SEDIMENTARY DIATOM ANALYSES FROM THE TURKEY LAKES WATERSHED, ONTARIO

by

L.D. Delorme[1], S.R. Esterby[1], H.C. Duthie[2]
and N.S. Harper[1]

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[1]Aquatic Ecology Division
National Water Research Institute
Canada Centre for Inland Waters
Burlington, Ontario, L7R 4A6

[2]Department of Biology
University of Waterloo
Waterloo, Ontario, N2L 3G1

ANALYSES DES DIATOMÉES SÉDIMENTAIRES DU BASSIN DES LACS TURKEY EN ONTARIO

par

L.D. Delorme[1], S.R. Esterby[1], H.C. Duthie[2]
et N.S. Harper[1]

[1]Division de l'écologie aquatique
Institut national de recherche sur les eaux
Centre canadien des eaux intérieures
Burlington, Ontario
L7R 4A6

[2]Département de biologie
Université de Waterloo
Waterloo, Ontario
N2L 3G1

MANAGEMENT PERSPECTIVE

Four lakes north of Sault Ste. Marie, collectively known as the Turkey Lakes, show little impact by atmospheric loading. This assessment has been arrived at by using fossil algae, diatoms, to infer past acidity or pH trends. These lakes have been considered to be in the early stages of acidification. The fossil diatoms from the headwater lake, Batchawana Lake, may show an increase in the acidity near the surface of sediments implying an increase in acidity in recent times. The fossil diatoms from the lower lakes indicate the lake waters have been adequately buffered in the recent past. This low level buffering capacity has been sufficient to counteract acidified atmospheric loading.

PERSPECTIVE-GESTION

Les quatre lacs au nord de Sault-Sainte-Marie que l'on désigne sous le vocable collectif de lacs Turkey semblent peu affectés par la charge de polluants atmosphériques. On est arrivé à cette conclusion en étudiant des algues fossiles, les diatomées, pour déduire l'évolution du pH ou l'acidité de l'eau dans le passé. On considère que ces lacs commencent à s'acidifier. On a pu constater un taux d'acidité plus élevé dans les sédiments de surface des diatomées fossiles du lac d'amont, le lac Batchaouana, ce qui semble indiquer qu'il y a eu une hausse de l'acidité de l'eau depuis quelque temps. D'après les diatomées fossiles des autres lacs, il semble que les eaux lacustres aient été tamponnées de façon adéquate. Cet effet tampon de faible intensité s'est avéré suffisant pour contrer la charge de polluants atmosphériques acides.

ABSTRACT

An emperical relationship exists between the modern diatom flora and pH. This relationship can be used to infer past pH using fossil diatoms. Nine cores collected from four lakes in the Turkey Lakes Watershed have been enumerated for fossil diatoms. The lakes, northeast of Lake Superior, Ontario are situated in an area where the topographical relief is up to 300 meters. A hardwood forest grows on thin podzolic soil over Archean metamorphosed metavolcanics. The headwater lake, Lake Batchawana, is separated into two parts by an inactive beaver dam. From a core north of the beaver dam the inferred pH is calculated at 5.7 near the bottom of the core and 6.0 for 1980 AD. However, there is evidence of a number of changes in the diatom flora and the tree pollen in the region during the interval represented by the core. The first change occurred at a depth of 53 cm as indicated by a change in the diatom flora, tree pollen concentration, and an increase in the dry weight of the sediments. The next change took place between 36.2 and 28.5 cm. The last major change occurred around 1830 AD. This latter change was the start of a decrease in inferred pH from 6.3 to 6.0. All of the changes appear to have been caused by changes in climate.

The additional three lakes downstream in the watershed appear to be affected by external factors other than atmospheric loading. Being downstream, the lakes show a higher buffering capacity and hence a progressively different diatom flora. Periphytic diatoms appear to produce a higher calculated inferred pH.

A report has been published on Batchawana Lake by Delorme *et al*. (1986).

SOMMAIRE

Il existe une relation empirique entre la prolifération des diatomées et le pH de l'eau. À la lumière de ce rapport on peut déduire les fluctuations du pH dans le passé en étudiant les diatomées fossiles. On a prélevé neuf carottes de sédiments dans les lacs du bassin des lacs Turkey et on a dénombré les diatomées fossiles. Les lacs au nord-est du lac Supérieur, Ontario, s'étendent dans une région où le relief peut atteindre jusqu'à 300 mètres. La région est recouverte d'une forêt de feuillus reposant sur une mince couche de podzolique dont le substrat est composé de roches volcaniques archéennes métamorphisées. Un barrage abandonné construit par les castors sépare en deux parties le lac d'amont, le lac Batchaouana. Le pH de la carotte prélevée au nord du barrage s'élève à 5,7 près de l'extrémité la plus profonde et à 6 à l'autre extrémité correspondant à l'an 1980 de notre ère. Toutefois, il semble que la composition des diatomées et du pollen des arbres ait subi de nombreux changements au cours de l'intervalle qui s'étend entre ces deux limites. Le premier changement a été constaté à une profondeur de 53 cm et s'est traduit par une modification de la flore des diatomées, de la concentration de pollen des arbres et une augmentation du poids sec des sédiments. Le deuxième changement est survenu dans l'intervalle entre 36,2 cm et 28,5 cm. Le dernier changement majeur s'est produit vers l'an 1830 de notre ère. Il correspond à une chute du pH de 6,3 à 6. Ces changements semblent tous être imputables à des changements climatiques.

Les trois autres lacs du bassin situés en aval semblent avoir subi l'influence de facteurs extérieurs autres que la charge des polluants atmosphériques. Étant en contrebas, ces lacs possèdent une capacité de tamponnage plus élevée et, par conséquent, une flore de diatomées qui varient progressivement. Selon les calculs, les diatomées périphytoniques semblent produire une hausse du pH.

Les auteurs, Delorme et alii, (1986), ont publié une étude sur le lac Batchaouana.

INTRODUCTION

Lacustrine sediments contain records which can be used to decipher the limnological history of a lake. There are two important elements in the records, time and fossils. Time is not as precise as when studying limnology on a seasonal and/or annual bases. For example the time resolution for core 79 of this study is five years for the top cm and 10 years per cm of sample when Ambrosia sp. pollen began to increase. Core 84, of this study, varied from four years for the top cm to 14 years per cm for the sample containing the rise of Ambrosia sp. Sediments are integrators of time.

Fossil diatoms can be used to infer pH and hence to assess atmospheric loading of mineral acids or natural acids derived from the regolith. The physical and chemical habitat in which the diatom lives plays an important role in species selection as well as its productivity. Autecological data must be available for the modern representatives of the fossil species studied, otherwise only subjective paleoenvironmental interpretations can be made. External factors such as climate, fire, forest succession, soils, and the effects of invertebrates and vertebrates have a substantial impact on the habitat in which the diatom lives. Paleolimnology should be able to shed some light on these factors and consequently the successional development of the lake.

