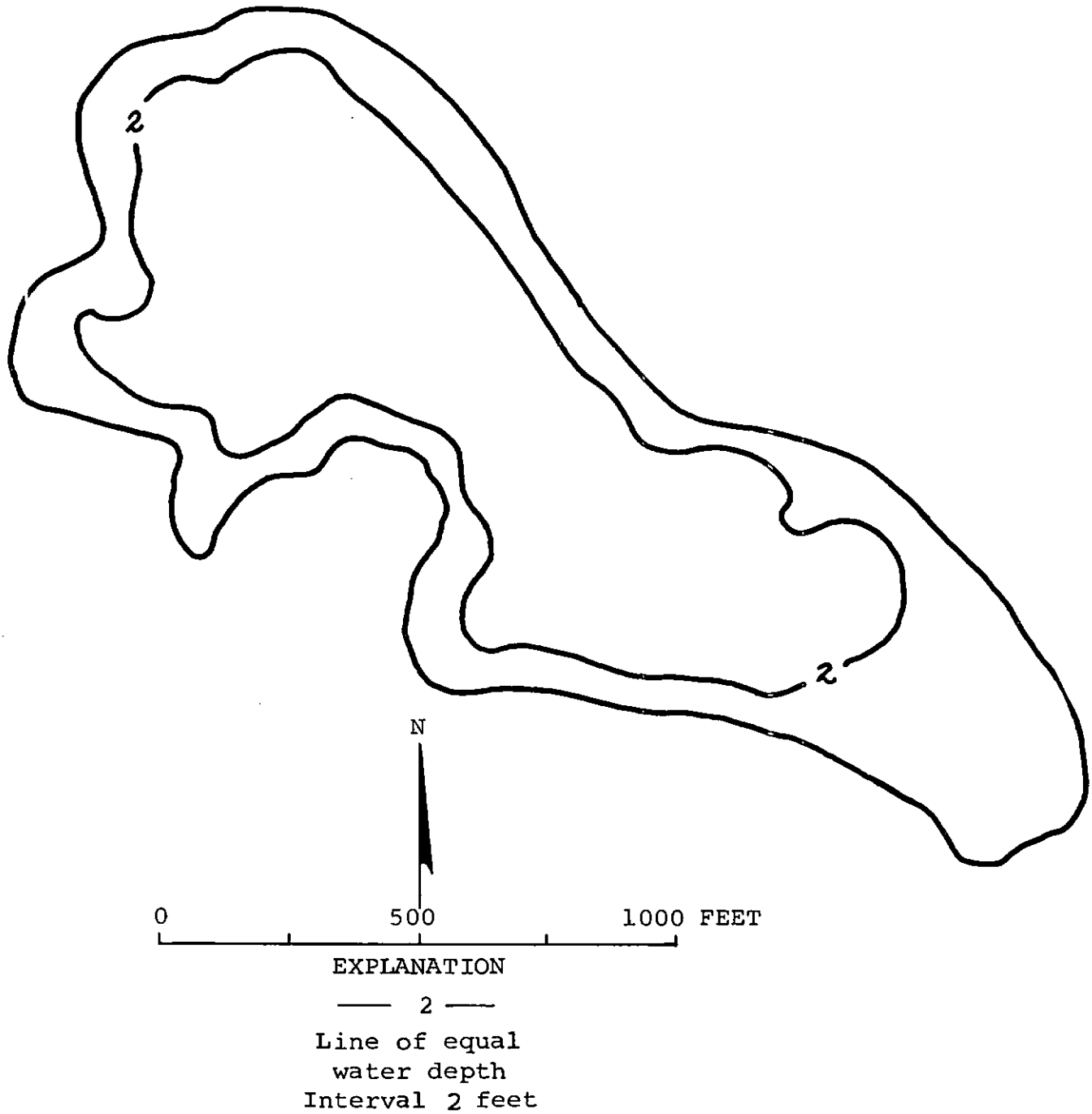
SAMPLE SITE	1	
DATE	7/24/74	
TIME	945	945
DEPTH (FT)	1.	2.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.17	0.20
TOTAL ORGANIC NITROGEN (N)	5.8	6.2
TOTAL PHOSPHORUS (P)	14.	14.
TOTAL ORTHOPHOSPHATE (P)	14.	14.
SPECIFIC CONDUCTANCE (MICROMHOS)	15000	15000
WATER TEMPERATURE (DEG C)	22.2	22.2
COLOR (PLATINUM-COBALT UNITS)	75	75
SECCHI-DISC VISIBILITY (FT)	> 3	
DISSOLVED OXYGEN	9.3	9.3

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

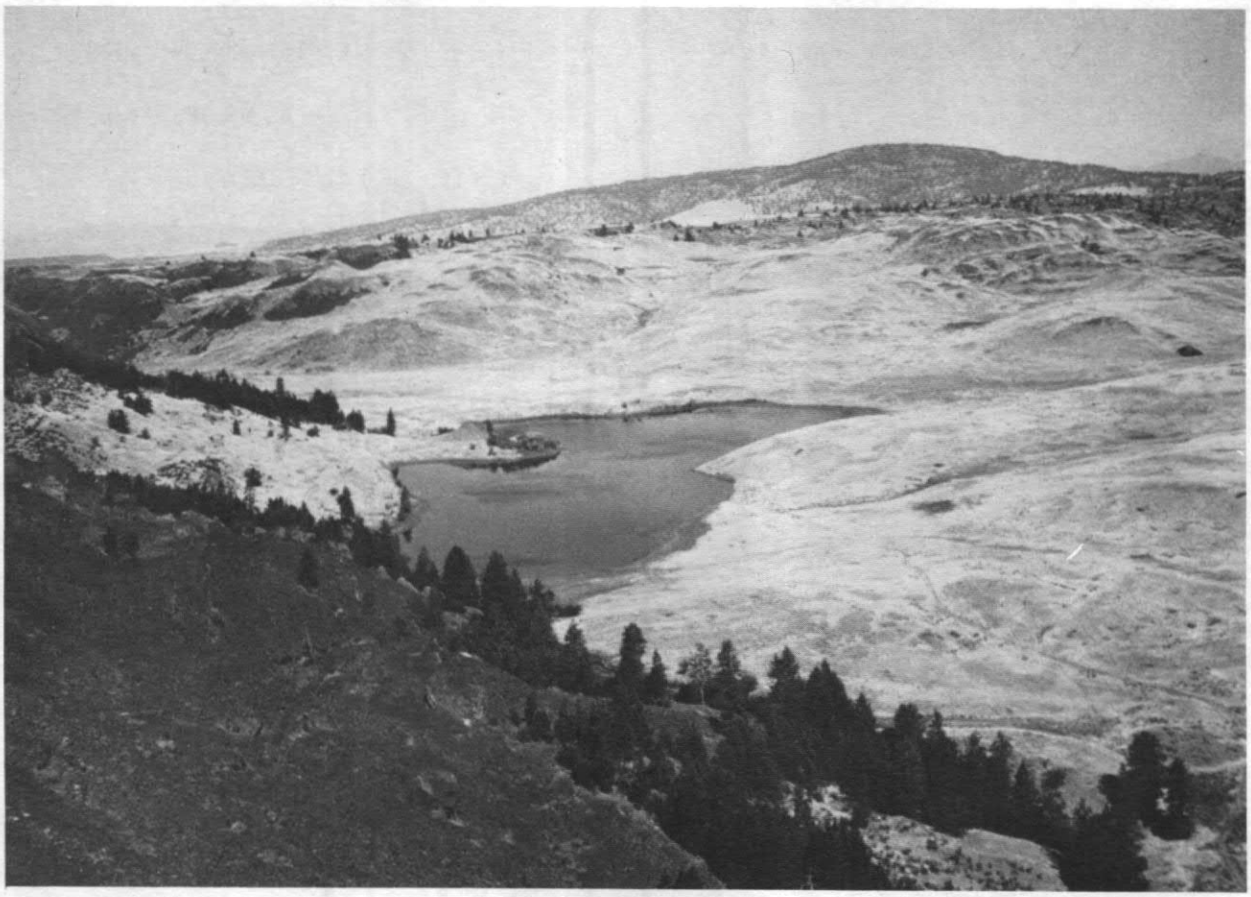
DATE	7/24/74
TIME	1050
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	<1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

AN ALGAL BLOOM, BUT NO SUBMERSED AQUATIC PLANTS, WERE OBSERVED. THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (SEDGE). THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION. THE LITTORAL BOTTOM IS SILT.



Black Lake, Douglas County. From
U.S. Geological Survey, April 17, 1974.



Black Lake, Douglas County. From
U.S. Geological Survey, September 24, 1974.

CORNEHL LAKE DOUGLAS COUNTY

LATITUDE 47°53'12" LONGITUDE 119°46'21" T28N-R24E-35
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	16.5 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2330. FT		
LAKE AREA	33. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	39. ACRE-FT		
MEAN DEPTH	1. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	3. FT		
SHORELINE LENGTH	0.92 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.1	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.39	AGRICULTURAL	100 %
BOTTOM SLOPE	0.22 %	FOREST OR UNPRODUCTIVE	<1 %
BASIN GEOLOGY	SED./META.	LAKE SURFACE	<1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

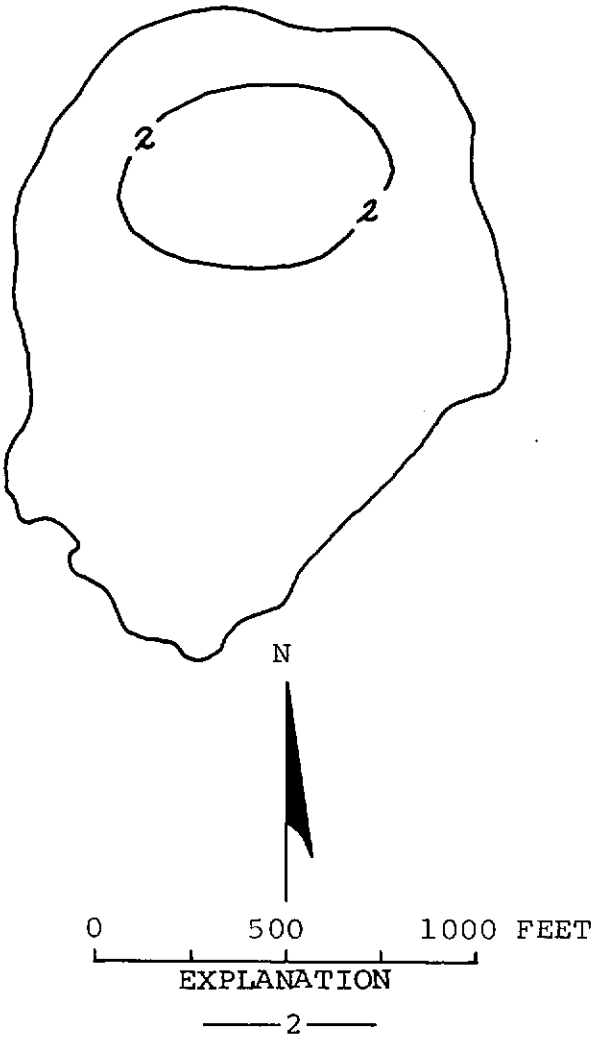
SAMPLE SITE	1	
DATE	7/25/74	
TIME	1425	1430
DEPTH (FT)	1.	2.
TOTAL NITRATE (N)	0.02	0.02
TOTAL NITRITE (N)	0.01	0.00
TOTAL AMMONIA (N)	0.20	0.11
TOTAL ORGANIC NITROGEN (N)	1.5	1.2
TOTAL PHOSPHORUS (P)	0.075	0.072
TOTAL ORTHOPHOSPHATE (P)	0.018	0.017
SPECIFIC CONDUCTANCE (MICROMHOS)	880	880
WATER TEMPERATURE (DEG C)	22.3	22.4
COLOR (PLATINUM-COBALT UNITS)	30	30
SECCHI-DISC VISIBILITY (FT)	> 2	
DISSOLVED OXYGEN	12.6	12.7

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	26- 50 %

DATE	7/25/74
TIME	1440
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	2
FECAL COLIFORM, MEAN (COL./100ML)	3

REMARKS

THE ENTIRE BOTTOM WAS COVERED WITH SUBMERSED AQUATIC PLANTS (PONDWEED AND SPHAGNUM MOSS). THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (SEDGE). THE LITTORAL BOTTOM IS SILT AND MUCK. THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION.



Cornehl Lake, Douglas County. From
U.S. Geological Survey, October 3, 1974.

ELBOW LAKE DOUGLAS COUNTY

LATITUDE 47°59'51" LONGITUDE 119°17'43" T29N-R28E-22
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	2.59 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2310. FT		
LAKE AREA	20. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	110. ACRE-FT		
MEAN DEPTH	6. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	9. FT		
SHORELINE LENGTH	0.87 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.4	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.61	AGRICULTURAL	99 %
BOTTOM SLOPE	0.85 %	FOREST OR UNPRODUCTIVE	0 %
BASIN GEOLOGY	SED./META.	LAKE SURFACE	1 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

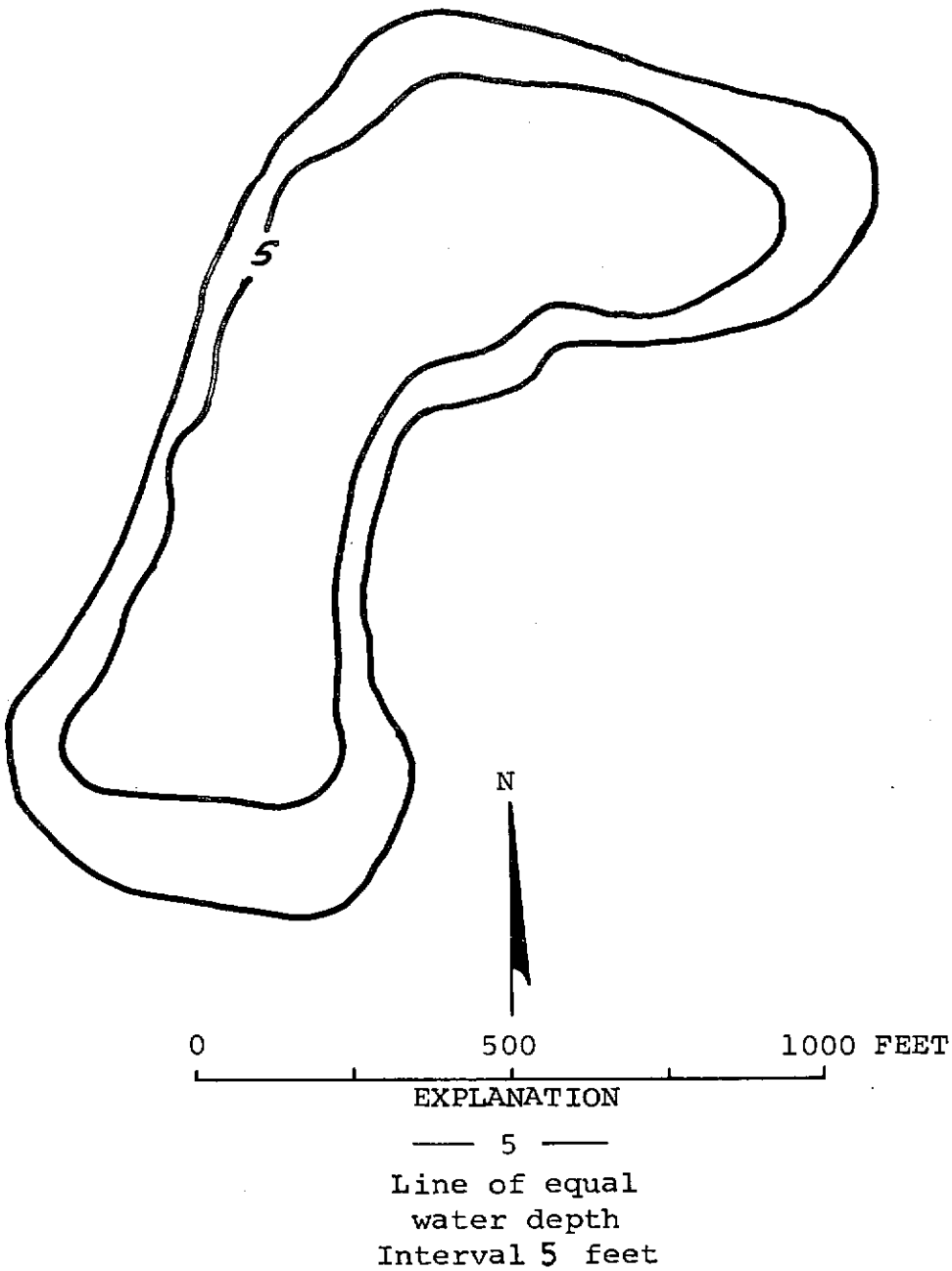
SAMPLE SITE	1	
DATE	7/24/74	
TIME	1045	1050
DEPTH (FT)	3.	7.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.19	0.19
TOTAL ORGANIC NITROGEN (N)	2.7	2.6
TOTAL PHOSPHORUS (P)	0.62	0.68
TOTAL ORTHOPHOSPHATE (P)	0.48	0.57
SPECIFIC CONDUCTANCE (MICROMHOS)	2150	2150
WATER TEMPERATURE (DEG C)	20.1	19.7
COLOR (PLATINUM-COBALT UNITS)	45	40
SECCHI-DISC VISIBILITY (FT)	8	
DISSOLVED OXYGEN	8.0	5.4

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	7/24/74
TIME	1100
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	21
FECAL COLIFORM, MEAN (COL./100ML)	7

REMARKS

THE BOTTOM IS SILT AND MUCK AND WAS COMPLETELY COVERED WITH SUBMERSED AQUATIC PLANTS (WATER MILFOIL AND PONDWEED). THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION.



Elbow Lake, Douglas County. From
U.S. Geological Survey, May 17, 1974.

GRIMES LAKE DOUGLAS COUNTY

LATITUDE 47*43'18" LONGITUDE 119*35'59" T26N-R26E-30
DOUGLAS CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	31.8 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1831. FT		
LAKE AREA	180. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	4200. ACRE-FT		
MEAN DEPTH	24. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	67. FT		
SHORELINE LENGTH	3.1 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.7	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.35	AGRICULTURAL	99 %
BOTTOM SLOPE	2.1 %	FOREST OR UNPRODUCTIVE	0 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

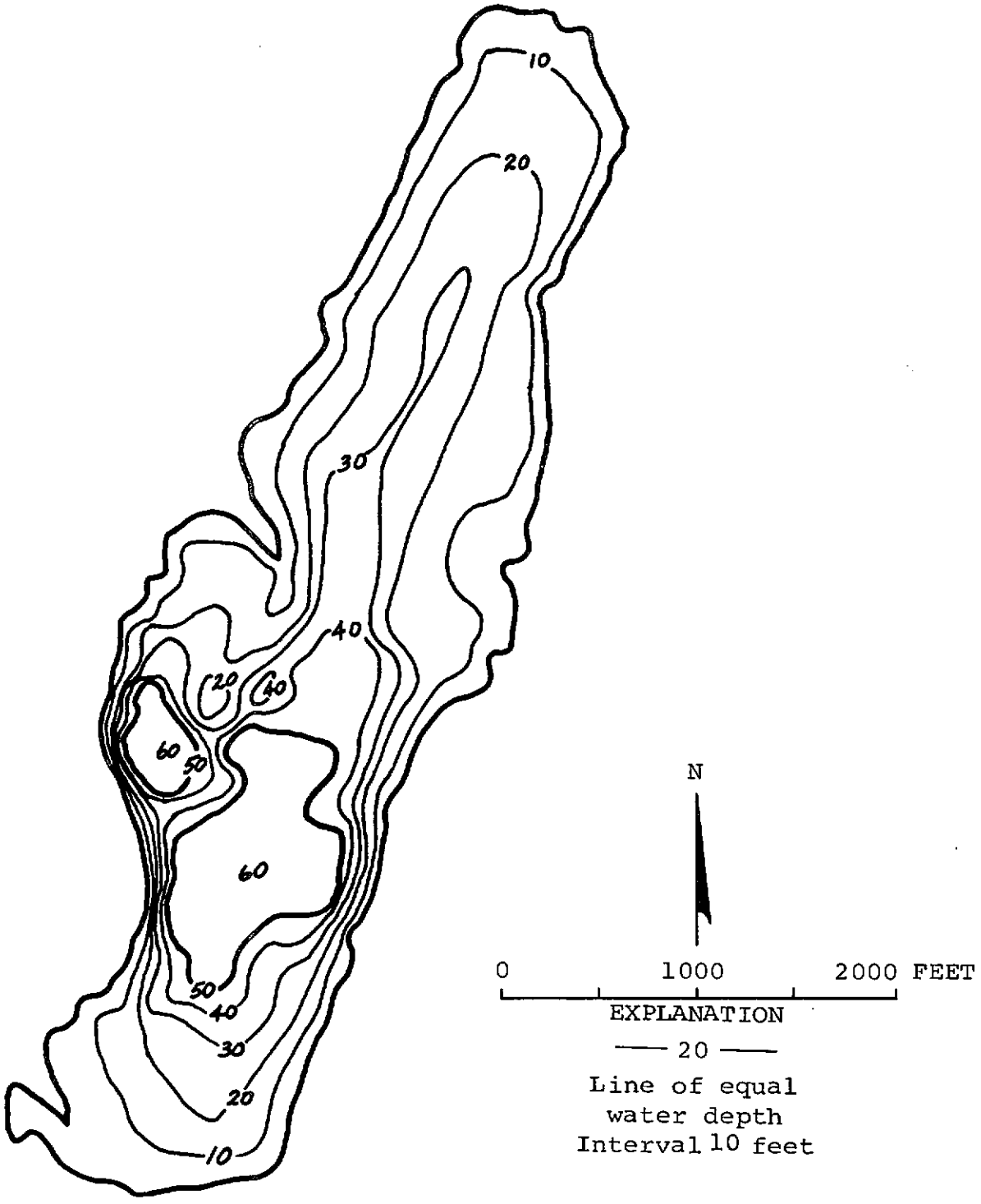
SAMPLE SITE	1	
DATE	6/13/74	
TIME	1310	1315
DEPTH (FT)	3.	59.
TOTAL NITRATE (N)	0.01	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.01	1.4
TOTAL ORGANIC NITROGEN (N)	3.1	2.1
TOTAL PHOSPHORUS (P)	2.5	2.8
TOTAL ORTHOPHOSPHATE (P)	2.5	2.8
SPECIFIC CONDUCTANCE (MICROMHOS)	11250	15750
WATER TEMPERATURE (DEG C)	20.7	3.1
COLOR (PLATINUM-COBALT UNITS)	15	15
SECCHI-DISC VISIBILITY (FT)	13	
DISSOLVED OXYGEN	9.8	0.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/13/74
TIME	1320
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	33
FECAL COLIFORM, MEAN (COL./100ML)	13

REMARKS

THE LAKE IS REPORTEDLY TOO ALKALINE TO SUPPORT FISH LIFE. DECAYING PLANT MATTER WAS OBSERVED FLOATING IN THE WATER. HYDROGEN SULFIDE WAS DETECTED IN THE HYPOLIMNION. IN 1975 THE U.S. GEOLOGICAL SURVEY WILL SAMPLE THE LAKE FOUR TIMES.



Grimes Lake, Douglas County. From
U.S. Geological Survey, May 16, 1974.

HAYNES LAKE DOUGLAS COUNTY

LATITUDE 47*43' 2" LONGITUDE 119*26'16" T26N-R27E-28
DOUGLAS CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	3.05 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2181. FT		
LAKE AREA	46. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	200. ACRE-FT		
MEAN DEPTH	4. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	8. FT		
SHORELINE LENGTH	1.4 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.5	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.54	AGRICULTURAL	98 %
BOTTOM SLOPE	0.50 %	FOREST OR UNPRODUCTIVE	0 %
BASIN GEOLOGY	SED./META.	LAKE SURFACE	2 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

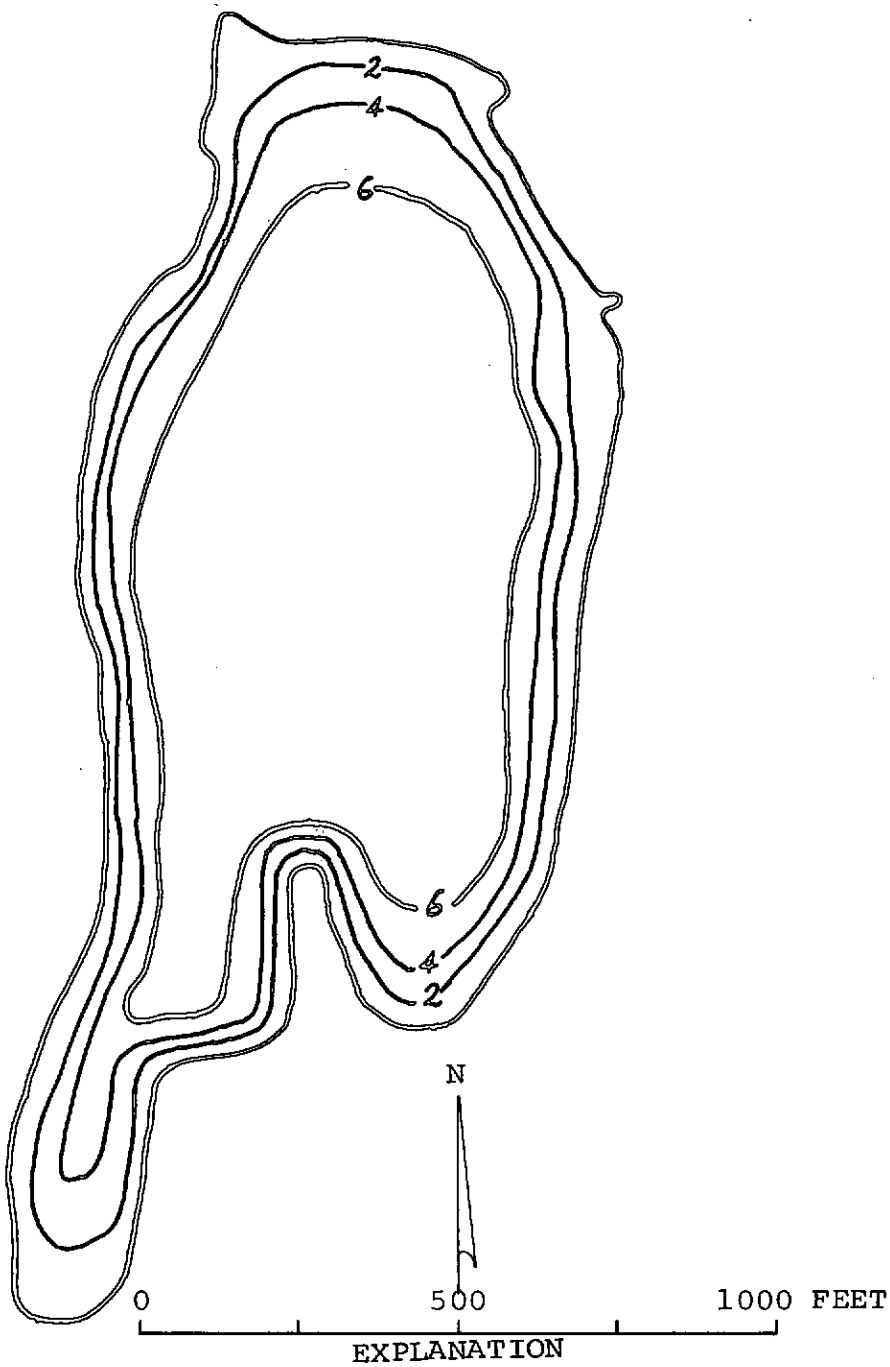
SAMPLE SITE	1	
DATE	6/13/74	
TIME	1410	1415
DEPTH (FT)	3.	7.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.00	0.01
TOTAL AMMONIA (N)	0.05	0.04
TOTAL ORGANIC NITROGEN (N)	3.2	3.2
TOTAL PHOSPHORUS (P)	0.42	0.33
TOTAL ORTHOPHOSPHATE (P)	0.37	0.31
SPECIFIC CONDUCTANCE (MICROMHOS)	3500	3600
WATER TEMPERATURE (DEG C)	21.6	17.1
COLOR (PLATINUM-COBALT UNITS)	25	35
SECCHI-DISC VISIBILITY (FT)	8	
DISSOLVED OXYGEN	9.2	11.6

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	6/13/74
TIME	1420
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	2
FECAL COLIFORM, MAXIMUM (COL./100ML)	14
FECAL COLIFORM, MEAN (COL./100ML)	6

REMARKS

THE LAKE BOTTOM WAS ALMOST COMPLETELY COVERED WITH SUBMERSED AQUATIC PLANTS (PONDWEED). OCCASIONAL WINTERKILLS OF FISH ARE REPORTED TO OCCUR.



Haynes Lake, Douglas County. From
U.S. Geological Survey, May 16, 1974.

JAMESON LAKE DOUGLAS COUNTY

LATITUDE 47°40'13" LONGITUDE 119°37'48" T25N-R25E-12
DOUGLAS CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	77.9 SQ MI	RESIDENTIAL DEVELOPMENT	3 %
ALTITUDE	1781. FT		
LAKE AREA	620. ACRES	NUMBER OF NEARSHORE HOMES	1
LAKE VOLUME	15000. ACRE-FT		
MEAN DEPTH	24. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	64. FT		
SHORELINE LENGTH	5.2 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.5	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.38	AGRICULTURAL	98 %
BOTTOM SLOPE	1.1 %	FOREST OR UNPRODUCTIVE	0 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	2 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

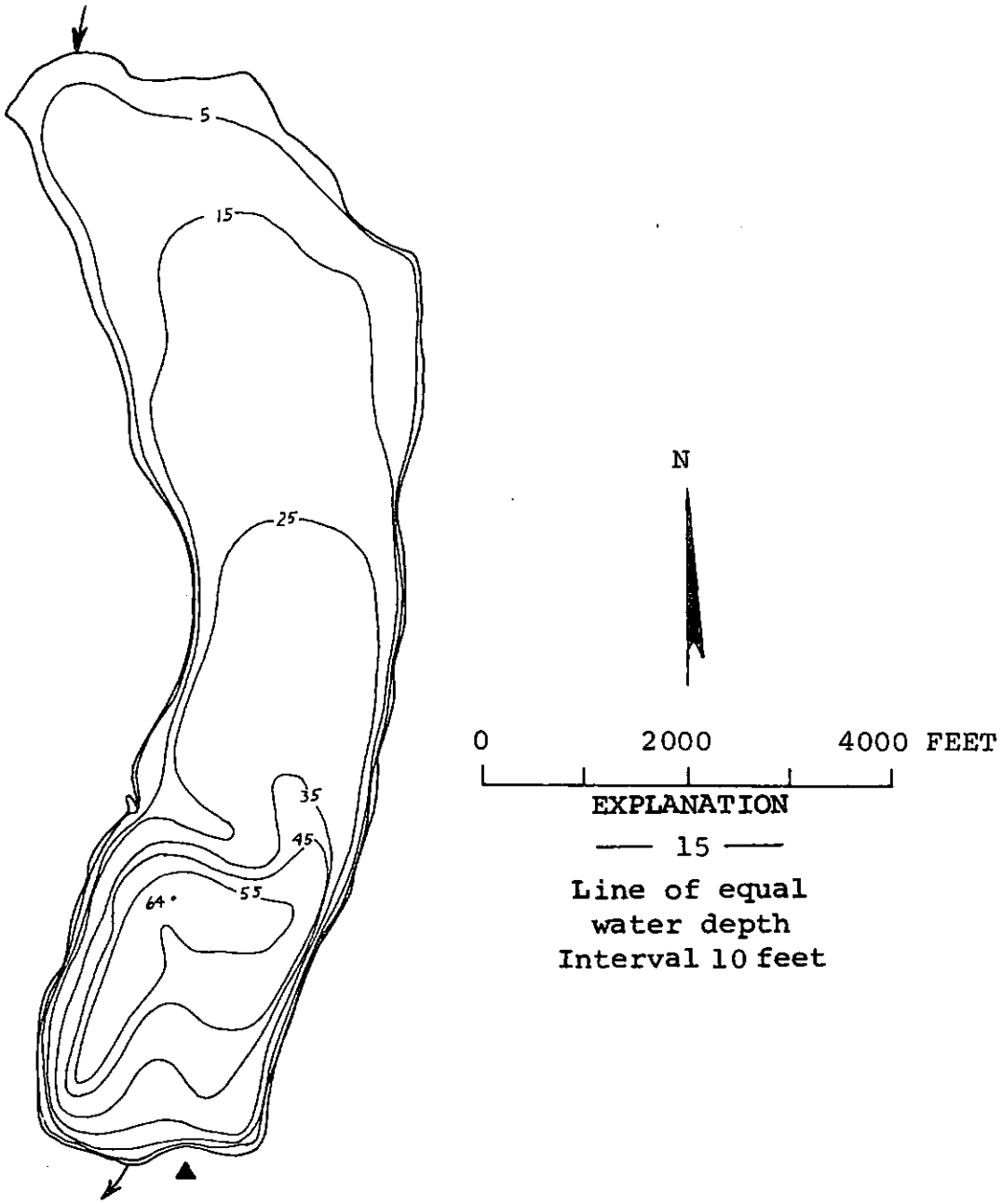
SAMPLE SITE	1	
DATE	6/13/74	
TIME	1140	1145
DEPTH (FT)	3.	59.
TOTAL NITRATE (N)	0.00	0.01
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.03	0.84
TOTAL ORGANIC NITROGEN (N)	1.3	2.0
TOTAL PHOSPHORUS (P)	0.056	0.16
TOTAL ORTHOPHOSPHATE (P)	0.004	0.10
SPECIFIC CONDUCTANCE (MICROMHOS)	2050	2300
WATER TEMPERATURE (DEG C)	19.6	8.9
COLOR (PLATINUM-COBALT UNITS)	5	5
SECCHI-DISC VISIBILITY (FT)	9	
DISSOLVED OXYGEN	9.6	0.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/13/74
TIME	1155
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	8
FECAL COLIFORM, MEAN (COL./100ML)	3

REMARKS

THE LAKE IS NEAR THE HEAD OF MOSES COULEE AND IS FED IN PART BY GROUND-WATER SEEPAGE. RECREATIONAL USE OF THE LAKE IS HEAVY. HYDROGEN SULFIDE WAS DETECTED IN THE HYPOLIMNION. IN 1975 THE U.S. GEOLOGICAL SURVEY WILL SAMPLE THE LAKE FOUR TIMES.



Jameson Lake, Douglas County. From Washington Department of Game, February 20, 1952.

Jameson Lake, Douglas County. June 1, 1970. Approx. scale 1:63,000.

JAMESON POTHOLE LAKE DOUGLAS COUNTY

LATITUDE 47°39'42" LONGITUDE 119°37'57" T25N-R25E-13
DOUGLAS CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	100. SQ MI	RESIDENTIAL DEVELOPMENT	4 %
ALTITUDE	1781. FT		
LAKE AREA	40. ACRES	NUMBER OF NEARSHORE HOMES	1
LAKE VOLUME	590. ACRE-FT		
MEAN DEPTH	15. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	28. FT		
SHORELINE LENGTH	1.5 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.7	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.53	AGRICULTURAL	99 %
BOTTOM SLOPE	1.9 %	FOREST OR UNPRODUCTIVE	0 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

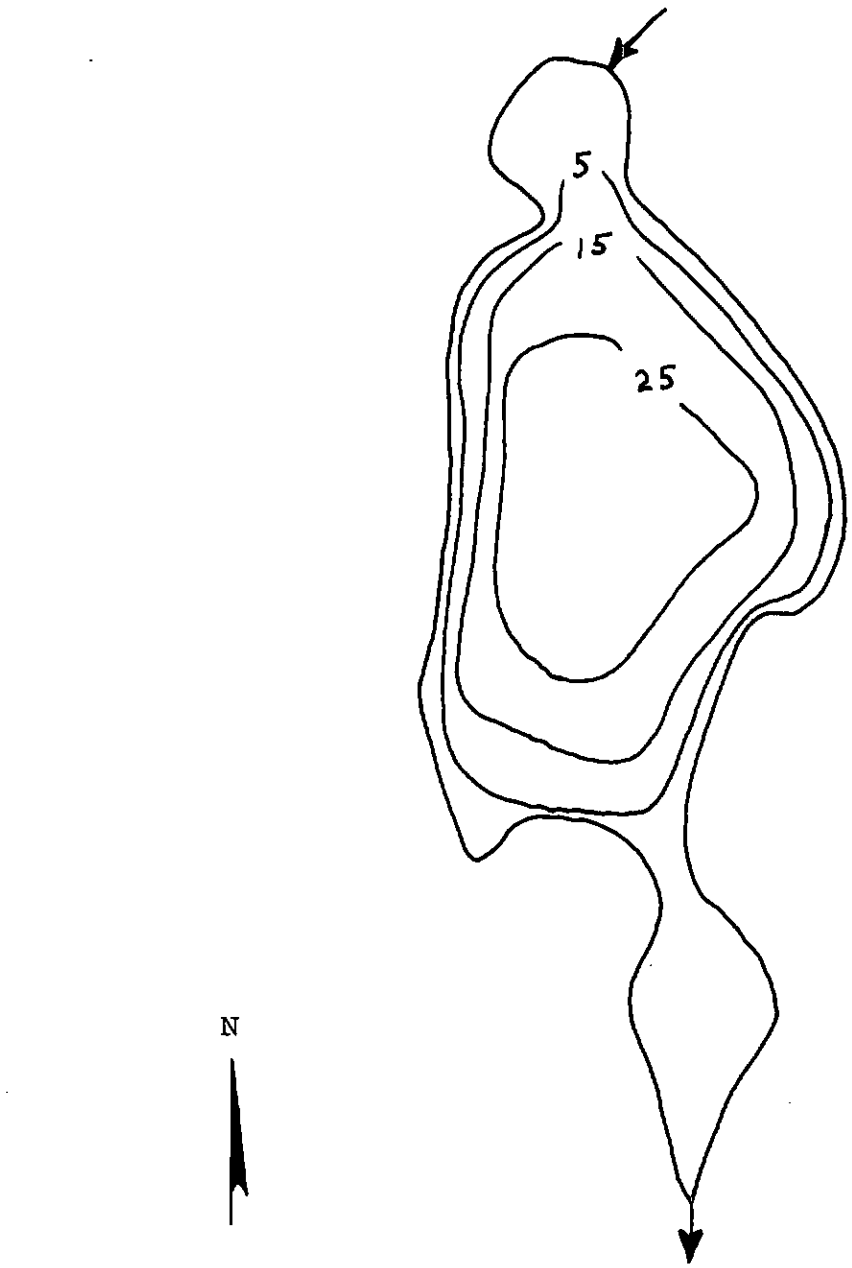
SAMPLE SITE	1	
DATE	6/13/74	
TIME	1020	1025
DEPTH (FT)	3.	26.
TOTAL NITRATE (N)	0.03	0.01
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.03	0.32
TOTAL ORGANIC NITROGEN (N)	1.3	1.6
TOTAL PHOSPHORUS (P)	0.068	0.12
TOTAL ORTHOPHOSPHATE (P)	0.006	0.063
SPECIFIC CONDUCTANCE (MICROMHOS)	2100	2300
WATER TEMPERATURE (DEG C)	19.8	11.1
COLOR (PLATINUM-COBALT UNITS)	0	5
SECCHI-DISC VISIBILITY (FT)	11	
DISSOLVED OXYGEN	9.7	0.3

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/13/74
TIME	1030
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	9
FECAL COLIFORM, MAXIMUM (COL./100ML)	16
FECAL COLIFORM, MEAN (COL./100ML)	12

REMARKS

THE LAKE IS ADJACENT TO THE SOUTH END OF JAMESON LAKE. THE ALGAL DENSITY WAS HIGH AND DECAYING PLANT MATTER WAS SEEN FLOATING IN THE WATER. THE WATER SAMPLE FROM THE HYPOLIMNION HAD A MUSTY ODOR.



Jameson Pothole Lake, Douglas County.
From Washington Department of Game, February 20, 1952.

MURPHY LAKE DOUGLAS COUNTY

LATITUDE 48° 0'57" LONGITUDE 119°27'25" T29N-R27E-17
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	0.37 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2160. FT		
LAKE AREA	9. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME (EST.)	64. ACRE-FT		
MEAN DEPTH (EST.)	7. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	13. FT		
SHORELINE LENGTH	0.49 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.2	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.54	AGRICULTURAL	96 %
BOTTOM SLOPE	1.9 %	FOREST OR UNPRODUCTIVE	0 %
BASIN GEOLOGY	SED./META.	LAKE SURFACE	4 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1	
DATE	7/24/74	
TIME	1150	1155
DEPTH (FT)	3.	10.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.29	0.35
TOTAL ORGANIC NITROGEN (N)	2.9	2.2
TOTAL PHOSPHORUS (P)	0.070	0.070
TOTAL ORTHOPHOSPHATE (P)	0.018	0.011
SPECIFIC CONDUCTANCE (MICROMHOS)	850	850
WATER TEMPERATURE (DEG C)	21.2	18.8
COLOR (PLATINUM-COBALT UNITS)	35	35
SECCHI-DISC VISIBILITY (FT)	2	
DISSOLVED OXYGEN	8.5	0.8

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	7/24/74
TIME	1200
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	1
FECAL COLIFORM, MAXIMUM (COL./100ML)	4
FECAL COLIFORM, MEAN (COL./100ML)	3

REMARKS

THE VALUES GIVEN FOR MEAN DEPTH AND VOLUME ARE ESTIMATED. THE BOTTOM IS SILT AND MUCK AND WAS COMPLETELY COVERED WITH SUBMERSED AQUATIC PLANTS (PONDWEED AND WATER MILFOIL). AN ALGAL BLOOM WAS OBSERVED.

SMITH LAKE DOUGLAS COUNTY

LATITUDE 48° 1'25" LONGITUDE 119° 5'40" T29N-R30E-7
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	1.17 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2460. FT		
LAKE AREA	30. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	280. ACRE-FT		
MEAN DEPTH	9. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	14. FT		
SHORELINE LENGTH	0.91 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.2	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.66	AGRICULTURAL	96 %
BOTTOM SLOPE	1.1 %	FOREST OR UNPRODUCTIVE	<1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	4 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

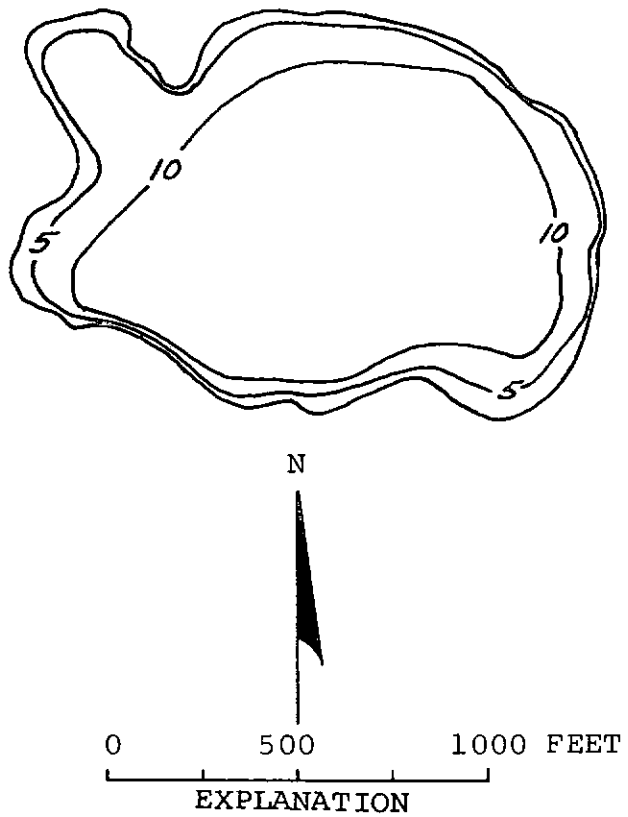
SAMPLE SITE	1	
DATE	7/24/74	
TIME	1145	1150
DEPTH (FT)	3.	10.
TOTAL NITRATE (N)	0.02	0.02
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.91	0.98
TOTAL ORGANIC NITROGEN (N)	2.0	1.6
TOTAL PHOSPHORUS (P)	0.14	0.14
TOTAL ORTHOPHOSPHATE (P)	0.074	0.030
SPECIFIC CONDUCTANCE (MICROMHOS)	600	600
WATER TEMPERATURE (DEG C)	21.3	20.8
COLOR (PLATINUM-COBALT UNITS)	30	30
SECCHI-DISC VISIBILITY (FT)	10	
DISSOLVED OXYGEN	6.5	4.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	7/24/74
TIME	1200
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	1
FECAL COLIFORM, MAXIMUM (COL./100ML)	5
FECAL COLIFORM, MEAN (COL./100ML)	2

REMARKS

THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (RUSHES). THE LITTORAL BOTTOM IS SILT. THE LAKE REPORTEDLY HAS NO FISH.



Smith Lake, Douglas County. From
U.S. Geological Survey, September 14, 1974.

STALLARD LAKE DOUGLAS COUNTY

LATITUDE 47*42'35" LONGITUDE 119*25'35" T26N-R27E-33
DOUGLAS CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	2.77 SQ MI	RESIDENTIAL DEVELOPMENT	4 %
ALTITUDE	2193. FT		
LAKE AREA	36. ACRES	NUMBER OF NEARSHORE HOMES	1
LAKE VOLUME	71. ACRE-FT		
MEAN DEPTH	2. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	3. FT		
SHORELINE LENGTH	0.99 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.2	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.65	AGRICULTURAL	98 %
BOTTOM SLOPE	0.21 %	FOREST OR UNPRODUCTIVE	0 %
BASIN GEOLOGY	SED./META.	LAKE SURFACE	2 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

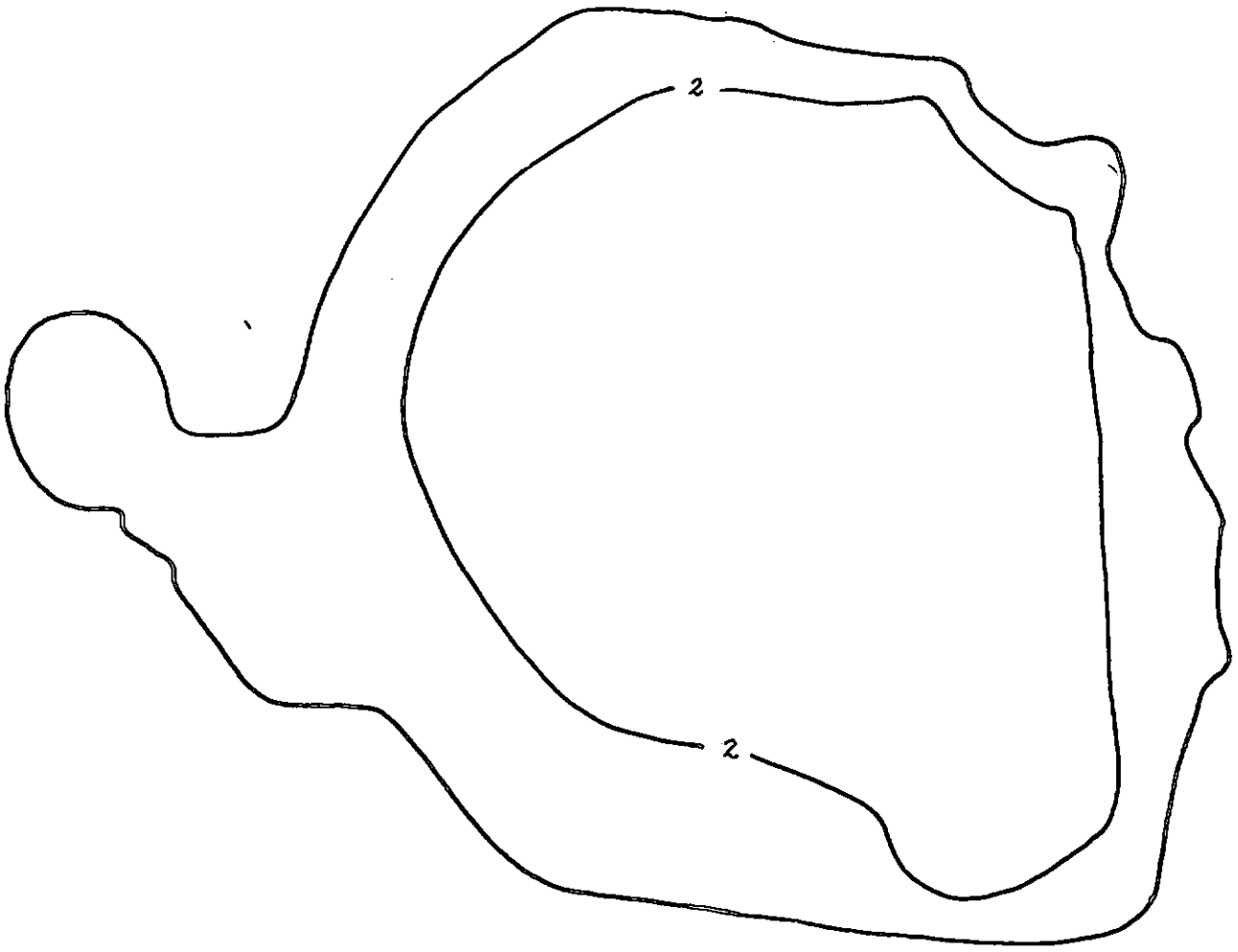
SAMPLE SITE	1	
DATE	6/13/74	
TIME	1450	1455
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	0.03	0.04
TOTAL NITRITE (N)	0.09	0.09
TOTAL AMMONIA (N)	0.33	0.32
TOTAL ORGANIC NITROGEN (N)	5.7	5.5
TOTAL PHOSPHORUS (P)	6.1	6.2
TOTAL ORTHOPHOSPHATE (P)	6.1	6.2
SPECIFIC CONDUCTANCE (MICROMHOS)	11000	11250
WATER TEMPERATURE (DEG C)	23.1	21.3
COLOR (PLATINUM-COBALT UNITS)	60	60
SECCHI-DISC VISIBILITY (FT)	3	
DISSOLVED OXYGEN	6.9	5.4

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	11- 25 %

DATE	6/13/74
TIME	1500
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	<1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

THE LITTORAL BOTTOM IS SILT AND MUCK. WINTERKILLS OF FISH ARE COMMON IN THIS LAKE.



Stallard Lake, Douglas County. From
U.S. Geological Survey, April 16, 1974.

UNNAMED (29N-27E-17) LAKE DOUGLAS COUNTY

LATITUDE 48° 0'27" LONGITUDE 119°27'19" T29N-R27E-17
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	5.89 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2120. FT		
LAKE AREA	25. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	100. ACRE-FT		
MEAN DEPTH	4. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	6. FT		
SHORELINE LENGTH	0.80 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.1	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.67	AGRICULTURAL	99 %
BOTTOM SLOPE	0.51 %	FOREST OR UNPRODUCTIVE	0 %
BASIN GEOLOGY	SED./META.	LAKE SURFACE	1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

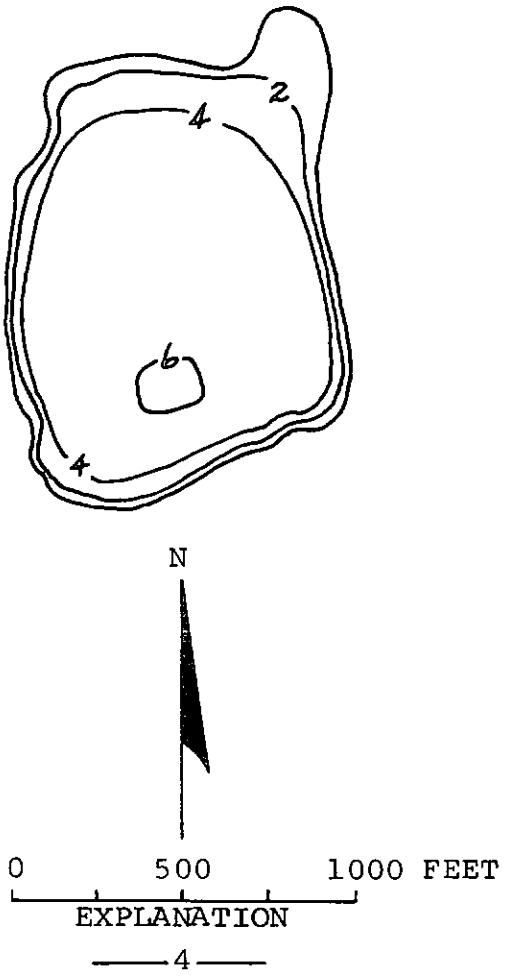
SAMPLE SITE	1	
DATE	7/24/74	
TIME	1245	1250
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.18	0.20
TOTAL ORGANIC NITROGEN (N)	2.5	2.5
TOTAL PHOSPHORUS (P)	0.26	0.27
TOTAL ORTHOPHOSPHATE (P)	0.16	0.16
SPECIFIC CONDUCTANCE (MICROMHOS)	1550	1550
WATER TEMPERATURE (DEG C)	19.8	19.0
COLOR (PLATINUM-COBALT UNITS)	55	55
SECCHI-DISC VISIBILITY (FT)	> 4	
DISSOLVED OXYGEN	9.8	5.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	10- 25 %

DATE	7/24/74
TIME	1310
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	6
FECAL COLIFORM, MEAN (COL./100ML)	2

REMARKS

THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (SEDGE). THE BOTTOM IS SILT AND COMPLETELY COVERED WITH SUBMERSED AQUATIC PLANTS (PONDWEED). THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION.



Unnamed (29N-27E-17) Lake, Douglas County.
From U.S. Geological Survey, April 17, 1974.

UNNAMED (29N-27E-20) LAKE DOUGLAS COUNTY

LATITUDE 48* 0' 8" LONGITUDE 119*27'25" T29N-R27E-20
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	9.27 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2120. FT		
LAKE AREA	40. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME (EST.)	64. ACRE-FT		
MEAN DEPTH (EST.)	2. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	3. FT		
SHORELINE LENGTH	1.1 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.2	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.55	AGRICULTURAL	98 %
BOTTOM SLOPE	0.19 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	SED./META.	LAKE SURFACE	1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

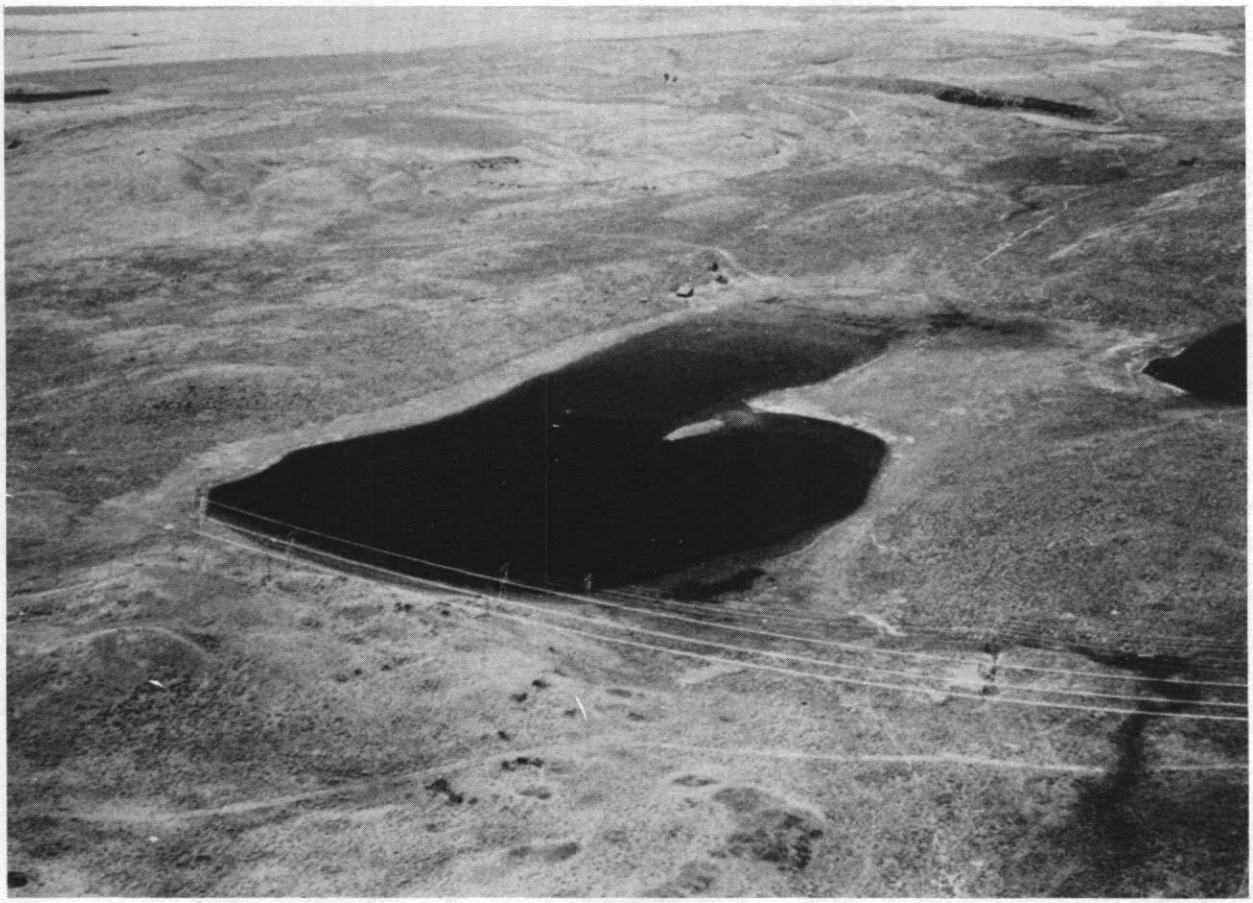
SAMPLE SITE	1	
DATE	7/24/74	
TIME	1325	1330
DEPTH (FT)	1.	2.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.16	0.15
TOTAL ORGANIC NITROGEN (N)	2.5	2.6
TOTAL PHOSPHORUS (P)	1.6	1.6
TOTAL ORTHOPHOSPHATE (P)	1.6	1.4
SPECIFIC CONDUCTANCE (MICROMHOS)	4050	4050
WATER TEMPERATURE (DEG C)	23.0	22.4
COLOR (PLATINUM-COBALT UNITS)	55	65
SECCHI-DISC VISIBILITY (FT)	3	
DISSOLVED OXYGEN	7.6	8.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	11- 25 %
LAKE SURFACE COVERED BY EMERSED PLANTS	11- 25 %

DATE	7/24/74
TIME	1340
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	2
FECAL COLIFORM, MEAN (COL./100ML)	1

REMARKS

A LARGE NUMBER OF CATTLE WERE OBSERVED GRAZING AT THE SHORELINE. THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION. THE LITTORAL BOTTOM IS SILT. THE VOLUME AND MEAN DEPTH ARE ESTIMATED.



Unnamed (29N-27E-20) Lake, Douglas County.
From U.S. Geological Survey, July 24, 1974.

UNNAMED (29N-29E-2) LAKE DOUGLAS COUNTY

LATITUDE 48° 2'29" LONGITUDE 119° 7'38" T29N-R29E-2
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	1.06 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2460. FT		
LAKE AREA	25. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	140. ACRE-FT		
MEAN DEPTH	5. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	9. FT		
SHORELINE LENGTH	1.0 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.5	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.60	AGRICULTURAL	95 %
BOTTOM SLOPE	0.76 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	4 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

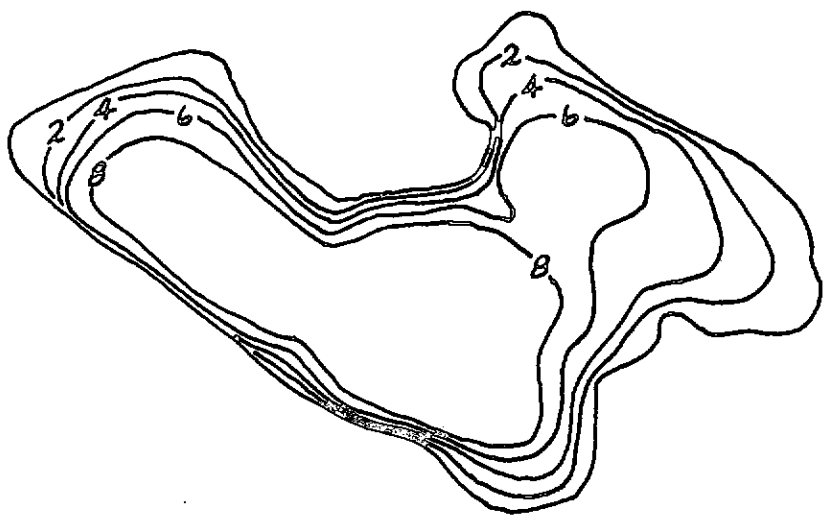
SAMPLE SITE	1	
DATE	7/24/74	
TIME	1105	1110
DEPTH (FT)	3.	7.
TOTAL NITRATE (N)	0.02	0.02
TOTAL NITRITE (N)	0.02	0.02
TOTAL AMMONIA (N)	0.21	0.30
TOTAL ORGANIC NITROGEN (N)	2.7	2.5
TOTAL PHOSPHORUS (P)	4.5	4.5
TOTAL ORTHOPHOSPHATE (P)	4.4	4.5
SPECIFIC CONDUCTANCE (MICROMHOS)	4400	4500
WATER TEMPERATURE (DEG C)	21.7	20.2
COLOR (PLATINUM-COBALT UNITS)	--	--
SECCHI-DISC VISIBILITY (FT)	5	
DISSOLVED OXYGEN	5.8	4.4

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	7/24/74
TIME	1110
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	<1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

THE LITTORAL BOTTOM IS SILT. NO SUBMERSED AQUATIC PLANTS WERE OBSERVED. THE WATER WAS DARK TEA COLOR AND NO COLOR DETERMINATIONS WERE MADE.



N

0 500 1000 FEET

EXPLANATION

—— 4 ——

Line of equal
water depth
Interval 2 feet

Unnamed (29N-29E-2) Lake, Douglas County. From U.S. Geological Survey, September 14, 1974.

UNNAMED (29N-29E-22) LAKE DOUGLAS COUNTY

LATITUDE 47*59'34" LONGITUDE 119*10' 3" T29N-R29E-22
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	1.11 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2384. FT		
LAKE AREA	29. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	110. ACRE-FT		
MEAN DEPTH	4. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	6. FT		
SHORELINE LENGTH	0.91 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.2	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.67	AGRICULTURAL	96 %
BOTTOM SLOPE	0.48 %	FOREST OR UNPRODUCTIVE	<1 %
BASIN GEOLOGY	SED./META.	LAKE SURFACE	4 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

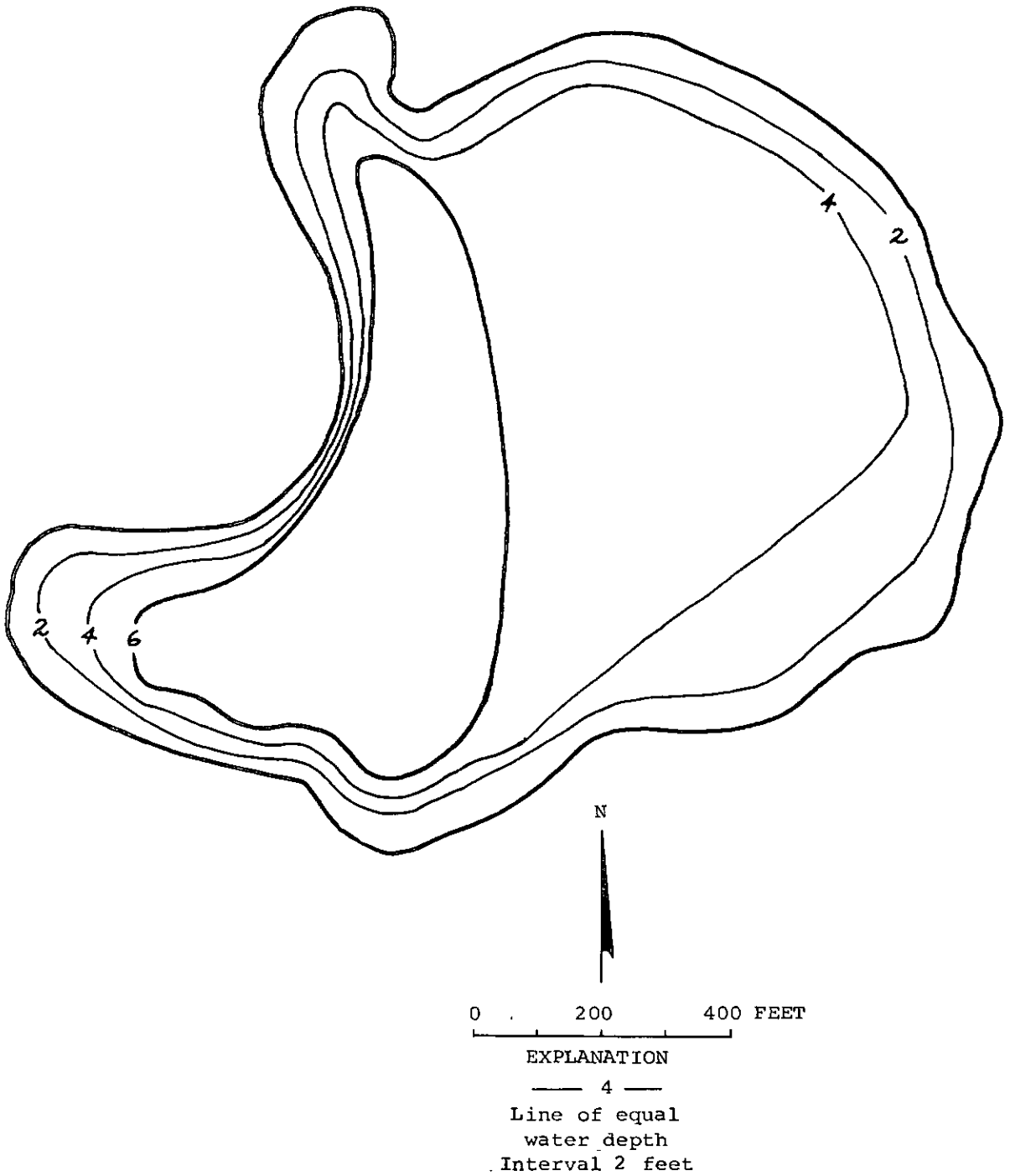
SAMPLE SITE	1	
DATE	7/24/74	
TIME	950	955
DEPTH (FT)	3.	5.
TOTAL NITRATE (N)	0.01	0.02
TOTAL NITRITE (N)	0.02	0.02
TOTAL AMMONIA (N)	0.20	0.20
TOTAL ORGANIC NITROGEN (N)	0.32	0.30
TOTAL PHOSPHORUS (P)	3.8	3.9
TOTAL ORTHOPHOSPHATE (P)	3.8	3.8
SPECIFIC CONDUCTANCE (MICROMHOS)	4600	4600
WATER TEMPERATURE (DEG C)	21.1	20.6
COLOR (PLATINUM-COBALT UNITS)	70	70
SECCHI-DISC VISIBILITY (FT)	3	
DISSOLVED OXYGEN	8.0	5.6

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	7/24/74
TIME	1000
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	2
FECAL COLIFORM, MEAN (COL./100ML)	1

REMARKS

THE SHORELINE WAS COMPLETELY COVERED WITH EMERSED AQUATIC PLANTS (SEDGE). NO SUBMERSED AQUATIC PLANTS WERE OBSERVED. THE LITTORAL BOTTOM IS MUCK AND SILT. THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION. AN ALGAL BLOOM WAS OBSERVED.



Unnamed (29N-29E-22) Lake, Douglas County. From U.S. Geological Survey, April 17, 1974.

Unnamed (29N-29E-22) Lake, Douglas County.
From U.S. Geological Survey, July 24, 1974.

UNNAMED (30N-29E-36) LAKE DOUGLAS COUNTY

LATITUDE 48* 3'36" LONGITUDE 119* 6'29" T30N-R29E-36
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	0.65 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2527. FT		
LAKE AREA	22. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	280. ACRE-FT		
MEAN DEPTH	13. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	18. FT		
SHORELINE LENGTH	0.81 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.2	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.69	AGRICULTURAL	95 %
BOTTOM SLOPE	1.6 %	FOREST OR UNPRODUCTIVE	0 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	5 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

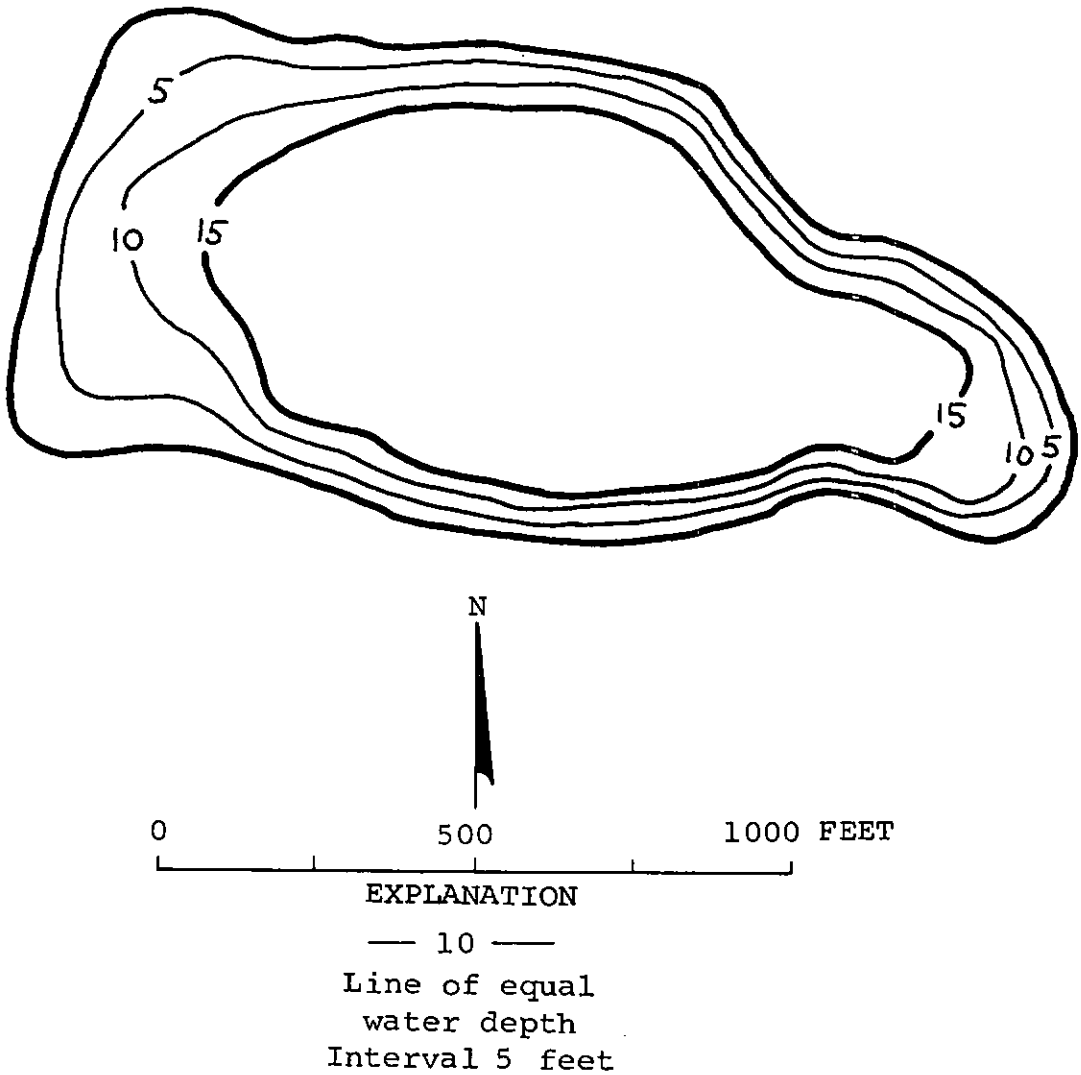
SAMPLE SITE	1	
DATE	7/23/74	
TIME	1025	1030
DEPTH (FT)	3.	13.
TOTAL NITRATE (N)	0.00	0.02
TOTAL NITRITE (N)	0.04	0.01
TOTAL AMMONIA (N)	0.88	2.8
TOTAL ORGANIC NITROGEN (N)	8.6	4.6
TOTAL PHOSPHORUS (P)	1.5	1.7
TOTAL ORTHOPHOSPHATE (P)	0.78	1.5
SPECIFIC CONDUCTANCE (MICROMHOS)	1800	2000
WATER TEMPERATURE (DEG C)	19.3	15.0
COLOR (PLATINUM-COBALT UNITS)	--	75
SECCHI-DISC VISIBILITY (FT)	1	
DISSOLVED OXYGEN	0.2	0.1

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	7/23/74
TIME	1040
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	124
FECAL COLIFORM, MEAN (COL./100ML)	43

REMARKS

A THICK ALGAL BLOOM WAS OBSERVED WHICH PREVENTED A DETERMINATION OF COLOR IN THE SHALLOW SAMPLE. THE BOTTOM IS SILT AND MUCK BUT FREE OF SUBMERSED AQUATIC PLANTS. THE SHORELINE WAS COMPLETELY COVERED WITH EMERSED AQUATIC PLANTS. HYDROGEN SULFIDE WAS DETECTED IN THE HYPOLIMNION.



Unnamed (30N-29E-36) Lake, Douglas County.
From U.S. Geological Survey, April 17, 1974.

Unnamed (30N-29E-36) Lake, Douglas County.
From U.S. Geological Survey, July 23, 1974.

WILSON LAKE DOUGLAS COUNTY

LATITUDE 47°59'55" LONGITUDE 119° 8'54" T29N-R29E-22
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	0.66 SQ MI	RESIDENTIAL DEVELOPMENT	1 %
ALTITUDE	2405. FT		
LAKE AREA	39. ACRES	NUMBER OF NEARSHORE HOMES	1
LAKE VOLUME	270. ACRE-FT		
MEAN DEPTH	7. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	11. FT		
SHORELINE LENGTH	1.2 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.4	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.63	AGRICULTURAL	91 %
BOTTOM SLOPE	0.75 %	FOREST OR UNPRODUCTIVE	0 %
BASIN GEOLOGY	SED./META.	LAKE SURFACE	9 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

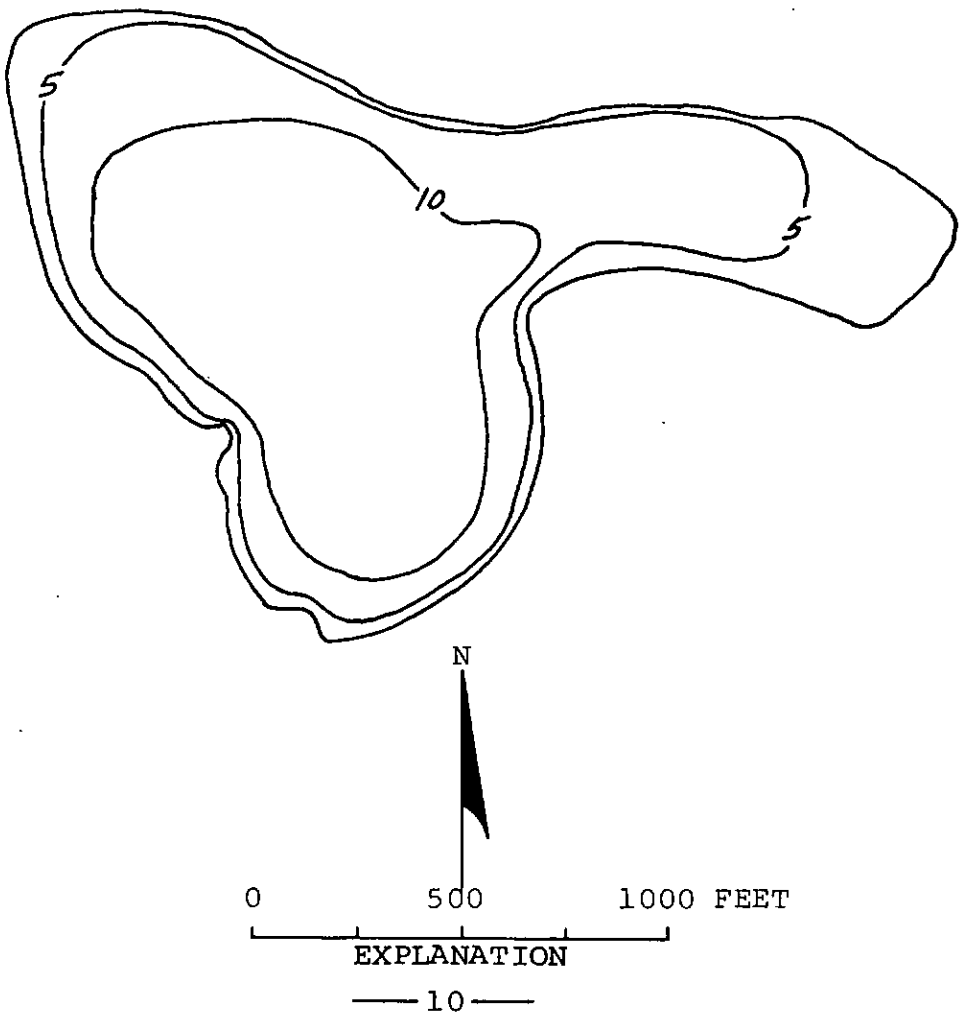
SAMPLE SITE	1	
DATE	7/24/74	
TIME	1235	1240
DEPTH (FT)	3.	7.
TOTAL NITRATE (N)	0.00	0.01
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.26	0.18
TOTAL ORGANIC NITROGEN (N)	2.9	2.6
TOTAL PHOSPHORUS (P)	1.8	1.8
TOTAL ORTHOPHOSPHATE (P)	1.8	1.8
SPECIFIC CONDUCTANCE (MICROMHOS)	3200	3200
WATER TEMPERATURE (DEG C)	21.2	20.8
COLOR (PLATINUM-COBALT UNITS)	55	55
SECCHI-DISC VISIBILITY (FT)	3	
DISSOLVED OXYGEN	12.3	9.6

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	7/24/74
TIME	1250
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	6
FECAL COLIFORM, MEAN (COL./100ML)	4

REMARKS

THE BOTTOM IS SILT BUT FREE OF SUBMERSED AQUATIC PLANTS. AN ALGAL BLOOM WAS OBSERVED.



Wilson Lake, Douglas County. From
U.S. Geological Survey, September 14, 1974.

BAILIE LAKE FRANKLIN COUNTY

LATITUDE 46*35'40" LONGITUDE 119* 0' 5" T13N-R30E-24
ESQUATZEL COULEE BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	872. FT		
LAKE AREA	12. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	47. ACRE-FT		
MEAN DEPTH	4. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	8. FT		
SHORELINE LENGTH	0.76 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	1.6		
DEVELOPMENT OF VOLUME	0.49		
BOTTOM SLOPE	0.98 %		
BASIN GEOLOGY	SED./META.		
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

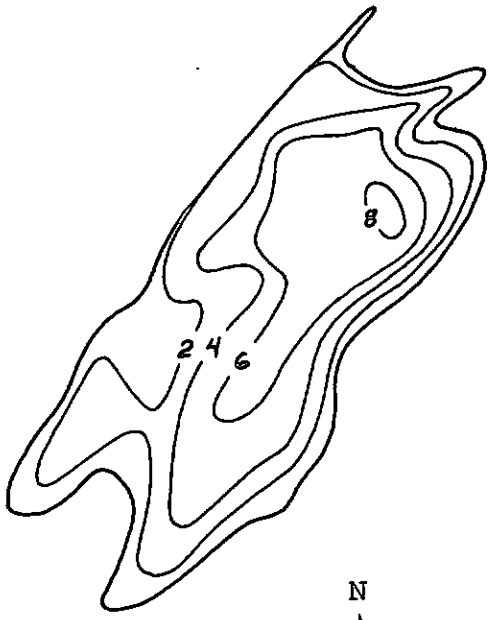
SAMPLE SITE	1	
DATE	5/20/74	
TIME	1300	1305
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	0.00	0.01
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.28	0.30
TOTAL ORGANIC NITROGEN (N)	3.8	4.5
TOTAL PHOSPHORUS (P)	0.34	0.36
TOTAL ORTHOPHOSPHATE (P)	0.046	0.031
SPECIFIC CONDUCTANCE (MICROMHOS)	190	180
WATER TEMPERATURE (DEG C)	15.2	15.0
COLOR (PLATINUM-COBALT UNITS)	75	75
SECCHI-DISC VISIBILITY (FT)	1	
DISSOLVED OXYGEN	12.0	11.4

LAKE SHORELINE COVERED BY EMERSED PLANTS LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE	5/20/74
TIME	1300
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	130
FECAL COLIFORM, MAXIMUM (COL./100ML)	224
FECAL COLIFORM, MEAN (COL./100ML)	175

REMARKS

A SEEPAGE LAKE WITH NO AQUATIC MACROPHYTES. AN ALGAL BLOOM WAS OBSERVED. CATTLE WERE GRAZING AT THE SHORELINE. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE LAKE IS AFFECTED BY IRRIGATION WATER FROM OUTSIDE THE NATURAL DRAINAGE AREA.



N

0 500 1000 FEET

EXPLANATION

—— 4 ——

Line of equal
water depth
Interval 2 feet

Bailie Lake, Franklin County. From
U.S. Geological Survey, March 3, 1975.

CLARK LAKE FRANKLIN COUNTY

LATITUDE 46*31' 4" LONGITUDE 119* 4'12" T12N-R30E-20
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	3 %
ALTITUDE	750. FT		
LAKE AREA	40. ACRES	NUMBER OF NEARSHORE HOMES	1
LAKE VOLUME	170. ACRE-FT		
MEAN DEPTH	4. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	15. FT		
SHORELINE LENGTH	1.1 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	1.3		
DEVELOPMENT OF VOLUME	0.28		
BOTTOM SLOPE	1.0 %		
BASIN GEOLOGY	SED./META.		
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

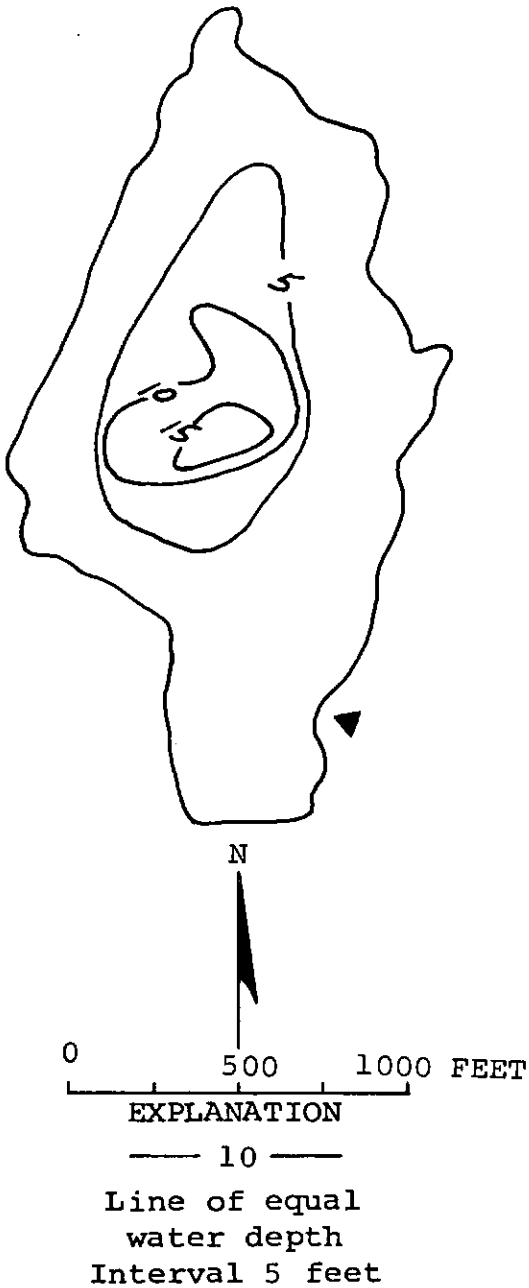
SAMPLE SITE	1	
DATE	5/18/74	
TIME	1230	1235
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.13	0.13
TOTAL ORGANIC NITROGEN (N)	2.5	2.3
TOTAL PHOSPHORUS (P)	0.11	0.12
TOTAL ORTHOPHOSPHATE (P)	0.017	0.017
SPECIFIC CONDUCTANCE (MICROMHOS)	1450	1450
WATER TEMPERATURE (DEG C)	13.0	13.0
COLOR (PLATINUM-COBALT UNITS)	20	30
SECCHI-DISC VISIBILITY (FT)	3	
DISSOLVED OXYGEN	11.6	11.4

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	5/18/74
TIME	1300
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	6
FECAL COLIFORM, MAXIMUM (COL./100ML)	10
FECAL COLIFORM, MEAN (COL./100ML)	8

REMARKS

THE MIDDLE LAKE IN A CHAIN OF THREE. THE BOTTOM IS MUCK AND COMPLETELY COVERED WITH SUBMERSED AQUATIC PLANTS. THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (CATTAIL). THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE IRRIGATION WATER IS IMPORTED FROM OUTSIDE THE NATURAL DRAINAGE AREA.



Clark Lake, Franklin County. From
U.S. Geological Survey, August 21, 1974.

EAGLE LAKE FRANKLIN COUNTY

LATITUDE 46°42'54" LONGITUDE 119° 7'56" T14N-R29E-12
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	825. FT		
LAKE AREA	240. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	9500. ACRE-FT		
MEAN DEPTH	39. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	97. FT		
SHORELINE LENGTH	6.3 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	2.9		
DEVELOPMENT OF VOLUME	0.41		
BOTTOM SLOPE	2.6 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1	
DATE	5/22/74	
TIME	1500	1505
DEPTH (FT)	3.	85.
TOTAL NITRATE (N)	0.58	0.50
TOTAL NITRITE (N)	0.04	0.04
TOTAL AMMONIA (N)	0.06	0.08
TOTAL ORGANIC NITROGEN (N)	0.46	0.58
TOTAL PHOSPHORUS (P)	0.047	0.030
TOTAL ORTHOPHOSPHATE (P)	0.002	0.003
SPECIFIC CONDUCTANCE (MICROMHOS)	740	740
WATER TEMPERATURE (DEG C)	16.1	8.0
COLOR (PLATINUM-COBALT UNITS)	5	10
SECCHI-DISC VISIBILITY (FT)	7	
DISSOLVED OXYGEN	13.8	4.8

LAKE SHORELINE COVERED BY EMERSED PLANTS	LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	5/22/74
TIME	1430
NUMBER OF FECAL COLIFORM SAMPLES	2
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	<1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

A SEEPAGE LAKE WITH NO AQUATIC MACROPHYTES. THE WATER SAMPLES CONTAINED ABUNDANT ZOOPLANKTON. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE LAKE IS AFFECTED BY IRRIGATION WATER FROM OUTSIDE THE NATURAL DRAINAGE AREA.

Eagle Lake, Franklin County. From
U.S. Geological Survey, April 16, 1974.

Eagle Lake, Franklin County. June 1, 1970. Approx. scale 1:63,000.

HENDRICKS LAKE FRANKLIN COUNTY

LATITUDE 46*40'24" LONGITUDE 119* 8'58" T14N-R29E-26
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	775. FT		
LAKE AREA	190. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	2000. ACRE-FT		
MEAN DEPTH	10. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	41. FT		
SHORELINE LENGTH	6.6 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	3.4		
DEVELOPMENT OF VOLUME	0.25		
BOTTOM SLOPE	1.3 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

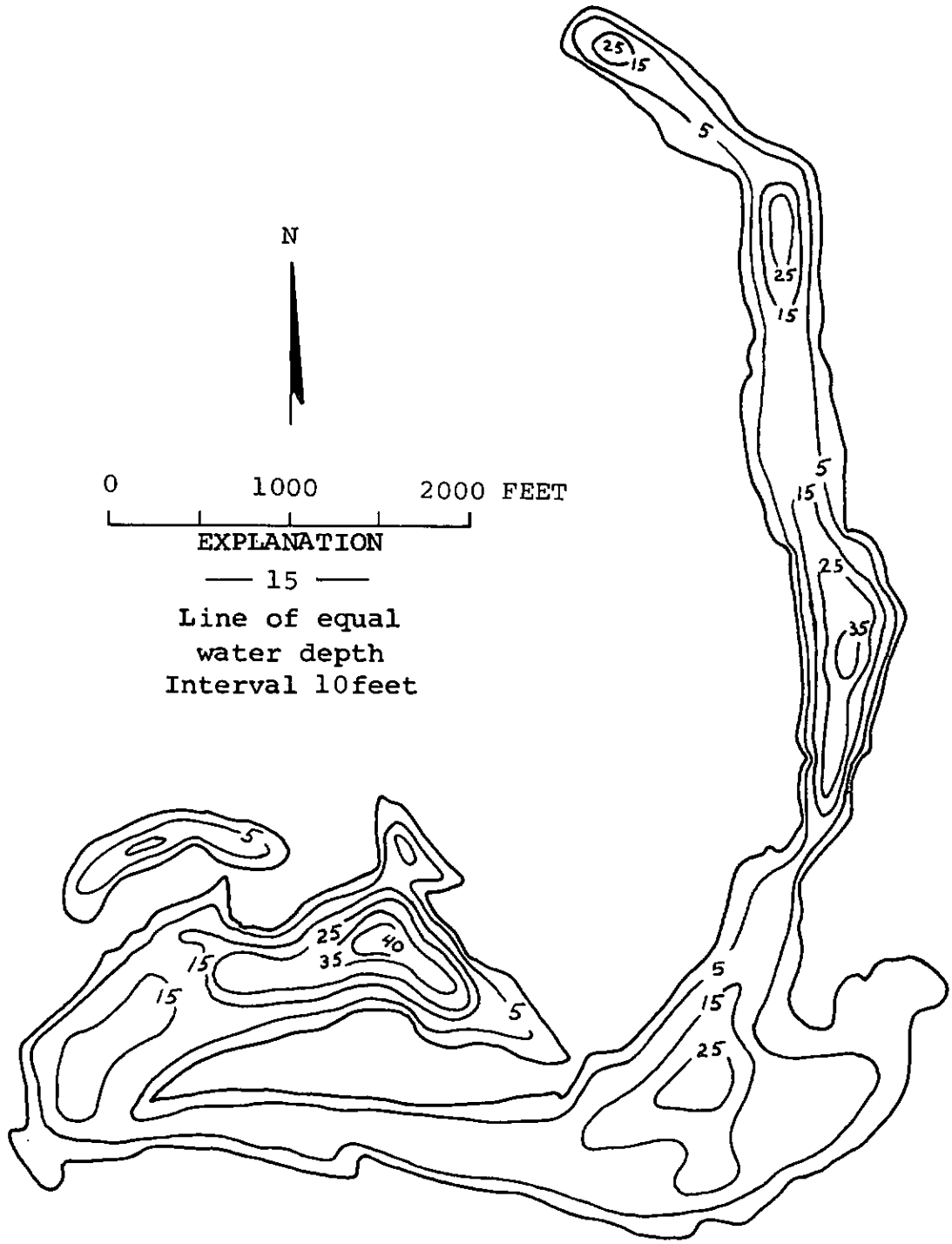
SAMPLE SITE	1	
DATE	5/22/74	
TIME	1230	1235
DEPTH (FT)	3.	8.
TOTAL NITRATE (N)	0.60	0.54
TOTAL NITRITE (N)	0.04	0.05
TOTAL AMMONIA (N)	0.05	0.07
TOTAL ORGANIC NITROGEN (N)	0.54	0.55
TOTAL PHOSPHORUS (P)	0.030	0.032
TOTAL ORTHOPHOSPHATE (P)	0.002	0.003
SPECIFIC CONDUCTANCE (MICROMHOS)	750	750
WATER TEMPERATURE (DEG C)	17.0	15.0
COLOR (PLATINUM-COBALT UNITS)	5	10
SECCHI-DISC VISIBILITY (FT)	5	
DISSOLVED OXYGEN	12.8	12.6

LAKE SHORELINE COVERED BY EMERSED PLANTS	LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	5/22/74
TIME	1230
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	204
FECAL COLIFORM, MEAN (COL./100ML)	68

REMARKS

VERY FEW EMERSED AQUATIC PLANTS WERE OBSERVED. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE LAKE RECEIVES LARGE INFLOWS OF IRRIGATION WATER FROM OUTSIDE THE NATURAL DRAINAGE AREA.



Hendricks Lake, Franklin County. From
U.S. Geological Survey, April 17, 1974.

KAHLOTUS LAKE FRANKLIN COUNTY

LATITUDE 46°38'31" LONGITUDE 118°31'59" T13N-R34E-3
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	167. SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	865. FT		
LAKE AREA	380. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	5100. ACRE-FT		
MEAN DEPTH	14. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	24. FT		
SHORELINE LENGTH	5.3 MI	RESIDENTIAL URBAN	<1 %
SHORELINE CONFIGURATION	2.0	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.56	AGRICULTURAL	100 %
BOTTOM SLOPE	0.52 %	FOREST OR UNPRODUCTIVE	0 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	<1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

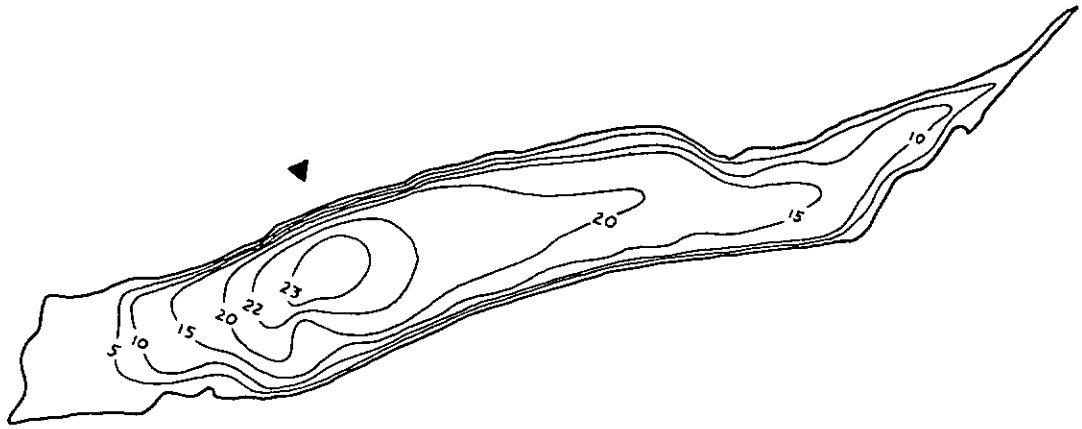
SAMPLE SITE	1	
DATE	5/23/74	
TIME	1230	1235
DEPTH (FT)	0.7	1.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.00
TOTAL AMMONIA (N)	0.08	0.08
TOTAL ORGANIC NITROGEN (N)	1.2	3.3
TOTAL PHOSPHORUS (P)	0.16	0.16
TOTAL ORTHOPHOSPHATE (P)	0.11	0.13
SPECIFIC CONDUCTANCE (MICROMHOS)	2750	2750
WATER TEMPERATURE (DEG C)	17.5	17.5
COLOR (PLATINUM-COBALT UNITS)	25	25
SECCHI-DISC VISIBILITY (FT)	16	
DISSOLVED OXYGEN	16.5	16.5

LAKE SHORELINE COVERED BY EMERSED PLANTS	LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS	51- 75 %

DATE	5/23/74
TIME	1230
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	2
FECAL COLIFORM, MAXIMUM (COL./100ML)	4
FECAL COLIFORM, MEAN (COL./100ML)	3

REMARKS

THE BOTTOM IS SILT AND MUCK AND WAS COMPLETELY COVERED WITH SUBMERSED AQUATIC PLANTS AND FILAMENTOUS GREEN ALGAE; VERY FEW EMERSED AQUATIC PLANTS WERE OBSERVED. THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION AND THE WATER CONTAINED A LARGE POPULATION OF ZOOPLANKTON.



0 2000 4000 FEET

EXPLANATION

—— 10 ——

Line of equal
water depth
Interval 5 feet

Kahlotus Lake, Franklin County. From Washington Department of Game, July 13, 1954.

Kahlotus Lake, Franklin County. June 2, 1970. Approx. scale 1:63,000.

LONG LAKE FRANKLIN COUNTY

LATITUDE 46°39' 6" LONGITUDE 119° 7'49" T14N-R29E-36
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	7.10 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	800. FT		
LAKE AREA	26. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	180. ACRE-FT		
MEAN DEPTH	7. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	27. FT		
SHORELINE LENGTH	2.3 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	3.3	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.26	AGRICULTURAL	97 %
BOTTOM SLOPE	2.3 %	FOREST OR UNPRODUCTIVE	2 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

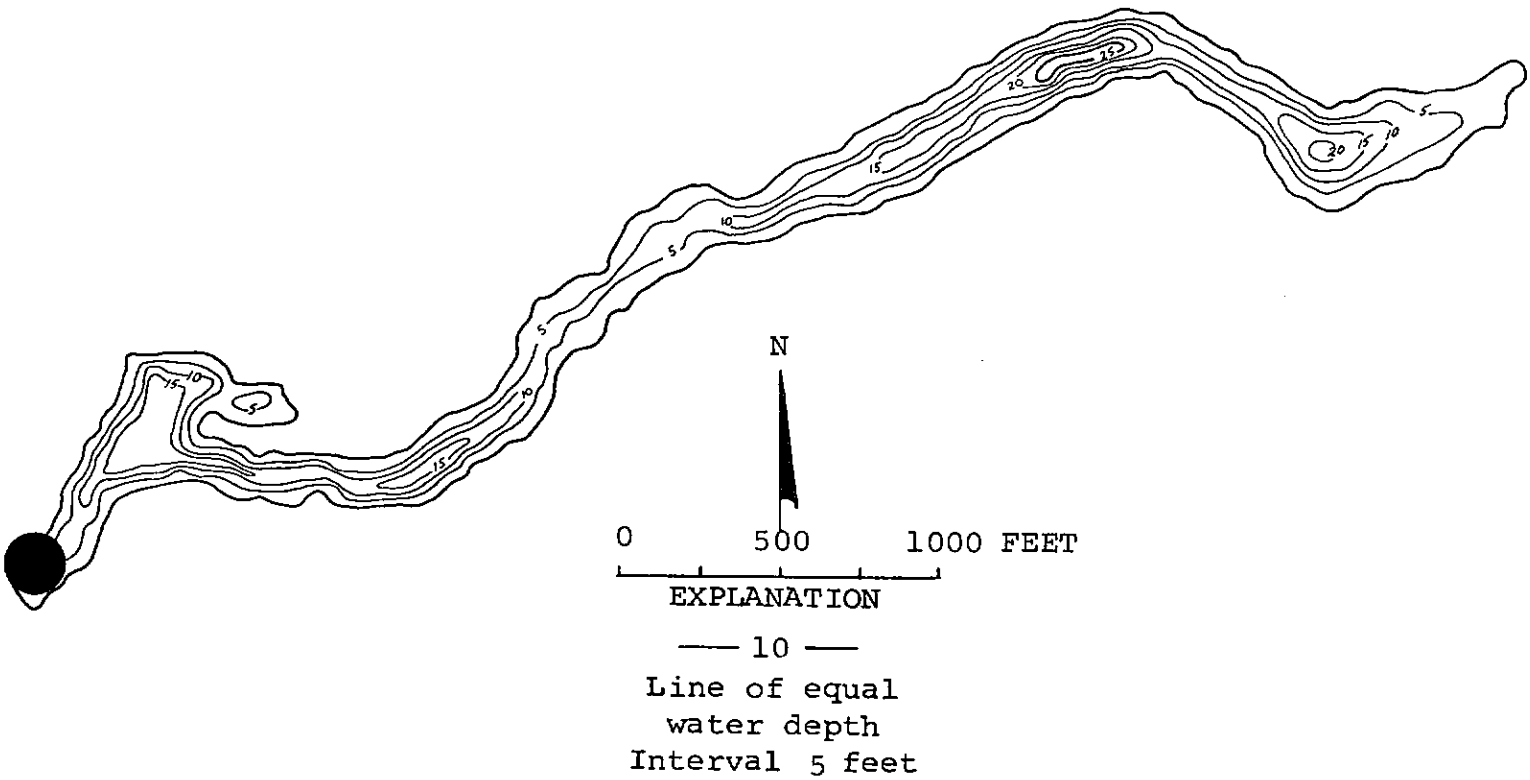
SAMPLE SITE	1	
DATE	5/21/74	
TIME	1400	1405
DEPTH (FT)	3.	13.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.00
TOTAL AMMONIA (N)	0.12	0.16
TOTAL ORGANIC NITROGEN (N)	1.3	1.3
TOTAL PHOSPHORUS (P)	0.097	0.12
TOTAL ORTHOPHOSPHATE (P)	0.009	0.010
SPECIFIC CONDUCTANCE (MICROMHOS)	1000	1100
WATER TEMPERATURE (DEG C)	16.0	13.0
COLOR (PLATINUM-COBALT UNITS)	20	20
SECCHI-DISC VISIBILITY (FT)	4	
DISSOLVED OXYGEN	10.5	4.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	5/21/74
TIME	1430
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	1
FECAL COLIFORM, MAXIMUM (COL./100ML)	23
FECAL COLIFORM, MEAN (COL./100ML)	12

REMARKS

THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (CATTAIL AND SEDGE); NO SUBMERSED AQUATIC PLANTS WERE OBSERVED.



Long Lake, Franklin County. From
U.S. Geological Survey, April 11, 1974.

Long Lake, Franklin County. From
U.S. Geological Survey, May 21, 1974.

MESA LAKE FRANKLIN COUNTY

LATITUDE 46*34'16" LONGITUDE 119* 1'40" T13N-R30E-34
ESQUATZEL COULEE BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	750. FT		
LAKE AREA	50. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	250. ACRE-FT		
MEAN DEPTH	5. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	12. FT		
SHORELINE LENGTH	2.1 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	2.1		
DEVELOPMENT OF VOLUME	0.42		
BOTTOM SLOPE	0.72 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

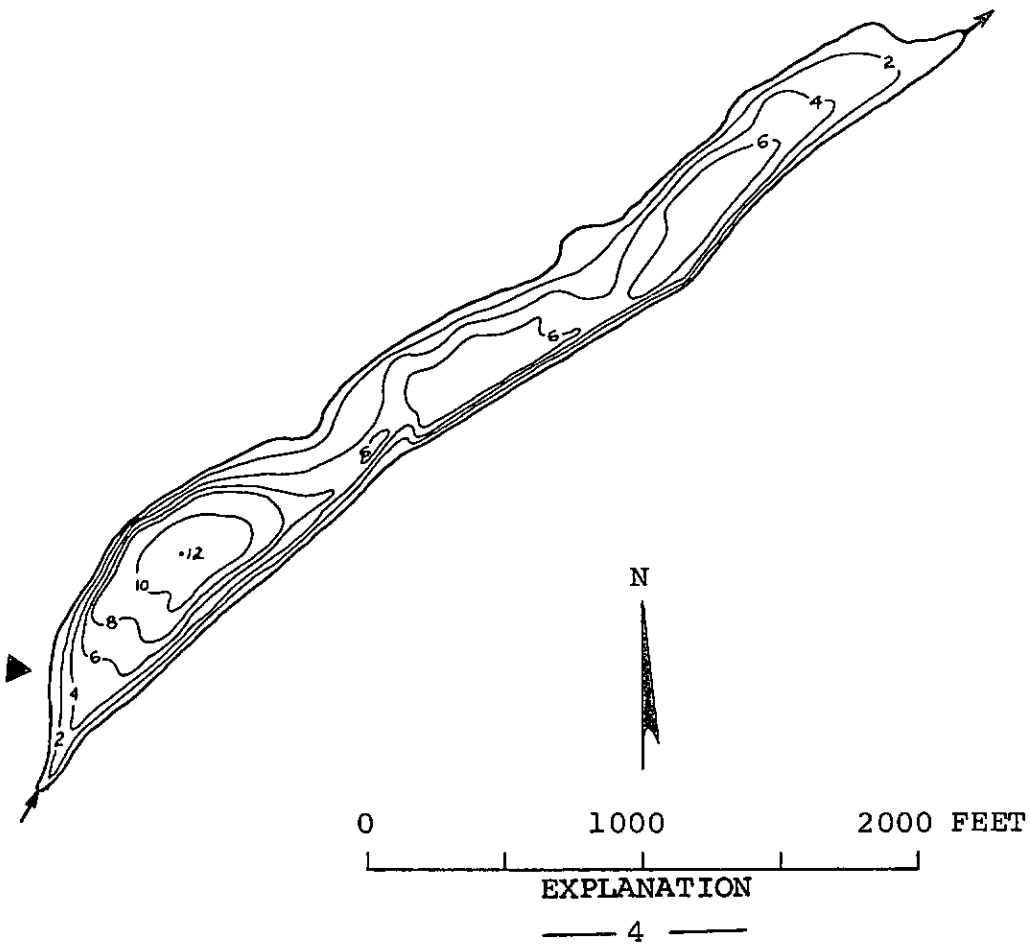
SAMPLE SITE	1	
DATE	5/18/74	
TIME	1400	1405
DEPTH (FT)	3.	8.
TOTAL NITRATE (N)	0.55	0.66
TOTAL NITRITE (N)	0.04	0.04
TOTAL AMMONIA (N)	0.07	0.07
TOTAL ORGANIC NITROGEN (N)	1.1	0.93
TOTAL PHOSPHORUS (P)	0.10	0.091
TOTAL ORTHOPHOSPHATE (P)	0.010	0.009
SPECIFIC CONDUCTANCE (MICROMHOS)	520	520
WATER TEMPERATURE (DEG C)	13.5	13.2
COLOR (PLATINUM-COBALT UNITS)	20	20
SECCHI-DISC VISIBILITY (FT)	2	
DISSOLVED OXYGEN	13.6	13.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	5/18/74
TIME	1400
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	1
FECAL COLIFORM, MAXIMUM (COL./100ML)	92
FECAL COLIFORM, MEAN (COL./100ML)	49

REMARKS

A SEEPAGE LAKE THAT SUPPORTS A LARGE WATERFOWL POPULATION. THE BOTTOM IS SILT AND MUCK AND WAS COMPLETELY COVERED WITH SUBMERSED AQUATIC PLANTS (PONDWEED). THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (CATTAIL). THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE LAKE IS AFFECTED BY IRRIGATION WATER FROM OUTSIDE THE NATURAL DRAINAGE AREA.



Mesa Lake, Franklin County. From
Washington Department of Game, date unknown.

SCOOTNEY LAKE FRANKLIN COUNTY

LATITUDE 46°40'10" LONGITUDE 119° 1'53" T14N-R30E-27
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	915. FT		
LAKE AREA	590. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	8500. ACRE-FT		
MEAN DEPTH	14. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	31. FT		
SHORELINE LENGTH	17. MI	NOT DETERMINED	
SHORELINE CONFIGURATION	4.9		
DEVELOPMENT OF VOLUME	0.46		
BOTTOM SLOPE	0.54 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1		2	
DATE	5/20/74		5/21/74	
TIME	1600	1605	1130	1135
DEPTH (FT)	3.	23.	3.	8.
TOTAL NITRATE (N)	0.66	0.69	0.84	0.73
TOTAL NITRITE (N)	0.02	0.02	0.02	0.02
TOTAL AMMONIA (N)	0.10	0.11	0.07	0.05
TOTAL ORGANIC NITROGEN (N)	0.47	0.56	0.49	0.52
TOTAL PHOSPHORUS (P)	0.050	0.048	0.057	0.057
TOTAL ORTHOPHOSPHATE (P)	0.015	0.017	0.005	0.004
SPECIFIC CONDUCTANCE (MICROMHOS)	430	420	440	440
WATER TEMPERATURE (DEG C)	14.5	13.0	13.8	13.8
COLOR (PLATINUM-COBALT UNITS)	10	15	10	10
SECCHI-DISC VISIBILITY (FT)	3		3	
DISSOLVED OXYGEN	11.8	10.2	11.6	11.8

LAKE SHORELINE COVERED BY EMERSED PLANTS	26- 50 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	5/20/74
TIME	1630
NUMBER OF FECAL COLIFORM SAMPLES	7
FECAL COLIFORM, MINIMUM (COL./100ML)	3
FECAL COLIFORM, MAXIMUM (COL./100ML)	50
FECAL COLIFORM, MEAN (COL./100ML)	15

REMARKS

AN ENLARGEMENT OF POTHOLES CANAL, STABILIZED BY A CONTROL GATE AT THE SOUTH END. THE LAKE HAS A LARGE INFLOW AND OUTFLOW OF IRRIGATION WATER. THE ALGAL DENSITY WAS HIGH BUT NO SUBMERSED AQUATIC PLANTS WERE OBSERVED. THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION AND RECREATIONAL USE OF THE LAKE IS HEAVY. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE INFLOWING IRRIGATION WATER ORIGINATES OUTSIDE THE NATURAL DRAINAGE AREA.

SULPHUR LAKE FRANKLIN COUNTY

LATITUDE 46°38' 8" LONGITUDE 118°42'40" T13N-R33E-5
ESQUATZEL COULEE BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	168. SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	690. FT		
LAKE AREA	18. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	150. ACRE-FT		
MEAN DEPTH	9. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	13. FT		
SHORELINE LENGTH	0.62 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.1	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.68	AGRICULTURAL	100 %
BOTTOM SLOPE	1.3 %	FOREST OR UNPRODUCTIVE	0 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	<1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

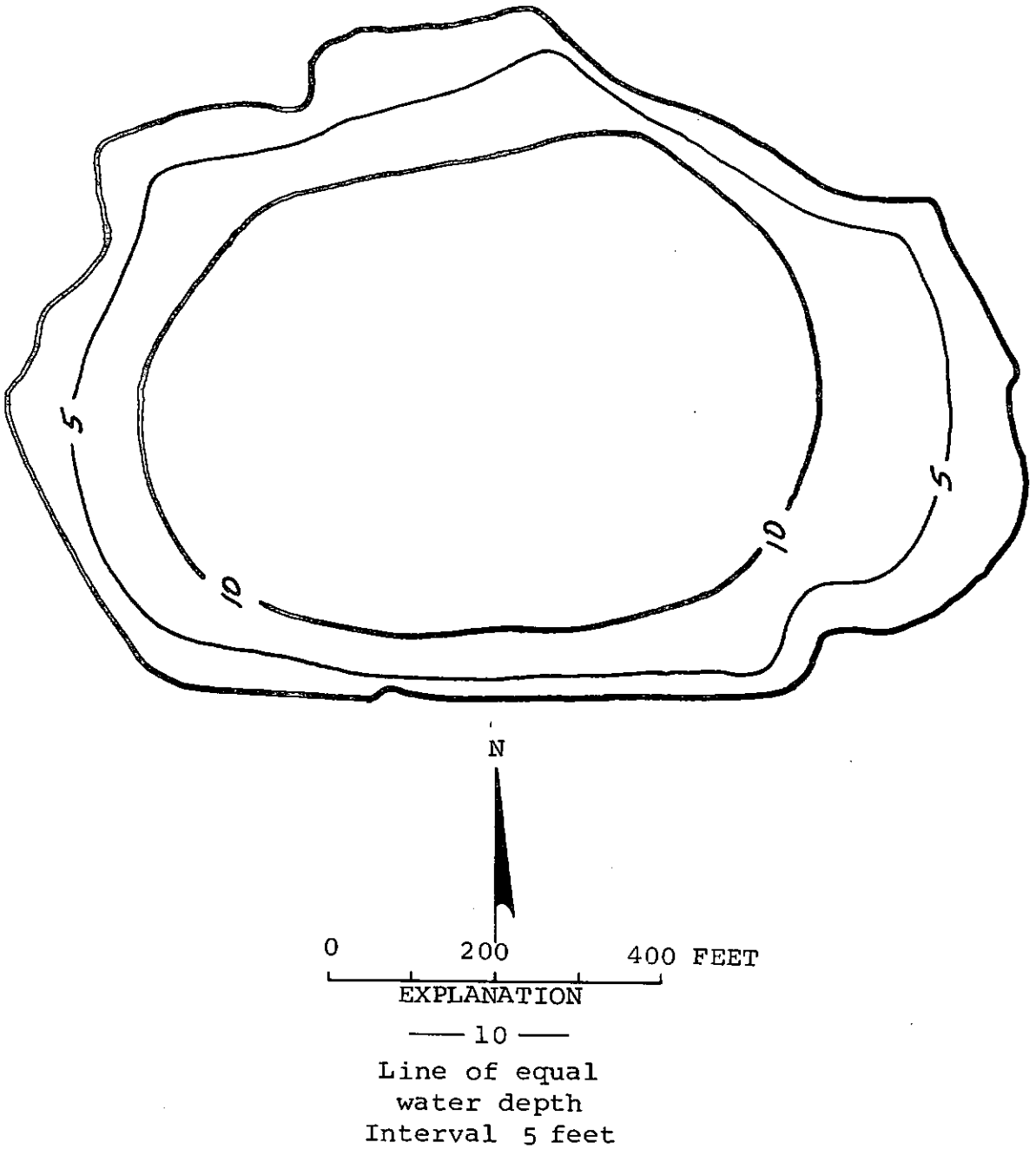
SAMPLE SITE	1	
DATE	5/23/74	
TIME	1400	1405
DEPTH (FT)	3.	8.
TOTAL NITRATE (N)	0.35	0.72
TOTAL NITRITE (N)	0.10	0.10
TOTAL AMMONIA (N)	0.90	0.89
TOTAL ORGANIC NITROGEN (N)	2.3	2.5
TOTAL PHOSPHORUS (P)	5.6	6.9
TOTAL ORTHOPHOSPHATE (P)	4.8	5.3
SPECIFIC CONDUCTANCE (MICROMHOS)	3000	3000
WATER TEMPERATURE (DEG C)	17.0	17.0
COLOR (PLATINUM-COBALT UNITS)	--	--
SECCHI-DISC VISIBILITY (FT)	1	
DISSOLVED OXYGEN	7.8	7.8

LAKE SHORELINE COVERED BY EMERSED PLANTS LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE	5/23/74
TIME	1430
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	<1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

THE LAKE HAS NO FISH BUT IS REPORTEDLY LESS ALKALINE THAN IN THE PAST. VERY FEW AQUATIC MACROPHYTES WERE OBSERVED. THE LITTORAL BOTTOM IS SILT AND CLAY AND THE WATER SAMPLES WERE TOO MUDDY TO PERMIT A DETERMINATION OF COLOR.



Sulphur Lake, Franklin County. From
U.S. Geological Survey, April 11, 1974.

Sulphur Lake, Franklin County. From
U.S. Geological Survey, May 23, 1974.

"T" LAKE FRANKLIN COUNTY

LATITUDE 46°38' 6" LONGITUDE 118°56'17" T13N-R31E-4
ESQUATZEL COULEE BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	963. FT		
LAKE AREA	83. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	1800. ACRE-FT		
MEAN DEPTH	22. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	58. FT		
SHORELINE LENGTH	4.6 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	3.6		
DEVELOPMENT OF VOLUME	0.37		
BOTTOM SLOPE	2.7 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

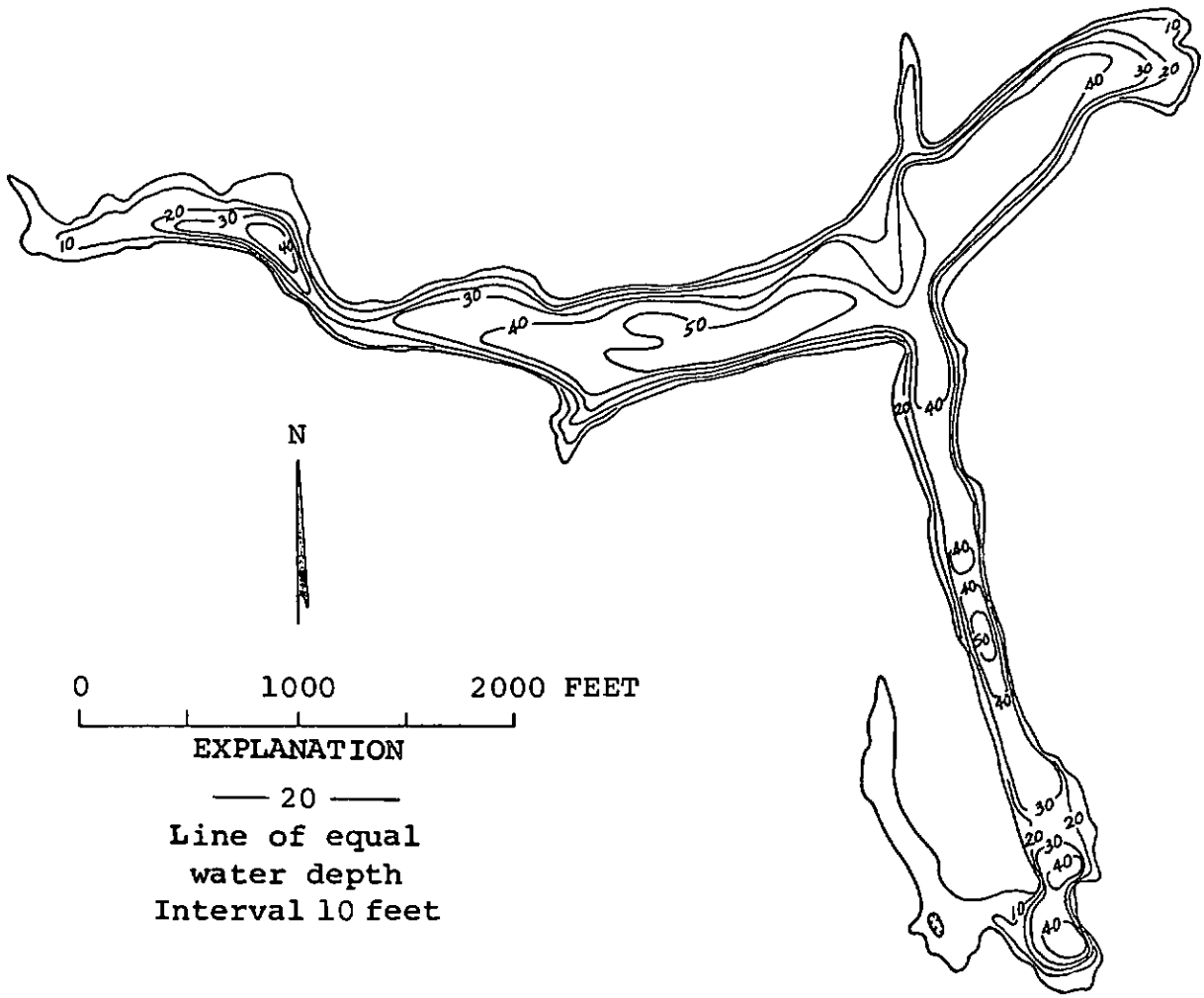
SAMPLE SITE	1	
DATE	5/23/74	
TIME	1630	1635
DEPTH (FT)	3.	33.
TOTAL NITRATE (N)	1.4	1.7
TOTAL NITRITE (N)	0.04	0.06
TOTAL AMMONIA (N)	0.13	0.50
TOTAL ORGANIC NITROGEN (N)	0.45	0.42
TOTAL PHOSPHORUS (P)	0.049	0.098
TOTAL ORTHOPHOSPHATE (P)	0.010	0.059
SPECIFIC CONDUCTANCE (MICROMHOS)	300	360
WATER TEMPERATURE (DEG C)	16.0	9.5
COLOR (PLATINUM-COBALT UNITS)	5	5
SECCHI-DISC VISIBILITY (FT)	9	
DISSOLVED OXYGEN	11.6	2.6

LAKE SHORELINE COVERED BY EMERSED PLANTS	LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	5/23/74
TIME	1645
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	8
FECAL COLIFORM, MEAN (COL./100ML)	3

REMARKS

THE LAKE FORMED FROM SEEPAGE ABOUT 1960. VERY FEW AQUATIC MACROPHYTES WERE OBSERVED. THERE IS A FEEDLOT NORTH OF THE LAKE. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE LAKE IS AFFECTED BY IRRIGATION WATER FROM OUTSIDE THE NATURAL DRAINAGE AREA.



"T" Lake, Franklin County. From
U.S. Geological Survey, August 21, 1974.

"T" Lake, Franklin County. June 2, 1970. Approx. scale 1:63,000.

UNNAMED (12N-30E-20) LAKE FRANKLIN COUNTY

LATITUDE 46°30'46" LONGITUDE 119° 4'38" T12N-R30E-20
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	758. FT		
LAKE AREA	31. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	130. ACRE-FT		
MEAN DEPTH	4. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	12. FT		
SHORELINE LENGTH	1.7 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	2.2		
DEVELOPMENT OF VOLUME	0.35		
BOTTOM SLOPE	0.92 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

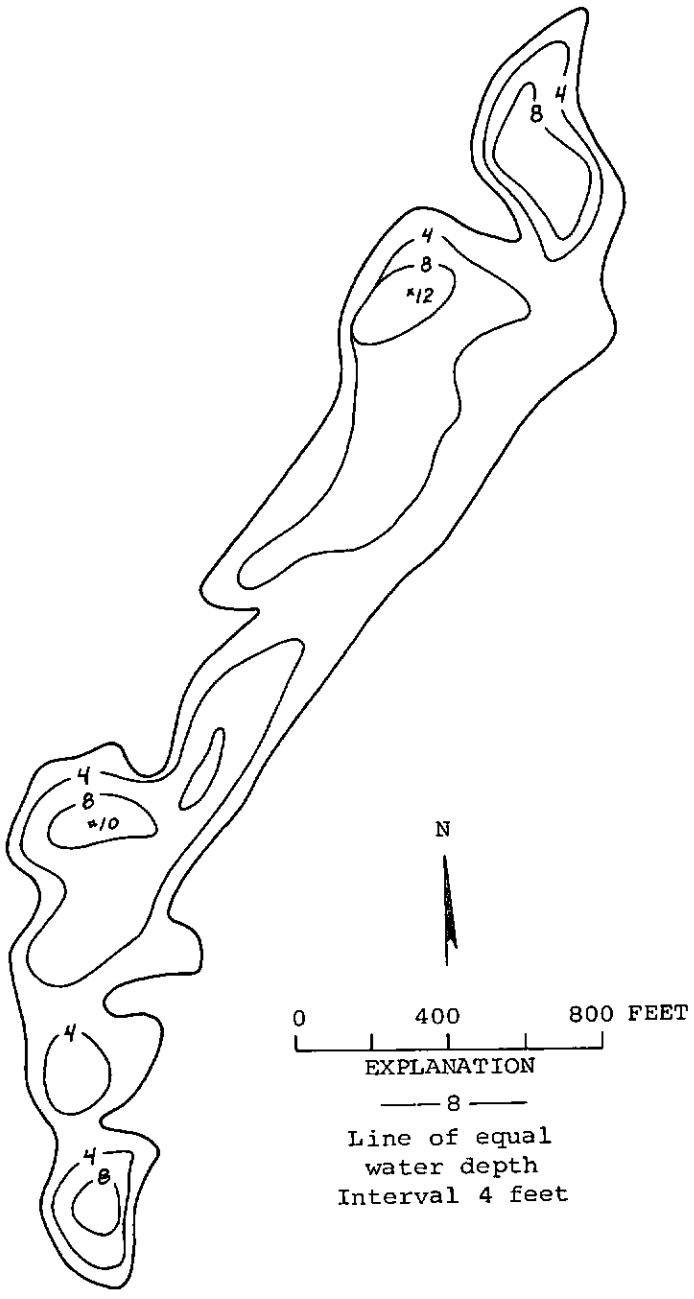
SAMPLE SITE	1	
DATE	5/18/74	
TIME	1100	1105
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	2.8	1.6
TOTAL NITRITE (N)	0.02	0.02
TOTAL AMMONIA (N)	0.11	0.11
TOTAL ORGANIC NITROGEN (N)	0.28	0.47
TOTAL PHOSPHORUS (P)	0.052	0.053
TOTAL ORTHOPHOSPHATE (P)	0.016	0.024
SPECIFIC CONDUCTANCE (MICROMHOS)	670	680
WATER TEMPERATURE (DEG C)	12.2	11.7
COLOR (PLATINUM-COBALT UNITS)	10	10
SECCHI-DISC VISIBILITY (FT)	2	
DISSOLVED OXYGEN	11.2	11.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	11- 25 %

DATE	5/18/74
TIME	1130
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	1
FECAL COLIFORM, MAXIMUM (COL./100ML)	120
FECAL COLIFORM, MEAN (COL./100ML)	41

REMARKS

A SEEPAGE LAKE THAT SUPPORTS A LARGE WATERFOWL POPULATION. THE BOTTOM IS MUCK AND COMPLETELY COVERED WITH SUBMERSED AQUATIC PLANTS (PONDWEED). THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (CATTAIL). AN ALGAL BLOOM WAS OBSERVED. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE LAKE IS AFFECTED BY IRRIGATION WATER FROM OUTSIDE THE NATURAL DRAINAGE AREA.



Unnamed (12N-30E-20) Lake, Franklin County.
From U.S. Geological Survey, March 3, 1975.

UNNAMED (13N-29E-5) LAKE FRANKLIN COUNTY

LATITUDE 46°38'30" LONGITUDE 119°12'50" T13N-R29E-5
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	930. FT		
LAKE AREA	13. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	39. ACRE-FT		
MEAN DEPTH	3. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	6. FT		
SHORELINE LENGTH	1.6 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	3.1		
DEVELOPMENT OF VOLUME	0.55		
BOTTOM SLOPE	0.65 %		
BASIN GEOLOGY	SED./META.		
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

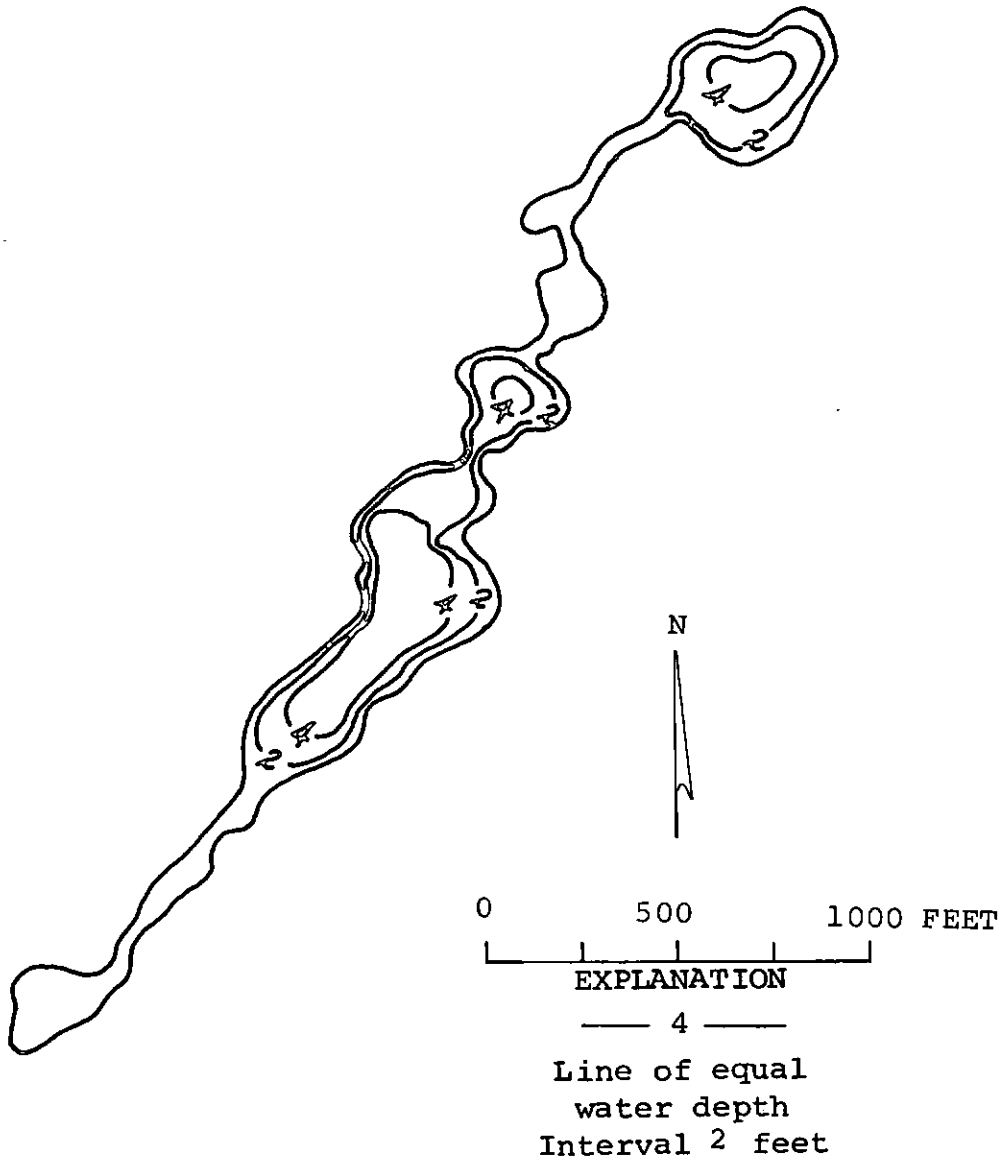
SAMPLE SITE	1	
DATE	5/21/74	
TIME	1630	1635
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.42	0.41
TOTAL ORGANIC NITROGEN (N)	3.2	4.1
TOTAL PHOSPHORUS (P)	0.24	0.26
TOTAL ORTHOPHOSPHATE (P)	0.023	0.017
SPECIFIC CONDUCTANCE (MICROMHOS)	610	610
WATER TEMPERATURE (DEG C)	19.2	15.0
COLOR (PLATINUM-COBALT UNITS)	70	65
SECCHI-DISC VISIBILITY (FT)	1	
DISSOLVED OXYGEN	19.8	19.6

LAKE SHORELINE COVERED BY EMERSED PLANTS	26- 50 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	5/21/74
TIME	1600
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	26
FECAL COLIFORM, MAXIMUM (COL./100ML)	--
FECAL COLIFORM, MEAN (COL./100ML)	--

REMARKS

A SEEPAGE LAKE THAT SUPPORTS A LARGE WATERFOWL POPULATION. THE LITTORAL BOTTOM IS SILT BUT VERY FEW SUBMERSED AQUATIC PLANTS WERE OBSERVED. THE FECAL COLIFORM COLONIES FROM ONE WATER SAMPLE WERE TOO NUMEROUS TO COUNT. AN ALGAL BLOOM WAS OBSERVED. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE LAKE IS AFFECTED BY IRRIGATION WATER FROM OUTSIDE THE NATURAL DRAINAGE AREA.



Unnamed (13N-29E-5) Lake, Franklin County.
From U.S. Geological Survey, March 3, 1975.

UNNAMED (13N-29E-15) LAKE FRANKLIN COUNTY

LATITUDE 46°36'55" LONGITUDE 119° 9'55" T13N-R29E-15
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	650. FT		
LAKE AREA	17. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	57. ACRE-FT		
MEAN DEPTH	3. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	7. FT		
SHORELINE LENGTH	0.97 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	1.7		
DEVELOPMENT OF VOLUME	0.46		
BOTTOM SLOPE	0.71 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

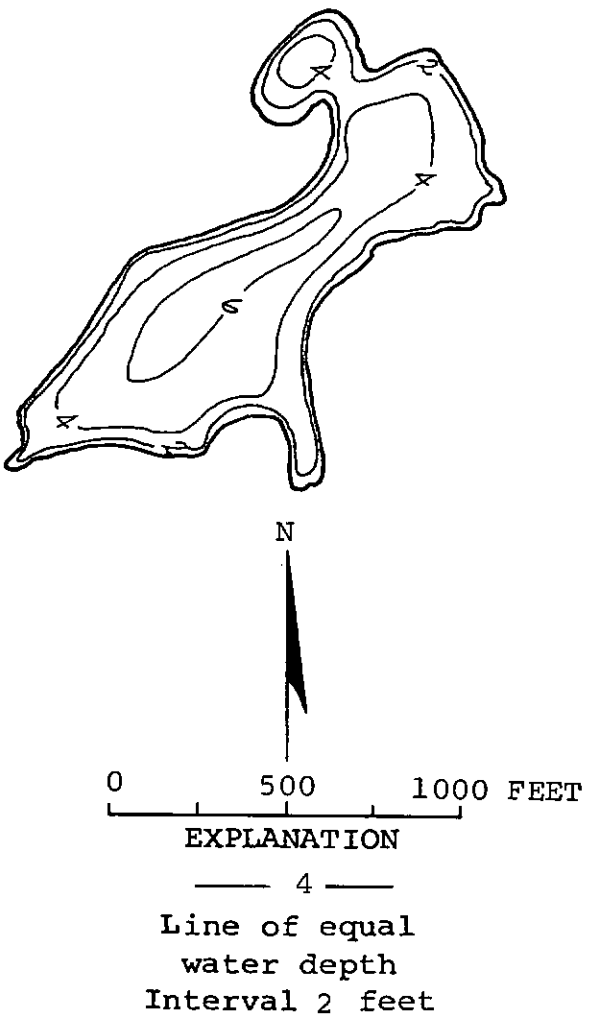
SAMPLE SITE	1	
DATE	5/22/74	
TIME	1030	1035
DEPTH (FT)	1.	3.
TOTAL NITRATE (N)	0.40	0.19
TOTAL NITRITE (N)	0.03	0.03
TOTAL AMMONIA (N)	0.09	0.08
TOTAL ORGANIC NITROGEN (N)	0.78	0.74
TOTAL PHOSPHORUS (P)	0.067	0.058
TOTAL ORTHOPHOSPHATE (P)	0.005	0.005
SPECIFIC CONDUCTANCE (MICROMHOS)	900	900
WATER TEMPERATURE (DEG C)	17.5	17.0
COLOR (PLATINUM-COBALT UNITS)	5	10
SECCHI-DISC VISIBILITY (FT)	3	
DISSOLVED OXYGEN	12.2	12.6

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	5/22/74
TIME	1030
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	2
FECAL COLIFORM, MAXIMUM (COL./100ML)	25
FECAL COLIFORM, MEAN (COL./100ML)	10

REMARKS

A SEEPAGE LAKE THAT SUPPORTS A LARGE WATERFOWL POPULATION. THE LITTORAL BOTTOM IS SILT AND MUCK. THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (CATTAILS AND SEDGE) AND THE SOUTHWEST END OF THE LAKE IS MARSHY. AN ALGAL BLOOM WAS OBSERVED. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE LAKE IS AFFECTED BY IRRIGATION WATER FROM OUTSIDE THE NATURAL DRAINAGE AREA.



Unnamed (13N-29E-15) Lake, Franklin County.
From U.S. Geological Survey, August 21, 1974.

UNNAMED (14N-29E-11) LAKE FRANKLIN COUNTY

LATITUDE 46°43' 9" LONGITUDE 119° 8'54" T14N-R29E-11
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	825. FT		
LAKE AREA	76. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	1100. ACRE-FT		
MEAN DEPTH	14. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	31. FT		
SHORELINE LENGTH	3.0 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	2.5		
DEVELOPMENT OF VOLUME	0.46		
BOTTOM SLOPE	1.5 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

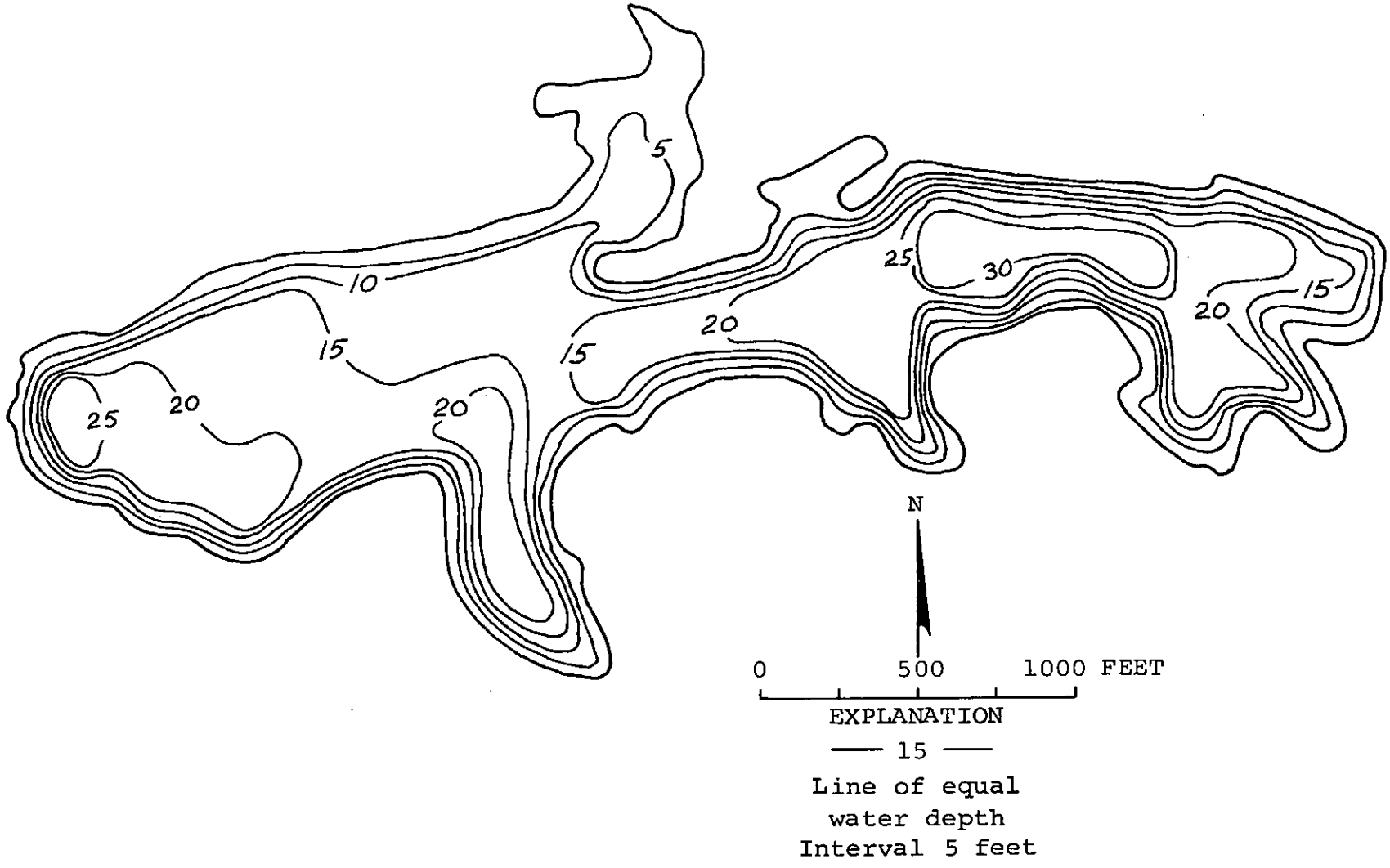
SAMPLE SITE	1	
DATE	5/22/74	
TIME	1630	1635
DEPTH (FT)	3.	13.
TOTAL NITRATE (N)	0.54	0.54
TOTAL NITRITE (N)	0.04	0.04
TOTAL AMMONIA (N)	0.09	0.13
TOTAL ORGANIC NITROGEN (N)	0.57	0.61
TOTAL PHOSPHORUS (P)	0.049	0.067
TOTAL ORTHOPHOSPHATE (P)	0.006	0.008
SPECIFIC CONDUCTANCE (MICROMHOS)	750	750
WATER TEMPERATURE (DEG C)	18.5	13.0
COLOR (PLATINUM-COBALT UNITS)	15	10
SECCHI-DISC VISIBILITY (FT)	4	
DISSOLVED OXYGEN	13.0	9.8

LAKE SHORELINE COVERED BY EMERSED PLANTS	LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	5/22/74
TIME	1630
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	4
FECAL COLIFORM, MAXIMUM (COL./100ML)	40
FECAL COLIFORM, MEAN (COL./100ML)	19

REMARKS

A SEEPAGE LAKE WITH VERY FEW AQUATIC MACROPHYTES. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE LAKE IS AFFECTED BY IRRIGATION WATER FROM OUTSIDE THE NATURAL DRAINAGE AREA.



Unnamed (14N-29E-11) Lake, Franklin County.
From U.S. Geological Survey, April 17, 1974.

Unnamed (14N-29E-11) Lake, Franklin County.
From U.S. Geological Survey, May 22, 1974.

UNNAMED (14N-30E-14) LAKE FRANKLIN COUNTY

LATITUDE 46°42' 8" LONGITUDE 119° 0'43" T14N-R30E-14
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	930. FT		
LAKE AREA	54. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	500. ACRE-FT		
MEAN DEPTH	9. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	18. FT		
SHORELINE LENGTH	1.3 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	1.3		
DEVELOPMENT OF VOLUME	0.51		
BOTTOM SLOPE	1.0 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

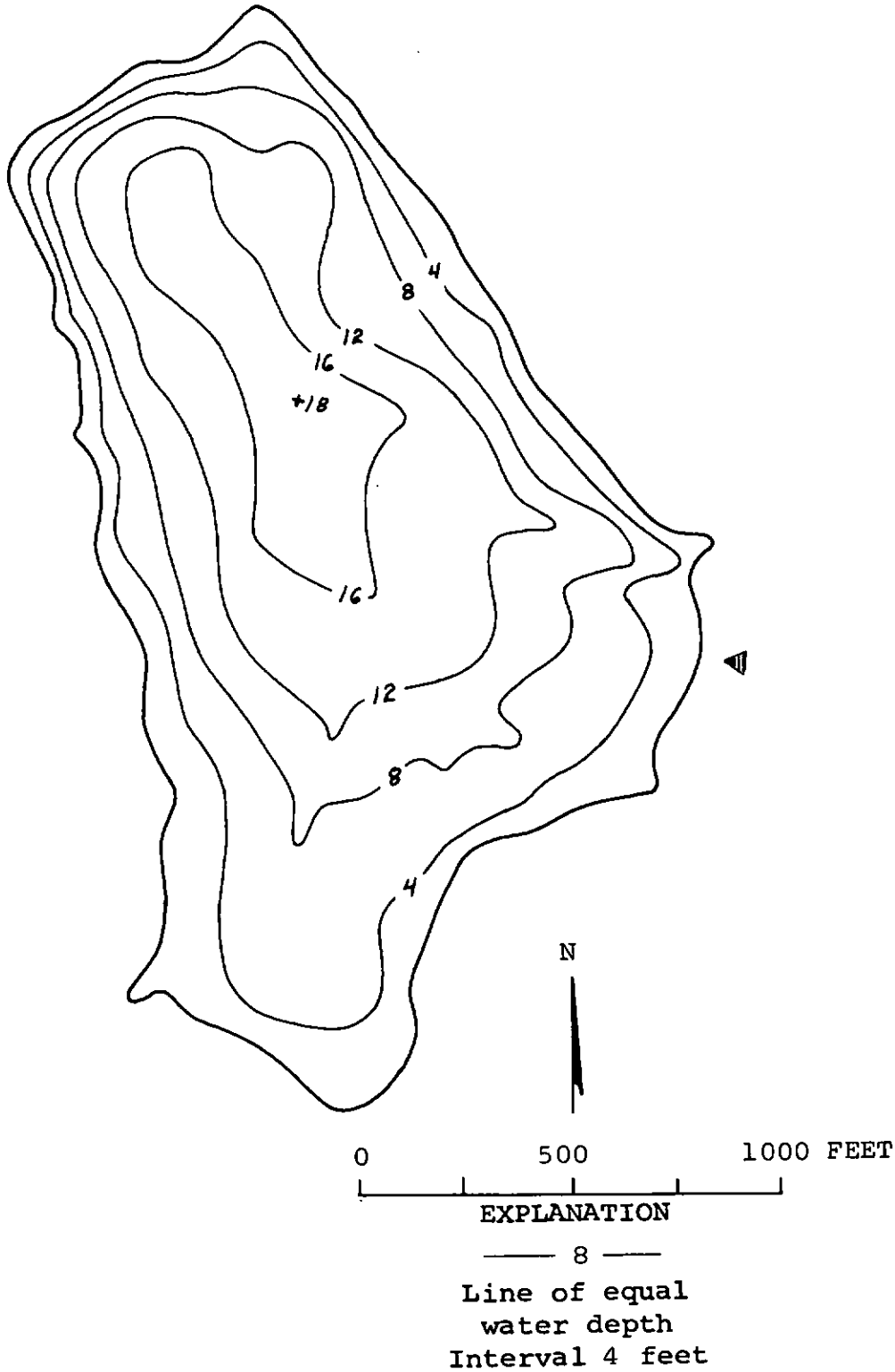
SAMPLE SITE	1	
DATE	5/20/74	
TIME	1730	1735
DEPTH (FT)	3.	8.
TOTAL NITRATE (N)	0.56	0.55
TOTAL NITRITE (N)	0.02	0.02
TOTAL AMMONIA (N)	0.10	0.09
TOTAL ORGANIC NITROGEN (N)	0.80	0.66
TOTAL PHOSPHORUS (P)	0.084	0.038
TOTAL ORTHOPHOSPHATE (P)	0.013	0.011
SPECIFIC CONDUCTANCE (MICROMHOS)	560	570
WATER TEMPERATURE (DEG C)	15.2	14.8
COLOR (PLATINUM-COBALT UNITS)	5	10
SECCHI-DISC VISIBILITY (FT)	7	
DISSOLVED OXYGEN	11.0	12.4

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	5/20/74
TIME	1730
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	1
FECAL COLIFORM, MAXIMUM (COL./100ML)	2
FECAL COLIFORM, MEAN (COL./100ML)	2

REMARKS

A SEEPAGE LAKE THAT FORMED ABOUT 1960. THE BOTTOM IS SILT AND MUCK AND IS COMPLETELY COVERED WITH SUBMERSED AQUATIC PLANTS (CHARA AND PONDWEED). THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (CATTAIL AND SEDGE). THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE LAKE IS AFFECTED BY IRRIGATION WATER FROM OUTSIDE THE NATURAL DRAINAGE AREA.



Unnamed (14N-30E-14) Lake, Franklin County.
From U.S. Geological Survey, March 3, 1975.

UNNAMED (14N-30E-33) LAKE FRANKLIN COUNTY

LATITUDE 46°39' 6" LONGITUDE 119° 3'56" T14N-R30E-33
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	870. FT		
LAKE AREA	78. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	260. ACRE-FT		
MEAN DEPTH	3. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	22. FT		
SHORELINE LENGTH	4.7 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	3.8		
DEVELOPMENT OF VOLUME	0.15		
BOTTOM SLOPE	1.1 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

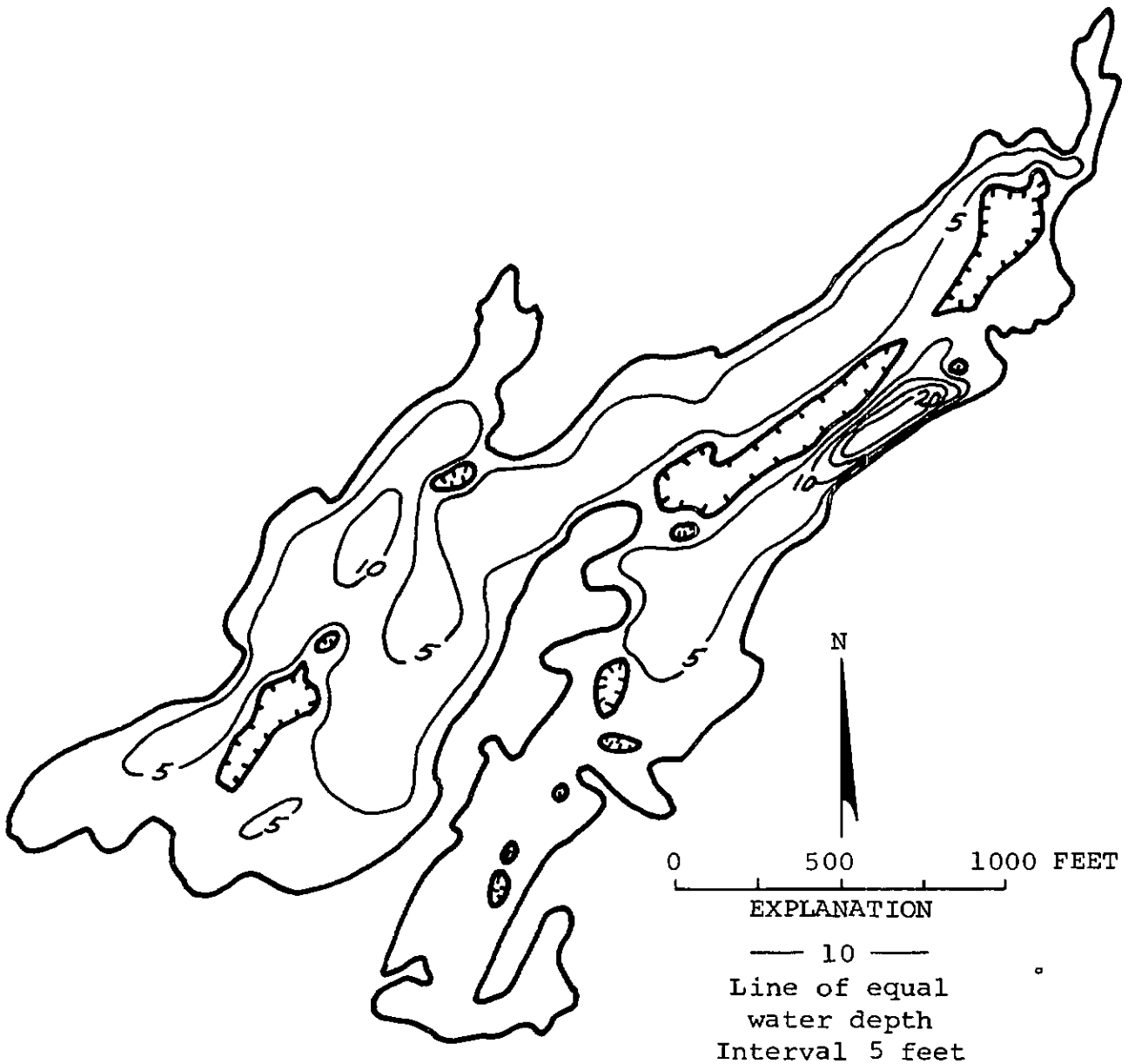
SAMPLE SITE	1	
DATE	5/20/74	
TIME	1400	1405
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	0.01	0.01
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.24	0.24
TOTAL ORGANIC NITROGEN (N)	2.6	2.3
TOTAL PHOSPHORUS (P)	0.17	0.17
TOTAL ORTHOPHOSPHATE (P)	0.011	0.020
SPECIFIC CONDUCTANCE (MICROMHOS)	1050	1050
WATER TEMPERATURE (DEG C)	15.8	15.5
COLOR (PLATINUM-COBALT UNITS)	60	45
SECCHI-DISC VISIBILITY (FT)	1	
DISSOLVED OXYGEN	13.0	12.6

LAKE SHORELINE COVERED BY EMERSED PLANTS	26- 50 %
LAKE SURFACE COVERED BY EMERSED PLANTS	11- 25 %

DATE	5/20/74
TIME	1400
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	2
FECAL COLIFORM, MAXIMUM (COL./100ML)	60
FECAL COLIFORM, MEAN (COL./100ML)	31

REMARKS

THE LITTORAL BOTTOM IS SILT AND MUCK BUT NO SUBMERSED AQUATIC PLANTS WERE OBSERVED. THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION. AN ALGAL BLOOM WAS OBSERVED. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE IRRIGATION WATER IS IMPORTED FROM OUTSIDE THE NATURAL DRAINAGE AREA.



Unnamed (14N-30E-33) Lake, Franklin County.
From U.S. Geological Survey, April 18, 1974.

Unnamed (14N-30E-33) Lake, Franklin County.
From U.S. Geological Survey, May 20, 1974.

UNNAMED (14N-30E-34) LAKE FRANKLIN COUNTY

LATITUDE 46*39'48" LONGITUDE 119* 1'45" T14N-R30E-34
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	900. FT		
LAKE AREA	20. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	160. ACRE-FT		
MEAN DEPTH	8. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	26. FT		
SHORELINE LENGTH	1.1 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	1.8		
DEVELOPMENT OF VOLUME	0.32		
BOTTOM SLOPE	2.5 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

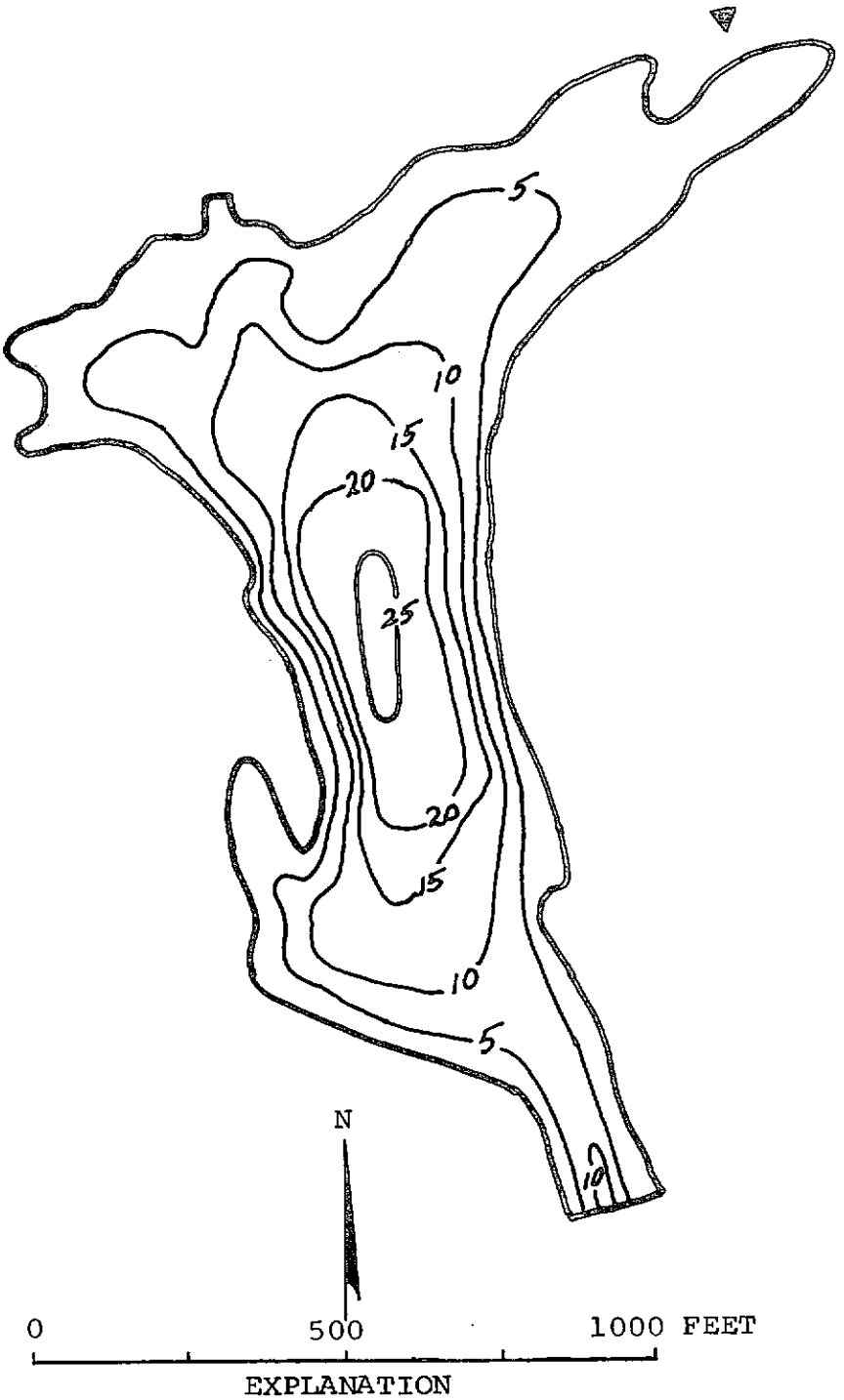
SAMPLE SITE	1	
DATE	5/21/74	
TIME	1230	1235
DEPTH (FT)	3.	10.
TOTAL NITRATE (N)	0.65	0.63
TOTAL NITRITE (N)	0.02	0.02
TOTAL AMMONIA (N)	0.06	0.08
TOTAL ORGANIC NITROGEN (N)	0.47	0.44
TOTAL PHOSPHORUS (P)	0.044	0.055
TOTAL ORTHOPHOSPHATE (P)	0.003	0.004
SPECIFIC CONDUCTANCE (MICROMHOS)	440	440
WATER TEMPERATURE (DEG C)	14.2	14.2
COLOR (PLATINUM-COBALT UNITS)	10	10
SECCHI-DISC VISIBILITY (FT)	3	
DISSOLVED OXYGEN	11.4	11.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	26- 50 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

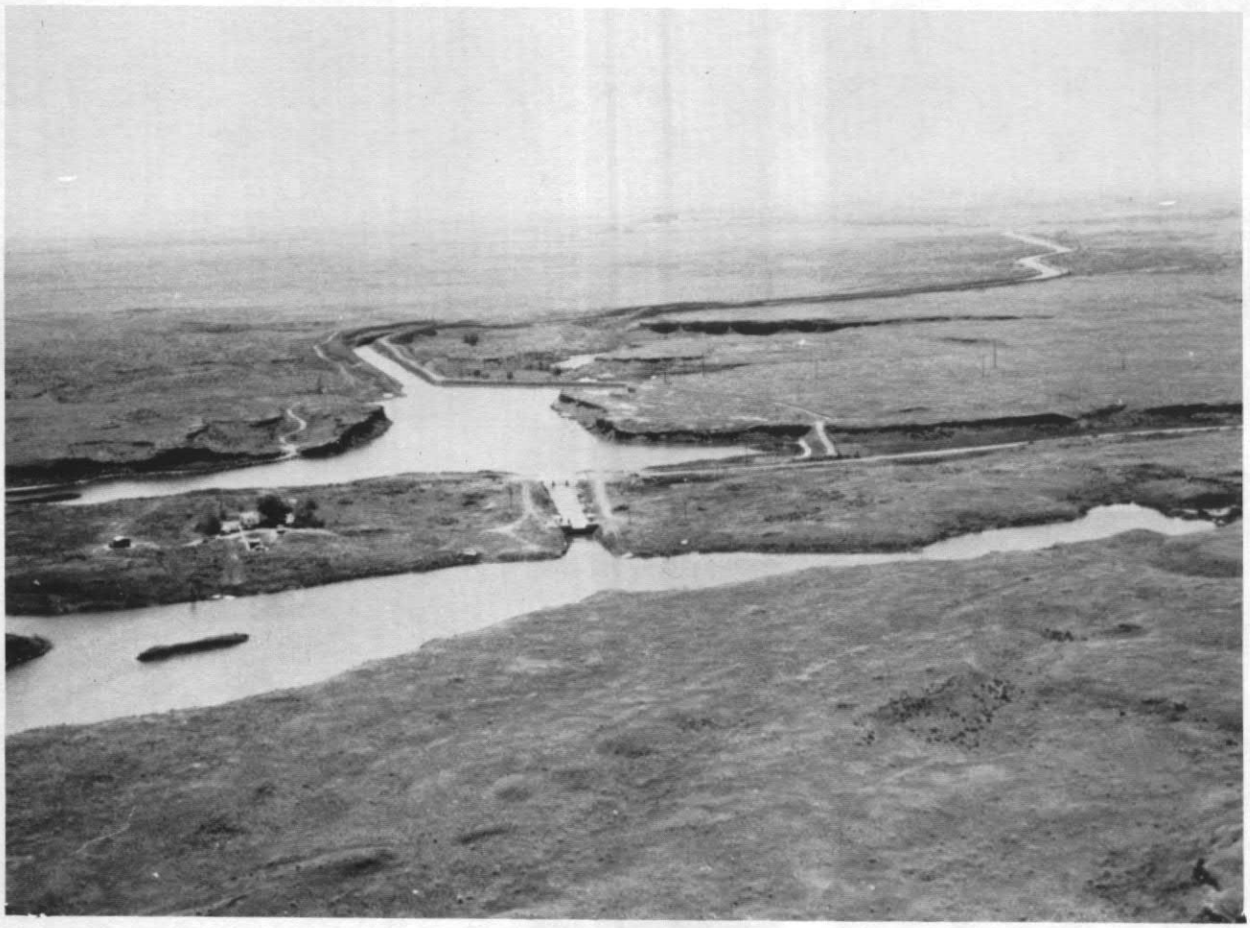
DATE	5/21/74
TIME	1230
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	2
FECAL COLIFORM, MAXIMUM (COL./100ML)	7
FECAL COLIFORM, MEAN (COL./100ML)	4

REMARKS

AN ENLARGEMENT OF POTHOLES CANAL, ADJACENT TO THE SOUTH END OF SCOOTENEY RESERVOIR. THE LAKE HAS A LARGE INFLOW AND OUTFLOW OF IRRIGATION WATER. VERY FEW SUBMERSED AQUATIC PLANTS WERE OBSERVED. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE INFLOWING IRRIGATION WATER ORIGINATES OUTSIDE THE NATURAL DRAINAGE AREA.



Unnamed (14N-30E-34) Lake, Franklin County.
From U.S. Geological Survey, April 10, 1974.



Unnamed (14N-30E-34) Lake, Franklin County.
From U.S. Geological Survey, May 21, 1974.

WASHTUCNA LAKE FRANKLIN COUNTY

LATITUDE 46°38'50" LONGITUDE 118°29'55" T13N-R34E-1
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	167. SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	877. FT		
LAKE AREA	51. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	230. ACRE-FT		
MEAN DEPTH	4. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	9. FT		
SHORELINE LENGTH	1.2 MI	RESIDENTIAL URBAN	<1 %
SHORELINE CONFIGURATION	1.2	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.49	AGRICULTURAL	100 %
BOTTOM SLOPE	0.54 %	FOREST OR UNPRODUCTIVE	0 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	<1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

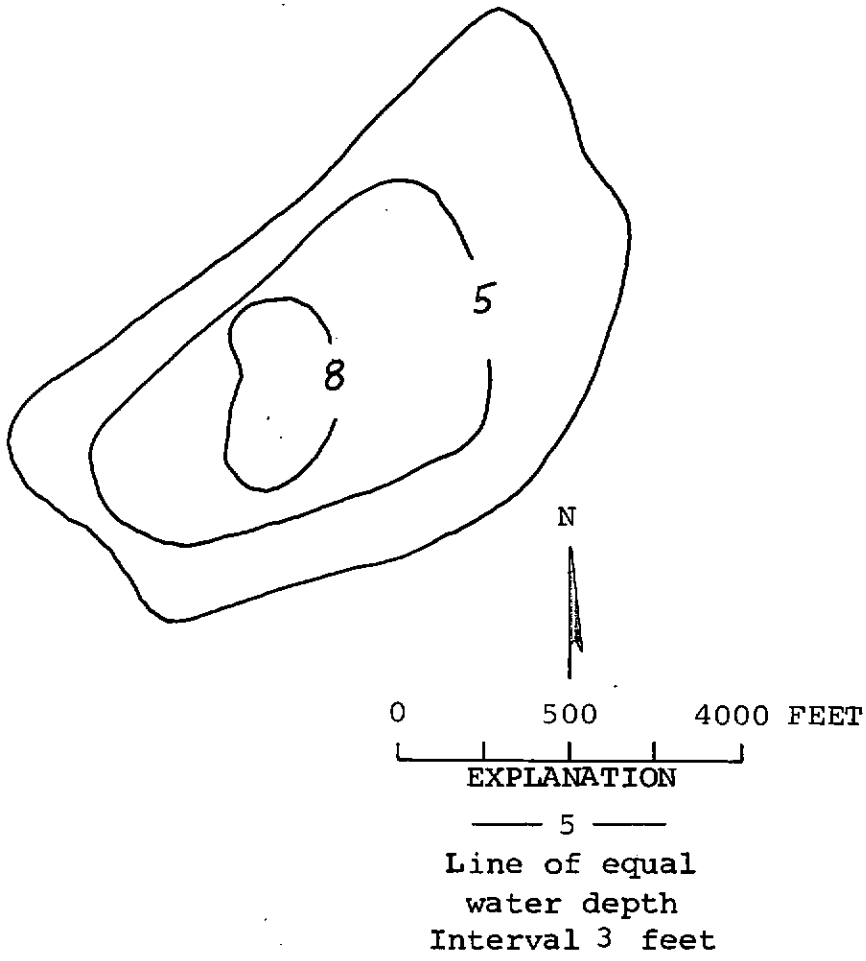
SAMPLE SITE	1	
DATE	5/23/74	
TIME	1100	1105
DEPTH (FT)	1.	2.
TOTAL NITRATE (N)	0.01	0.00
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.08	0.07
TOTAL ORGANIC NITROGEN (N)	1.3	1.4
TOTAL PHOSPHORUS (P)	0.060	0.067
TOTAL ORTHOPHOSPHATE (P)	0.007	0.008
SPECIFIC CONDUCTANCE (MICROMHOS)	1250	1250
WATER TEMPERATURE (DEG C)	17.0	17.0
COLOR (PLATINUM-COBALT UNITS)	20	20
SECCHI-DISC VISIBILITY (FT)	16	
DISSOLVED OXYGEN	12.0	12.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	26- 50 %

DATE	5/23/74
TIME	1100
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	2
FECAL COLIFORM, MAXIMUM (COL./100ML)	4
FECAL COLIFORM, MEAN (COL./100ML)	3

REMARKS

THE BOTTOM IS MUCK AND WAS COMPLETELY COVERED WITH SUBMERSED AQUATIC PLANTS (PONDWEED). THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (CATTAIL AND SEDGE). THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION AND THE WATER CONTAINED A LARGE POPULATION OF ZOOPLANKTON.



Washtucna Lake, Franklin County. From
Washington Department of Game, July 13, 1954.

WEIR LAKE FRANKLIN COUNTY

LATITUDE 46°41'26" LONGITUDE 119° 8'23" T14N-R29E-23
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	800. FT		
LAKE AREA	140. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	2900. ACRE-FT		
MEAN DEPTH	20. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	81. FT		
SHORELINE LENGTH	5.2 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	3.1		
DEVELOPMENT OF VOLUME	0.25		
BOTTOM SLOPE	2.9 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

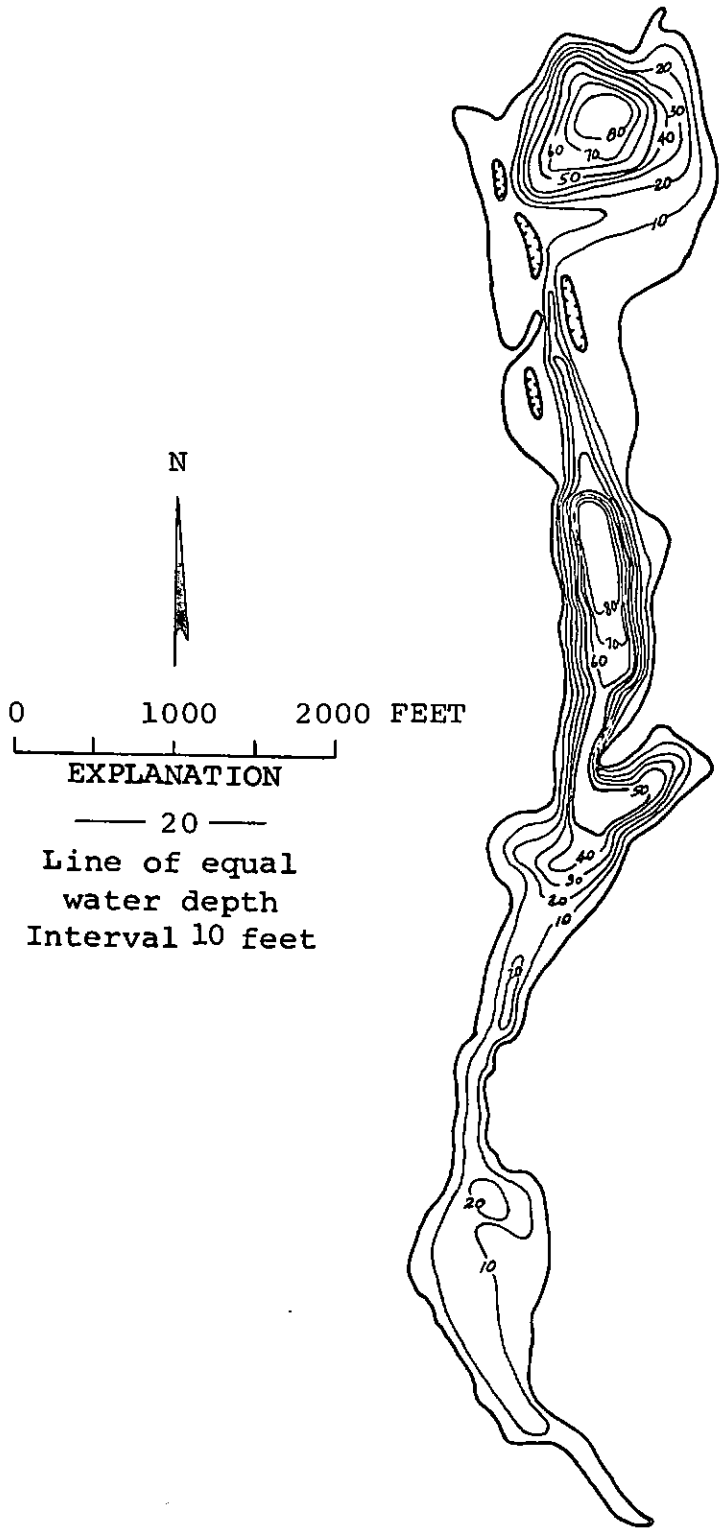
SAMPLE SITE	1	
DATE	5/22/74	
TIME	1730	1735
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	0.38	0.37
TOTAL NITRITE (N)	0.04	0.04
TOTAL AMMONIA (N)	0.06	0.06
TOTAL ORGANIC NITROGEN (N)	0.63	0.50
TOTAL PHOSPHORUS (P)	0.024	0.024
TOTAL ORTHOPHOSPHATE (P)	0.002	0.003
SPECIFIC CONDUCTANCE (MICROMHOS)	720	720
WATER TEMPERATURE (DEG C)	17.5	17.5
COLOR (PLATINUM-COBALT UNITS)	10	10
SECCHI-DISC VISIBILITY (FT)	5	
DISSOLVED OXYGEN	13.2	13.1

LAKE SHORELINE COVERED BY EMERSED PLANTS	LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	5/22/74
TIME	1730
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	<1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

LAKE LEVELS ARE CONTROLLED BY A DAM BUT EVIDENCE OF LARGE WATER-LEVEL FLUCTUATIONS WAS OBSERVED. THE LITTORAL BOTTOM IS SILT AND MUCK BUT VERY FEW EMERSED AQUATIC PLANTS WERE OBSERVED. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE IRRIGATION WATER IS IMPORTED FROM OUTSIDE THE NATURAL DRAINAGE AREA.



Weir Lake, Franklin County. From
U.S. Geological Survey, April 16, 1974.

Weir Lake, Franklin County. From
U.S. Geological Survey, May 22, 1974.

ALKALI LAKE GRANT COUNTY

LATITUDE 47°30'58" LONGITUDE 119°29'59" T23N-R26E-1
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	360. SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1086. FT		
LAKE AREA	290. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	2500. ACRE-FT		
MEAN DEPTH	8. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	14. FT		
SHORELINE LENGTH	4.8 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	2.0		
DEVELOPMENT OF VOLUME	0.60		
BOTTOM SLOPE	0.35 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

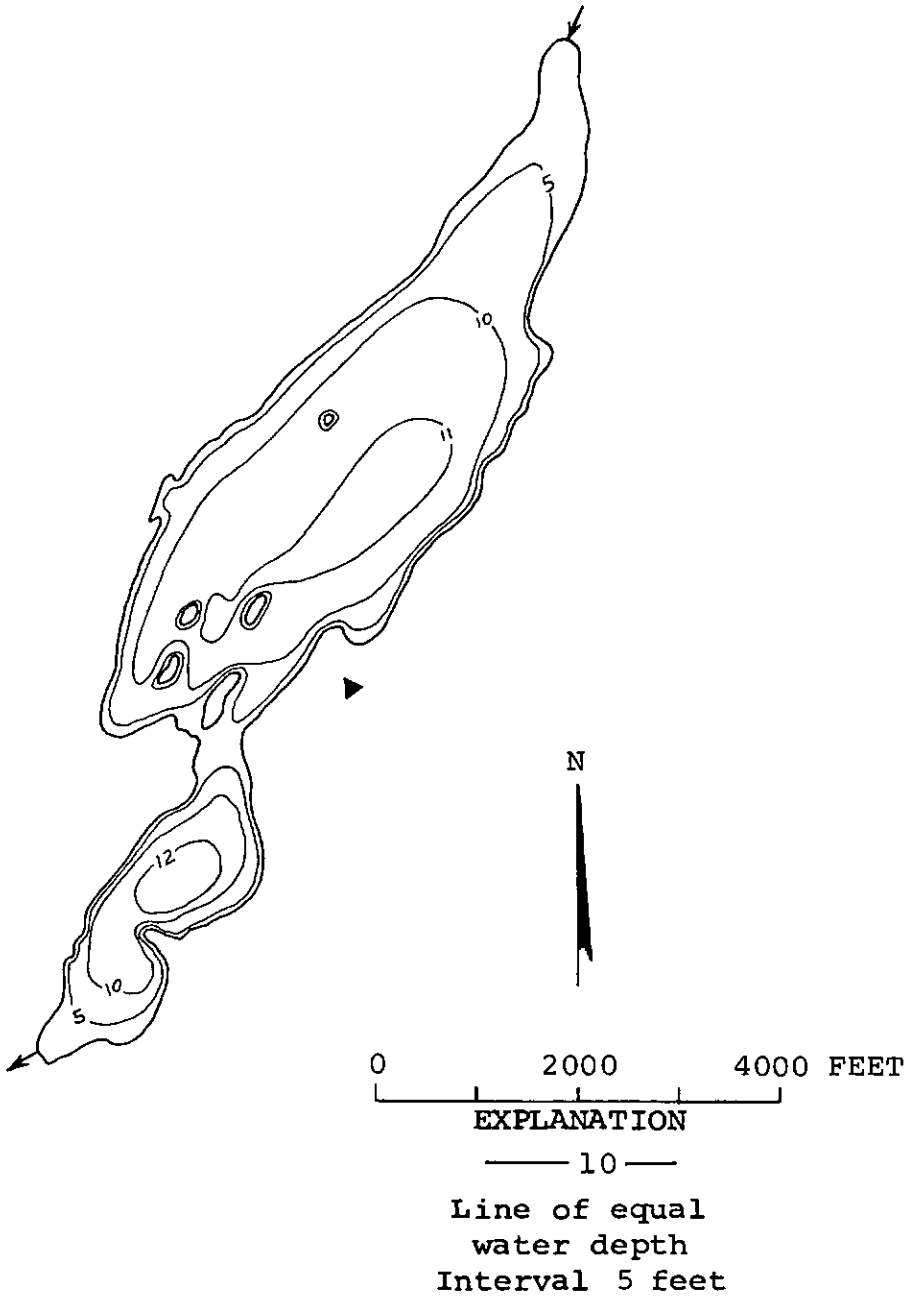
SAMPLE SITE	1	
DATE	6/ 4/74	
TIME	1530	1535
DEPTH (FT)	3.	11.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.06	0.06
TOTAL ORGANIC NITROGEN (N)	0.61	0.61
TOTAL PHOSPHORUS (P)	0.035	0.026
TOTAL ORTHOPHOSPHATE (P)	0.005	0.007
SPECIFIC CONDUCTANCE (MICROMHOS)	460	460
WATER TEMPERATURE (DEG C)	16.3	16.3
COLOR (PLATINUM-COBALT UNITS)	5	5
SECCHI-DISC VISIBILITY (FT)	14	
DISSOLVED OXYGEN	9.6	9.7

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	6/ 4/74
TIME	1530
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	2
FECAL COLIFORM, MAXIMUM (COL./100ML)	26
FECAL COLIFORM, MEAN (COL./100ML)	12

REMARKS

ORIGINALLY A PART OF LENORE LAKE BUT NOW SEPARATED FROM IT BY A HIGHWAY AND SMALL DAM. THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION. SUMMER FISH KILLS ARE COMMON IN THIS LAKE. THE LIMNOLOGY OF ALKALI LAKE WAS DESCRIBED BY FRIEDMAN AND REDFIELD (1971). LAND USE WAS NOT DETERMINED BECAUSE OF THE SIZE OF THE DRAINAGE AREA.



Alkali Lake, Grant County. From Washington Department of Game, February 3, 1951.

Alkali Lake, Grant County. June 1, 1971. Approx. scale 1:63,000.

ANCIENT LAKE GRANT COUNTY

LATITUDE 47* 8'52" LONGITUDE 119*56'34" T19N-R23E-9
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	821. FT		
LAKE AREA	28. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	680. ACRE-FT		
MEAN DEPTH	24. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	59. FT		
SHORELINE LENGTH	1.3 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	1.8		
DEVELOPMENT OF VOLUME	0.41		
BOTTOM SLOPE	4.7 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

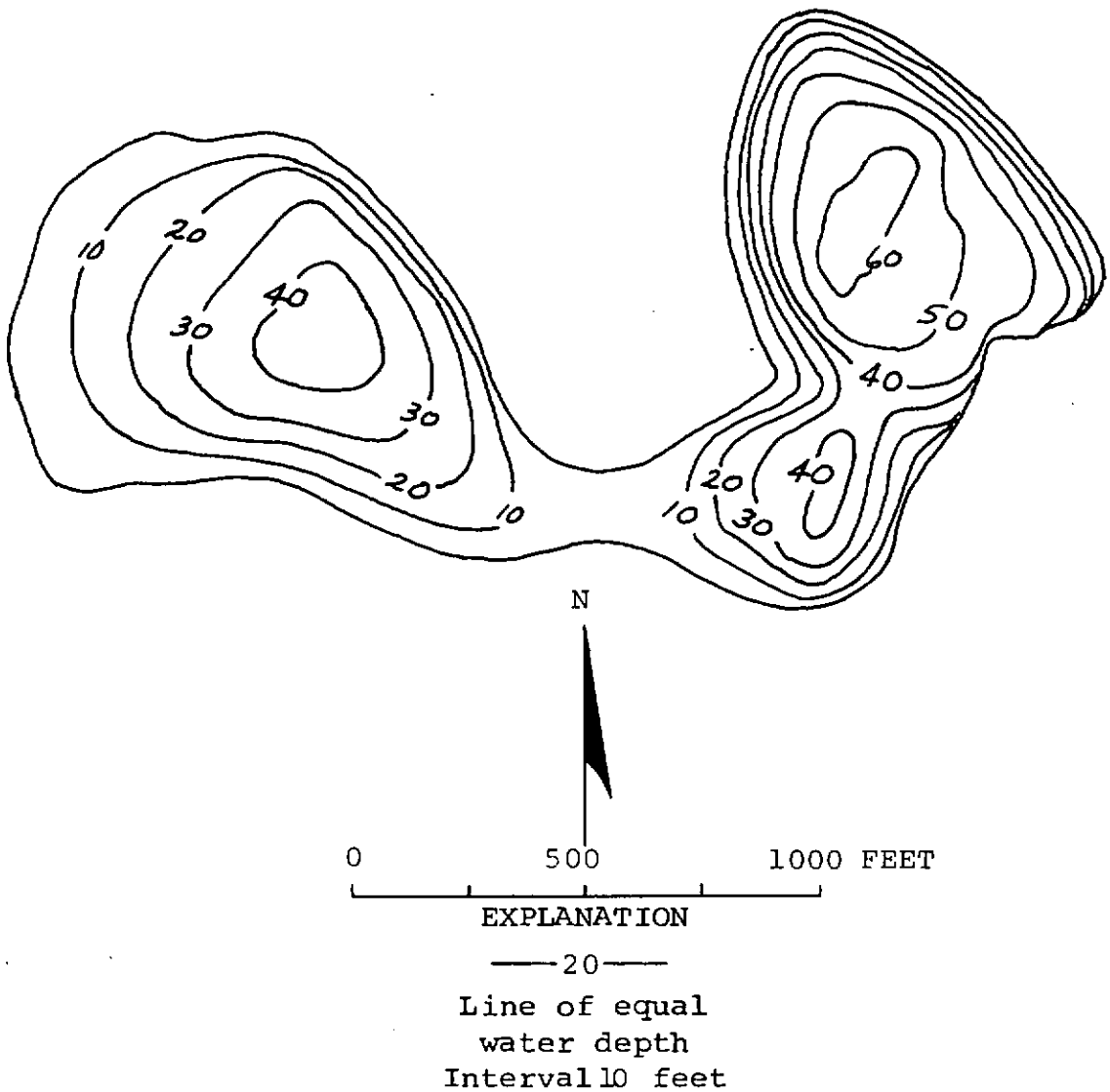
SAMPLE SITE	1	
DATE	6/11/74	
TIME	1045	1050
DEPTH (FT)	3.	39.
TOTAL NITRATE (N)	0.29	0.38
TOTAL NITRITE (N)	0.02	0.07
TOTAL AMMONIA (N)	0.07	0.82
TOTAL ORGANIC NITROGEN (N)	0.71	0.48
TOTAL PHOSPHORUS (P)	0.074	0.11
TOTAL ORTHOPHOSPHATE (P)	0.006	0.10
SPECIFIC CONDUCTANCE (MICROMHOS)	550	650
WATER TEMPERATURE (DEG C)	19.2	6.5
COLOR (PLATINUM-COBALT UNITS)	5	10
SECCHI-DISC VISIBILITY (FT)	4	
DISSOLVED OXYGEN	12.8	0.1

LAKE SHORELINE COVERED BY EMERSED PLANTS	1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/11/74
TIME	1103
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	<1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

THE LAKE WAS FORMED BY IRRIGATION-WATER RUNOFF AND SEEPAGE. NO AQUATIC MACROPHYTES WERE OBSERVED. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE IRRIGATION WATER ORIGINATES OUTSIDE THE NATURAL DRAINAGE AREA.



Ancient Lake, Grant County. From
U.S. Geological Survey, October 1, 1974.

ARTESIAN LAKE GRANT COUNTY

LATITUDE 47°14'52" LONGITUDE 119°11'13" T20N-R29E-4
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	59.6 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1236. FT		
LAKE AREA	32. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	86. ACRE-FT		
MEAN DEPTH	3. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	5. FT		
SHORELINE LENGTH	1.3 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.6	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.54	AGRICULTURAL	100 %
BOTTOM SLOPE	0.38 %	FOREST OR UNPRODUCTIVE	0 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	<1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

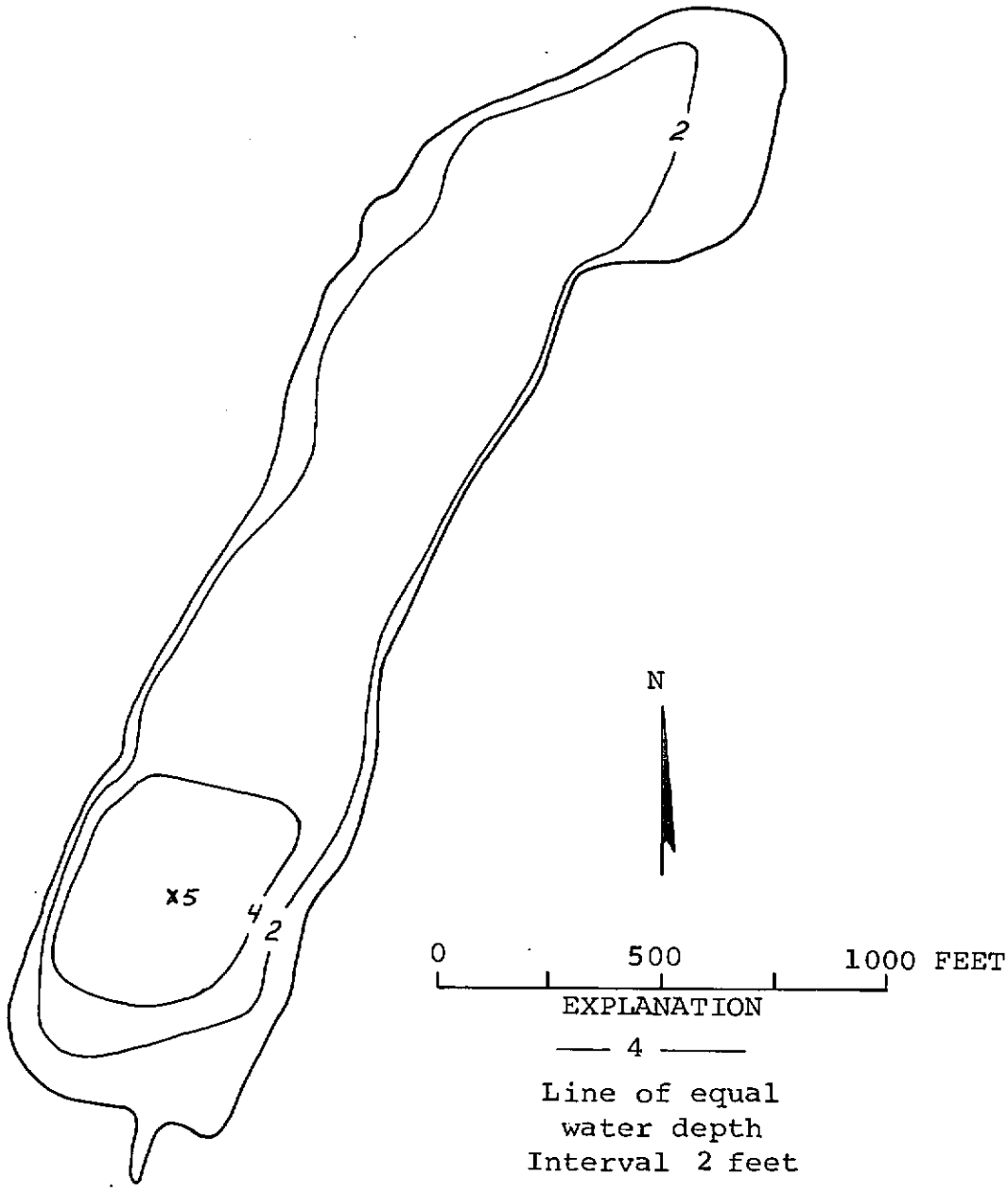
SAMPLE SITE	1	
DATE	6/10/74	
TIME	1210	1215
DEPTH (FT)	0.2	0.4
TOTAL NITRATE (N)	0.02	0.01
TOTAL NITRITE (N)	0.07	0.09
TOTAL AMMONIA (N)	0.72	1.0
TOTAL ORGANIC NITROGEN (N)	5.2	5.2
TOTAL PHOSPHORUS (P)	6.2	8.8
TOTAL ORTHOPHOSPHATE (P)	5.8	8.6
SPECIFIC CONDUCTANCE (MICROMHOS)	4950	4950
WATER TEMPERATURE (DEG C)	19.9	20.0
COLOR (PLATINUM-COBALT UNITS)	--	--
SECCHI-DISC VISIBILITY (FT)	0.3	
DISSOLVED OXYGEN	8.2	8.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	11- 25 %

DATE	6/10/74
TIME	1240
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	12
FECAL COLIFORM, MAXIMUM (COL./100ML)	--
FECAL COLIFORM, MEAN (COL./100ML)	--

REMARKS

THE WATER SAMPLES WERE TOO TURBID FOR A COLOR DETERMINATION. THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (SEDGE); VERY FEW SUBMERSED AQUATIC PLANTS WERE OBSERVED. AT THE TIME OF SAMPLING, CATTLE WERE STANDING IN THE WATER AT THE SOUTH END OF THE LAKE. THE FECAL COLIFORM COLONIES FROM ONE SAMPLE WERE TOO NUMEROUS TO COUNT.



Artesian Lake, Grant County. From
U.S. Geological Survey, March 10, 1975.