The use of sedimentary diatom analyses to detect changes with time in the pH status of lakes was first proposed by Nygaard (1956) using Hustedt's (1937-39) pH spectrum. In Hustedt's system the diatoms are divided into five categories: alkalibiontic, alkaliphilous, indifferent, acidiphilous, and acidobiontic. Nygaard (1956) quantified this approach into three indices. He emphasized the ecological significance of the extreme groups, the

alkalibiontic and the acidobiontic. Whereas Nygaard used the indices to quantify pH changes in the postglacial history of lakes, Merilainen (1967) extended and verified the concept by using extant diatom floras from existing lakes of known pH. He also provided an extensive list of diatoms and their pH preferences. Recently van Dam et al (1981) have published a revised list of pH preferences.

In 1981, Norton et al developed a model to infer pH by relating pH of diatom assemblages to Nygaard's alpha index. Similarily, Del Prete & Schofield (1981) made an assessment of 30 Scandinavian lakes, four large Adirondack lakes, and three Adirondack mountain lakes. van Dam et al (1981) have shown differences in diatom species diversity between clear water and brown water lakes. Other information on the pH preferences of diatoms may be derived from Cholnoky (1968), Lowe (1974), and Beaver (1981). Two Swedish scientists (Renberg & Hellberg, 1982) modified the Nygaard (1956) alpha index to index B, because of its short-comings when alkaliphilic taxa are sparse or absent. Charles (1984) corroborated a decline in diatom inferred pH in a New York lake with historical chemical and biological data. Recently, Battarbee (1984) has reviewed the literature on sedimentary diatoms and lake acidification, and Davis & Anderson (1985) have reviewed calibration models for diatom inferred pH.

Purpose

The study of the Turkey Lakes watershed is part of the Long Range Transport of Air Pollutants (LRTAP) program. The area has been identified as sensitive to atmospheric loading because of geology and low buffering capacity of the lakes; it supports a lake trout fishery; and is within the Great Lakes - St. Lawrence forest region, which on a larger scale is the region impacted by elevated acid loadings. In general the area is perceived to be in a zone of moderate loading with respect to longe range transport of air pollutants, with lake acidification being in the early stages. The area is

upwind of major local point source emitters. The watershed has not been impacted by recent forestry operations and has limited accessibility. The diatom studies were undertaken to assess the paleolimnology of the lakes and the impact of atmospheric loading over the last hundred years.

Previous studies

The headwater lake of the Turkey Lakes Watershed has been studied for sedimentary diatoms, palynology, and paleolimnology by Delorme et al (1986). Their results indicate the inferred pH changed from 5.7 near the bottom of the core to 5.9 at 1980 AD. Further they report disruptions in the diatom flora at several points in time, probably caused by changes in climate. Diatoms have been used to study pH trends in the Wawa area to the north of the watershed (Dickman et al 1984). In the Halifax area of Nova Scotia, Vaughan et al (1982) have made a comparison between 1971 and 1980 collections of diatom remains in surficial sediments from four lakes. They concluded there had been an increase in acidiphilous species since 1971. Delorme et al (1984) studied a core from Kejimkujik Lake, Nova Scotia. They concluded the high concentration of organic acids had the greatest effect on the diatom flora for the past 1000 years except for a period during and after deforestation. Hudon et al (in prep.) have developed calibration models for diatom inferred trends in humic lakes in NE Quebec, Canada.

Geographical and chemical setting of Batchawana Lake

The Turkey Lakes Watershed, 10.5 km2 in size (Fig.1), is located on the Canadian Shield approximately 50 km north of Sault Ste. Marie, Ontario, and 25 km east of Coppermine Point on Lake Superior. Giblin (1966) and Armburst (1966) describe the Archean rocks of the area as basic to intermediate metavolcanics. They are fine-grained, massive to slightly schistose, grey green to dark green or black

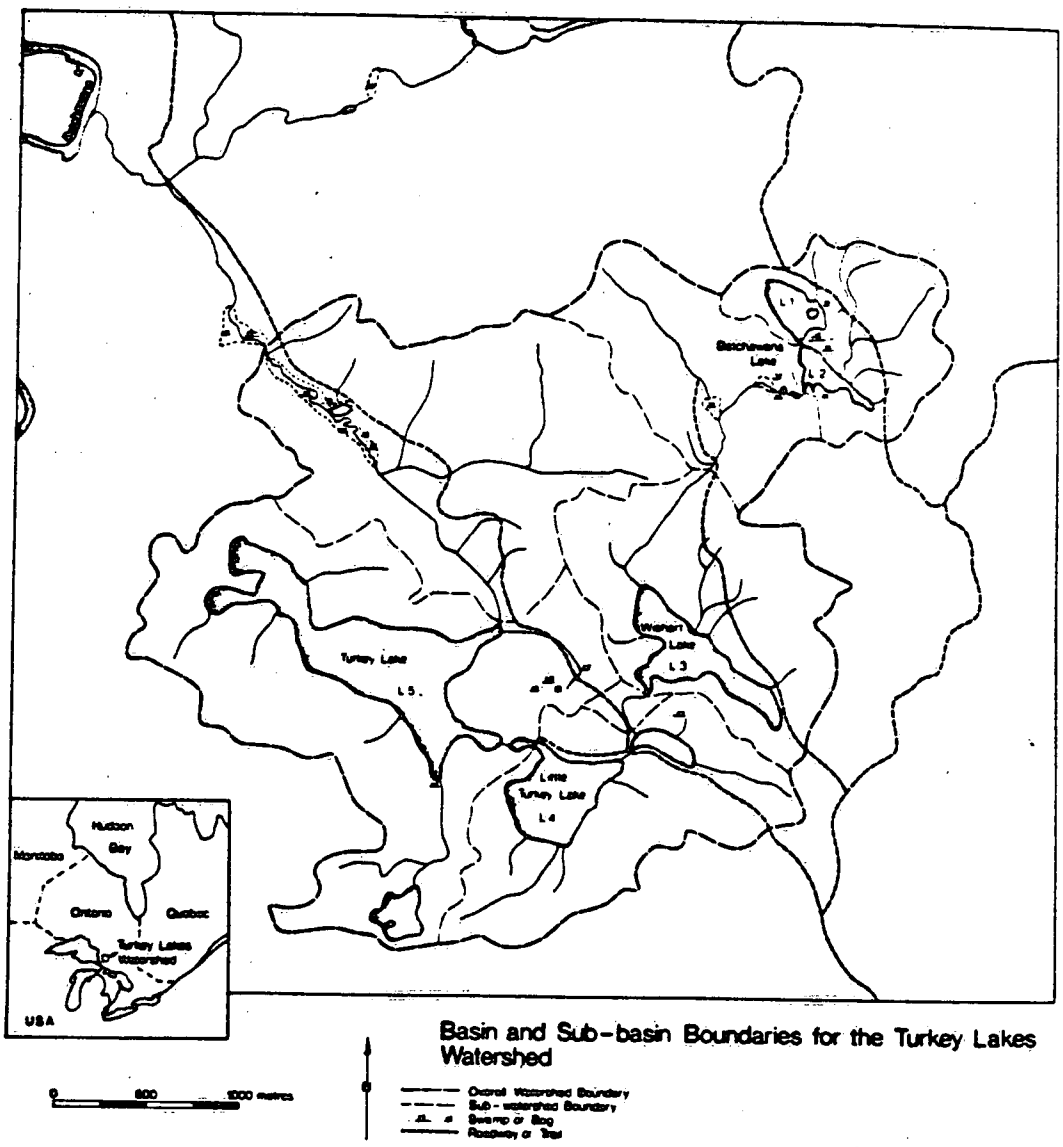


Figure 1. Geographic setting of the Turkey Lakes Calibrated Watershed.