BABCOCK RIDGE LAKE GRANT COUNTY

LATITUDE 47°14' 1" LONGITUDE 119°55' 5" T20N-R23E-10
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1258. FT		
LAKE AREA	13. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	61. ACRE-FT		
MEAN DEPTH	5. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	8. FT		
SHORELINE LENGTH	0.93 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	1.9		
DEVELOPMENT OF VOLUME	0.60		
BOTTOM SLOPE	0.96 %		
BASIN GEOLOGY	SED./META.		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

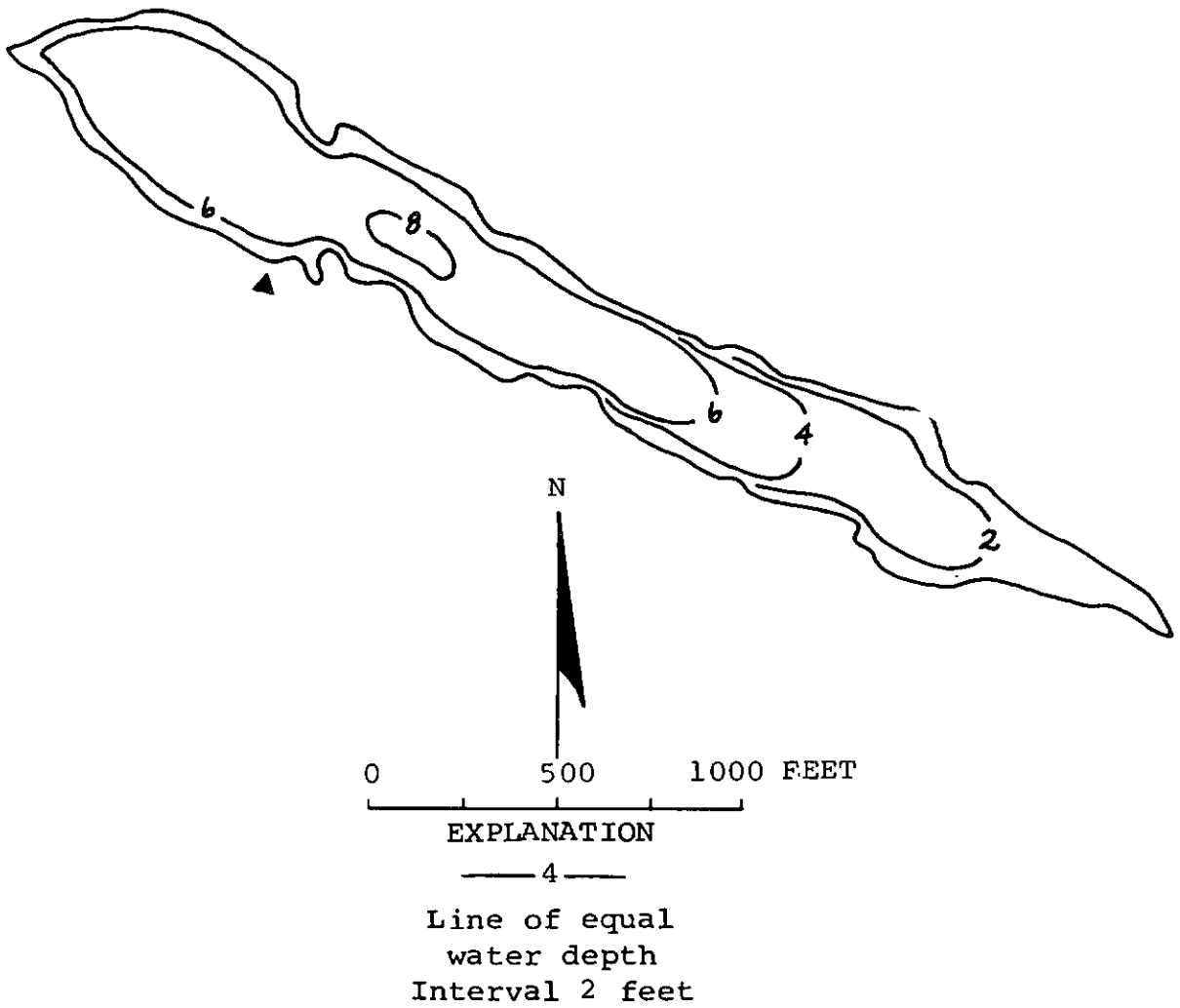
SAMPLE SITE	1	
DATE	6/10/74	
TIME	1100	1105
DEPTH (FT)	3.	5.
TOTAL NITRATE (N)	1.1	--
TOTAL NITRITE (N)	0.02	--
TOTAL AMMONIA (N)	0.18	--
TOTAL ORGANIC NITROGEN (N)	0.92	--
TOTAL PHOSPHORUS (P)	0.093	--
TOTAL ORTHOPHOSPHATE (P)	0.009	--
SPECIFIC CONDUCTANCE (MICROMHOS)	550	--
WATER TEMPERATURE (DEG C)	16.5	16.2
COLOR (PLATINUM-COBALT UNITS)	--	--
SECCHI-DISC VISIBILITY (FT)	3	
DISSOLVED OXYGEN	11.5	9.6

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	11- 25 %

DATE	6/10/74
TIME	1107
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	30
FECAL COLIFORM, MEAN (COL./100ML)	11

REMARKS

AN ARTIFICIAL LAKE BUILT BY THE U.S. BUREAU OF RECLAMATION ABOUT 1954 FOR IRRIGATION PURPOSES. THE LAKE IS FED BY WATER DISCHARGED FROM WEST CANAL. THE BOTTOM IS BLACK MUCK BUT VERY FEW SUBMERSED AQUATIC PLANTS WERE OBSERVED. THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (CATTAIL). AN ALGAL BLOOM WAS OBSERVED. THE LOSS OF THE DEEP WATER SAMPLE PRECLUDED A CHEMICAL ANALYSIS. THE WATER WAS MURKY AND DETERMINATIONS OF COLOR WERE NOT MADE. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE IRRIGATION WATER IS IMPORTED FROM OUTSIDE THE NATURAL DRAINAGE AREA.



Babcock Ridge Lake, Grant County.
From U.S. Geological Survey, October 1, 1974.

BANK LAKE GRANT COUNTY

LATITUDE 47°37' 3" LONGITUDE 119°17'56" T25N-R28E-33
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1570. FT		
LAKE AREA	27000. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	1300000. ACRE-FT		
MEAN DEPTH	47. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	85. FT		
SHORELINE LENGTH	91. MI	NOT DETERMINED	
SHORELINE CONFIGURATION	4.0		
DEVELOPMENT OF VOLUME	0.55		
BOTTOM SLOPE	0.22 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1		2		3		4	
DATE	6/13/74		6/13/74		6/13/74		6/13/74	
TIME	1100	1105	1155	1200	1330	1335	1415	1420
DEPTH (FT)	3.	46.	3.	39.	3.	52.	3.	46.
TOTAL NITRATE (N)	0.01	0.04	0.01	0.02	0.01	0.01	0.02	0.05
TOTAL NITRITE (N)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL AMMONIA (N)	0.03	0.04	0.02	0.02	0.03	0.03	0.04	0.02
TOTAL ORGANIC NITROGEN (N)	0.12	0.34	0.07	0.09	0.06	0.08	0.08	0.14
TOTAL PHOSPHORUS (P)	0.038	0.048	0.012	0.028	0.011	0.032	0.015	0.018
TOTAL ORTHOPHOSPHATE (P)	0.012	0.020	0.007	0.011	0.008	0.013	0.007	0.008
SPECIFIC CONDUCTANCE (MICROMHOS)	150	150	170	160	160	160	160	160
WATER TEMPERATURE (DEG C)	13.2	11.6	18.1	13.9	16.9	12.9	17.0	14.0
COLOR (PLATINUM-COBALT UNITS)	5	5	5	0	0	0	0	0
SECCHI-DISC VISIBILITY (FT)	7		15		12		15	
DISSOLVED OXYGEN	11.5	10.4	9.5	9.7	9.3	9.0	9.4	9.5

LAKE SHORELINE COVERED BY EMERSED PLANTS LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE	6/13/74
TIME	1237
NUMBER OF FECAL COLIFORM SAMPLES	8
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	<1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

AN ARTIFICIAL RESERVOIR CREATED BY DAMS IN GRAND COULEE, INUNDATING SEVERAL NATURAL LAKES. THE LAKE WAS BUILT BY THE U.S. BUREAU OF RECLAMATION ABOUT 1951 AND IS FED BY WATER PUMPED FROM FDR LAKE (COLUMBIA RIVER). RECREATIONAL USE OF THE LAKE, WHICH IS PARTLY IN DOUGLAS COUNTY, IS HEAVY. THE WATER IS USED FOR IRRIGATION PURPOSES AND SEASONAL WATER-LEVEL FLUCTUATIONS OF 25 FEET ARE COMMON. THE DO CONCENTRATION WAS HIGH THROUGHOUT THE ENTIRE WATER COLUMN. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE IRRIGATION WATER IS IMPORTED FROM OUTSIDE THE NATURAL DRAINAGE AREA.

REDA LAKE GRANT COUNTY

LATITUDE 47* 2'39" LONGITUDE 119*32'15" T18N-R26E-22
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1120. FT		
LAKE AREA	41. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	240. ACRE-FT		
MEAN DEPTH	6. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	22. FT		
SHORELINE LENGTH	2.2 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	2.4		
DEVELOPMENT OF VOLUME	0.27		
BOTTOM SLOPE	1.5 %		
BASIN GEOLOGY	SED./META.		
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

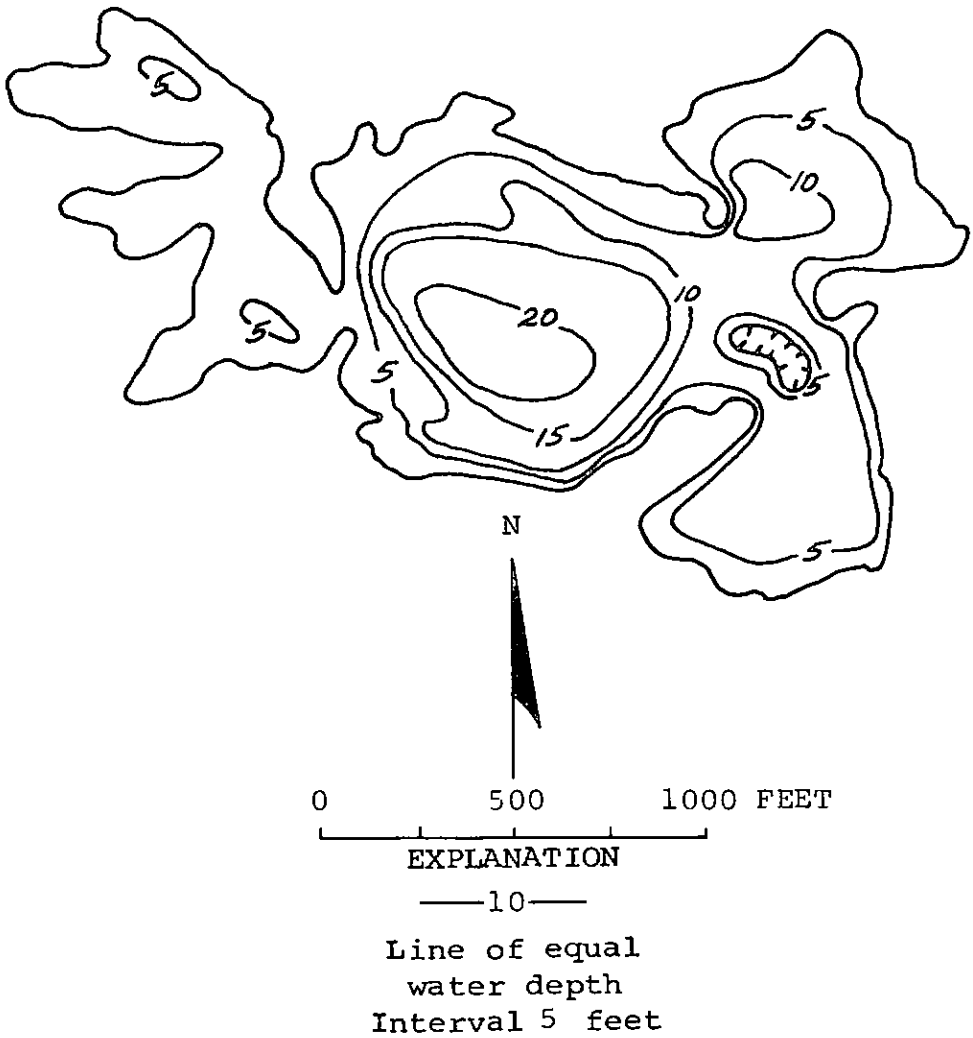
SAMPLE SITE	1	
DATE	6/10/74	
TIME	1550	1555
DEPTH (FT)	3.	20.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.04	0.03
TOTAL ORGANIC NITROGEN (N)	0.35	0.35
TOTAL PHOSPHORUS (P)	0.008	0.009
TOTAL ORTHOPHOSPHATE (P)	0.003	0.002
SPECIFIC CONDUCTANCE (MICROMHOS)	550	550
WATER TEMPERATURE (DEG C)	19.6	16.6
COLOR (PLATINUM-COBALT UNITS)	--	--
SECCHI-DISC VISIBILITY (FT)	22	
DISSOLVED OXYGEN	11.4	11.1

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/10/74
TIME	1607
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	<1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

MOST OF THE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (CATTAIL AND RUSHES). THE DO CONCENTRATION WAS HIGH THROUGHOUT THE ENTIRE WATER COLUMN. DETERMINATIONS OF COLOR WERE NOT MADE. THE LOW RELIEF OF THE TERRAIN NEAR THE LAKE PRECLUDED A DELINEATION OF THE DRAINAGE AREA.



Beda Lake, Grant County. From
U.S. Geological Survey, October 1, 1974.

BILLY CLAPP LAKE GRANT COUNTY

LATITUDE 47°26'54" LONGITUDE 119°15'12" T23N-R28E-36
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1336. FT		
LAKE AREA	1000. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	65000. ACRE-FT		
MEAN DEPTH	65. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	110. FT		
SHORELINE LENGTH	14. MI	NOT DETERMINED	
SHORELINE CONFIGURATION	3.1		
DEVELOPMENT OF VOLUME	0.59		
BOTTOM SLOPE	1.5 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1		2	
DATE	6/ 4/74		6/10/74	
TIME	1130	1135	1530	1535
DEPTH (FT)	3.	72.	3.	85.
TOTAL NITRATE (N)	0.01	0.02	0.00	0.04
TOTAL NITRITE (N)	0.00	0.01	0.00	0.01
TOTAL AMMONIA (N)	0.05	0.11	0.02	0.08
TOTAL ORGANIC NITROGEN (N)	0.21	0.18	0.06	0.05
TOTAL PHOSPHORUS (P)	0.023	0.032	0.015	0.033
TOTAL ORTHOPHOSPHATE (P)	0.007	0.020	0.010	0.025
SPECIFIC CONDUCTANCE (MICROMHOS)	185	160	165	160
WATER TEMPERATURE (DEG C)	12.2	8.9	15.9	8.8
COLOR (PLATINUM-COBALT UNITS)	5	5	5	5
SECCHI-DISC VISIBILITY (FT)	7		9	
DISSOLVED OXYGEN	10.8	9.3	10.2	7.8

LAKE SHORELINE COVERED BY EMERSED PLANTS LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE	6/ 4/74
TIME	1545
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	1
FECAL COLIFORM, MAXIMUM (COL./100ML)	1
FECAL COLIFORM, MEAN (COL./100ML)	1

REMARKS

AN ARTIFICIAL RESERVOIR CREATED BY A DAM IN THE MAIN CANAL OF THE COLUMBIA BASIN IRRIGATION PROJECT, INUNDATING SEVERAL NATURAL LAKES. THE RESERVOIR WAS BUILT BY THE U.S. BUREAU OF RECLAMATION ABOUT 1948 AND THE WATER IS USED FOR IRRIGATION PURPOSES. RECREATIONAL USE OF THE LAKE IS HEAVY. A 165-FOOT WATERFALL (SUMMER FALLS) EXISTS AT THE HEAD OF THE LAKE. NO AQUATIC MACROPHYTES WERE OBSERVED. THE DO CONCENTRATION WAS HIGH THROUGHOUT THE ENTIRE WATER COLUMN. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE IRRIGATION WATER IS IMPORTED FROM OUTSIDE THE NATURAL DRAINAGE AREA.

BLACK LAKE GRANT COUNTY

LATITUDE 47°15' 9" LONGITUDE 119°10'30" T20N-R29E-4
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	59.6 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1238. FT		
LAKE AREA	150. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	640. ACRE-FT		
MEAN DEPTH	4. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	6. FT		
SHORELINE LENGTH	2.7 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.6	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.77	AGRICULTURAL	99 %
BOTTOM SLOPE	0.19 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	<1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1	
DATE	6/ 3/74	
TIME	1450	1455
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	0.01	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.20	0.20
TOTAL ORGANIC NITROGEN (N)	3.0	3.3
TOTAL PHOSPHORUS (P)	1.2	1.3
TOTAL ORTHOPHOSPHATE (P)	1.0	1.0
SPECIFIC CONDUCTANCE (MICROMHOS)	4250	4250
WATER TEMPERATURE (DEG C)	19.1	19.2
COLOR (PLATINUM-COBALT UNITS)	90	90
SECCHI-DISC VISIBILITY (FT)	1	
DISSOLVED OXYGEN	9.0	8.9

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/ 3/74
TIME	1550
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	4
FECAL COLIFORM, MAXIMUM (COL./100ML)	780
FECAL COLIFORM, MEAN (COL./100ML)	278

REMARKS

THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS BUT NO SUBMERSED AQUATIC PLANTS WERE OBSERVED. AT THE TIME OF SAMPLING THE WATER WAS MURKY AND CATTLE WERE GRAZING NEAR THE SOUTH AND WEST SHORES. THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION. THE LIMNOLOGY OF BLACK LAKE WAS DESCRIBED BY BENNETT (1962).

Black Lake, Grant County. From
U.S. Geological Survey, March 10, 1975.

Black Lake, Grant County. June 1, 1970. Approx. scale 1:63,000.

BLACK ROCK LAKE GRANT COUNTY

LATITUDE 47*17'38" LONGITUDE 119* 3'20" T21N-R30E-21
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	39.8 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1360. FT		
LAKE AREA	140. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	1300. ACRE-FT		
MEAN DEPTH	10. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	14. FT		
SHORELINE LENGTH	3.6 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.1	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.68	AGRICULTURAL	99 %
BOTTOM SLOPE	0.50 %	FOREST OR UNPRODUCTIVE	<1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

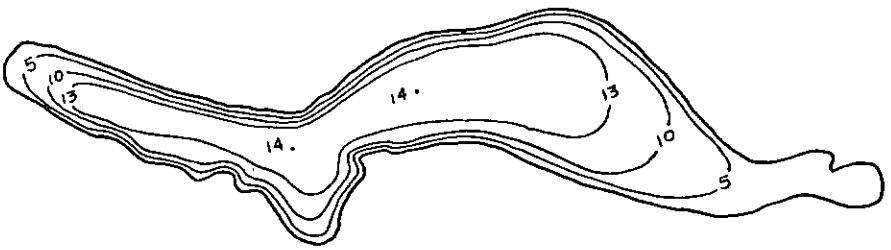
SAMPLE SITE	1	
DATE	6/ 3/74	
TIME	1410	1415
DEPTH (FT)	3.	5.
TOTAL NITRATE (N)	0.17	0.28
TOTAL NITRITE (N)	0.02	0.02
TOTAL AMMONIA (N)	0.72	0.72
TOTAL ORGANIC NITROGEN (N)	2.8	3.3
TOTAL PHOSPHORUS (P)	2.4	2.6
TOTAL ORTHOPHOSPHATE (P)	2.0	2.1
SPECIFIC CONDUCTANCE (MICROMHOS)	1250	1250
WATER TEMPERATURE (DEG C)	18.2	18.2
COLOR (PLATINUM-COBALT UNITS)	--	--
SECCHI-DISC VISIBILITY (FT)	0.3	
DISSOLVED OXYGEN	7.0	7.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/ 3/74
TIME	1430
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	4
FECAL COLIFORM, MEAN (COL./100ML)	3

REMARKS

NO AQUATIC MACROPHYTES WERE OBSERVED. THE WATER WAS BROWN AND MURKY AND NO COLOR DETERMINATIONS WERE MADE.



N

0 2000 4000 FEET

EXPLANATION

—— 10 ——

Line of equal
water depth
Interval 5 feet

Black Rock Lake, Grant County. From Washington Department of Game, February 4, 1951.

BLUE LAKE GRANT COUNTY

LATITUDE 47*32'39" LONGITUDE 119*27'44" T24N-R27E-29
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	334. SQ MI	RESIDENTIAL DEVELOPMENT	14 %
ALTITUDE	1093. FT		
LAKE AREA	530. ACRES	NUMBER OF NEARSHORE HOMES	46
LAKE VOLUME	21000. ACRE-FT		
MEAN DEPTH	40. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	69. FT		
SHORELINE LENGTH	7.0 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	2.2		
DEVELOPMENT OF VOLUME	0.58		
BOTTOM SLOPE	1.3 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

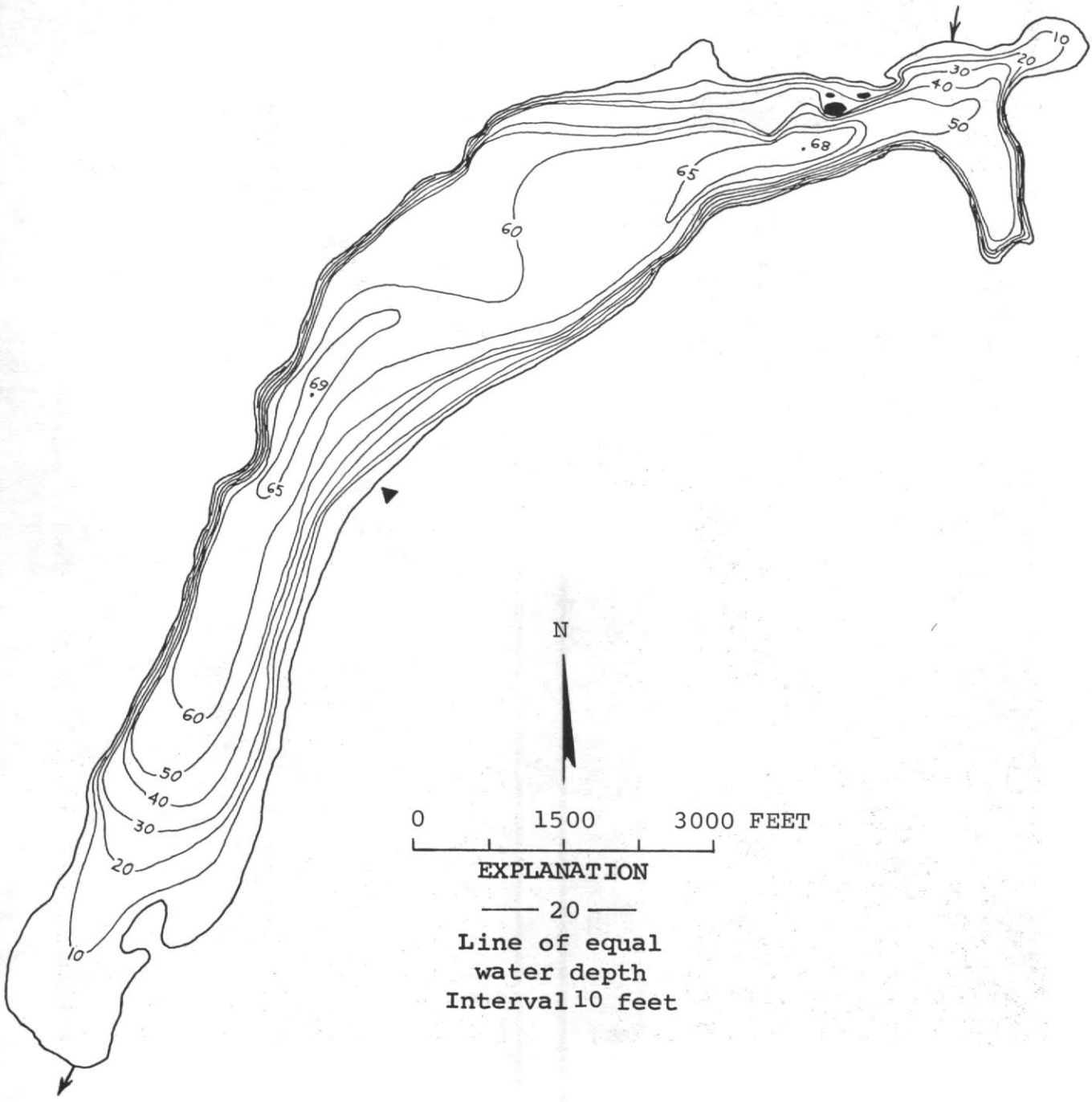
SAMPLE SITE	1	
DATE	6/ 6/74	
TIME	1525	1530
DEPTH (FT)	3.	52.
TOTAL NITRATE (N)	0.01	0.01
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.06	0.10
TOTAL ORGANIC NITROGEN (N)	0.50	0.50
TOTAL PHOSPHORUS (P)	0.018	0.032
TOTAL ORTHOPHOSPHATE (P)	0.005	0.007
SPECIFIC CONDUCTANCE (MICROMHOS)	450	460
WATER TEMPERATURE (DEG C)	14.9	11.9
COLOR (PLATINUM-COBALT UNITS)	0	0
SECCHI-DISC VISIBILITY (FT)	14	
DISSOLVED OXYGEN	9.9	4.8

LAKE SHORELINE COVERED BY EMERSED PLANTS	LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

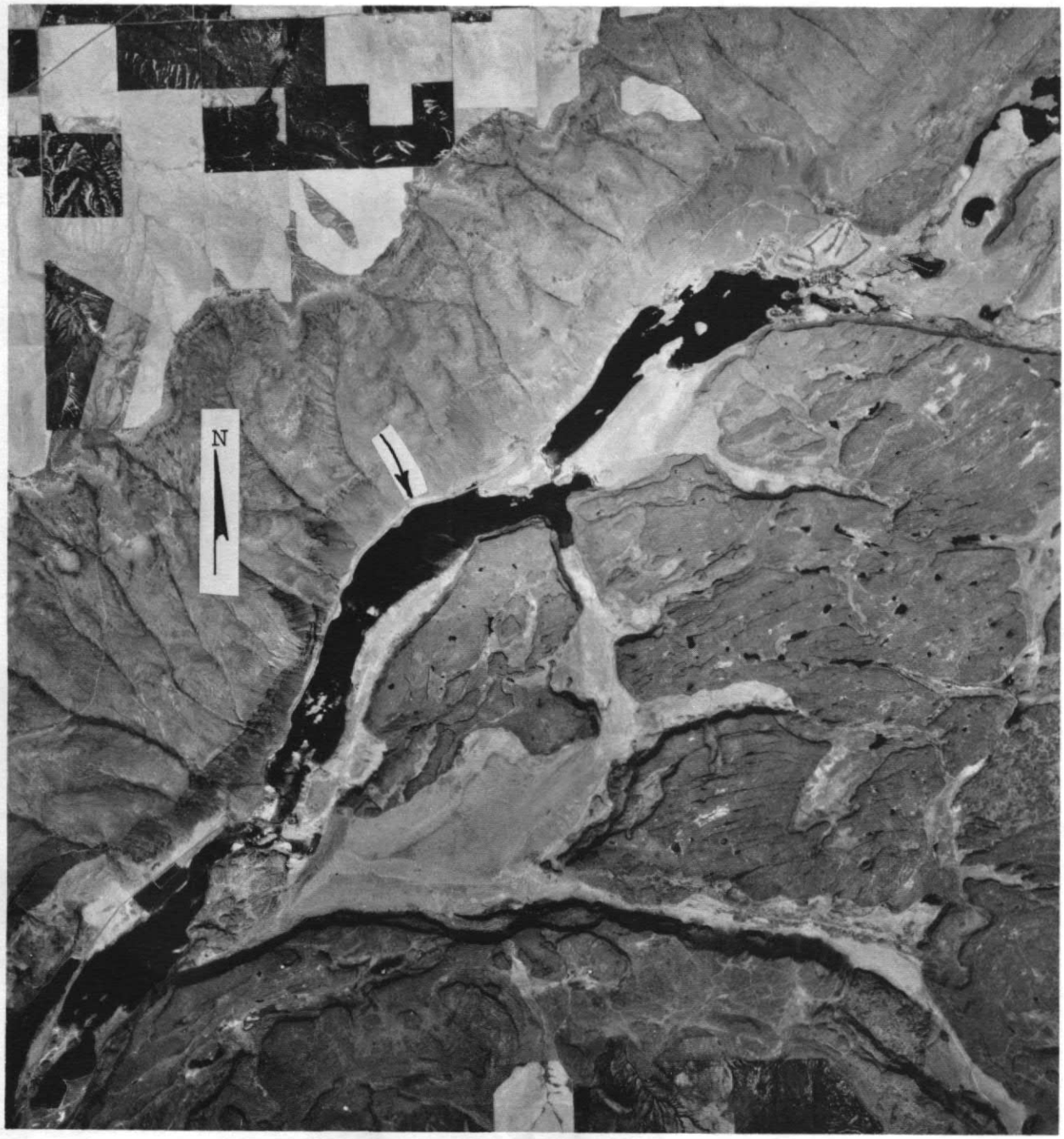
DATE	6/ 6/74
TIME	1545
NUMBER OF FECAL COLIFORM SAMPLES	5
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	<1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

A NATURAL LAKE IN LOWER GRAND COULEE. VERY FEW EMERSED AQUATIC PLANTS WERE OBSERVED. RECREATIONAL USE OF THE LAKE IS HEAVY. THE LAKE STAGE WAS MONITORED BY THE U.S. GEOLOGICAL SURVEY FROM 1938 TO 1968. THE LIMNOLOGY OF BLUE LAKE WAS DESCRIBED BY FRIEDMAN AND REDFIELD (1967,1971) AND WALKER (1974). LAND USE WAS NOT DETERMINED BECAUSE OF THE SIZE OF THE DRAINAGE AREA.



Blue Lake, Grant County. From Washington Department of Game, January 10, 1949.



Blue Lake, Grant County. June 1, 1970. Approx. scale 1:63,000.

BROKEN ROCK LAKE GRANT COUNTY

LATITUDE 47°19'35" LONGITUDE 119°12'54" T21N-R29E-7
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1254. FT		
LAKE AREA	39. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	230. ACRE-FT		
MEAN DEPTH	6. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	13. FT		
SHORELINE LENGTH	1.7 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	1.9		
DEVELOPMENT OF VOLUME	0.45		
BOTTOM SLOPE	0.88 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

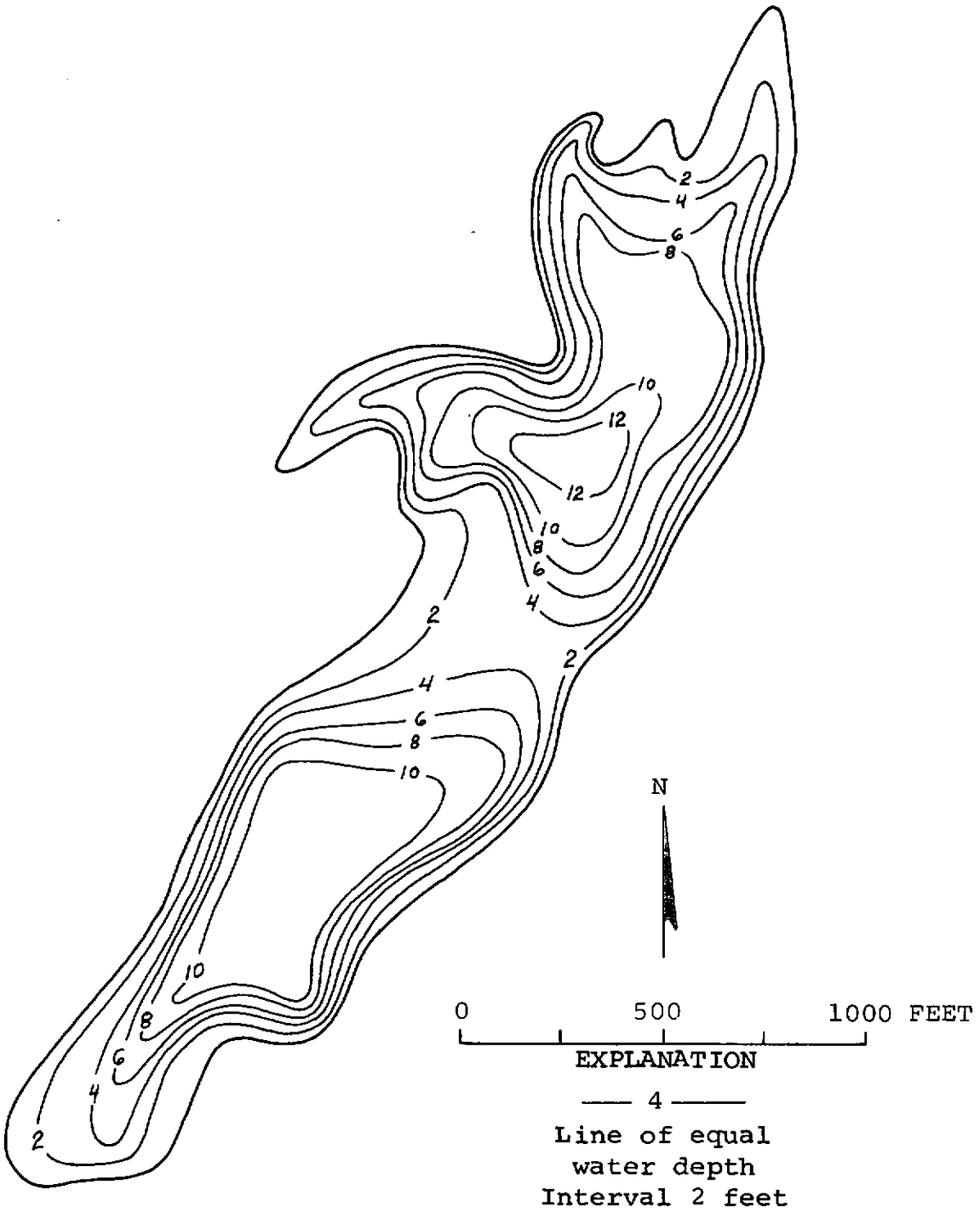
SAMPLE SITE	1	
DATE	6/ 3/74	
TIME	1215	1220
DEPTH (FT)	3.	10.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.18	0.73
TOTAL ORGANIC NITROGEN (N)	2.5	2.4
TOTAL PHOSPHORUS (P)	0.11	0.096
TOTAL ORTHOPHOSPHATE (P)	0.020	0.019
SPECIFIC CONDUCTANCE (MICROMHOS)	4000	3750
WATER TEMPERATURE (DEG C)	18.8	14.9
COLOR (PLATINUM-COBALT UNITS)	50	45
SECCHI-DISC VISIBILITY (FT)	2	
DISSOLVED OXYGEN	9.3	0.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	6/ 3/74
TIME	1315
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	2
FECAL COLIFORM, MAXIMUM (COL./100ML)	6
FECAL COLIFORM, MEAN (COL./100ML)	3

REMARKS

A SEEPAGE LAKE THAT IS ADJACENT TO THE EAST LOW CANAL. THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS. HYDROGEN SULFIDE WAS DETECTED IN THE HYPOLIMNION. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE LAKE IS AFFECTED BY IRRIGATION WATER FROM OUTSIDE THE NATURAL DRAINAGE AREA.



Broken Rock Lake, Grant County. From
U.S. Geological Survey, March 3, 1975.

BROOK (STRATFORD) LAKE GRANT COUNTY

LATITUDE 47°25'41" LONGITUDE 119°16'19" T22N-R28E-2
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	1800. SQ MI	RESIDENTIAL DEVELOPMENT	1 %
ALTITUDE	1240. FT		
LAKE AREA	490. ACRES	NUMBER OF NEARSHORE HOMES	1
LAKE VOLUME	6200. ACRE-FT		
MEAN DEPTH	13. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	21. FT		
SHORELINE LENGTH	6.1 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	1.9		
DEVELOPMENT OF VOLUME	0.60		
BOTTOM SLOPE	0.40 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

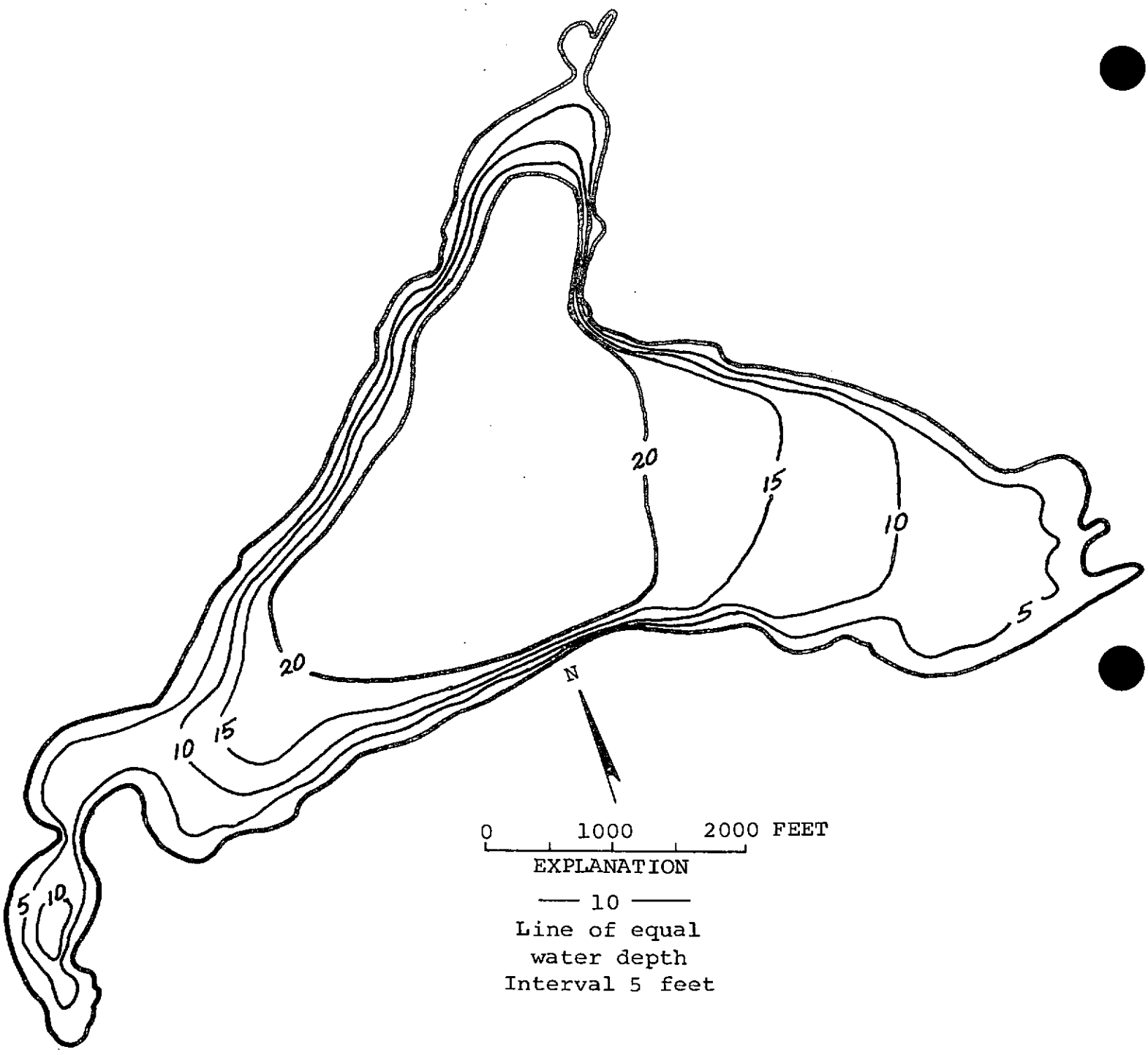
SAMPLE SITE	1	
DATE	6/10/74	
TIME	1410	1415
DEPTH (FT)	3.	69.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.00	0.01
TOTAL AMMONIA (N)	0.06	0.10
TOTAL ORGANIC NITROGEN (N)	0.94	0.79
TOTAL PHOSPHORUS (P)	0.10	0.14
TOTAL ORTHOPHOSPHATE (P)	0.010	0.008
SPECIFIC CONDUCTANCE (MICROMHOS)	435	420
WATER TEMPERATURE (DEG C)	19.6	17.1
COLOR (PLATINUM-COBALT UNITS)	5	10
SECCHI-DISC VISIBILITY (FT)	4	
DISSOLVED OXYGEN	13.8	10.1

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	11- 25 %

DATE	6/10/74
TIME	1430
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	--
FECAL COLIFORM, MEAN (COL./100ML)	--

REMARKS

AN ENLARGEMENT OF CRAB CREEK THAT RECEIVES SOME SEEPAGE FROM BILLY CLAPP LAKE. A HIGH ALGAL DENSITY WAS OBSERVED. THE FECAL COLIFORM COLONIES FROM ONE SAMPLE WERE TOO NUMEROUS TO COUNT. THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION. LAND USE WAS NOT DETERMINED BECAUSE OF THE SIZE OF THE DRAINAGE AREA.



Brook (Stratford) Lake, Grant County. From U.S. Geological Survey, May 8, 1974.

BURKE LAKE GRANT COUNTY

LATITUDE 47° 7'48" LONGITUDE 119°54'27" T19N-R23E-23
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1187. FT		
LAKE AREA	72. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	1100. ACRE-FT		
MEAN DEPTH	15. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	33. FT		
SHORELINE LENGTH	3.7 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	3.1		
DEVELOPMENT OF VOLUME	0.45		
BOTTOM SLOPE	1.6 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

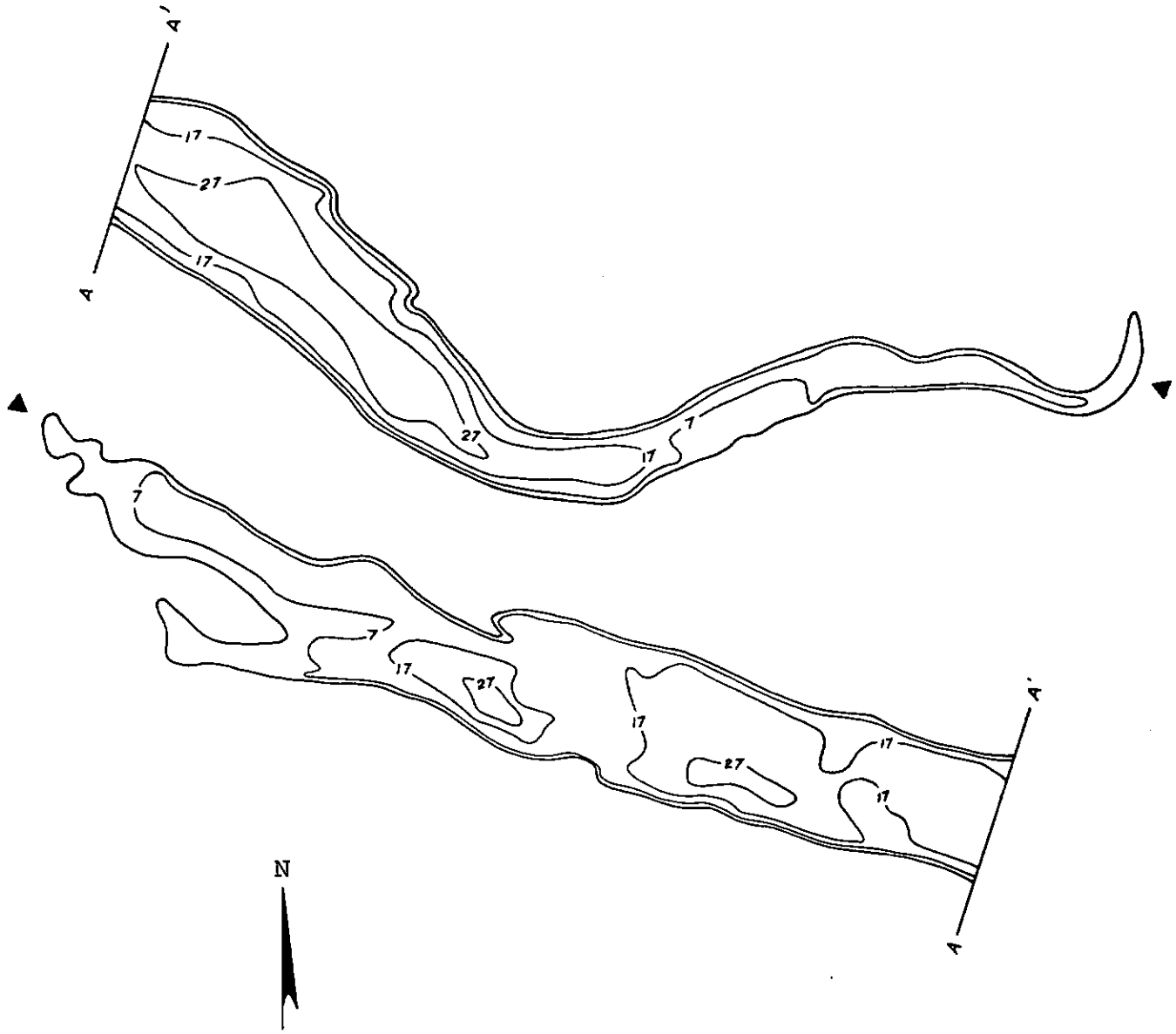
SAMPLE SITE	1	
DATE	6/11/74	
TIME	1155	1200
DEPTH (FT)	3.	26.
TOTAL NITRATE (N)	0.02	0.06
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.04	0.04
TOTAL ORGANIC NITROGEN (N)	0.35	0.30
TOTAL PHOSPHORUS (P)	0.024	0.034
TOTAL ORTHOPHOSPHATE (P)	0.003	0.015
SPECIFIC CONDUCTANCE (MICROMHOS)	420	410
WATER TEMPERATURE (DEG C)	19.2	16.7
COLOR (PLATINUM-COBALT UNITS)	5	5
SECCHI-DISC VISIBILITY (FT)	12	
DISSOLVED OXYGEN	11.2	9.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/11/74
TIME	1230
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

THE LAKE FORMED ABOUT 1955 FROM IRRIGATION RUNOFF. THE ALGAL DENSITY WAS HIGH BUT VERY FEW EMERSED AQUATIC PLANTS WERE OBSERVED. RECREATIONAL USE OF THE LAKE IS HEAVY. THE DO CONCENTRATION WAS HIGH THROUGHOUT THE ENTIRE WATER COLUMN. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE LAKE IS AFFECTED BY IRRIGATION WATER FROM OUTSIDE THE NATURAL DRAINAGE AREA.



Burke Lake, Grant County. From
U.S. Geological Survey, March 10, 1975.

CANAL LAKE GRANT COUNTY

LATITUDE 46°55'12" LONGITUDE 119°11'23" T17N-R29E-33
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	4.23 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	980. FT		
LAKE AREA	61. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	990. ACRE-FT		
MEAN DEPTH	16. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	65. FT		
SHORELINE LENGTH	3.7 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	3.3	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.25	AGRICULTURAL	95 %
BOTTOM SLOPE	3.5 %	FOREST OR UNPRODUCTIVE	3 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	2 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

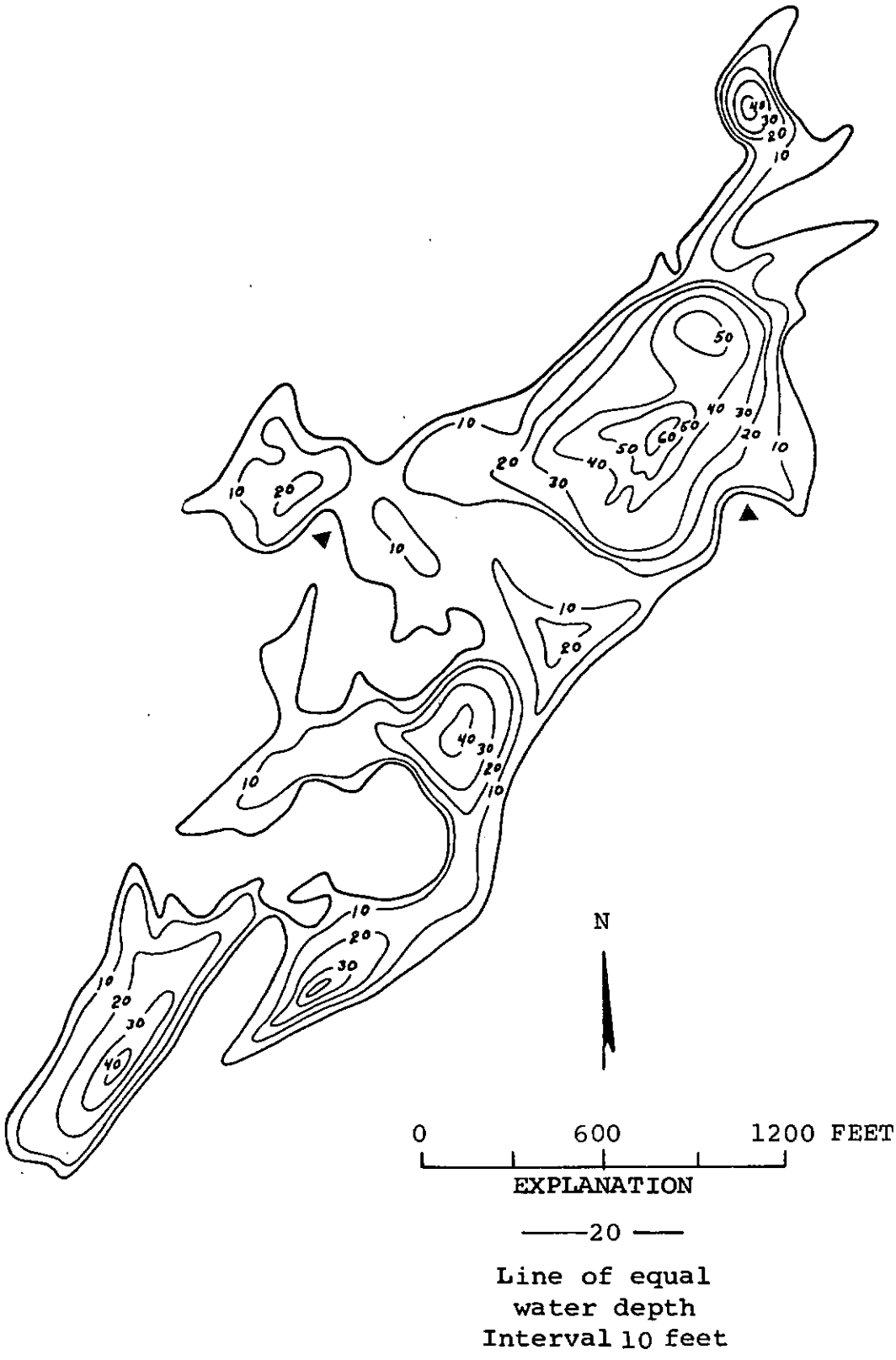
SAMPLE SITE	1	
DATE	5/25/74	
TIME	1000	1005
DEPTH (FT)	3.	82.
TOTAL NITRATE (N)	0.00	0.04
TOTAL NITRITE (N)	0.00	0.01
TOTAL AMMONIA (N)	0.05	0.81
TOTAL ORGANIC NITROGEN (N)	0.63	0.19
TOTAL PHOSPHORUS (P)	0.034	0.10
TOTAL ORTHOPHOSPHATE (P)	0.005	0.072
SPECIFIC CONDUCTANCE (MICROMHOS)	550	590
WATER TEMPERATURE (DEG C)	17.5	5.0
COLOR (PLATINUM-COBALT UNITS)	10	15
SECCHI-DISC VISIBILITY (FT)	7	
DISSOLVED OXYGEN	12.8	0.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	5/25/74
TIME	930
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	<1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

A SEEPAGE LAKE THAT IS ADJACENT TO POTHOLES EAST CANAL. RECREATIONAL USE OF THE LAKE IS HEAVY. HYDROGEN SULFIDE WAS DETECTED IN THE HYPOLIMNION. IN 1975 THE U.S. GEOLOGICAL SURVEY WILL SAMPLE THE LAKE FOUR TIMES.



Canal Lake, Grant County. From
U.S. Geological Survey, March 3, 1975.

Canal Lake, Grant County. From
U.S. Geological Survey, May 25, 1974.

COFFEE LAKE GRANT COUNTY

LATITUDE 47*50'57" LONGITUDE 119* 1'32" T27N-R30E-10
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	2.12 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2362. FT		
LAKE AREA	18. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	170. ACRE-FT		
MEAN DEPTH	9. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	18. FT		
SHORELINE LENGTH	0.91 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.5	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.52	AGRICULTURAL	99 %
BOTTOM SLOPE	1.8 %	FOREST OR UNPRODUCTIVE	0 %
BASIN GEOLOGY	SED./META.	LAKE SURFACE	1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

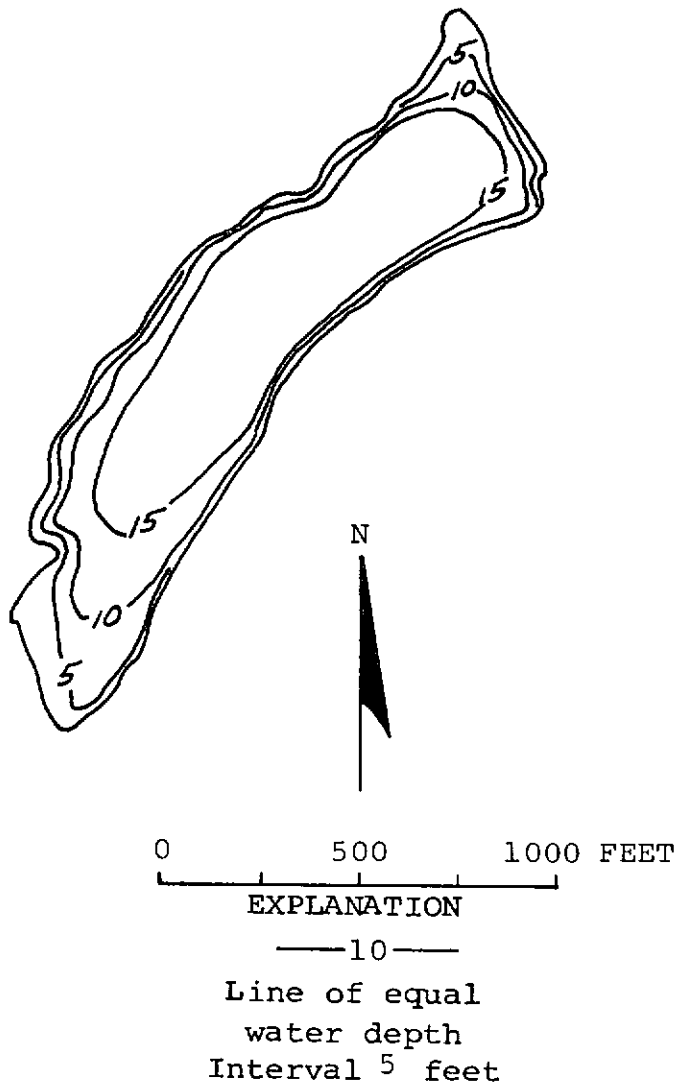
SAMPLE SITE	1	
DATE	6/14/74	
TIME	1135	1140
DEPTH (FT)	3.	15.
TOTAL NITRATE (N)	0.01	0.02
TOTAL NITRITE (N)	0.01	0.02
TOTAL AMMONIA (N)	0.11	0.49
TOTAL ORGANIC NITROGEN (N)	2.7	3.7
TOTAL PHOSPHORUS (P)	3.0	2.9
TOTAL ORTHOPHOSPHATE (P)	2.8	2.8
SPECIFIC CONDUCTANCE (MICROMHOS)	1700	1700
WATER TEMPERATURE (DEG C)	21.8	13.7
COLOR (PLATINUM-COBALT UNITS)	45	45
SECCHI-DISC VISIBILITY (FT)	4	
DISSOLVED OXYGEN	14.8	0.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	6/14/74
TIME	1212
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	6
FECAL COLIFORM, MEAN (COL./100ML)	2

REMARKS

THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (RUSHES) BUT VERY FEW SUBMERSED AQUATIC PLANTS WERE OBSERVED. AN ALGAL BLOOM WAS OBSERVED.



Coffee Lake, Grant County. From
U.S. Geological Survey, September 30, 1974.

CORRAL LAKE GRANT COUNTY

LATITUDE 46°57'45" LONGITUDE 119°17'44" T17N-R28E-15
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	1.49 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	950. FT		
LAKE AREA	77. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	2400. ACRE-FT		
MEAN DEPTH	31. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	62. FT		
SHORELINE LENGTH	3.5 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.9	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.51	AGRICULTURAL	41 %
BOTTOM SLOPE	3.0 %	FOREST OR UNPRODUCTIVE	51 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	8 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

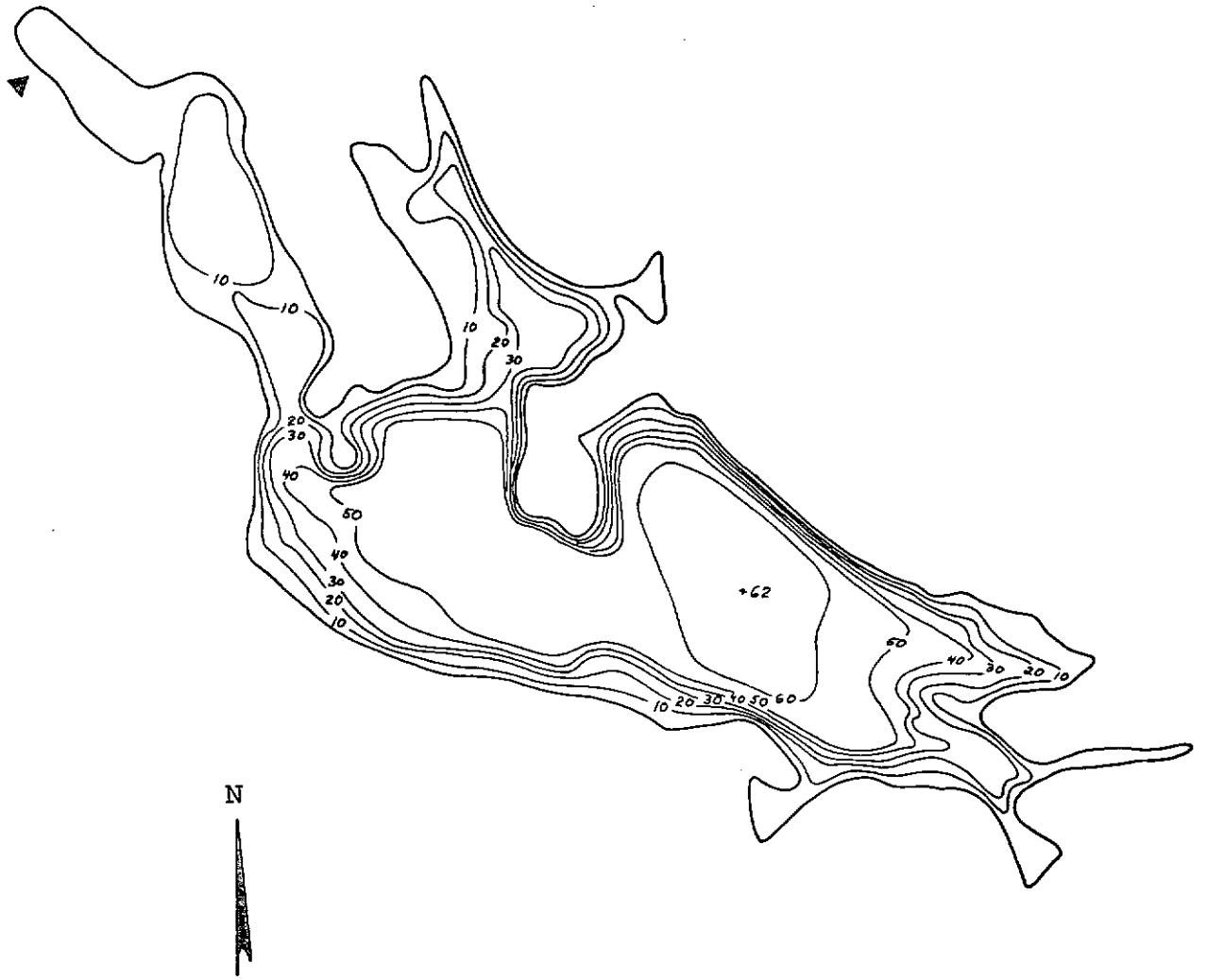
SAMPLE SITE	1	
DATE	5/29/74	
TIME	1330	1335
DEPTH (FT)	3.	56.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.03	0.55
TOTAL ORGANIC NITROGEN (N)	0.47	0.35
TOTAL PHOSPHORUS (P)	0.020	0.091
TOTAL ORTHOPHOSPHATE (P)	0.005	0.077
SPECIFIC CONDUCTANCE (MICROMHOS)	720	800
WATER TEMPERATURE (DEG C)	17.5	7.1
COLOR (PLATINUM-COBALT UNITS)	5	10
SECCHI-DISC VISIBILITY (FT)	9	
DISSOLVED OXYGEN	11.4	0.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

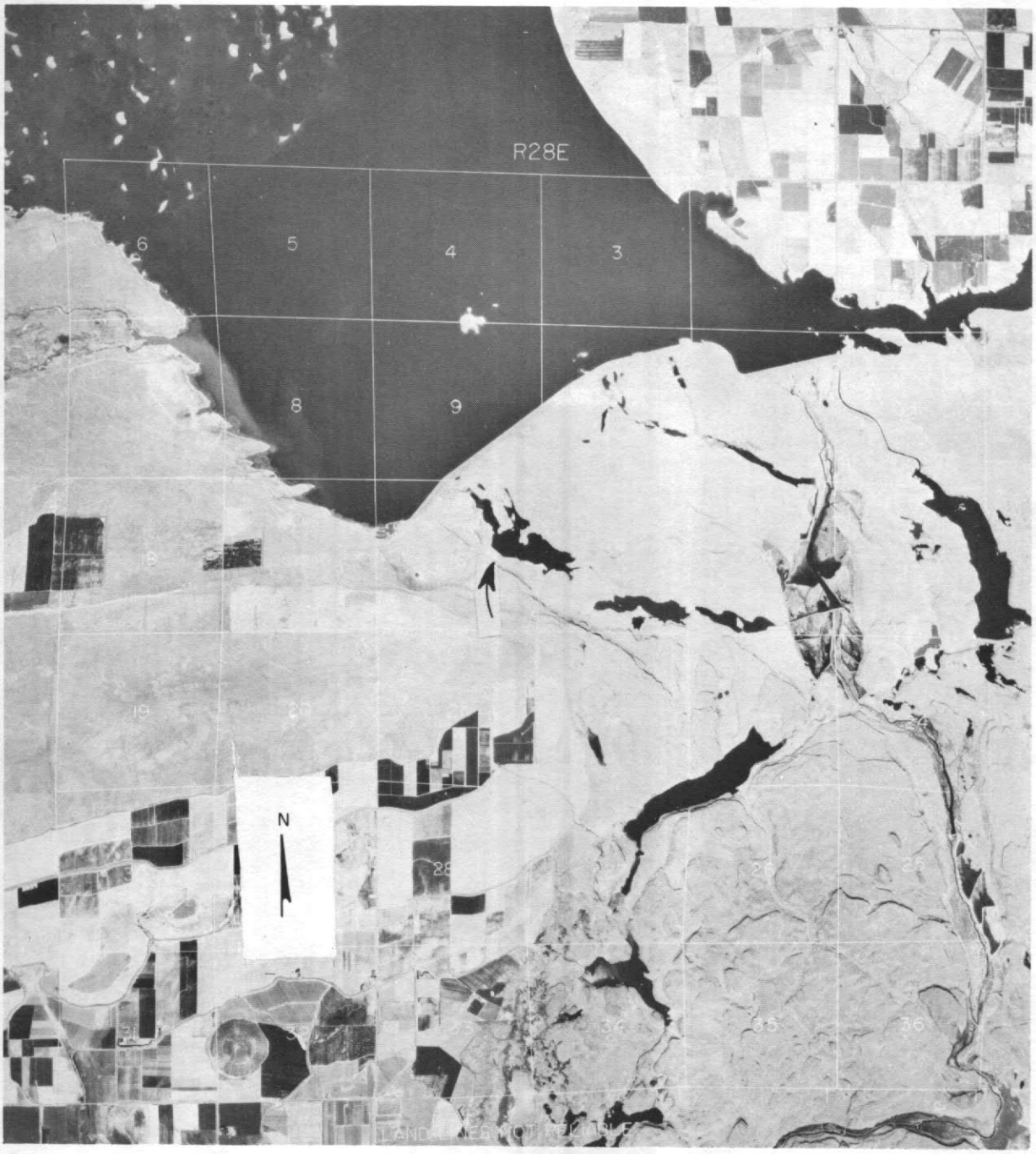
DATE	5/29/74
TIME	1330
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	<1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

THE LAKE IS ADJACENT TO O'SULLIVAN DAM AND WAS FORMED BY SEEPAGE FROM POTHOLES RESERVOIR ABOUT 1952. RECREATIONAL USE OF THE LAKE IS HEAVY. THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION.



Corral Lake, Grant County. From
U.S. Geological Survey, March 3, 1975.



Corral Lake, Grant County. June 1, 1970. Approx. scale 1:63,000.

COULEE LAKE GRANT COUNTY

LATITUDE 47°36'40" LONGITUDE 119°18'52" T24N-R28E-4
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	0.90 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1500. FT		
LAKE AREA	73. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	430. ACRE-FT		
MEAN DEPTH	6. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	15. FT		
SHORELINE LENGTH	2.9 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.4	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.39	AGRICULTURAL	86 %
BOTTOM SLOPE	0.75 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	13 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

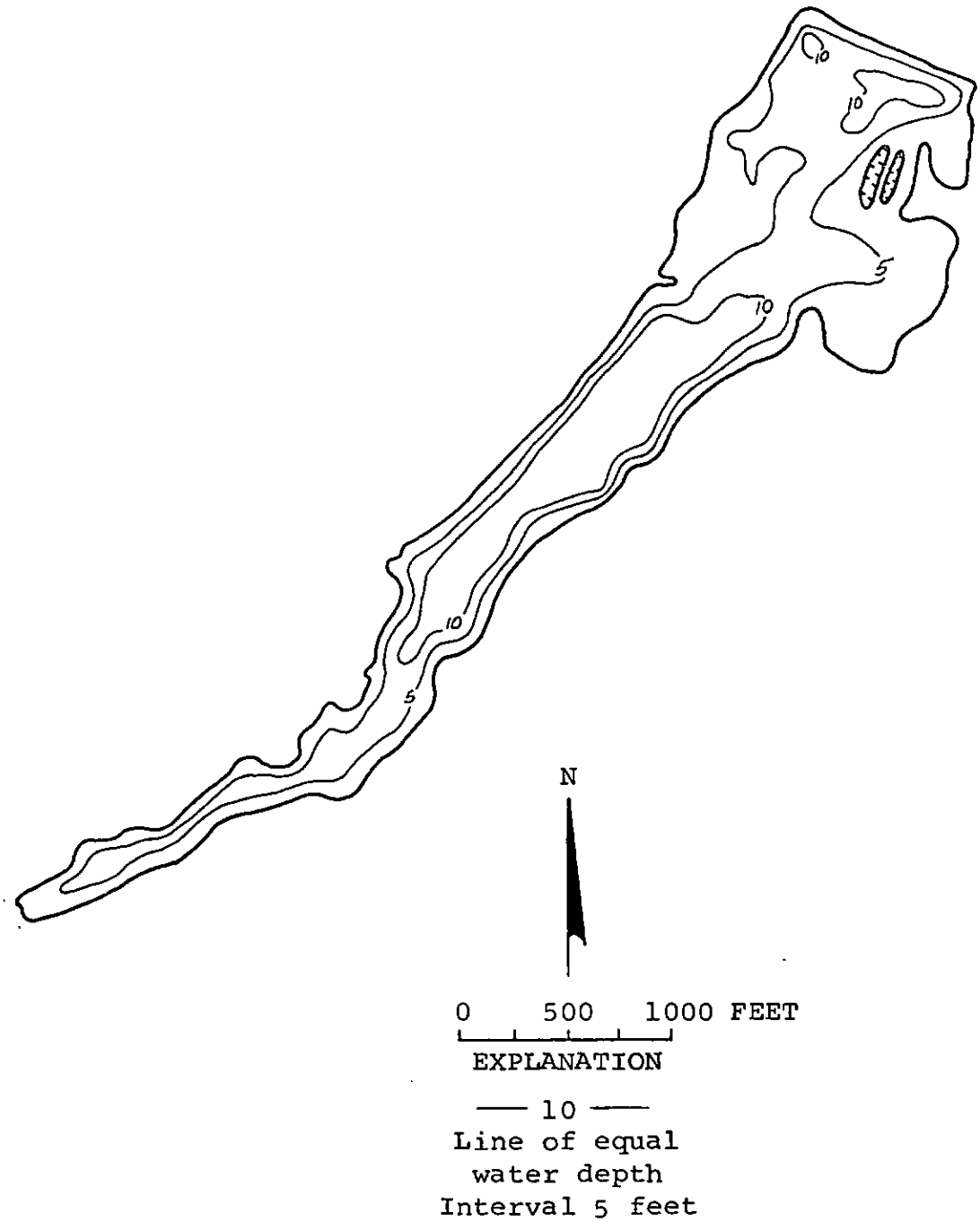
SAMPLE SITE	1	
DATE	6/ 3/74	
TIME	1745	1750
DEPTH (FT)	3.	10.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.03	0.03
TOTAL AMMONIA (N)	0.35	0.35
TOTAL ORGANIC NITROGEN (N)	3.7	6.4
TOTAL PHOSPHORUS (P)	4.2	4.4
TOTAL ORTHOPHOSPHATE (P)	4.0	4.2
SPECIFIC CONDUCTANCE (MICROMHOS)	--	--
WATER TEMPERATURE (DEG C)	17.2	17.2
COLOR (PLATINUM-COBALT UNITS)	70	70
SECCHI-DISC VISIBILITY (FT)	6	
DISSOLVED OXYGEN	6.4	6.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	11- 25 %

DATE	6/ 3/74
TIME	1700
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	8
FECAL COLIFORM, MEAN (COL./100ML)	2

REMARKS

THE LAKE IS ADJACENT TO DRY FALLS DAM AND WAS FORMED BY SEEPAGE FROM BANKS LAKE. THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION. SPECIFIC CONDUCTANCE VALUES WERE NOT RECORDED. THE WASHINGTON DEPT. OF ECOLOGY WASTE-WATER DISCHARGE MASTER REPORT INDICATES A MUNICIPAL WASTE DISCHARGE TO COULLEE LAKE AVERAGING 100,000 GALLONS PER DAY. ASSUMING A PHOSPHORUS CONCENTRATION OF .000063 POUND PER GALLON, THE TOTAL PHOSPHORUS LOAD TO THE LAKE WOULD BE 31.3 POUNDS PER ACRE PER YEAR.



Coulee Lake, Grant County. From
U.S. Geological Survey, May 7, 1974.

CRATER LAKE GRANT COUNTY

LATITUDE 47°14'43" LONGITUDE 119°56'54" T20N-R23E-9
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1230. FT		
LAKE AREA	26. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	530. ACRE-FT		
MEAN DEPTH	20. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	45. FT		
SHORELINE LENGTH	1.6 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	2.2		
DEVELOPMENT OF VOLUME	0.45		
BOTTOM SLOPE	3.7 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

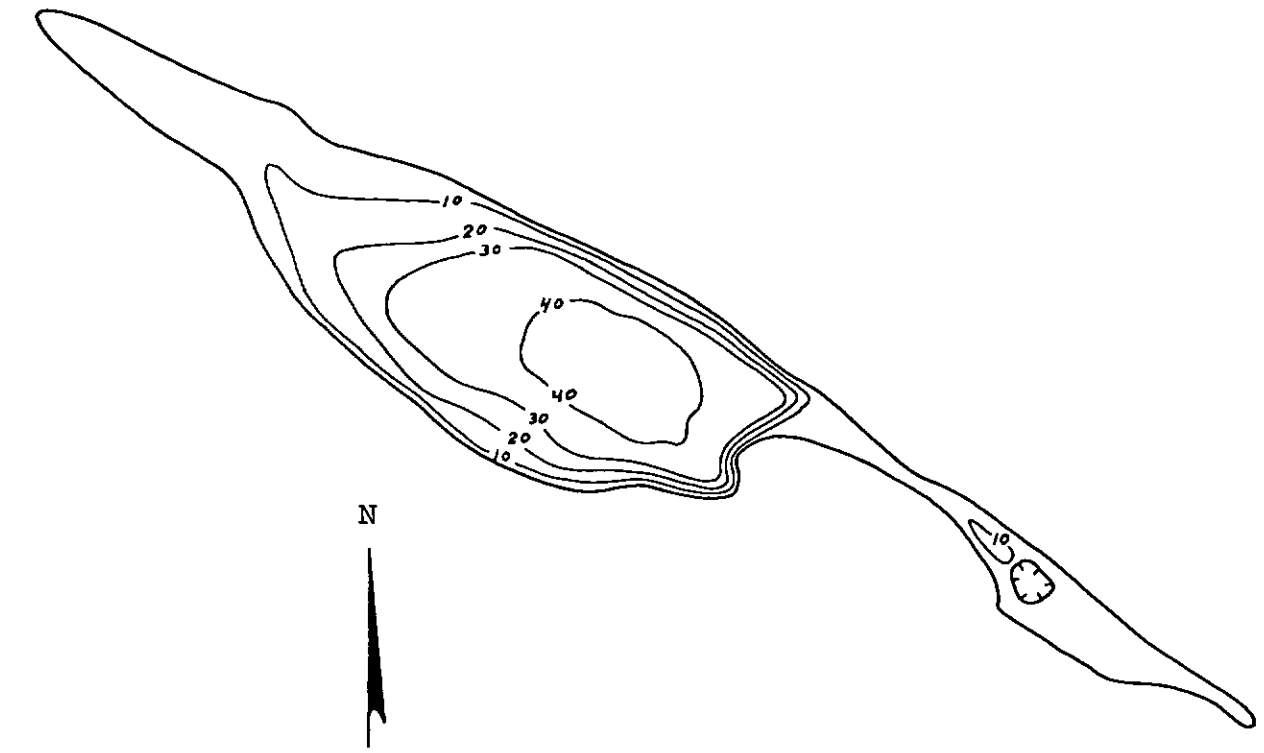
SAMPLE SITE	1	
DATE	6/10/74	
TIME	1200	1205
DEPTH (FT)	3.	36.
TOTAL NITRATE (N)	0.86	0.10
TOTAL NITRITE (N)	0.03	0.08
TOTAL AMMONIA (N)	0.11	1.4
TOTAL ORGANIC NITROGEN (N)	0.99	1.3
TOTAL PHOSPHORUS (P)	0.058	0.42
TOTAL ORTHOPHOSPHATE (P)	0.010	0.40
SPECIFIC CONDUCTANCE (MICROMHOS)	560	600
WATER TEMPERATURE (DEG C)	16.8	11.3
COLOR (PLATINUM-COBALT UNITS)	--	--
SECCHI-DISC VISIBILITY (FT)	5	
DISSOLVED OXYGEN	14.1	0.1

LAKE SHORELINE COVERED BY EMERSED PLANTS	26- 50 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	6/10/74
TIME	1233
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	59
FECAL COLIFORM, MEAN (COL./100ML)	20

REMARKS

THE LAKE FORMED ABOUT 1955 FROM IRRIGATION RUNOFF WATER AND SEEPAGE. VERY FEW SUBMERSED AQUATIC PLANTS WERE OBSERVED. HYDROGEN SULFIDE WAS DETECTED IN THE HYPOLIMNION. THE WATER SAMPLES WERE TOO MURKY FOR A DETERMINATION OF COLOR. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE LAKE IS AFFECTED BY IRRIGATION WATER FROM OUTSIDE THE NATURAL DRAINAGE AREA.



0 1000 2000 FEET

EXPLANATION

— 20 —
Line of equal
water depth
Interval 10 feet

Crater Lake, Grant County. From
U.S. Geological Survey, March 3, 1975.

CRESCENT BAY LAKE GRANT COUNTY

LATITUDE 47°56'15" LONGITUDE 118°59'30" T28N-R30E-12
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	0.72 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1260. FT		
LAKE AREA	90. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	4100. ACRE-FT		
MEAN DEPTH	46. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	140. FT		
SHORELINE LENGTH	2.4 MI	RESIDENTIAL URBAN	21 %
SHORELINE CONFIGURATION	1.8	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.32	AGRICULTURAL	0 %
BOTTOM SLOPE	6.4 %	FOREST OR UNPRODUCTIVE	59 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	20 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

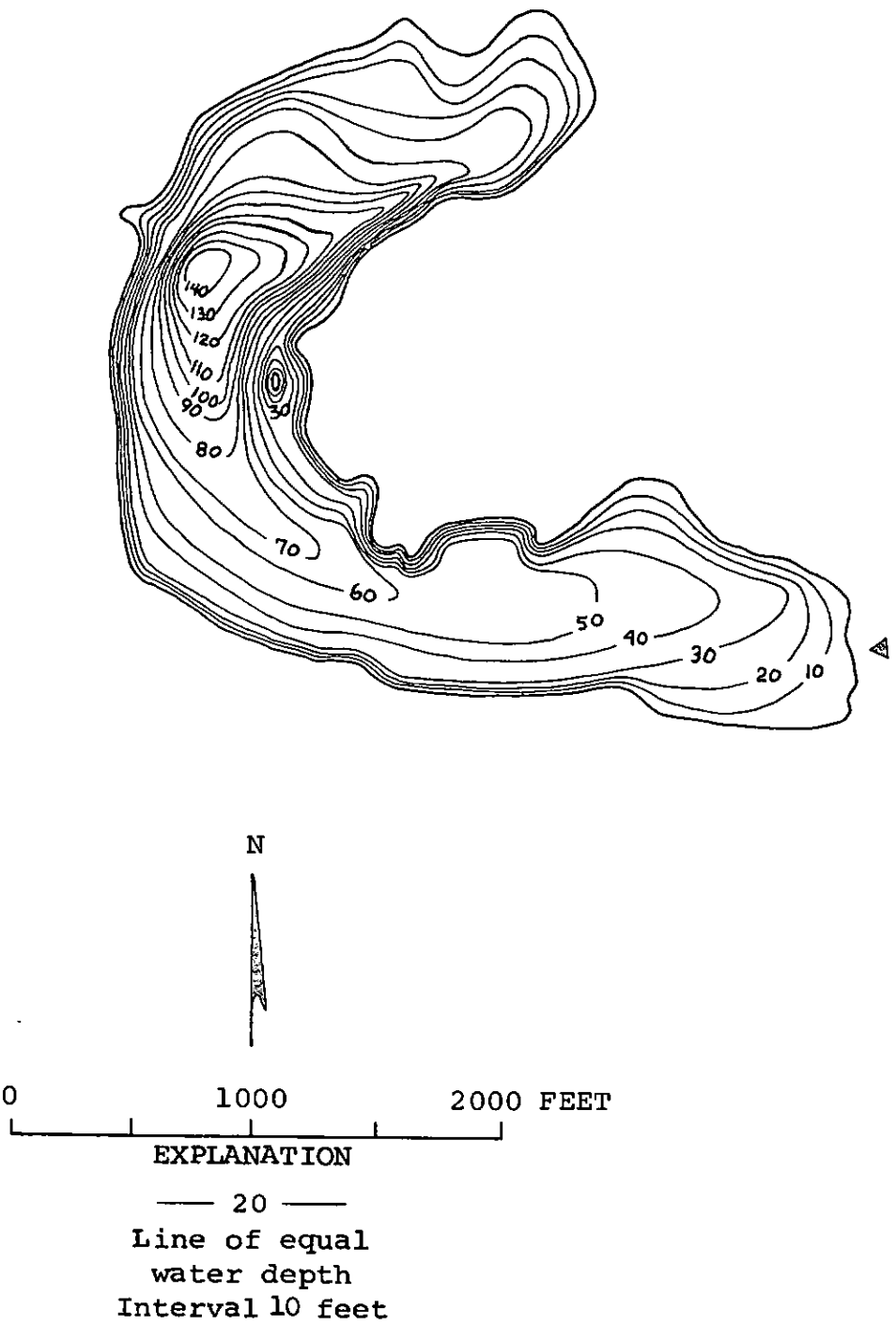
SAMPLE SITE	1	
DATE	6/14/74	
TIME	945	950
DEPTH (FT)	3.	144.
TOTAL NITRATE (N)	0.27	0.04
TOTAL NITRITE (N)	0.03	0.00
TOTAL AMMONIA (N)	0.29	3.8
TOTAL ORGANIC NITROGEN (N)	0.91	0.80
TOTAL PHOSPHORUS (P)	1.5	3.2
TOTAL ORTHOPHOSPHATE (P)	1.5	3.1
SPECIFIC CONDUCTANCE (MICROMHOS)	420	580
WATER TEMPERATURE (DEG C)	21.2	4.1
COLOR (PLATINUM-COBALT UNITS)	5	10
SECCHI-DISC VISIBILITY (FT)	14	
DISSOLVED OXYGEN	9.9	0.1

LAKE SHORELINE COVERED BY EMERSED PLANTS	11- 25 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/14/74
TIME	1002
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	1
FECAL COLIFORM, MAXIMUM (COL./100ML)	6
FECAL COLIFORM, MEAN (COL./100ML)	4

REMARKS

AN ARTIFICIAL LAKE FORMED BY DIKING AN ARM OF FDR LAKE (COLUMBIA RIVER). THE ENTIRE BOTTOM WAS COVERED WITH SUBMERSED AQUATIC PLANTS (PONDWEED AND WATER MILFOIL). HYDROGEN SULFIDE WAS DETECTED IN THE HYPOLIMNION. THE WASHINGTON DEPT. OF ECOLOGY WASTE-WATER DISCHARGE MASTER REPORT INDICATES A MUNICIPAL WASTE DISCHARGE TO CRESCENT BAY LAKE AVERAGING 120,000 GALLONS PER DAY. ASSUMING A PHOSPHORUS CONCENTRATION OF .000063 POUND PER GALLON, THE TOTAL PHOSPHORUS LOAD TO THE LAKE WOULD BE 30.5 POUNDS PER ACRE PER YEAR.



Crescent Bay Lake, Grant County. From Washington Department of Game, November 14, 1960.

DEEP LAKE GRANT COUNTY

LATITUDE 47°35'18" LONGITUDE 119°20'21" T24N-R28E-8
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	3.43 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1232. FT		
LAKE AREA	110. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	7800. ACRE-FT		
MEAN DEPTH	73. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	120. FT		
SHORELINE LENGTH	3.4 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.3	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.63	AGRICULTURAL	66 %
BOTTOM SLOPE	4.7 %	FOREST OR UNPRODUCTIVE	29 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	5 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

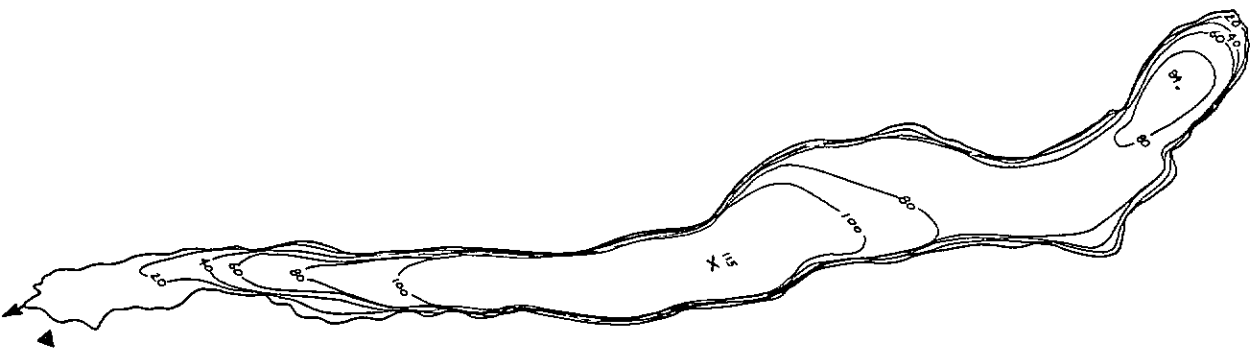
SAMPLE SITE	1	
DATE	6/ 4/74	
TIME	1130	1135
DEPTH (FT)	3.	108.
TOTAL NITRATE (N)	0.00	0.01
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.05	0.36
TOTAL ORGANIC NITROGEN (N)	0.09	0.14
TOTAL PHOSPHORUS (P)	0.009	0.075
TOTAL ORTHOPHOSPHATE (P)	0.001	0.067
SPECIFIC CONDUCTANCE (MICROMHOS)	290	290
WATER TEMPERATURE (DEG C)	15.1	6.5
COLOR (PLATINUM-COBALT UNITS)	5	5
SECCHI-DISC VISIBILITY (FT)	38	
DISSOLVED OXYGEN	9.6	3.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/ 4/74
TIME	1130
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	30
FECAL COLIFORM, MEAN (COL./100ML)	9

REMARKS

VERY FEW AQUATIC MACROPHYTES WERE OBSERVED. RECREATIONAL USE OF THE LAKE IS HEAVY. THE LIMNOLOGY OF DEEP LAKE WAS DESCRIBED BY FRIEDMAN AND REDFIELD (1971).



N

0 1000 2000 FEET

EXPLANATION

— 40 —

Line of equal
water depth
Interval 20 feet

Deep Lake, Grant County. From Washington Department of Game, January 14, 1949.

DRY FALLS LAKE GRANT COUNTY

LATITUDE 47°36' 1" LONGITUDE 119°21'59" T24N-R27E-1
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	7.87 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1207. FT		
LAKE AREA	99. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	980. ACRE-FT		
MEAN DEPTH	10. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	30. FT		
SHORELINE LENGTH	3.8 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.7	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.33	AGRICULTURAL	8 %
BOTTOM SLOPE	1.3 %	FOREST OR UNPRODUCTIVE	90 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	2 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1	
DATE	6/ 3/74	
TIME	1830	1835
DEPTH (FT)	3.	26.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.00	0.01
TOTAL AMMONIA (N)	0.06	0.09
TOTAL ORGANIC NITROGEN (N)	0.44	0.41
TOTAL PHOSPHORUS (P)	0.032	0.038
TOTAL ORTHOPHOSPHATE (P)	0.001	0.003
SPECIFIC CONDUCTANCE (MICROMHOS)	510	540
WATER TEMPERATURE (DEG C)	17.5	13.2
COLOR (PLATINUM-COBALT UNITS)	5	1
SECCHI-DISC VISIBILITY (FT)	16	
DISSOLVED OXYGEN	10.1	3.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	6/ 3/74
TIME	1830
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	2
FECAL COLIFORM, MAXIMUM (COL./100ML)	6
FECAL COLIFORM, MEAN (COL./100ML)	4

REMARKS

THE LAKE IS IN SUN LAKES STATE PARK AT THE BASE OF HIGH BASALT CLIFFS AND IS STABILIZED BY A LOW DAM. THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (CATTAIL AND SEDGE) AND THE ENTIRE BOTTOM WAS COVERED WITH SUBMERSED AQUATIC PLANTS (CHARA). RECREATIONAL USE OF THE LAKE IS HEAVY. THE LAKE SUPPORTS A LARGE WATERFLOWL POPULATION. THE LIMNOLOGY OF DRY FALLS LAKE WAS DESCRIBED BY FRIEDMAN AND REDFIELD (1971).

Dry Falls Lake, Grant County. From
Washington Department of Game, February 1, 1951.

Dry Falls Lake, Grant County. June 1, 1970. Approx. scale 1:63,000.

DUSTY LAKE GRANT COUNTY

LATITUDE 47° 8' 9" LONGITUDE 119°56'38" T19N-R23E-16
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	832. FT		
LAKE AREA	56. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	2600. ACRE-FT		
MEAN DEPTH	46. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	100. FT		
SHORELINE LENGTH	1.6 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	1.6		
DEVELOPMENT OF VOLUME	0.45		
BOTTOM SLOPE	5.8 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

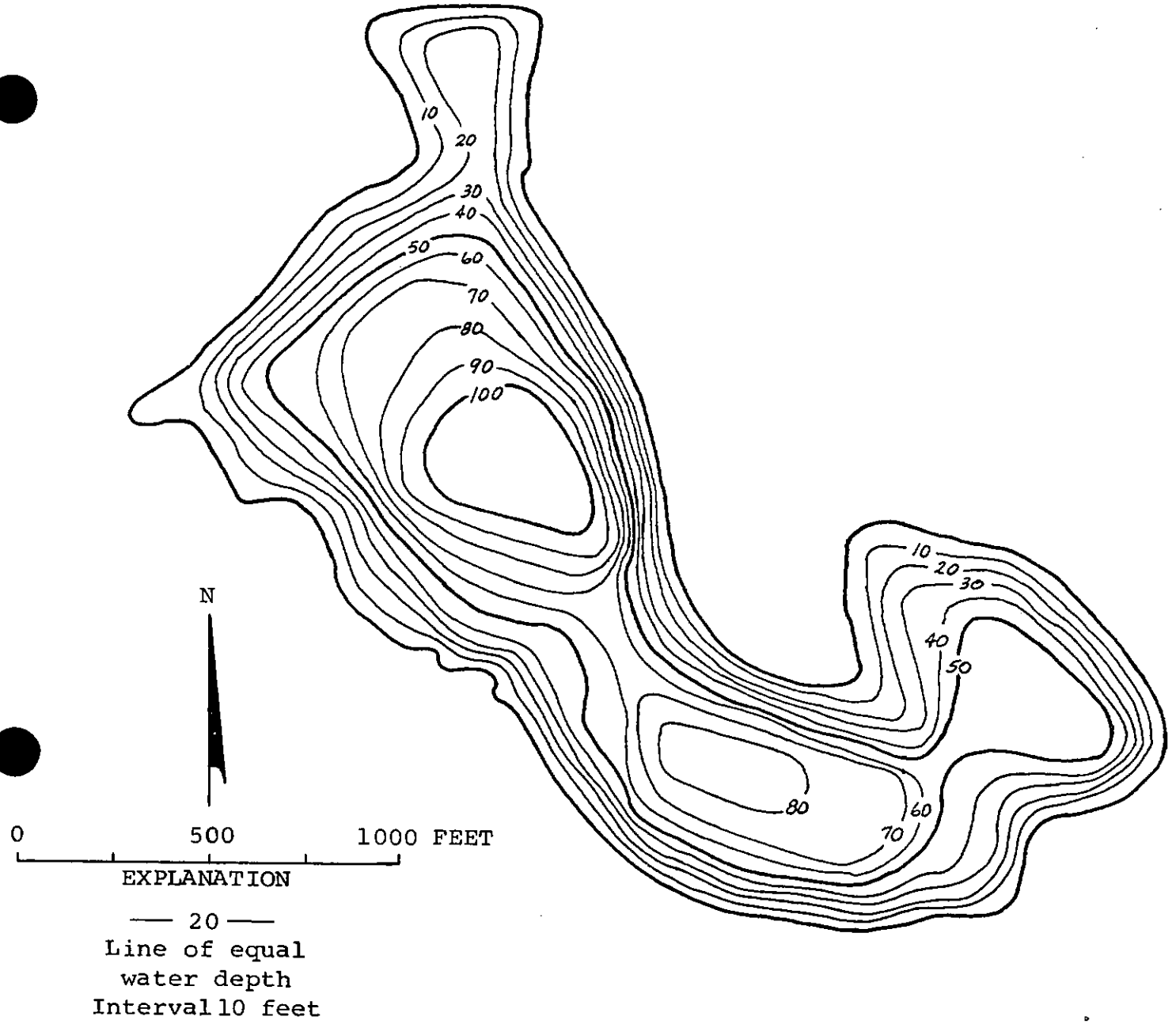
SAMPLE SITE	1	
DATE	6/11/74	
TIME	1200	1205
DEPTH (FT)	3.	56.
TOTAL NITRATE (N)	0.00	0.04
TOTAL NITRITE (N)	0.00	0.01
TOTAL AMMONIA (N)	0.03	0.17
TOTAL ORGANIC NITROGEN (N)	0.25	0.25
TOTAL PHOSPHORUS (P)	0.032	0.058
TOTAL ORTHOPHOSPHATE (P)	0.003	0.047
SPECIFIC CONDUCTANCE (MICROMHOS)	400	420
WATER TEMPERATURE (DEG C)	19.0	6.4
COLOR (PLATINUM-COBALT UNITS)	0	0
SECCHI-DISC VISIBILITY (FT)	15	
DISSOLVED OXYGEN	10.1	4.4

LAKE SHORELINE COVERED BY EMERSED PLANTS	LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/11/74
TIME	1233
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	9
FECAL COLIFORM, MEAN (COL./100ML)	3

REMARKS

THE LAKE IS AT THE BASE OF HIGH BASALT CLIFFS. THE ALGAL DENSITY WAS HIGH. VERY FEW AQUATIC MACROPHYTES WERE OBSERVED. LARGE WATER-LEVEL FLUCTUATIONS ARE COMMON IN THIS LAKE. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE IRRIGATION WATER IS IMPORTED FROM OUTSIDE THE NATURAL DRAINAGE AREA.



Dusty Lake, Grant County. From
U.S. Geological Survey, May 6, 1974.

EPHRATA LAKE GRANT COUNTY

LATITUDE 47°19'58" LONGITUDE 119°27'51" T21N-R27E-8
CRAB CREEK BASIN

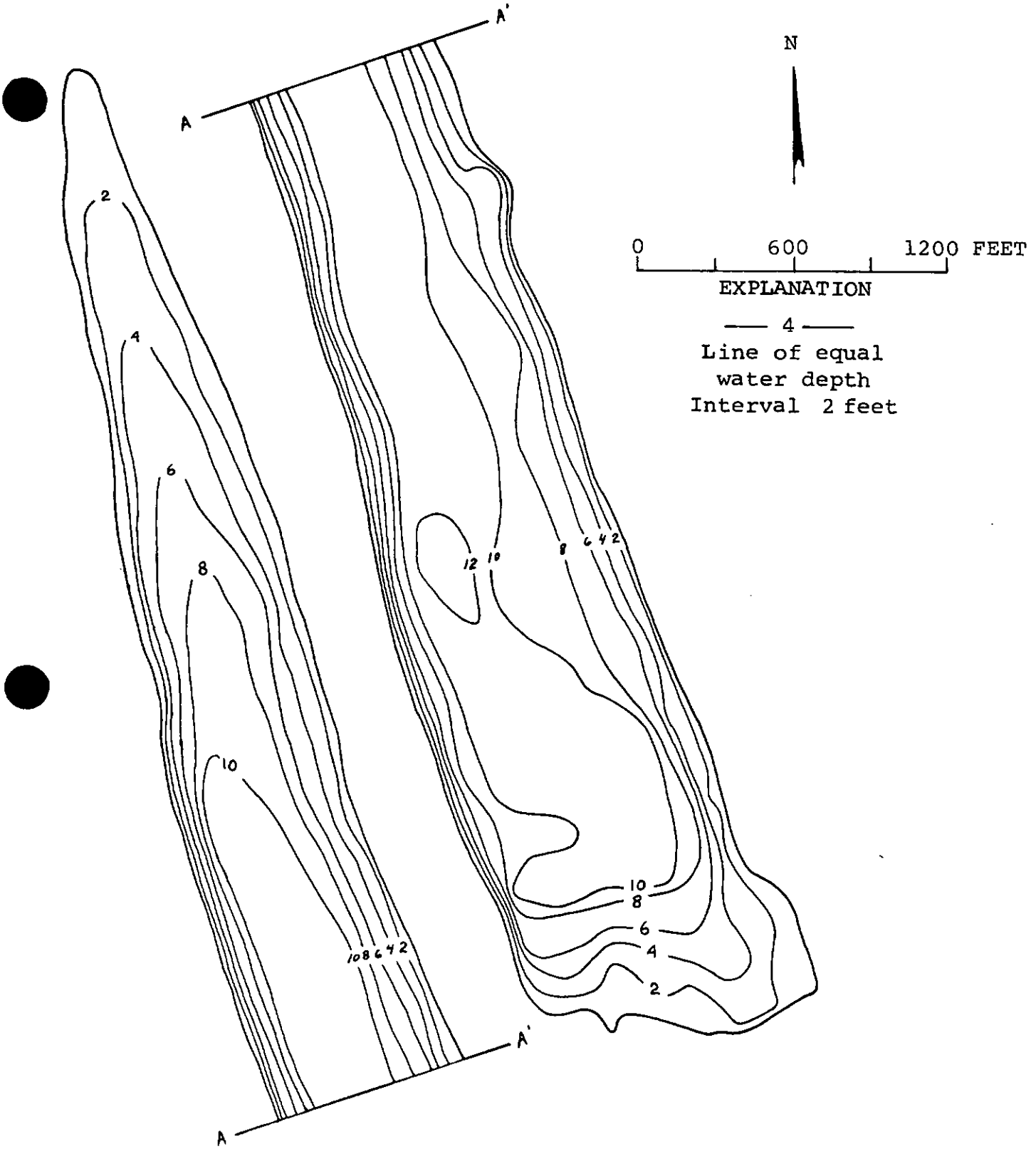
PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	9.54 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1128. FT		
LAKE AREA	140. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	970. ACRE-FT		
MEAN DEPTH	7. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	13. FT		
SHORELINE LENGTH	3.3 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.0	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.53	AGRICULTURAL	98 %
BOTTOM SLOPE	0.47 %	FOREST OR UNPRODUCTIVE	0 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	2 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1	
DATE	6/ 6/74	
TIME	1015	1020
DEPTH (FT)	3.	10.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.05	0.05
TOTAL ORGANIC NITROGEN (N)	1.2	1.1
TOTAL PHOSPHORUS (P)	0.034	0.037
TOTAL ORTHOPHOSPHATE (P)	0.005	0.006
SPECIFIC CONDUCTANCE (MICROMHOS)	1150	1100
WATER TEMPERATURE (DEG C)	16.8	16.8
COLOR (PLATINUM-COBALT UNITS)	5	10
SECCHI-DISC VISIBILITY (FT)	13	
DISSOLVED OXYGEN	8.7	8.8
LAKE SHORELINE COVERED BY EMERSED PLANTS	11- 25 %	
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %	
DATE	6/ 6/74	
TIME	1030	
NUMBER OF FECAL COLIFORM SAMPLES	3	
FECAL COLIFORM, MINIMUM (COL./100ML)	3	
FECAL COLIFORM, MAXIMUM (COL./100ML)	25	
FECAL COLIFORM, MEAN (COL./100ML)	12	

REMARKS

THE LAKE FORMED ABOUT 1961 FROM IRRIGATION SEEPAGE. THE ENTIRE BOTTOM WAS COVERED WITH SUBMERSED AQUATIC PLANTS. THE DO CONCENTRATION WAS HIGH THROUGHOUT THE ENTIRE WATER COLUMN.