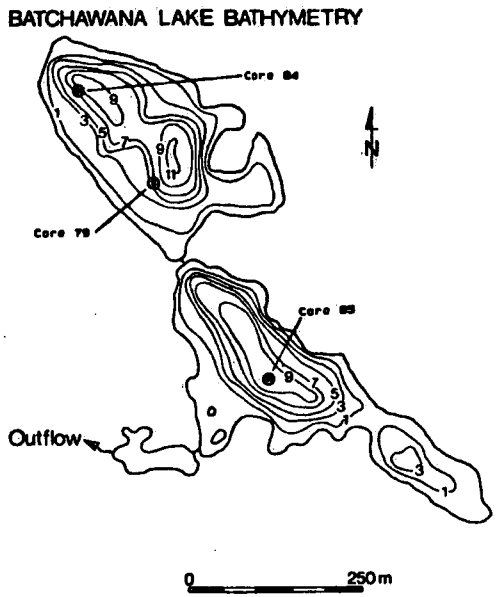
andesites and basalts. The medium to coarse grained basic rocks may be metamorphosed volcanic flows or diabase sills or dykes (Jeffries & Semkin, 1982).

Batchawana Lake, the headwater lake in a chain of five lakes of the watershed, with an area of 11.7 hectares (Fig.2), is located in the northern part of the drainage basin. The local relief is up to 300 meters with Batchawana Mountain to the northwest of the lake being the most prominent feature of the watershed. A hardwood forest (mainly Acer saccharum Marsh. and Betula papyrifera Marsh.) is established on thin podzolic soils. Batchawana Lake is subdivided into north and south parts by a non-active beaver dam. Subsequent lakes in the chain are Wishart Lake, Little Turkey Lake, and Turkey Lake (Fig.2) which drain into the Batchawana River and utlimately into Lake Superior. According to Jeffries & Semkin (1982) the lakes vary in size from six to 52 ha. Physical and chemical attributes (table 1) for these lakes are given by Jefferies & Semkin (1982).

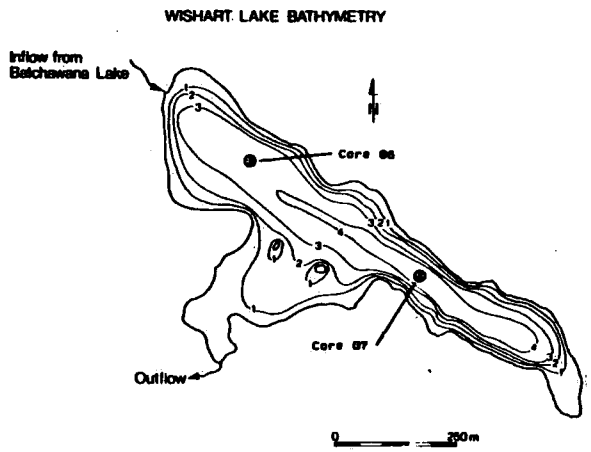
Table 1. Alkalinity and pH measurements of Turkey Lakes Watershed for October, 1980 & 1981.

Date Yr Mo Dy	Sample Type	Depth Range M	pH	Alkalinity Mg/L CaCO3
Batchawana Lake north				
80 10 22	Whole-lk	00.0 - 9.0	6.04	2.20
81 10 20	Whole-lk	00.0 - 11.0	6.29	2.45
Batchawana Lake south				
80 10 22	Whole-lk	00.0 - 8.0	6.31	3.35
81 10 20	Whole-lk	00.0 - 7.0	6.49	3.70
Wishart Lake				
80 10 22	Whole-lk	00.0 - 3.5	6.74	5.10
81 10 20	Whole-lk	00.0 - 4.0	6.78	5.70
Little Turkey Lake				
80 10 22	Whole-lk	00.0 - 10.0	6.72	8.05
81 10 28	Whole-lk	00.0 - 12.5	6.81	8.45
Turkey Lake				
80 10 22	epilimio	00.0 - 15.0	6.82	9.35
80 10 22	single	33.0 - 33.0	5.99	10.9
81 10 20	epilimio	00.0 - 5.0	6.95	5.85
81 10 20	single	29.0 - 29.0	6.32	7.85

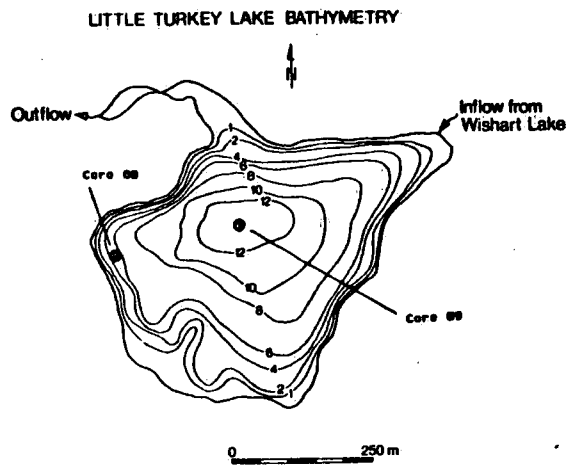
Note: Sample types - volume-weighted over depth range indicated; after Jeffries & Semkin, 1983.



Contours in metres, maximum depth, North Basin 11.3 m
South Basin 10.9 m



Contours in metres, maximum depth 4.5m



Contours in metres, maximum depth 13 m

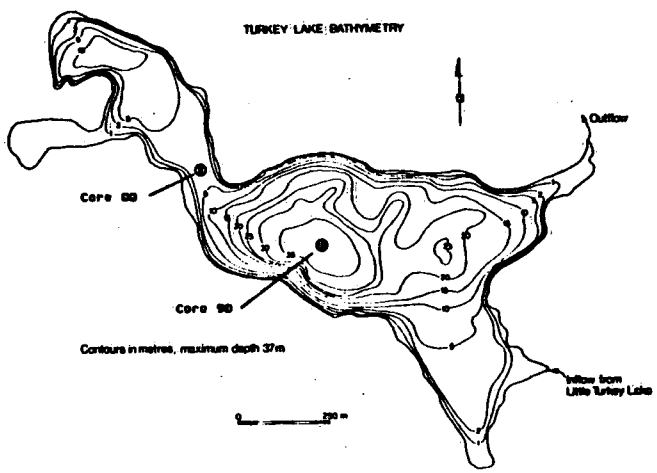


Figure 2. Bathymetry (Jeffries & Semkin, 1982), morphology, and core sites for Batchawana , Wishart, Little Turkey, and Turkey Lakes.

METHOD

Sample preparation

Cores were collected in April of 1980 (cores 79, 80) and September (cores 84 to 90) of 1981 (Fig.2), using a lightweight corer (Williams & Pashley, 1979). They were extruded while in the field into about one cm slices, and a volume of 50 cm3. The were placed in vials, weighed, frozen, freeze-dried, and weighed again. The weights are the bases for dry weight, cumulative dry weight, total volume of sample, sample porosity, uncompacted depth, and calculated sample interval (see Appendices 1 & 2). Robbins & Edgington (1975) have indicated that an understanding of the relationship between sediment compaction and porosity is important in relating depth to age in homogeneously compacted sediments. Knowing the sedimentation rate then allows a direct comparison to age, assuming a constant rate of sedimentation. For all cores studied, the depth referred to is the uncompacted depth. The only exception is the length of the core given which refers to the actual length of the core collected.

Pollen

Before pollen enumeration began, the sediments were digested with HCl and HF acids, followed by acetolysis (Faegri & Iversen, 1964). Microscope slides were prepared using the treated sediments and Hoyer's solution as the mounting medium (Anderson, 1954). Pollen grains and spores were identified and counted using a binocular microscope at 100X magnification. Absolute pollen frequencies were calculated using a known quantity of exotic (Eucalyptus) pollen added to a known volume of sediment prior to chemical processing. The counts were then converted to grains per cm-3 of uncompacted sediments. No attempt was made to do a complete pollen analysis. Only Ambrosia sp. and the pollen

of the common trees of the area in 1981 were identified and enumerated from the cores (see Appendix 3).

Diatom

The counts were based on several vertical and horizontal transects of each of four cover slips placed on two slides prepared by the Batterbee (1973) method from a fraction of one gram of freeze dried sediment. The transects, which represent 2.02% of the area of the cover slip, were counted at 1250X magnification. At least 500 frustules were counted per sample (see Appendix 4).

Inferred pH

Alkalibiontic taxa make up from zero to ten percent of the taxa in cores 79 to 90. Index B, more than any other index, takes these taxa into consideration when calculating the inferred pH (see Appendix 5). Three equations were considered. That by Charles (1984) was discounted because it produced inferred pH values for the top one cm much higher than the actual pH reported by Jeffries and Semkin (1983). The Renberg & Hellberg (1982) and Davis & Anderson (1985) models produced good results for these and other cores from the Turkey Lakes watershed. The full range of the pH equation by Davis & Anderson (1985) using index B was used (pH=6.4204-.8328logB). It produced the best inferred pH values for nine surface samples from the watershed lake This equation uses their New England data. Taylor & Duthie (per. comm.) have recently completed a calibration study of shield lakes in north-central Ontario. Their equation for index B of Renberg & Hellberg (1982) is pH=6.54-0.94(logB). This equation is similar to those used here.

Statistics

The pollen, acidobiontic, and alkalibiontic diatom profiles were individually analysed by a procedure for

estimating the point of change in a regression model (Esterby & El-Shaarawi, 1981a,b). This procedure uses a likelihood function to estimate the point at which a polynomial regression relationship changes and a test, based on the residual variation, to estimate the degrees of the polynomials in the two segments. Analysis of the residuals, analogous to that for a single regression curve, was also performed. For some of the species, more than one point of change was indicated. In these cases, the procedure was applied twice, using a sub-section of the profile containing a single change each time.

CHRONOLOGY

Bruland et al (1975), Maher (1977), and Kemp et al (1979) place the start of the Ambrosia sp. zone at 1890 AD for lakes north of Lake Superior.

Many authors (Davis, 1974; Bruland et al, 1975; and Maher, 1977) have debated the issue of bioturbation of lacustrine sediments and the use of Ambrosia sp. as a time indicator. These authors indicate tubificids, amphipods, and clams are the primary agents of biological-sediment activity. This study of the Batchawana Lake shows the measured pH, at the sediment-water interface produces an inhospitable habitat for clams. Current benthic studies of the lake (R. Dermott, per. commun.) indicate there are few benthic organisms below five meters except for Turkey Lake, although amphipods are abundant in the littoral zone. The sediment-water interfaces of the cores collected were below five meters. Maher (1977) points out that sediments which have been mixed would have pollen concentrations muted and averaged out in the sediments. The same logic would apply to diatom concentrations.

Batchawana Lake - Core 79

Core 79 was collected from the southwest part of the north basin of Batchawana Lake (Fig.2). The site was 70 meters from shore in 5.5 meters of water. Sixty eight samples represent a core length of 90 cm. The sediments were enumerated for pollen from a depth of 66.9 cm to the surface. From the pollen counts, Ambrosia sp. (Fig.3) began to increase at a depth of 8.9 cm (Fig.4). The sedimentation rate for the upper part of core 79 is calculated at 0.99 mm yr-1 of uncompacted sediments or 8.33 mg cm-2 yr-1.

Batchawana Lake - Core 84

Core 84 (Fig.2) was obtained from the northwest part of Batchawana Lake north, 30 meters from shore in 7.9 meters of water. One hundred one samples represent a core length of 112 cm. The sediments were enumerated for pollen from a depth 44.8 cm to the surface. The point of change analyses of the Ambrosia sp. pollen indicates a change occurs at a depth of 12.6 cm (Fig.5). The sedimentation rate for the upper part of core 84 is 1.38 mm yr-1 of uncompacted sediment or 8.46 mg cm-2 yr-1.

Batchawana Lake - Core 85

Core 85 (Fig.2) was collected from Batchawana Lake south. The site was 110 meters from shore in 9 meters of water. Ninety seven samples represent a core length of 98 cm. The sediments were enumerated for pollen from a depth of 44 cm to the surface.