Ephrata Lake, Grant County. From
U.S. Geological Survey, March 3, 1975.

Ephrata Lake, Grant County. June 1, 1970. Approx. scale 1:63,000.

EVERGREEN LAKE GRANT COUNTY

LATITUDE 47* 7'17" LONGITUDE 119*55'18" T19N-R23E-22
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1200. FT		
LAKE AREA	250. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	4700. ACRE-FT		
MEAN DEPTH	19. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	55. FT		
SHORELINE LENGTH	8.0 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	3.6		
DEVELOPMENT OF VOLUME	0.34		
BOTTOM SLOPE	1.5 %		
BASIN GEOLOGY	IGNFOUS		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

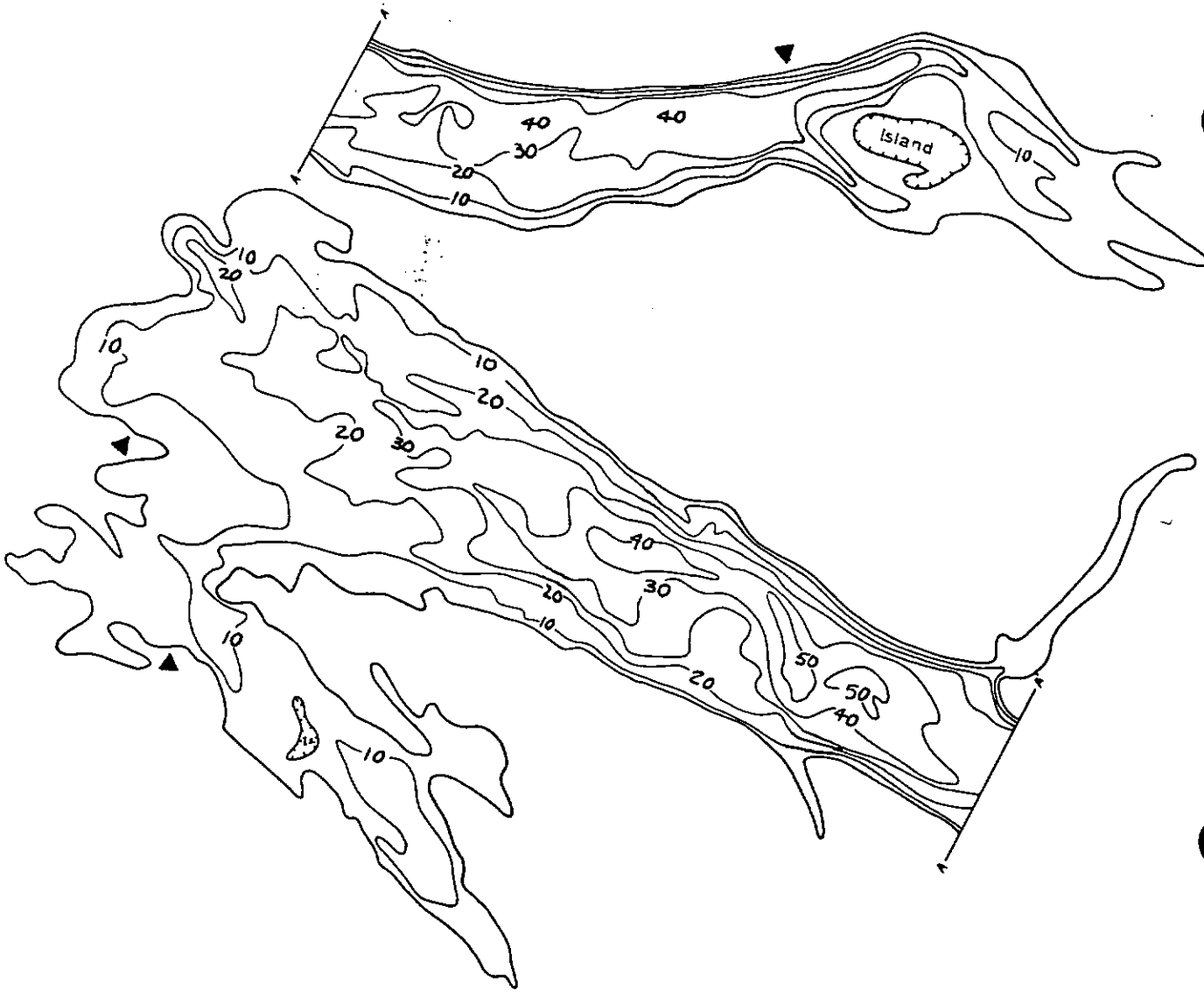
SAMPLE SITE	1	
DATE	6/11/74	
TIME	1045	1050
DEPTH (FT)	3.	30.
TOTAL NITRATE (N)	0.01	0.02
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.02	0.04
TOTAL ORGANIC NITROGEN (N)	0.20	0.18
TOTAL PHOSPHORUS (P)	0.036	0.016
TOTAL ORTHOPHOSPHATE (P)	0.005	0.006
SPECIFIC CONDUCTANCE (MICROMHOS)	180	180
WATER TEMPERATURE (DEG C)	17.3	14.5
COLOR (PLATINUM-COBALT UNITS)	0	0
SECCHI-DISC VISIBILITY (FT)	11	
DISSOLVED OXYGEN	10.2	8.9

LAKE SHORELINE COVERED BY EMERSED PLANTS	LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/11/74
TIME	1100
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	1
FECAL COLIFOPM, MEAN (COL./100ML)	<1

REMARKS

AN IRRIGATION RESERVOIR BUILT BY THE U.S. BUREAU OF RECLAMATION ABOUT 1950. VERY FEW EMERSED AQUATIC PLANTS WERE OBSERVED. THE DO CONCENTRATION WAS HIGH THROUGHOUT THE ENTIRE WATER COLUMN. RECREATIONAL USE OF THE LAKE IS HEAVY. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE IRRIGATION WATER IS IMPORTED FROM OUTSIDE THE NATURAL DRAINAGE AREA.



Evergreen Lake, Grant County. From
U.S. Geological Survey, March 10, 1975.

FLAT LAKE GRANT COUNTY

LATITUDE 47° 8' 2" LONGITUDE 119°52'43" T19N-R23E-13
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1210. FT		
LAKE AREA	130. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	350. ACRE-FT		
MEAN DEPTH	3. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	5. FT		
SHORELINE LENGTH	4.8 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	3.0		
DEVELOPMENT OF VOLUME	0.53		
BOTTOM SLOPE	0.19 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

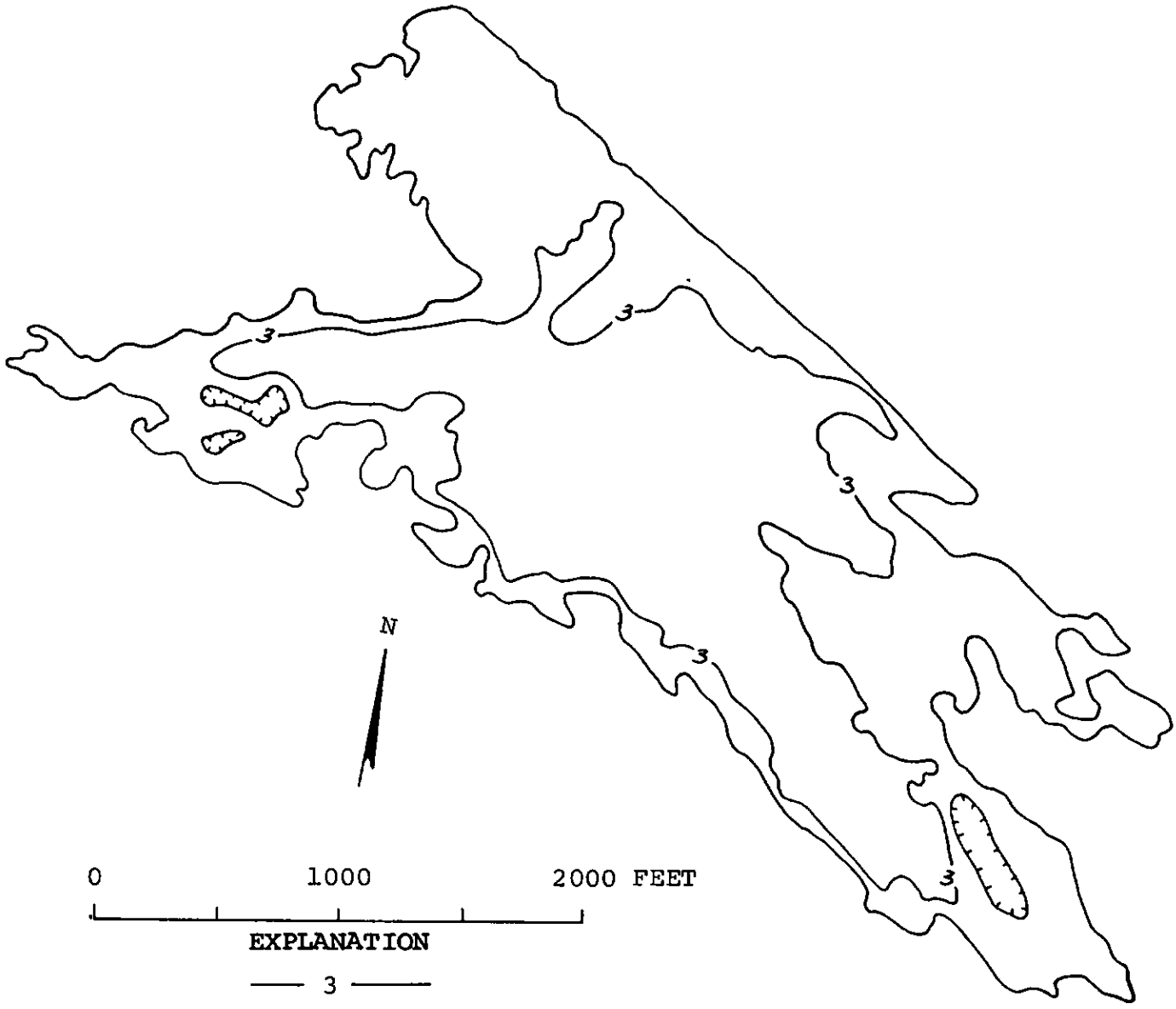
SAMPLE SITE	1	
DATE	6/11/74	
TIME	1430	1435
DEPTH (FT)	3.	5.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.01	0.01
TOTAL ORGANIC NITROGEN (N)	0.76	0.65
TOTAL PHOSPHORUS (P)	0.024	0.030
TOTAL ORTHOPHOSPHATE (P)	0.003	0.003
SPECIFIC CONDUCTANCE (MICROMHOS)	375	375
WATER TEMPERATURE (DEG C)	21.0	19.8
COLOR (PLATINUM-COBALT UNITS)	10	10
SECCHI-DISC VISIBILITY (FT)	5	
DISSOLVED OXYGEN	14.7	16.1

LAKE SHOPELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/11/74
TIME	1500
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	10
FECAL COLIFORM, MAXIMUM (COL./100ML)	25
FECAL COLIFORM, MEAN (COL./100ML)	16

REMARKS

THE LAKE IS ADJACENT TO THE WEST CANAL AND FORMED FROM IRRIGATION WATER RUNOFF AND SEEPAGE. THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (CATTAIL AND SEDGE) AND THE ENTIRE BOTTOM WAS COVERED WITH SUBMERSED AQUATIC PLANTS (PONDWEED). A LARGE AMOUNT OF FILAMENTOUS GREEN ALGAE WAS OBSERVED. THE LITTORAL BOTTOM IS SILT AND MUCK. THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE LAKE IS AFFECTED BY IRRIGATION WATER IMPORTED FROM OUTSIDE THE NATURAL DRAINAGE AREA.



Flat Lake, Grant County. From
U.S. Geological Survey, March 3, 1975.

FRENCHMAN HILLS LAKE GRANT COUNTY

LATITUDE 47°58'42" LONGITUDE 119°34' 4" T17N-R26E-8
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1100. FT		
LAKE AREA	800. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	-- ACRE-FT		
MEAN DEPTH	-- FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	-- FT		
SHORELINE LENGTH	-- MI	NOT DETERMINED	
SHORELINE CONFIGURATION	--		
DEVELOPMENT OF VOLUME	--		
BOTTOM SLOPE	-- %		
BASIN GEOLOGY	SED./META.		
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1	
DATE	6/11/74	
TIME	1335	1340
DEPTH (FT)	3.	5.
TOTAL NITRATE (N)	0.88	0.92
TOTAL NITRITE (N)	0.02	0.02
TOTAL AMMONIA (N)	0.04	0.03
TOTAL ORGANIC NITROGEN (N)	0.29	0.40
TOTAL PHOSPHORUS (P)	0.10	0.10
TOTAL ORTHOPHOSPHATE (P)	0.054	0.053
SPECIFIC CONDUCTANCE (MICROMHOS)	440	440
WATER TEMPERATURE (DEG C)	19.0	18.3
COLOR (PLATINUM-COBALT UNITS)	5	5
SECCHI-DISC VISIBILITY (FT)	2	
DISSOLVED OXYGEN	9.4	9.3

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/11/74
TIME	1352
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	2
FECAL COLIFORM, MAXIMUM (COL./100ML)	48
FECAL COLIFORM, MEAN (COL./100ML)	19

REMARKS

NUMEROUS PONDS AND LAKES FORMED BY THE ENLARGEMENT OF THE FRENCHMAN HILLS WASTEWAY AND WATER FROM WEST CANAL. THE LITTORAL BOTTOM IS SILT AND MUCK BUT VERY FEW SUBMERSED AQUATIC PLANTS WERE OBSERVED. BATHYMETRIC DATA ARE NOT AVAILABLE. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE LAKE IS AFFECTED BY IRRIGATION WATER IMPORTED FROM OUTSIDE THE NATURAL DRAINAGE AREA.

GOOSE, LOWER LAKE GRANT COUNTY

LATITUDE 46°55' 8" LONGITUDE 119°16'58" T17N-R28E-34
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	856. FT		
LAKE AREA	50. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	1300. ACRE-FT		
MEAN DEPTH	25. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	75. FT		
SHORELINE LENGTH	2.1 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	2.2		
DEVELOPMENT OF VOLUME	0.33		
BOTTOM SLOPE	4.5 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

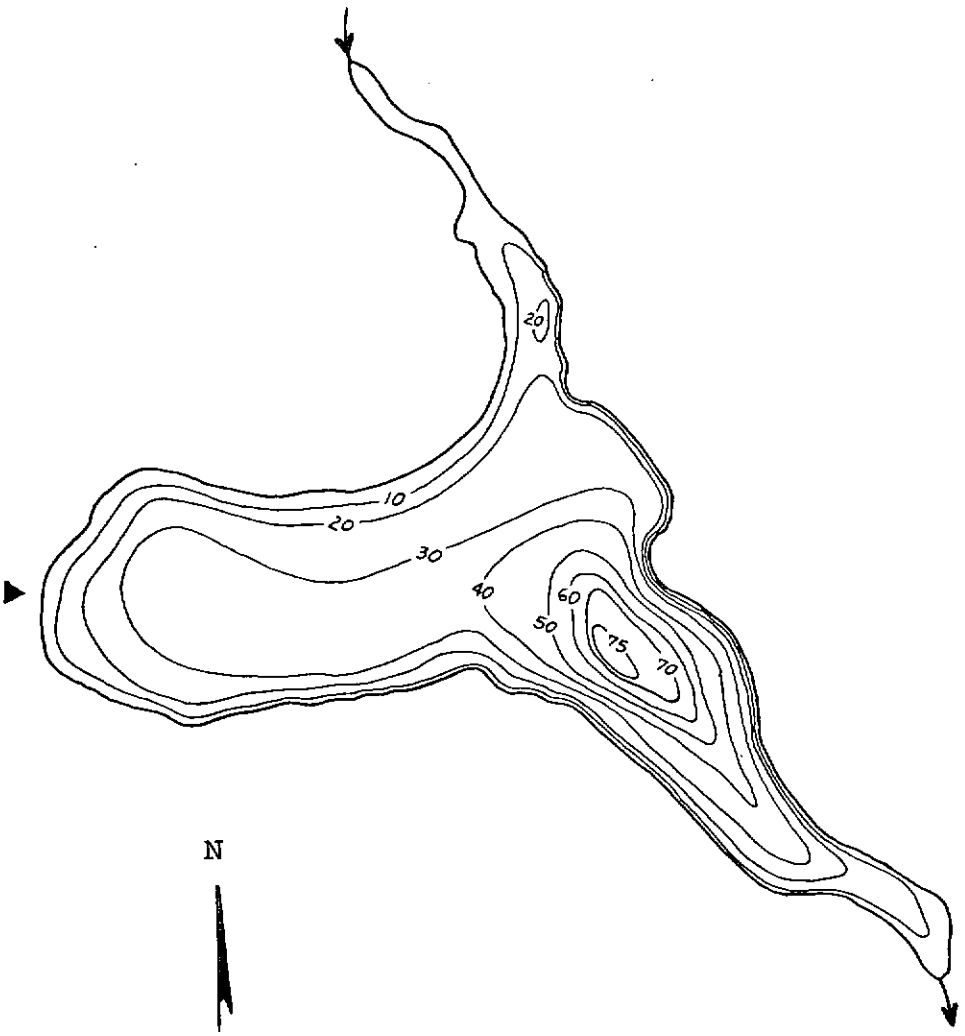
SAMPLE SITE	1	
DATE	5/29/74	
TIME	1600	1605
DEPTH (FT)	3.	56.
TOTAL NITRATE (N)	0.01	0.15
TOTAL NITRITE (N)	0.01	0.03
TOTAL AMMONIA (N)	0.05	1.0
TOTAL ORGANIC NITROGEN (N)	0.33	0.40
TOTAL PHOSPHORUS (P)	0.024	0.19
TOTAL ORTHOPHOSPHATE (P)	0.005	0.17
SPECIFIC CONDUCTANCE (MICROMHOS)	250	650
WATER TEMPERATURE (DEG C)	17.8	7.0
COLOR (PLATINUM-COBALT UNITS)	5	5
SECCHI-DISC VISIBILITY (FT)	5	
DISSOLVED OXYGEN	11.8	0.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	5/29/74
TIME	1600
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFOPM, MAXIMUM (COL./100ML)	5
FECAL COLIFORM, MEAN (COL./100ML)	2

REMARKS

THE LAKE IS FED LARGELY BY WATER FROM WEST CANAL AND IS STABILIZED BY A DAM AT THE SOUTH END. VERY FEW AQUATIC MACROPHYTES WERE OBSERVED. THE LAKE IS SEPARATED FROM UPPER GOOSE LAKE BY A LOW DIKE. HYDROGEN SULFIDE WAS DETECTED IN THE HYPOLIMNION. THE LIMNOLOGY OF LOWER GOOSE LAKE WAS DESCRIBED BY WALKER (1974). THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE LAKE IS AFFECTED BY IRRIGATION WATER IMPORTED FROM OUTSIDE THE NATURAL DRAINAGE AREA.



Goose, Lower Lake, Grant County. From
Washington Department of Game, June 9, 1953.

Goose, Lower Lake, Grant County. June 1, 1970. Approx. scale 1:63,000.

GOOSE, UPPER LAKE GRANT COUNTY

LATITUDE 46°55'55" LONGITUDE 119°17'20" T17N-R28E-27
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	858. FT		
LAKE AREA	110. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	5000. ACRE-FT		
MEAN DEPTH	45. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	95. FT		
SHORELINE LENGTH	2.9 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	1.9		
DEVELOPMENT OF VOLUME	0.47		
BOTTOM SLOPE	3.8 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

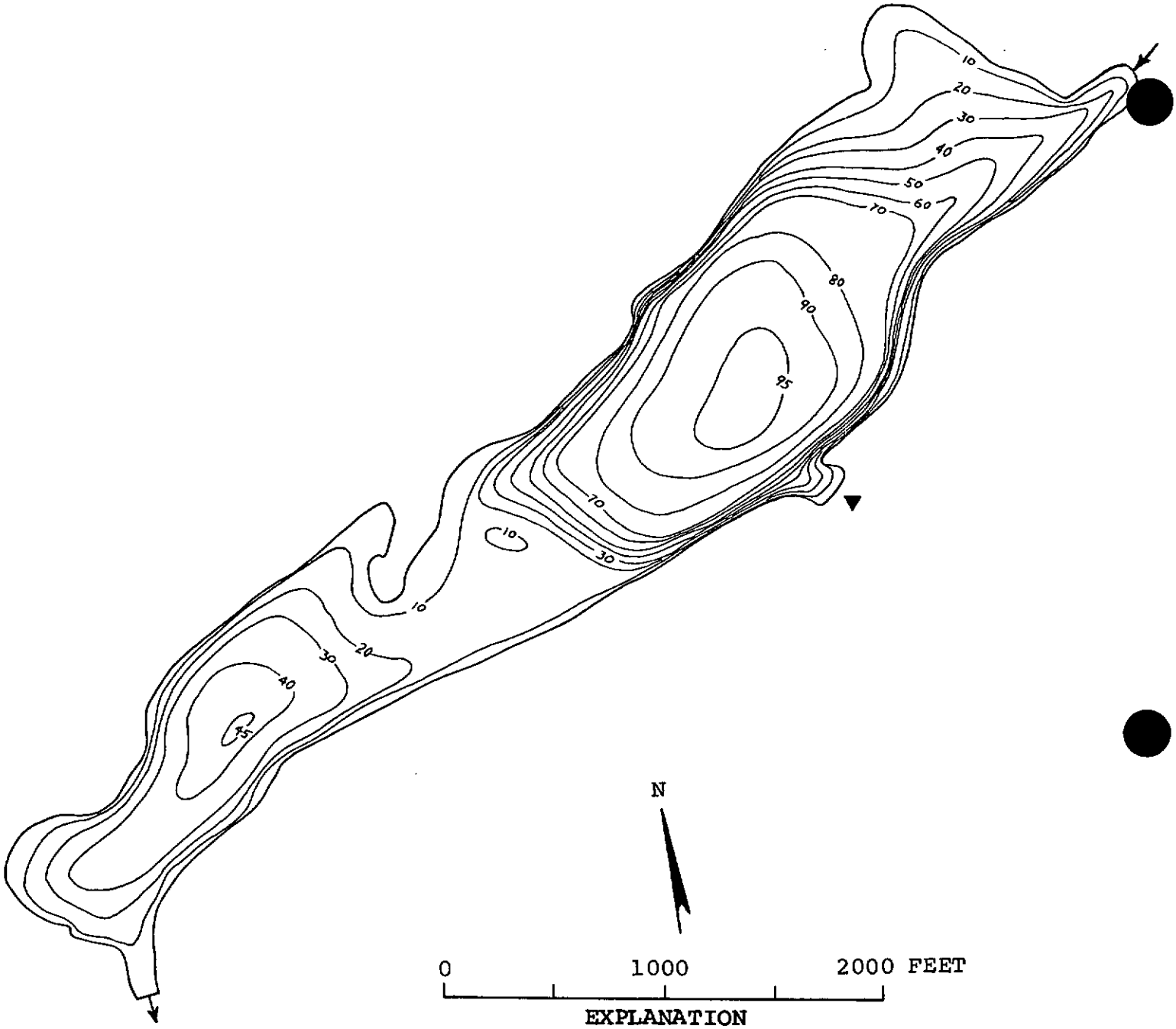
SAMPLE SITE	1	
DATE	5/30/74	
TIME	1500	1505
DEPTH (FT)	3.	98.
TOTAL NITRATE (N)	0.09	0.03
TOTAL NITRITE (N)	0.01	0.02
TOTAL AMMONIA (N)	0.06	26.
TOTAL ORGANIC NITROGEN (N)	0.48	2.0
TOTAL PHOSPHORUS (P)	0.016	6.6
TOTAL ORTHOPHOSPHATE (P)	0.002	6.6
SPECIFIC CONDUCTANCE (MICROMHOS)	800	4000
WATER TEMPERATURE (DEG C)	17.0	6.0
COLOR (PLATINUM-COBALT UNITS)	5	--
SECCHI-DISC VISIBILITY (FT)	18	
DISSOLVED OXYGEN	10.8	0.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	5/30/74
TIME	1430
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	<1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

THE LAKE WAS BUILT ABOUT 1905 FOR IRRIGATION PURPOSES BY DIVERTING PART OF CRAB CREEK INTO A RELATIVELY DRY COULEE. THE LAKE IS FED IN PART BY WASTE WATER FROM WEST CANAL AND IS SEPARATED FROM LOWER GOOSE LAKE BY A LOW DIKE. VERY FEW AQUATIC MACROPHYTES WERE OBSERVED. HYDROGEN SULFIDE WAS DETECTED IN THE HYPOLIMNION. RECREATIONAL USE OF THE LAKE IS HEAVY. THE YELLOW TINT OF THE WATER FROM THE HYPOLIMNION MADE A COLOR DETERMINATION IMPOSSIBLE. IN 1975 THE U.S. GEOLOGICAL SURVEY WILL SAMPLE THE LAKE FOUR TIMES. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE LAKE IS AFFECTED BY IRRIGATION WATER IMPORTED FROM OUTSIDE THE NATURAL DRAINAGE AREA.



Goose, Upper Lake, Grant County. From
Washington Department of Game, June 8, 1953.

Goose, Upper Lake, Grant County. June 1, 1970. Approx. scale 1:63,000.

HEART LAKE GRANT COUNTY

LATITUDE 46°55'44" LONGITUDE 119°11'16" T17N-R29E-28
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	4.23 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	980. FT		
LAKE AREA	27. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	940. ACRE-FT		
MEAN DEPTH	35. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	65. FT		
SHORELINE LENGTH	1.1 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.5	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.53	AGRICULTURAL	95 %
BOTTOM SLOPE	5.3 %	FOREST OR UNPRODUCTIVE	4 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

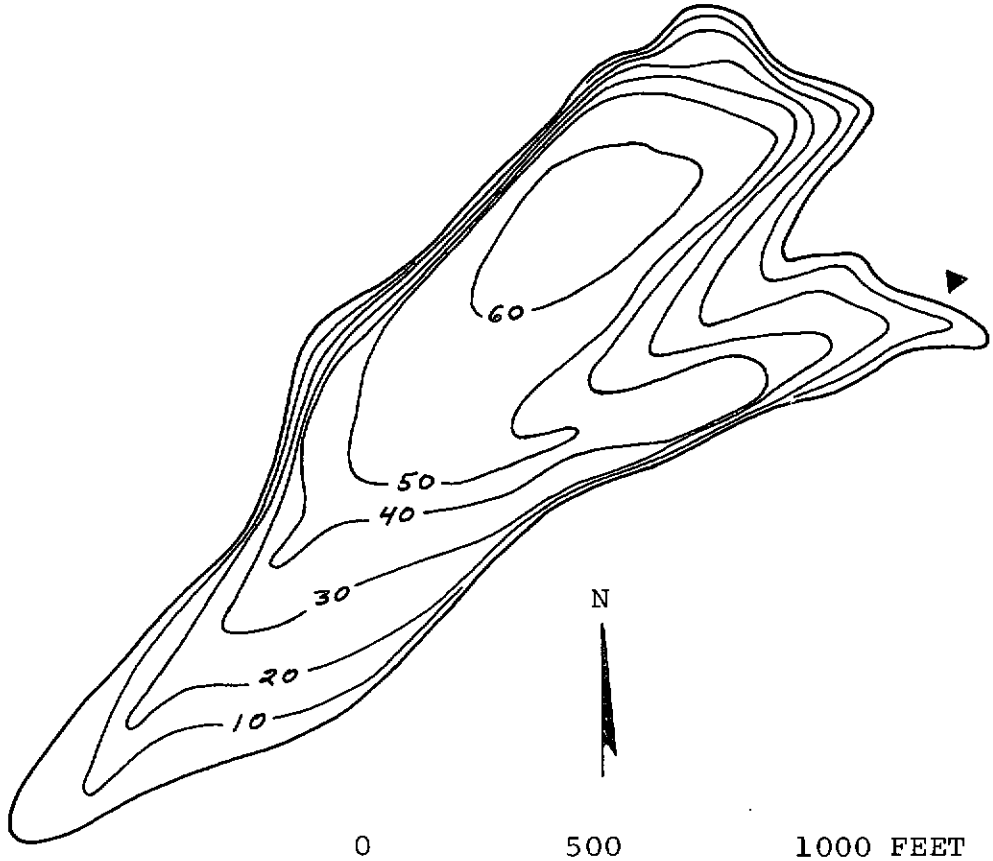
SAMPLE SITE	1	
DATE	5/28/74	
TIME	1230	1235
DEPTH (FT)	3.	43.
TOTAL NITRATE (N)	0.03	0.14
TOTAL NITRITE (N)	0.01	0.02
TOTAL AMMONIA (N)	0.05	0.30
TOTAL ORGANIC NITROGEN (N)	0.58	0.53
TOTAL PHOSPHORUS (P)	0.020	0.033
TOTAL ORTHOPHOSPHATE (P)	0.004	0.002
SPECIFIC CONDUCTANCE (MICROMHOS)	700	700
WATER TEMPERATURE (DEG C)	18.0	7.0
COLOR (PLATINUM-COBALT UNITS)	5	10
SECCHI-DISC VISIBILITY (FT)	11	
DISSOLVED OXYGEN	13.8	1.8

LAKE SHORELINE COVERED BY EMERSED PLANTS	LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	5/28/74
TIME	1230
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

THE LAKE IS SURROUNDED BY LOW BASALT CLIFFS. VERY FEW EMERSED AQUATIC PLANTS WERE OBSERVED. RECREATIONAL USE OF THE LAKE IS HEAVY. IN 1975 THE U.S. GEOLOGICAL SURVEY WILL SAMPLE THE LAKE FOUR TIMES.



Heart Lake, Grant County. From
U.S. Geological Survey, March 3, 1975.

HILLTOP LAKE GRANT COUNTY

LATITUDE 47° 2'13" LONGITUDE 119°56'54" T18N-R23E-21
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1220. FT		
LAKE AREA	36. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	180. ACRE-FT		
MEAN DEPTH	5. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	16. FT		
SHORELINE LENGTH	1.6 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	1.9		
DEVELOPMENT OF VOLUME	0.32		
BOTTOM SLOPE	1.1 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

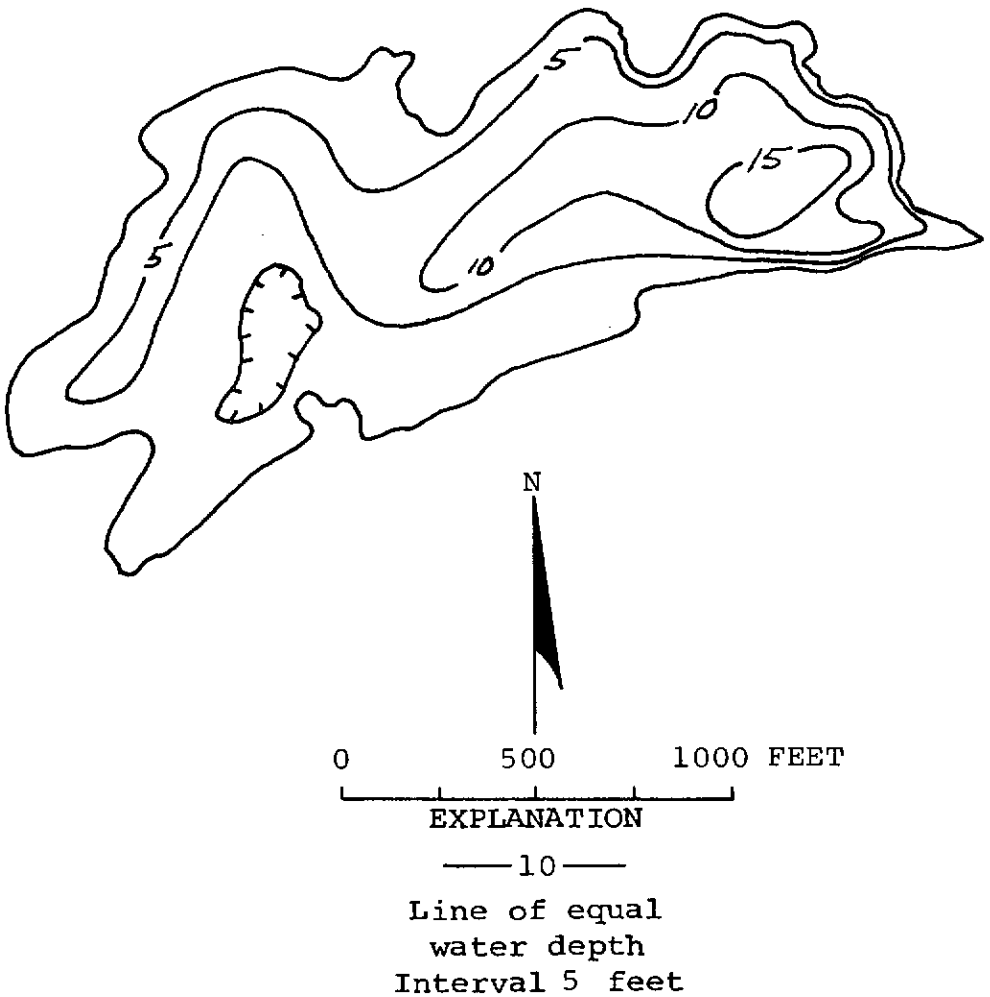
SAMPLE SITE	1	
DATE	6/10/74	
TIME	1325	1330
DEPTH (FT)	3.	7.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.06	0.08
TOTAL ORGANIC NITROGEN (N)	1.2	1.3
TOTAL PHOSPHORUS (P)	0.083	0.095
TOTAL ORTHOPHOSPHATE (P)	0.008	0.008
SPECIFIC CONDUCTANCE (MICROMHOS)	600	600
WATER TEMPERATURE (DEG C)	19.8	17.2
COLOR (PLATINUM-COBALT UNITS)	--	--
SECCHI-DISC VISIBILITY (FT)	3	
DISSOLVED OXYGEN	12.8	11.7

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	6/10/74
TIME	1233
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	2
FECAL COLIFORM, MEAN (COL./100ML)	1

REMARKS

THE LAKE FORMED FROM IRRIGATION RUNOFF WATER. AN ALGAL BLOOM WAS OBSERVED. APPROXIMATELY 80 PERCENT OF THE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (CATTAIL AND RUSHES). THE HIGH TURBIDITY OF THE WATER PREVENTED DETERMINATIONS OF COLOR. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE LAKE IS AFFECTED BY IRRIGATION WATER FROM OUTSIDE THE NATURAL DRAINAGE AREA.



Hilltop Lake, Grant County. From
U.S. Geological Survey, October 1, 1974.

LENICE LAKE GRANT COUNTY

LATITUDE 46°50'18" LONGITUDE 119°49'47" T16N-R24E-33
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	20.7 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	540. FT		
LAKE AREA	94. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	780. ACRE-FT		
MEAN DEPTH	8. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	23. FT		
SHORELINE LENGTH	2.3 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.7	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.36	AGRICULTURAL	97 %
BOTTOM SLOPE	1.0 %	FOREST OR UNPRODUCTIVE	2 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

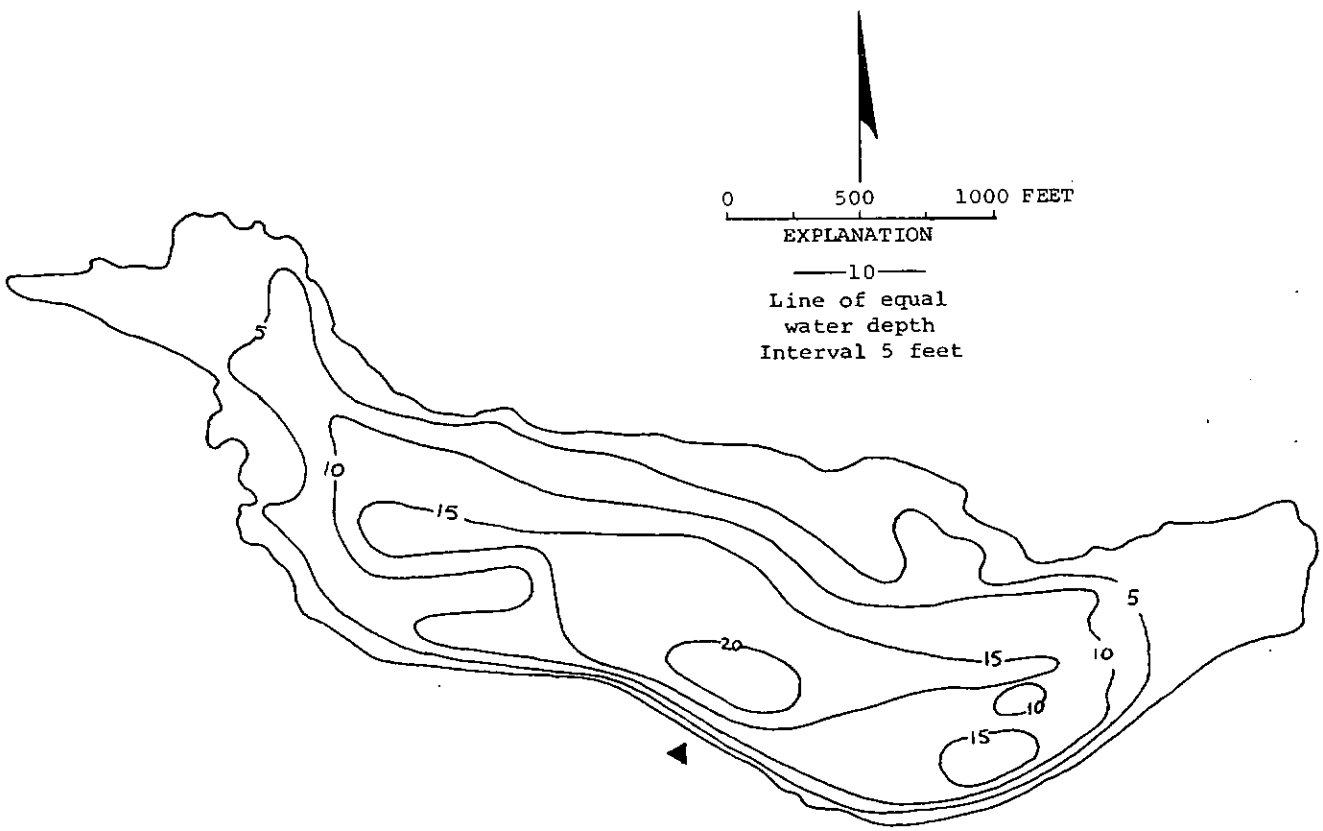
SAMPLE SITE	1	
DATE	5/30/74	
TIME	1300	1305
DEPTH (FT)	3.	11.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.06	0.07
TOTAL ORGANIC NITROGEN (N)	0.55	0.58
TOTAL PHOSPHORUS (P)	0.020	0.024
TOTAL ORTHOPHOSPHATE (P)	0.004	0.004
SPECIFIC CONDUCTANCE (MICROMHOS)	1000	1000
WATER TEMPERATURE (DEG C)	16.0	16.0
COLOR (PLATINUM-COBALT UNITS)	5	5
SECCHI-DISC VISIBILITY (FT)	>15	
DISSOLVED OXYGEN	9.7	9.6

LAKE SHORELINE COVERED BY EMERSED PLANTS	1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	5/30/74
TIME	1300
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	159
FECAL COLIFORM, MEAN (COL./100ML)	40

REMARKS

A RELATIVELY NEW LAKE THAT IS NOT SHOWN ON EXISTING TOPOGRAPHIC MAPS.
RECREATIONAL USE OF THE LAKE IS HEAVY.



Lenice Lake, Grant County. From
U.S. Geological Survey, September 24, 1974.

LENORE LAKE GRANT COUNTY

LATITUDE 47°27' 3" LONGITUDE 119°31'10" T23N-R26E-35
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	367. SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1074. FT		
LAKE AREA	1300. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	20000. ACRE-FT		
MEAN DEPTH	15. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	27. FT		
SHORELINE LENGTH	14. MI	NOT DETERMINED	
SHORELINE CONFIGURATION	2.8		
DEVELOPMENT OF VOLUME	0.57		
BOTTOM SLOPE	0.32 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1	
DATE	6/ 6/74	
TIME	1355	1400
DEPTH (FT)	3.	23.
TOTAL NITRATE (N)	0.01	0.00
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.07	0.07
TOTAL ORGANIC NITROGEN (N)	1.2	0.93
TOTAL PHOSPHORUS (P)	0.066	0.064
TOTAL ORTHOPHOSPHATE (P)	0.035	0.029
SPECIFIC CONDUCTANCE (MICROMHOS)	2500	1600
WATER TEMPERATURE (DEG C)	16.2	15.5
COLOR (PLATINUM-COBALT UNITS)	5	5
SECCHI-DISC VISIBILITY (FT)	8	
DISSOLVED OXYGEN	9.2	8.8

LAKE SHORELINE COVERED BY EMERSED PLANTS	LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/ 6/74
TIME	1420
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	<1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

A NATURAL, MINERALIZED LAKE THAT HAS BECOME LESS SALINE IN THE RECENT PAST. THE LAKE WAS ORIGINALLY A PART OF ALKALI LAKE BUT IS NOW SEPARATED FROM IT BY A SMALL DAM AND A HIGHWAY. THE PHYTOPLANKTON AND ZOOPLANKTON DENSITIES WERE MODERATELY HIGH. VERY FEW AQUATIC MACROPHYTES WERE OBSERVED. THE LAKE STAGE IS CONTROLLED BY PUMPING. THE U.S. GEOLOGICAL SURVEY HAS MONITORED THE LAKE STAGE SINCE 1938. THE LIMNOLGY OF LENORE LAKE WAS DESCRIBED BY ANDERSON (1958), BENNETT (1962), FRIEDMAN AND REDFIELD (1971), AND WALKER (1975).LAND USE WAS NOT DETERMINED BECAUSE OF THE SIZE OF THE DRAINAGE AREA.

LONG (17N-29E-32) LAKE GRANT COUNTY

LATITUDE 46°55'31" LONGITUDE 119°12' 3" T17N-R29E-32
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	996. FT		
LAKE AREA	73. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	1500. ACRE-FT		
MEAN DEPTH	21. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	94. FT		
SHORELINE LENGTH	3.5 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	2.9		
DEVELOPMENT OF VOLUME	0.22		
BOTTOM SLOPE	4.7 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

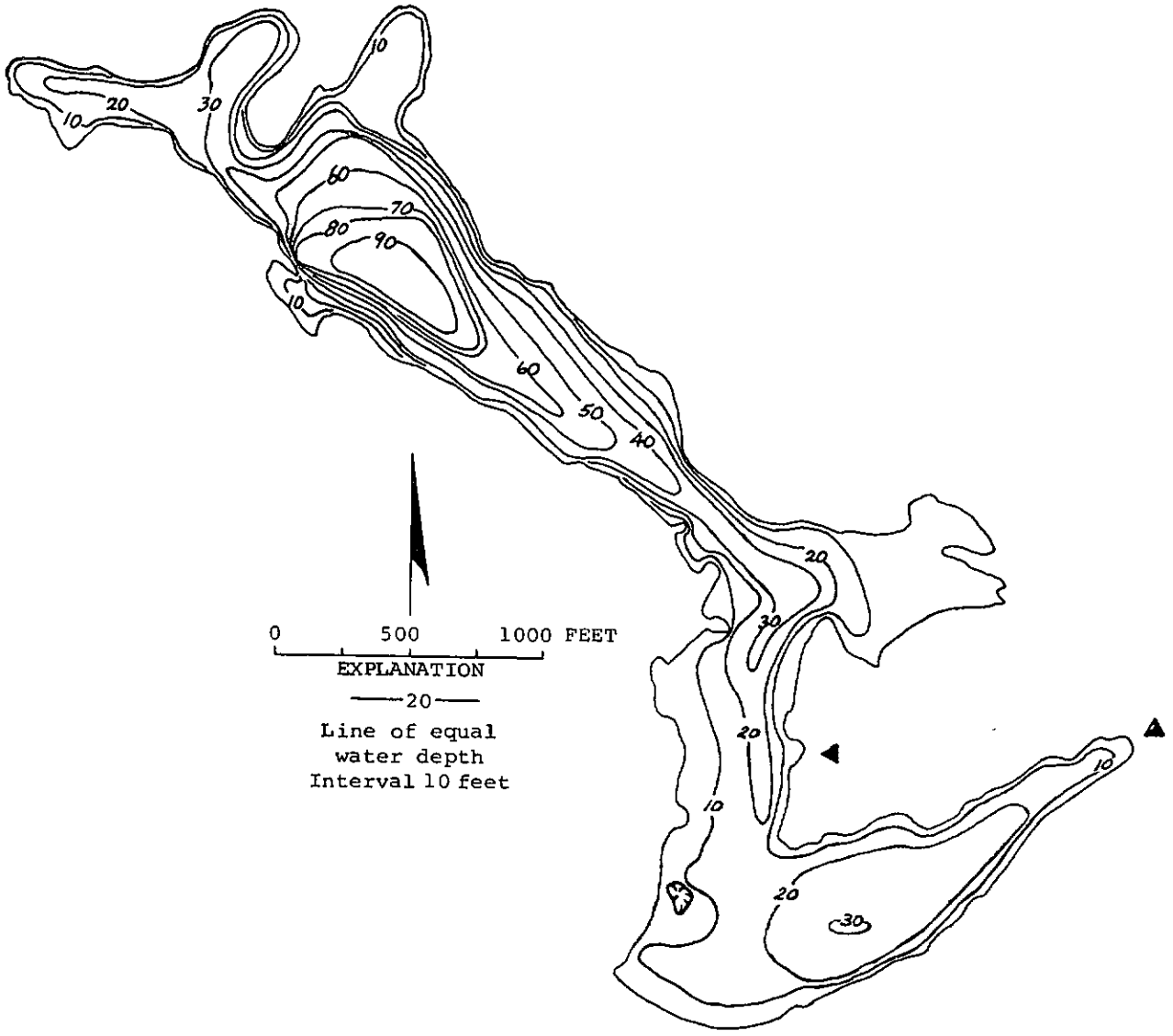
SAMPLE SITE	1	
DATE	5/29/74	
TIME	1030	1035
DEPTH (FT)	3.	25.
TOTAL NITRATE (N)	0.13	0.17
TOTAL NITRITE (N)	0.02	0.02
TOTAL AMMONIA (N)	0.12	0.14
TOTAL ORGANIC NITROGEN (N)	0.43	0.50
TOTAL PHOSPHORUS (P)	0.037	0.13
TOTAL ORTHOPHOSPHATE (P)	0.006	0.008
SPECIFIC CONDUCTANCE (MICROMHOS)	480	475
WATER TEMPERATURE (DEG C)	16.1	16.0
COLOR (PLATINUM-COBALT UNITS)	5	10
SECCHI-DISC VISIBILITY (FT)	12	
DISSOLVED OXYGEN	10.1	9.7

LAKE SHORELINE COVERED BY EMERSED PLANTS	LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	5/29/74
TIME	1000
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	121
FECAL COLIFORM, MEAN (COL./100ML)	41

REMARKS

AN ARTIFICIAL ENLARGEMENT OF POTHOLES EAST CANAL. THE LAKE HAS A LARGE INFLOW AND OUTFLOW AND THE FLUSHING TIME WOULD BE RELATIVELY SHORT. THE WATER IS USED FOR IRRIGATION PURPOSES. VERY FEW AQUATIC MACROPHYTES WERE OBSERVED. RECREATIONAL USE OF THE LAKE IS HEAVY. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE INFLOWING IRRIGATION WATER ORIGINATES OUTSIDE THE NATURAL DRAINAGE AREA.



Long (17N-29E-32) Lake, Grant County. From
U.S. Geological Survey, September 25, 1974.

LONG(28N-30E-25) LAKE GRANT COUNTY

LATITUDE 47*53'44" LONGITUDE 118*58'58" T28N-R30E-25
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	0.90 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2300. FT		
LAKE AREA	32. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	120. ACRE-FT		
MEAN DEPTH	4. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	7. FT		
SHORELINE LENGTH	1.8 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.2	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.52	AGRICULTURAL	93 %
BOTTOM SLOPE	0.53 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	6 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

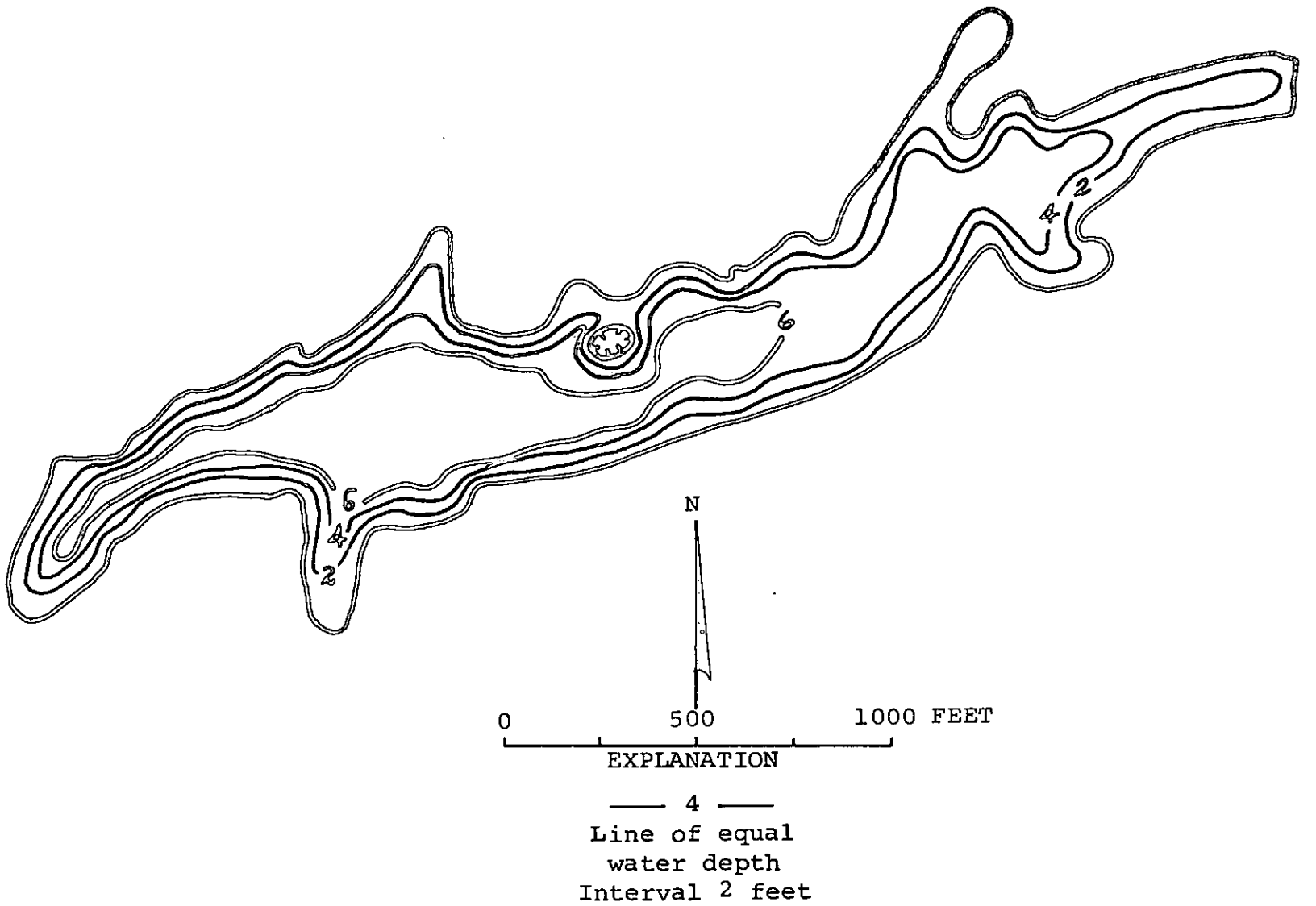
SAMPLE SITE	1	
DATE	6/14/74	
TIME	1040	1045
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	0.01	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.04	0.07
TOTAL ORGANIC NITROGEN (N)	1.9	1.5
TOTAL PHOSPHORUS (P)	0.79	0.77
TOTAL ORTHOPHOSPHATE (P)	0.27	0.62
SPECIFIC CONDUCTANCE (MICROMHOS)	800	1200
WATER TEMPERATURE (DEG C)	22.8	22.1
COLOR (PLATINUM-COBALT UNITS)	35	40
SECCHI-DISC VISIBILITY (FT)	5	
DISSOLVED OXYGEN	9.4	9.8

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	6/14/74
TIME	1102
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

THE EASTERN END OF THE LAKE HAS A SMALL EARTHEN DAM AND IS IN LINCOLN COUNTY. AN ALGAL BLOOM WAS OBSERVED. THE LITTORAL BOTTOM IS SILT AND MUCK AND WAS COMPLETELY COVERED WITH SUBMERSED AQUATIC PLANTS (PONDWEED AND WATER MILFOIL); THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (RUSHES).



Long (28N-30E-25) Lake, Grant County. From
U.S. Geological Survey, September 25, 1974.

MERRY LAKE GRANT COUNTY

LATITUDE 46*50'29" LONGITUDE 119*52'23" T16N-R24E-30
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	29.9 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	540. FT		
LAKE AREA	140. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	1300. ACRE-FT		
MEAN DEPTH	10. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	24. FT		
SHORELINE LENGTH	3.6 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.2	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.40	AGRICULTURAL	97 %
BOTTOM SLOPE	0.86 %	FOREST OR UNPRODUCTIVE	2 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

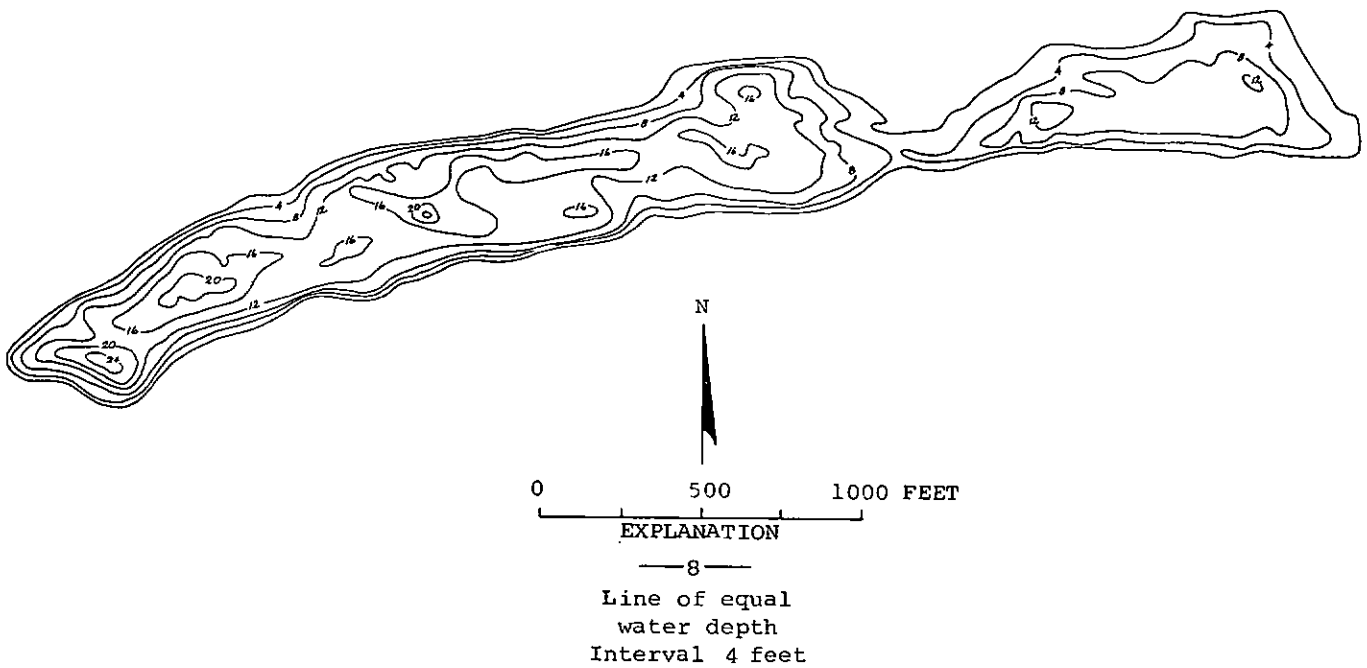
SAMPLE SITE	1	
DATE	5/30/74	
TIME	1130	1135
DEPTH (FT)	1.	3.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.06	0.06
TOTAL ORGANIC NITROGEN (N)	0.72	0.69
TOTAL PHOSPHORUS (P)	0.039	0.039
TOTAL ORTHOPHOSPHATE (P)	0.012	0.013
SPECIFIC CONDUCTANCE (MICROMHOS)	1000	1000
WATER TEMPERATURE (DEG C)	14.5	14.5
COLOR (PLATINUM-COBALT UNITS)	5	--
SECCHI-DISC VISIBILITY (FT)	> 4	
DISSOLVED OXYGEN	9.9	12.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	11- 25 %

DATE	5/30/74
TIME	1145
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	136
FECAL COLIFORM, MEAN (COL./100ML)	36

REMARKS

A RELATIVELY NEW LAKE THAT IS NOT SHOWN ON EXISTING TOPOGRAPHIC MAPS. THE LITTORAL BOTTOM IS SAND AND MUCK AND WAS COMPLETELY COVERED WITH SUBMERSED AQUATIC PLANTS (PONDWEED AND WATER MILFOIL); THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (CATTAIL AND SEDGE). THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION. THE TURBIDITY OF THE DEEP WATER SAMPLE PRECLUDED A DETERMINATION OF COLOR.



Merry Lake, Grant County. From
U.S. Geological Survey, September 24, 1974.

MOSES LAKE GRANT COUNTY

LATITUDE 47° 3'47" LONGITUDE 119°19' 8" T18N-R28E-9
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	3080. SQ MI	RESIDENTIAL DEVELOPMENT	15 %
ALTITUDE	1046. FT		
LAKE AREA	6800. ACRES	NUMBER OF NEARSHORE HOMES	206
LAKE VOLUME	130000. ACRE-FT		
MEAN DEPTH	19. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	38. FT		
SHORELINE LENGTH	62. MI	NOT DETERMINED	
SHORELINE CONFIGURATION	5.4		
DEVELOPMENT OF VOLUME	0.51		
BOTTOM SLOPE	0.20 %		
BASIN GEOLOGY	SED./META.		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

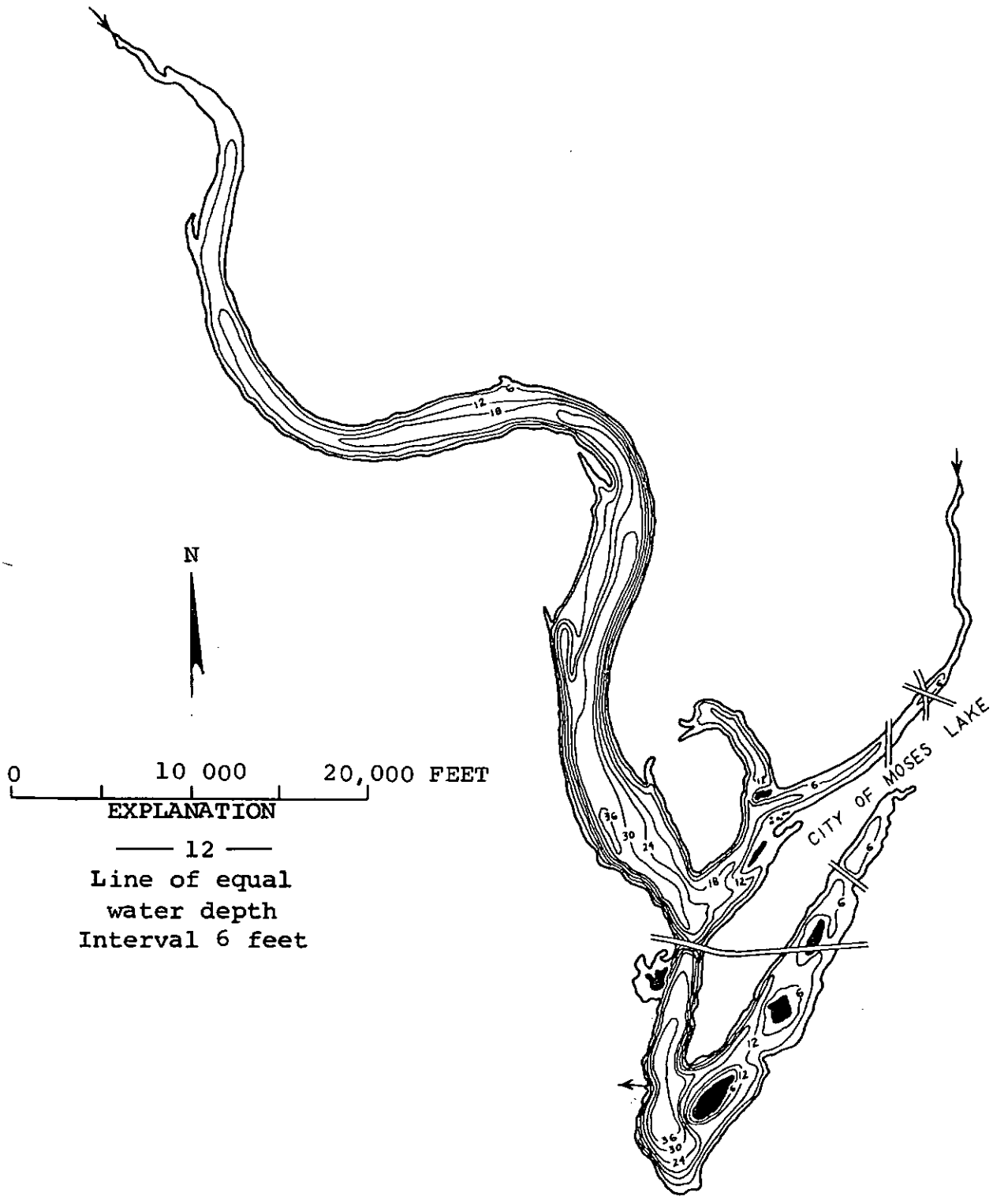
SAMPLE SITE	1		2		3		4		5	
DATE	6/12/74		6/12/74		6/12/74		6/12/74		6/12/74	
TIME	1605	1610	1525	1530	1435	1440	1240	1245	1310	1312
DEPTH (FT)	3.	15.	3.	23.	3.	13.	3.	30.	3.	5.
TOTAL NITRATE (N)	0.25	0.18	0.19	0.22	0.01	0.25	0.09	0.19	0.01	0.00
TOTAL NITRITE (N)	0.02	0.03	0.02	0.02	0.00	0.02	0.01	0.02	0.01	0.01
TOTAL AMMONIA (N)	0.19	0.46	0.11	0.21	0.05	0.27	0.07	0.26	0.05	0.05
TOTAL ORGANIC NITROGEN (N)	0.91	0.64	0.79	0.49	0.90	0.61	0.75	0.46	1.4	0.78
TOTAL PHOSPHORUS (P)	0.12	0.17	0.091	0.072	0.068	0.17	0.096	0.18	0.47	0.56
TOTAL ORTHOPHOSPHATE (P)	0.051	0.14	0.039	0.057	0.018	0.11	0.041	0.15	0.32	0.27
SPECIFIC CONDUCTANCE (MICROMHOS)	410	450	440	450	450	490	430	480	620	620
WATER TEMPERATURE (DEG C)	24.8	16.9	23.8	16.4	22.9	17.0	22.0	15.0	21.9	20.3
COLOR (PLATINUM-COBALT UNITS)	5	5	5	10	15	20	10	10	30	35
SECCHI-DISC VISIBILITY (FT)	9		8		4		6		2	
DISSOLVED OXYGEN	11.4	2.8	12.5	7.2	18.6	3.7	14.8	5.8	13.5	11.8

LAKE SHORELINE COVERED BY EMERSED PLANTS 51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE	6/12/74
TIME	1450
NUMBER OF FECAL COLIFORM SAMPLES	10
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	198
FECAL COLIFORM, MEAN (COL./100ML)	36

REMARKS

A NAUTRAL LAKE THAT WAS INCREASED IN SIZE AND STABILIZED BY A DAM ON CRAB CREEK. THE LAKE IS ADJACENT TO THE CITY OF MOSES LAKE AND RECREATIONAL USE IS HEAVY. AN ALGAL BLOOM WAS OBSERVED. THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION. THE U.S. GEOLOGICAL SURVEY HAS MONITORED THE LAKE STAGE SINCE 1936. THE WASHINGTON DEPT. OF ECOLOGY WASTE-WATER DISCHARGE MASTER REPORT INDICATES A MUNICIPAL WASTE DISCHARGE TO MOSES LAKE AVERAGING 1.2 MILLION GALLONS PER DAY. ASSUMING A PHOSPHORUS CONCENTRATION OF .000063 POUNDS PER GALLON, THE TOTAL PHOSPHORUS LOAD TO THE LAKE WOULD BE 4.06 POUNDS PER ACRE PER YEAR. THE LIMNOLOGY OF MOSES LAKE WAS DESCRIBED BY BENNETT (1962) AND RUSH AND WELCH (1972). LAND USE WAS NOT DETERMINED BECAUSE OF THE SIZE OF THE DRAINAGE AREA.



Moses Lake, Grant County. From
University of Washington, August 1963.

Moses Lake, Grant County. June 1, 1970. Approx. scale 1:63,000.

NUNNALLY LAKE GRANT COUNTY

LATITUDE 46*50'18" LONGITUDE 119*54' 6" T16N-R23E-35
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	33.8 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	530. FT		
LAKE AREA	120. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	1600. ACRE-FT		
MEAN DEPTH	13. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	34. FT		
SHORELINE LENGTH	2.8 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.8	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.38	AGRICULTURAL	96 %
BOTTOM SLOPE	1.3 %	FOREST OR UNPRODUCTIVE	3 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

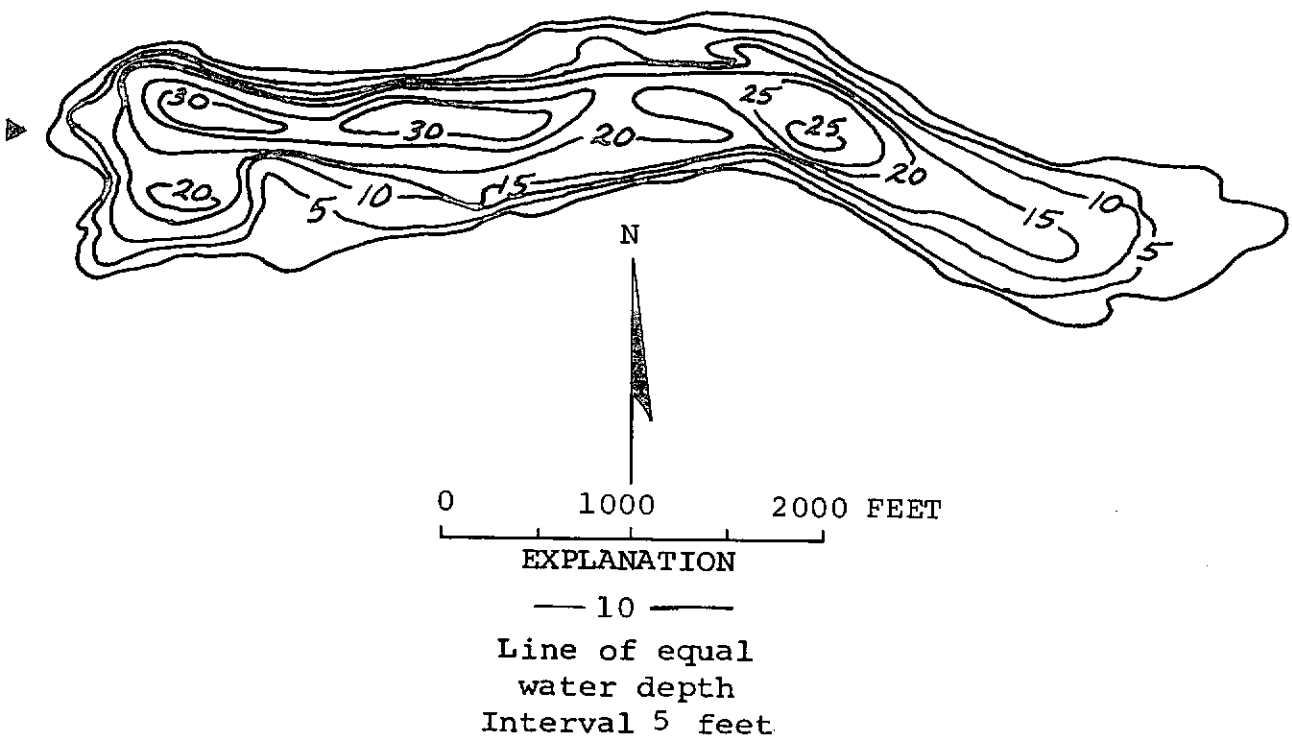
SAMPLE SITE	1	
DATE	5/30/74	
TIME	1000	1005
DEPTH (FT)	3.	10.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.15	0.14
TOTAL ORGANIC NITROGEN (N)	1.2	1.3
TOTAL PHOSPHORUS (P)	0.061	0.062
TOTAL ORTHOPHOSPHATE (P)	0.012	0.013
SPECIFIC CONDUCTANCE (MICROMHOS)	1000	1000
WATER TEMPERATURE (DEG C)	14.2	14.2
COLOR (PLATINUM-COBALT UNITS)	30	30
SECCHI-DISC VISIBILITY (FT)	4	
DISSOLVED OXYGEN	10.3	10.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	5/30/74
TIME	1000
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	4
FECAL COLIFORM, MEAN (COL./100ML)	2

REMARKS

A RELATIVELY NEW LAKE THAT IS NOT SHOWN ON EXISTING TOPOGRAPHIC MAPS. FEW EMERSED AQUATIC PLANTS WERE OBSERVED. RECREATIONAL USE OF THE LAKE IS HEAVY. A DENSE ALGAL BLOOM WAS OBSERVED.



Nunnally Lake, Grant County. From
U.S. Geological Survey, September 24, 1974.

Nunnally Lake, Grant County. From
U.S. Geological Survey, May 30, 1974.

PARK LAKE GRANT COUNTY

LATITUDE 47°34'28" LONGITUDE 119°25'30" T24N-R27E-15
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	317. SQ MI	RESIDENTIAL DEVELOPMENT	9 %
ALTITUDE	1096. FT		
LAKE AREA	350. ACRES	NUMBER OF NEARSHORE HOMES	30
LAKE VOLUME	13000. ACRE-FT		
MEAN DEPTH	38. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	85. FT		
SHORELINE LENGTH	6.0 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	2.3		
DEVELOPMENT OF VOLUME	0.44		
BOTTOM SLOPE	1.9 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

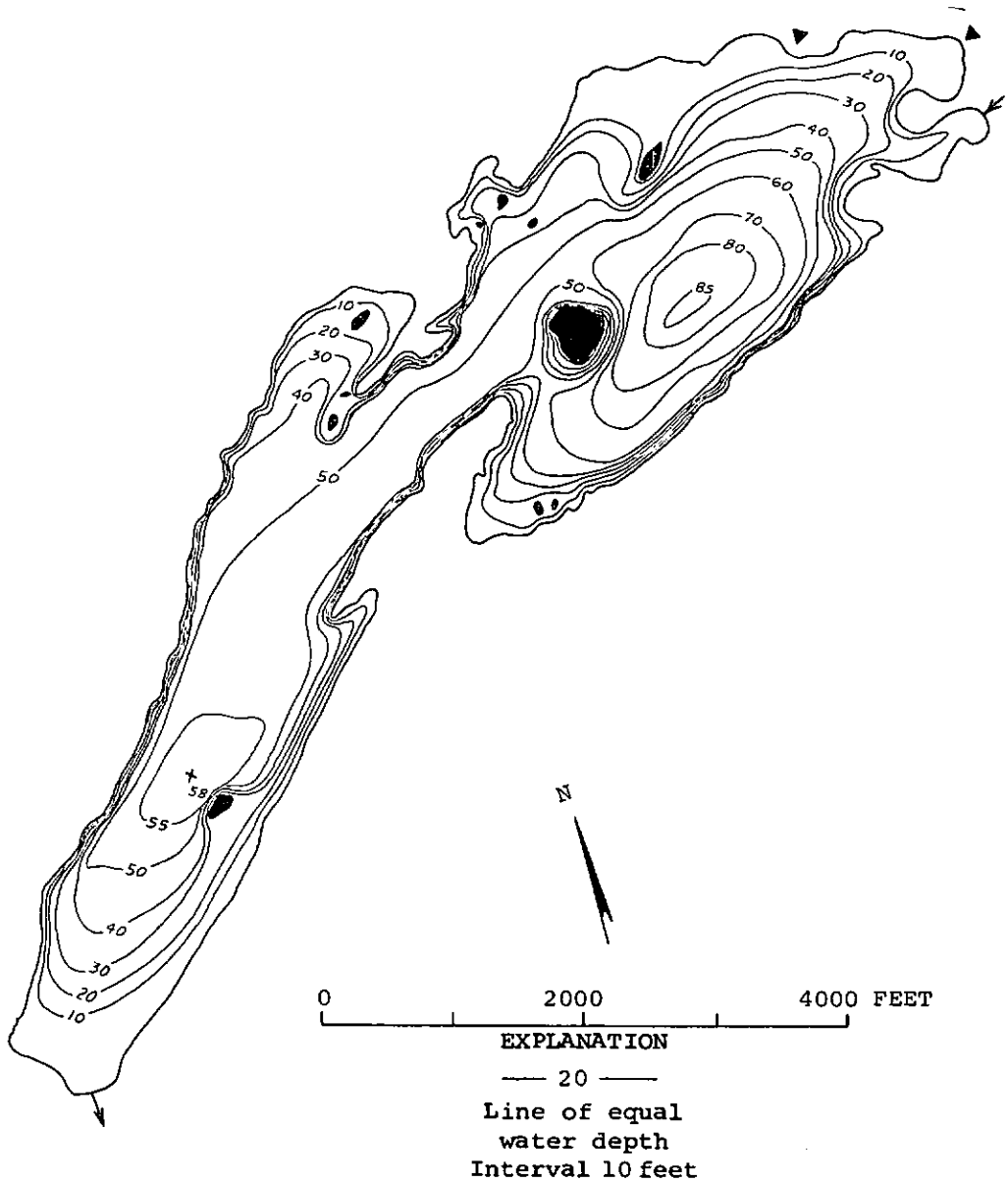
SAMPLE SITE	1	
DATE	6/ 4/74	
TIME	1330	1335
DEPTH (FT)	3.	75.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.05	0.51
TOTAL ORGANIC NITROGEN (N)	0.29	0.47
TOTAL PHOSPHORUS (P)	0.023	0.13
TOTAL ORTHOPHOSPHATE (P)	0.001	0.11
SPECIFIC CONDUCTANCE (MICROMHOS)	420	460
WATER TEMPERATURE (DEG C)	14.8	10.5
COLOR (PLATINUM-COBALT UNITS)	5	5
SECCHI-DISC VISIBILITY (FT)	11	
DISSOLVED OXYGEN	9.6	0.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	6/ 4/74
TIME	1330
NUMBER OF FECAL COLIFORM SAMPLES	6
FECAL COLIFORM, MINIMUM (COL./100ML)	10
FECAL COLIFORM, MAXIMUM (COL./100ML)	80
FECAL COLIFORM, MEAN (COL./100ML)	39

REMARKS

A NATURAL LAKE LOCATED IN THE LOWER PART OF GRAND COULEE; THE NORTHEAST END OF THE LAKE IS IN SUN LAKES STATE PARK. FLOATING TRASH AND DEBRIS OCCURRED LOCALLY ALONG THE SHORELINE, WHICH WAS PARTLY COVERED WITH EMERSED AQUATIC PLANTS (CATTAIL AND SEDGE). RECREATIONAL USE OF THE LAKE IS HEAVY. HYDROGEN SULFIDE WAS DETECTED IN THE HYOOLIMNION. THE U.S. GEOLOGICAL SURVEY MONITORED THE LAKE STAGE FROM 1938 TO 1968. THE LIMNOLOGY OF PARK LAKE WAS DESCRIBED BY FRIEDMAN AND REDFIELD (1967, 1971). LAND USE WAS NOT DETERMINED BECAUSE OF THE SIZE OF THE DRAINAGE AREA.



Park Lake, Grant County. From Washington Department of Game, January 12, 1949.

Park Lake, Grant County. From
U.S. Geological Survey, June 4, 1974.

POTHOLES LAKE GRANT COUNTY

LATITUDE 46°58'58" LONGITUDE 119°15'49" T17N-R28E-11
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1046. FT		
LAKE AREA	28000. ACRES	NUMBER OF NEARSHORE HOMES	25
LAKE VOLUME	500000. ACRE-FT		
MEAN DEPTH	18. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	140. FT		
SHORELINE LENGTH	-- MI	NOT DETERMINED	
SHORELINE CONFIGURATION	--		
DEVELOPMENT OF VOLUME	0.13		
BOTTOM SLOPE	0.36 %		
BASIN GEOLOGY	SED./META.		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1		2		3		4	
DATE	6/12/74		6/12/74		6/12/74		6/12/74	
TIME	1015	1020	1115	1120	1245	1250	1340	1345
DEPTH (FT)	3.	10.	3.	89.	3.	59.	3.	10.
TOTAL NITRATE (N)	0.00	0.04	0.33	0.26	0.37	0.31	0.13	0.21
TOTAL NITRITE (N)	0.00	0.01	0.02	0.03	0.02	0.02	0.01	0.02
TOTAL AMMONIA (N)	0.04	0.07	0.08	0.57	0.10	0.32	0.04	0.05
TOTAL ORGANIC NITROGEN (N)	0.88	0.75	0.53	0.53	0.70	0.56	0.45	0.60
TOTAL PHOSPHORUS (P)	0.067	0.045	0.032	0.16	0.096	0.11	0.022	0.030
TOTAL ORTHOPHOSPHATE (P)	0.008	0.006	0.006	0.12	0.010	0.069	0.004	0.002
SPECIFIC CONDUCTANCE (MICROMHOS)	440	450	460	480	460	480	470	460
WATER TEMPERATURE (DEG C)	21.9	16.8	20.0	13.6	19.8	14.7	21.5	16.7
COLOR (PLATINUM-COBALT UNITS)	20	25	0	5	5	0	0	0
SECCHI-DISC VISIBILITY (FT)	3		18		11		6	
DISSOLVED OXYGEN	13.8	9.8	10.0	1.0	10.6	2.8	10.8	15.4

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	6/12/74
TIME	1310
NUMBER OF FECAL COLIFORM SAMPLES	8
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	20
FECAL COLIFORM, MEAN (COL./100ML)	4

REMARKS

AN IRRIGATION RESERVOIR BUILT ABOUT 1949 BY THE U.S. BUREAU OF RECLAMATION BY PLACING O'SULLIVAN DAM ACROSS CRAB CREEK. THE WATER COVERS A LARGE SAND DUNE REGION KNOWN AS 'THE POTHOLES'. AN ALGAL BLOOM WAS OBSERVED AT THREE SITES: THE WATER SAMPLES FROM THOSE SITES HAD A FISHY, SWAMPY ODOR. THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (SEDGE AND WILLOW). THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION. RECREATIONAL USE OF THE LAKE IS HEAVY. THE NORTHERN TWO-THIRDS OF THE LAKE IS UNDERLAIN CHIEFLY WITH SAND; THE SOUTHERN ONE-THIRD IS UNDERLAIN CHIEFLY WITH GRAVEL. THE SHORELINE LENGTH IS NOT AVAILABLE. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE IRRIGATION WATER IS IMPORTED FROM OUTSIDE THE NATURAL DRAINAGE AREA.

QUINCY LAKE GRANT COUNTY

LATITUDE 47° 8'16" LONGITUDE 119°54'42" T19N-R23E-14
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1180. FT		
LAKE AREA	51. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	470. ACRE-FT		
MEAN DEPTH	9. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	23. FT		
SHORELINE LENGTH	2.6 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	2.6		
DEVELOPMENT OF VOLUME	0.40		
BOTTOM SLOPE	1.4 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

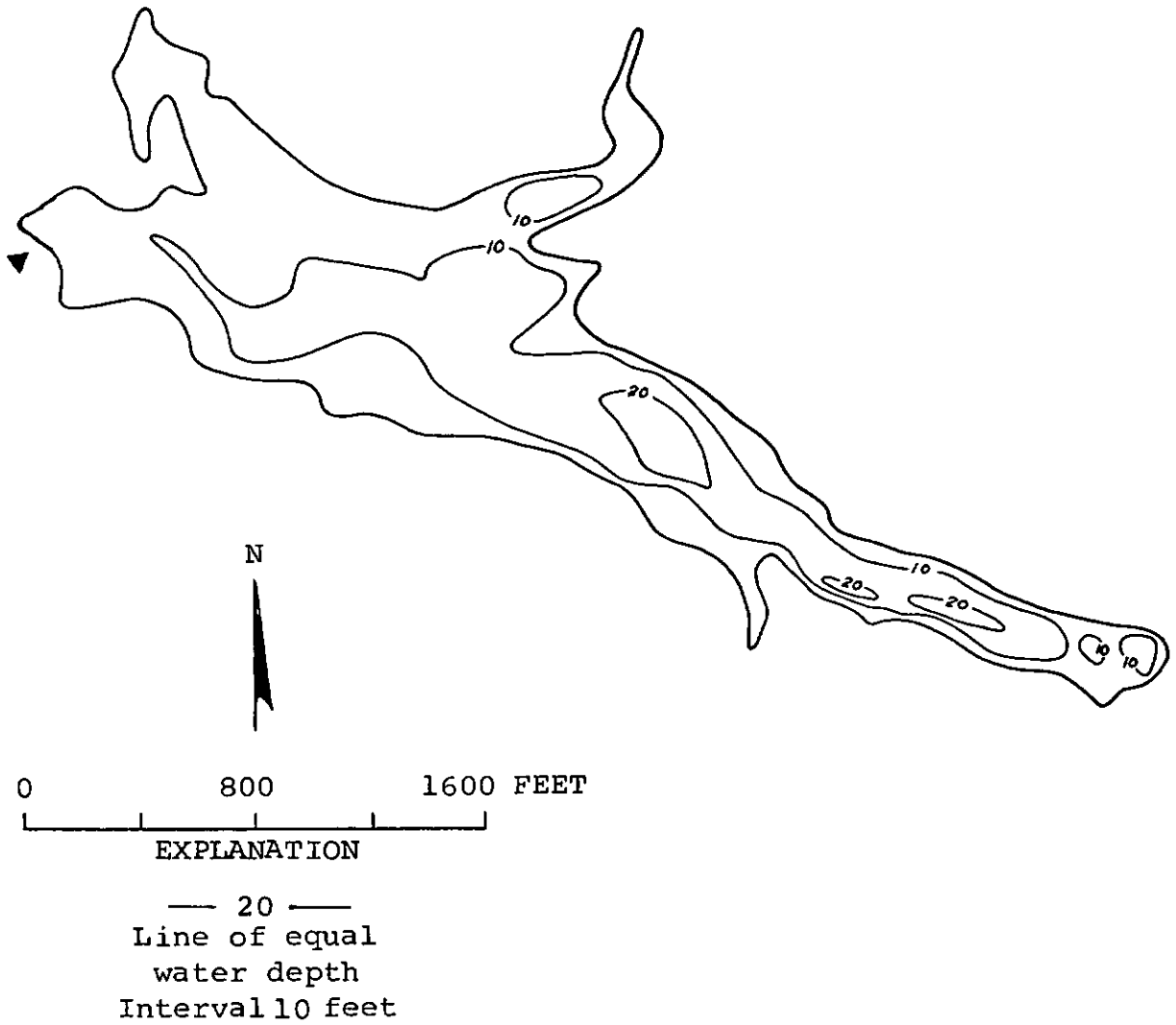
SAMPLE SITE	1	
DATE	6/11/74	
TIME	1300	1305
DEPTH (FT)	3.	13.
TOTAL NITRATE (N)	0.02	0.00
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.05	0.04
TOTAL ORGANIC NITROGEN (N)	0.74	0.82
TOTAL PHOSPHORUS (P)	0.032	0.026
TOTAL ORTHOPHOSPHATE (P)	0.003	0.002
SPECIFIC CONDUCTANCE (MICROMHOS)	760	740
WATER TEMPERATURE (DEG C)	19.8	17.5
COLOR (PLATINUM-COBALT UNITS)	10	10
SECCHI-DISC VISIBILITY (FT)	15	
DISSOLVED OXYGEN	10.4	10.6

LAKE SHORELINE COVERED BY EMERSED PLANTS	1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	6/11/74
TIME	1315
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	6
FECAL COLIFORM, MEAN (COL./100ML)	2

REMARKS

THE LAKE FORMED ABOUT 1955 FROM IRRIGATION RUNOFF WATER. RECREATIONAL USE OF THE LAKE IS HEAVY. THE DO CONCENTRATION WAS HIGH THROUGHOUT THE ENTIRE WATER COLUMN. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE LAKE IS AFFECTED BY IRRIGATION WATER IMPORTED FROM OUTSIDE THE NATURAL DRAINAGE AREA.



Quincy Lake, Grant County. From
U.S. Geological Survey, March 10, 1975.

ROUND LAKE GRANT COUNTY

LATITUDE 47°23'56" LONGITUDE 119°19' 8" T22N-R28E-16
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	1810. SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1236. FT		
LAKE AREA	110. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	3100. ACRE-FT		
MEAN DEPTH	28. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	57. FT		
SHORELINE LENGTH	3.8 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	2.6		
DEVELOPMENT OF VOLUME	0.49		
BOTTOM SLOPE	2.3 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

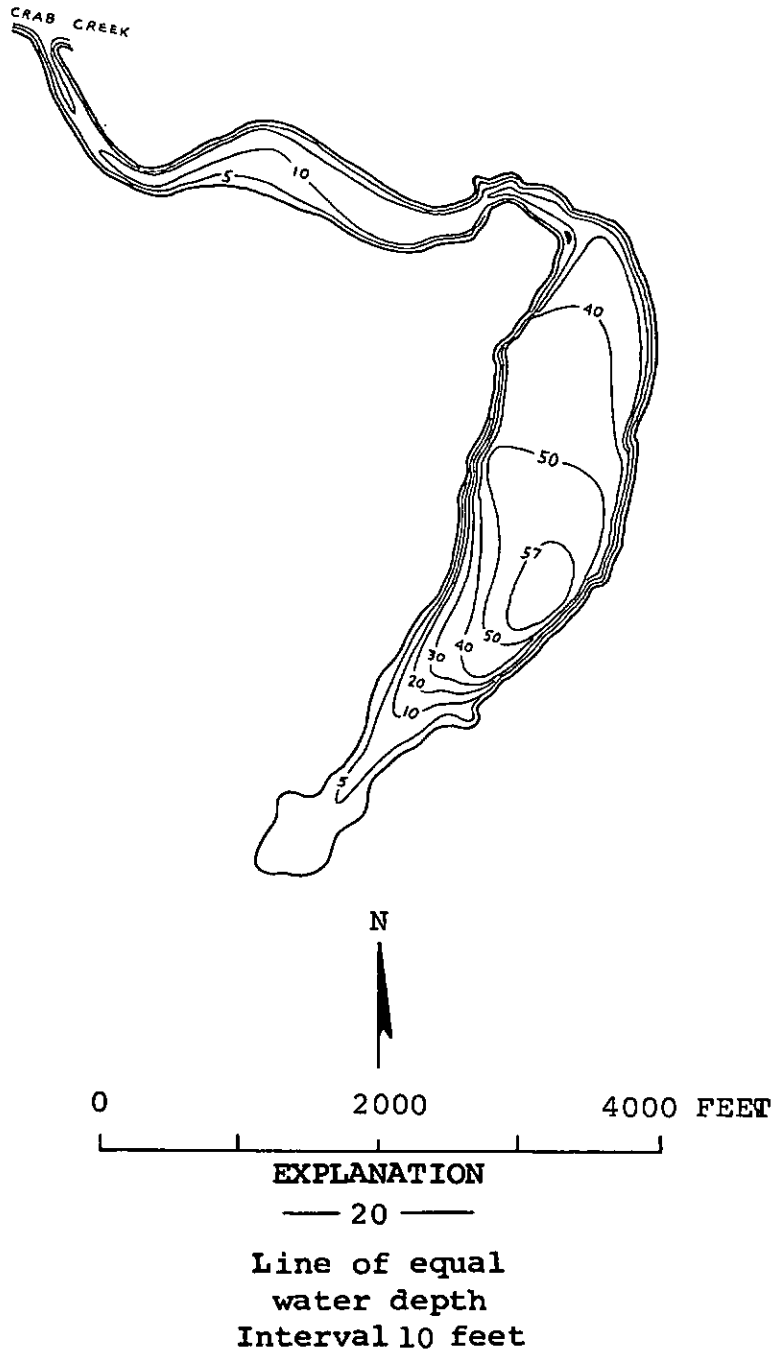
SAMPLE SITE	1	
DATE	6/10/74	
TIME	1630	1635
DEPTH (FT)	3.	46.
TOTAL NITRATE (N)	0.26	0.97
TOTAL NITRITE (N)	0.02	0.03
TOTAL AMMONIA (N)	0.09	0.24
TOTAL ORGANIC NITROGEN (N)	0.79	0.96
TOTAL PHOSPHORUS (P)	0.076	0.30
TOTAL ORTHOPHOSPHATE (P)	0.039	0.26
SPECIFIC CONDUCTANCE (MICROMHOS)	390	390
WATER TEMPERATURE (DEG C)	18.3	7.3
COLOR (PLATINUM-COBALT UNITS)	--	--
SECCHI-DISC VISIBILITY (FT)	10	
DISSOLVED OXYGEN	9.2	2.4

LAKE SHORELINE COVERED BY EMERSED PLANTS	26- 50 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/10/74
TIME	1700
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	3
FECAL COLIFORM, MAXIMUM (COL./100ML)	--
FECAL COLIFORM, MEAN (COL./100ML)	--

REMARKS

A NATURAL LAKE THAT IS BACKWATER FROM CRAB CREEK. THE ALGAL DENSITY WAS MODERATELY HIGH. VERY FEW SUBMERSED AQUATIC PLANTS WERE OBSERVED. THE FECAL COLIFORM COLONIES FROM ONE SAMPLE WERE TOO NUMEROUS TO COUNT. WATER COLOR WAS NOT DETERMINED. LAND USE WAS NOT DETERMINED BECAUSE OF THE SIZE OF THE DRAINAGE AREA.



Round Lake, Grant County. From Washington Department of Game, January 21, 1952.

Round Lake, Grant County. June 1, 1970. Approx. scale 1:63,000.