Wishart Lake - Core 86

Core 86 was collected from the northwest end of the lake (Fig. 2). The location was 30 meters from the closest shore and from a water depth of 6.4 meters. Fifty four samples represent a core length of 56 cm. Pollen was enumerated from the sediments from a depth of 93 cm to the surface. From the pollen counts (Fig.6), Ambrosia sp. began to increase at a

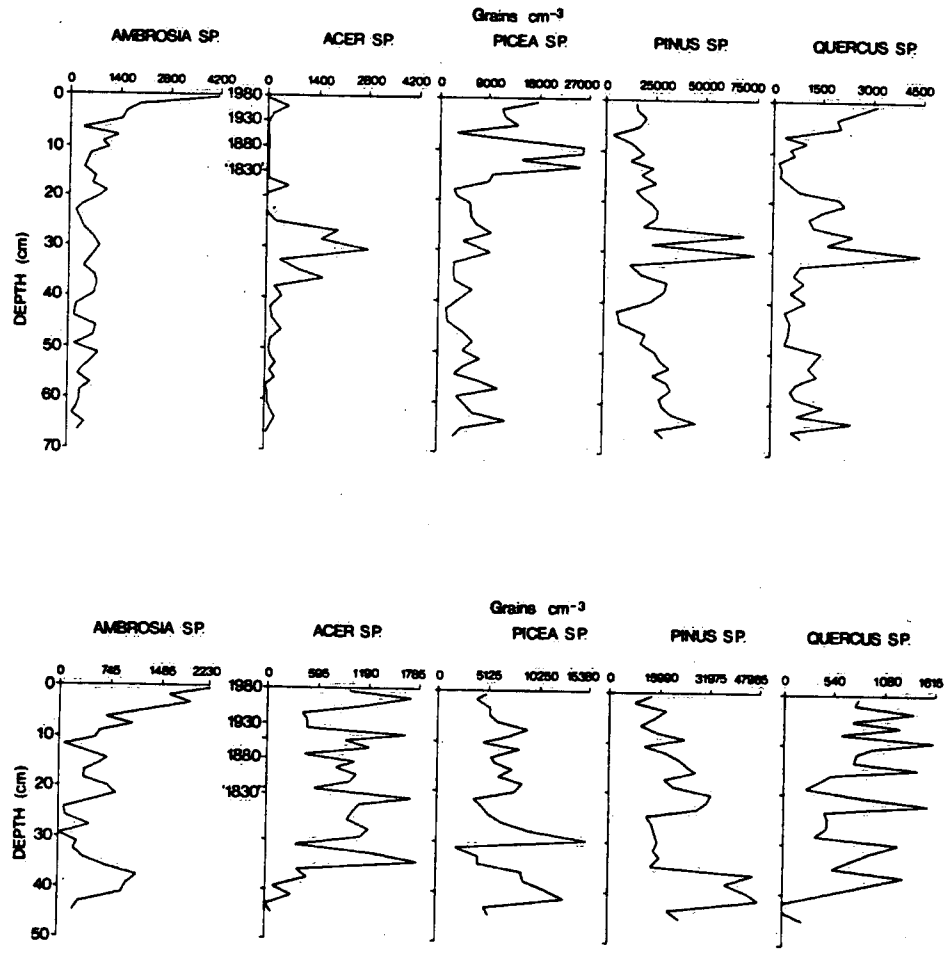


Figure 3. Profiles of Ambrosia sp, Acer sp., Picea sp., Pinus sp., and Quercus sp., for cores 79 (upper) and 84 (lower). Depths are uncompacted.

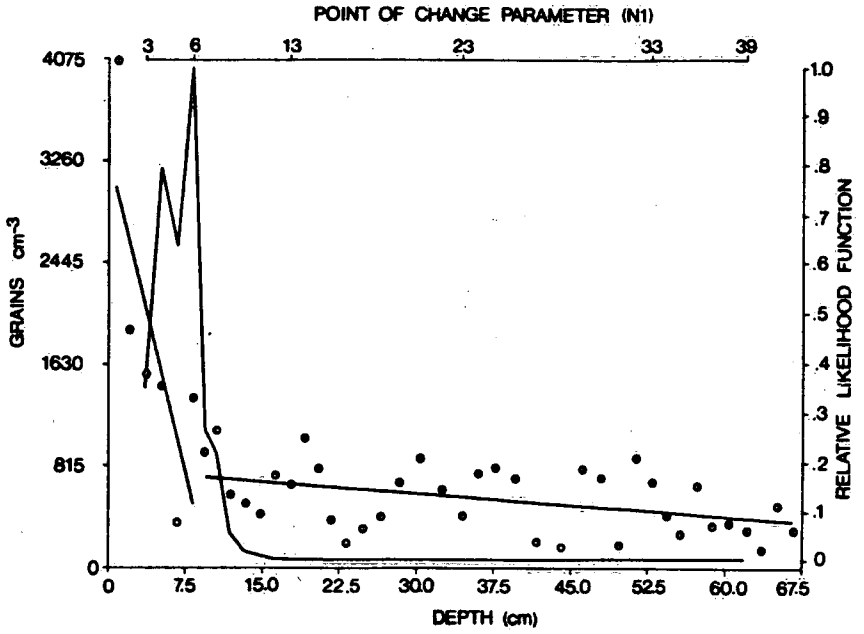


Figure 4. Ambrosia sp. point of change at sample 6 or an uncompacted depth of 8.9 cm for core 79. Volumes and depths are uncompacted.

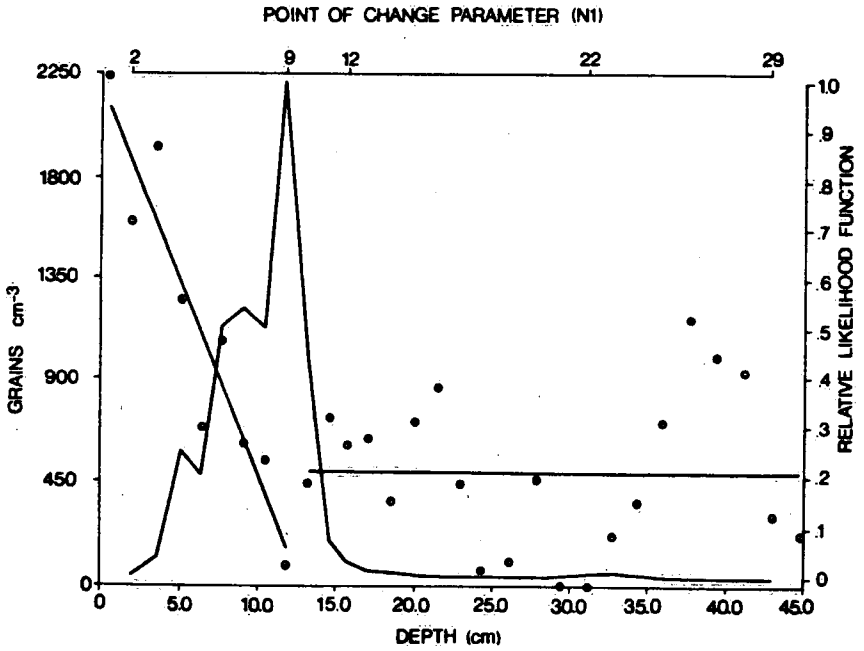
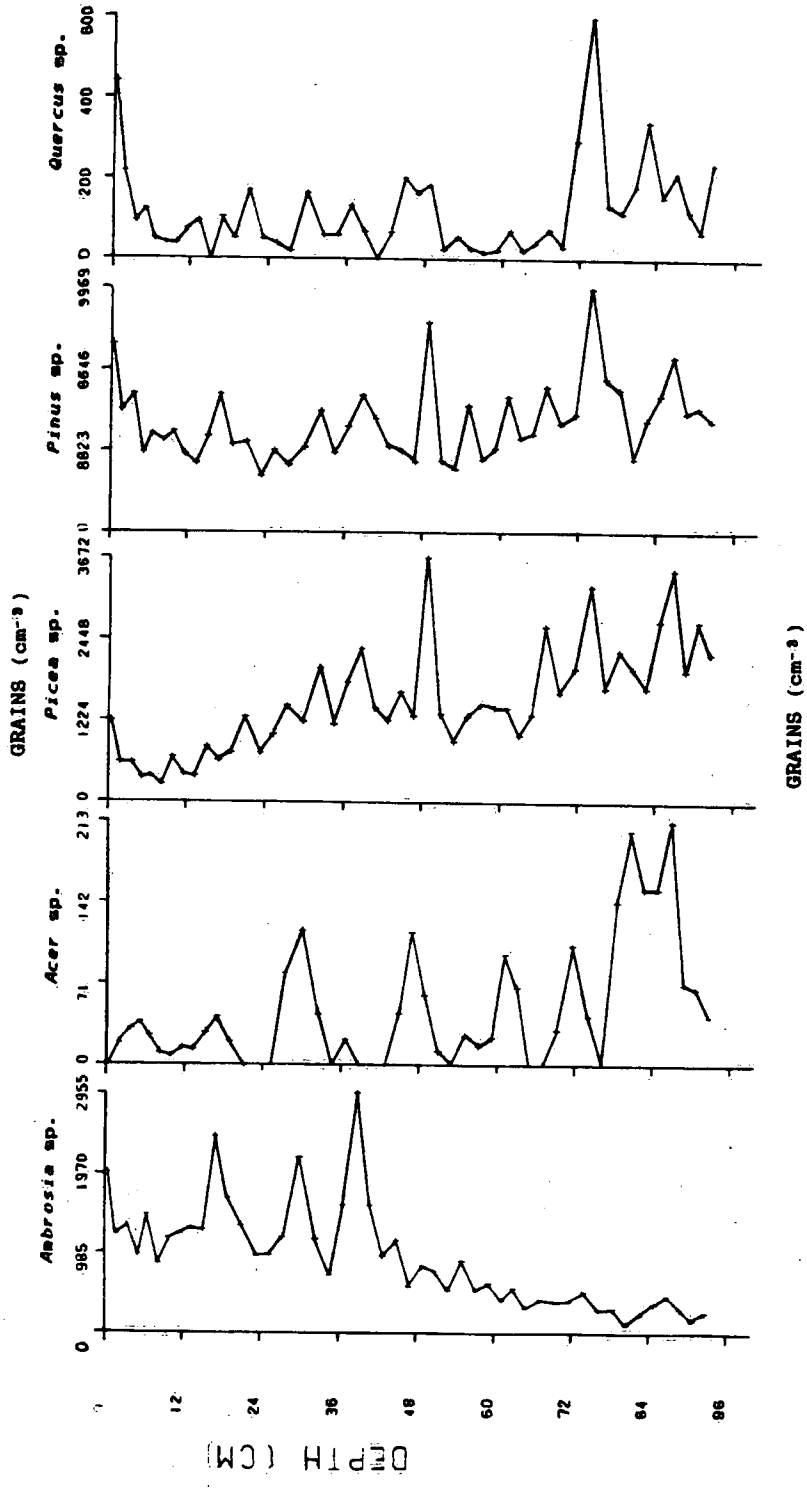


Figure 5. Ambrosia sp. point of change at sample 9 or an uncompacted depth of 12.6 cm for core 84. Volumes and depths are uncompacted.



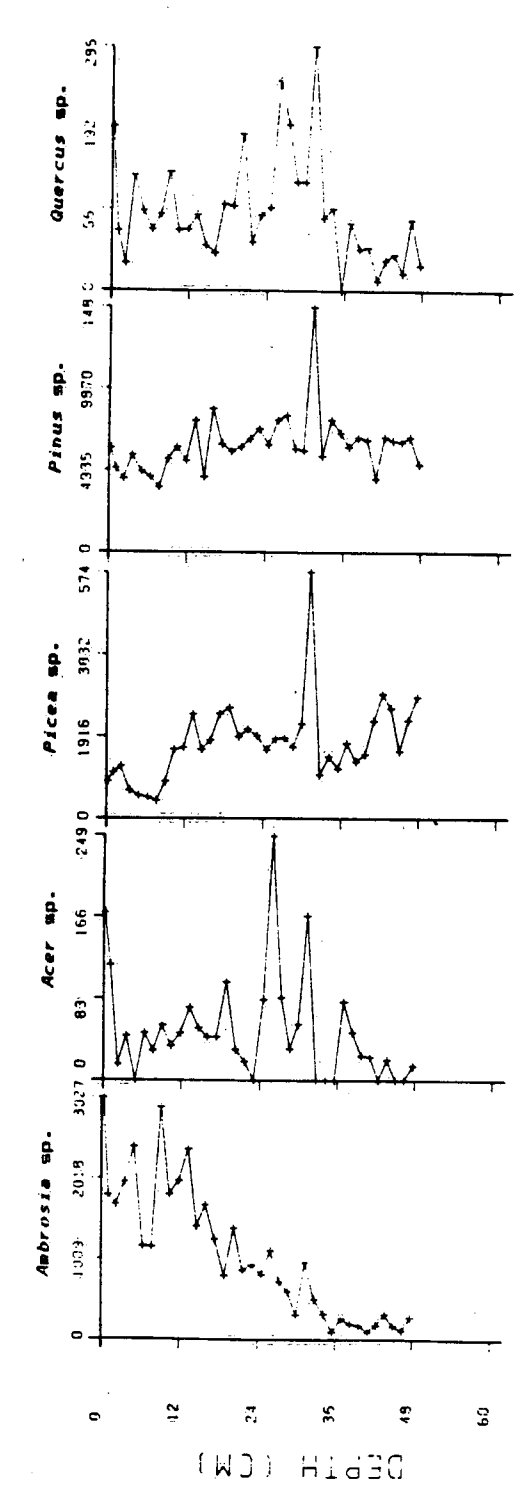


Figure 6. Profiles of Ambrosia sp., Acer sp., Picea sp., Pinus sp., and Quercus sp., for cores 86 (upper) and 87 (lower). Depths are uncompacted.

depth of 46 cm (Fig.7). The sedimentation rate for the upper 46 cm of the core was 5.04 mm yr-1 of uncompacted sediments or 11.98 mg cm-2 yr-1.