SAND LAKE GRANT COUNTY

LATITUDE 46°59'18" LONGITUDE 119°35'25" T17N-R26E-5
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1120. FT		
LAKE AREA	35. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	310. ACRE-FT		
MEAN DEPTH	9. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	19. FT		
SHORELINE LENGTH	1.4 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	1.6		
DEVELOPMENT OF VOLUME	0.47		
BOTTOM SLOPE	1.4 %		
BASIN GEOLOGY	SED./META.		
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

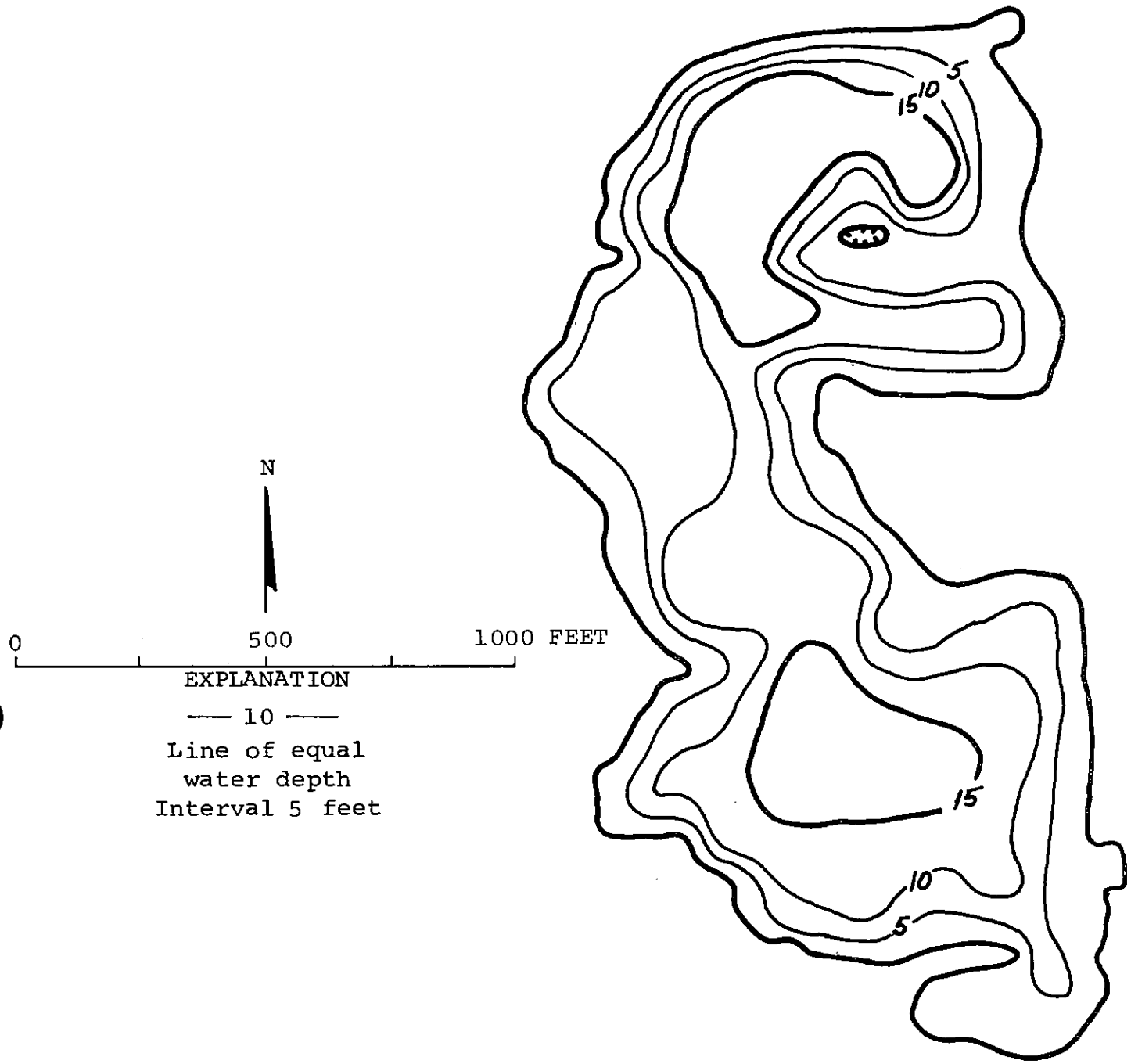
SAMPLE SITE	1	
DATE	6/11/74	
TIME	1435	1440
DEPTH (FT)	3.	10.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.01	0.02
TOTAL ORGANIC NITROGEN (N)	0.70	0.63
TOTAL PHOSPHORUS (P)	0.026	0.038
TOTAL ORTHOPHOSPHATE (P)	0.005	0.006
SPECIFIC CONDUCTANCE (MICROMHOS)	580	580
WATER TEMPERATURE (DEG C)	20.9	17.9
COLOR (PLATINUM-COBALT UNITS)	5	5
SECCHI-DISC VISIBILITY (FT)	12	
DISSOLVED OXYGEN	11.3	11.3

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/11/74
TIME	1447
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	<1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

THE LAKE IS IN A SAND DUNE REGION ADJACENT TO THE FRENCHMAN HILLS WASTEWAY AND WAS FORMED ABOUT 1956 FROM IRRIGATION SEEPAGE WATER. THE LITTORAL BOTTOM IS SILT AND MUCK AND WAS COMPLETELY COVERED WITH SUBMERSED AQUATIC PLANTS (PONDWEED, WATER MILFOIL, AND CHARA); THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (SEDGE). THE DO CONCENTRATION WAS HIGH THROUGHOUT THE ENTIRE WATER COLUMN. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE LAKE IS AFFECTED BY IRRIGATION FROM OUTSIDE THE NATURAL DRAINAGE AREA.



Sand Lake, Grant County. From
U.S. Geological Survey, May 7, 1974.

SOAP LAKE GRANT COUNTY

LATITUDE 47°23'25" LONGITUDE 119°29'35" T22N-R26E-24
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	413. SQ MI	RESIDENTIAL DEVELOPMENT	26 %
ALTITUDE	1074. FT		
LAKE AREA	860. ACRES	NUMBER OF NEARSHORE HOMES	65
LAKE VOLUME	29000. ACRE-FT		
MEAN DEPTH	33. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	95. FT		
SHORELINE LENGTH	5.7 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	1.4		
DEVELOPMENT OF VOLUME	0.35		
BOTTOM SLOPE	1.4 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

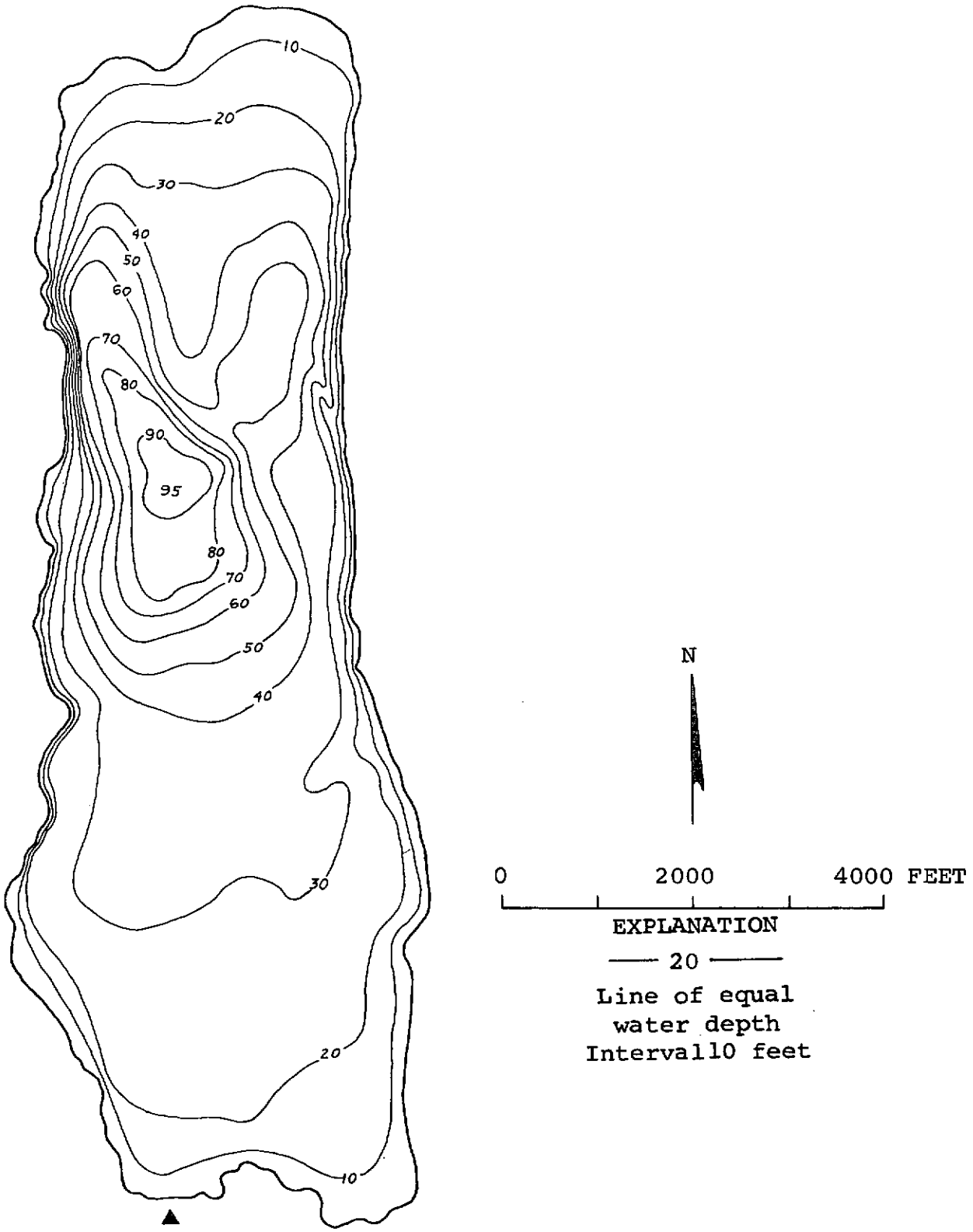
SAMPLE SITE	1	
DATE	6/ 6/74	
TIME	1710	1715
DEPTH (FT)	3.	79.
TOTAL NITRATE (N)	0.00	0.54
TOTAL NITRITE (N)	0.01	0.10
TOTAL AMMONIA (N)	0.04	330.
TOTAL ORGANIC NITROGEN (N)	2.2	110.
TOTAL PHOSPHORUS (P)	0.52	61.
TOTAL ORTHOPHOSPHATE (P)	0.41	--
SPECIFIC CONDUCTANCE (MICROMHOS)	21000	--
WATER TEMPERATURE (DEG C)	16.3	6.1
COLOR (PLATINUM-COBALT UNITS)	5	45
SECCHI-DISC VISIBILITY (FT)	6	
DISSOLVED OXYGEN	9.6	0.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/ 6/74
TIME	1720
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	<1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

A MEROMICTIC LAKE AT THE SOUTH END OF GRAND COULEE. HYDROGEN SULFIDE WAS DETECTED IN THE HYPOLIMNION. LAND USE WAS NOT DETERMINED BECAUSE OF THE SIZE OF THE DRAINAGE AREA. USE OF THE LAKE FOR RECREATIONAL PURPOSES IS HEAVY. THE LAKE STAGE HAS BEEN MONITORED BY THE U.S. GEOLOGICAL SURVEY SINCE 1938. ABOUT 1953 THERE WAS CONCERN THAT SEEPAGE FROM THE NEW COLUMBIA BASIN IRRIGATION PROJECT WAS DILUTING THE WATERS OF THE LAKE, WHICH SUPPORTED A SUBSTANTIAL HEALTH INDUSTRY. THE U.S. BUREAU OF RECLAMATION RESPONDED BY DRILLING A NUMBER OF WELLS TO INTERCEPT THE SEEPAGE WATER AND HALT THE DILUTION. A PUMPING PLANT WAS ALSO ESTABLISHED TO CONTROL THE STAGE OF THE LAKE. THE LIMNOLOGY OF SOAP LAKE HAS BEEN DESCRIBED BY ANDERSON (1958), BENNETT (1962), EDMONDSON AND ANDERSON (1965), FRIEDMAN AND REDFIELD (1967, 1971), U.S. BUREAU OF RECLAMATION (1956), AND WALKER (1974,1975). THE SPECIFIC CONDUCTANCE OF THE DEEP SAMPLE WAS GREATER THAN 50,000 MICROMHOS. THE VALUE FOR TOTAL ORTHO-PHOSPHATE CONCENTRATION IN THE DEEP SAMPLE IS NOT AVAILABLE.



Soap Lake, Grant County. From
U.S. Bureau of Reclamation, August 1955.

Soap Lake, Grant County. June 1, 1970. Approx. scale 1:63,000.

SOAP, LITTLE LAKE GRANT COUNTY

LATITUDE 47°26'27" LONGITUDE 119°31'20" T22N-R26E-2
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	368. SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1079. FT		
LAKE AREA	96. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME (EST.)	690. ACRE-FT		
MEAN DEPTH (EST.)	7. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	13. FT		
SHORELINE LENGTH	2.0 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	1.4		
DEVELOPMENT OF VOLUME	0.55		
BOTTOM SLOPE	0.56 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1	
DATE	6/12/74	
TIME	1500	1505
DEPTH (FT)	3.	10.
TOTAL NITRATE (N)	0.01	0.01
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.04	0.04
TOTAL ORGANIC NITROGEN (N)	4.1	3.4
TOTAL PHOSPHORUS (P)	1.8	1.9
TOTAL ORTHOPHOSPHATE (P)	1.0	1.1
SPECIFIC CONDUCTANCE (MICROMHOS)	14500	14500
WATER TEMPERATURE (DEG C)	19.9	15.8
COLOR (PLATINUM-COBALT UNITS)	25	40
SECCHI-DISC VISIBILITY (FT)	2	
DISSOLVED OXYGEN	10.0	5.5

LAKE SHORELINE COVERED BY EMERSED PLANTS	LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/12/74
TIME	1520
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	<1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

THE LAKE IS ADJACENT TO THE SOUTH END OF LENORE LAKE. VERY FEW EMERSED AQUATIC PLANTS WERE OBSERVED. THE VOLUME AND MEAN DEPTH ARE ESTIMATED. LAND USE WAS NOT DETERMINED BECAUSE OF THE SIZE OF THE DRAINAGE AREA.

SODA LAKE GRANT COUNTY

LATITUDE 46°57'27" LONGITUDE 119°13'44" T17N-R29E-18
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	998. FT		
LAKE AREA	180. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	8800. ACRE-FT		
MEAN DEPTH	50. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	120. FT		
SHORELINE LENGTH	4.0 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	2.1		
DEVELOPMENT OF VOLUME	0.41		
BOTTOM SLOPE	3.9 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

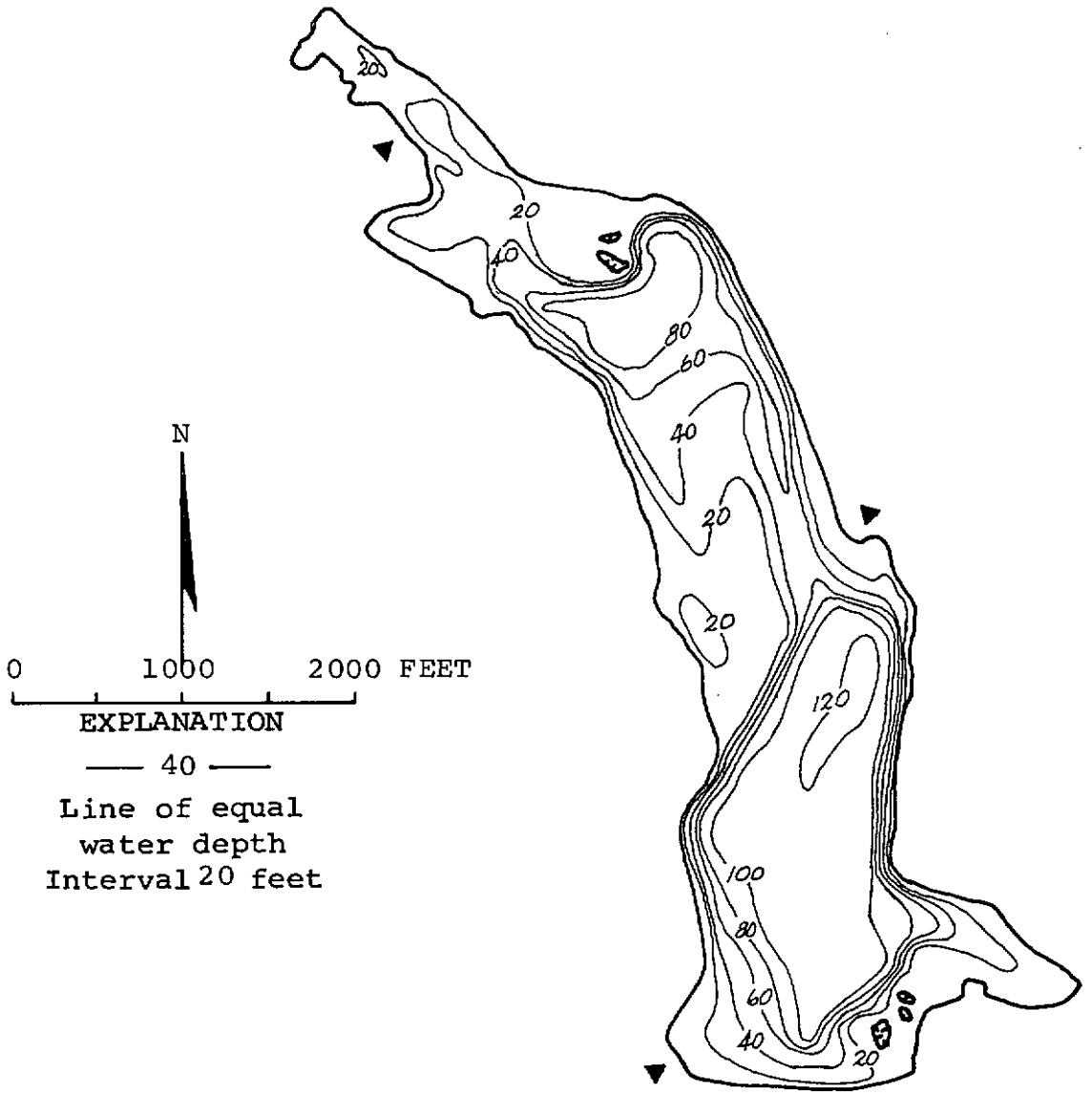
SAMPLE SITE	1	
DATE	5/29/74	
TIME	1230	1235
DEPTH (FT)	3.	7.
TOTAL NITRATE (N)	0.23	0.27
TOTAL NITRITE (N)	0.02	0.02
TOTAL AMMONIA (N)	0.12	0.12
TOTAL ORGANIC NITROGEN (N)	0.49	0.46
TOTAL PHOSPHORUS (P)	0.10	0.042
TOTAL ORTHOPHOSPHATE (P)	0.007	0.007
SPECIFIC CONDUCTANCE (MICROMHOS)	475	475
WATER TEMPERATURE (DEG C)	16.0	16.0
COLOR (PLATINUM-COBALT UNITS)	5	5
SECCHI-DISC VISIBILITY (FT)	10	
DISSOLVED OXYGEN	10.4	10.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	5/29/74
TIME	1200
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	2
FECAL COLIFORM, MEAN (COL./100ML)	1

REMARKS

THE LAKE IS AN ENLARGEMENT OF POTHOLES EAST CANAL AND WAS FORMED BY A U.S. BUREAU OF RECLAMATION DAM ABOUT 1950. THE LAKE HAS A LARGE INFLOW AND OUTFLOW AND THE FLUSHING TIME WOULD BE RELATIVELY SHORT. THE WATER IS USED FOR IRRIGATION PURPOSES. VERY FEW AQUATIC MACROPHYTES WERE OBSERVED. RECREATIONAL USE OF THE LAKE IS HEAVY. IN 1975 THE U.S. GEOLOGICAL SURVEY WILL SAMPLE THE LAKE FOUR TIMES. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE INFLOWING IRRIGATION WATER ORIGINATES OUTSIDE THE NATURAL DRAINAGE AREA.



Soda Lake, Grant County. From
U.S. Geological Survey, August 22, 1974.

Soda Lake, Grant County. From
U.S. Geological Survey, May 29, 1974.

STAN COFFIN LAKE GRANT COUNTY

LATITUDE 47° 8'55" LONGITUDE 119°55'16" T19N-R23E-10
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1170. FT		
LAKE AREA	56. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	370. ACRE-FT		
MEAN DEPTH	7. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	20. FT		
SHORELINE LENGTH	2.4 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	2.3		
DEVELOPMENT OF VOLUME	0.33		
BOTTOM SLOPE	1.1 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

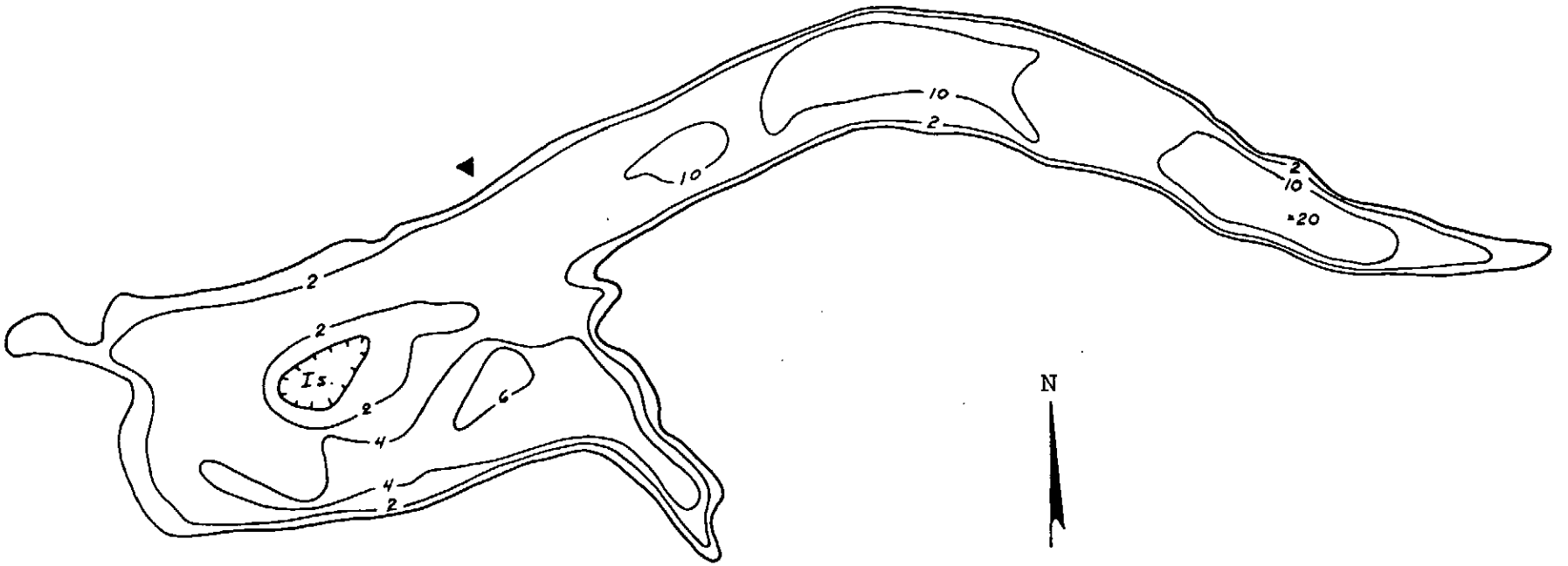
SAMPLE SITE	1	
DATE	6/11/74	
TIME	1400	1405
DEPTH (FT)	3.	10.
TOTAL NITRATE (N)	0.00	0.07
TOTAL NITRITE (N)	0.01	0.02
TOTAL AMMONIA (N)	0.13	0.26
TOTAL ORGANIC NITROGEN (N)	1.6	1.0
TOTAL PHOSPHORUS (P)	0.16	0.14
TOTAL ORTHOPHOSPHATE (P)	0.017	0.014
SPECIFIC CONDUCTANCE (MICROMHOS)	540	575
WATER TEMPERATURE (DEG C)	20.8	16.2
COLOR (PLATINUM-COBALT UNITS)	30	35
SECCHI-DISC VISIBILITY (FT)	2	
DISSOLVED OXYGEN	16.8	4.5

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	11- 25 %

DATE	6/11/74
TIME	1400
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	71
FECAL COLIFORM, MEAN (COL./100ML)	25

REMARKS

THE LAKE FORMED ABOUT 1953 BY DRAINAGE FROM THE COLUMBIA BASIN IRRIGATION PROJECT. THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (CATTAIL AND SEDGE) BUT VERY FEW SUBMERSED AQUATIC PLANTS WERE OBSERVED. A DENSE ALGAL BLOOM WAS OBSERVED. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE LAKE IS AFFECTED BY IRRIGATION WATER FROM OUTSIDE THE NATURAL DRAINAGE AREA.



Stan Coffin Lake, Grant County. From
U.S. Geological Survey, March 3, 1975.

SUSAN LAKE GRANT COUNTY

LATITUDE 46*57'22" LONGITUDE 119*12'25" T17N-R29E-17
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	1.89 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1033. FT		
LAKE AREA	21. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	200. ACRE-FT		
MEAN DEPTH	9. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	42. FT		
SHORELINE LENGTH	1.5 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.3	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.22	AGRICULTURAL	98 %
BOTTOM SLOPE	3.9 %	FOREST OR UNPRODUCTIVE	0 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	2 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

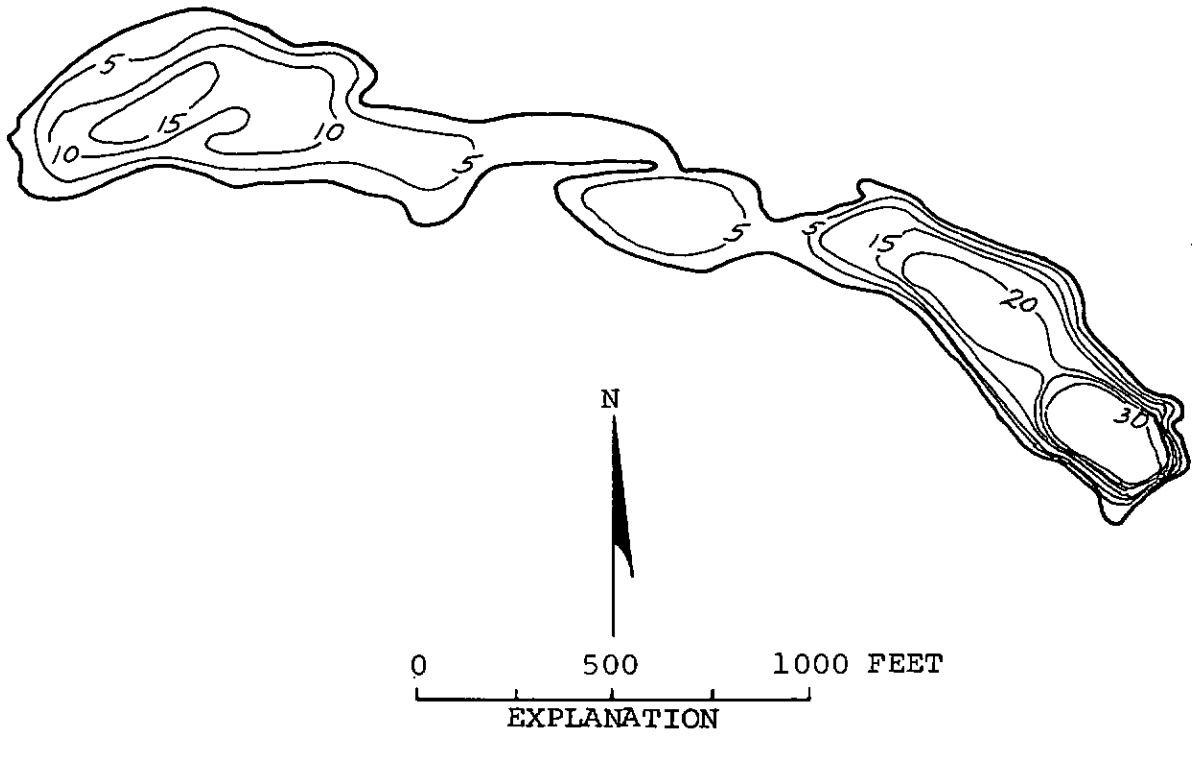
SAMPLE SITE	1	
DATE	5/29/74	
TIME	1730	1735
DEPTH (FT)	3.	13.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.05	0.06
TOTAL ORGANIC NITROGEN (N)	0.52	0.58
TOTAL PHOSPHORUS (P)	0.056	0.056
TOTAL ORTHOPHOSPHATE (P)	0.004	0.013
SPECIFIC CONDUCTANCE (MICROMHOS)	750	700
WATER TEMPERATURE (DEG C)	19.5	16.3
COLOR (PLATINUM-COBALT UNITS)	10	10
SECCHI-DISC VISIBILITY (FT)	10	
DISSOLVED OXYGEN	12.4	14.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	5/29/74
TIME	1730
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

A RELATIVELY NEW LAKE THAT IS NOT SHOWN ON EXISTING TOPOGRAPHIC MAPS. THE LITTORAL BOTTOM IS SILT AND MUCK AND WAS COMPLETELY COVERED WITH SUBMERSED AQUATIC PLANTS (PONDWEED, WATER MILFOIL, AND CHARA); THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (SEDGE). THE ALGAL DENSITY WAS MODERATELY HIGH. THE DO CONCENTRATION WAS HIGH THROUGHOUT THE ENTIRE WATER COLUMN.



Susan Lake, Grant County. From
U.S. Geological Survey, August 23, 1974.

TABLE LAKE GRANT COUNTY

LATITUDE 47*36'51" LONGITUDE 119*19'43" T25N-R28E-32
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	0.80 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1500. FT		
LAKE AREA	22. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	70. ACRE-FT		
MEAN DEPTH	3. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	9. FT		
SHORELINE LENGTH	1.7 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.5	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.35	AGRICULTURAL	92 %
BOTTOM SLOPE	0.81 %	FOREST OR UNPRODUCTIVE	4 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	4 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1	
DATE	6/ 3/74	
TIME	1600	1605
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.12	0.14
TOTAL ORGANIC NITROGEN (N)	2.9	2.6
TOTAL PHOSPHORUS (P)	0.53	0.49
TOTAL ORTHOPHOSPHATE (P)	0.35	0.35
SPECIFIC CONDUCTANCE (MICROMHOS)	--	--
WATER TEMPERATURE (DEG C)	17.8	17.8
COLOR (PLATINUM-COBALT UNITS)	70	70
SECCHI-DISC VISIBILITY (FT)	5	
DISSOLVED OXYGEN	10.6	10.6

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	6/ 3/74
TIME	1630
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	36
FECAL COLIFORM, MEAN (COL./100ML)	11

REMARKS

THE LAKE WAS FORMED BY SEEPAGE FROM BANKS LAKE. THE LITTORAL BOTTOM IS MUCK AND WAS COMPLETELY COVERED WITH SUBMERSED AQUATIC PLANTS (PONDWEED); THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (CATTAIL AND SEDGE). SPECIFIC CONDUCTANCE VALUES WERE NOT RECORDED.

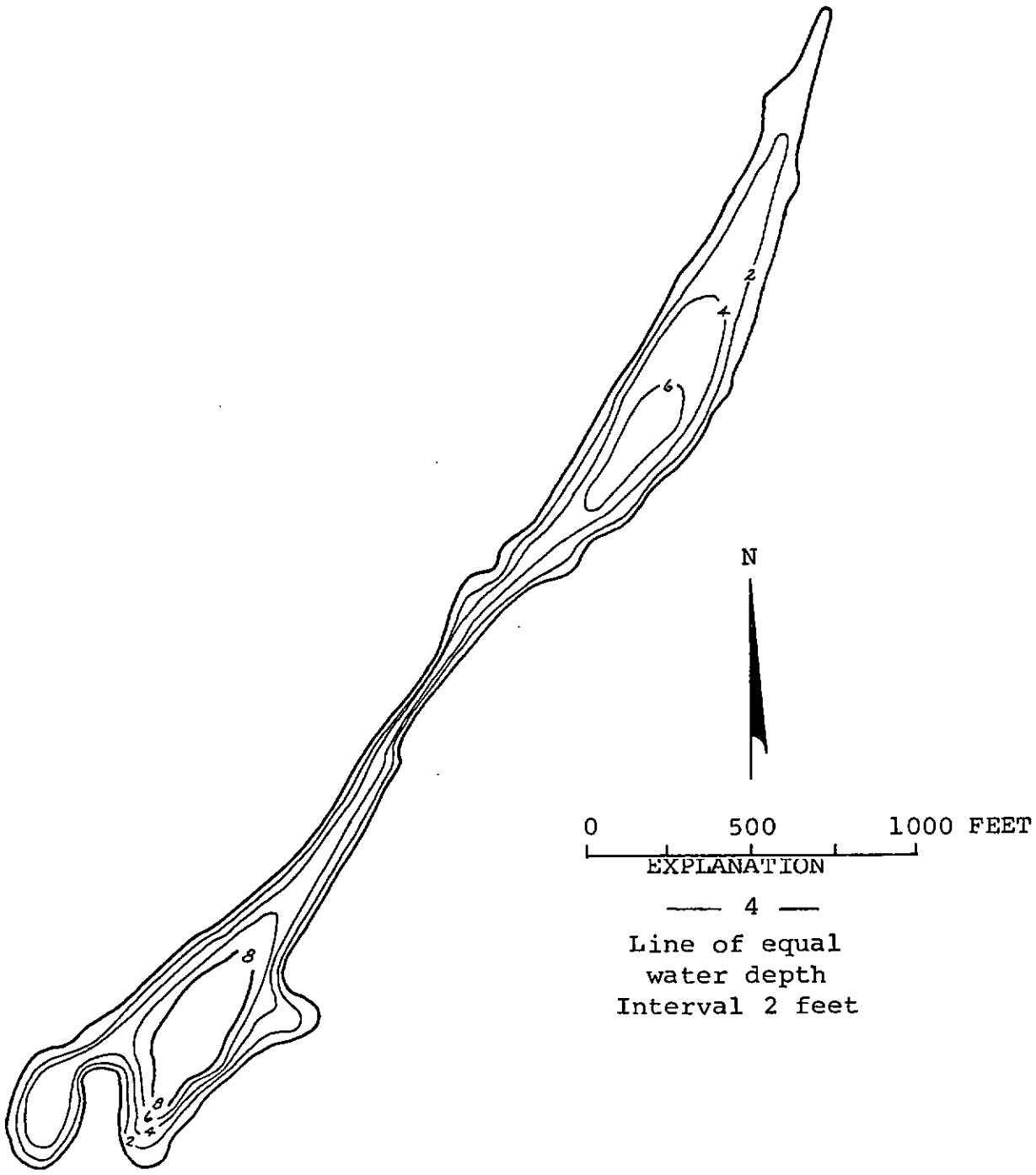


Table Lake, Grant County. From
U.S. Geological Survey, May 7, 1974.

UNNAMED (18N-25E-31) LAKE GRANT COUNTY

LATITUDE 47° 0'47" LONGITUDE 119°44'16" T18N-R25E-31
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1146. FT		
LAKE AREA	150. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	410. ACRE-FT		
MEAN DEPTH	3. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	7. FT		
SHORELINE LENGTH	5.6 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	3.2		
DEVELOPMENT OF VOLUME	0.39		
BOTTOM SLOPE	0.24 %		
BASIN GEOLOGY	SED./META.		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

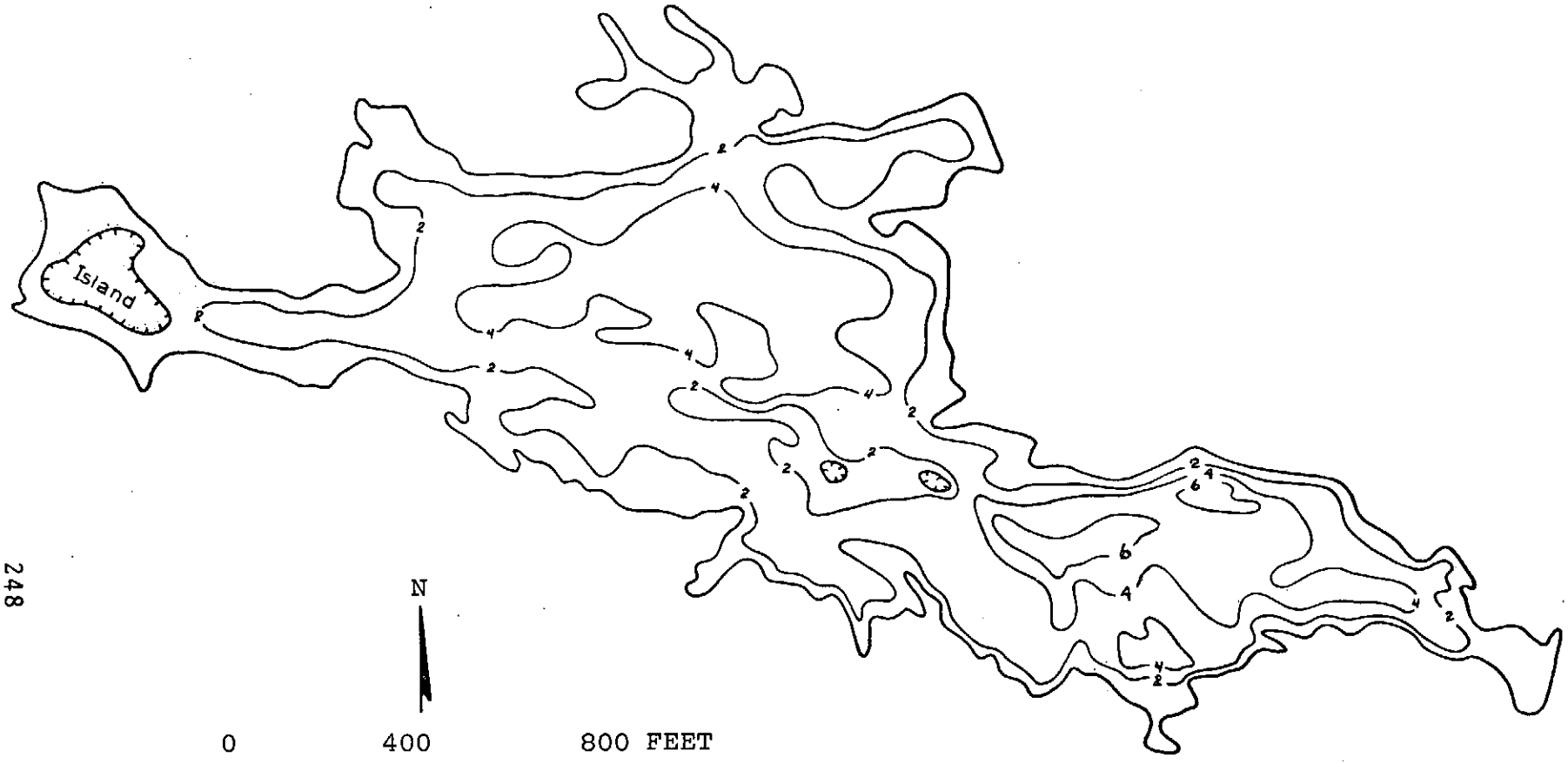
SAMPLE SITE	1	
DATE	5/10/74	
TIME	1415	1500
DEPTH (FT)	1.6	2.
TOTAL NITRATE (N)	1.1	--
TOTAL NITRITE (N)	0.01	--
TOTAL AMMONIA (N)	0.07	--
TOTAL ORGANIC NITROGEN (N)	0.30	--
TOTAL PHOSPHORUS (P)	0.024	--
TOTAL ORTHOPHOSPHATE (P)	0.005	--
SPECIFIC CONDUCTANCE (MICROMHOS)	550	--
WATER TEMPERATURE (DEG C)	19.5	19.5
COLOR (PLATINUM-COBALT UNITS)	--	--
SECCHI-DISC VISIBILITY (FT)	> 2	
DISSOLVED OXYGEN	13.4	13.4

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	5/10/74
TIME	1435
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	8
FECAL COLIFORM, MAXIMUM (COL./100ML)	169
FECAL COLIFORM, MEAN (COL./100ML)	62

REMARKS

THE LAKE WAS FORMED BY BACKWATER OF THE FRENCHMAN HILLS WASTEWAY. THE LITTORAL BOTTOM IS SILT AND MUCK. APPROXIMATELY 90 PERCENT OF THE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (CATTAILS AND SEDGE). THE TURBIDITY OF THE WATER PRECLUDED DETERMINATIONS OF COLOR. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE LAKE IS AFFECTED BY IRRIGATION WATER FROM OUTSIDE THE NATURAL DRAINAGE AREA.



Unnamed (18N-25E-31) Lake, Grant County.
From U.S. Geological Survey, March 3, 1975.

UNNAMED (20N-28E-4) LAKE GRANT COUNTY

LATITUDE 47°15'54" LONGITUDE 119°18'56" T20N-R28E-4
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	2100. SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1118. FT		
LAKE AREA	110. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	360. ACRE-FT		
MEAN DEPTH	3. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	9. FT		
SHORELINE LENGTH	3.2 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	2.2		
DEVELOPMENT OF VOLUME	0.37		
BOTTOM SLOPE	0.36 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

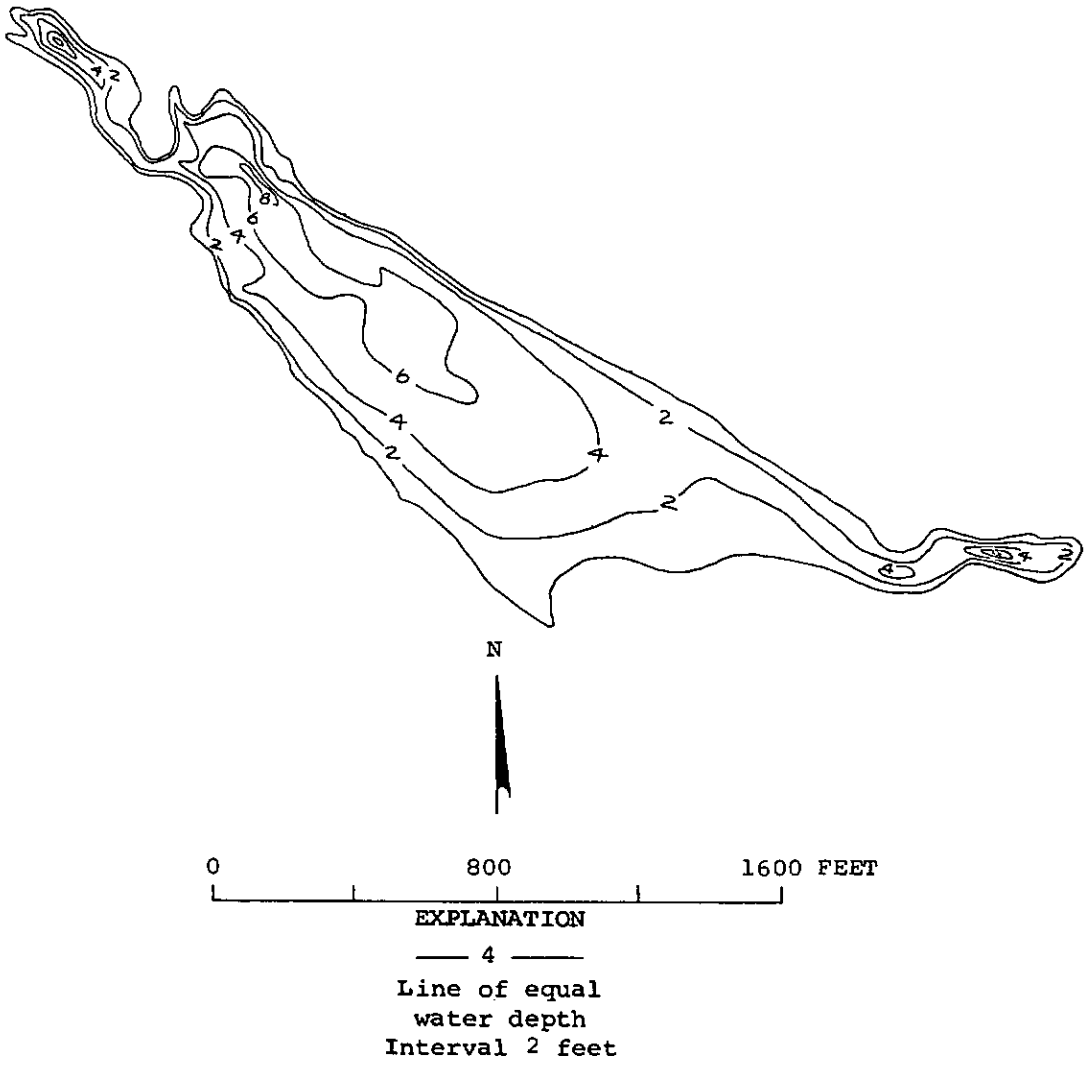
SAMPLE SITE	1	
DATE	5/31/74	
TIME	1200	1205
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.13	0.12
TOTAL ORGANIC NITROGEN (N)	0.82	0.78
TOTAL PHOSPHORUS (P)	0.096	0.086
TOTAL ORTHOPHOSPHATE (P)	0.015	0.015
SPECIFIC CONDUCTANCE (MICROMHOS)	540	540
WATER TEMPERATURE (DEG C)	18.0	16.4
COLOR (PLATINUM-COBALT UNITS)	30	30
SECCHI-DISC VISIBILITY (FT)	1	
DISSOLVED OXYGEN	9.2	7.8

LAKE SHORELINE COVERED BY EMERSED PLANTS	26- 50 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	5/31/74
TIME	1200
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	2
FECAL COLIFORM, MAXIMUM (COL./100ML)	16
FECAL COLIFORM, MEAN (COL./100ML)	7

REMARKS

THE LAKE IS AN ENLARGEMENT OF CRAB CREEK. THE LITTORAL BOTTOM IS SILT AND MUCK BUT VERY FEW SUBMERSED AQUATIC PLANTS WERE OBSERVED. THE WATER WAS VERY SILTY AND MURKY. AN ALGAL BLOOM WAS OBSERVED. LAND USE WAS NOT DETERMINED BECAUSE OF THE SIZE OF THE DRAINAGE AREA.



Unnamed (20N-28E-4) Lake, Grant County. From U.S. Geological Survey, March 10, 1975.

UNNAMED (20N-28E-10) LAKE GRANT COUNTY

LATITUDE 47°14'37" LONGITUDE 119°17'49" T20N-R28E-10
CRAB CREEK BASIN

PHYSICAL DATA			CULTURAL DATA	
DRAINAGE AREA	2100.	SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1108.	FT		
LAKE AREA	83.	ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	260.	ACRE-FT		
MEAN DEPTH	3.	FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	7.	FT		
SHORELINE LENGTH	3.2	MI	NOT DETERMINED	
SHORELINE CONFIGURATION	2.5			
DEVELOPMENT OF VOLUME	0.44			
BOTTOM SLOPE	0.33	%		
BASIN GEOLOGY	SED./META.			
INFLOW	PERENNIAL			
OUTFLOW CHANNEL	PRESENT		PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

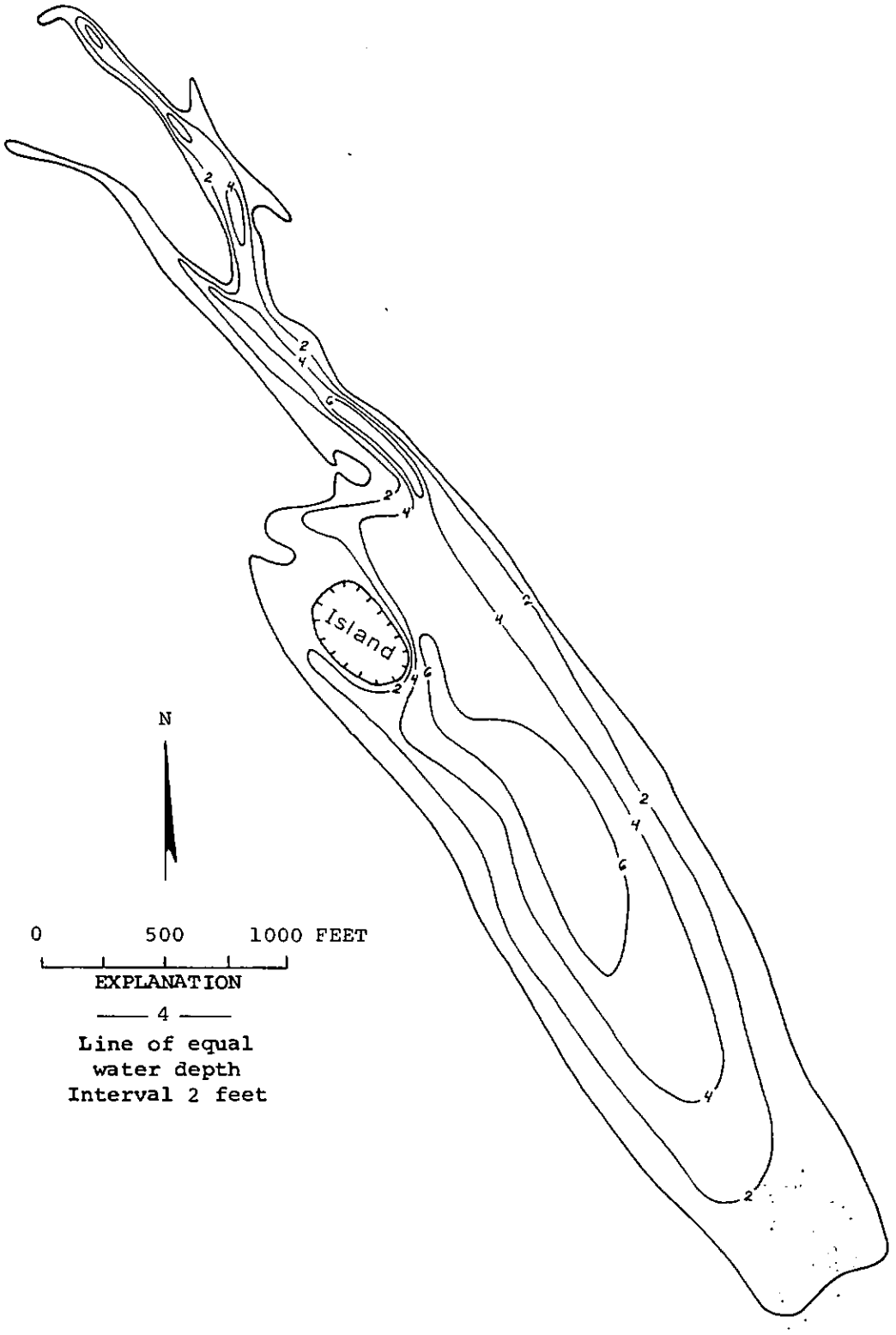
SAMPLE SITE	1	
DATE	5/31/74	
TIME	1330	1335
DEPTH (FT)	2.	5.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.13	0.14
TOTAL ORGANIC NITROGEN (N)	0.85	0.80
TOTAL PHOSPHORUS (P)	0.14	0.13
TOTAL ORTHOPHOSPHATE (P)	0.028	0.026
SPECIFIC CONDUCTANCE (MICROMHOS)	500	500
WATER TEMPERATURE (DEG C)	19.8	17.2
COLOR (PLATINUM-COBALT UNITS)	30	30
SECCHI-DISC VISIBILITY (FT)	1	
DISSOLVED OXYGEN	10.1	8.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	5/31/74
TIME	1330
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	4
FECAL COLIFORM, MAXIMUM (COL./100ML)	31
FECAL COLIFORM, MEAN (COL./100ML)	21

REMARKS

THE LAKE IS AN ENLARGEMENT OF CRAB CREEK. THE LITTORAL BOTTOM IS SILT AND CLAY BUT VERY FEW SUBMERSED AQUATIC PLANTS WERE OBSERVED. THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (CATTAIL AND SEDGE). AN ALGAL BLOOM WAS OBSERVED. THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION. LAND USE WAS NOT DETERMINED BECAUSE OF THE SIZE OF THE DRAINAGE AREA.



Unnamed (20N-28E-10) Lake, Grant County. From U.S. Geological Survey, March 10, 1975.

UNNAMED (21N-27E-16) LAKE GRANT COUNTY

LATITUDE 47°18'44" LONGITUDE 119°26'39" T21N-R27E-16
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1072. FT		
LAKE AREA	27. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	-- ACRE-FT		
MEAN DEPTH	-- FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	-- FT		
SHORELINE LENGTH	-- MI	NOT DETERMINED	
SHORELINE CONFIGURATION	--		
DEVELOPMENT OF VOLUME	--		
BOTTOM SLOPE	-- %		
BASIN GEOLOGY	SED./META.		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1	
DATE	6/ 6/74	
TIME	1115	1120
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	0.02	0.04
TOTAL NITRITE (N)	0.00	0.01
TOTAL AMMONIA (N)	0.05	0.05
TOTAL ORGANIC NITROGEN (N)	0.20	0.29
TOTAL PHOSPHORUS (P)	0.14	0.11
TOTAL ORTHOPHOSPHATE (P)	0.10	0.11
SPECIFIC CONDUCTANCE (MICROMHOS)	385	380
WATER TEMPERATURE (DEG C)	13.4	13.3
COLOR (PLATINUM-COBALT UNITS)	0	0
SECCHI-DISC VISIBILITY (FT)	> 5	
DISSOLVED OXYGEN	10.8	10.9

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/ 6/74
TIME	1200
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	4
FECAL COLIFORM, MAXIMUM (COL./100ML)	5
FECAL COLIFORM, MEAN (COL./100ML)	4

REMARKS

THE LAKE IS AN ENLARGEMENT OF ROCKY FORD CREEK AND IS FED IN PART BY SPRINGS AND IRRIGATION DRAINAGE. THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (CATTAIL AND RUSHES). THE LITTORAL BOTTOM IS SILT AND MUCK BUT VERY FEW SUBMERSED AQUATIC PLANTS WERE OBSERVED. AN ABANDONED SPRING-FED FISH HATCHERY IS LOCATED ON THE NORTHEAST SHORE. BATHYMETRIC DATA ARE NOT AVAILABLE. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE LAKE IS AFFECTED BY IRRIGATION WATER FROM OUTSIDE THE NATURAL DRAINAGE AREA.

UNNAMED (22N-29E-26) LAKE GRANT COUNTY

LATITUDE 47°22'39" LONGITUDE 119° 8'14" T22N-R29E-26
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	12.0 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1305. FT		
LAKE AREA	29. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME (EST.)	37. ACRE-FT		
MEAN DEPTH (EST.)	1. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	2. FT		
SHORELINE LENGTH	1.6 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.1	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.55	AGRICULTURAL	100 %
BOTTOM SLOPE	0.18 %	FOREST OR UNPRODUCTIVE	<1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	<1 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1	
DATE	6/ 6/74	
TIME	1330	1335
DEPTH (FT)	1.	2.
TOTAL NITRATE (N)	0.02	0.10
TOTAL NITRITE (N)	0.06	0.06
TOTAL AMMONIA (N)	0.44	0.45
TOTAL ORGANIC NITROGEN (N)	3.2	2.9
TOTAL PHOSPHORUS (P)	0.93	0.97
TOTAL ORTHOPHOSPHATE (P)	0.92	0.83
SPECIFIC CONDUCTANCE (MICROMHOS)	2750	2750
WATER TEMPERATURE (DEG C)	16.8	16.8
COLOR (PLATINUM-COBALT UNITS)	10	10
SECCHI-DISC VISIBILITY (FT)	1	
DISSOLVED OXYGEN	8.3	8.3

LAKE SHORELINE COVERED BY EMERSED PLANTS 51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE	6/ 6/74
TIME	1340
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	12
FECAL COLIFORM, MAXIMUM (COL./100ML)	26
FECAL COLIFORM, MEAN (COL./100ML)	19

REMARKS

THE VOLUME AND MEAN DEPTH ARE ESTIMATED.

VIRGIN LAKE GRANT COUNTY

LATITUDE 46*56'38" LONGITUDE 119* 9'59" T17N-R29E-22
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	0.33 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1015. FT		
LAKE AREA	11. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	110. ACRE-FT		
MEAN DEPTH	10. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	21. FT		
SHORELINE LENGTH	0.74 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.6	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.46	AGRICULTURAL	95 %
BOTTOM SLOPE	2.7 %	FOREST OR UNPRODUCTIVE	0 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	5 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

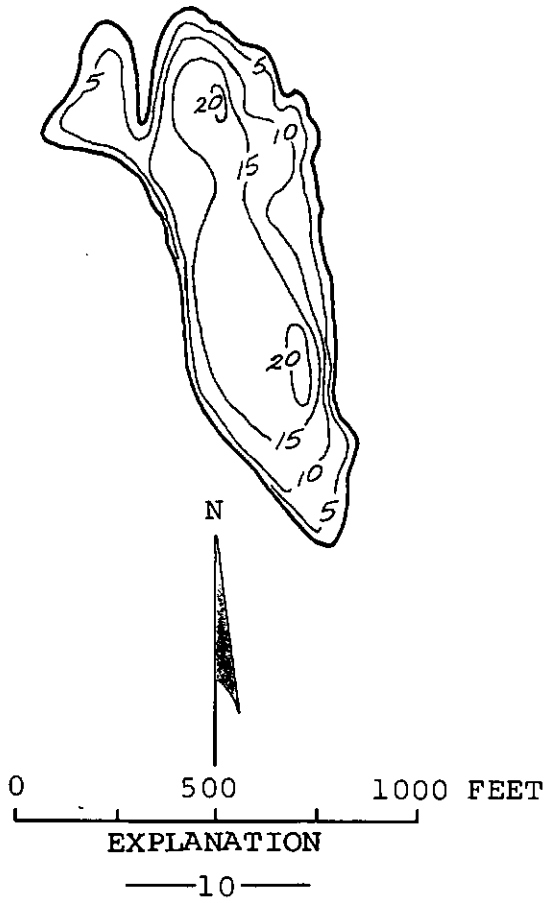
SAMPLE SITE	1	
DATE	5/25/74	
TIME	1400	1405
DEPTH (FT)	3.	10.
TOTAL NITRATE (N)	0.11	0.10
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.10	0.09
TOTAL ORGANIC NITROGEN (N)	0.46	0.54
TOTAL PHOSPHORUS (P)	0.025	0.032
TOTAL ORTHOPHOSPHATE (P)	0.002	0.002
SPECIFIC CONDUCTANCE (MICROMHOS)	525	525
WATER TEMPERATURE (DEG C)	17.8	17.0
COLOR (PLATINUM-COBALT UNITS)	5	5
SECCHI-DISC VISIBILITY (FT)	>13	
DISSOLVED OXYGEN	10.8	11.1

LAKE SHORELINE COVERED BY EMERSED PLANTS	11- 25 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	5/25/74
TIME	1400
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	<1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

A RELATIVELY NEW LAKE THAT IS NOT SHOWN ON EXISTING TOPOGRAPHIC MAPS. FLOATING DEBRIS OCCURRED LOCALLY ON THE SHORELINE. THE ENTIRE BOTTOM WAS COVERED WITH SUBMERSED AQUATIC PLANTS (PONDWEED AND WATER MILFOIL). THE DO CONCENTRATION WAS HIGH THROUGHOUT THE ENTIRE WATER COLUMN.



Virgin Lake, Grant County. From
U.S. Geological Survey, September 23, 1974.

WARDEN LAKE GRANT COUNTY

LATITUDE 46°57'46" LONGITUDE 119°10'25" T17N-R29E-15
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	10 %
ALTITUDE	1076. FT		
LAKE AREA	200. ACRES	NUMBER OF NEARSHORE HOMES	14
LAKE VOLUME	5300. ACRE-FT		
MEAN DEPTH	27. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	71. FT		
SHORELINE LENGTH	5.3 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	2.7		
DEVELOPMENT OF VOLUME	0.37		
BOTTOM SLOPE	2.1 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

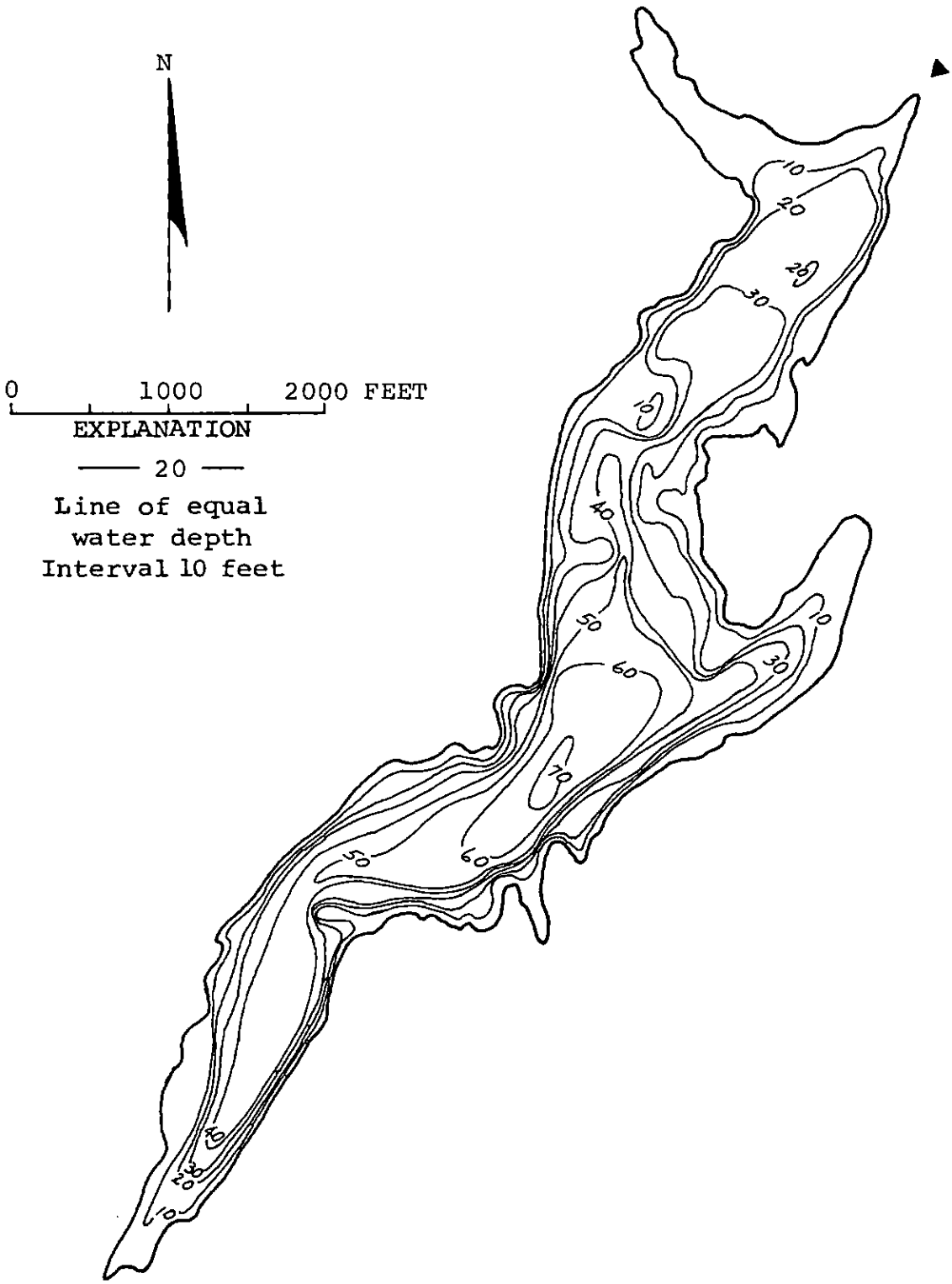
SAMPLE SITE	1	
DATE	5/28/74	
TIME	1430	1435
DEPTH (FT)	3.	66.
TOTAL NITRATE (N)	0.24	0.00
TOTAL NITRITE (N)	0.02	0.00
TOTAL AMMONIA (N)	0.06	1.1
TOTAL ORGANIC NITROGEN (N)	0.62	0.40
TOTAL PHOSPHORUS (P)	0.027	0.043
TOTAL ORTHOPHOSPHATE (P)	0.007	0.007
SPECIFIC CONDUCTANCE (MICROMHOS)	640	700
WATER TEMPERATURE (DEG C)	19.0	8.1
COLOR (PLATINUM-COBALT UNITS)	5	35
SECCHI-DISC VISIBILITY (FT)	5	
DISSOLVED OXYGEN	14.6	0.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	5/28/74
TIME	1430
NUMBER OF FECAL COLIFORM SAMPLES	5
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	40
FECAL COLIFORM, MEAN (COL./100ML)	9

REMARKS

A RELATIVELY NEW LAKE THAT IS NOT SHOWN ON EXISTING TOPOGRAPHIC MAPS. FLOATING DEBRIS OCCURRED LOCALLY ALONG THE SHORELINE. THE ALGAL DENSITY WAS MODERATELY HIGH. HYDROGEN SULFIDE WAS DETECTED IN THE HYPOLIMNION. THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION. RECREATIONAL USE OF THE LAKE IS HEAVY. IN 1975 THE U.S. GEOLOGICAL SURVEY WILL SAMPLE THE LAKE FOUR TIMES. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE LAKE IS AFFECTED BY IRRIGATION WATER FROM OUTSIDE THE NATURAL DRAINAGE AREA.



Warden Lake, Grant County. From
U.S. Geological Survey, August 23, 1974.

Warden Lake, Grant County. From
U.S. Geological Survey, May 28, 1974.

WARDEN, SOUTH LAKE GRANT COUNTY

LATITUDE 46°57'10" LONGITUDE 119° 9'47" T17N-R29E-15
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1076. FT		
LAKE AREA	23. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	220. ACRE-FT		
MEAN DEPTH	9. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	26. FT		
SHORELINE LENGTH	1.4 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	2.1		
DEVELOPMENT OF VOLUME	0.36		
BOTTOM SLOPE	2.3 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

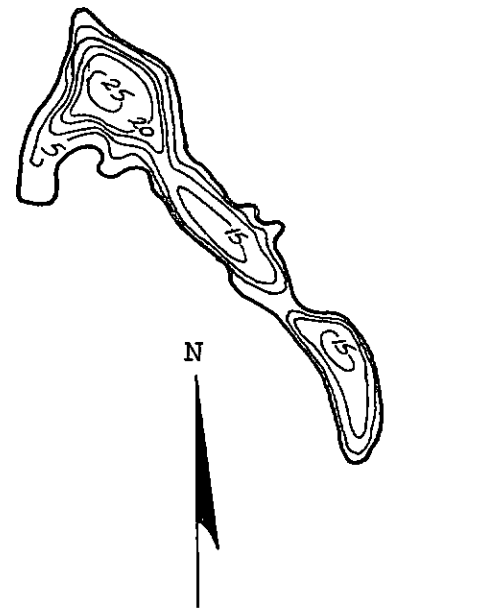
SAMPLE SITE	1	
DATE	5/28/74	
TIME	1630	1635
DEPTH (FT)	3.	11.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.05	0.05
TOTAL ORGANIC NITROGEN (N)	0.73	0.86
TOTAL PHOSPHORUS (P)	0.038	0.036
TOTAL ORTHOPHOSPHATE (P)	0.005	0.005
SPECIFIC CONDUCTANCE (MICROMHOS)	800	780
WATER TEMPERATURE (DEG C)	18.0	17.5
COLOR (PLATINUM-COBALT UNITS)	10	10
SECCHI-DISC VISIBILITY (FT)	>15	
DISSOLVED OXYGEN	12.4	11.8

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	5/28/74
TIME	1600
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	2
FECAL COLIFORM, MEAN (COL./100ML)	1

REMARKS

A SEEPAGE LAKE THAT FORMED ABOUT 1960. THE LITTORAL BOTTOM IS SILT AND MUCK AND WAS COMPLETELY COVERED WITH SUBMERSED AQUATIC PLANTS (PONDWEED AND CHARA); THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (CATTAIL AND SEDGE). THE DO CONCENTRATION WAS HIGH THROUGHOUT THE ENTIRE WATER COLUMN. THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION AND IS CONNECTED TO WARDEN LAKE BY A CULVERT. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE LAKE IS AFFECTED BY IRRIGATION WATER FROM OUTSIDE THE NATURAL DRAINAGE AREA.



Warden, South Lake, Grant County. From
U.S. Geological Survey, August 22, 1974.

WILLOW LAKE GRANT COUNTY

LATITUDE 47*20' 6" LONGITUDE 119*21'58" T21N-R27E-12
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	2080. SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1160. FT		
LAKE AREA	21. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME (EST.)	130. ACRE-FT		
MEAN DEPTH (EST.)	6. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	11. FT		
SHORELINE LENGTH	1.4 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	2.2		
DEVELOPMENT OF VOLUME	0.55		
BOTTOM SLOPE	1.0 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1	
DATE	5/31/74	
TIME	1600	1605
DEPTH (FT)	3.	8.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.08	0.12
TOTAL ORGANIC NITROGEN (N)	0.76	0.71
TOTAL PHOSPHORUS (P)	0.11	0.11
TOTAL ORTHOPHOSPHATE (P)	0.029	0.048
SPECIFIC CONDUCTANCE (MICROMHOS)	460	460
WATER TEMPERATURE (DEG C)	19.0	16.5
COLOR (PLATINUM-COBALT UNITS)	25	30
SECCHI-DISC VISIBILITY (FT)	2	
DISSOLVED OXYGEN	10.3	7.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	26- 50 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	5/31/74
TIME	1600
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	3
FECAL COLIFORM, MAXIMUM (COL./100ML)	48
FECAL COLIFORM, MEAN (COL./100ML)	18

REMARKS

THE LAKE IS AN ENLARGEMENT OF CRAB CREEK AND IS CONNECTED TO SOUTH WILLOW LAKE BY A NARROW NECK. THE VOLUME AND MEAN DEPTH ARE ESTIMATED. AN ALGAL BLOOM WAS OBSERVED. NUMEROUS DEAD SNAGS OCCURRED LOCALLY ALONG THE SHORE. VERY FEW SUBMERSED AQUATIC PLANTS WERE OBSERVED. LAND USE WAS NOT DETERMINED BECAUSE OF THE SIZE OF THE DRAINAGE AREA.

Willow Lake, Grant County. From
U.S. Geological Survey, May 31, 1974.

WILLOW, SOUTH LAKE GRANT COUNTY

LATITUDE 47°19'24" LONGITUDE 119°21'50" T21N-R27E-13
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	2080. SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1160. FT		
LAKE AREA	36. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME (EST.)	140. ACRE-FT		
MEAN DEPTH (EST.)	4. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	7. FT		
SHORELINE LENGTH	2.9 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	3.4		
DEVELOPMENT OF VOLUME	0.55		
BOTTOM SLOPE	0.49 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1	
DATE	5/31/74	
TIME	1500	1505
DEPTH (FT)	2.	5.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.09	0.10
TOTAL ORGANIC NITROGEN (N)	0.79	0.78
TOTAL PHOSPHORUS (P)	0.11	0.14
TOTAL ORTHOPHOSPHATE (P)	0.029	0.030
SPECIFIC CONDUCTANCE (MICROMHOS)	490	490
WATER TEMPERATURE (DEG C)	20.5	17.0
COLOR (PLATINUM-COBALT UNITS)	30	30
SECCHI-DISC VISIBILITY (FT)		
DISSOLVED OXYGEN	2 9.5	7.8

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	5/31/74
TIME	1500
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	74
FECAL COLIFORM, MEAN (COL./100ML)	25

REMARKS

THE LAKE IS AN ENLARGEMENT OF CRAB CREEK AND IS CONNECTED TO WILLOW LAKE BY A NARROW NECK. THE VOLUME AND MEAN DEPTH ARE ESTIMATED. THE LITTORAL BOTTOM IS SILT AND GRAVEL. AN ALGAL BLOOM WAS OBSERVED. LAND USE WAS NOT DETERMINED BECAUSE OF THE SIZE OF THE DRAINAGE AREA.

Willow, South Lake, Grant County.
From U.S. Geological Survey, May 31, 1974.

WINCHESTER WASTEWAY LAKE GRANT COUNTY

LATITUDE 47° 6'16" LONGITUDE 119°37'11" T19N-R25E-25
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1147. FT		
LAKE AREA	660. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	2700. ACRE-FT		
MEAN DEPTH	-- FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	-- FT		
SHORELINE LENGTH	-- MI	NOT DETERMINED	
SHORELINE CONFIGURATION	--		
DEVELOPMENT OF VOLUME	--		
BOTTOM SLOPE	-- %		
BASIN GEOLOGY	SED./META.		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1	
DATE	6/12/74	
TIME	945	950
DEPTH (FT)	3.	5.
TOTAL NITRATE (N)	0.71	0.72
TOTAL NITRITE (N)	0.03	0.03
TOTAL AMMONIA (N)	0.08	0.08
TOTAL ORGANIC NITROGEN (N)	0.58	0.62
TOTAL PHOSPHORUS (P)	0.071	0.069
TOTAL ORTHOPHOSPHATE (P)	0.008	0.009
SPECIFIC CONDUCTANCE (MICROMHOS)	420	420
WATER TEMPERATURE (DEG C)	20.0	19.9
COLOR (PLATINUM-COBALT UNITS)	20	20
SECCHI-DISC VISIBILITY (FT)		
DISSOLVED OXYGEN	2 17.1	16.9

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/12/74
TIME	1005
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	5
FECAL COLIFORM, MAXIMUM (COL./100ML)	13
FECAL COLIFORM, MEAN (COL./100ML)	10

REMARKS

THE LAKE IS COMPOSED OF NUMEROUS SMALL PONDS AND IS AN ENLARGEMENT OF THE WINCHESTER WASTEWAY. THE BOTTOM IS SILT AND MUCK BUT VERY FEW SUBMERSED AQUATIC PLANTS WERE OBSERVED. THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (CATTAIL AND RUSHES). AN ALGAL BLOOM WAS OBSERVED. THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE LAKE RECEIVES IRRIGATION WATER FROM OUTSIDE THE NATURAL DRAINAGE AREA. BATHYMETRIC DATA ARE NOT AVAILABLE.

WINCHESTER WASTEWAY EXT LAKE GRANT COUNTY

LATITUDE 47° 1'20" LONGITUDE 119°30' 2" T18N-R26E-25
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1100. FT		
LAKE AREA	400. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	-- ACRE-FT		
MEAN DEPTH	-- FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	-- FT		
SHORELINE LENGTH	-- MI	NOT DETERMINED	
SHORELINE CONFIGURATION	--		
DEVELOPMENT OF VOLUME	--		
BOTTOM SLOPE	-- %		
BASIN GEOLOGY	SED./META.		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1		2	
DATE	6/11/74		6/11/74	
TIME	1530	1535	1610	1615
DEPTH (FT)	2.	3.	2.	3.
TOTAL NITRATE (N)	0.20	0.23	0.33	0.35
TOTAL NITRITE (N)	0.03	0.03	0.03	0.03
TOTAL AMMONIA (N)	0.13	0.06	0.04	0.05
TOTAL ORGANIC NITROGEN (N)	1.1	0.72	0.55	0.58
TOTAL PHOSPHORUS (P)	0.044	0.055	0.052	0.071
TOTAL ORTHOPHOSPHATE (P)	0.007	0.008	0.006	0.006
SPECIFIC CONDUCTANCE (MICROMHOS)	420	410	420	420
WATER TEMPERATURE (DEG C)	24.8	23.0	25.2	22.1
COLOR (PLATINUM-COBALT UNITS)	10	20	10	15
SECCHI-DISC VISIBILITY (FT)	4		2	
DISSOLVED OXYGEN	13.6	13.5	13.4	14.3

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	6/11/74
TIME	1620
NUMBER OF FECAL COLIFORM SAMPLES	5
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	60
FECAL COLIFORM, MEAN (COL./100ML)	13

REMARKS

THE LAKE IS COMPOSED OF NUMEROUS SMALL PONDS AND IS AN ENLARGEMNET OF THE WINCHESTER WASTEWAY. THE LITTORAL BOTTOM IS SILT AND MUCK. THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (CATTAIL AND SEDGE). THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE THE LAKE RECEIVES IRRIGATION WATER FROM OUTSIDE THE NATURAL DRAINAGE AREA. BATHYMETRIC DATA ARE NOT AVAILABLE.

WINDMILL LAKE GRANT COUNTY

LATITUDE 46*55'47" LONGITUDE 119*10'46" T17N-R29E-28
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	4.23 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	980. FT		
LAKE AREA	33. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	760. ACRE-FT		
MEAN DEPTH	23. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	53. FT		
SHORELINE LENGTH	1.7 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.2	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.44	AGRICULTURAL	95 %
BOTTOM SLOPE	3.9 %	FOREST OR UNPRODUCTIVE	4 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

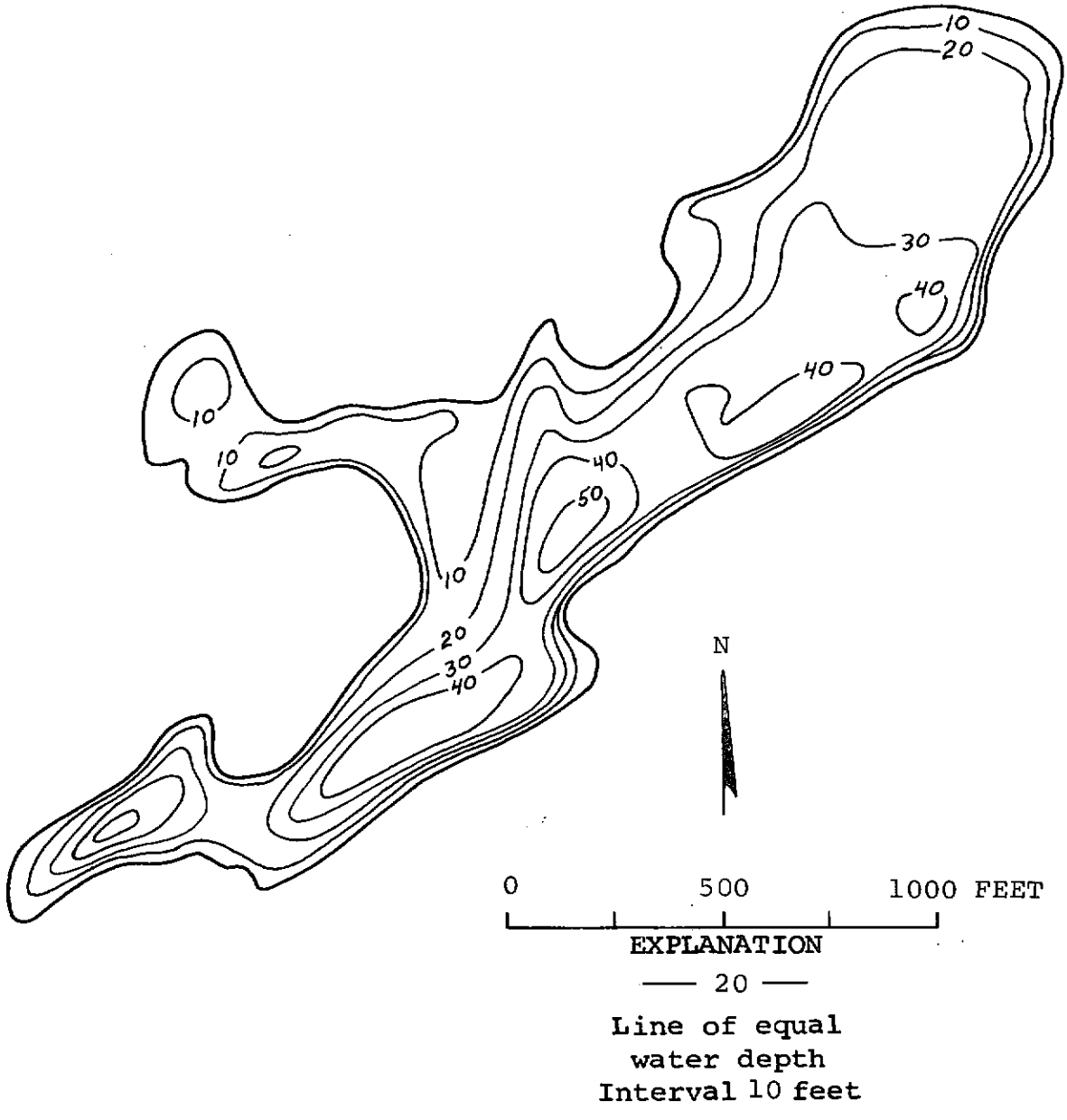
SAMPLE SITE	1	
DATE	5/25/74	
TIME	1100	1105
DEPTH (FT)	3.	39.
TOTAL NITRATE (N)	0.00	0.01
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.08	1.0
TOTAL ORGANIC NITROGEN (N)	0.74	0.20
TOTAL PHOSPHORUS (P)	0.056	0.13
TOTAL ORTHOPHOSPHATE (P)	0.014	0.084
SPECIFIC CONDUCTANCE (MICROMHOS)	560	600
WATER TEMPERATURE (DEG C)	17.0	10.2
COLOR (PLATINUM-COBALT UNITS)	15	50
SECCHI-DISC VISIBILITY (FT)	3	
DISSOLVED OXYGEN	13.2	0.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	5/25/74
TIME	1130
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	2
FECAL COLIFORM, MAXIMUM (COL./100ML)	7
FECAL COLIFORM, MEAN (COL./100ML)	5

REMARKS

RECREATIONAL USE OF THE LAKE IS HEAVY. HYDROGEN SULFIDE WAS DETECTED IN THE HYPOLIMNION. AN ALGAL BLOOM WAS OBSERVED.



Windmill Lake, Grant County. From
U.S. Geological Survey, March 3, 1975.

WINDMILL, NORTH LAKE GRANT COUNTY

LATITUDE 46°56'10" LONGITUDE 119°10'16" T17N-R29E-27
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	4.23 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	986. FT		
LAKE AREA	10. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	130. ACRE-FT		
MEAN DEPTH	13. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	36. FT		
SHORELINE LENGTH	0.61 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.4	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.37	AGRICULTURAL	95 %
BOTTOM SLOPE	4.9 %	FOREST OR UNPRODUCTIVE	5 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	<1 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

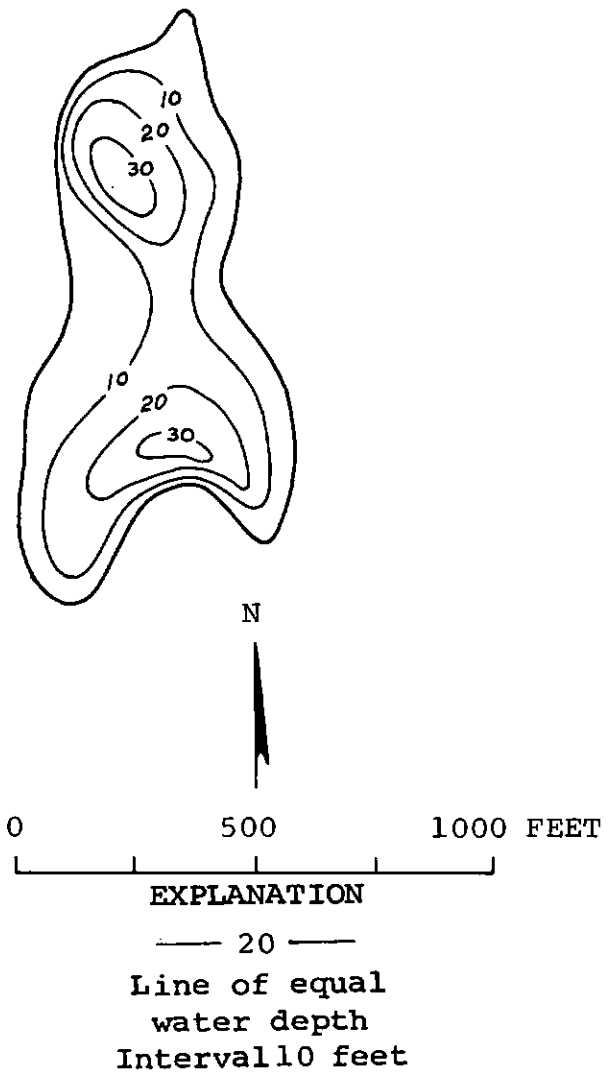
SAMPLE SITE	1	
DATE	5/25/74	
TIME	1230	1235
DEPTH (FT)	3.	16.
TOTAL NITRATE (N)	0.02	0.01
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.04	0.05
TOTAL ORGANIC NITROGEN (N)	0.64	0.68
TOTAL PHOSPHORUS (P)	0.047	0.054
TOTAL ORTHOPHOSPHATE (P)	0.005	0.006
SPECIFIC CONDUCTANCE (MICROMHOS)	600	600
WATER TEMPERATURE (DEG C)	17.0	13.5
COLOR (PLATINUM-COBALT UNITS)	10	--
SECCHI-DISC VISIBILITY (FT)	5	
DISSOLVED OXYGEN	11.4	9.8

LAKE SHORELINE COVERED BY EMERSED PLANTS	LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	5/25/74
TIME	1300
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	1
FECAL COLIFORM, MAXIMUM (COL./100ML)	11
FECAL COLIFORM, MEAN (COL./100ML)	6

REMARKS

THE LAKE WAS LOWERED ABOUT 8 FEET IN APRIL 1974 WHEN THE BASALT MASS SEPARATING WINDMILL AND NORTH WINDMILL LAKES COLLAPSED. THE LITTORAL BOTTOM IS SILT AND MUCK. VERY FEW EMERSED AQUATIC PLANTS WERE OBSERVED. THE DO CONCENTRATION WAS HIGH THROUGHOUT THE ENTIRE WATER COLUMN. NO VALUE FOR COLOR IS AVAILABLE FOR THE DEEP SAMPLE.



Windmill, North Lake, Grant County. From U.S. Geological Survey, March 3, 1975.

Windmill, North Lake, Grant County. From
U.S. Geological Survey, May 25, 1974.

AMES LAKE LINCOLN COUNTY

LATITUDE 47*22'31" LONGITUDE 117*52'28" T22N-R39E-27
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	0.72 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2190. FT		
LAKE AREA	26. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	110. ACRE-FT		
MEAN DEPTH	4. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	7. FT		
SHORELINE LENGTH	1.2 MI	RESIDENTIAL URBAN	3 %
SHORELINE CONFIGURATION	1.6	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.62	AGRICULTURAL	91 %
BOTTOM SLOPE	0.58 %	FOREST OR UNPRODUCTIVE	0 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	6 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

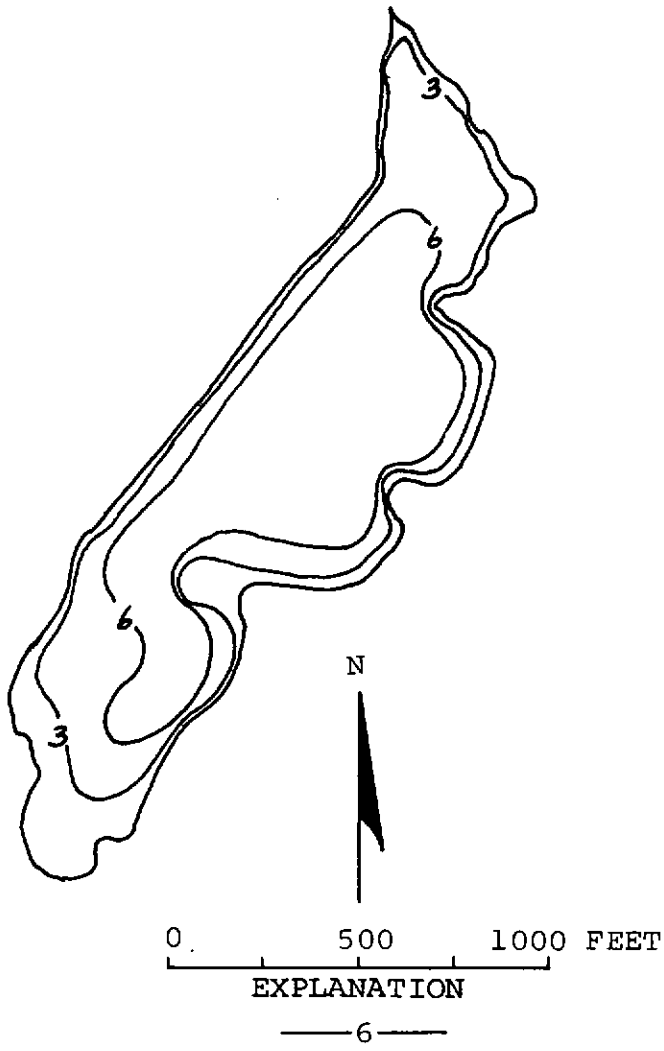
SAMPLE SITE	1	
DATE	6/25/74	
TIME	940	945
DEPTH (FT)	3.	5.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.15	0.13
TOTAL ORGANIC NITROGEN (N)	1.6	1.5
TOTAL PHOSPHORUS (P)	0.29	0.27
TOTAL ORTHOPHOSPHATE (P)	0.21	0.20
SPECIFIC CONDUCTANCE (MICROMHOS)	680	680
WATER TEMPERATURE (DEG C)	22.2	22.3
COLOR (PLATINUM-COBALT UNITS)	65	70
SECCHI-DISC VISIBILITY (FT)	4	
DISSOLVED OXYGEN	6.8	6.9

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/25/74
TIME	952
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	2
FECAL COLIFORM, MAXIMUM (COL./100ML)	6
FECAL COLIFORM, MEAN (COL./100ML)	4

REMARKS

THE LITTORAL BOTTOM IS SILT AND MUCK BUT VERY FEW SUBMERSED AQUATIC PLANTS WERE OBSERVED.



Ames Lake, Lincoln County. From
U.S. Geological Survey, July 9, 1974.

BERGEAU LAKE LINCOLN COUNTY

LATITUDE 47*37'12" LONGITUDE 118*38'46" T25N-R33E-34
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	11.1 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2087. FT		
LAKE AREA	65. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	280. ACRE-FT		
MEAN DEPTH	4. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	16. FT		
SHORELINE LENGTH	3.9 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	3.4	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.27	AGRICULTURAL	98 %
BOTTOM SLOPE	0.84 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

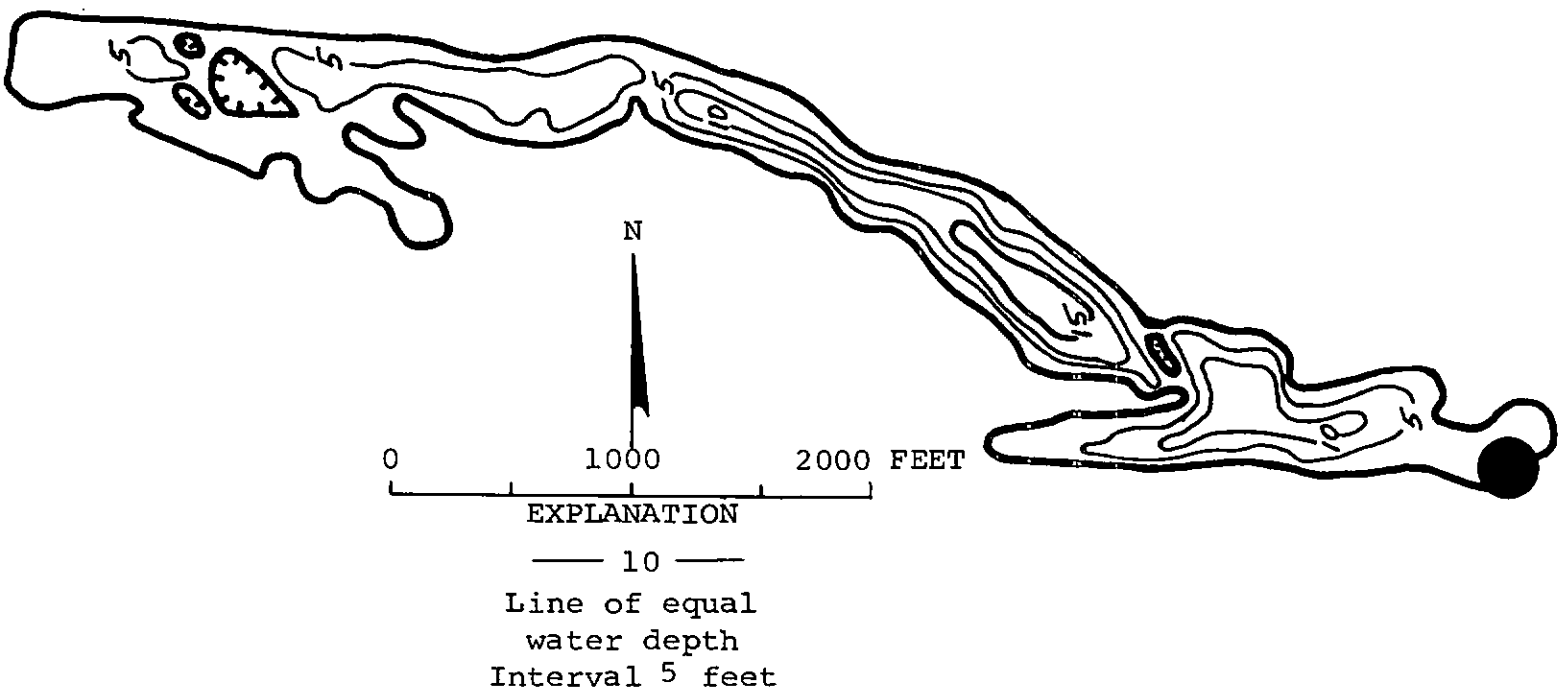
SAMPLE SITE	1	
DATE	6/17/74	
TIME	1500	1505
DEPTH (FT)	3.	7.
TOTAL NITRATE (N)	0.03	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.08	0.10
TOTAL ORGANIC NITROGEN (N)	2.5	1.9
TOTAL PHOSPHORUS (P)	0.49	0.57
TOTAL ORTHOPHOSPHATE (P)	0.39	0.46
SPECIFIC CONDUCTANCE (MICROMHOS)	580	600
WATER TEMPERATURE (DEG C)	23.1	17.7
COLOR (PLATINUM-COBALT UNITS)	40	45
SECCHI-DISC VISIBILITY (FT)	3	
DISSOLVED OXYGEN	14.3	3.7

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	6/17/74
TIME	1517
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	54
FECAL COLIFORM, MEAN (COL./100ML)	18

REMARKS

THE SHORELINE WAS COMPLETELY COVERED WITH EMERSED AQUATIC PLANTS (POLYGONUM). A DENSE ALGAL BLOOM WAS OBSERVED.



Bergeau Lake, Lincoln County. From
U.S. Geological Survey, June 4, 1974.

BOBS (TULE) LAKE LINCOLN COUNTY

LATITUDE 47°22'13" LONGITUDE 118°45'46" T22N-R32E-26
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	171. SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1442. FT		
LAKE AREA	120. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	550. ACRE-FT		
MEAN DEPTH	5. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	25. FT		
SHORELINE LENGTH	4.4 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.8	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.18	AGRICULTURAL	98 %
BOTTOM SLOPE	0.97 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

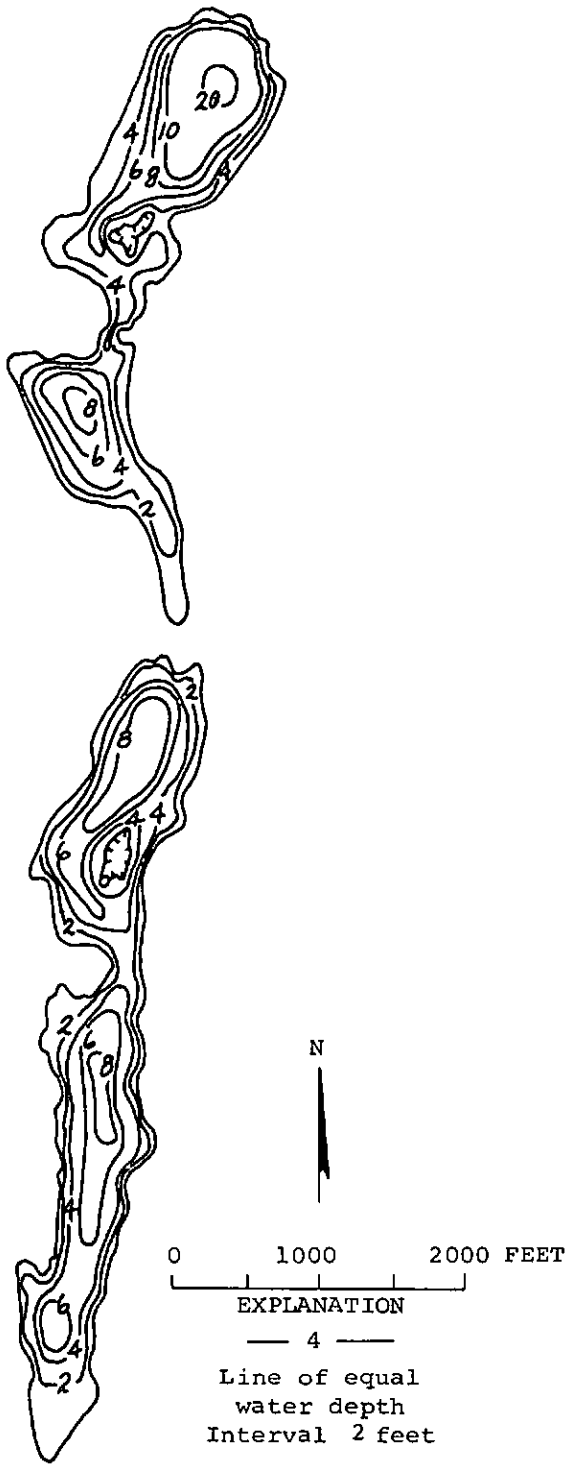
SAMPLE SITE	1	
DATE	6/19/74	
TIME	1335	1340
DEPTH (FT)	3.	8.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.15	0.23
TOTAL ORGANIC NITROGEN (N)	2.4	2.4
TOTAL PHOSPHORUS (P)	0.11	0.14
TOTAL ORTHOPHOSPHATE (P)	0.020	0.024
SPECIFIC CONDUCTANCE (MICROMHOS)	400	470
WATER TEMPERATURE (DEG C)	24.9	17.3
COLOR (PLATINUM-COBALT UNITS)	55	40
SECCHI-DISC VISIBILITY (FT)	3	
DISSOLVED OXYGEN	17.2	0.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	26- 50 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/19/74
TIME	1354
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	20
FECAL COLIFORM, MEAN (COL./100ML)	5

REMARKS

THE LAKE IS AN ENLARGEMENT OF LAKE CREEK. VERY FEW SUBMERSED AQUATIC PLANTS WERE OBSERVED. THE WATER FROM THE HYPOLIMNION HAD A FOUL ODOR. A DENSE ALGAL BLOOM WAS OBSERVED.



Bobs (Tule) Lake, Lincoln County. From
U.S. Geological Survey, October 2, 1974.

Bobs (Tule) Lake, Lincoln County. June 2, 1970. Approx. scale 1:63,000.

BROWNS LAKE LINCOLN COUNTY

LATITUDE 47°26'54" LONGITUDE 118°38'14" T23N-R33E-34
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	133. SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1687. FT		
LAKE AREA	23. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	170. ACRE-FT		
MEAN DEPTH	7. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	11. FT		
SHORELINE LENGTH	0.99 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.5	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.64	AGRICULTURAL	98 %
BOTTOM SLOPE	0.97 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

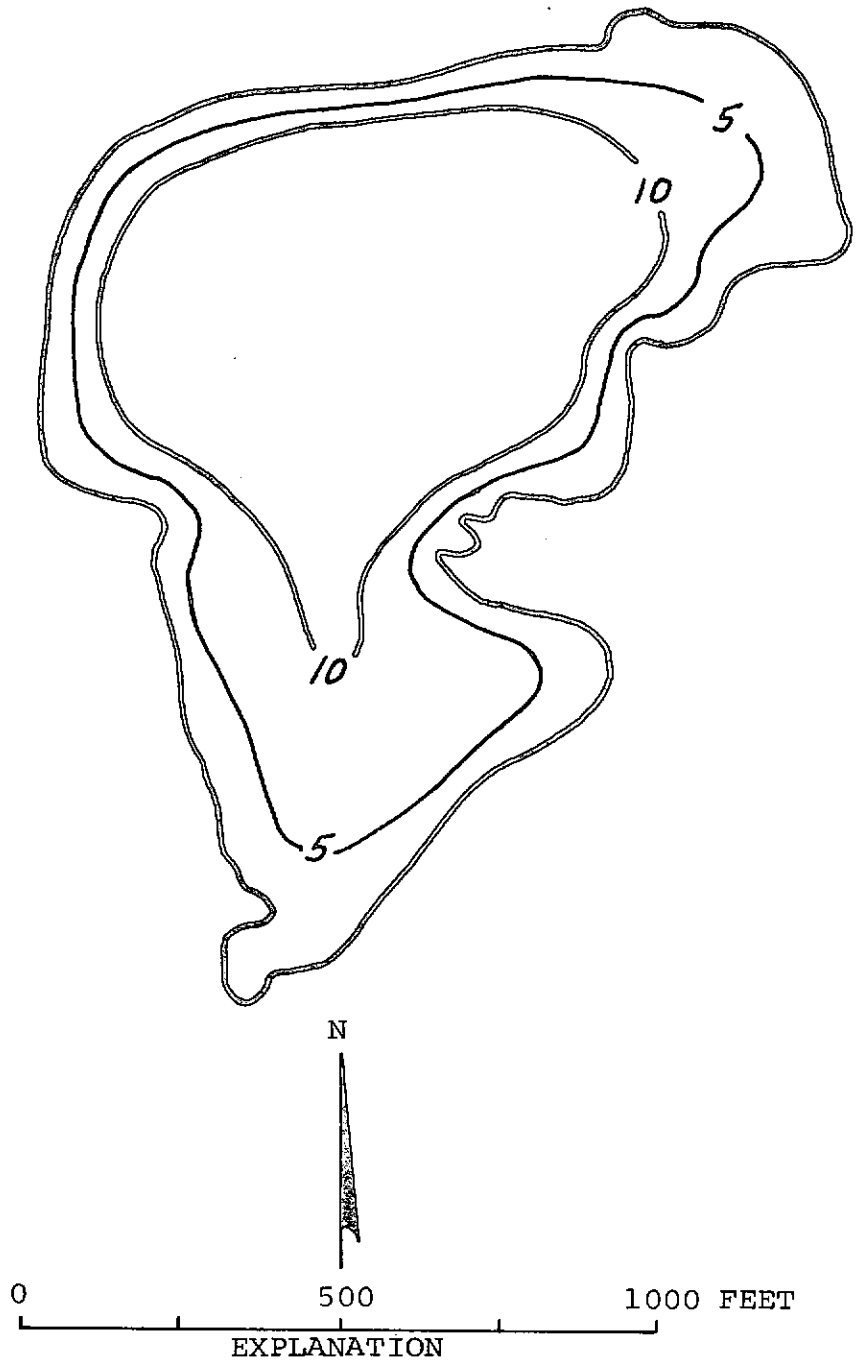
SAMPLE SITE	1	
DATE	6/19/74	
TIME	1400	1405
DEPTH (FT)	3.	7.
TOTAL NITRATE (N)	0.06	0.00
TOTAL NITRITE (N)	0.00	0.01
TOTAL AMMONIA (N)	0.03	0.07
TOTAL ORGANIC NITROGEN (N)	0.97	1.1
TOTAL PHOSPHORUS (P)	0.13	0.15
TOTAL ORTHOPHOSPHATE (P)	0.083	0.11
SPECIFIC CONDUCTANCE (MICROMHOS)	400	400
WATER TEMPERATURE (DEG C)	24.5	23.2
COLOR (PLATINUM-COBALT UNITS)	35	35
SECCHI-DISC VISIBILITY (FT)	9	
DISSOLVED OXYGEN	7.8	8.4

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	6/19/74
TIME	1430
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	1
FECAL COLIFORM, MAXIMUM (COL./100ML)	9
FECAL COLIFORM, MEAN (COL./100ML)	4

REMARKS

THE LAKE IS AN ENLARGEMENT OF LAKE CREEK AND SUPPORTS A LARGE WATERFOWL POPULATION. THE LITTORAL BOTTOM IS SILT AND MUCK AND COMPLETELY COVERED WITH SUBMERSED AQUATIC PLANTS (PONDWEED, WATER MILFOIL, AND COONTAIL). THE SHORELINE WAS COMPLETELY COVERED WITH EMERSED AQUATIC PLANTS (SEDGE).



Browns Lake, Lincoln County. From
U.S. Geological Survey, April 24, 1974.

COFFEE POT LAKE LINCOLN COUNTY

LATITUDE 47°28'47" LONGITUDE 118°36' 7" T23N-R33E-13
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	98.4 SQ MI	RESIDENTIAL DEVELOPMENT	1 %
ALTITUDE	1814. FT		
LAKE AREA	320. ACRES	NUMBER OF NEARSHORE HOMES	1
LAKE VOLUME	12000. ACRE-FT		
MEAN DEPTH	39. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	75. FT		
SHORELINE LENGTH	7.5 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	3.0	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.51	AGRICULTURAL	98 %
BOTTOM SLOPE	1.8 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

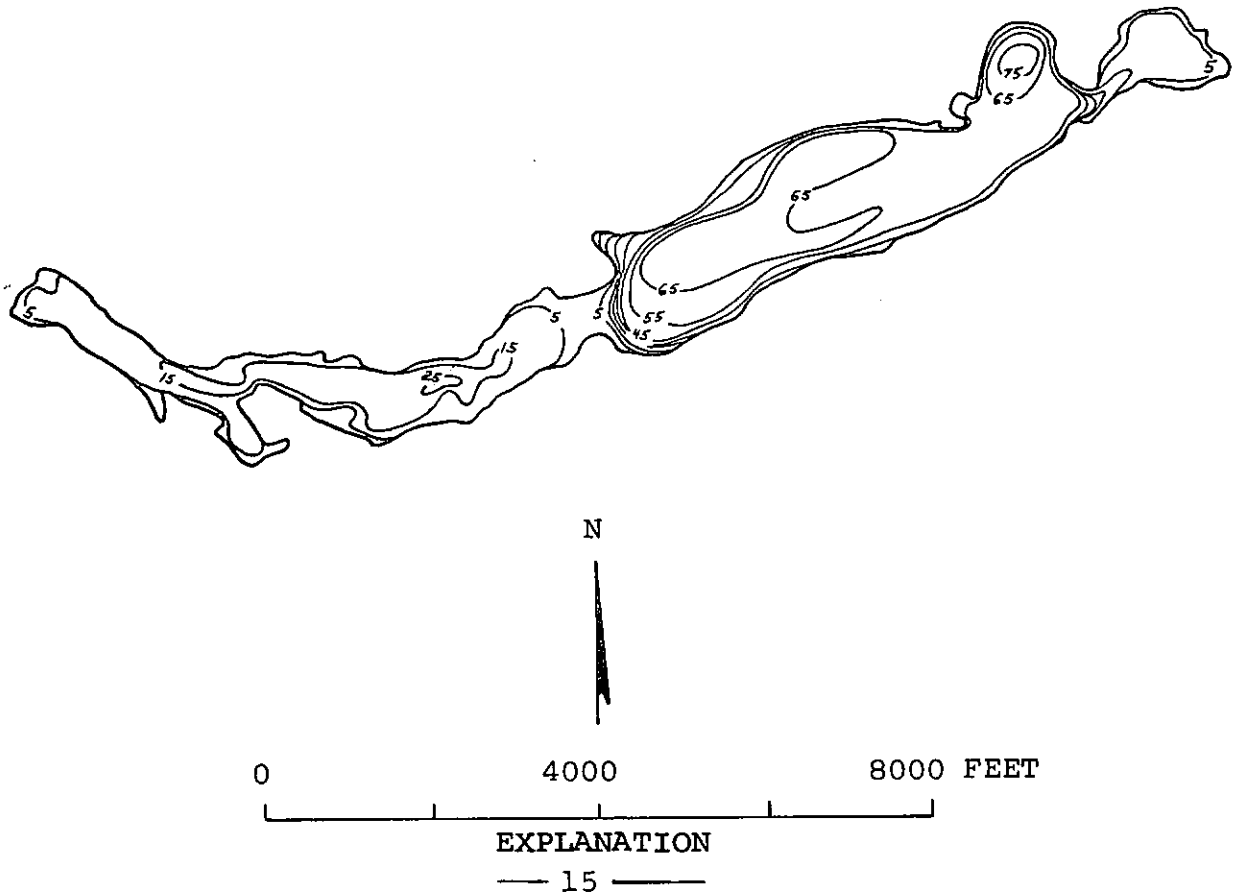
SAMPLE SITE	1	
DATE	6/17/74	
TIME	1530	1535
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	0.08	0.15
TOTAL NITRITE (N)	0.02	0.02
TOTAL AMMONIA (N)	0.09	0.25
TOTAL ORGANIC NITROGEN (N)	0.91	0.67
TOTAL PHOSPHORUS (P)	0.042	0.18
TOTAL ORTHOPHOSPHATE (P)	0.004	0.18
SPECIFIC CONDUCTANCE (MICROMHOS)	360	370
WATER TEMPERATURE (DEG C)	25.0	7.0
COLOR (PLATINUM-COBALT UNITS)	20	15
SECCHI-DISC VISIBILITY (FT)	7	
DISSOLVED OXYGEN	13.2	0.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	11- 25 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	6/17/74
TIME	1500
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	1
FECAL COLIFORM, MAXIMUM (COL./100ML)	--
FECAL COLIFORM, MEAN (COL./100ML)	--

REMARKS

THE LAKE IS AN ENLARGEMENT OF LAKE CREEK AND SUPPORTS A LARGE WATERFOWL POPULATION. A DENSE ALGAL BLOOM WAS OBSERVED. THE FECAL COLIFORM COLONIES IN ONE SAMPLE WERE TOO NUMEROUS TO COUNT. IN 1975 THE U.S. GEOLOGICAL SURVEY WILL SAMPLE THE LAKE FOUR TIMES.



Coffee Pot Lake, Lincoln County. From Washington Department of Game, January 19, 1960.

Coffee Pot Lake, Lincoln County. June 2, 1970. Approx. scale 1:63,000.

CORMANA LAKE LINCOLN COUNTY

LATITUDE 47°27'55" LONGITUDE 118°27'34" T23N-R35E-19
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	13.4 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2033. FT		
LAKE AREA	63. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	420. ACRE-FT		
MEAN DEPTH	7. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	12. FT		
SHORELINE LENGTH	2.8 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.6	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.56	AGRICULTURAL	98 %
BOTTOM SLOPE	0.65 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

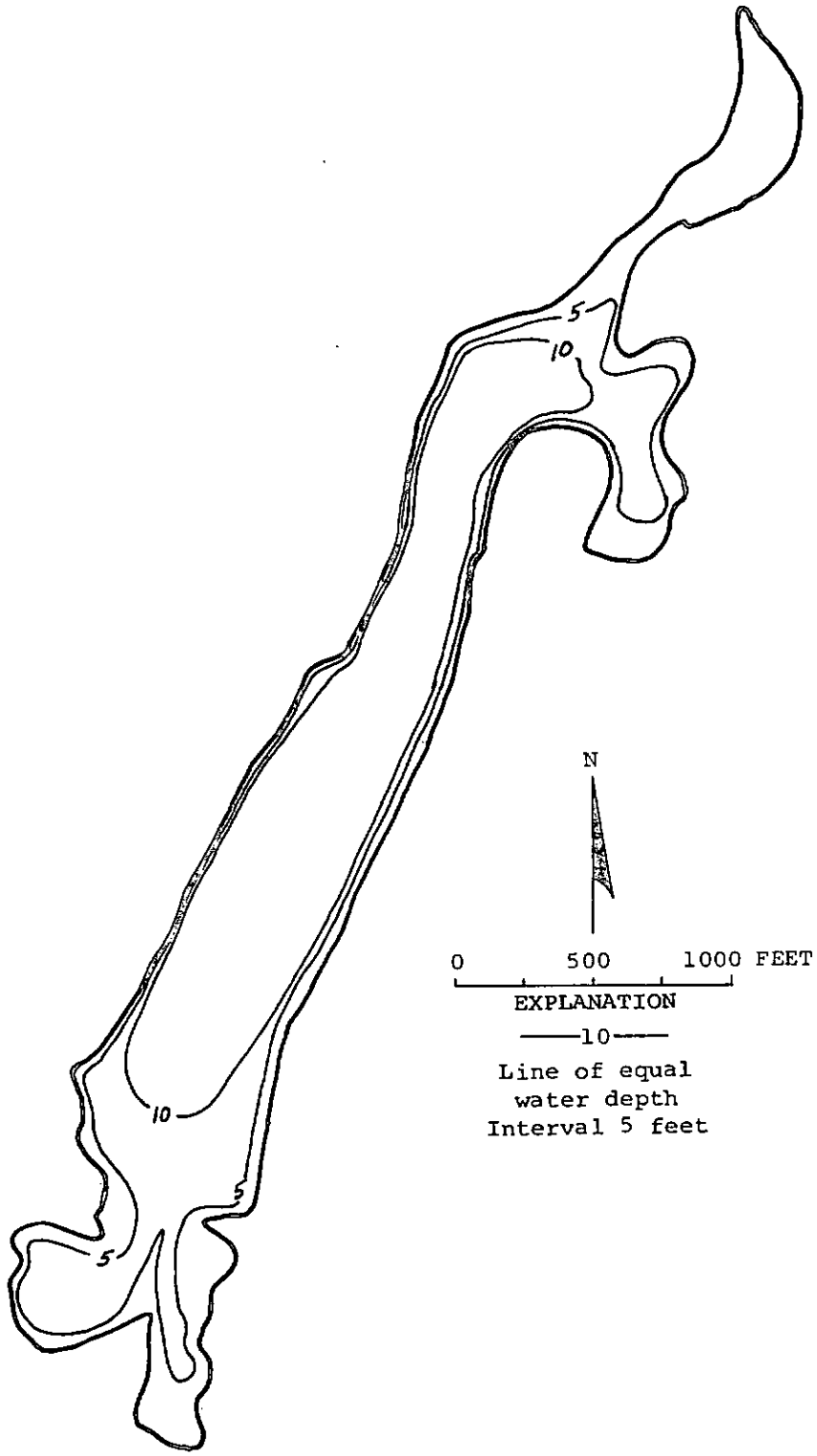
SAMPLE SITE	1	
DATE	6/19/74	
TIME	1030	1035
DEPTH (FT)	3.	7.
TOTAL NITRATE (N)	0.04	0.01
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.26	0.18
TOTAL ORGANIC NITROGEN (N)	1.6	1.7
TOTAL PHOSPHORUS (P)	0.24	0.25
TOTAL ORTHOPHOSPHATE (P)	0.14	0.14
SPECIFIC CONDUCTANCE (MICROMHOS)	700	700
WATER TEMPERATURE (DEG C)	24.0	23.8
COLOR (PLATINUM-COBALT UNITS)	50	50
SECCHI-DISC VISIBILITY (FT)	3	
DISSOLVED OXYGEN	13.8	14.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	26- 50 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	6/19/74
TIME	1000
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	<1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

THE LAKE SUPPORTS A LARGE WATERFLOWL POPULATION. A DENSE ALGAL BLOOM WAS OBSERVED AND ALGAL SCUM COVERED THE ENTIRE SHORELINE.



Cormana Lake, Lincoln County. From
U.S. Geological Survey, April 26, 1974.

DEER (DEER SPRINGS) LAKE LINCOLN COUNTY

LATITUDE 47*28' 3" LONGITUDE 118*37'24" T23N-R33E-23
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	130. SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1738. FT		
LAKE AREA	63. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	2500. ACRE-FT		
MEAN DEPTH	39. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	65. FT		
SHORELINE LENGTH	1.8 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.6	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.60	AGRICULTURAL	98 %
BOTTOM SLOPE	3.5 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

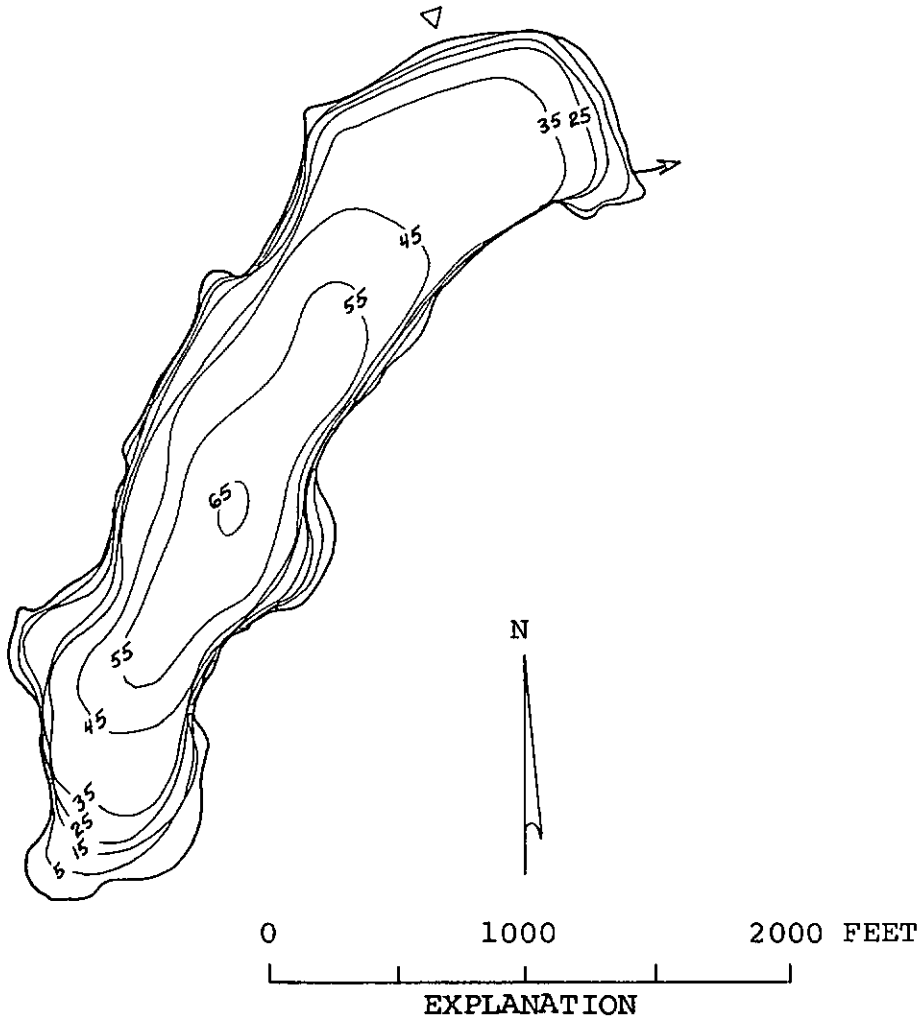
SAMPLE SITE	1	
DATE	6/19/74	
TIME	1230	1235
DEPTH (FT)	3.	82.
TOTAL NITRATE (N)	0.01	0.01
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.06	0.99
TOTAL ORGANIC NITROGEN (N)	0.79	0.71
TOTAL PHOSPHORUS (P)	0.049	0.51
TOTAL ORTHOPHOSPHATE (P)	0.005	0.42
SPECIFIC CONDUCTANCE (MICROMHOS)	360	360
WATER TEMPERATURE (DEG C)	24.2	7.2
COLOR (PLATINUM-COBALT UNITS)	20	25
SECCHI-DISC VISIBILITY (FT)	9	
DISSOLVED OXYGEN	9.6	0.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

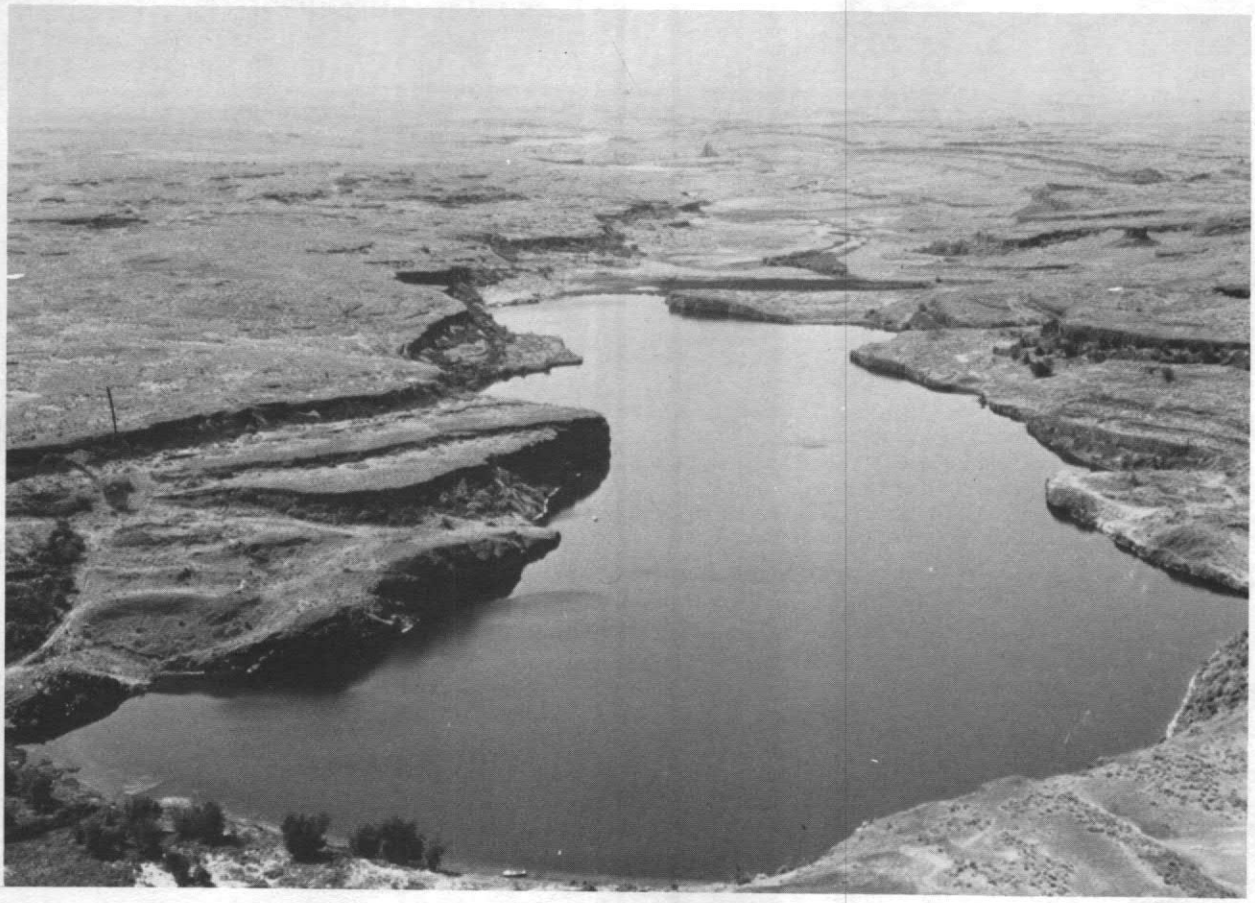
DATE	6/19/74
TIME	1200
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	3
FECAL COLIFORM, MAXIMUM (COL./100ML)	53
FECAL COLIFORM, MEAN (COL./100ML)	20

REMARKS

THE LAKE IS AN ENLARGEMENT OF LAKE CREEK AND RECEIVES HEAVY RECREATIONAL USE. AN EXTENSIVE MARSH OCCURS AT THE SOUTHWEST END OF THE LAKE. THE ALGAL DENSITY WAS MODERATELY HIGH. THE WATER LEVEL AT TIME OF SAMPLING WAS MUCH HIGHER THAN IS SHOWN ON THE BATHYMETRIC MAP.



Deer (Deer Springs) Lake, Lincoln County. From Washington Department of Game, January 25, 1960.



Deer (Deer Springs) Lake, Lincoln County. From U.S. Geological Survey, June 19, 1974.

DOWNS LAKE LINCOLN COUNTY

LATITUDE 47°16'40" LONGITUDE 117°50'23" T21N-R39E-25
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	60.3 SQ MI	RESIDENTIAL DEVELOPMENT	3 %
ALTITUDE	1958. FT		
LAKE AREA	420. ACRES	NUMBER OF NEARSHORE HOMES	4
LAKE VOLUME	2800. ACRE-FT		
MEAN DEPTH	7. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	20. FT		
SHORELINE LENGTH	5.0 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.7	RESIDENTIAL SUBURBAN	<1 %
DEVELOPMENT OF VOLUME	0.34	AGRICULTURAL	90 %
BOTTOM SLOPE	0.41 %	FOREST OR UNPRODUCTIVE	9 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

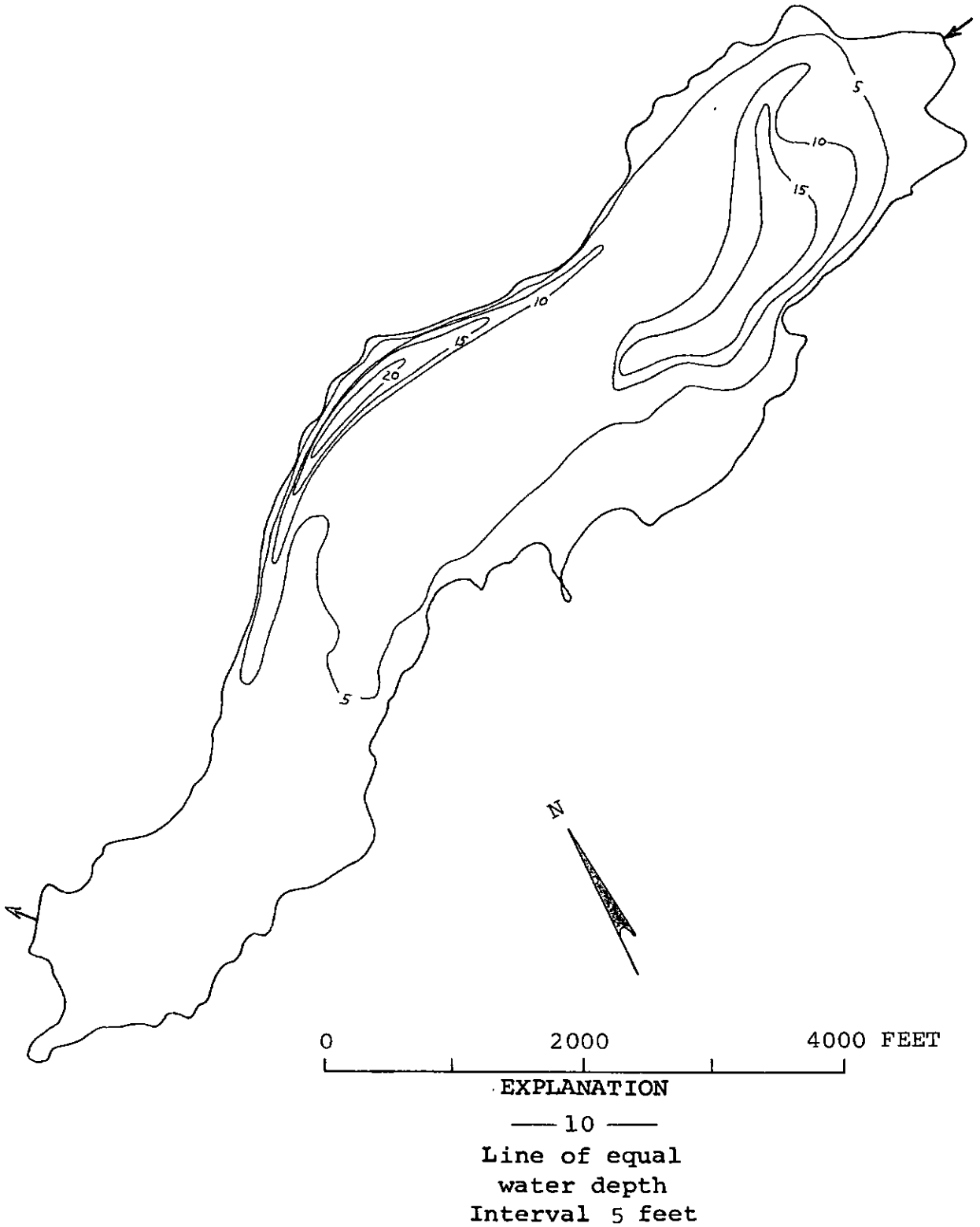
SAMPLE SITE	1	
DATE	6/26/74	
TIME	1000	1005
DEPTH (FT)	3.	15.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.12	0.92
TOTAL ORGANIC NITROGEN (N)	1.1	0.88
TOTAL PHOSPHORUS (P)	0.045	0.28
TOTAL ORTHOPHOSPHATE (P)	0.014	0.17
SPECIFIC CONDUCTANCE (MICROMHOS)	280	320
WATER TEMPERATURE (DEG C)	18.3	14.2
COLOR (PLATINUM-COBALT UNITS)	40	35
SECCHI-DISC VISIBILITY (FT)	4	
DISSOLVED OXYGEN	7.6	0.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	76-100 %

DATE	6/26/74
TIME	1017
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	16
FECAL COLIFORM, MEAN (COL./100ML)	7

REMARKS

THE LAKE IS IN BOTH LINCOLN AND SPOKANE COUNTIES. THERE IS AN EXTENSIVE MARSH AT THE WEST END OF THE LAKE. A DENSE ALGAL BLOOM WAS OBSERVED AND HYDROGEN SULFIDE WAS DETECTED IN THE HYPOLIMNION. THE LITTORAL BOTTOM IS SILT AND MUCK. THE LAKE BOTTOM WAS COMPLETELY COVERED WITH SUBMERSED AQUATIC PLANTS (COONTAIL AND PONDWEED). THE ENTIRE SHORELINE, AS WELL AS APPROXIMATELY 80 PERCENT OF THE LAKE SURFACE, WAS COVERED WITH DENSE BEDS OF EMERSED AQUATIC PLANTS (YELLOW LILY, RUSHES, AND SEDGE).



Downs Lake, Lincoln County. From Washington Department of Game, February 6, 1956.

Downs Lake, Lincoln County. July 2, 1968. Approx. scale 1:60,000.

DRAPER LAKE LINCOLN COUNTY

LATITUDE 47°35'37" LONGITUDE 118°43'56" T24N-R32E-12
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	28.4 SQ MI	RESIDENTIAL DEVELOPMENT	3 %
ALTITUDE	1913. FT		
LAKE AREA	42. ACRES	NUMBER OF NEARSHORE HOMES	1
LAKE VOLUME	180. ACRE-FT		
MEAN DEPTH	4. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	7. FT		
SHORELINE LENGTH	1.5 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.6	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.61	AGRICULTURAL	98 %
BOTTOM SLOPE	0.46 %	FOREST OR UNPRODUCTIVE	2 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	<1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

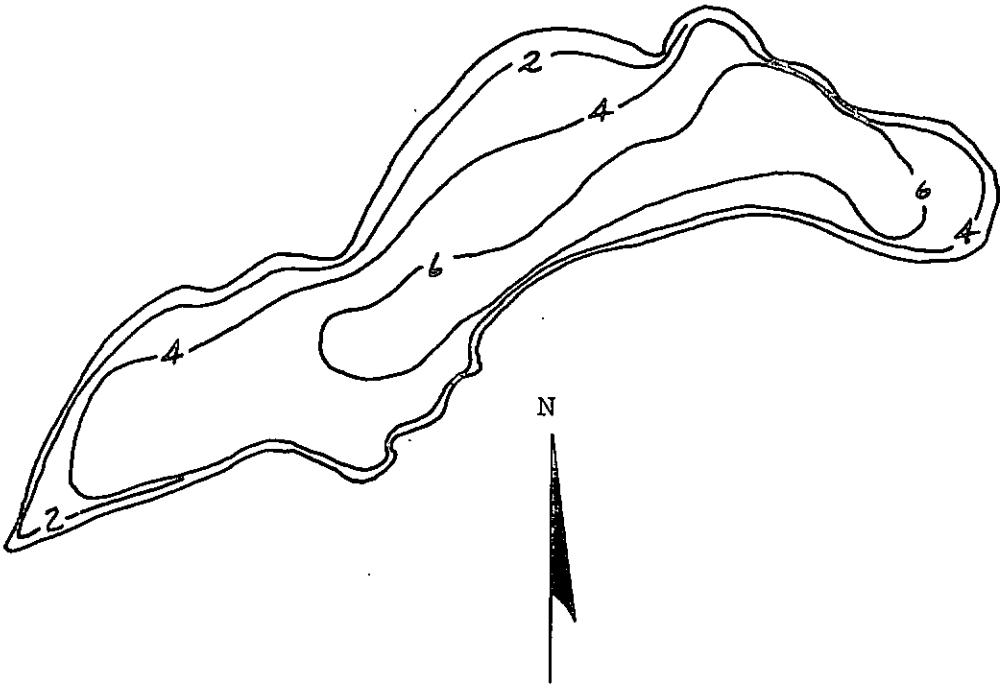
SAMPLE SITE	1	
DATE	6/17/74	
TIME	1550	1555
DEPTH (FT)	0.7	1.
TOTAL NITRATE (N)	0.01	0.00
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.04	0.05
TOTAL ORGANIC NITROGEN (N)	1.1	0.95
TOTAL PHOSPHORUS (P)	0.052	0.050
TOTAL ORTHOPHOSPHATE (P)	0.010	0.010
SPECIFIC CONDUCTANCE (MICROMHOS)	550	550
WATER TEMPERATURE (DEG C)	27.0	25.7
COLOR (PLATINUM-COBALT UNITS)	20	20
SECCHI-DISC VISIBILITY (FT)	> 2	
DISSOLVED OXYGEN	--	--

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	11- 25 %

DATE	6/17/74
TIME	1607
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

THE LAKE IS AN ENLARGEMENT OF CANNIWAI CREEK. THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (RUSHES) AND THE ENTIRE BOTTOM WAS COVERED WITH SUBMERSED AQUATIC PLANTS (PONDWEED AND POLYGONUM). THE DO CONCENTRATION IN BOTH SAMPLES WAS GREATER THAN 20 MG/L.



Draper Lake, Lincoln County. From
U.S. Geological Survey, June 4, 1974.

FISHTRAP LAKE LINCOLN COUNTY

LATITUDE 47*19' 6" LONGITUDE 117*50'28" T21N-R39E-13
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	107. SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1980. FT		
LAKE AREA	200. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	4100. ACRE-FT		
MEAN DEPTH	20. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	31. FT		
SHORELINE LENGTH	6.9 MI	RESIDENTIAL URBAN	2 %
SHORELINE CONFIGURATION	3.4	RESIDENTIAL SUBURBAN	<1 %
DEVELOPMENT OF VOLUME	0.65	AGRICULTURAL	80 %
BOTTOM SLOPE	0.92 %	FOREST OR UNPRODUCTIVE	18 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	<1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

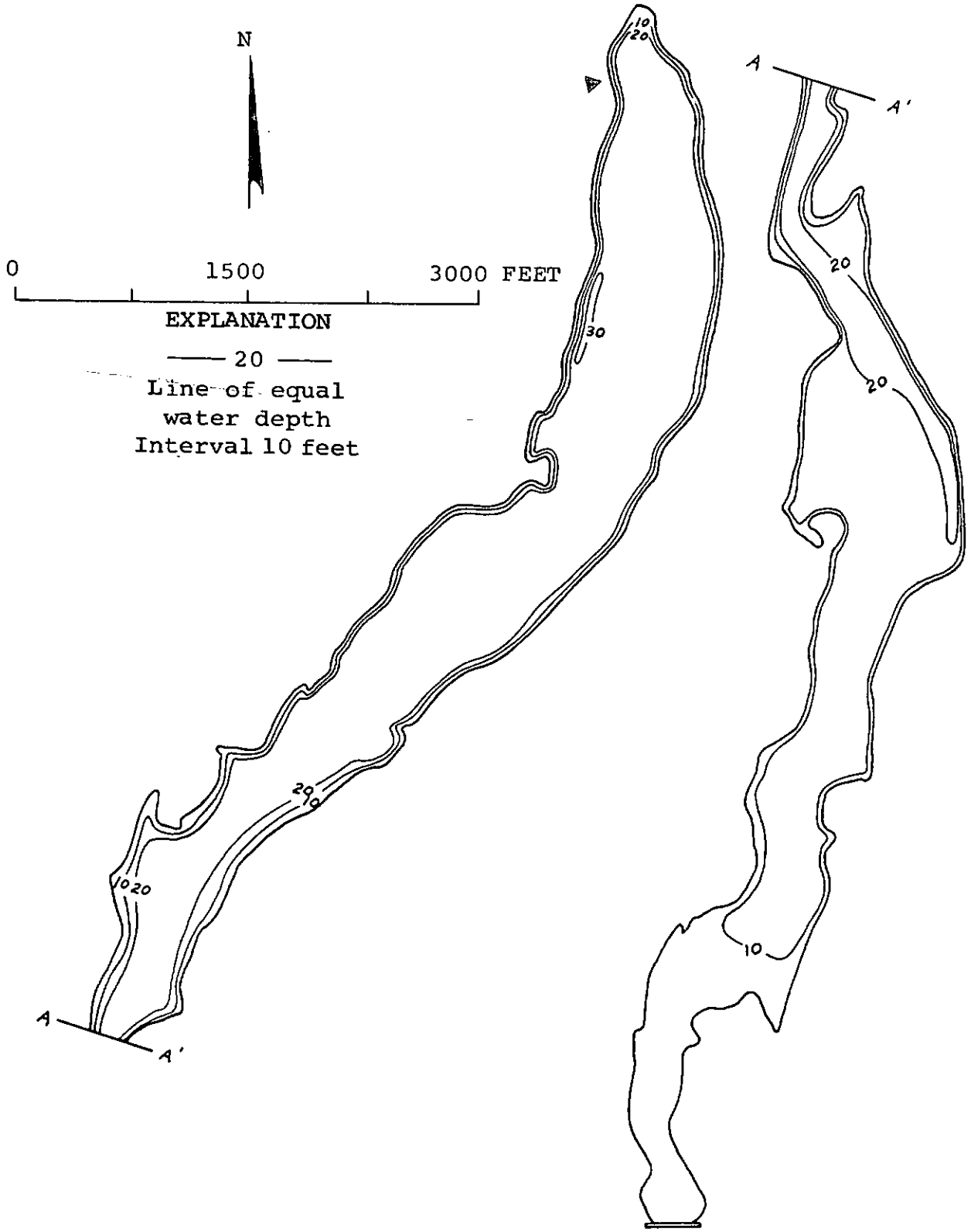
SAMPLE SITE	1		2	
DATE	6/25/74		6/25/74	
TIME	1155	1200	1300	1305
DEPTH (FT)	3.	21.	3.	13.
TOTAL NITRATE (N)	0.00	0.00	0.00	0.00
TOTAL NITRITE (N)	0.00	0.00	0.00	0.00
TOTAL AMMONIA (N)	0.05	0.07	0.05	0.06
TOTAL ORGANIC NITROGEN (N)	0.66	0.69	0.61	0.65
TOTAL PHOSPHORUS (P)	0.037	0.085	0.031	0.042
TOTAL ORTHOPHOSPHATE (P)	0.002	0.055	0.004	0.019
SPECIFIC CONDUCTANCE (MICROMHOS)	340	340	310	310
WATER TEMPERATURE (DEG C)	23.1	16.0	22.8	22.1
COLOR (PLATINUM-COBALT UNITS)	15	20	15	15
SECCHI-DISC VISIBILITY (FT)	13		13	
DISSOLVED OXYGEN	9.5	1.5	9.2	8.8

LAKE SHORELINE COVERED BY EMERSED PLANTS	11- 25 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/25/74
TIME	1234
NUMBER OF FECAL COLIFORM SAMPLES	5
FECAL COLIFORM, MINIMUM (COL./100ML)	1
FECAL COLIFORM, MAXIMUM (COL./100ML)	12
FECAL COLIFORM, MEAN (COL./100ML)	4

REMARKS

THE NORTHEAST END OF THE LAKE IS IN SPOKANE COUNTY. NO SUBMERSED AQUATIC PLANTS WERE OBSERVED. THE LAKE IS STABILIZED BY A DAM. A MODERATELY DENSE ALGAL BLOOM WAS OBSERVED.



Fishtrap Lake, Lincoln County. From
Washington Department of Game, February 21, 1952.

FLORENCE LAKE LINCOLN COUNTY

LATITUDE 47*36' 2" LONGITUDE 118*28'48" T24N-R34E-1
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	1.89 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2248. FT		
LAKE AREA	42. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	140. ACRE-FT		
MEAN DEPTH	3. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	6. FT		
SHORELINE LENGTH	1.8 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.0	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.54	AGRICULTURAL	96 %
BOTTOM SLOPE	0.39 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	3 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

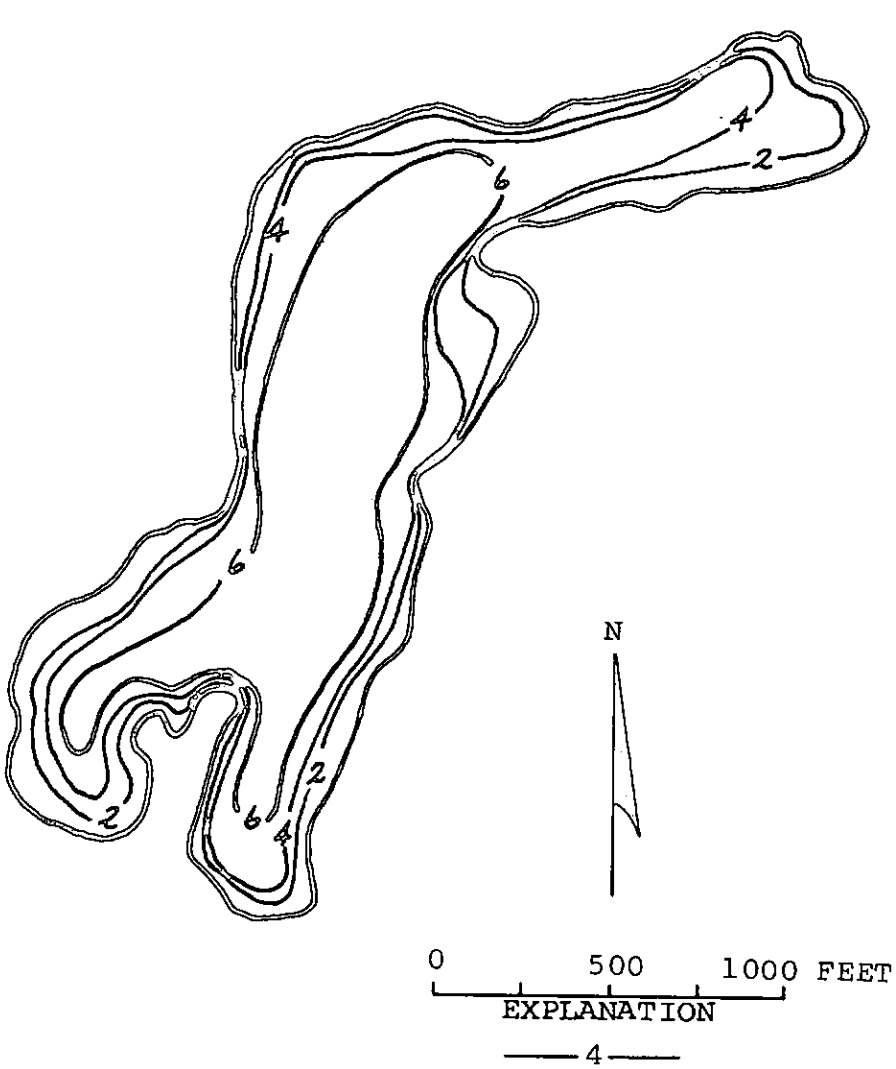
SAMPLE SITE	1	
DATE	6/18/74	
TIME	1730	1735
DEPTH (FT)	2.	5.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.02	0.02
TOTAL AMMONIA (N)	0.23	0.24
TOTAL ORGANIC NITROGEN (N)	1.6	1.7
TOTAL PHOSPHORUS (P)	0.86	0.84
TOTAL ORTHOPHOSPHATE (P)	0.86	0.79
SPECIFIC CONDUCTANCE (MICROMHOS)	950	950
WATER TEMPERATURE (DEG C)	26.3	26.0
COLOR (PLATINUM-COBALT UNITS)	95	95
SECCHI-DISC VISIBILITY (FT)	2	
DISSOLVED OXYGEN	7.0	6.8

LAKE SHORELINE COVERED BY EMERSED PLANTS	11- 25 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	6/18/74
TIME	1730
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	4
FECAL COLIFORM, MEAN (COL./100ML)	2

REMARKS

THE LITTORAL BOTTOM IS SILT AND MUCK BUT VERY FEW SUBMERSED AQUATIC PLANTS WERE OBSERVED. THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION.



Florence Lake, Lincoln County. From
U.S. Geological Survey, July 10, 1974.

GOETZ LAKE LINCOLN COUNTY

LATITUDE 47°27'19" LONGITUDE 118°47'16" T23N-R32E-28
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	91.1 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1632. FT		
LAKE AREA	38. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	390. ACRE-FT		
MEAN DEPTH	10. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	19. FT		
SHORELINE LENGTH	1.6 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.9	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.55	AGRICULTURAL	99 %
BOTTOM SLOPE	1.3 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	<1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

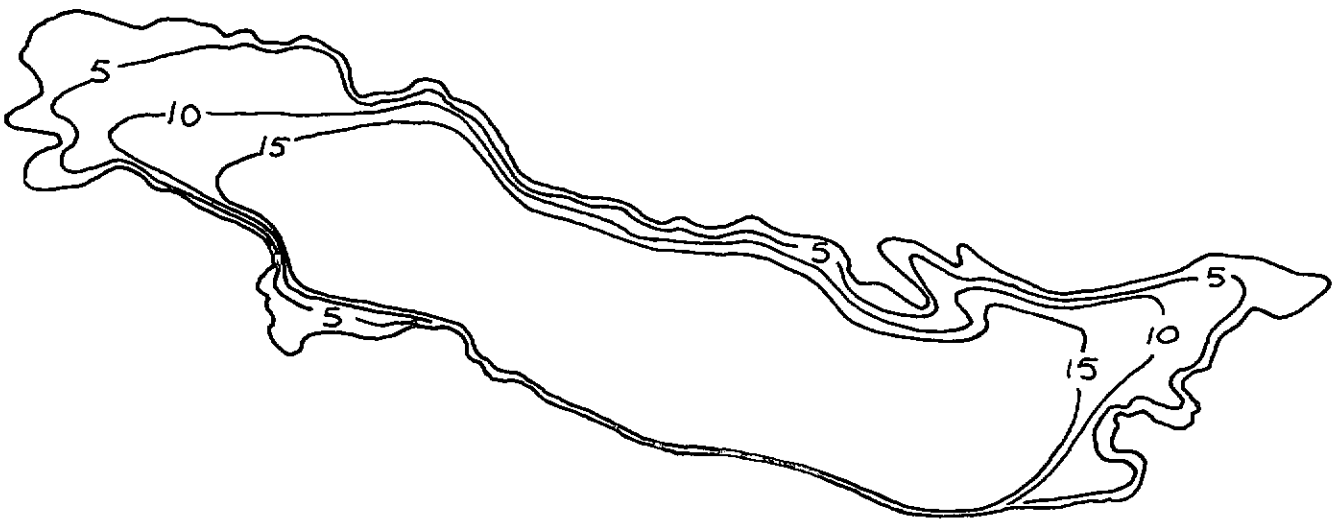
SAMPLE SITE	1	
DATE	6/21/74	
TIME	830	835
DEPTH (FT)	3.	5.
TOTAL NITRATE (N)	0.00	0.01
TOTAL NITRITE (N)	0.02	0.01
TOTAL AMMONIA (N)	0.44	0.65
TOTAL ORGANIC NITROGEN (N)	3.4	1.5
TOTAL PHOSPHORUS (P)	0.22	0.31
TOTAL ORTHOPHOSPHATE (P)	0.063	0.24
SPECIFIC CONDUCTANCE (MICROMHOS)	700	780
WATER TEMPERATURE (DEG C)	21.0	14.9
COLOR (PLATINUM-COBALT UNITS)	50	40
SECCHI-DISC VISIBILITY (FT)	1	
DISSOLVED OXYGEN	9.4	0.4

LAKE SHORELINE COVERED BY EMERSED PLANTS	26- 50 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	6/21/74
TIME	830
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	16
FECAL COLIFORM, MEAN (COL./100ML)	5

REMARKS

THE LAKE IS IN MARLIN HOLLOW AND HAS A LITTORAL BOTTOM OF MUCK AND SILT. A DENSE ALGAL BLOOM WAS OBSERVED.



N

0 500 1000 FEET

EXPLANATION

——10——

Line of equal
water depth
Interval 5 feet

Goetz Lake, Lincoln County. From
U.S. Geological Survey, September 30, 1974.

"H" LAKE LINCOLN COUNTY

LATITUDE 47°40'35" LONGITUDE 118°41'19" T25N-R33E-8
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	2.55 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2128. FT		
LAKE AREA	30. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	140. ACRE-FT		
MEAN DEPTH	5. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	11. FT		
SHORELINE LENGTH	1.9 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.5	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.42	AGRICULTURAL	97 %
BOTTOM SLOPE	0.85 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	2 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

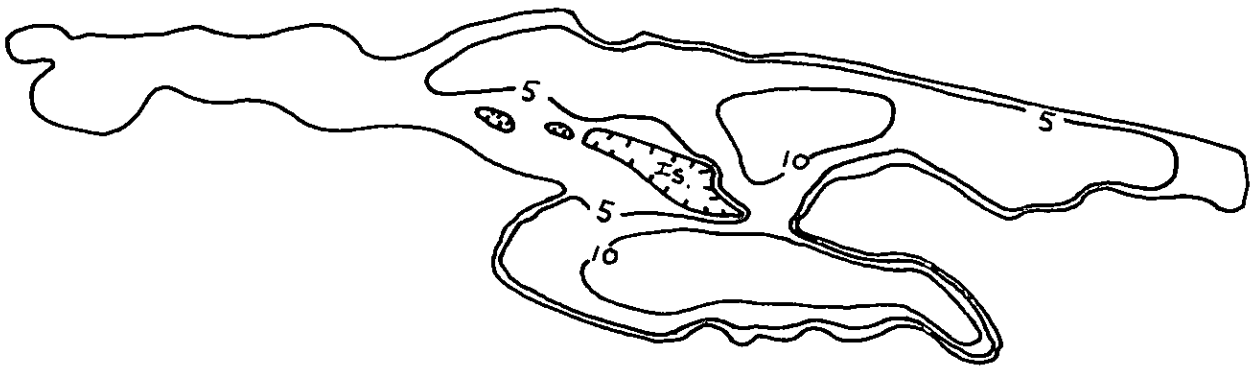
SAMPLE SITE	1	
DATE	6/14/74	
TIME	1305	1310
DEPTH (FT)	3.	5.
TOTAL NITRATE (N)	0.39	0.67
TOTAL NITRITE (N)	0.04	0.03
TOTAL AMMONIA (N)	0.22	0.23
TOTAL ORGANIC NITROGEN (N)	2.2	1.6
TOTAL PHOSPHORUS (P)	0.32	0.30
TOTAL ORTHOPHOSPHATE (P)	0.14	0.19
SPECIFIC CONDUCTANCE (MICROMHOS)	650	650
WATER TEMPERATURE (DEG C)	20.0	18.0
COLOR (PLATINUM-COBALT UNITS)	80	70
SECCHI-DISC VISIBILITY (FT)	1	
DISSOLVED OXYGEN	9.4	6.0

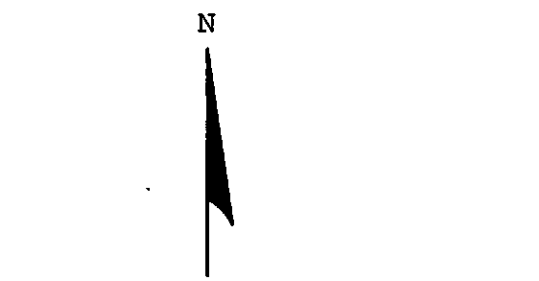
LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	6/14/74
TIME	1317
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	18
FECAL COLIFORM, MAXIMUM (COL./100ML)	26
FECAL COLIFORM, MEAN (COL./100ML)	23

REMARKS

THE WATER WAS TURBID AND VERY FEW SUBMERSED AQUATIC PLANTS WERE OBSERVED.





EXPLANATION

——10——

Line of equal
water depth
Interval 5 feet

"H" Lake, Lincoln County. From
U.S. Geological Survey, June 5, 1974.

MEADOW LAKE LINCOLN COUNTY

LATITUDE 47°33'53" LONGITUDE 118°32'17" T24N-R34E-21
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	6.33 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2145. FT		
LAKE AREA	28. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	70. ACRE-FT		
MEAN DEPTH	3. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	4. FT		
SHORELINE LENGTH	1.5 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.1	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.63	AGRICULTURAL	97 %
BOTTOM SLOPE	0.32 %	FOREST OR UNPRODUCTIVE	2 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

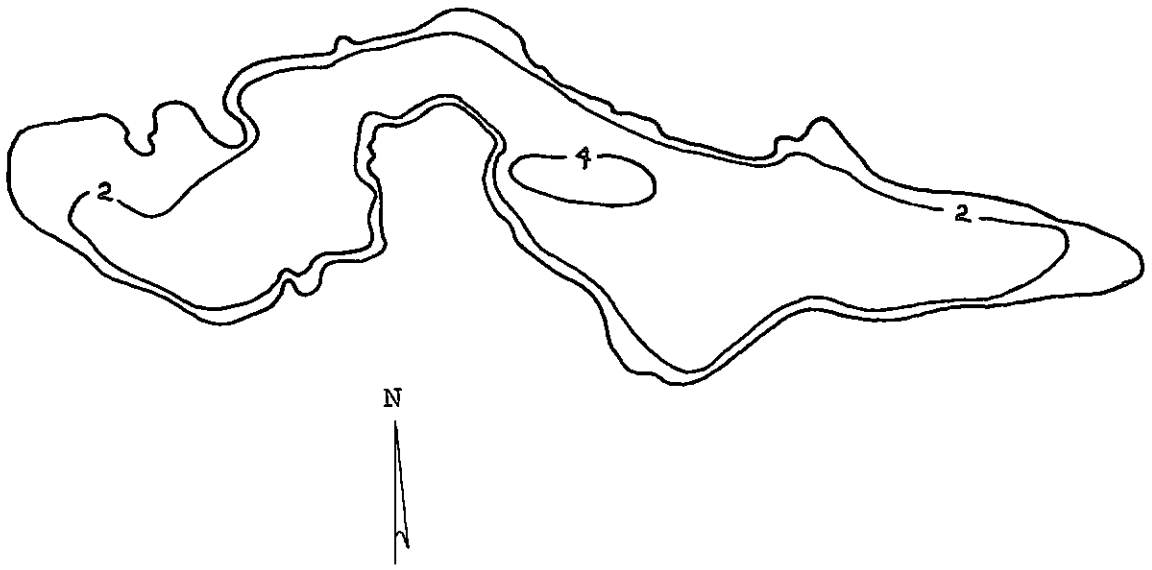
SAMPLE SITE	1	
DATE	6/14/74	
TIME	950	955
DEPTH (FT)	3.	10.
TOTAL NITRATE (N)	0.00	0.02
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.09	0.14
TOTAL ORGANIC NITROGEN (N)	2.3	2.3
TOTAL PHOSPHORUS (P)	0.22	0.26
TOTAL ORTHOPHOSPHATE (P)	0.14	0.24
SPECIFIC CONDUCTANCE (MICROMHOS)	850	900
WATER TEMPERATURE (DEG C)	21.2	15.7
COLOR (PLATINUM-COBALT UNITS)	70	65
SECCHI-DISC VISIBILITY (FT)	4	
DISSOLVED OXYGEN	14.0	5.8

LAKE SHORELINE COVERED BY EMERSED PLANTS	1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/14/74
TIME	1000
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	1
FECAL COLIFORM, MAXIMUM (COL./100ML)	16
FECAL COLIFORM, MEAN (COL./100ML)	10

REMARKS

AN ALGAL BLOOM WAS OBSERVED AND THE WATER HAD A MUSTY ODOR. NO SUBMERSED AQUATIC PLANTS WERE OBSERVED.



0 500 1000 FEET

EXPLANATION

—— 4 ——

Line of equal
water depth
Interval 2 feet

Meadow Lake, Lincoln County. From
U.S. Geological Survey, April 26, 1974.

NEVES LAKE LINCOLN COUNTY

LATITUDE 47*25'44" LONGITUDE 118*40' 7" T22N-R33E-4
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	137. SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1681. FT		
LAKE AREA	36. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	93. ACRE-FT		
MEAN DEPTH	3. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	9. FT		
SHORELINE LENGTH	2.4 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.8	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.29	AGRICULTURAL	98 %
BOTTOM SLOPE	0.64 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

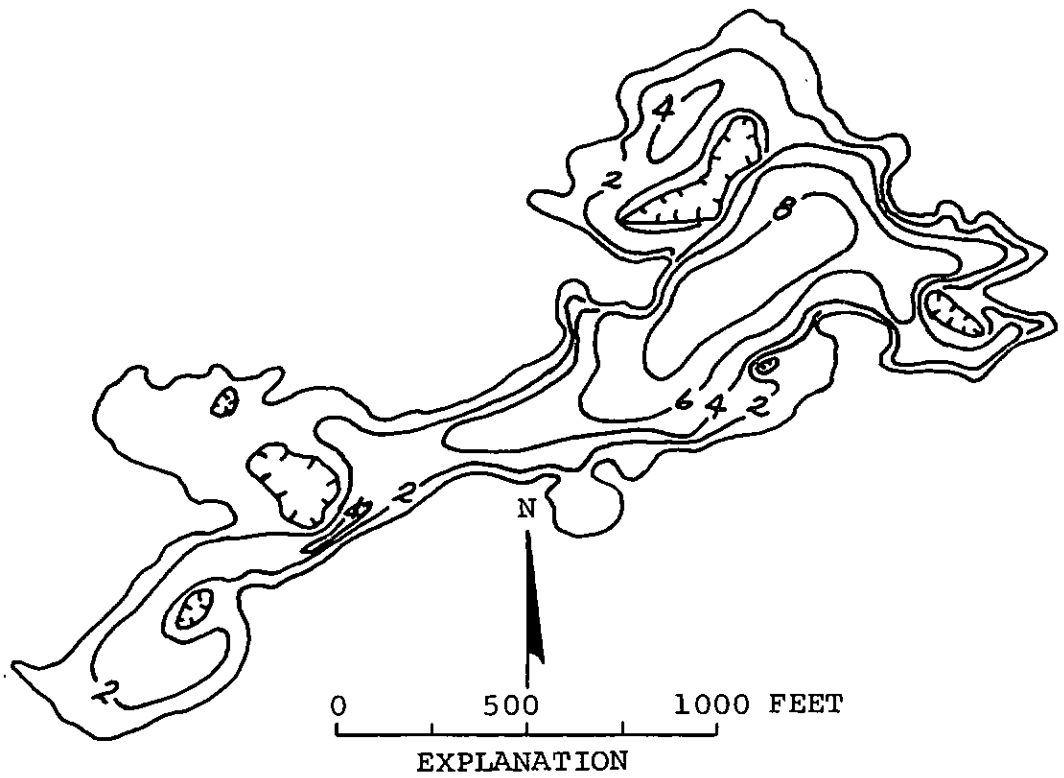
SAMPLE SITE	1	
DATE	6/19/74	
TIME	1045	1050
DEPTH (FT)	3.	5.
TOTAL NITRATE (N)	0.00	0.02
TOTAL NITRITE (N)	0.00	0.01
TOTAL AMMONIA (N)	0.31	0.20
TOTAL ORGANIC NITROGEN (N)	2.1	2.2
TOTAL PHOSPHORUS (P)	0.11	0.16
TOTAL ORTHOPHOSPHATE (P)	0.022	0.020
SPECIFIC CONDUCTANCE (MICROMHOS)	360	360
WATER TEMPERATURE (DEG C)	24.8	24.0
COLOR (PLATINUM-COBALT UNITS)	50	50
SECCHI-DISC VISIBILITY (FT)	3	
DISSOLVED OXYGEN	13.4	8.3

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/19/74
TIME	1104
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	13
FECAL COLIFORM, MEAN (COL./100ML)	4

REMARKS

THE LAKE IS AN ENLARGEMENT OF LAKE CREEK. A DENSE ALGAL BLOOM WAS OBSERVED. THE ENTIRE BOTTOM WAS COVERED WITH SUBMERSED AQUATIC PLANTS (COONTAIL, PONDWEED, AND WATER MILFOIL).



Neves Lake, Lincoln County. From
U.S. Geological Survey, October 3, 1974.

PACIFIC LAKE LINCOLN COUNTY

LATITUDE 47°24'48" LONGITUDE 118°44'17" T22N-R32E-12
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	158. SQ MI	RESIDENTIAL DEVELOPMENT	3 %
ALTITUDE	1595. FT		
LAKE AREA	140. ACRES	NUMBER OF NEARSHORE HOMES	3
LAKE VOLUME	2000. ACRE-FT		
MEAN DEPTH	14. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	23. FT		
SHORELINE LENGTH	4.2 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.5	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.62	AGRICULTURAL	98 %
BOTTOM SLOPE	0.82 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

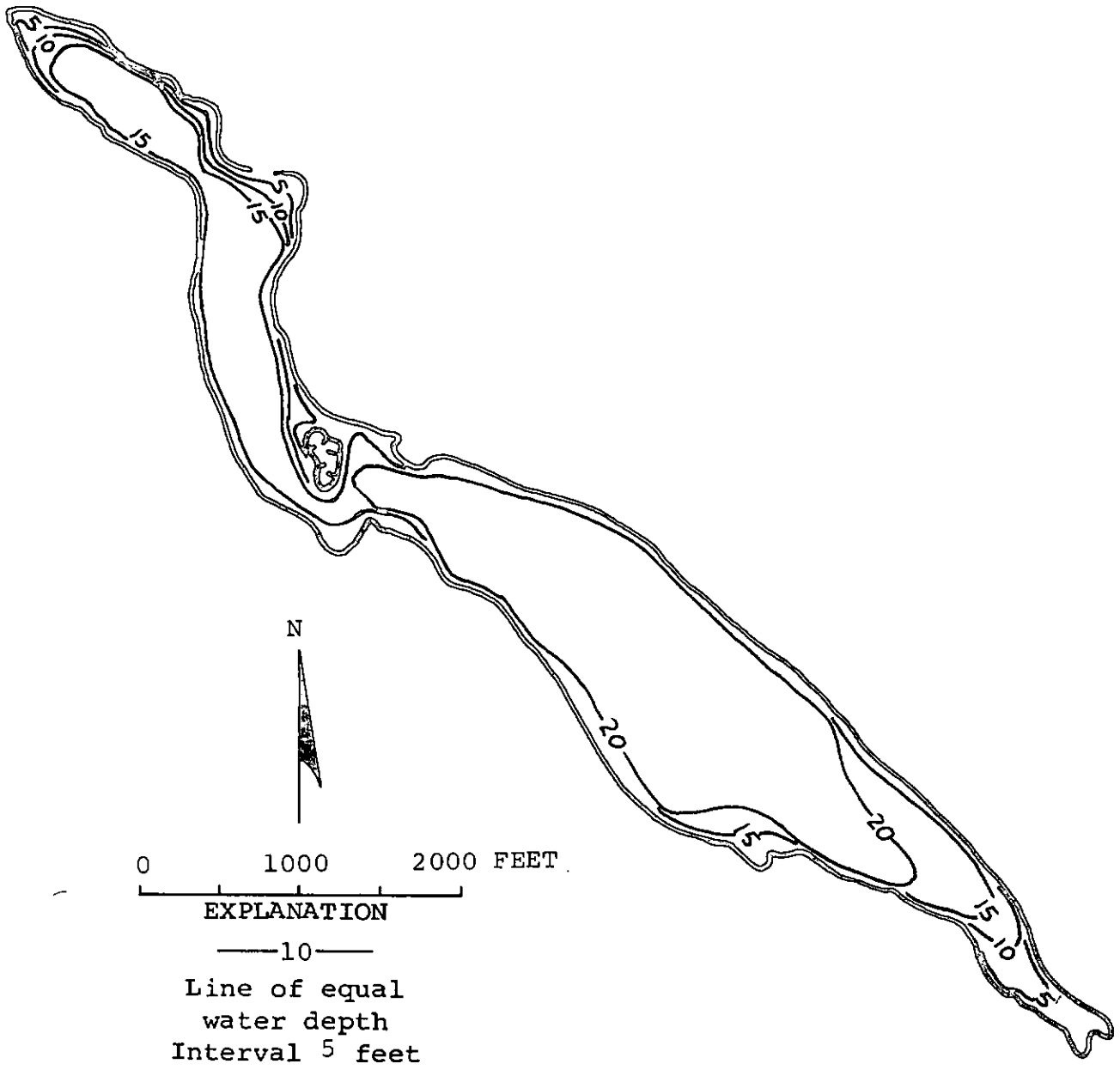
SAMPLE SITE	1	
DATE	6/19/74	
TIME	1220	1225
DEPTH (FT)	3.	18.
TOTAL NITRATE (N)	0.00	0.01
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.05	0.10
TOTAL ORGANIC NITROGEN (N)	1.3	0.90
TOTAL PHOSPHORUS (P)	0.056	0.11
TOTAL ORTHOPHOSPHATE (P)	0.007	0.052
SPECIFIC CONDUCTANCE (MICROMHOS)	370	460
WATER TEMPERATURE (DEG C)	25.0	15.1
COLOR (PLATINUM-COBALT UNITS)	35	30
SECCHI-DISC VISIBILITY (FT)	2	
DISSOLVED OXYGEN	14.8	0.1

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/19/74
TIME	1257
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	1
FECAL COLIFORM, MAXIMUM (COL./100ML)	10
FECAL COLIFORM, MEAN (COL./100ML)	5

REMARKS

THE LAKE IS AN ENLARGEMENT OF LAKE CREEK. A DENSE ALGAL BLOOM WAS OBSERVED AND HYDROGEN SULFIDE WAS DETECTED IN THE HYPOLIMNION.



Pacific Lake, Lincoln County. From
U.S. Geological Survey, May 24, 1974.

PETERSON LAKE LINCOLN COUNTY

LATITUDE 47*22'58" LONGITUDE 118*55'21" T22N-R31E-21
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	1050. SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1328. FT		
LAKE AREA	23. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	73. ACRE-FT		
MEAN DEPTH	3. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	5. FT		
SHORELINE LENGTH	1.0 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	1.5		
DEVELOPMENT OF VOLUME	0.64		
BOTTOM SLOPE	0.45 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

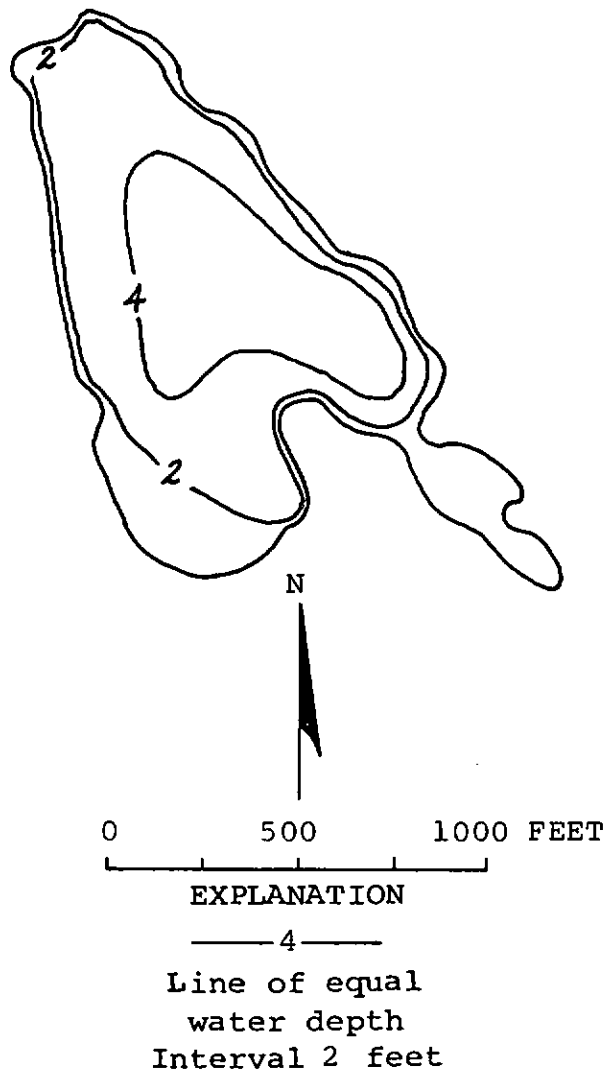
SAMPLE SITE	1	
DATE	6/19/74	
TIME	1435	1440
DEPTH (FT)	0.7	1.
TOTAL NITRATE (N)	0.15	0.04
TOTAL NITRITE (N)	0.03	0.03
TOTAL AMMONIA (N)	0.29	0.35
TOTAL ORGANIC NITROGEN (N)	2.6	3.0
TOTAL PHOSPHORUS (P)	0.27	0.31
TOTAL ORTHOPHOSPHATE (P)	0.051	0.070
SPECIFIC CONDUCTANCE (MICROMHOS)	370	370
WATER TEMPERATURE (DEG C)	28.0	23.8
COLOR (PLATINUM-COBALT UNITS)	70	85
SECCHI-DISC VISIBILITY (FT)	0.3	
DISSOLVED OXYGEN	--	12.8

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/19/74
TIME	1448
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	4
FECAL COLIFORM, MAXIMUM (COL./100ML)	16
FECAL COLIFORM, MEAN (COL./100ML)	9

REMARKS

THE LAKE IS AN ENLARGEMENT OF CRAB CREEK. A DENSE ALGAL BLOOM, BUT NO SUBMERSED AQUATIC PLANTS, WERE OBSERVED. THE DO CONCENTRATION IN THE UPPER SAMPLE WAS GREATER THAN 20 MG/L. LAND USE WAS NOT DETERMINED BECAUSE OF THE SIZE OF THE DRAINAGE AREA.



Peterson Lake, Lincoln County. From
U.S. Geological Survey, September 1974.

Peterson Lake, Lincoln County. From
U.S. Geological Survey, June 19, 1974.

PHILLIPS LAKE LINCOLN COUNTY

LATITUDE 47°34'39" LONGITUDE 118°32'54" T24N-R34E-16
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	8.55 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2155. FT		
LAKE AREA	33. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	170. ACRE-FT		
MEAN DEPTH	5. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	10. FT		
SHORELINE LENGTH	1.5 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.9	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.51	AGRICULTURAL	98 %
BOTTOM SLOPE	0.74 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

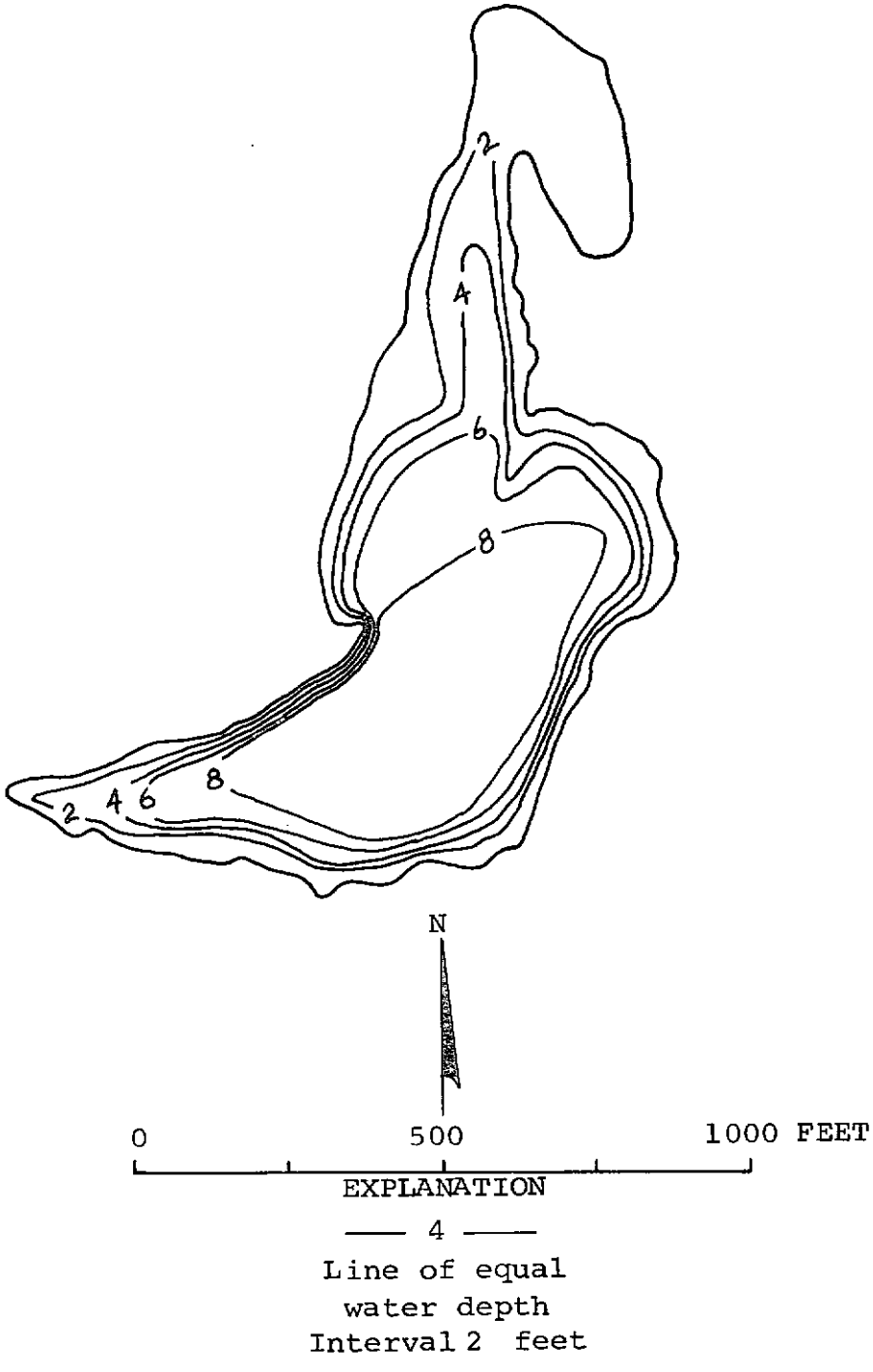
SAMPLE SITE	1	
DATE	6/14/74	
TIME	1130	1135
DEPTH (FT)	3.	7.
TOTAL NITRATE (N)	0.00	0.02
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.07	0.07
TOTAL ORGANIC NITROGEN (N)	2.5	2.2
TOTAL PHOSPHORUS (P)	0.44	0.45
TOTAL ORTHOPHOSPHATE (P)	0.38	0.40
SPECIFIC CONDUCTANCE (MICROMHOS)	1200	1250
WATER TEMPERATURE (DEG C)	21.2	17.2
COLOR (PLATINUM-COBALT UNITS)	65	60
SECCHI-DISC VISIBILITY (FT)	3	
DISSOLVED OXYGEN	10.5	7.6

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	6/14/74
TIME	1210
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	72
FECAL COLIFORM, MEAN (COL./100ML)	29

REMARKS

THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION. THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (SEDGE). AN ALGAL BLOOM WAS OBSERVED.



Phillips Lake, Lincoln County. From
U.S. Geological Survey, April 27, 1974.

SULLIVAN LAKE LINCOLN COUNTY

LATITUDE 47°25'49" LONGITUDE 118°49'55" T22N-R32E-6
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	104. SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1546. FT		
LAKE AREA	72. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	760. ACRE-FT		
MEAN DEPTH	11. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	17. FT		
SHORELINE LENGTH	2.4 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.0	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.62	AGRICULTURAL	99 %
BOTTOM SLOPE	0.85 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

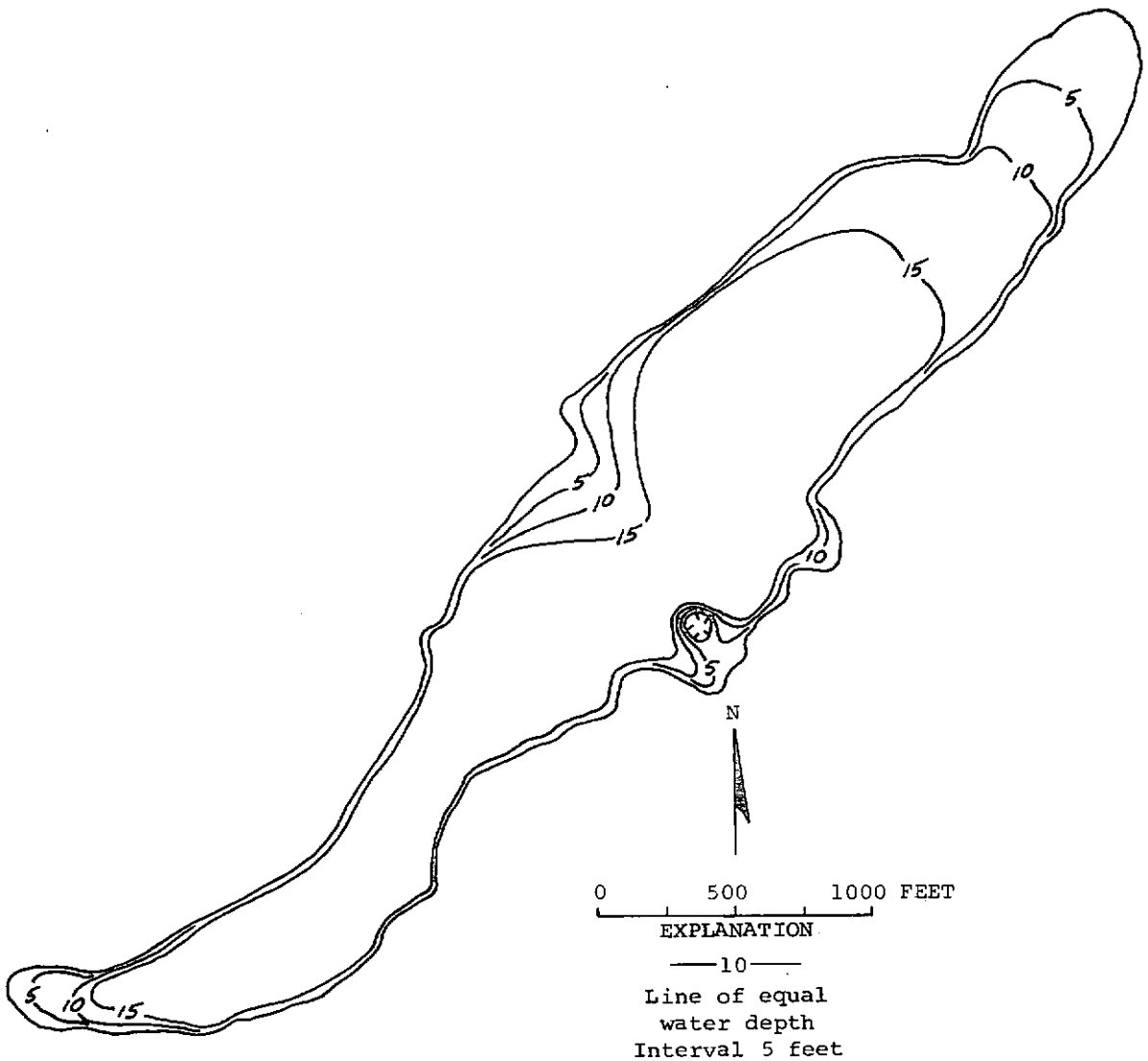
SAMPLE SITE	1	
DATE	6/21/74	
TIME	1000	1005
DEPTH (FT)	3.	13.
TOTAL NITRATE (N)	0.00	0.01
TOTAL NITRITE (N)	0.02	0.01
TOTAL AMMONIA (N)	0.44	0.59
TOTAL ORGANIC NITROGEN (N)	4.0	2.1
TOTAL PHOSPHORUS (P)	0.44	0.54
TOTAL ORTHOPHOSPHATE (P)	0.20	0.40
SPECIFIC CONDUCTANCE (MICROMHOS)	800	800
WATER TEMPERATURE (DEG C)	21.5	18.5
COLOR (PLATINUM-COBALT UNITS)	50	40
SECCHI-DISC VISIBILITY (FT)	1	
DISSOLVED OXYGEN	14.1	3.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/21/74
TIME	1000
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	<1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

THE LAKE IS IN MARLIN HOLLOW AND SUPPORTS A LARGE WATERFOWL POPULATION. A DENSE ALGAL BLOOM WAS OBSERVED.



Sullivan Lake, Lincoln County. From
U.S. Geological Survey, September 27, 1974.

Sullivan Lake, Lincoln County. From
U.S. Geological Survey, June 21, 1974.

SWANSON (25N-34E-32) LAKE LINCOLN COUNTY

LATITUDE 47°37' 2" LONGITUDE 118°33'20" T25N-R34E-32
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	6.36 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2250. FT		
LAKE AREA	36. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	120. ACRE-FT		
MEAN DEPTH	3. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	6. FT		
SHORELINE LENGTH	1.4 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.6	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.58	AGRICULTURAL	96 %
BOTTOM SLOPE	0.43 %	FOREST OR UNPRODUCTIVE	3 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

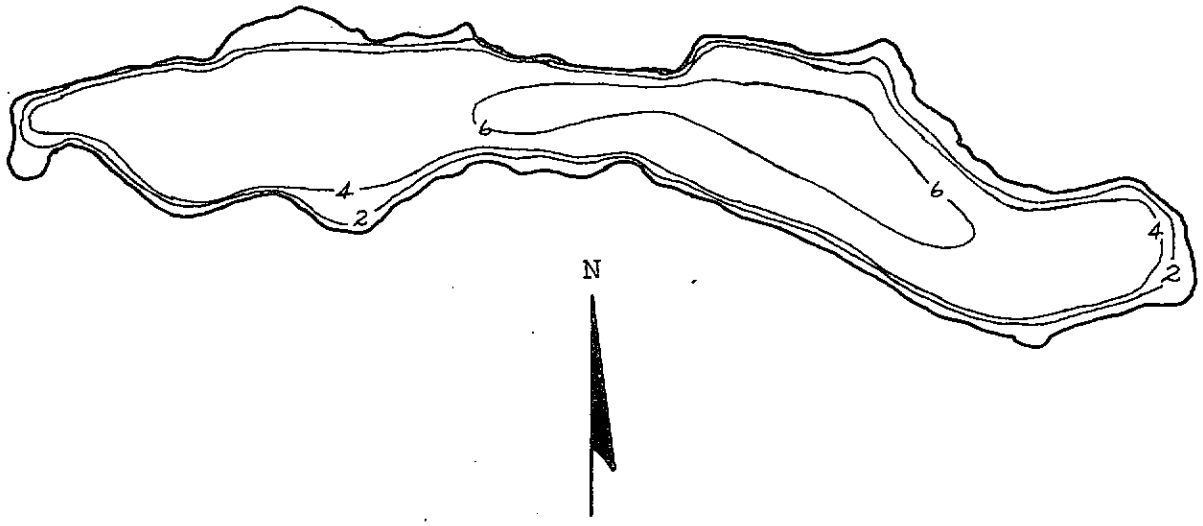
SAMPLE SITE	1	
DATE	6/18/74	
TIME	1030	1035
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.18	0.19
TOTAL ORGANIC NITROGEN (N)	3.1	3.1
TOTAL PHOSPHORUS (P)	0.26	0.27
TOTAL ORTHOPHOSPHATE (P)	0.18	0.19
SPECIFIC CONDUCTANCE (MICROMHOS)	1500	1500
WATER TEMPERATURE (DEG C)	24.8	24.8
COLOR (PLATINUM-COBALT UNITS)	70	70
SECCHI-DISC VISIBILITY (FT)	6	
DISSOLVED OXYGEN	3.8	3.8

LAKE SHORELINE COVERED BY EMERSED PLANTS	26- 50 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/18/74
TIME	1047
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

THE LITTORAL BOTTOM IS CLAY AND MUCK BUT VERY FEW SUBMERSED AQUATIC PLANTS WERE OBSERVED.



Swanson (25N-34E-32) Lake, Lincoln County.
From U.S. Geological Survey, April 27, 1974.

SWANSON (25N-34E-33) LAKE LINCOLN COUNTY

LATITUDE 47°37'22" LONGITUDE 118°32'18" T25N-R34E-33
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	4.76 SQ MI	RESIDENTIAL DEVELOPMENT	2 %
ALTITUDE	2260. FT		
LAKE AREA	45. ACRES	NUMBER OF NEARSHORE HOMES	1
LAKE VOLUME	150. ACRE-FT		
MEAN DEPTH	3. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	6. FT		
SHORELINE LENGTH	1.6 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.7	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.56	AGRICULTURAL	97 %
BOTTOM SLOPE	0.38 %	FOREST OR UNPRODUCTIVE	2 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

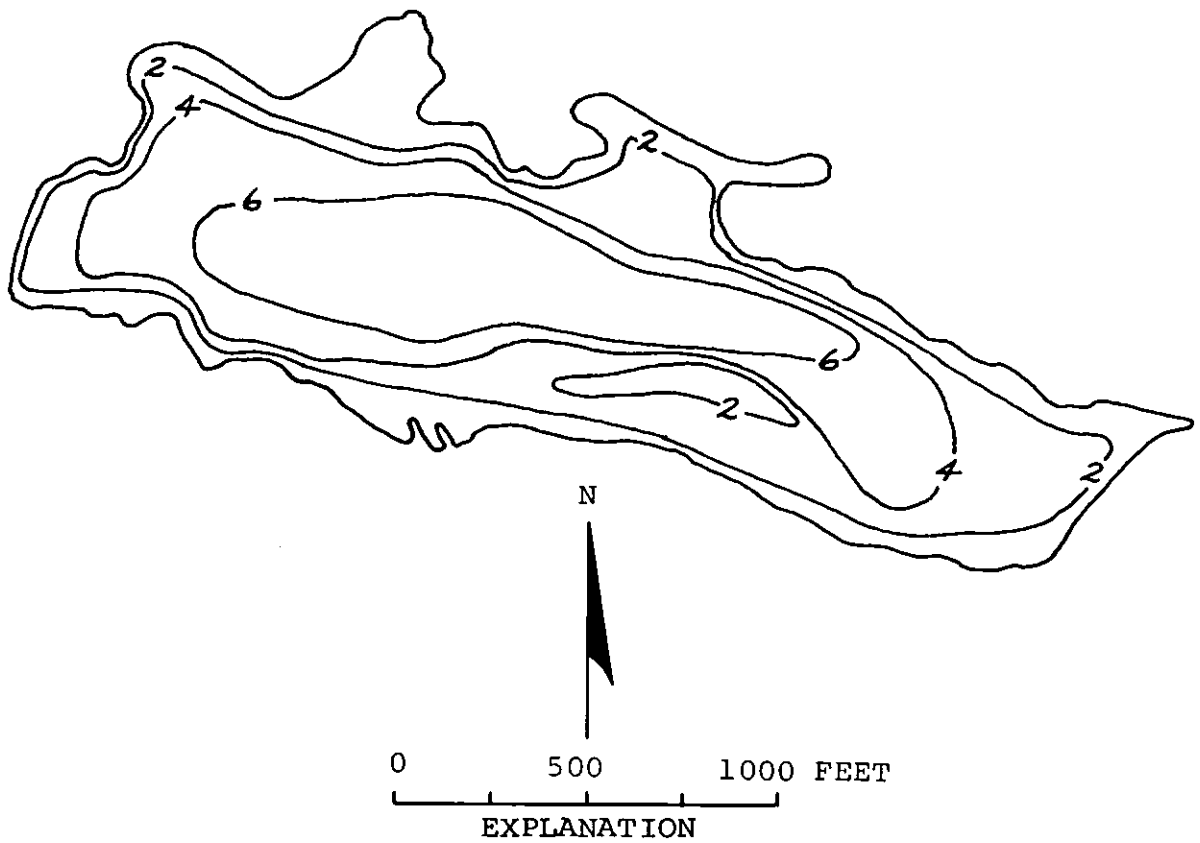
SAMPLE SITE	1	
DATE	6/18/74	
TIME	1110	1115
DEPTH (FT)	3.	5.
TOTAL NITRATE (N)	0.01	0.01
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.10	0.15
TOTAL ORGANIC NITROGEN (N)	2.3	2.5
TOTAL PHOSPHORUS (P)	0.12	0.18
TOTAL ORTHOPHOSPHATE (P)	0.061	0.067
SPECIFIC CONDUCTANCE (MICROMHOS)	1200	1200
WATER TEMPERATURE (DEG C)	24.7	24.7
COLOR (PLATINUM-COBALT UNITS)	65	65
SECCHI-DISC VISIBILITY (FT)	6	
DISSOLVED OXYGEN	4.4	4.4

LAKE SHORELINE COVERED BY EMERSED PLANTS	26-,50 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/18/74
TIME	1126
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	1
FECAL COLIFORM, MAXIMUM (COL./100ML)	4
FECAL COLIFORM, MEAN (COL./100ML)	2

REMARKS

VERY FEW SUBMERSED AQUATIC PLANTS WERE OBSERVED.



Swanson (25N-34E-33) Lake, Lincoln County.
From U.S. Geological Survey, April 27, 1974.