Wishart Lake - Core 87

The southeast part of the lake was the site of core 87 (Fig.2). It was located 100 meters from shore in seven meters of water. A total of 65 samples were collected representing a core length of 68 cm. Pollen was enumerated from the sediments starting at a depth of 48 cm and extending to the surface (Fig. 6). Ambrosia sp. fossil pollen began to increase at a depth of 33.5 cm (Fig.8). The sedimentation rate for the upper 33.5 cm was 3.68 mm yr-1 of uncompacted sediments or 11.43 mg cm-2 yr-1.

Little Turkey Lake - Core 88

Core 88 was obtained from 11.3 meters of water a distance of 46 meters from the western shore of Little Turkey Lake (Fig.2). The core which was 80 cm long, was sliced up into 77 samples. Enumeration of the fossil pollen (Fig.9) started at a depth of 58 cm and extended to the surface. The Ambrosia sp. rise, detected by the point of change method (Fig.10), started at 23 cm. The sedimentation rate for the top 23 cm was 2.52 mm yr-1 of uncompacted sediments or 8.68 mg cm-2 yr-1.

Little Turkey Lake - Core 89

This core was collected from the deepest part of the lake at a depth of 15.8 meters a distance of 152 meters from shore (Fig.2). The 68 samples of the core represent a length of 75 cm. Starting at a depth of 99 cm, and working up to the surface, fossil pollen was enumerated from the sediments

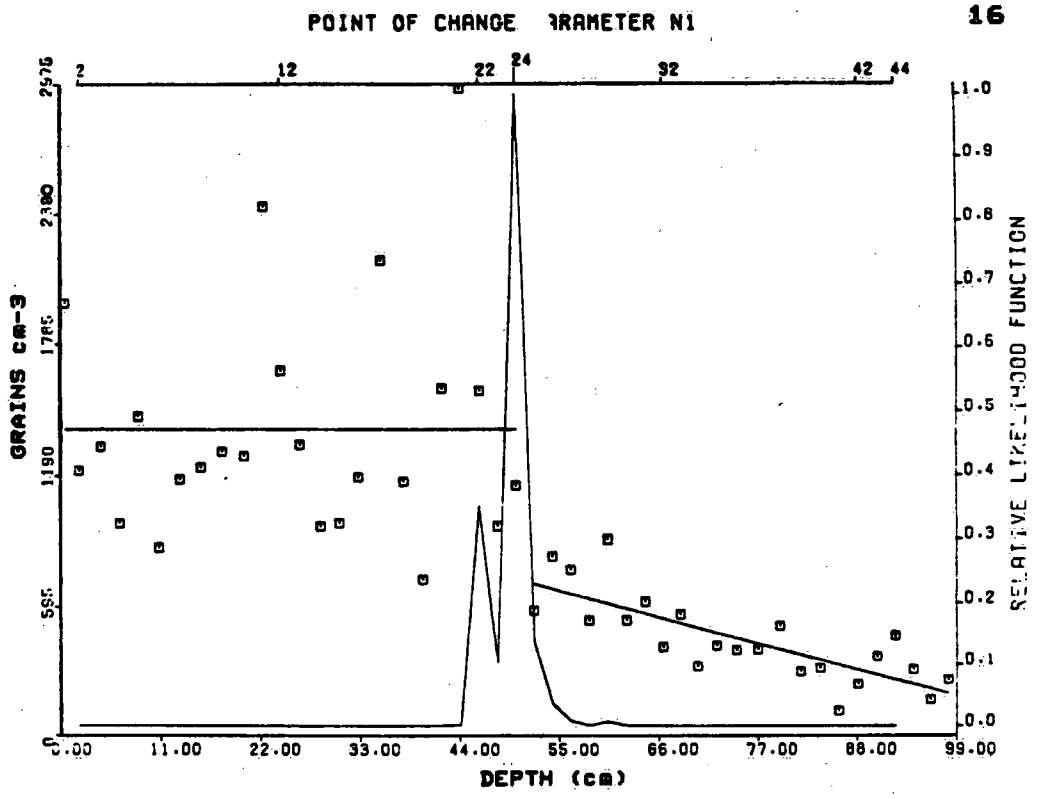


Figure 7. Ambrosia sp. point of change at sample 24 or an uncompacted depth of 46 cm for core 86. Volumes and depths are uncompacted.

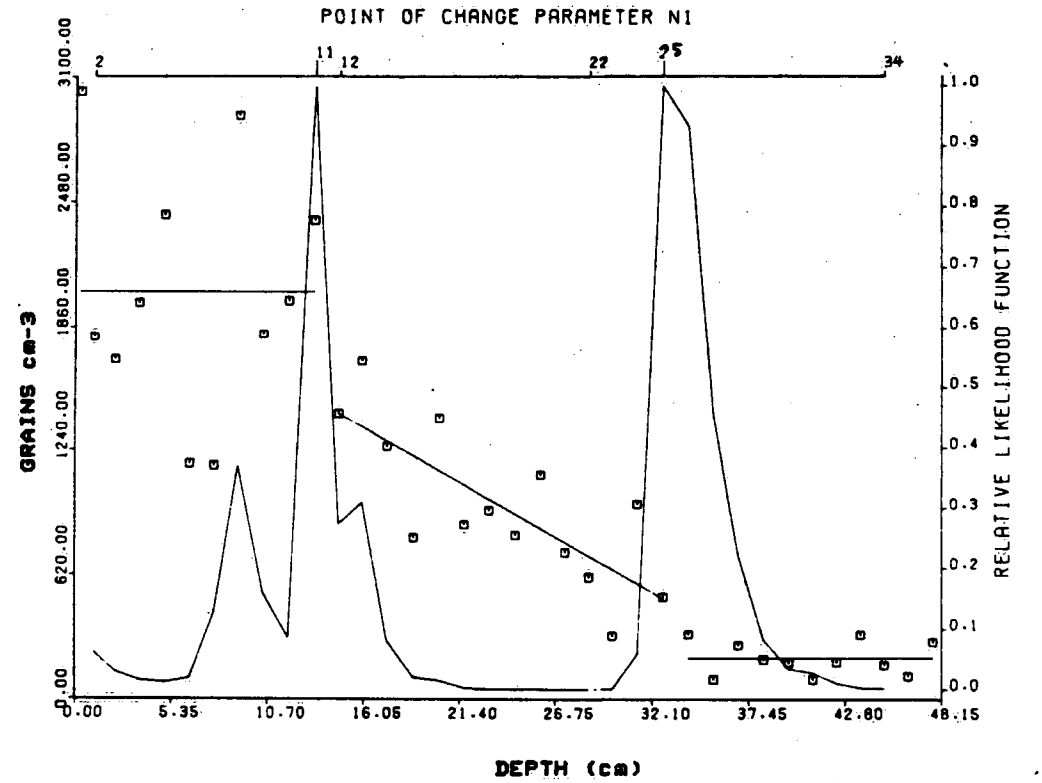


Figure 8. Ambrosia sp. point of change at sample 14 or an uncompacted depth of 16.6 cm for core 87. Volumes and depths are uncompacted.