SYLVAN LAKE LINCOLN COUNTY

LATITUDE 47*19'20" LONGITUDE 118*35'56" T21N-R33E-12
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	686. SQ MI	RESIDENTIAL DEVELOPMENT	1 %
ALTITUDE	1599. FT		
LAKE AREA	620. ACRES	NUMBER OF NEARSHORE HOMES	1
LAKE VOLUME	2700. ACRE-FT		
MEAN DEPTH	4. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	7. FT		
SHORELINE LENGTH	7.2 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	2.1		
DEVELOPMENT OF VOLUME	0.63		
BOTTOM SLOPE	0.12 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

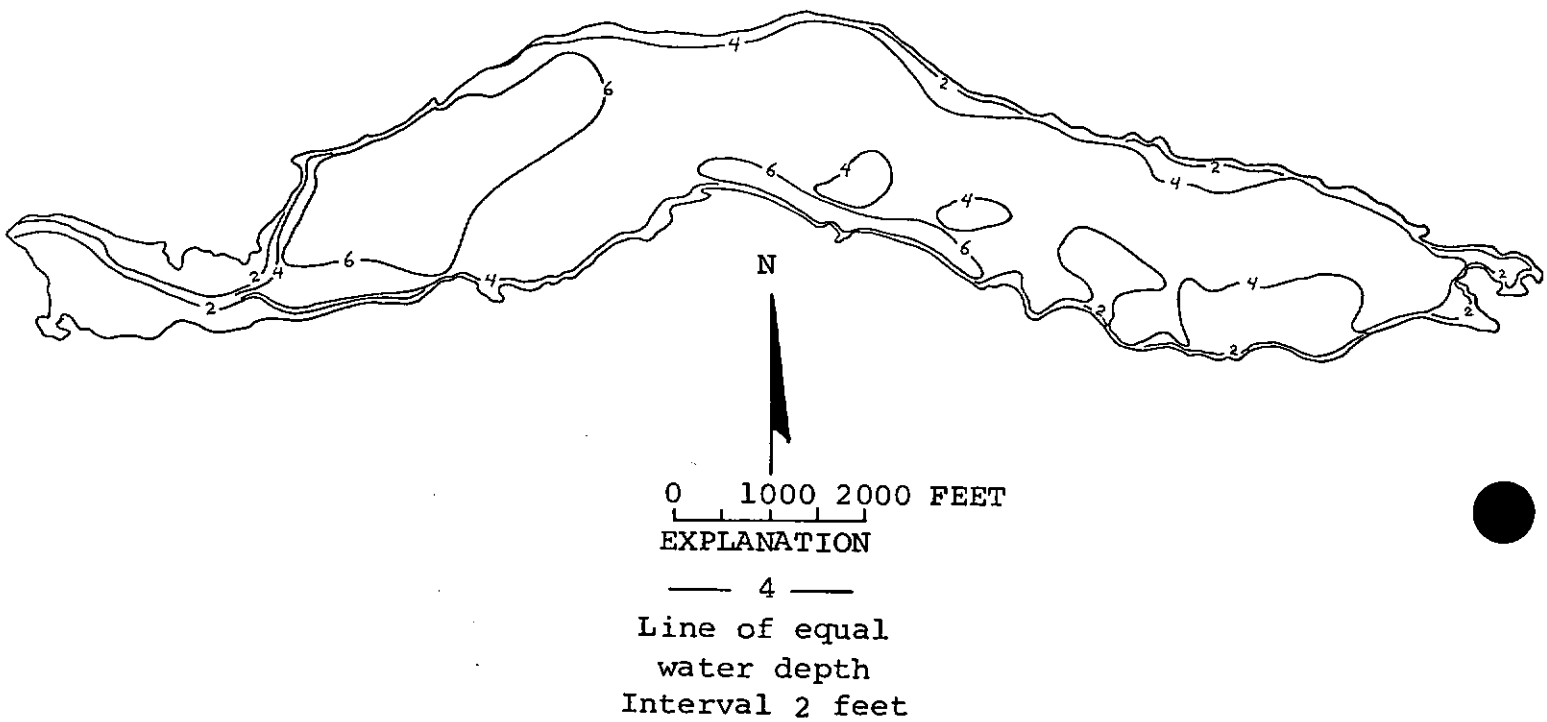
SAMPLE SITE	1	
DATE	6/19/74	
TIME	950	955
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.06	0.05
TOTAL ORGANIC NITROGEN (N)	0.66	0.55
TOTAL PHOSPHORUS (P)	0.072	0.072
TOTAL ORTHOPHOSPHATE (P)	0.041	0.041
SPECIFIC CONDUCTANCE (MICROMHOS)	380	380
WATER TEMPERATURE (DEG C)	24.4	24.4
COLOR (PLATINUM-COBALT UNITS)	30	35
SECCHI-DISC VISIBILITY (FT)	> 5	
DISSOLVED OXYGEN	3.9	3.8

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	76-100 %

DATE	6/19/74
TIME	1102
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	7
FECAL COLIFORM, MAXIMUM (COL./100ML)	26
FECAL COLIFORM, MEAN (COL./100ML)	15

REMARKS

THE LAKE IS AN ENLARGEMENT OF CRAB CREEK AND SUPPORTS A LARGE WATERFOWL POPULATION. THE LITTORAL BOTTOM IS SILT AND MUCK. THE ENTIRE SHORELINE, AS WELL AS A LARGE PART OF THE LAKE SURFACE, WAS COVERED WITH EMERSED AQUATIC PLANTS (SEDGE AND RUSHES). LAND USE WAS NOT DETERMINED BECAUSE OF THE SIZE OF THE DRAINAGE AREA.



Sylvan Lake, Lincoln County. From
U.S. Geological Survey, April 28, 1974.

TAVARES LAKE LINCOLN COUNTY

LATITUDE 47°26'13" LONGITUDE 118°39' 9" T23N-R33E-34
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	136. SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1684. FT		
LAKE AREA	48. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	710. ACRE-FT		
MEAN DEPTH	14. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	20. FT		
SHORELINE LENGTH	1.7 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.7	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.68	AGRICULTURAL	98 %
BOTTOM SLOPE	1.2 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

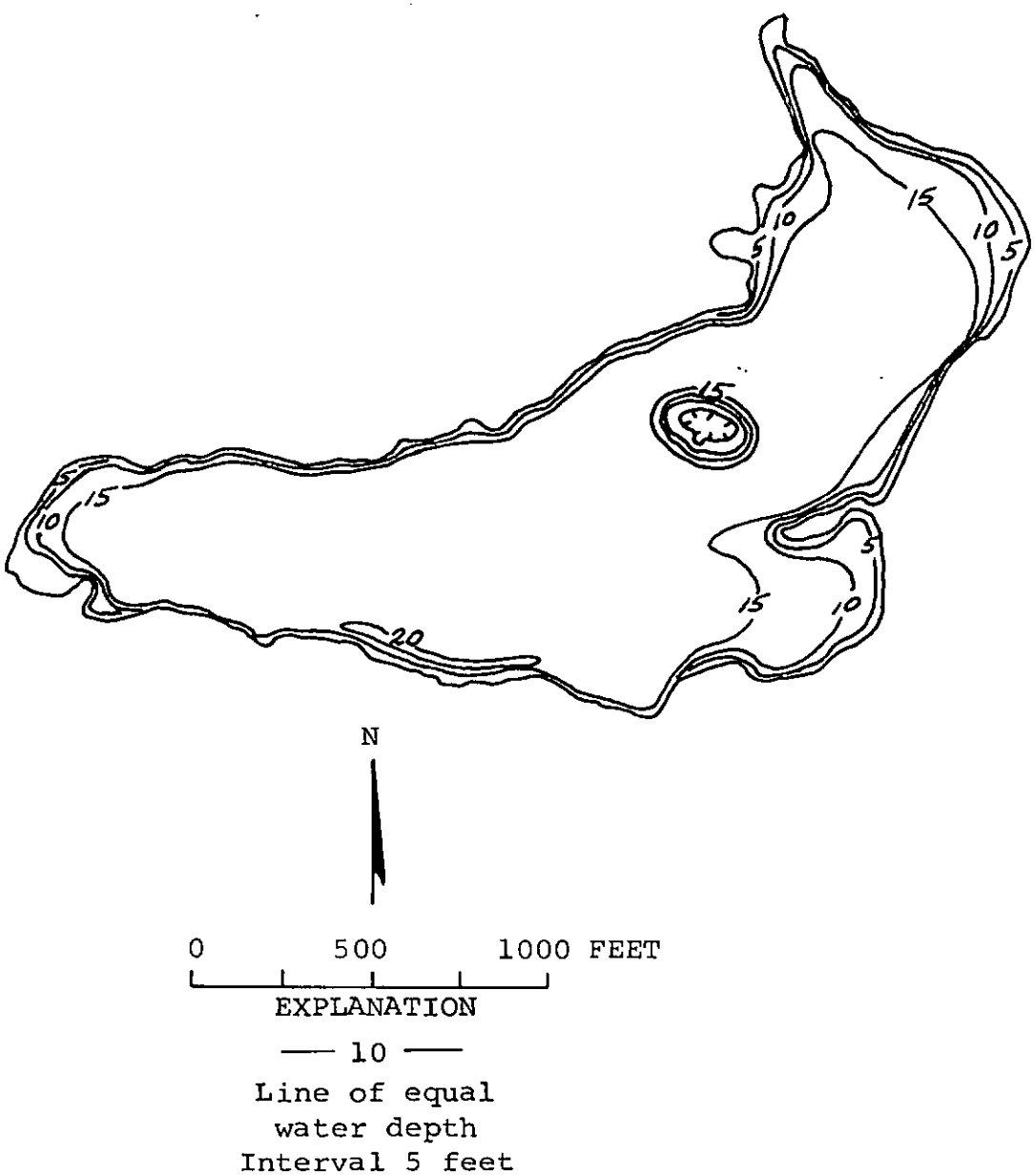
SAMPLE SITE	1	
DATE	6/19/74	
TIME	1500	1505
DEPTH (FT)	3.	13.
TOTAL NITRATE (N)	0.01	0.02
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.24	0.29
TOTAL ORGANIC NITROGEN (N)	2.4	0.81
TOTAL PHOSPHORUS (P)	0.12	0.16
TOTAL ORTHOPHOSPHATE (P)	0.043	0.10
SPECIFIC CONDUCTANCE (MICROMHOS)	330	330
WATER TEMPERATURE (DEG C)	26.0	17.1
COLOR (PLATINUM-COBALT UNITS)	40	25
SECCHI-DISC VISIBILITY (FT)	3	
DISSOLVED OXYGEN	20.0	5.6

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	6/19/74
TIME	1500
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	3
FECAL COLIFORM, MEAN (COL./100ML)	1

REMARKS

THE LAKE IS AN ENLARGEMENT OF LAKE CREEK AND SUPPORTS A LARGE WATERFOWL POPULATION. THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (SEDGE) AND AN EXTENSIVE MARSH OCCURS AT THE NORTHEAST END OF THE LAKE. A DENSE ALGAL BLOOM WAS OBSERVED.



Tavares Lake, Lincoln County. From
U.S. Geological Survey, April 24, 1974.

Tavares Lake, Lincoln County. From
U.S. Geological Survey, June 19, 1974

TWIN, LOWER LAKE LINCOLN COUNTY

LATITUDE 47°31'19" LONGITUDE 118°31'28" T23N-R34E-3
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	87.0 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1872. FT		
LAKE AREA	50. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	310. ACRE-FT		
MEAN DEPTH	6. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	10. FT		
SHORELINE LENGTH	2.3 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.3	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.62	AGRICULTURAL	98 %
BOTTOM SLOPE	0.60 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

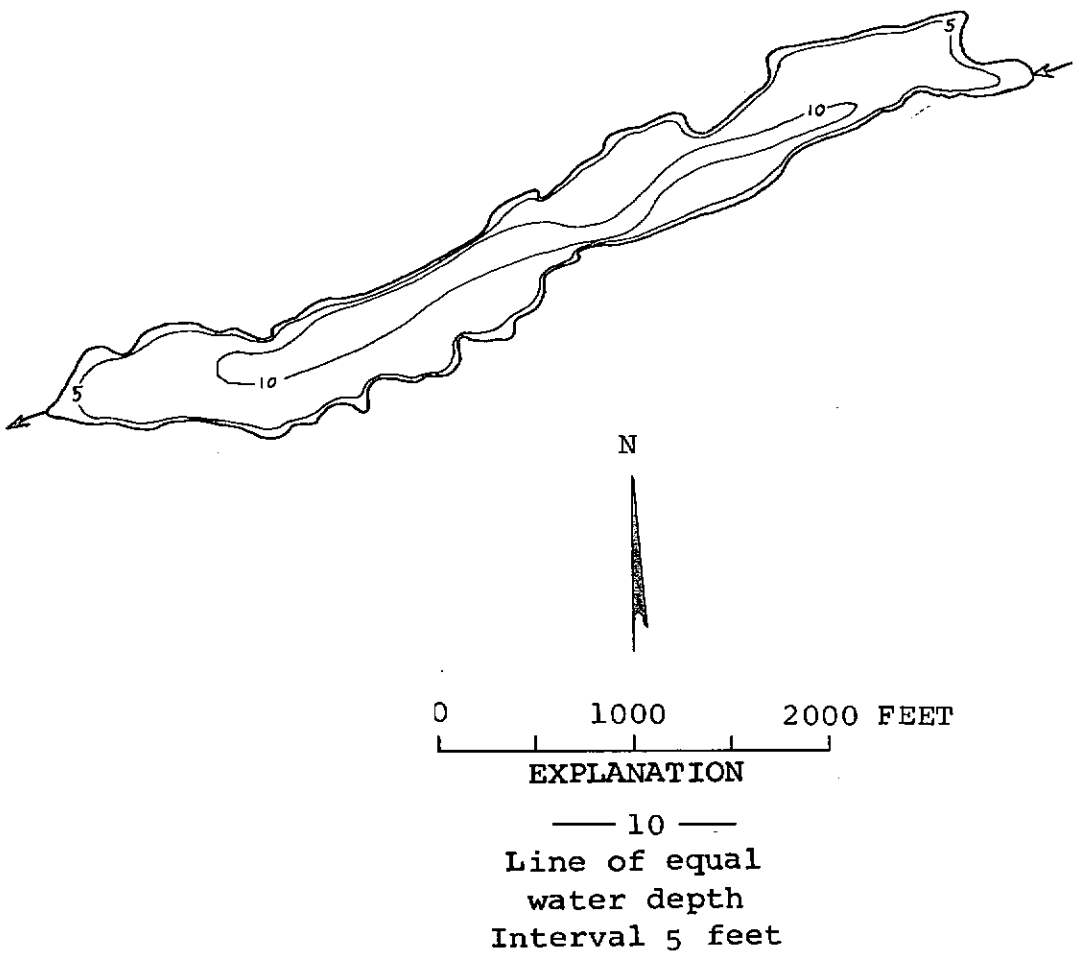
SAMPLE SITE	1	
DATE	6/17/74	
TIME	1700	1705
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.10	0.07
TOTAL ORGANIC NITROGEN (N)	1.3	1.1
TOTAL PHOSPHORUS (P)	0.052	0.037
TOTAL ORTHOPHOSPHATE (P)	0.011	0.006
SPECIFIC CONDUCTANCE (MICROMHOS)	340	340
WATER TEMPERATURE (DEG C)	24.2	23.2
COLOR (PLATINUM-COBALT UNITS)	25	25
SECCHI-DISC VISIBILITY (FT)	3	
DISSOLVED OXYGEN	19.0	19.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	6/17/74
TIME	1500
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	176
FECAL COLIFORM, MEAN (COL./100ML)	52

REMARKS

THE LAKE IS AN ENLARGEMENT OF LAKE CREEK. THE ENTIRE BOTTOM WAS COVERED WITH SUBMERSED AQUATIC PLANTS (COONTAIL AND PONDWEED). A DENSE ALGAL BLOOM WAS OBSERVED.



Twin, Lower Lake, Lincoln County. From
Washington Department of Game, January 15, 1960.

Twin, Lower Lake, Lincoln County. June 2, 1970. Approx. scale 1:63,000.

TWIN, UPPER LAKE LINCOLN COUNTY

LATITUDE 47*31'50" LONGITUDE 118*30'17" T24N-R34E-35
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	86.1 SQ MI	RESIDENTIAL DEVELOPMENT	1 %
ALTITUDE	1877. FT		
LAKE AREA	42. ACRES	NUMBER OF NEARSHORE HOMES	2
LAKE VOLUME	1300. ACRE-FT		
MEAN DEPTH	31. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	64. FT		
SHORELINE LENGTH	1.6 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.8	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.48	AGRICULTURAL	98 %
BOTTOM SLOPE	4.2 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

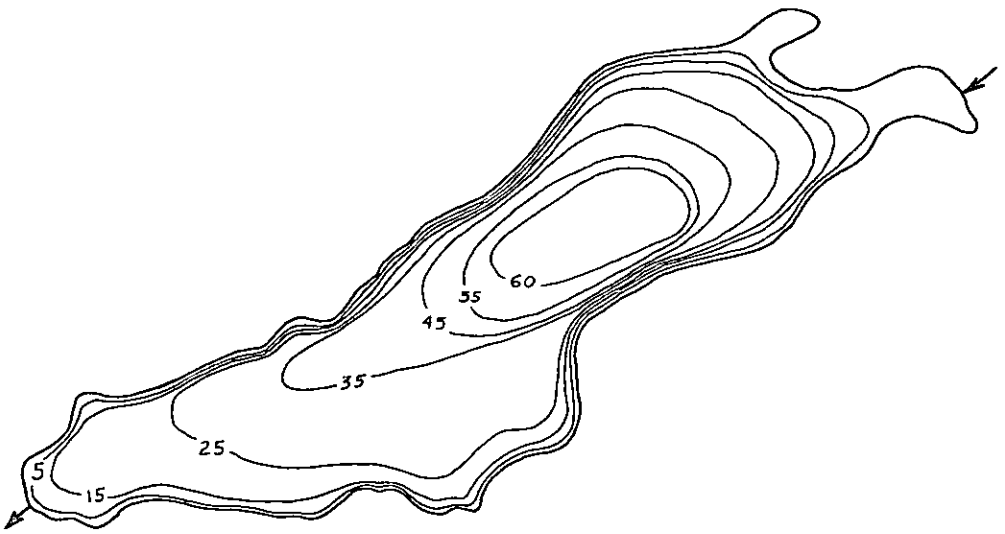
SAMPLE SITE	1	
DATE	6/18/74	
TIME	1130	1135
DEPTH (FT)	3.	59.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.00	0.06
TOTAL AMMONIA (N)	0.07	1.2
TOTAL ORGANIC NITROGEN (N)	0.81	1.1
TOTAL PHOSPHORUS (P)	0.065	0.31
TOTAL ORTHOPHOSPHATE (P)	0.036	0.29
SPECIFIC CONDUCTANCE (MICROMHOS)	420	420
WATER TEMPERATURE (DEG C)	24.0	7.8
COLOR (PLATINUM-COBALT UNITS)	25	25
SECCHI-DISC VISIBILITY (FT)	15	
DISSOLVED OXYGEN	8.2	0.4

LAKE SHORELINE COVERED BY EMERSED PLANTS	1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/18/74
TIME	1100
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	1
FECAL COLIFORM, MAXIMUM (COL./100ML)	15
FECAL COLIFORM, MEAN (COL./100ML)	6

REMARKS

THE LAKE IS AN ENLARGEMENT OF LAKE CREEK. A MODERATELY DENSE ALGAL BLOOM WAS OBSERVED.



N

0 1000 2000 FEET

EXPLANATION

— 15 —
Line of equal
water depth
Interval 10 feet

Twin, Upper Lake, Lincoln County. From
Washington Department of Game, January 14, 1960.

UNNAMED (21N-39E-5) LAKE LINCOLN COUNTY

LATITUDE 47*20'55" LONGITUDE 117*55'35" T21N-R39E-5
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	1.56 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2100. FT		
LAKE AREA	19. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	41. ACRE-FT		
MEAN DEPTH	2. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	4. FT		
SHORELINE LENGTH	0.77 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.3	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.61	AGRICULTURAL	96 %
BOTTOM SLOPE	0.34 %	FOREST OR UNPRODUCTIVE	2 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	2 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

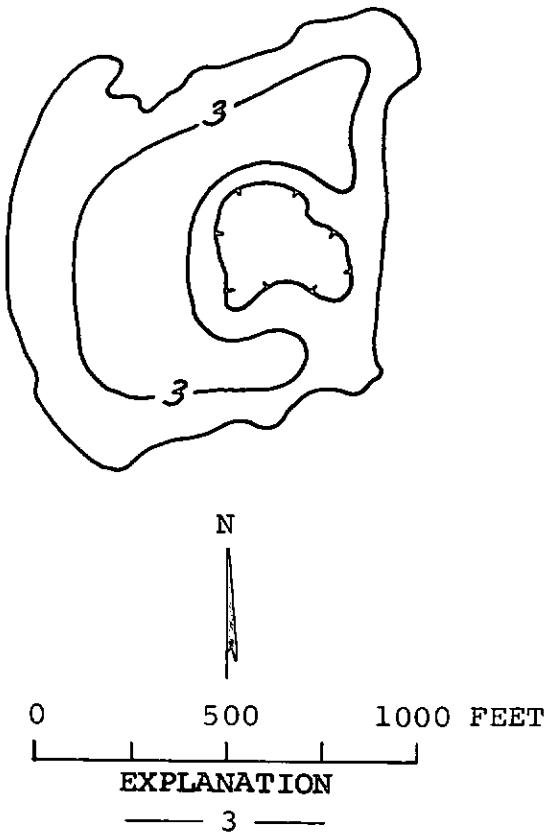
SAMPLE SITE	1	
DATE	6/22/74	
TIME	1250	1255
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.08	0.10
TOTAL ORGANIC NITROGEN (N)	1.1	1.7
TOTAL PHOSPHORUS (P)	0.33	0.33
TOTAL ORTHOPHOSPHATE (P)	0.25	0.25
SPECIFIC CONDUCTANCE (MICROMHOS)	690	690
WATER TEMPERATURE (DEG C)	23.1	22.0
COLOR (PLATINUM-COBALT UNITS)	70	65
SECCHI-DISC VISIBILITY (FT)	> 5	
DISSOLVED OXYGEN	7.9	8.1

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	26- 50 %

DATE	6/22/74
TIME	1302
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	2
FECAL COLIFORM, MEAN (COL./100ML)	1

REMARKS

THE LITTORAL BOTTOM IS SILT AND MUCK AND WAS COMPLETELY COVERED WITH SUBMERSED AQUATIC PLANTS (PONDWEED AND CHARA). THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (RUSHES AND SEDGE). AN ALGAL BLOOM WAS OBSERVED.



Unnamed (21N-39E-5) Lake, Lincoln County. From U.S. Geological Survey, September 5, 1974.

UNNAMED (21N-39E-26) LAKE LINCOLN COUNTY

LATITUDE 47°16'36" LONGITUDE 117°51'35" T21N-R39E-26
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	64.2 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1953. FT		
LAKE AREA	94. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	180. ACRE-FT		
MEAN DEPTH	2. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	4. FT		
SHORELINE LENGTH	2.0 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.5	RESIDENTIAL SUBURBAN	<1 %
DEVELOPMENT OF VOLUME	0.55	AGRICULTURAL	90 %
BOTTOM SLOPE	0.15 %	FOREST OR UNPRODUCTIVE	9 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

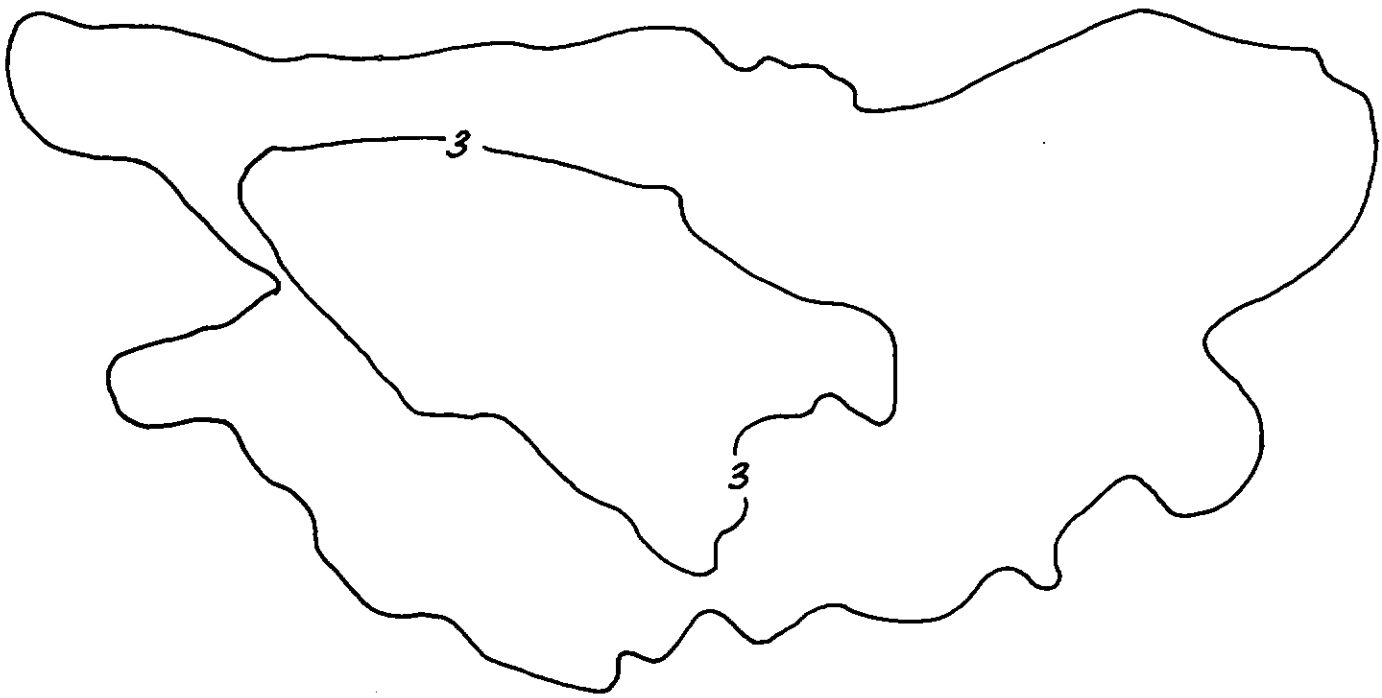
SAMPLE SITE	1	
DATE	6/22/74	
TIME	1040	1045
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	0.01	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.06	0.06
TOTAL ORGANIC NITROGEN (N)	0.86	0.86
TOTAL PHOSPHORUS (P)	0.057	0.058
TOTAL ORTHOPHOSPHATE (P)	0.015	0.015
SPECIFIC CONDUCTANCE (MICROMHOS)	340	340
WATER TEMPERATURE (DEG C)	20.7	20.0
COLOR (PLATINUM-COBALT UNITS)	40	50
SECCHI-DISC VISIBILITY (FT)	5	
DISSOLVED OXYGEN	17.1	17.4

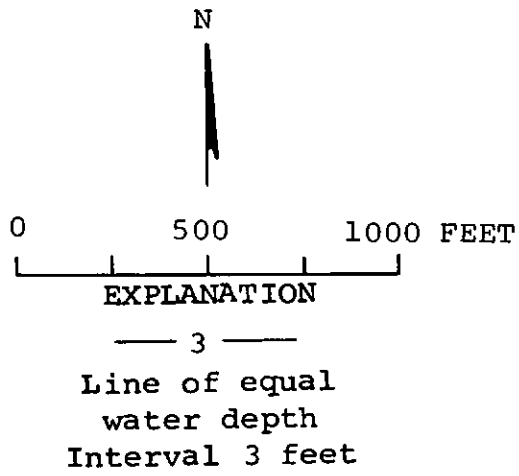
LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	26- 50 %

DATE	6/22/74
TIME	1102
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	22
FECAL COLIFORM, MEAN (COL./100ML)	8

REMARKS

THE LITTORAL BOTTOM IS SILT AND MUCK AND WAS COMPLETELY COVERED WITH SUBMERSED AQUATIC PLANTS (PONDWEED). THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (RUSHES).





Unnamed (21N-39E-26) Lake, Lincoln County. From U.S. Geological Survey, September 5, 1974.

UNNAMED (23N-32E-7) LAKE LINCOLN COUNTY

LATITUDE 47°29'50" LONGITUDE 118°50'27" T23N-R32E-7
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	45.8 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1650. FT		
LAKE AREA	38. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME (EST.)	87. ACRE-FT		
MEAN DEPTH (EST.)	2. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	4. FT		
SHORELINE LENGTH	1.5 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.3	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.53	AGRICULTURAL	98 %
BOTTOM SLOPE	0.30 %	FOREST OR UNPRODUCTIVE	2 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	<1 %
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1	
DATE	6/17/74	
TIME	1725	1730
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.12	0.12
TOTAL ORGANIC NITROGEN (N)	1.1	1.3
TOTAL PHOSPHORUS (P)	0.40	0.45
TOTAL ORTHOPHOSPHATE (P)	0.32	0.39
SPECIFIC CONDUCTANCE (MICROMHOS)	610	610
WATER TEMPERATURE (DEG C)	27.0	25.7
COLOR (PLATINUM-COBALT UNITS)	50	45
SECCHI-DISC VISIBILITY (FT)	> 4	
DISSOLVED OXYGEN	10.0	7.4

LAKE SHORELINE COVERED BY EMERSED PLANTS LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE	6/17/74
TIME	1542
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	2
FECAL COLIFORM, MAXIMUM (COL./100ML)	26
FECAL COLIFORM, MEAN (COL./100ML)	10

REMARKS

THE LAKE IS AN ENLARGEMENT OF CANNIWAI CREEK. THE LITTORAL BOTTOM IS SILT AND MUCK AND WAS COMPLETELY COVERED WITH SUBMERSED AQUATIC PLANTS (PONDWEED). VERY FEW EMERSED AQUATIC PLANTS WERE OBSERVED. THE VOLUME AND MEAN DEPTH ARE ESTIMATED.

UNNAMED (24N-33E-31) LAKE LINCOLN COUNTY

LATITUDE 47°32' 6" LONGITUDE 118°42'26" T24N-R33E-31
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	41.1 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1850. FT		
LAKE AREA	25. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	67. ACRE-FT		
MEAN DEPTH	3. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	11. FT		
SHORELINE LENGTH	1.3 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.9	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.25	AGRICULTURAL	98 %
BOTTOM SLOPE	0.94 %	FOREST OR UNPRODUCTIVE	2 %
BASIN GEOLOGY	SED./META.	LAKE SURFACE	<1 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

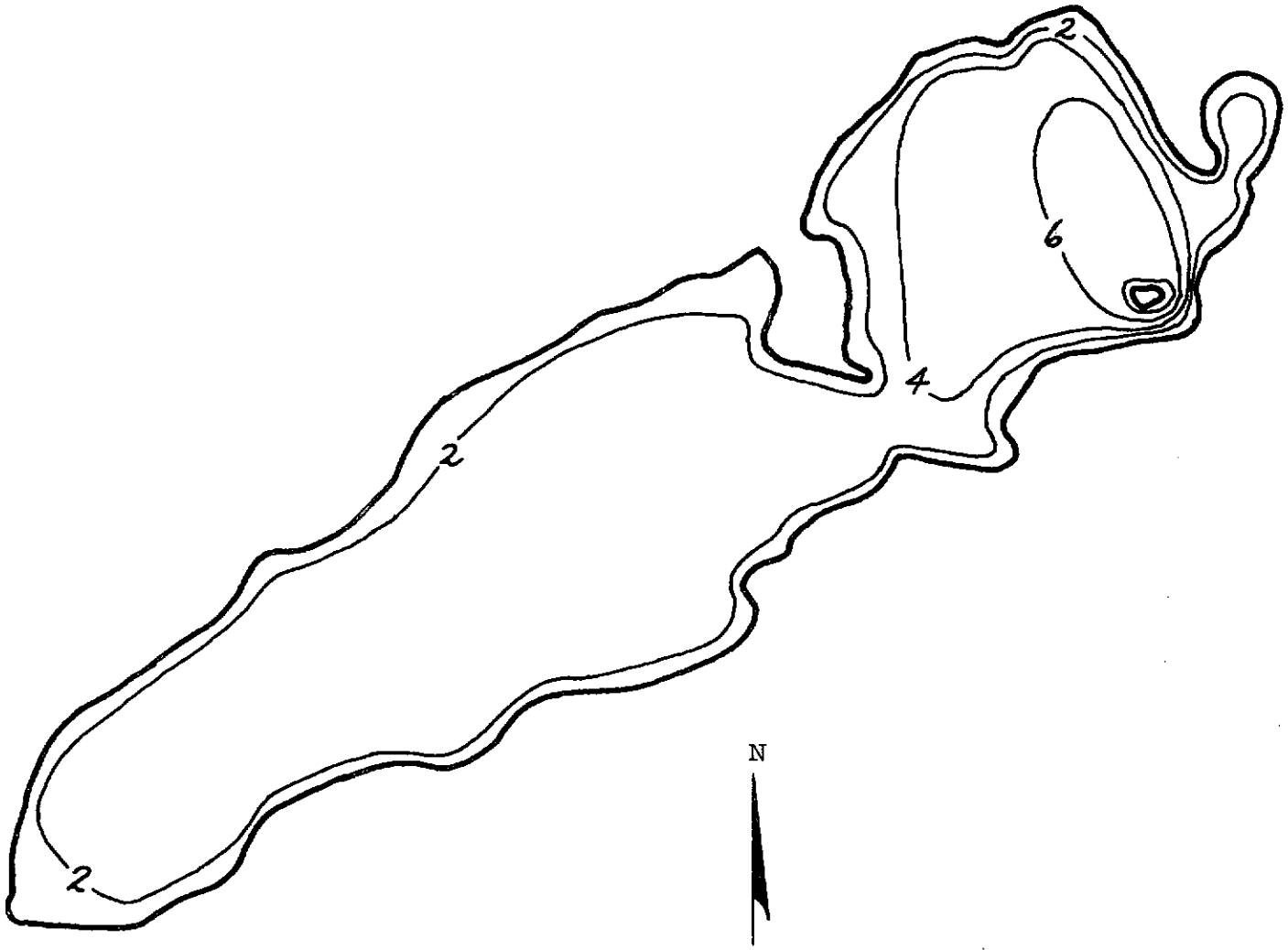
SAMPLE SITE	1	
DATE	6/17/74	
TIME	1435	1440
DEPTH (FT)	1.	2.
TOTAL NITRATE (N)	0.01	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.09	0.07
TOTAL ORGANIC NITROGEN (N)	2.4	1.8
TOTAL PHOSPHORUS (P)	0.079	0.071
TOTAL ORTHOPHOSPHATE (P)	0.013	0.013
SPECIFIC CONDUCTANCE (MICROMHOS)	750	750
WATER TEMPERATURE (DEG C)	29.2	28.9
COLOR (PLATINUM-COBALT UNITS)	50	50
SECCHI-DISC VISIBILITY (FT)	> 2	
DISSOLVED OXYGEN	13.1	13.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/17/74
TIME	1652
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	1
FECAL COLIFORM, MAXIMUM (COL./100ML)	10
FECAL COLIFORM, MEAN (COL./100ML)	4

REMARKS

THE LAKE IS IN MARLIN HOLLOW AND IS NOT SHOWN ON EXISTING TOPOGRAPHIC MAPS. THE AGRICULTURAL FURROWS EVIDENT ON THE LAKE BOTTOM SUGGEST THAT THE LAKE IS INTERMITTENT. THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (RUSHES) AND THE ENTIRE BOTTOM WAS COVERED WITH SUBMERSED AQUATIC PLANTS (WATER MILFOIL AND CHARA).



Unnamed (24N-33E-31) Lake, Lincoln County.
From U.S. Geological Survey, April 25, 1974.

UNNAMED (24N-34E-22) LAKE LINCOLN COUNTY

LATITUDE 47°33'30" LONGITUDE 118°31'32" T24N-R34E-22
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	2.21 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2200. FT		
LAKE AREA	19. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	48. ACRE-FT		
MEAN DEPTH	3. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	4. FT		
SHORELINE LENGTH	1.2 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.0	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.64	AGRICULTURAL	99 %
BOTTOM SLOPE	0.39 %	FOREST OR UNPRODUCTIVE	<1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

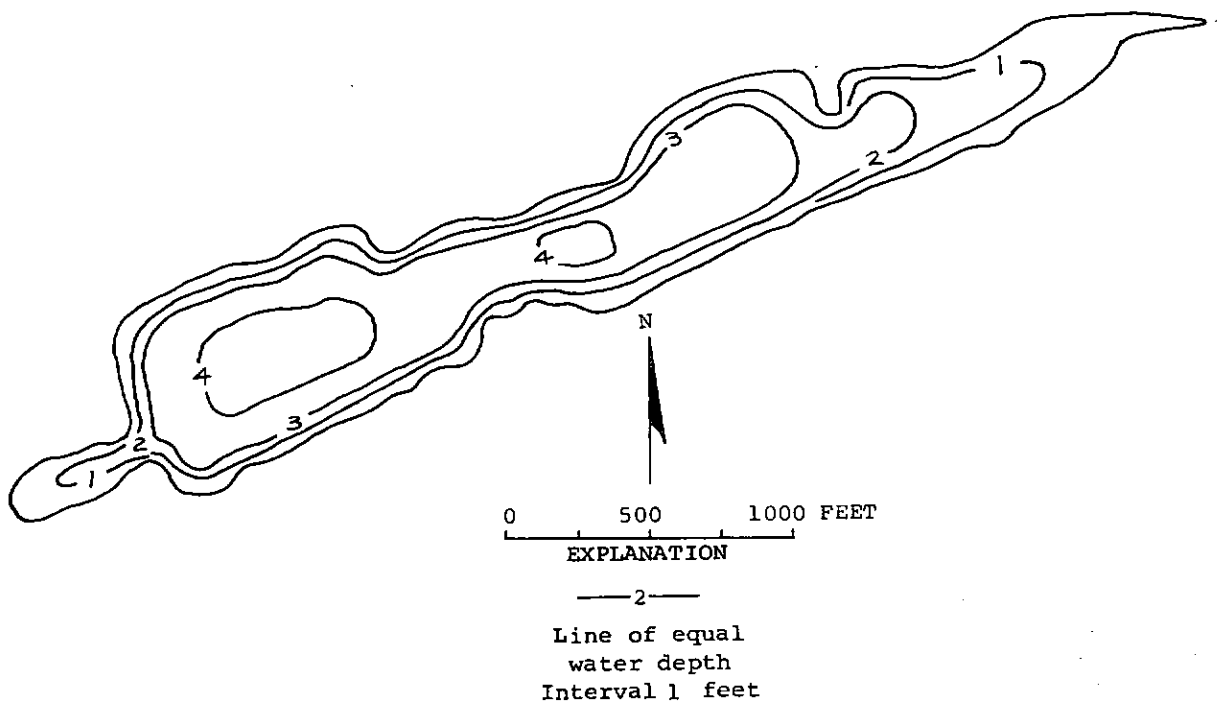
SAMPLE SITE	1	
DATE	6/14/74	
TIME	850	855
DEPTH (FT)	3.	7.
TOTAL NITRATE (N)	0.04	0.04
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.05	0.05
TOTAL ORGANIC NITROGEN (N)	1.2	1.2
TOTAL PHOSPHORUS (P)	0.060	0.075
TOTAL ORTHOPHOSPHATE (P)	0.016	0.054
SPECIFIC CONDUCTANCE (MICROMHOS)	440	420
WATER TEMPERATURE (DEG C)	21.6	18.8
COLOR (PLATINUM-COBALT UNITS)	45	50
SECCHI-DISC VISIBILITY (FT)	7	
DISSOLVED OXYGEN	10.4	17.8

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	51- 75 %

DATE	6/14/74
TIME	900
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	5
FECAL COLIFORM, MEAN (COL./100ML)	2

REMARKS

A RELATIVELY NEW LAKE NOT SHOWN ON EXISTING TOPOGRAPHIC MAPS. THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (SEDGE) AND THE ENTIRE BOTTOM WAS COVERED WITH SUBMERSED AQUATIC PLANTS (PONDWEED). THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION.



Unnamed (24N-34E-22) Lake, Lincoln County.
From U.S. Geological Survey, September 1974.

UNNAMED (24N-35E-4) LAKE LINCOLN COUNTY

LATITUDE 47°36'10" LONGITUDE 118°25' 5" T24N-R35E-4
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	33.1 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2147. FT		
LAKE AREA	43. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	200. ACRE-FT		
MEAN DEPTH	5. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	14. FT		
SHORELINE LENGTH	3.3 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	3.5	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.33	AGRICULTURAL	98 %
BOTTOM SLOPE	0.90 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

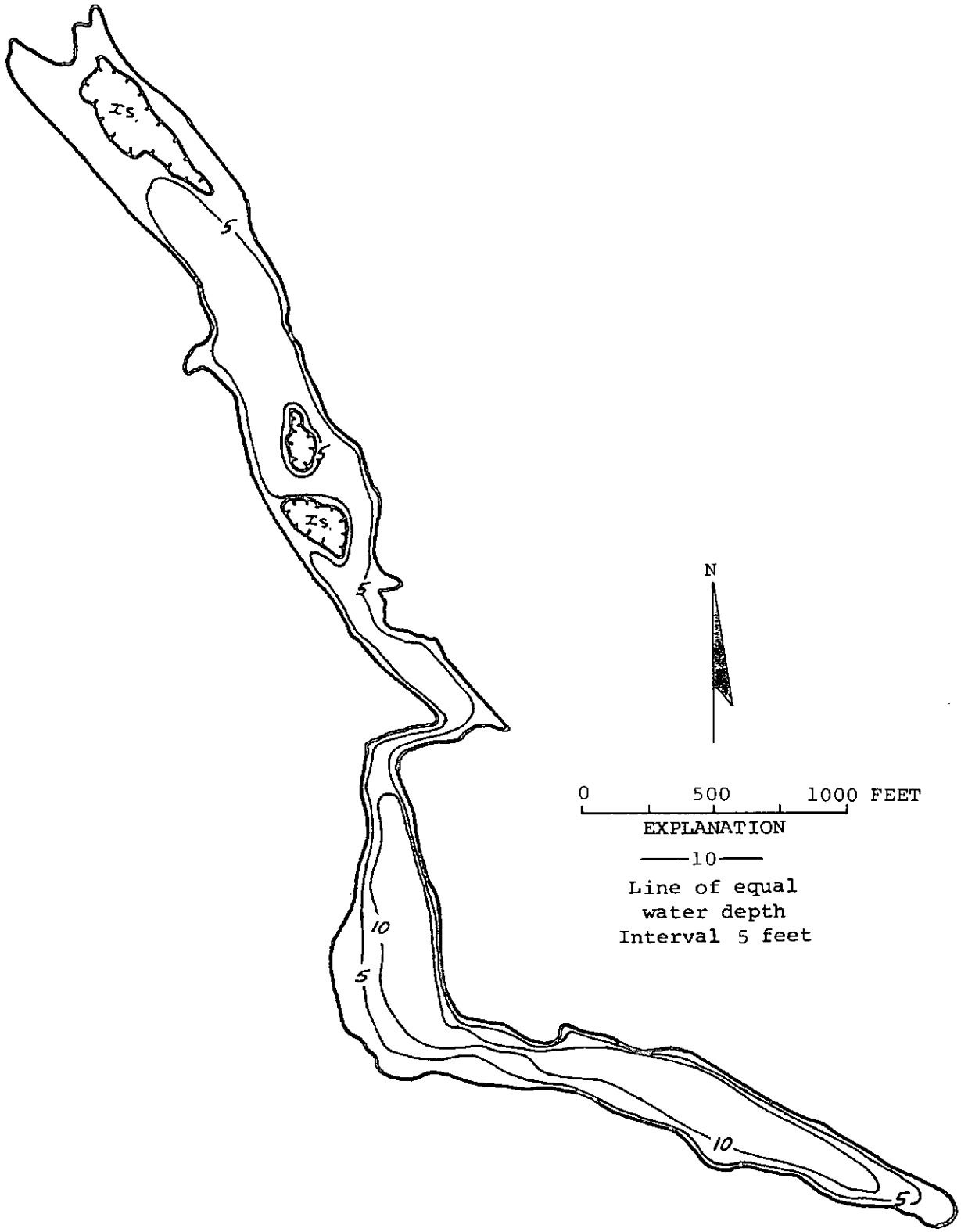
SAMPLE SITE	1	
DATE	6/18/74	
TIME	1500	1505
DEPTH (FT)	3.	7.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.14	0.14
TOTAL ORGANIC NITROGEN (N)	1.6	1.4
TOTAL PHOSPHORUS (P)	0.093	0.085
TOTAL ORTHOPHOSPHATE (P)	0.021	0.016
SPECIFIC CONDUCTANCE (MICROMHOS)	400	400
WATER TEMPERATURE (DEG C)	28.5	22.5
COLOR (PLATINUM-COBALT UNITS)	50	40
SECCHI-DISC VISIBILITY (FT)	5	
DISSOLVED OXYGEN	12.2	16.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	11- 25 %

DATE	6/18/74
TIME	1500
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

THE LAKE IS AN ENLARGEMENT OF LAKE CREEK AND SUPPORTS A LARGE WATERFOWL POPULATION. FLOATING LOGS AND SNAGS WERE OBSERVED ALONG THE SHORELINE, WHICH WAS COMPLETELY COVERED WITH EMERSED AQUATIC PLANTS (POLYGONUM AND SEDGE). AN ALGAL BLOOM WAS OBSERVED.



Unnamed (24N-35E-4) Lake, Lincoln County.
From U.S. Geological Survey, July 11, 1974.

UNNAMED (25N-34E-27) LAKE LINCOLN COUNTY

LATITUDE 47*37'46" LONGITUDE 118*31' 6" T25N-R34E-27
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	3.21 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2235. FT		
LAKE AREA	58. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	150. ACRE-FT		
MEAN DEPTH	3. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	4. FT		
SHORELINE LENGTH	2.2 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.0	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.76	AGRICULTURAL	96 %
BOTTOM SLOPE	0.20 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	3 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

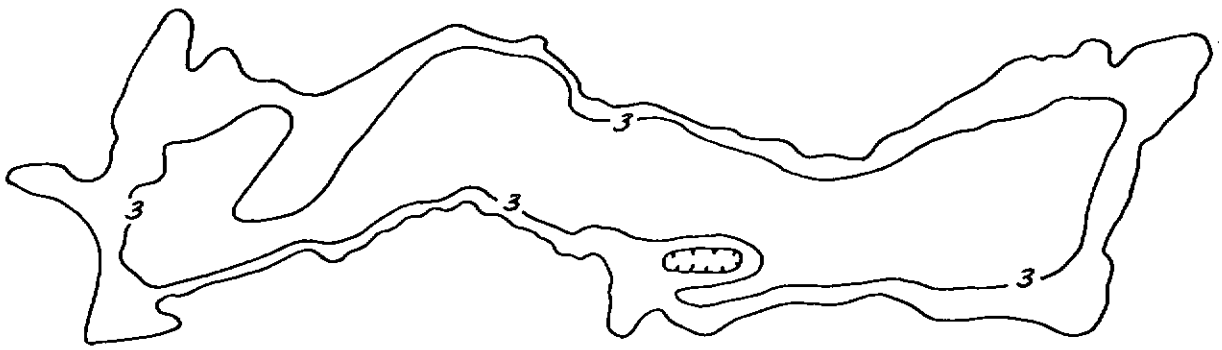
SAMPLE SITE	1	
DATE	6/18/74	
TIME	1200	1205
DEPTH (FT)	3.	5.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.12	0.10
TOTAL ORGANIC NITROGEN (N)	1.9	1.7
TOTAL PHOSPHORUS (P)	0.038	0.046
TOTAL ORTHOPHOSPHATE (P)	0.008	0.009
SPECIFIC CONDUCTANCE (MICROMHOS)	850	850
WATER TEMPERATURE (DEG C)	24.8	23.8
COLOR (PLATINUM-COBALT UNITS)	85	85
SECCHI-DISC VISIBILITY (FT)	> 5	
DISSOLVED OXYGEN	4.4	10.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	11- 25 %

DATE	6/18/74
TIME	1207
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	1
FECAL COLIFORM, MAXIMUM (COL./100ML)	4
FECAL COLIFORM, MEAN (COL./100ML)	2

REMARKS

THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (RUSHES) AND THE ENTIRE BOTTOM WAS COVERED WITH SUBMERSED AQUATIC PLANTS (PONDWEED). THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION. AN ALGAL BLOOM WAS OBSERVED.



N

0 1000 2000 FEET

EXPLANATION

—— 3 ——

Line of equal
water depth
Interval 3 feet

Unnamed (25N-34E-27) Lake, Lincoln County.
From U.S. Geological Survey, March 3, 1975.

UNNAMED (25N-35E-9) LAKE LINCOLN COUNTY

LATITUDE 47*40'32" LONGITUDE 118*23'48" T25N-R35E-9
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	0.51 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2285. FT		
LAKE AREA	56. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	180. ACRE-FT		
MEAN DEPTH	3. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	8. FT		
SHORELINE LENGTH	3.4 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	3.2	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.41	AGRICULTURAL	82 %
BOTTOM SLOPE	0.45 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	17 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

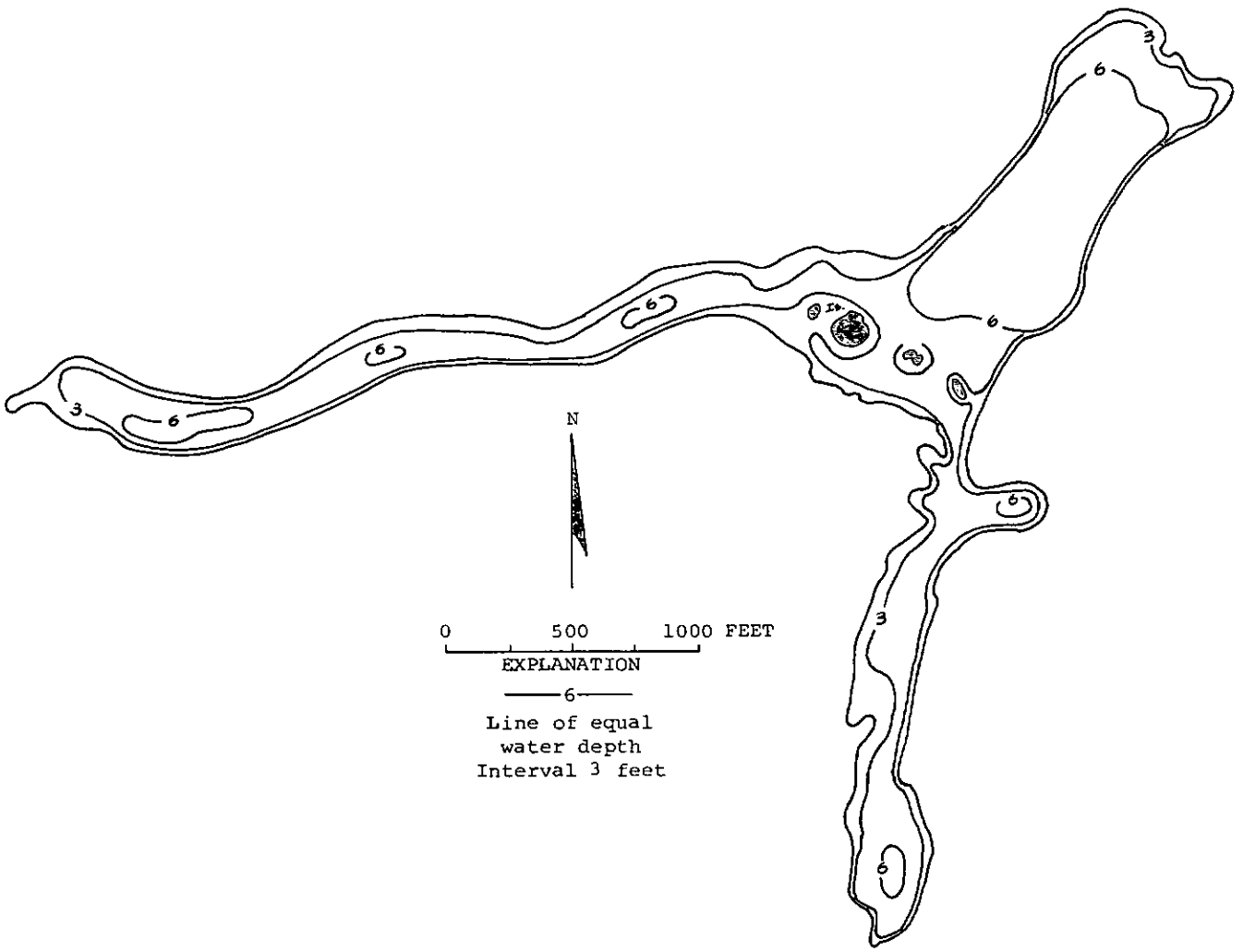
SAMPLE SITE	1	
DATE	6/18/74	
TIME	845	850
DEPTH (FT)	3.	5.
TOTAL NITRATE (N)	0.01	0.02
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.16	0.18
TOTAL ORGANIC NITROGEN (N)	1.7	1.6
TOTAL PHOSPHORUS (P)	0.29	0.29
TOTAL ORTHOPHOSPHATE (P)	0.22	0.22
SPECIFIC CONDUCTANCE (MICROMHOS)	550	580
WATER TEMPERATURE (DEG C)	23.8	18.9
COLOR (PLATINUM-COBALT UNITS)	85	85
SECCHI-DISC VISIBILITY (FT)	5	
DISSOLVED OXYGEN	4.6	1.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/18/74
TIME	902
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	3
FECAL COLIFORM, MEAN (COL./100ML)	1

REMARKS

THE LAKE STAGE WAS MUCH HIGHER THAN SHOWN ON EXISTING TOPOGRAPHIC MAPS.
A MODERATELY DENSE ALGAL BLOOM WAS OBSERVED.



Unnamed (25N-35E-9) Lake, Lincoln County.
From U.S. Geological Survey, June 6, 1974.

UNNAMED (25N-39E-9) LAKE LINCOLN COUNTY

LATITUDE 47°40'26" LONGITUDE 117°53'11" T25N-R39E-9
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	1.53 SQ MI	RESIDENTIAL DEVELOPMENT	2 %
ALTITUDE	2465. FT		
LAKE AREA	45. ACRES	NUMBER OF NEARSHORE HOMES	1
LAKE VOLUME	110. ACRE-FT		
MEAN DEPTH	3. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	5. FT		
SHORELINE LENGTH	1.7 MI	RESIDENTIAL URBAN	11 %
SHORELINE CONFIGURATION	1.8	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.51	AGRICULTURAL	76 %
BOTTOM SLOPE	0.32 %	FOREST OR UNPRODUCTIVE	8 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	5 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

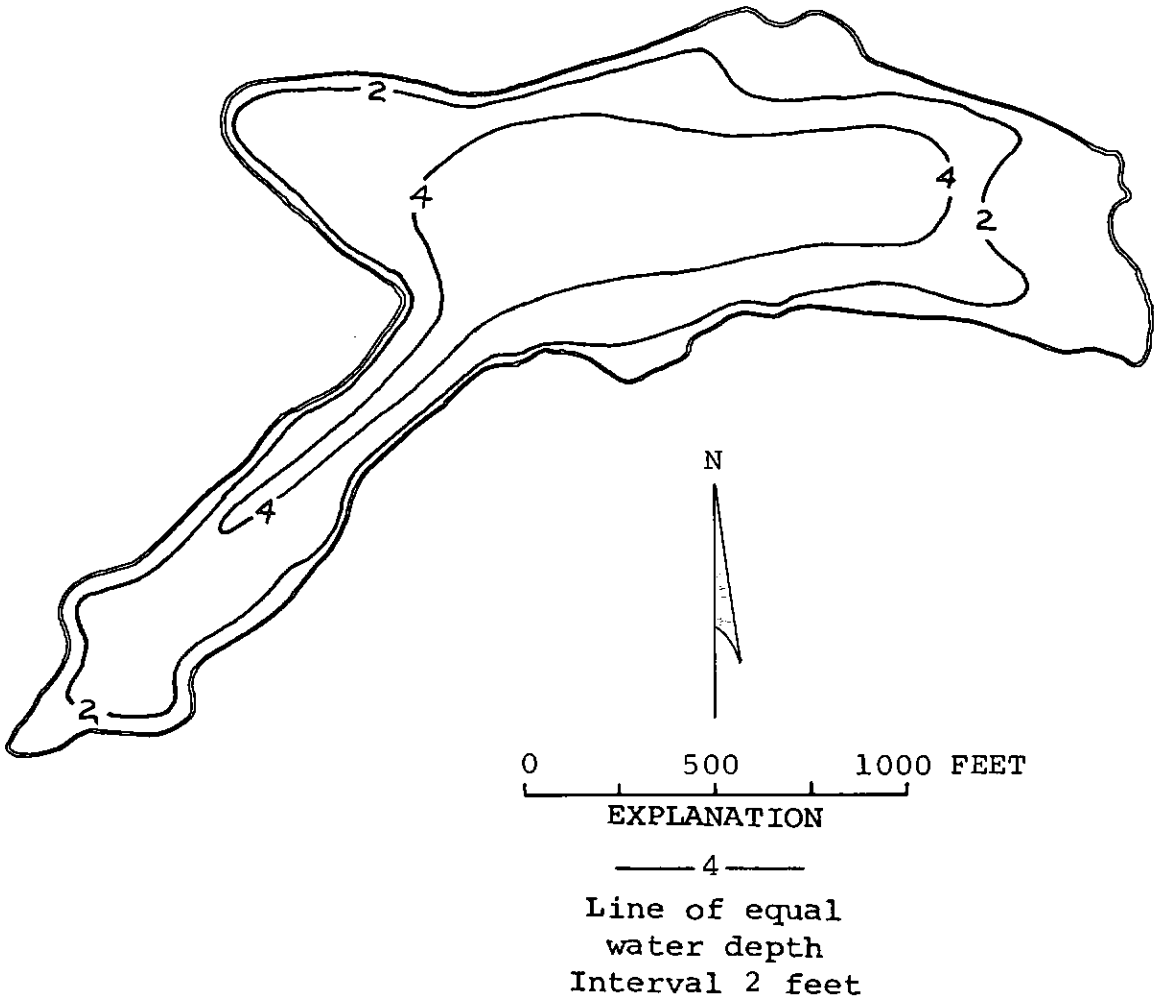
SAMPLE SITE	1	
DATE	6/28/74	
TIME	1105	1110
DEPTH (FT)	1.	2.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.02
TOTAL AMMONIA (N)	0.37	0.39
TOTAL ORGANIC NITROGEN (N)	2.1	2.3
TOTAL PHOSPHORUS (P)	2.5	2.5
TOTAL ORTHOPHOSPHATE (P)	2.3	2.4
SPECIFIC CONDUCTANCE (MICROMHOS)	1200	1200
WATER TEMPERATURE (DEG C)	17.0	17.1
COLOR (PLATINUM-COBALT UNITS)	30	30
SECCHI-DISC VISIBILITY (FT)	3	
DISSOLVED OXYGEN	5.8	5.5

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	6/28/74
TIME	1117
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	1
FECAL COLIFORM, MAXIMUM (COL./100ML)	6
FECAL COLIFORM, MEAN (COL./100ML)	3

REMARKS

THE LITTORAL BOTTOM IS SILT AND MUCK AND WAS COMPLETELY COVERED WITH SUBMERSED AQUATIC PLANTS (PONDWEED). THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (SEDGE AND RUSHES). THE LAKE RECEIVES MUNICIPAL SEWAGE EFFLUENT AND SUPPORTS A LARGE WATERFOWL POPULATION.



Unnamed (25N-39E-9) Lake, Lincoln County.
From U.S. Geological Survey, July 10, 1974.

UNNAMED (25N-39E-15) LAKE LINCOLN COUNTY

LATITUDE 47°40'17" LONGITUDE 118°51'53" T25N-R39E-15
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	0.94 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2465. FT		
LAKE AREA	75. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	270. ACRE-FT		
MEAN DEPTH	4. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	7. FT		
SHORELINE LENGTH	1.9 MI	RESIDENTIAL URBAN	6 %
SHORELINE CONFIGURATION	1.6	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.52	AGRICULTURAL	82 %
BOTTOM SLOPE	0.34 %	FOREST OR UNPRODUCTIVE	0 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	12 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

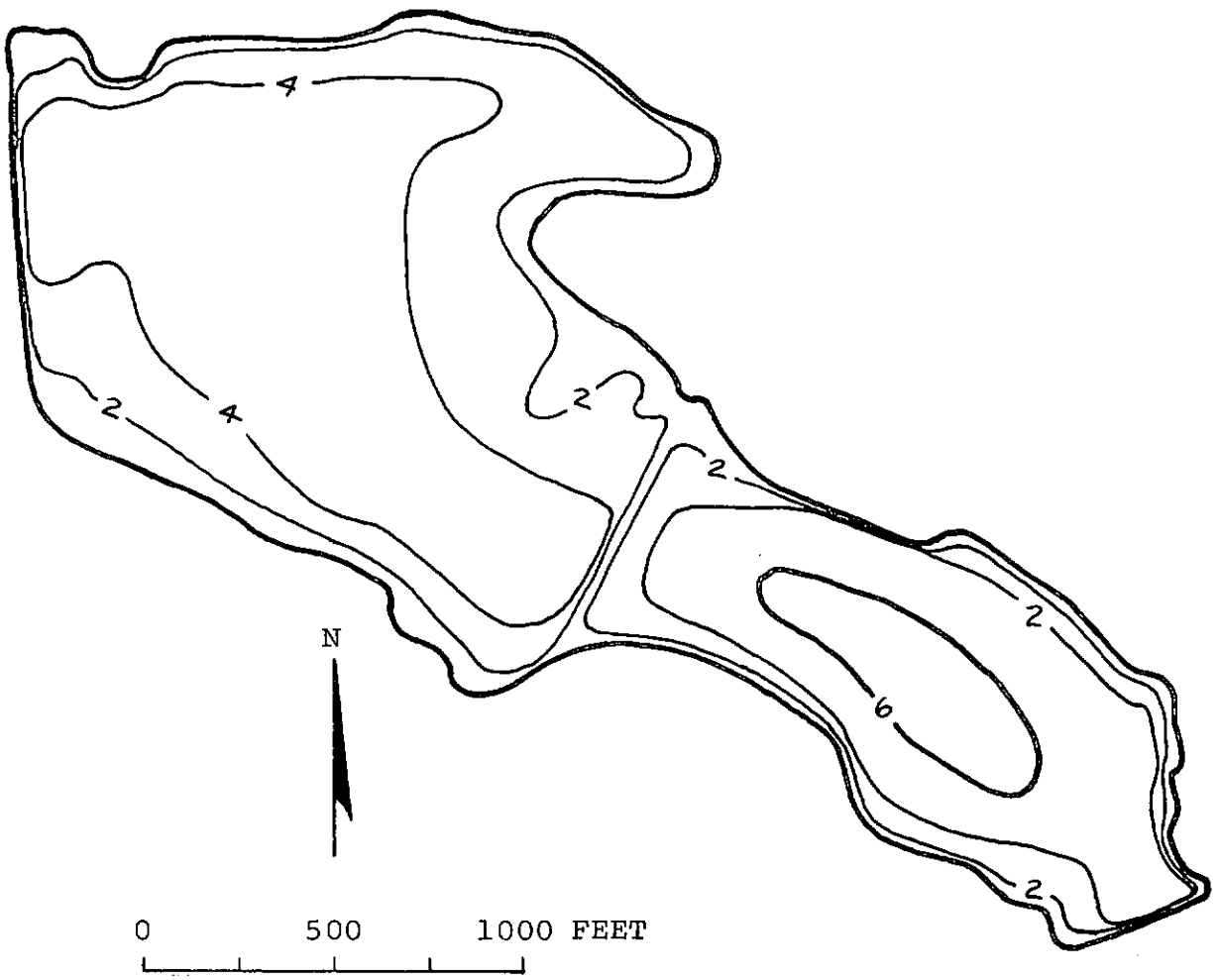
SAMPLE SITE	1	
DATE	6/28/74	
TIME	1030	1035
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.05	0.11
TOTAL ORGANIC NITROGEN (N)	1.4	3.5
TOTAL PHOSPHORUS (P)	0.096	0.95
TOTAL ORTHOPHOSPHATE (P)	0.035	0.80
SPECIFIC CONDUCTANCE (MICROMHOS)	1500	1500
WATER TEMPERATURE (DEG C)	16.8	16.9
COLOR (PLATINUM-COBALT UNITS)	85	80
SECCHI-DISC VISIBILITY (FT)	5	
DISSOLVED OXYGEN	8.5	8.4

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	11- 25 %

DATE	6/28/74
TIME	1042
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	2
FECAL COLIFORM, MEAN (COL./100ML)	1

REMARKS

THE LITTORAL BOTTOM IS SILT AND MUCK AND WAS COMPLETELY COVERED WITH SUBMERSED AQUATIC PLANTS (COONTAIL, PONDWEED, AND WATER MILFOIL). THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (SEDGE AND RUSHES). AN ALGAL BLOOM WAS OBSERVED. THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION.



Unnamed (25N-39E-15) Lake, Lincoln County.
From U.S. Geological Survey, July 10, 1974.

UNNAMED(26N-34E-34)LAKE LINCOLN COUNTY

LATITUDE 47*42'52" LONGITUDE 118*30'43" T26N-R34E-34
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	3.00 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2285. FT		
LAKE AREA	22. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	35. ACRE-FT		
MEAN DEPTH	2. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	3. FT		
SHORELINE LENGTH	1.7 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.6	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.54	AGRICULTURAL	97 %
BOTTOM SLOPE	0.27 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	2 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

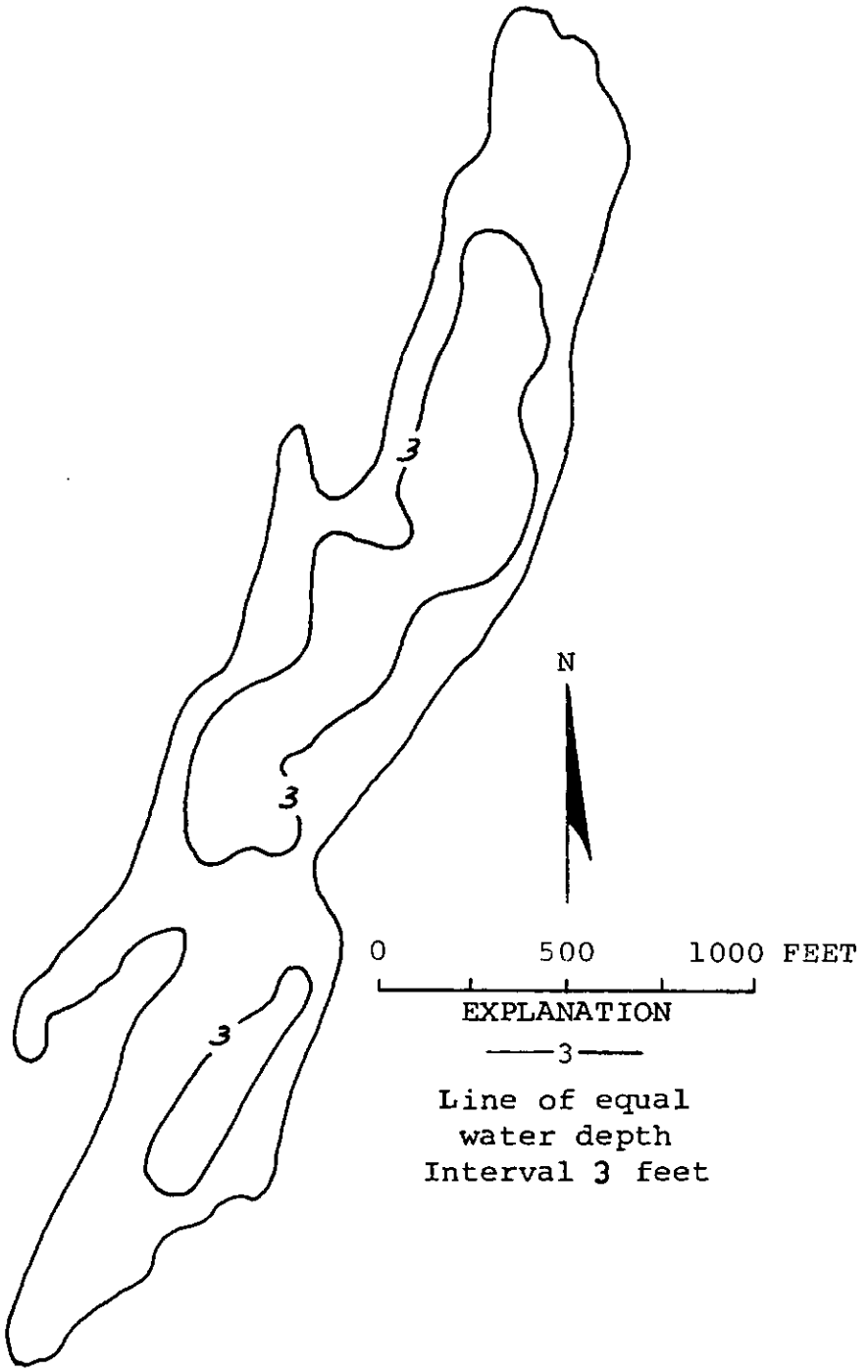
SAMPLE SITE	1	
DATE	6/18/74	
TIME	930	935
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	0.01	0.01
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.08	0.08
TOTAL ORGANIC NITROGEN (N)	1.3	1.3
TOTAL PHOSPHORUS (P)	0.087	0.15
TOTAL ORTHOPHOSPHATE (P)	0.45	0.060
SPECIFIC CONDUCTANCE (MICROMHOS)	320	320
WATER TEMPERATURE (DEG C)	21.0	19.5
COLOR (PLATINUM-COBALT UNITS)	55	55
SECCHI-DISC VISIBILITY (FT)	> 4	
DISSOLVED OXYGEN	14.0	16.4

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	76-100 %

DATE	6/18/74
TIME	952
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	14
FECAL COLIFORM, MAXIMUM (COL./100ML)	79
FECAL COLIFORM, MEAN (COL./100ML)	40

REMARKS

THE LAKE IS AN ENLARGEMENT OF SINKING CREEK AND SUPPORTS A LARGE WATERFOWL POPULATION. THE ENTIRE SHORELINE, AS WELL AS A LARGE PART OF THE LAKE SURFACE, WAS COVERED WITH EMERSED AQUATIC PLANTS (CATTAIL AND RUSHES). THE ENTIRE BOTTOM WAS COVERED WITH SUBMERSED AQUATIC PLANTS (PONDWEED AND WATER MILFOIL).



Unnamed (26N-34E-34) Lake, Lincoln County.
From U.S. Geological Survey, September 1974.

Unnamed (26N-34E-34) Lake, Lincoln County.
From U.S. Geological Survey, June 18, 1974.

UNNAMED (26N-38E-33) LAKE LINCOLN COUNTY

LATITUDE 47*42'11" LONGITUDE 118* 1' 3" T26N-R38E-33
SPOKANE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	0.32 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2450. FT		
LAKE AREA	23. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	57. ACRE-FT		
MEAN DEPTH	2. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	4. FT		
SHORELINE LENGTH	0.91 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.3	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.61	AGRICULTURAL	89 %
BOTTOM SLOPE	0.35 %	FOREST OR UNPRODUCTIVE	0 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	11 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

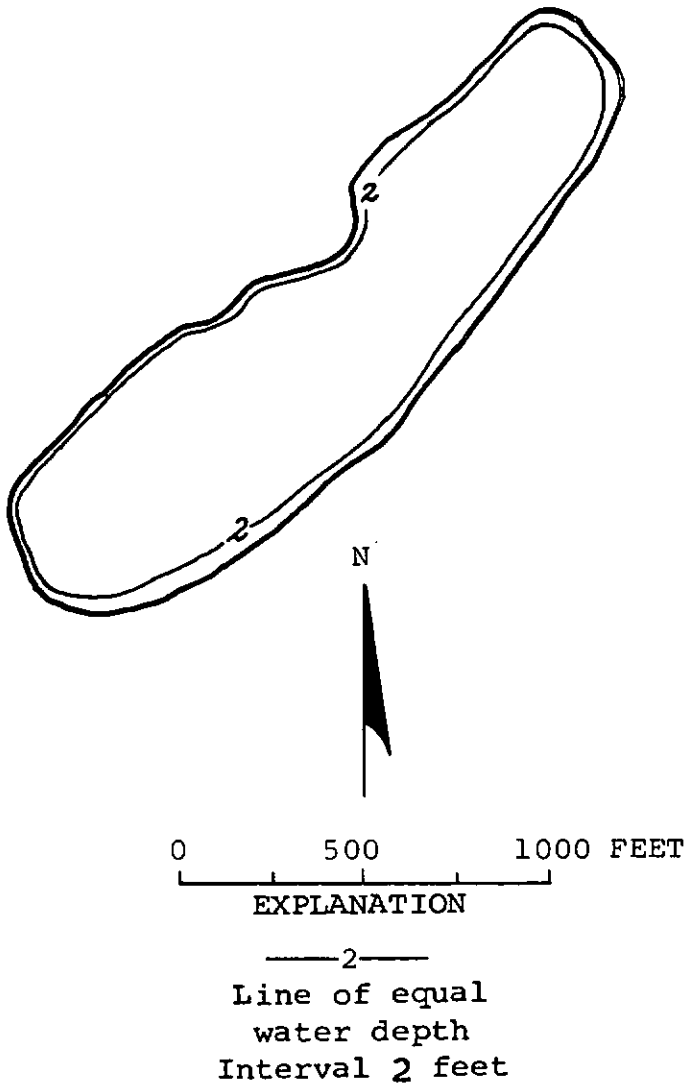
SAMPLE SITE	1	
DATE	6/28/74	
TIME	1150	1155
DEPTH (FT)	1.6	2.
TOTAL NITRATE (N)	0.64	--
TOTAL NITRITE (N)	0.20	--
TOTAL AMMONIA (N)	1.5	--
TOTAL ORGANIC NITROGEN (N)	2.3	--
TOTAL PHOSPHORUS (P)	2.3	--
TOTAL ORTHOPHOSPHATE (P)	2.1	--
SPECIFIC CONDUCTANCE (MICROMHOS)	1000	--
WATER TEMPERATURE (DEG C)	16.1	16.1
COLOR (PLATINUM-COBALT UNITS)	--	--
SECCHI-DISC VISIBILITY (FT)	0.3	
DISSOLVED OXYGEN	8.1	8.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/28/74
TIME	1152
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	24
FECAL COLIFORM, MAXIMUM (COL./100ML)	100
FECAL COLIFORM, MEAN (COL./100ML)	61

REMARKS

THE LITTORAL BOTTOM IS SILT AND MUCK BUT VERY FEW SUBMERSED AQUATIC PLANTS WERE OBSERVED. THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (SEDGE). THE WATER WAS VERY TURBID AND ONLY ONE SAMPLE WAS COLLECTED. COLOR WAS NOT DETERMINED.



Unnamed (26N-38E-33) Lake, Lincoln County.
From U.S. Geological Survey, July 10, 1974.

WAGNER LAKE LINCOLN COUNTY

LATITUDE 47°39'24" LONGITUDE 118°41'24" T25N-R33E-17
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	3.59 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2097. FT		
LAKE AREA	63. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	85. ACRE-FT		
MEAN DEPTH	1. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	4. FT		
SHORELINE LENGTH	3.3 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	3.0	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.34	AGRICULTURAL	96 %
BOTTOM SLOPE	0.22 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	3 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

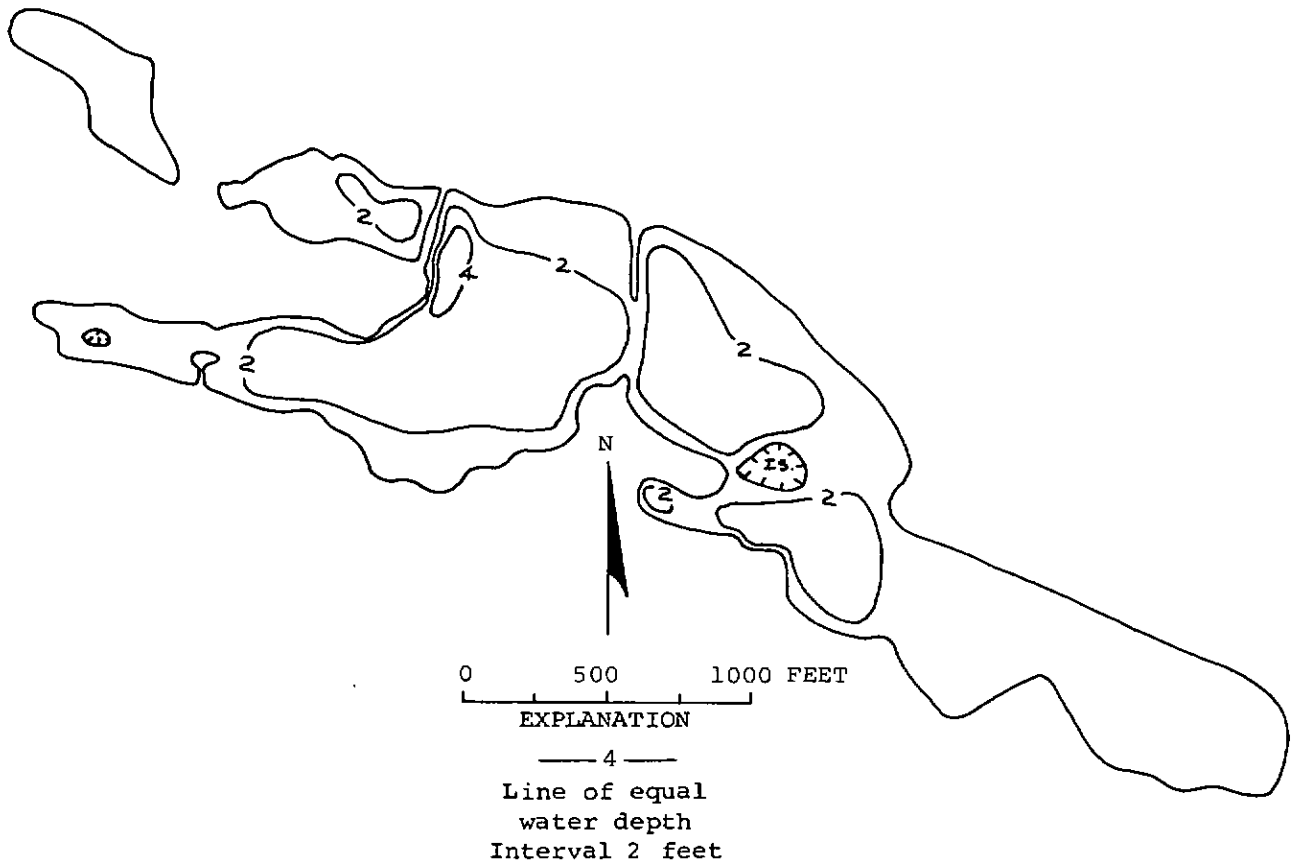
SAMPLE SITE	1	
DATE	6/17/74	
TIME	1415	1420
DEPTH (FT)	0.7	1.
TOTAL NITRATE (N)	0.01	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.12	0.13
TOTAL ORGANIC NITROGEN (N)	2.2	2.3
TOTAL PHOSPHORUS (P)	0.67	0.66
TOTAL ORTHOPHOSPHATE (P)	0.57	0.56
SPECIFIC CONDUCTANCE (MICROMHOS)	--	--
WATER TEMPERATURE (DEG C)	29.0	29.0
COLOR (PLATINUM-COBALT UNITS)	75	75
SECCHI-DISC VISIBILITY (FT)	1	
DISSOLVED OXYGEN	7.1	7.1

LAKE SHORELINE COVERED BY EMERSED PLANTS	1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/17/74
TIME	1422
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	12
FECAL COLIFORM, MEAN (COL./100ML)	5

REMARKS

THE LAKE IS IN THE VALLEY OF SINKING CREEK BUT IS NOT CONNECTED TO THE CREEK. VERY FEW SUBMERSED AQUATIC PLANTS WERE OBSERVED. THE SPECIFIC CONDUCTANCE OF BOTH SAMPLES WAS GREATER THAN 1,000 MICROMHOS.



Wagner Lake, Lincoln County. From
U.S. Geological Survey, June 5, 1974.

WALL LAKE LINCOLN COUNTY

LATITUDE 47°33'31" LONGITUDE 118°27'27" T24N-R35E-19
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	77.9 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2040. FT		
LAKE AREA	69. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	330. ACRE-FT		
MEAN DEPTH	5. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	10. FT		
SHORELINE LENGTH	3.7 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	3.2	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.48	AGRICULTURAL	98 %
BOTTOM SLOPE	0.51 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

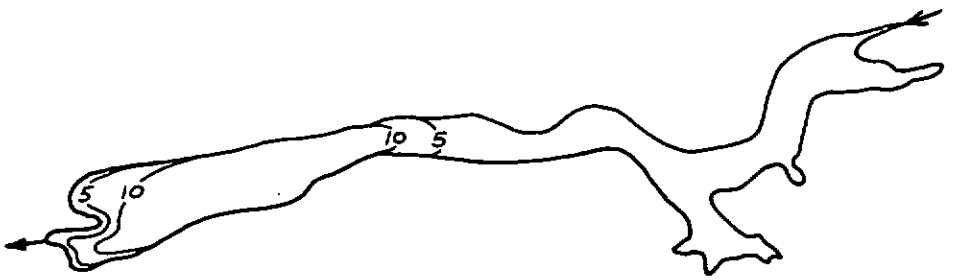
SAMPLE SITE	1	
DATE	6/18/74	
TIME	1330	1335
DEPTH (FT)	3.	10.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.25	0.07
TOTAL ORGANIC NITROGEN (N)	1.9	0.83
TOTAL PHOSPHORUS (P)	0.12	0.11
TOTAL ORTHOPHOSPHATE (P)	0.045	0.071
SPECIFIC CONDUCTANCE (MICROMHOS)	355	355
WATER TEMPERATURE (DEG C)	24.8	21.2
COLOR (PLATINUM-COBALT UNITS)	35	35
SECCHI-DISC VISIBILITY (FT)	3	
DISSOLVED OXYGEN	15.8	9.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/18/74
TIME	1400
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	2
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

THE LAKE IS AN ENLARGEMENT OF LAKE CREEK AND SUPPORTS A LARGE WATERFOWL POPULATION. A DENSE ALGAL BLOOM WAS OBSERVED.



N

0 500 1000 FEET

EXPLANATION

—— 10 ——

Line of equal
water depth
Interval 5 feet

Wall Lake, Lincoln County. From Washington Department of Game, January 13, 1960.

WEBLEY (WOOLEY) LAKE LINCOLN COUNTY

LATITUDE 47°25'22" LONGITUDE 118°50'39" T22N-R32E-6
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	110. SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1481. FT		
LAKE AREA	36. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	800. ACRE-FT		
MEAN DEPTH	22. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	44. FT		
SHORELINE LENGTH	1.8 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.2	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.51	AGRICULTURAL	99 %
BOTTOM SLOPE	3.1 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	<1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

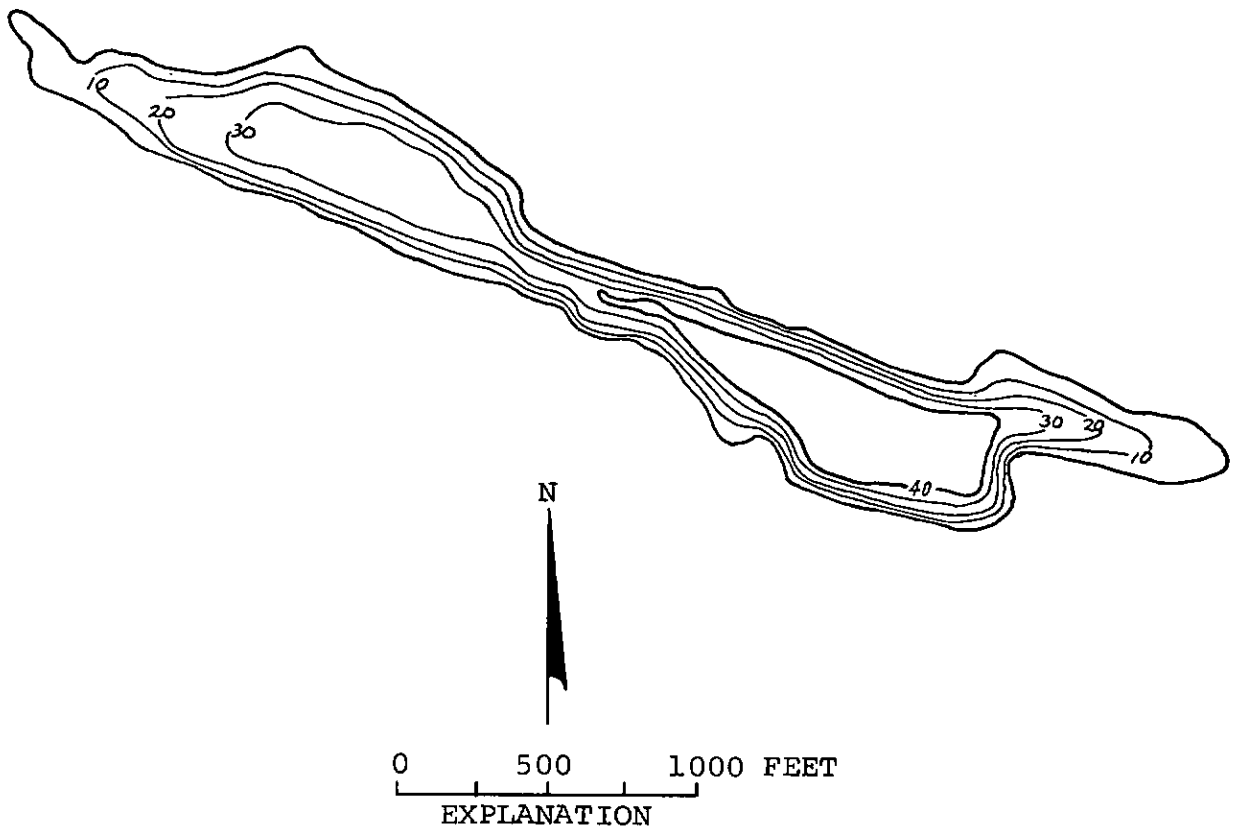
SAMPLE SITE	1	
DATE	6/21/74	
TIME	1130	1135
DEPTH (FT)	3.	36.
TOTAL NITRATE (N)	0.01	0.01
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.22	1.6
TOTAL ORGANIC NITROGEN (N)	4.0	2.0
TOTAL PHOSPHORUS (P)	0.29	0.52
TOTAL ORTHOPHOSPHATE (P)	0.041	0.38
SPECIFIC CONDUCTANCE (MICROMHOS)	900	900
WATER TEMPERATURE (DEG C)	21.8	10.0
COLOR (PLATINUM-COBALT UNITS)	60	35.
SECCHI-DISC VISIBILITY (FT)	1	
DISSOLVED OXYGEN	14.0	0.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	1- 10 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

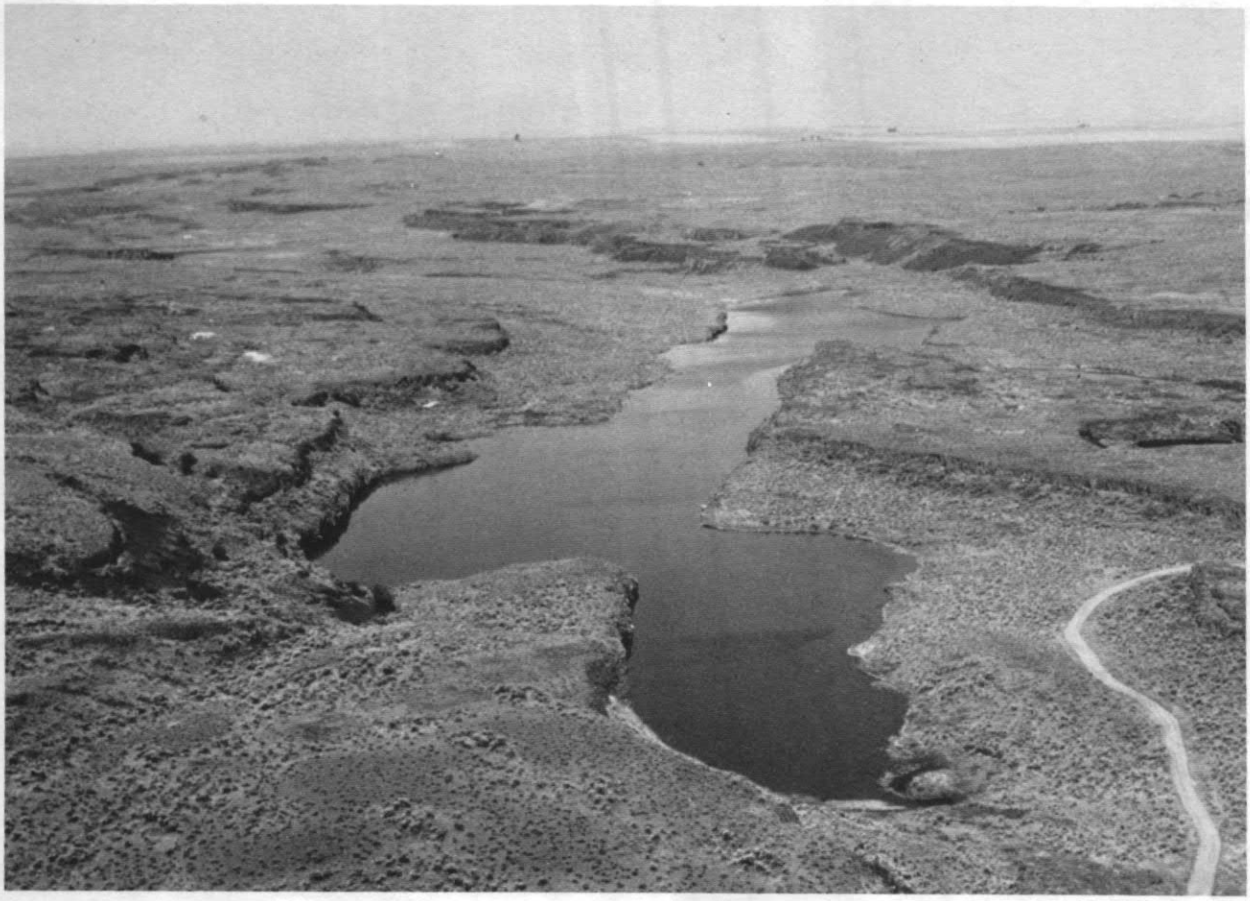
DATE	6/21/74
TIME	1100
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	6
FECAL COLIFORM, MEAN (COL./100ML)	2

REMARKS

THE LAKE IS IN MARLIN HOLLOW. A DENSE ALGAL BLOOM WAS OBSERVED.



Webley (Wooley) Lake, Lincoln County.
From U.S. Geological Survey, April 25, 1974.



Webley (Wooley) Lake, Lincoln County.
From U.S. Geological Survey, June 21, 1974.

WHITTAKER LAKE LINCOLN COUNTY

LATITUDE 47*36'39" LONGITUDE 118*23' 1" T24N-R35E-3
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	1.97 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2270. FT		
LAKE AREA	31. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	130. ACRE-FT		
MEAN DEPTH	4. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	8. FT		
SHORELINE LENGTH	1.6 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.0	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.52	AGRICULTURAL	97 %
BOTTOM SLOPE	0.61 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	2 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

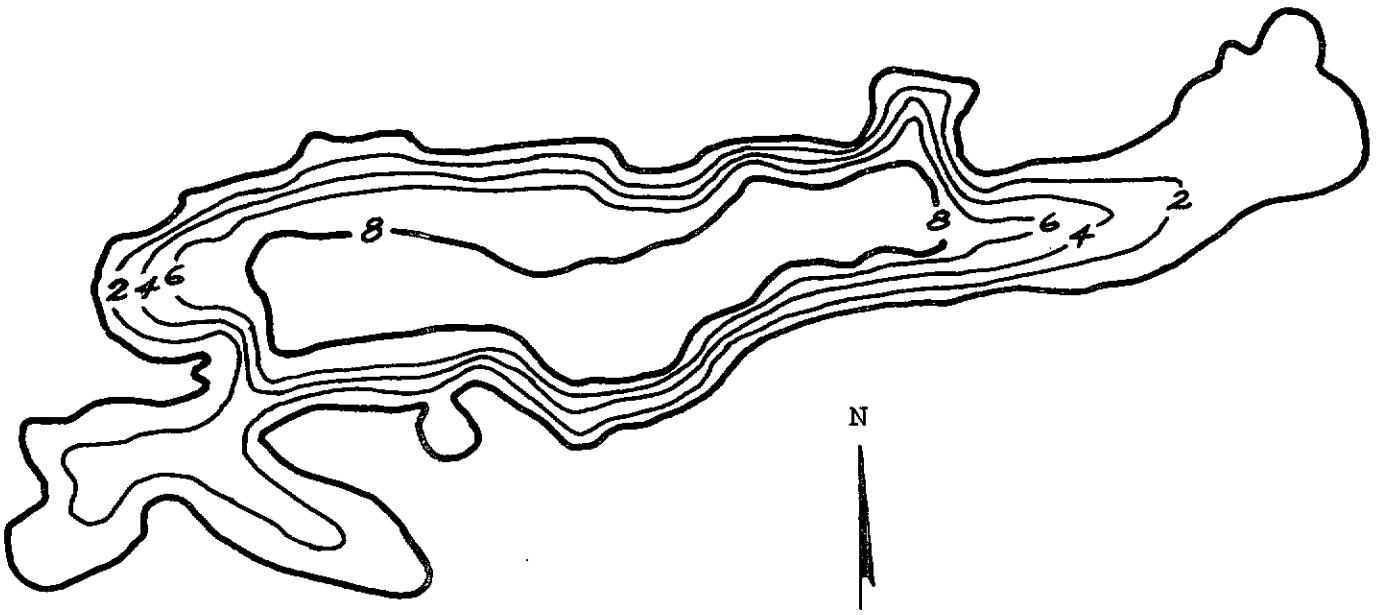
SAMPLE SITE	1	
DATE	6/18/74	
TIME	1630	1635
DEPTH (FT)	2.	5.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.10	0.10
TOTAL ORGANIC NITROGEN (N)	1.9	2.1
TOTAL PHOSPHORUS (P)	0.11	0.11
TOTAL ORTHOPHOSPHATE (P)	0.018	0.019
SPECIFIC CONDUCTANCE (MICROMHOS)	650	650
WATER TEMPERATURE (DEG C)	27.2	24.2
COLOR (PLATINUM-COBALT UNITS)	50	55
SECCHI-DISC VISIBILITY (FT)	3	
DISSOLVED OXYGEN	16.0	17.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	6/18/74
TIME	1600
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	3
FECAL COLIFORM, MAXIMUM (COL./100ML)	71
FECAL COLIFORM, MEAN (COL./100ML)	39

REMARKS

THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (SEDGE). AN ALGAL BLOOM WAS OBSERVED. THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION.



0 500 1000 FEET

EXPLANATION

—— 4 ——

Line of equal
water depth
Interval 2 feet

Whittaker Lake, Lincoln County. From
U.S. Geological Survey, April 26, 1974.

WILLS LAKE LINCOLN COUNTY

LATITUDE 47°34' 7" LONGITUDE 118°32'10" T24N-R34E-16
CRAB CREEK BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	5.99 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	2175. FT		
LAKE AREA	45. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	360. ACRE-FT		
MEAN DEPTH	8. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	15. FT		
SHORELINE LENGTH	1.4 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.4	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.53	AGRICULTURAL	97 %
BOTTOM SLOPE	0.95 %	FOREST OR UNPRODUCTIVE	2 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

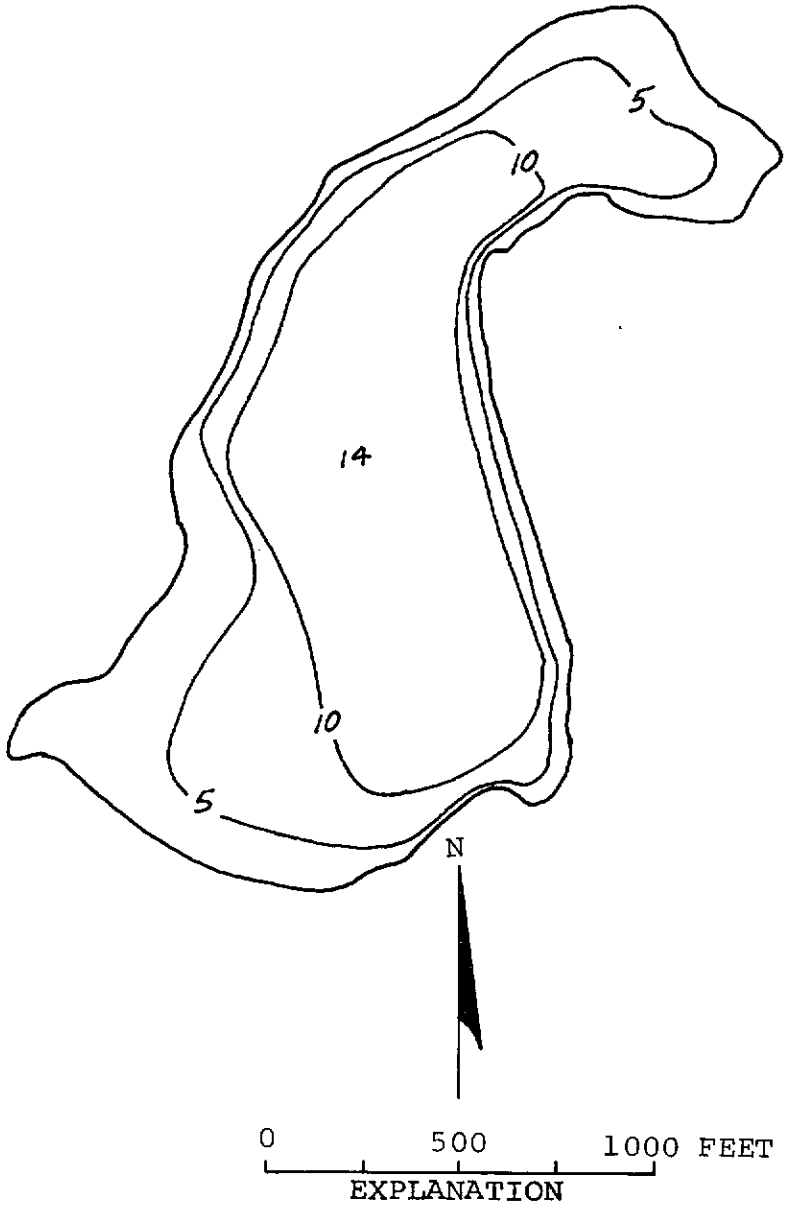
SAMPLE SITE	1	
DATE	6/14/74	
TIME	1045	1050
DEPTH (FT)	3.	10.
TOTAL NITRATE (N)	0.01	0.00
TOTAL NITRITE (N)	0.01	0.02
TOTAL AMMONIA (N)	0.09	0.32
TOTAL ORGANIC NITROGEN (N)	1.1	2.5
TOTAL PHOSPHORUS (P)	0.22	0.28
TOTAL ORTHOPHOSPHATE (P)	0.13	0.25
SPECIFIC CONDUCTANCE (MICROMHOS)	600	600
WATER TEMPERATURE (DEG C)	21.8	15.9
COLOR (PLATINUM-COBALT UNITS)	60	75
SECCHI-DISC VISIBILITY (FT)	3	
DISSOLVED OXYGEN	8.5	2.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	26- 50 %
LAKE SURFACE COVERED BY EMERSED PLANTS	26- 50 %

DATE	6/14/74
TIME	1100
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	1
FECAL COLIFORM, MAXIMUM (COL./100ML)	--
FECAL COLIFORM, MEAN (COL./100ML)	--

REMARKS

THE COLONIES IN ONE FECAL COLIFORM SAMPLE WERE TOO NUMEROUS TO COUNT.



Wills Lake, Lincoln County. From
U.S. Geological Survey, June 6, 1974.

CASEY LAKE WALLA WALLA COUNTY

LATITUDE 46* 9'29" LONGITUDE 118*57' 4" T8N-R31E-20
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	340. FT		
LAKE AREA	110. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	400. ACRE-FT		
MEAN DEPTH	4. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	13. FT		
SHORELINE LENGTH	2.2 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	1.5		
DEVELOPMENT OF VOLUME	0.28		
BOTTOM SLOPE	0.53 %		
BASIN GEOLOGY	SED./META.		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

SAMPLE SITE	1	
DATE	5/18/74	
TIME	1000	1005
DEPTH (FT)	1.	1.
TOTAL NITRATE (N)	0.00	--
TOTAL NITRITE (N)	0.01	--
TOTAL AMMONIA (N)	0.14	--
TOTAL ORGANIC NITROGEN (N)	0.27	--
TOTAL PHOSPHORUS (P)	0.16	--
TOTAL ORTHOPHOSPHATE (P)	0.022	--
SPECIFIC CONDUCTANCE (MICROMHOS)	220	--
WATER TEMPERATURE (DEG C)	13.0	13.0
COLOR (PLATINUM-COBALT UNITS)	15	--
SECCHI-DISC VISIBILITY (FT)	1	
DISSOLVED OXYGEN	10.5	10.5

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	5/18/74
TIME	1000
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	11
FECAL COLIFORM, MAXIMUM (COL./100ML)	48
FECAL COLIFORM, MEAN (COL./100ML)	32

REMARKS

THE LAKE IS ADJACENT TO WALLULA LAKE (COLUMBIA RIVER) AND RECEIVES INFLOW FROM IT. THE INFLOW AND OUTFLOW VOLUMES ARE LARGE AND FLUSHING TIME WOULD BE RELATIVELY SHORT. THE LAKE IS VERY SHALLOW AND ONLY ONE WATER SAMPLE WAS TAKEN. VOLUME AND MEAN DEPTH ARE ESTIMATED. NO SUBMERSED AQUATIC PLANTS WERE OBSERVED. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE SOME OF THE INFLOW IS FROM OUTSIDE THE NATURAL DRAINAGE AREA.

CURLEW LAKE WALLA WALLA COUNTY

LATITUDE 46* 8'57" LONGITUDE 118*57'41" T8N-R31E-29
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	0.16 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	340. FT		
LAKE AREA	37. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	110. ACRE-FT		
MEAN DEPTH	3. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	8. FT		
SHORELINE LENGTH	1.9 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.2	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.36	AGRICULTURAL	64 %
BOTTOM SLOPE	0.56 %	FOREST OR UNPRODUCTIVE	0 %
BASIN GEOLOGY	SED./META.	LAKE SURFACE	36 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

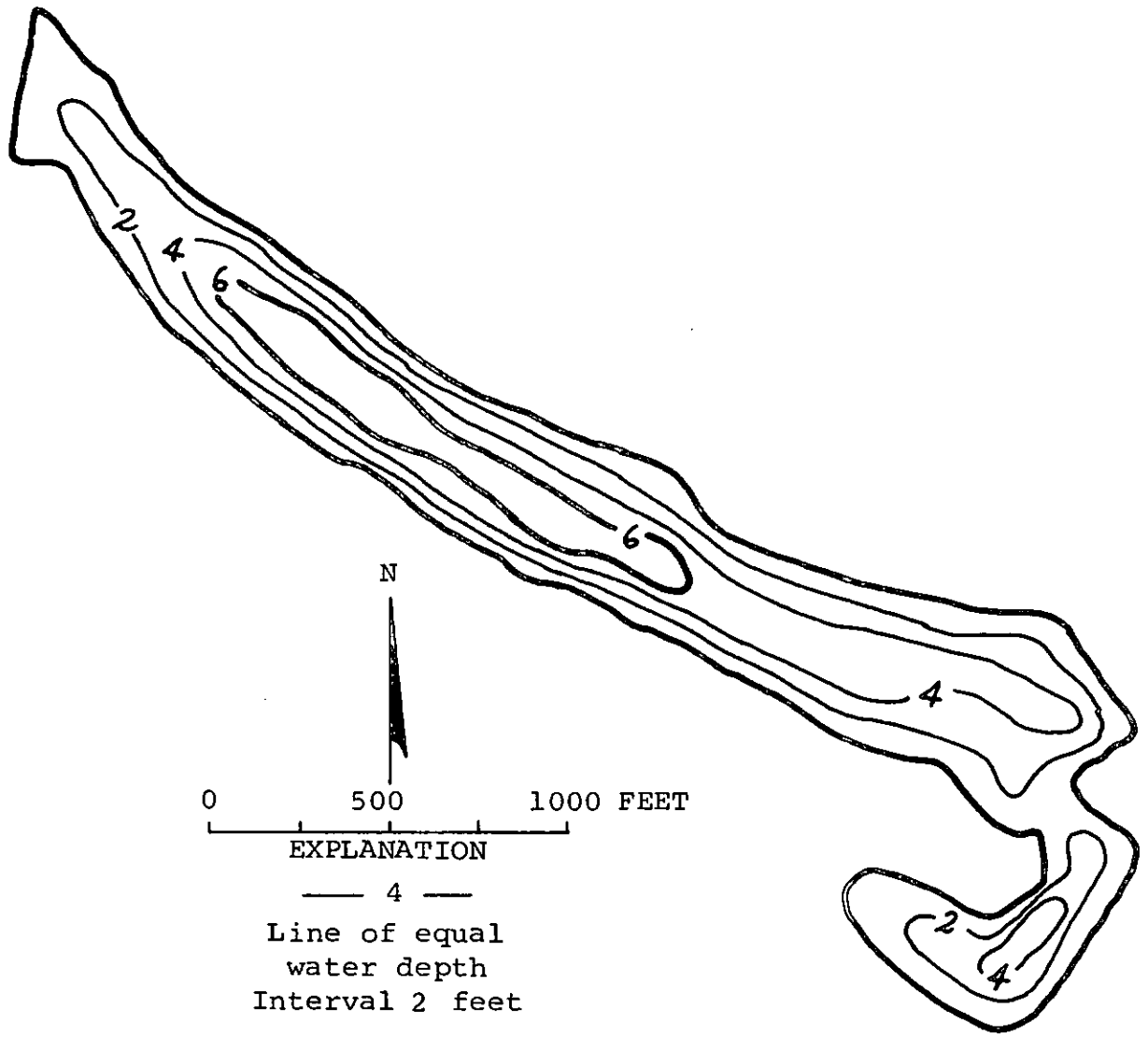
SAMPLE SITE	1	
DATE	5/18/74	
TIME	900	905
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.02	0.02
TOTAL AMMONIA (N)	0.29	0.29
TOTAL ORGANIC NITROGEN (N)	3.5	3.1
TOTAL PHOSPHORUS (P)	0.45	0.48
TOTAL ORTHOPHOSPHATE (P)	0.012	0.011
SPECIFIC CONDUCTANCE (MICROMHOS)	1020	1010
WATER TEMPERATURE (DEG C)	14.0	13.5
COLOR (PLATINUM-COBALT UNITS)	95	80
SECCHI-DISC VISIBILITY (FT)	1	
DISSOLVED OXYGEN	10.2	10.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	11- 25 %

DATE	5/18/74
TIME	910
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	30
FECAL COLIFORM, MAXIMUM (COL./100ML)	126
FECAL COLIFORM, MEAN (COL./100ML)	72

REMARKS

THE LAKE IS SEPARATED FROM WALLULA LAKE (COLUMBIA RIVER) BY A DIKE. THE LITTORAL BOTTOM IS SILT AND MUCK BUT VERY FEW SUBMERSED AQUATIC PLANTS WERE OBSERVED. THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (SEDGE). THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION.



Curlew Lake, Walla Walla County.
From U.S. Geological Survey, April 10, 1974.

"J" LINE LAKE WALLA WALLA COUNTY

LATITUDE 46* 9'49" LONGITUDE 118*57'53" T8N-R31E-20
COLUMBIA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	0.21 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	340. FT		
LAKE AREA	26. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	61. ACRE-FT		
MEAN DEPTH	2. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	14. FT		
SHORELINE LENGTH	1.7 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.4	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.17	AGRICULTURAL	81 %
BOTTOM SLOPE	1.2 %	FOREST OR UNPRODUCTIVE	0 %
BASIN GEOLOGY	SED./META.	LAKE SURFACE	19 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

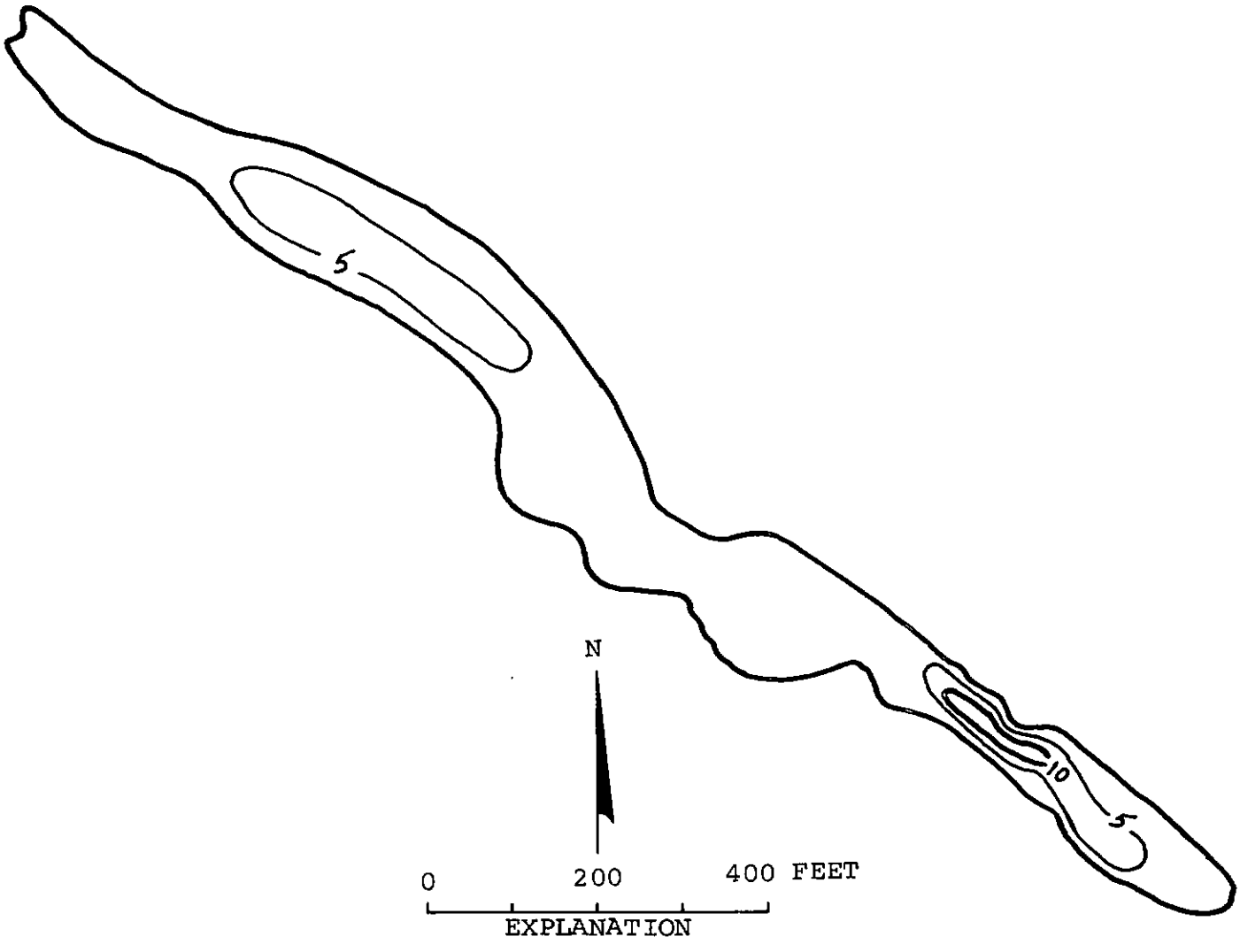
SAMPLE SITE	1	
DATE	5/17/74	
TIME	1700	1705
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	0.01	0.00
TOTAL NITRITE (N)	0.01	0.00
TOTAL AMMONIA (N)	0.08	0.09
TOTAL ORGANIC NITROGEN (N)	0.75	1.5
TOTAL PHOSPHORUS (P)	0.094	0.13
TOTAL ORTHOPHOSPHATE (P)	0.010	0.013
SPECIFIC CONDUCTANCE (MICROMHOS)	740	740
WATER TEMPERATURE (DEG C)	17.0	16.0
COLOR (PLATINUM-COBALT UNITS)	25	25
SECCHI-DISC VISIBILITY (FT)	2	
DISSOLVED OXYGEN	9.3	9.3

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	11- 25 %

DATE	5/17/74
TIME	1700
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	2
FECAL COLIFORM, MEAN (COL./100ML)	1

REMARKS

THE LITTORAL BOTTOM IS SILT AND MUCK BUT VERY FEW SUBMERSED AQUATIC PLANTS WERE OBSERVED. THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (CATTAIL AND SEDGE). THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION.



"J" Line Lake, Walla Walla County.
From U.S. Geological Survey, April 10, 1974.

MILL CREEK LAKE WALLA WALLA COUNTY

LATITUDE 46* 3'54" LONGITUDE 118*15'44" T7N-R36E-23
WALLA WALLA RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	-- SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1205. FT		
LAKE AREA	52. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	870. ACRE-FT		
MEAN DEPTH	17. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	30. FT		
SHORELINE LENGTH	1.9 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	1.9		
DEVELOPMENT OF VOLUME	0.55		
BOTTOM SLOPE	1.8 %		
BASIN GEOLOGY	SED./META.		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

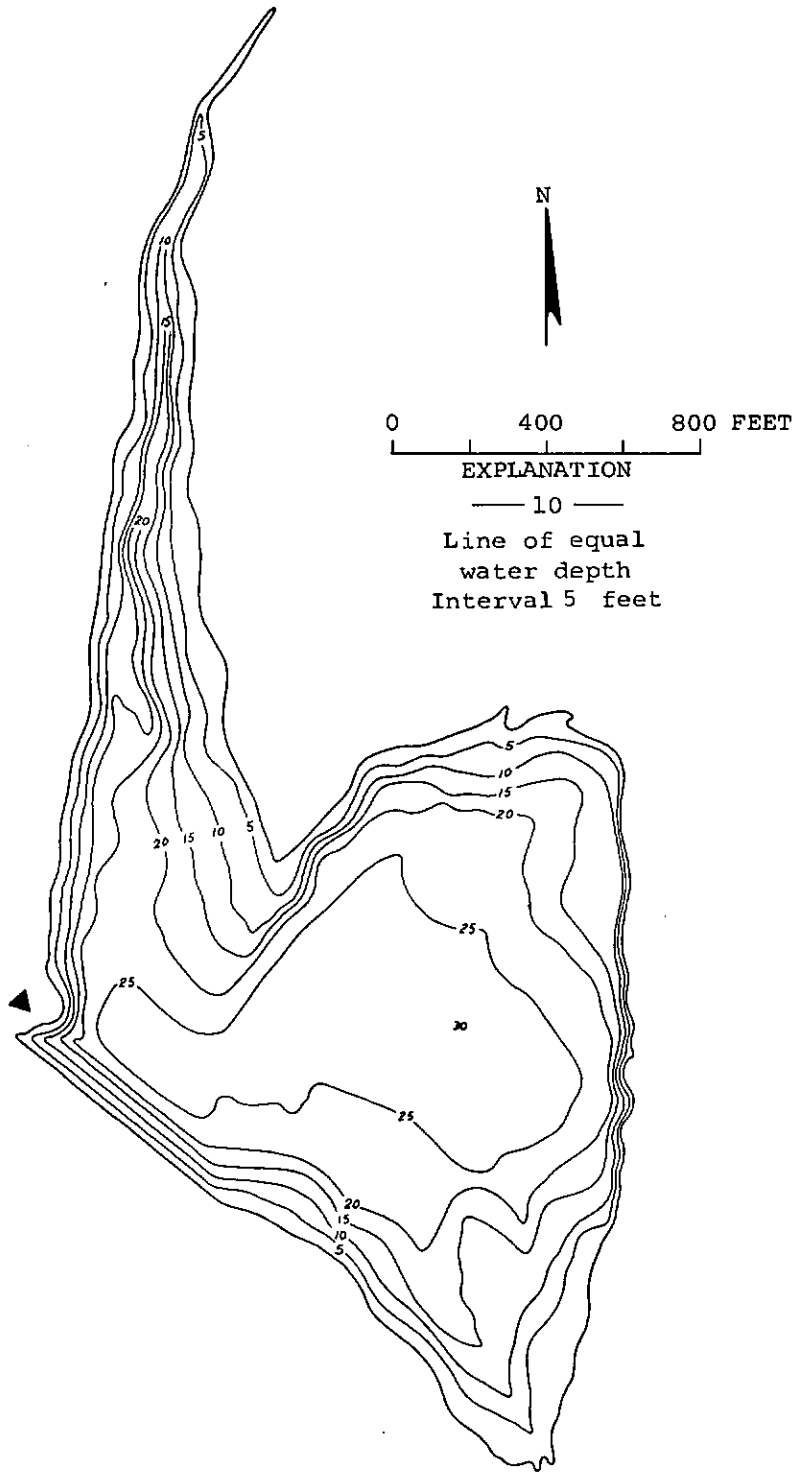
SAMPLE SITE	1	
DATE	5/17/74	
TIME	1200	1205
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	0.88	0.98
TOTAL NITRITE (N)	0.02	0.02
TOTAL AMMONIA (N)	0.62	0.59
TOTAL ORGANIC NITROGEN (N)	1.1	1.4
TOTAL PHOSPHORUS (P)	1.0	1.0
TOTAL ORTHOPHOSPHATE (P)	0.96	0.98
SPECIFIC CONDUCTANCE (MICROMHOS)	65	63
WATER TEMPERATURE (DEG C)	11.5	11.5
COLOR (PLATINUM-COBALT UNITS)	--	--
SECCHI-DISC VISIBILITY (FT)	0	
DISSOLVED OXYGEN	10.7	10.7

LAKE SHORELINE COVERED BY EMERSED PLANTS	LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	5/17/74
TIME	1200
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	30
FECAL COLIFORM, MAXIMUM (COL./100ML)	30
FECAL COLIFORM, MEAN (COL./100ML)	30

REMARKS

AN ARTIFICIAL RESERVOIR BUILT BY THE U.S. CORPS OF ENGINEERS ABOUT 1942. THE LAKE IS FED BY DIVERSIONS FROM MILL CREEK AND WAS DESIGNED TO PROTECT THE CITY OF WALLA WALLA FROM FLOOD DAMAGE. THE LITTORAL BOTTOM IS SILT AND MUCK BUT NO AQUATIC MACROPHYTES OF ANY TYPE WERE OBSERVED. THE WATER WAS EXTREMELY TURBID AND NO COLOR DETERMINATIONS WERE MADE. THE DRAINAGE AREA WAS NOT MEASURED BECAUSE SOME OF THE INFLOW IS FROM OUTSIDE THE NATURAL DRAINAGE AREA.



Mill Creek Lake, Walla Walla County. From U.S. Geological Survey, March 3, 1975.

ALKALI (MILLER) LAKE WHITMAN COUNTY

LATITUDE 47° 9'58" LONGITUDE 117°42'55" T19N-R40E-1
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	0.86 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1865. FT		
LAKE AREA	24. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	70. ACRE-FT		
MEAN DEPTH	3. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	5. FT		
SHORELINE LENGTH	0.90 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.3	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.59	AGRICULTURAL	95 %
BOTTOM SLOPE	0.44 %	FOREST OR UNPRODUCTIVE	4 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

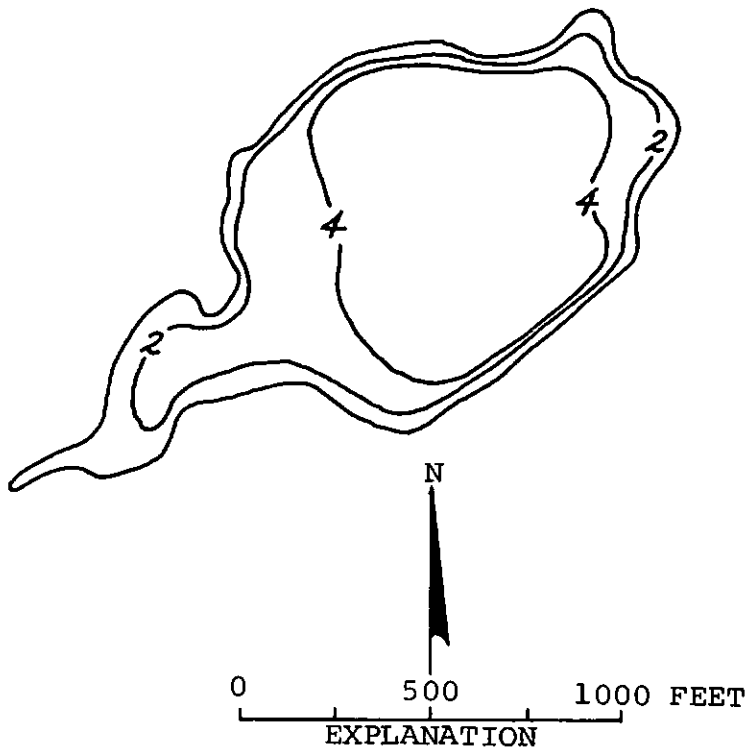
SAMPLE SITE	1	
DATE	6/27/74	
TIME	1250	1255
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	0.02	0.01
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.09	0.11
TOTAL ORGANIC NITROGEN (N)	1.3	1.4
TOTAL PHOSPHORUS (P)	0.36	0.38
TOTAL ORTHOPHOSPHATE (P)	0.27	0.28
SPECIFIC CONDUCTANCE (MICROMHOS)	650	650
WATER TEMPERATURE (DEG C)	19.8	20.0
COLOR (PLATINUM-COBALT UNITS)	55	55
SECCHI-DISC VISIBILITY (FT)	4	
DISSOLVED OXYGEN	8.4	8.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/27/74
TIME	1307
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	28
FECAL COLIFORM, MEAN (COL./100ML)	10

REMARKS

THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (RUSHES AND SEDGE) BUT NO SUBMERSED AQAUTIC PLANTS WERE OBSERVED. A LOW-DENSITY ALGAL BLOOM WAS OBSERVED.



Alkali (Miller) Lake, Whitman County.
From U.S. Geological Survey, September 1974.

BONNIE LAKE WHITMAN COUNTY

LATITUDE 47°14'46" LONGITUDE 117°35' 9" T20N-R41E-12
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	101. SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1790. FT		
LAKE AREA	330. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	4100. ACRE-FT		
MEAN DEPTH	12. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	41. FT		
SHORELINE LENGTH	9.9 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	3.9	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.29	AGRICULTURAL	88 %
BOTTOM SLOPE	0.96 %	FOREST OR UNPRODUCTIVE	11 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

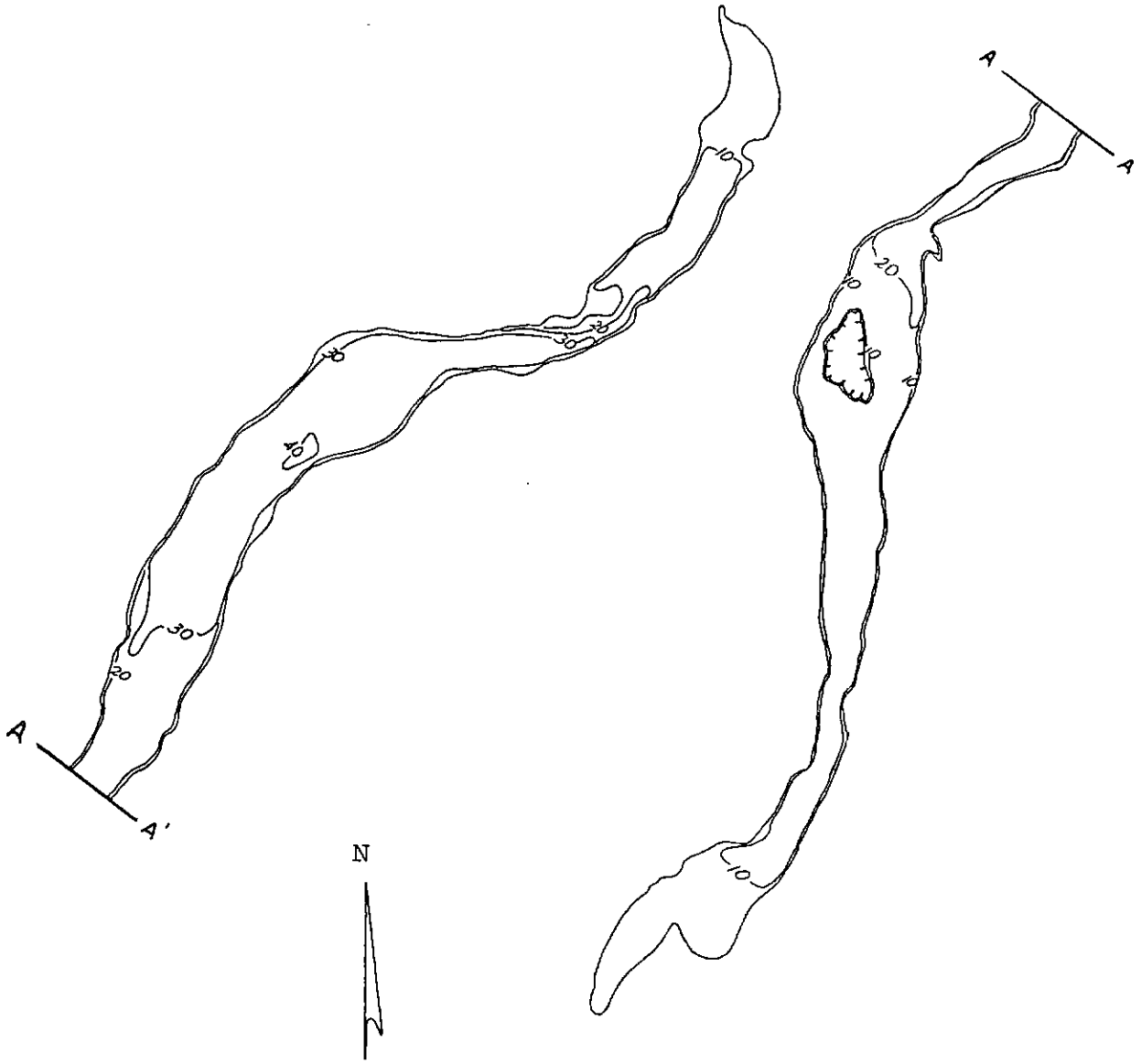
SAMPLE SITE	1		2	
DATE	6/27/74		6/27/74	
TIME	910	915	950	955
DEPTH (FT)	3.	31.	3.	15.
TOTAL NITRATE (N)	0.49	0.64	0.64	0.60
TOTAL NITRITE (N)	0.02	0.03	0.02	0.02
TOTAL AMMONIA (N)	0.09	0.39	0.10	0.11
TOTAL ORGANIC NITROGEN (N)	0.59	0.61	0.73	0.49
TOTAL PHOSPHORUS (P)	0.048	0.13	0.045	0.047
TOTAL ORTHOPHOSPHATE (P)	0.009	0.10	0.009	0.024
SPECIFIC CONDUCTANCE (MICROMHOS)	240	260	230	230
WATER TEMPERATURE (DEG C)	21.7	12.9	20.0	18.6
COLOR (PLATINUM-COBALT UNITS)	20	15	20	15
SECCHI-DISC VISIBILITY (FT)	9		6	
DISSOLVED OXYGEN	7.9	1.4	8.4	7.1

LAKE SHORELINE COVERED BY EMERSED PLANTS LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS NONE OR <1 %

DATE	6/27/74
TIME	925
NUMBER OF FECAL COLIFORM SAMPLES	4
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	3
FECAL COLIFORM, MEAN (COL./100ML)	1

REMARKS

THE LAKE IS AN ENLARGEMENT OF ROCK CREEK AND IS IN BOTH WHITMAN AND SPOKANE COUNTIES. THE SOUTHERN PART OF THE LAKE IS BORDERED BY HIGH BASALT CLIFFS. AN EXTENSIVE MARSH EXISTS AT THE OUTLET. A MODERATELY DENSE ALGAL BLOOM, BUT VERY FEW AQUATIC MACROPHYTES, WERE OBSERVED.



Bonnie Lake, Whitman County. From
U.S. Geological Survey, October 9, 1974.

Bonnie Lake, Whitman County.
July 25, 1974.
Approx. scale 1:15,000.
(Conforms to left section
of bathymetric map.)

Bonnie Lake, Whitman County.
July 25, 1974.
Approx. scale 1:15,000.
(Conforms to right section
of bathymetric map.)

CROOKED KNEE LAKE WHITMAN COUNTY

LATITUDE 47°13'47" LONGITUDE 117°54'21" T20N-R39E-16
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	8.48 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1944. FT		
LAKE AREA	120. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	720. ACRE-FT		
MEAN DEPTH	6. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	9. FT		
SHORELINE LENGTH	3.1 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.1	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.69	AGRICULTURAL	97 %
BOTTOM SLOPE	0.36 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	2 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

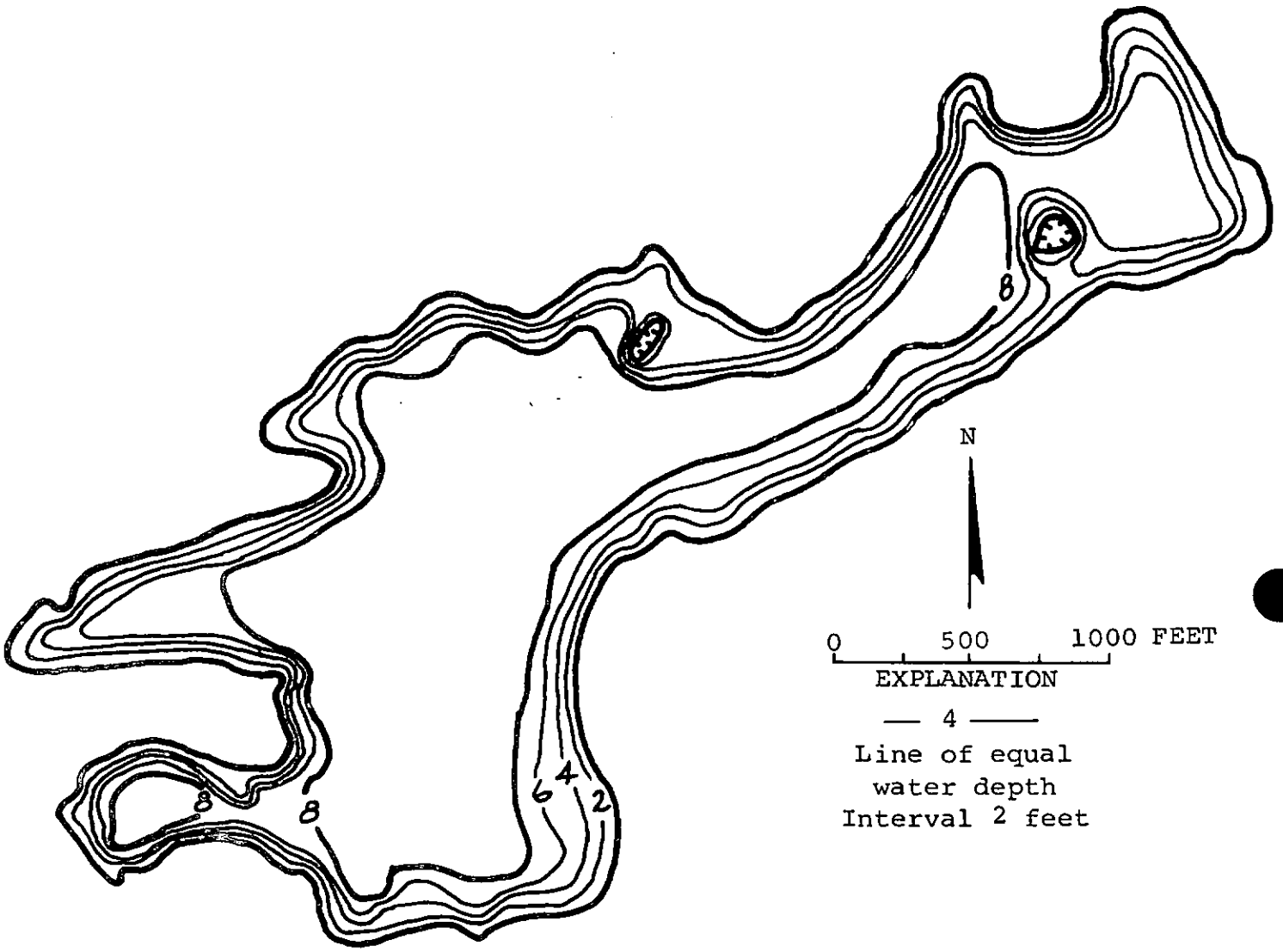
SAMPLE SITE	1	
DATE	6/22/74	
TIME	830	835
DEPTH (FT)	3.	5.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.00	0.01
TOTAL AMMONIA (N)	0.08	0.12
TOTAL ORGANIC NITROGEN (N)	1.1	0.81
TOTAL PHOSPHORUS (P)	0.057	0.059
TOTAL ORTHOPHOSPHATE (P)	0.011	0.026
SPECIFIC CONDUCTANCE (MICROMHOS)	410	410
WATER TEMPERATURE (DEG C)	21.7	21.3
COLOR (PLATINUM-COBALT UNITS)	35	35
SECCHI-DISC VISIBILITY (FT)	5	
DISSOLVED OXYGEN	8.6	7.5

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	6/22/74
TIME	842
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	8
FECAL COLIFORM, MEAN (COL./100ML)	3

REMARKS

THE LITTORAL BOTTOM IS SILT AND MUCK. THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (RUSHES AND SEDGE) AND A DENSE ALGAL BLOOM WAS OBSERVED.



Crooked Knee Lake, Whitman County. From
U.S. Geological Survey, April 25, 1974.

FOLSOM LAKE WHITMAN COUNTY

LATITUDE 47°13'14" LONGITUDE 117°53'18" T20N-R39E-22
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	6.48 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1946. FT		
LAKE AREA	120. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	610. ACRE-FT		
MEAN DEPTH	5. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	14. FT		
SHORELINE LENGTH	4.6 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	3.0	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.36	AGRICULTURAL	97 %
BOTTOM SLOPE	0.54 %	FOREST OR UNPRODUCTIVE	<1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	3 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

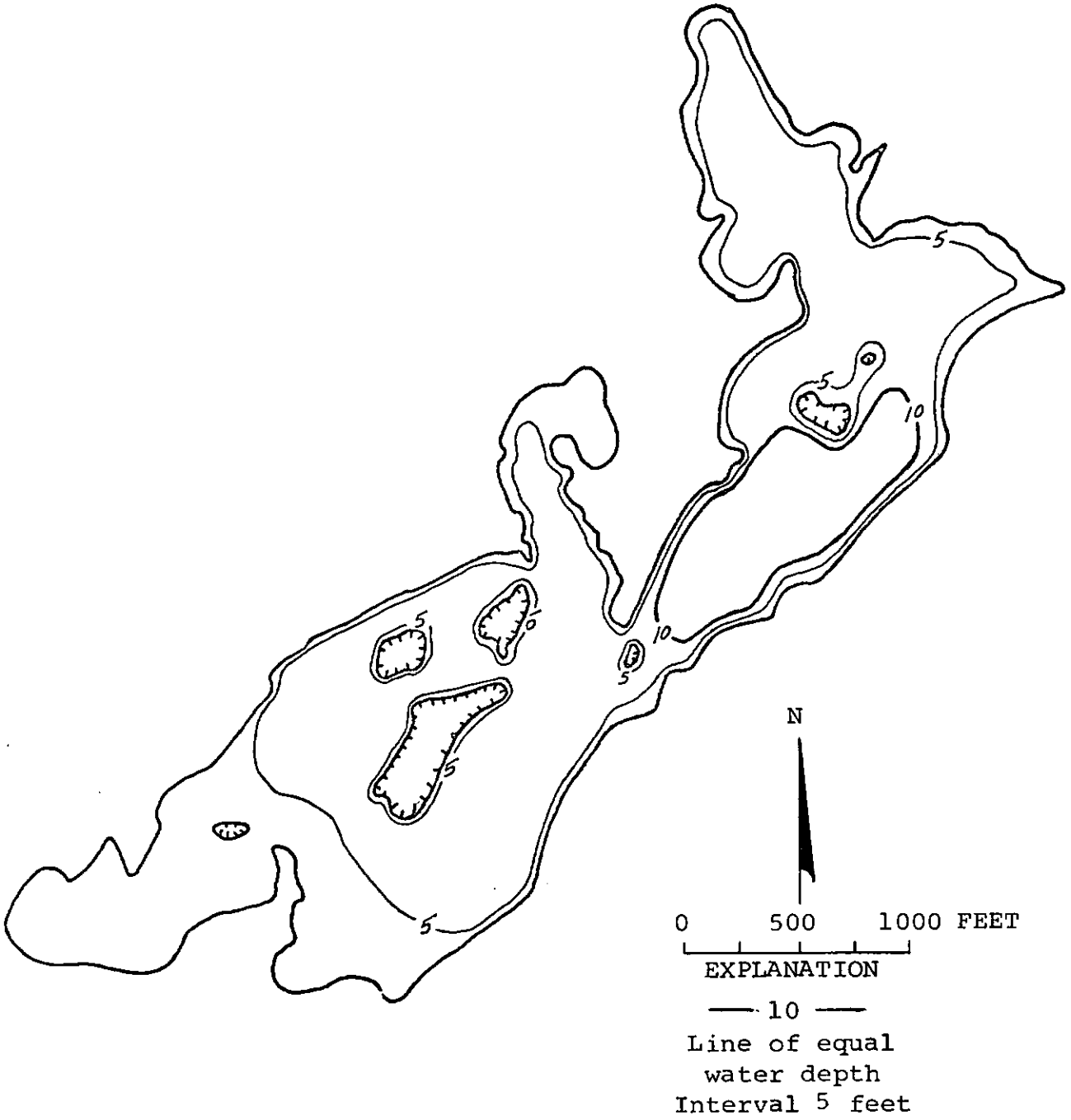
SAMPLE SITE	1	
DATE	6/22/74	
TIME	955	1000
DEPTH (FT)	3.	10.
TOTAL NITRATE (N)	0.76	0.88
TOTAL NITRITE (N)	0.06	0.06
TOTAL AMMONIA (N)	0.34	0.40
TOTAL ORGANIC NITROGEN (N)	1.3	1.1
TOTAL PHOSPHORUS (P)	0.86	0.84
TOTAL ORTHOPHOSPHATE (P)	0.76	0.80
SPECIFIC CONDUCTANCE (MICROMHOS)	740	740
WATER TEMPERATURE (DEG C)	19.0	18.0
COLOR (PLATINUM-COBALT UNITS)	65	70
SECCHI-DISC VISIBILITY (FT)	1	
DISSOLVED OXYGEN	7.6	6.3

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/22/74
TIME	1007
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	4
FECAL COLIFORM, MEAN (COL./100ML)	1

REMARKS

THE WATER WAS VERY TURBID, RESULTING IN A LOW SECCHI-DISC READING.



Folsom Lake, Whitman County. From
U.S. Geological Survey, April 26, 1974.

INTERMITTENT (18N-40E-17) LK WHITMAN COUNTY

LATITUDE 47° 3' 3" LONGITUDE 117°47'54" T18N-R40E-17
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	4.14 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1800. FT		
LAKE AREA	22. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	30. ACRE-FT		
MEAN DEPTH	1. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	2. FT		
SHORELINE LENGTH	1.1 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.6	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.90	AGRICULTURAL	99 %
BOTTOM SLOPE	0.14 %	FOREST OR UNPRODUCTIVE	<1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

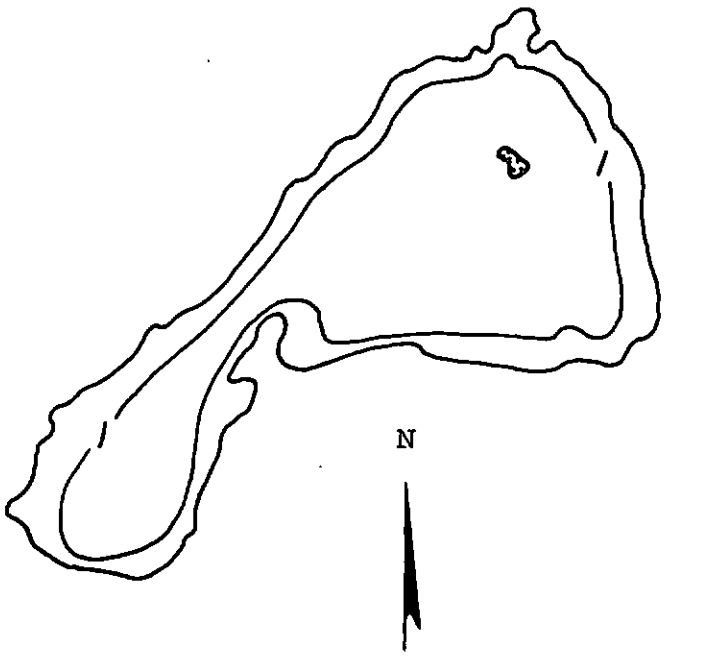
SAMPLE SITE	1	
DATE	6/25/74	
TIME	1010	1015
DEPTH (FT)	1.	2.
TOTAL NITRATE (N)	0.01	0.00
TOTAL NITRITE (N)	0.03	0.03
TOTAL AMMONIA (N)	0.44	0.43
TOTAL ORGANIC NITROGEN (N)	3.5	3.4
TOTAL PHOSPHORUS (P)	2.3	2.4
TOTAL ORTHOPHOSPHATE (P)	2.2	2.2
SPECIFIC CONDUCTANCE (MICROMHOS)	1900	1900
WATER TEMPERATURE (DEG C)	23.2	22.4
COLOR (PLATINUM-COBALT UNITS)	--	--
SECCHI-DISC VISIBILITY (FT)	1	
DISSOLVED OXYGEN	6.8	6.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	26- 50 %
LAKE SURFACE COVERED BY EMERSED PLANTS	11- 25 %

DATE	6/25/74
TIME	1020
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	6
FECAL COLIFORM, MAXIMUM (COL./100ML)	20
FECAL COLIFORM, MEAN (COL./100ML)	11

REMARKS

THE LAKE IS NOT SHOWN ON EXISTING TOPOGRAPHIC MAPS. THE LITTORAL BOTTOM IS SILT AND MUCK. THE WATER WAS TURBID AND NO COLOR DETERMINATIONS WERE MADE.



Intermittent (18N-40E-17) Lake, Whitman County.
From U.S. Geological Survey, March 3, 1975.

LAVISTA LAKE WHITMAN COUNTY

LATITUDE 47° 8'14" LONGITUDE 117°42'40" T19N-R40E-13
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	0.30 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1725. FT		
LAKE AREA	29. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	180. ACRE-FT		
MEAN DEPTH	6. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	9. FT		
SHORELINE LENGTH	0.93 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.3	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.71	AGRICULTURAL	69 %
BOTTOM SLOPE	0.71 %	FOREST OR UNPRODUCTIVE	16 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	15 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

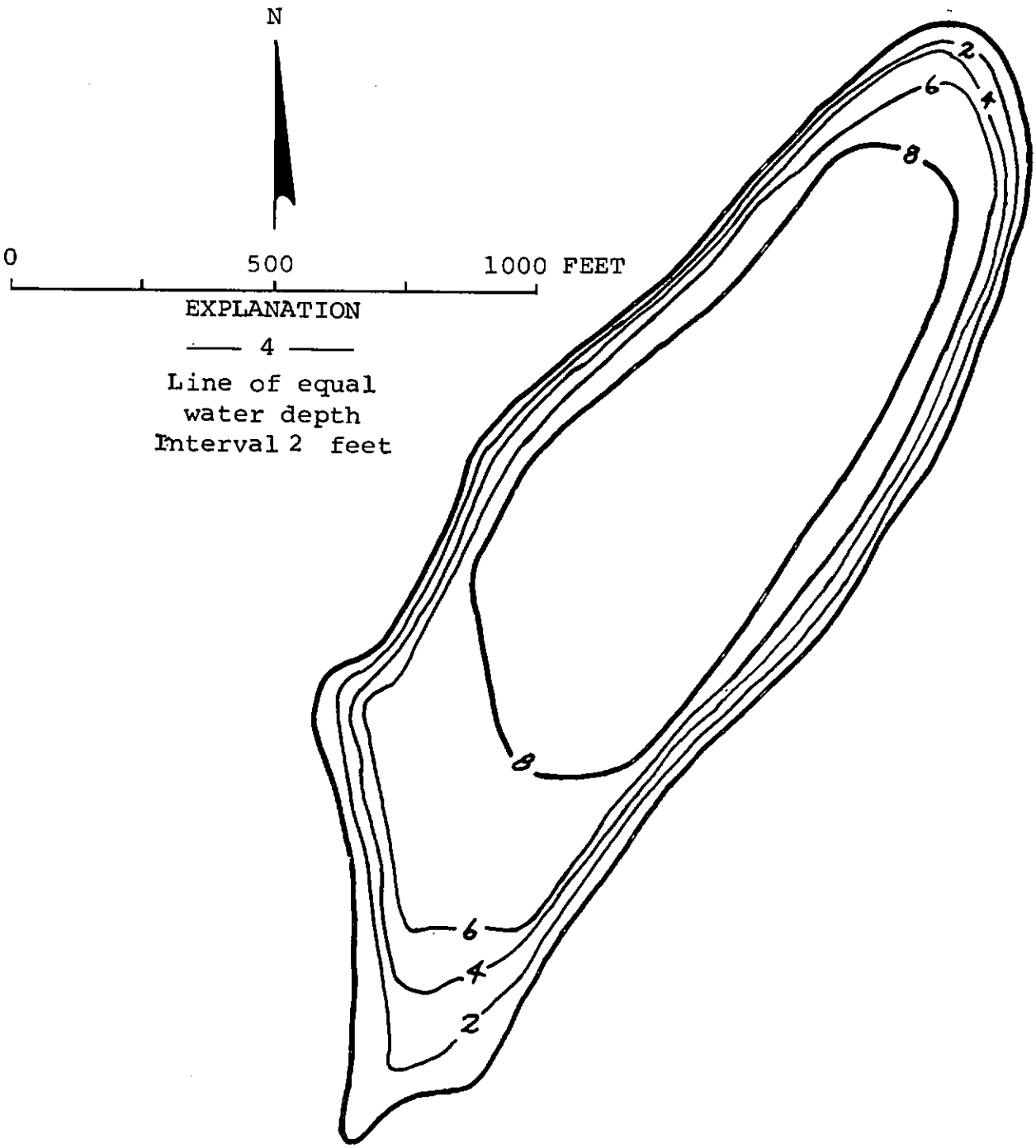
SAMPLE SITE	1	
DATE	6/25/74	
TIME	1250	1255
DEPTH (FT)	3.	7.
TOTAL NITRATE (N)	0.02	0.01
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.07	0.06
TOTAL ORGANIC NITROGEN (N)	2.0	1.9
TOTAL PHOSPHORUS (P)	0.060	0.051
TOTAL ORTHOPHOSPHATE (P)	0.009	0.010
SPECIFIC CONDUCTANCE (MICROMHOS)	860	860
WATER TEMPERATURE (DEG C)	24.2	23.6
COLOR (PLATINUM-COBALT UNITS)	30	30
SECCHI-DISC VISIBILITY (FT)	8	
DISSOLVED OXYGEN	10.4	11.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	11- 25 %

DATE	6/25/74
TIME	1300
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	1
FECAL COLIFOPM, MAXIMUM (COL./100ML)	9
FECAL COLIFORM, MEAN (COL./100ML)	5

REMARKS

THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (SEDGE) AND THE ENTIRE BOTTOM WAS COVERED WITH SUBMERSED AQUATIC PLANTS (PONDWEED AND WATER MILFOIL).



Lavista Lake, Whitman County. From
U.S. Geological Survey, April 28, 1974.

ROCK LAKE WHITMAN COUNTY

LATITUDE 47° 8' 8" LONGITUDE 117°43'44" T19N-R40E-14
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	523. SQ MI	RESIDENTIAL DEVELOPMENT	2 %
ALTITUDE	1719. FT		
LAKE AREA	2200. ACRES	NUMBER OF NEARSHORE HOMES	3
LAKE VOLUME	380000. ACRE-FT		
MEAN DEPTH	170. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	350. FT		
SHORELINE LENGTH	18. MI	NOT DETERMINED	
SHORELINE CONFIGURATION	2.7		
DEVELOPMENT OF VOLUME	0.49		
BOTTOM SLOPE	3.2 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	YES

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

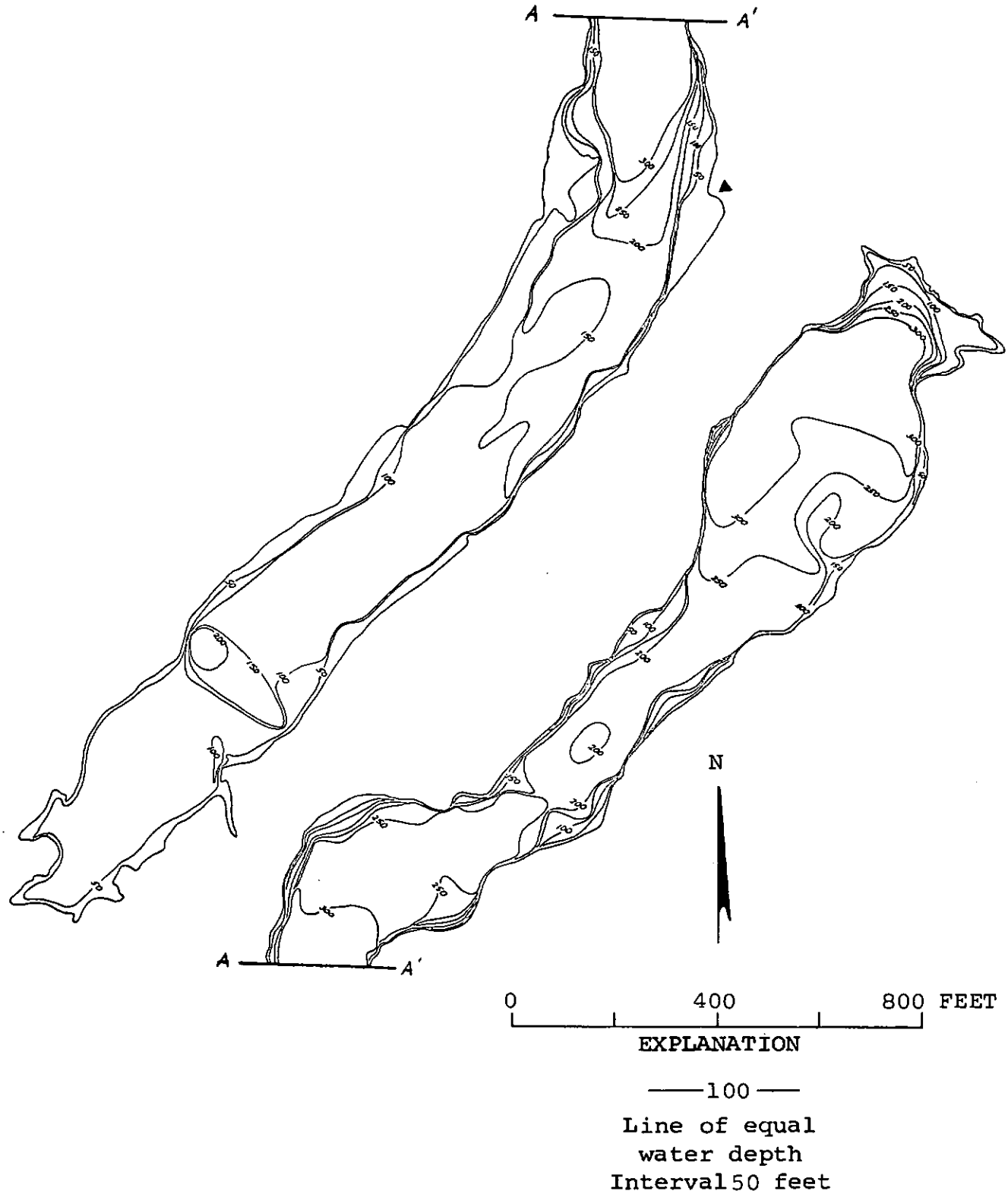
SAMPLE SITE	1		2	
DATE	6/27/74		6/27/74	
TIME	1120	1125	1210	1215
DEPTH (FT)	3.	187.	3.	105.
TOTAL NITRATE (N)	5.1	5.6	5.5	5.5
TOTAL NITRITE (N)	0.02	0.01	0.02	0.02
TOTAL AMMONIA (N)	0.18	0.16	0.17	0.24
TOTAL ORGANIC NITROGEN (N)	0.27	0.29	0.24	0.17
TOTAL PHOSPHORUS (P)	0.20	0.23	0.22	0.24
TOTAL ORTHOPHOSPHATE (P)	0.19	0.21	0.20	0.22
SPECIFIC CONDUCTANCE (MICROMHOS)	250	260	250	270
WATER TEMPERATURE (DEG C)	19.2	5.0	17.2	5.5
COLOR (PLATINUM-COBALT UNITS)	35	35	35	35
SECCHI-DISC VISIBILITY (FT)	2		2	
DISSOLVED OXYGEN	8.3	10.8	8.9	10.3

LAKE SHORELINE COVERED BY EMERSED PLANTS	LITTLE OR NONE
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/27/74
TIME	1137
NUMBER OF FECAL COLIFORM SAMPLES	5
FECAL COLIFORM, MINIMUM (COL./100ML)	1
FECAL COLIFORM, MAXIMUM (COL./100ML)	224
FECAL COLIFORM, MEAN (COL./100ML)	47

REMARKS

THE LAKE IS AN ENLARGEMENT OF ROCK CREEK AND IS THE LARGEST NATURAL LAKE IN SOUTHEAST WASHINGTON. VERY FEW AQUATIC MACROPHYTES WERE OBSERVED. THE LIMNOLOGY OF ROCK LAKE WAS DESCRIBED BY FLAHERTY (1968). LAND USE WAS NOT DETERMINED BECAUSE OF THE SIZE OF THE DRAINAGE AREA.



Rock Lake, Whitman County. From
U.S. Geological Survey, August 16, 1974.

Rock Lake, Whitman County. June 3, 1970. Approx. scale 1:63,000.

SHEEP LAKE WHITMAN COUNTY

LATITUDE 47°14'13" LONGITUDE 117°55'23" T20N-R39E-8
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	1.99 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1924. FT		
LAKE AREA	64. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	280. ACRE-FT		
MEAN DEPTH	4. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	6. FT		
SHORELINE LENGTH	2.1 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.9	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.74	AGRICULTURAL	94 %
BOTTOM SLOPE	0.32 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	5 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

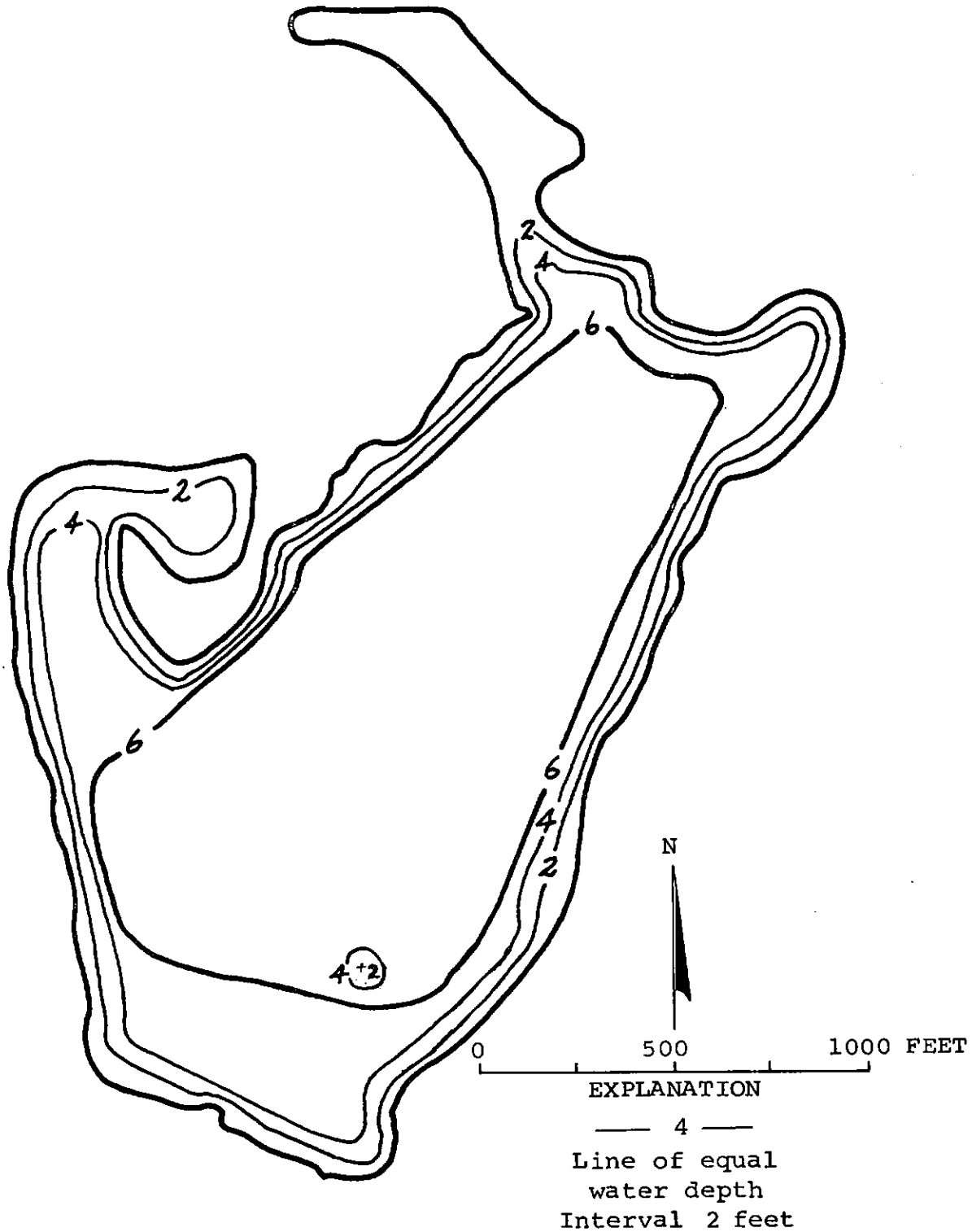
SAMPLE SITE	1	
DATE	6/21/74	
TIME	1410	1415
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.11	0.10
TOTAL ORGANIC NITROGEN (N)	2.9	2.6
TOTAL PHOSPHORUS (P)	1.3	2.4
TOTAL ORTHOPHOSPHATE (P)	0.40	0.40
SPECIFIC CONDUCTANCE (MICROMHOS)	2500	2500
WATER TEMPERATURE (DEG C)	22.0	20.9
COLOR (PLATINUM-COBALT UNITS)	50	60
SECCHI-DISC VISIBILITY (FT)	3	
DISSOLVED OXYGEN	8.0	7.6

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	6/21/74
TIME	1427
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	4
FECAL COLIFORM, MAXIMUM (COL./100ML)	16
FECAL COLIFORM, MEAN (COL./100ML)	9

REMARKS

THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (RUSHES AND SEDGE).



Sheep Lake, Whitman County. From
U.S. Geological Survey, April 25, 1974.

SNYDER LAKE WHITMAN COUNTY

LATITUDE 47°14'33" LONGITUDE 117°56'56" T20N-R39E-7
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	3.21 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1937. FT		
LAKE AREA	15. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	36. ACRE-FT		
MEAN DEPTH	2. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	4. FT		
SHORELINE LENGTH	2.5 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	4.5	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.68	AGRICULTURAL	97 %
BOTTOM SLOPE	0.38 %	FOREST OR UNPRODUCTIVE	2 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

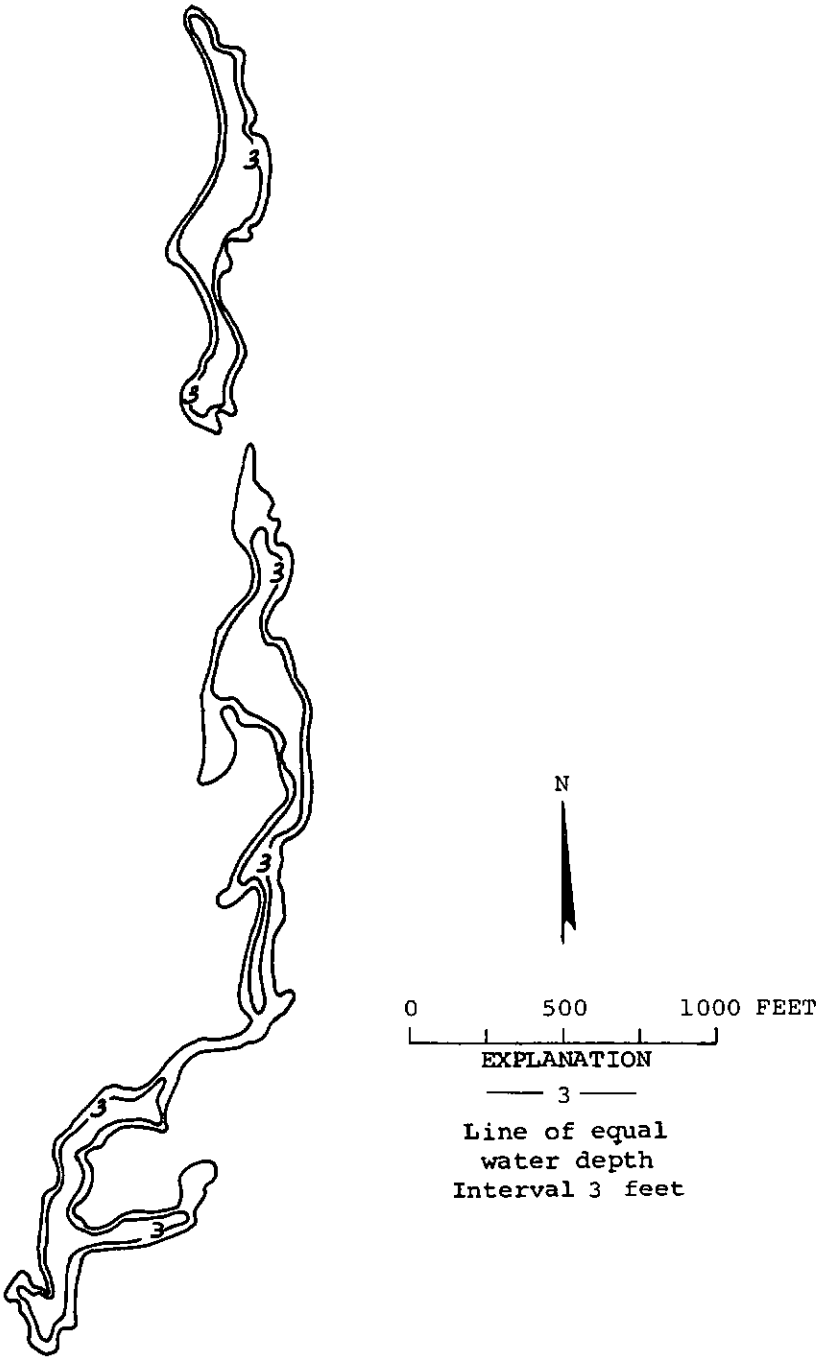
SAMPLE SITE	1	
DATE	6/21/74	
TIME	1330	1335
DEPTH (FT)	3.	5.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.08	0.07
TOTAL ORGANIC NITROGEN (N)	1.5	1.5
TOTAL PHOSPHORUS (P)	0.042	0.037
TOTAL ORTHOPHOSPHATE (P)	0.007	0.019
SPECIFIC CONDUCTANCE (MICROMHOS)	650	650
WATER TEMPERATURE (DEG C)	22.0	21.2
COLOR (PLATINUM-COBALT UNITS)	55	60
SECCHI-DISC VISIBILITY (FT)	8	
DISSOLVED OXYGEN	7.2	7.0

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	26- 50 %

DATE	6/21/74
TIME	1347
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	2
FECAL COLIFORM, MAXIMUM (COL./100ML)	8
FECAL COLIFORM, MEAN (COL./100ML)	6

REMARKS

THE NORTH END OF THE LAKE IS IN LINCOLN COUNTY. THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (RUSHES AND SEDGE) AND THE ENTIRE BOTTOM WAS COVERED WITH SUBMERSED AQUATIC PLANTS (PONDWEED, WATER MILFOIL, AND CHARA). THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION.



Snyder Lake, Whitman County. From
U.S. Geological Survey, September 20, 1974.

STEVENS LAKE WHITMAN COUNTY

LATITUDE 47° 5'36" LONGITUDE 117°45'17" T19N-R40E-34
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	8.80 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1722. FT		
LAKE AREA	25. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	36. ACRE-FT		
MEAN DEPTH	1. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	4. FT		
SHORELINE LENGTH	1.5 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	2.1	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.36	AGRICULTURAL	100 %
BOTTOM SLOPE	0.34 %	FOREST OR UNPRODUCTIVE	<1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	<1 %
INFLOW	INTERMITTENT		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

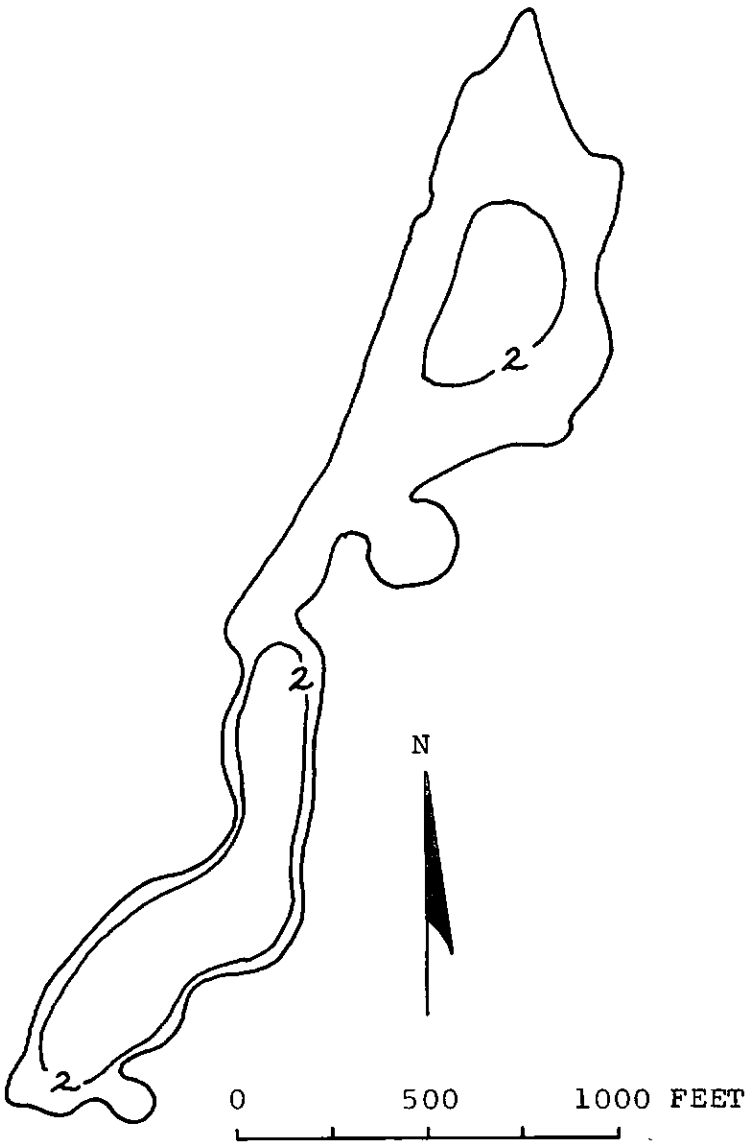
SAMPLE SITE	1	
DATE	6/25/74	
TIME	1100	1105
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.02	0.02
TOTAL AMMONIA (N)	0.29	0.24
TOTAL ORGANIC NITROGEN (N)	1.5	1.6
TOTAL PHOSPHORUS (P)	0.61	0.52
TOTAL ORTHOPHOSPHATE (P)	0.49	0.26
SPECIFIC CONDUCTANCE (MICROMHOS)	650	650
WATER TEMPERATURE (DEG C)	23.0	22.3
COLOR (PLATINUM-COBALT UNITS)	--	--
SECCHI-DISC VISIBILITY (FT)	0.3	
DISSOLVED OXYGEN	6.4	6.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	1- 10 %

DATE	6/25/74
TIME	1110
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	12
FECAL COLIFORM, MAXIMUM (COL./100ML)	32
FECAL COLIFORM, MEAN (COL./100ML)	21

REMARKS

THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (POLYGONUM AND SEDGE) BUT NO SUBMERSED AQUATIC PLANTS WERE OBSERVED. THE LAKE SUPPORTS A LARGE WATERFOWL POPULATION. THE TURBIDITY OF THE WATER PRECLUDED DETERMINATIONS OF COLOR.



Stevens Lake, Whitman County. From
U.S. Geological Survey, September 26, 1974.

TEXAS LAKE WHITMAN COUNTY

LATITUDE 47* 1'45" LONGITUDE 117*51'30" T18N-R39E-26
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	1.03 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1702. FT		
LAKE AREA	32. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	180. ACRE-FT		
MEAN DEPTH	6. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	10. FT		
SHORELINE LENGTH	1.2 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.5	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.56	AGRICULTURAL	94 %
BOTTOM SLOPE	0.76 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	5 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

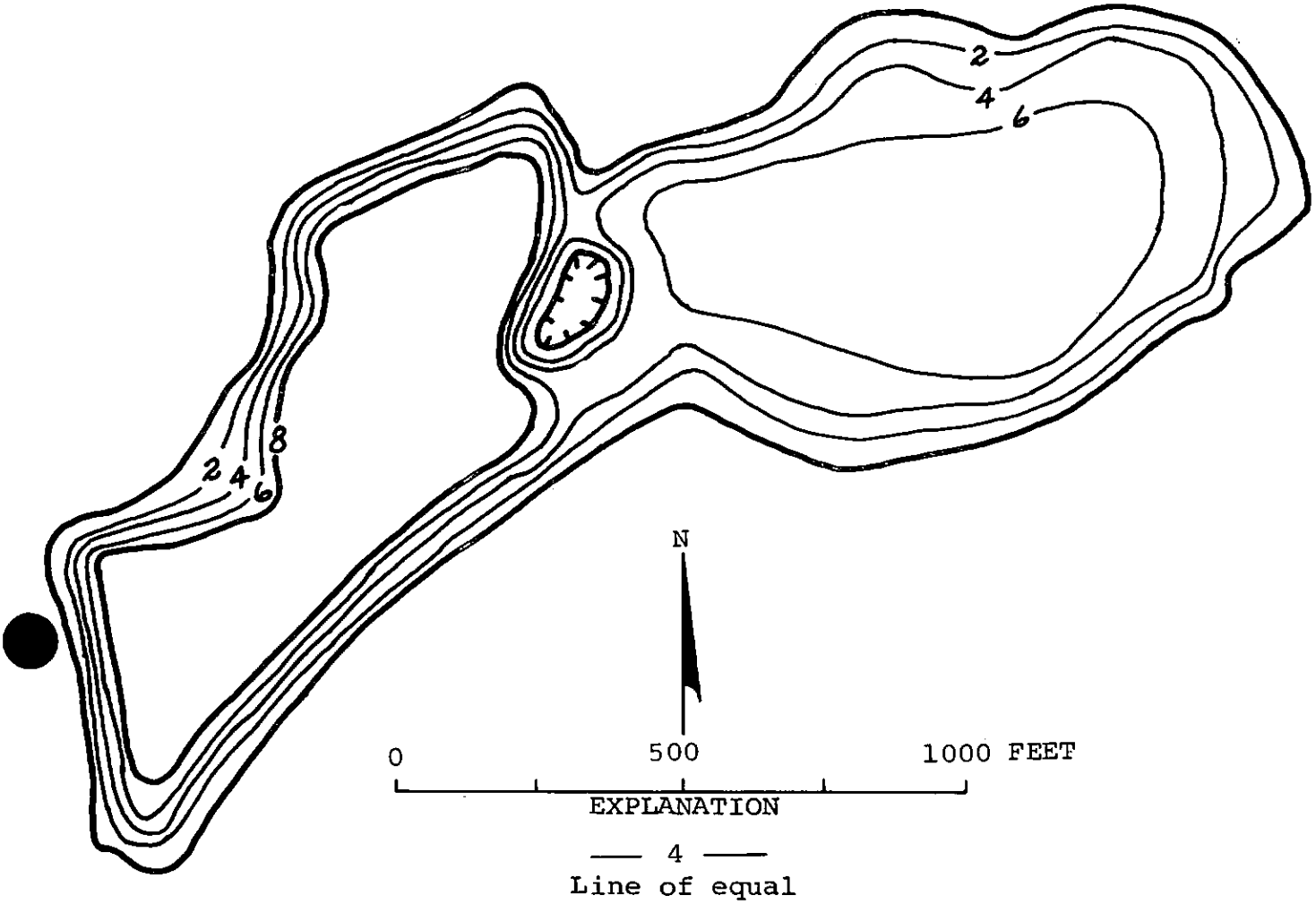
SAMPLE SITE	1	
DATE	6/25/74	
TIME	925	930
DEPTH (FT)	3.	7.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.00
TOTAL AMMONIA (N)	0.10	0.08
TOTAL ORGANIC NITROGEN (N)	1.9	1.1
TOTAL PHOSPHORUS (P)	0.11	0.096
TOTAL ORTHOPHOSPHATE (P)	0.015	0.017
SPECIFIC CONDUCTANCE (MICROMHOS)	790	790
WATER TEMPERATURE (DEG C)	22.2	21.8
COLOR (PLATINUM-COBALT UNITS)	35	40
SECCHI-DISC VISIBILITY (FT)	5	
DISSOLVED OXYGEN	9.6	8.4

LAKE SHORELINE COVERED BY EMERSED PLANTS	11- 25 %
LAKE SURFACE COVERED BY EMERSED PLANTS	11- 25 %

DATE	6/25/74
TIME	935
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	1
FECAL COLIFORM, MAXIMUM (COL./100ML)	6
FECAL COLIFORM, MEAN (COL./100ML)	3

REMARKS

THE LAKE IS IN TEXAS DRAW AND SUPPORTS A LARGE WATERFOWL POPULATION. AN ALGAL BLOOM WAS OBSERVED.



Texas Lake, Whitman County. From
U.S. Geological Survey, April 27, 1974.

TULE LAKE WHITMAN COUNTY

LATITUDE 47*10'51" LONGITUDE 117*42'42" T20N-R40E-36
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	2.97 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1905. FT		
LAKE AREA	24. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	62. ACRE-FT		
MEAN DEPTH	3. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	4. FT		
SHORELINE LENGTH	1.1 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.7	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.65	AGRICULTURAL	98 %
BOTTOM SLOPE	0.35 %	FOREST OR UNPRODUCTIVE	1 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	1 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

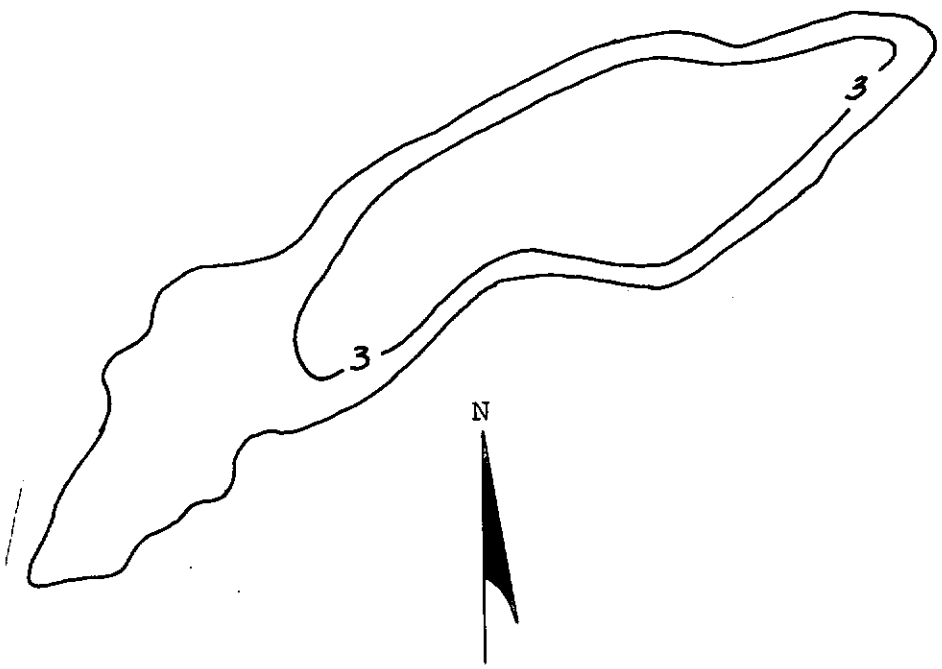
SAMPLE SITE	1	
DATE	6/27/74	
TIME	1340	1345
DEPTH (FT)	2.	3.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.00	0.00
TOTAL AMMONIA (N)	0.05	0.04
TOTAL ORGANIC NITROGEN (N)	1.4	1.5
TOTAL PHOSPHORUS (P)	0.40	0.52
TOTAL ORTHOPHOSPHATE (P)	0.30	0.29
SPECIFIC CONDUCTANCE (MICROMHOS)	550	550
WATER TEMPERATURE (DEG C)	20.8	20.8
COLOR (PLATINUM-COBALT UNITS)	45	45
SECCHI-DISC VISIBILITY (FT)	> 5	
DISSOLVED OXYGEN	14.8	15.2

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/27/74
TIME	1352
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	3
FECAL COLIFORM, MEAN (COL./100ML)	1

REMARKS

THE LITTORAL BOTTOM IS SILT AND MUCK AND WAS COMPLETELY COVERED WITH SUBMERSED AQUATIC PLANTS (PONDWEED AND WATER MILFOIL). THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (YELLOW LILY, RUSHES, AND SEDGE). AN ALGAL BLOOM WAS OBSERVED.



Tule Lake, Whitman County. From
U.S. Geological Survey, September 26, 1974.

UNNAMED (19N-40E-23) LAKE WHITMAN COUNTY

LATITUDE 47° 7'32" LONGITUDE 117°44'44" T19N-R40E-23
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	526. SQ MI	RESIDENTIAL DEVELOPMENT	3 %
ALTITUDE	1715. FT		
LAKE AREA	60. ACRES	NUMBER OF NEARSHORE HOMES	1
LAKE VOLUME	270. ACRE-FT		
MEAN DEPTH	4. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	17. FT		
SHORELINE LENGTH	2.3 MI	NOT DETERMINED	
SHORELINE CONFIGURATION	2.1		
DEVELOPMENT OF VOLUME	0.26		
BOTTOM SLOPE	0.93 %		
BASIN GEOLOGY	IGNEOUS		
INFLOW	PERENNIAL		
OUTFLOW CHANNEL	PRESENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

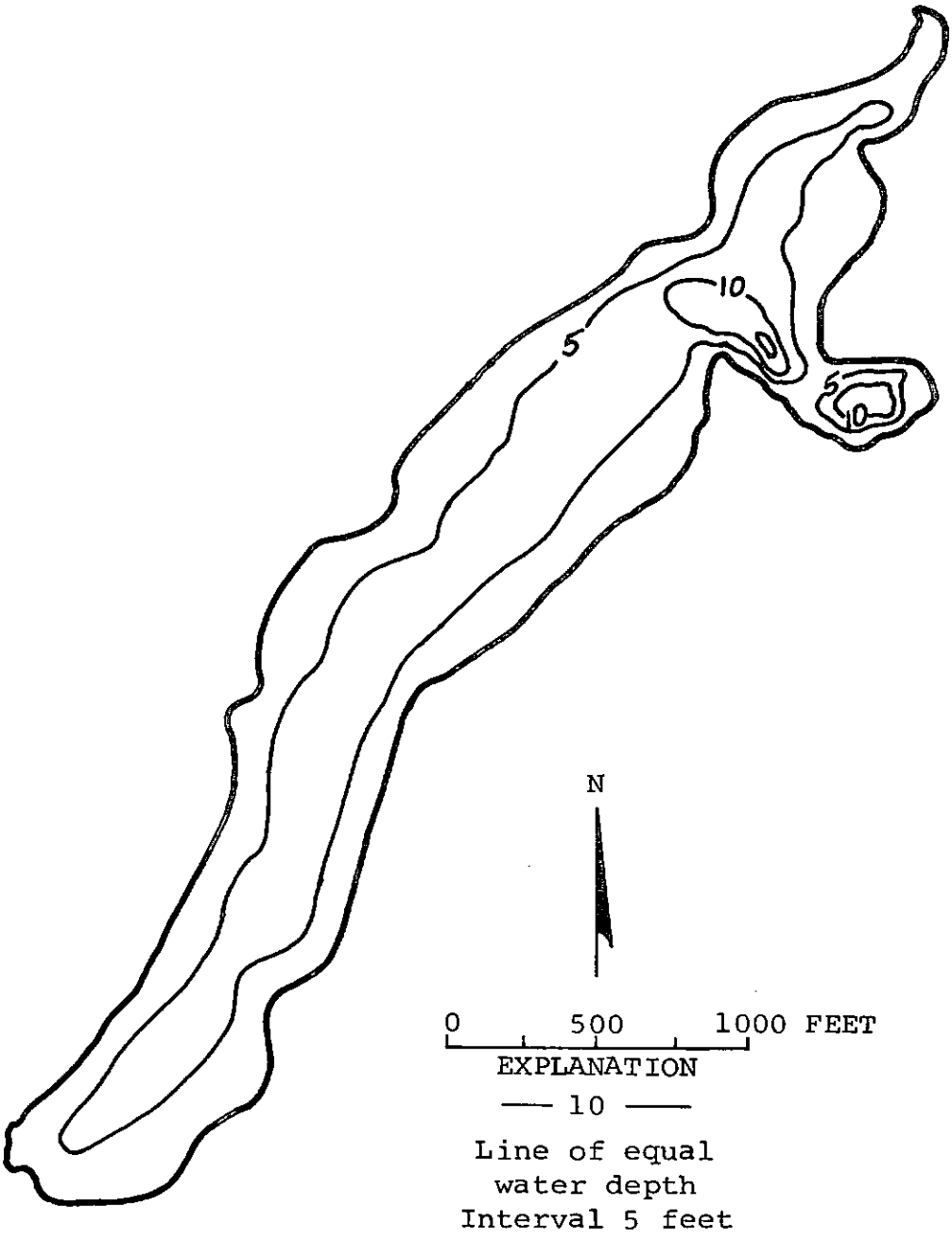
SAMPLE SITE	1	
DATE	6/25/74	
TIME	1210	1215
DEPTH (FT)	3.	5.
TOTAL NITRATE (N)	3.8	4.3
TOTAL NITRITE (N)	0.03	0.03
TOTAL AMMONIA (N)	0.18	0.19
TOTAL ORGANIC NITROGEN (N)	0.60	0.59
TOTAL PHOSPHORUS (P)	0.24	0.28
TOTAL ORTHOPHOSPHATE (P)	0.15	0.17
SPECIFIC CONDUCTANCE (MICROMHOS)	250	250
WATER TEMPERATURE (DEG C)	20.2	17.8
COLOR (PLATINUM-COBALT UNITS)	35	30
SECCHI-DISC VISIBILITY (FT)	1	
DISSOLVED OXYGEN	9.6	8.5

LAKE SHORELINE COVERED BY EMERSED PLANTS	51- 75 %
LAKE SURFACE COVERED BY EMERSED PLANTS	11- 25 %

DATE	6/25/74
TIME	1215
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	58
FECAL COLIFORM, MAXIMUM (COL./100ML)	101
FECAL COLIFORM, MEAN (COL./100ML)	78

REMARKS

THE LAKE IS AN ENLARGEMENT OF ROCK CREEK AND SUPPORTS A LARGE WATERFOWL POPULATION. THE LITTORAL BOTTOM IS SILT AND MUCK. LAND USE WAS NOT DETERMINED BECAUSE OF THE SIZE OF THE DRAINAGE AREA.



Unnamed (19N-40E-23) Lake, Whitman County.
From U.S. Geological Survey, April 28, 1974.

UNNAMED (20N-39E-16) LAKE WHITMAN COUNTY

LATITUDE 47°13'33" LONGITUDE 117°54'42" T20N-R39E-16
PALOUSE RIVER BASIN

PHYSICAL DATA		CULTURAL DATA	
DRAINAGE AREA	0.30 SQ MI	RESIDENTIAL DEVELOPMENT	0 %
ALTITUDE	1944. FT		
LAKE AREA	38. ACRES	NUMBER OF NEARSHORE HOMES	0
LAKE VOLUME	190. ACRE-FT		
MEAN DEPTH	5. FT	LAND USE IN DRAINAGE BASIN	
MAXIMUM DEPTH	9. FT		
SHORELINE LENGTH	1.6 MI	RESIDENTIAL URBAN	0 %
SHORELINE CONFIGURATION	1.8	RESIDENTIAL SUBURBAN	0 %
DEVELOPMENT OF VOLUME	0.57	AGRICULTURAL	80 %
BOTTOM SLOPE	0.62 %	FOREST OR UNPRODUCTIVE	0 %
BASIN GEOLOGY	IGNEOUS	LAKE SURFACE	20 %
INFLOW	NONE VISIBLE		
OUTFLOW CHANNEL	ABSENT	PUBLIC BOAT ACCESS TO LAKE	--

WATER-QUALITY DATA (IN MG/L UNLESS OTHERWISE INDICATED)

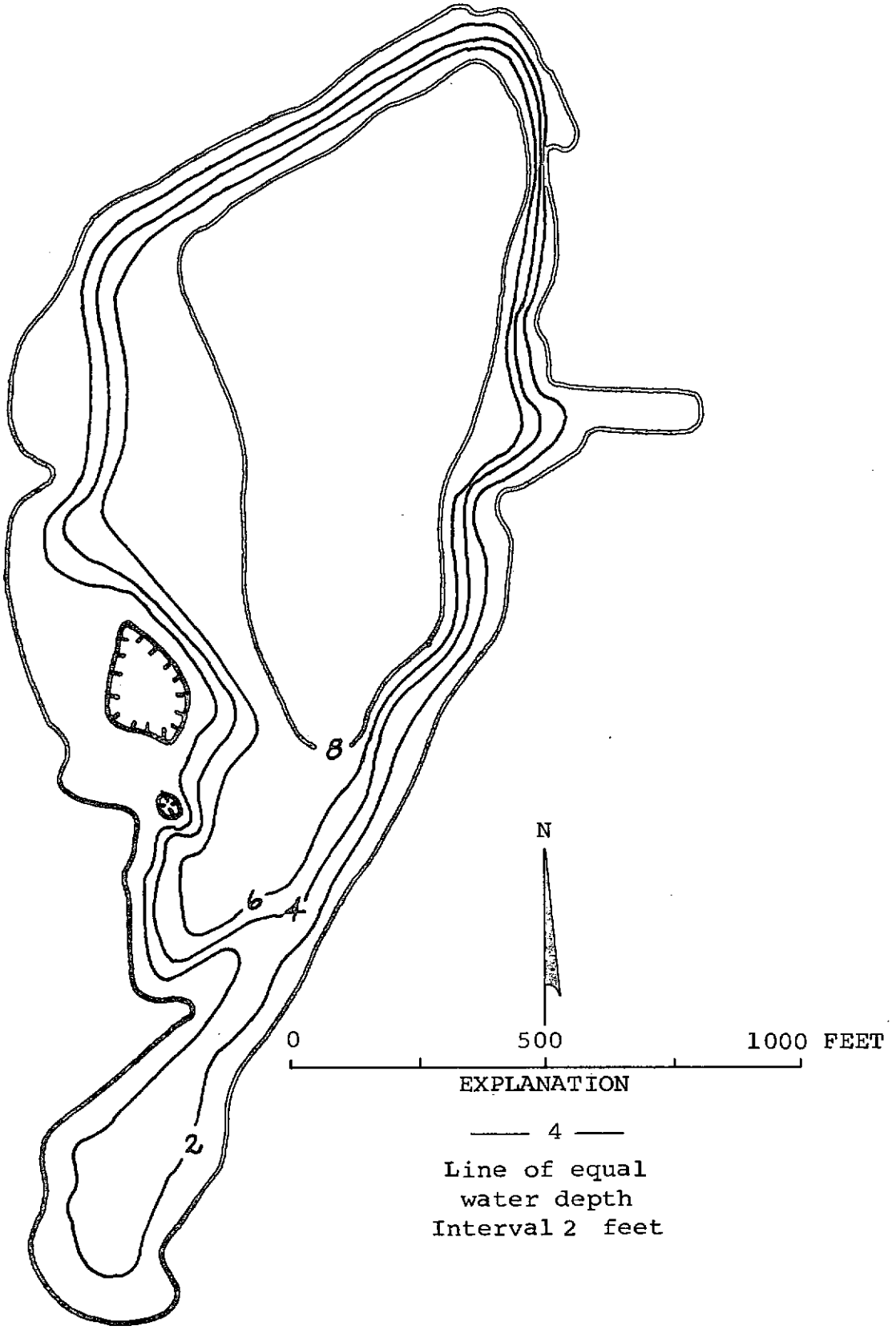
SAMPLE SITE	1	
DATE	6/22/74	
TIME	910	915
DEPTH (FT)	3.	5.
TOTAL NITRATE (N)	0.00	0.00
TOTAL NITRITE (N)	0.01	0.01
TOTAL AMMONIA (N)	0.14	0.13
TOTAL ORGANIC NITROGEN (N)	1.7	1.6
TOTAL PHOSPHORUS (P)	0.075	0.070
TOTAL ORTHOPHOSPHATE (P)	0.022	0.021
SPECIFIC CONDUCTANCE (MICROMHOS)	650	650
WATER TEMPERATURE (DEG C)	21.0	19.0
COLOR (PLATINUM-COBALT UNITS)	60	60
SECCHI-DISC VISIBILITY (FT)	5	
DISSOLVED OXYGEN	7.3	7.3

LAKE SHORELINE COVERED BY EMERSED PLANTS	76-100 %
LAKE SURFACE COVERED BY EMERSED PLANTS	NONE OR <1 %

DATE	6/22/74
TIME	922
NUMBER OF FECAL COLIFORM SAMPLES	3
FECAL COLIFORM, MINIMUM (COL./100ML)	<1
FECAL COLIFORM, MAXIMUM (COL./100ML)	<1
FECAL COLIFORM, MEAN (COL./100ML)	<1

REMARKS

THE ENTIRE SHORELINE WAS COVERED WITH EMERSED AQUATIC PLANTS (RUSHES AND SEDGE). AN ALGAL BLOOM WAS OBSERVED.



Unnamed (20N-39E-16) Lake, Whitman County.
From U.S. Geological Survey, April 25, 1974.

INDEX