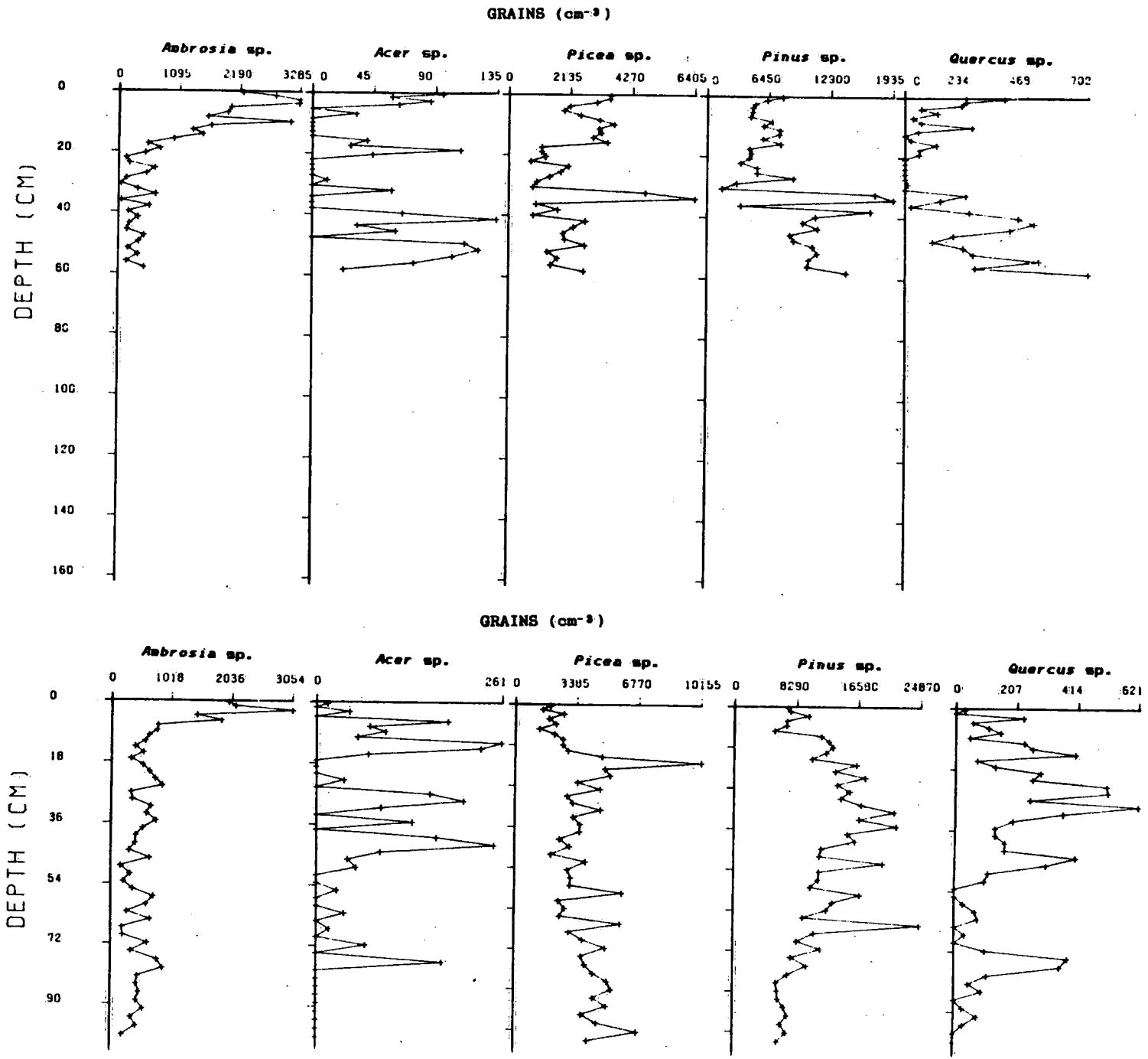


Figure 9. Profiles of Ambrosia sp, Acer sp., Picea sp., Pinus sp., and Quercus sp., for cores 88 (upper) and 89 (lower). Depths are uncompacted.

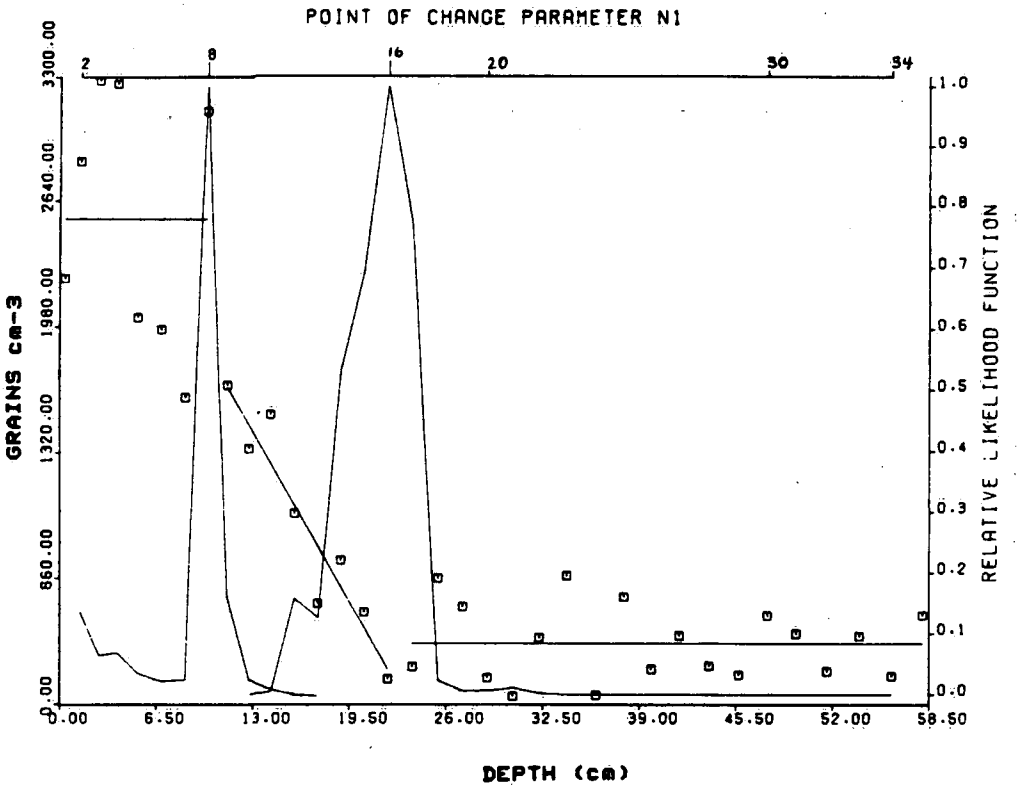


Figure 10. *Ambrosia* sp. point of change at sample 8 or an uncompacted depth of 23 cm for core 88.

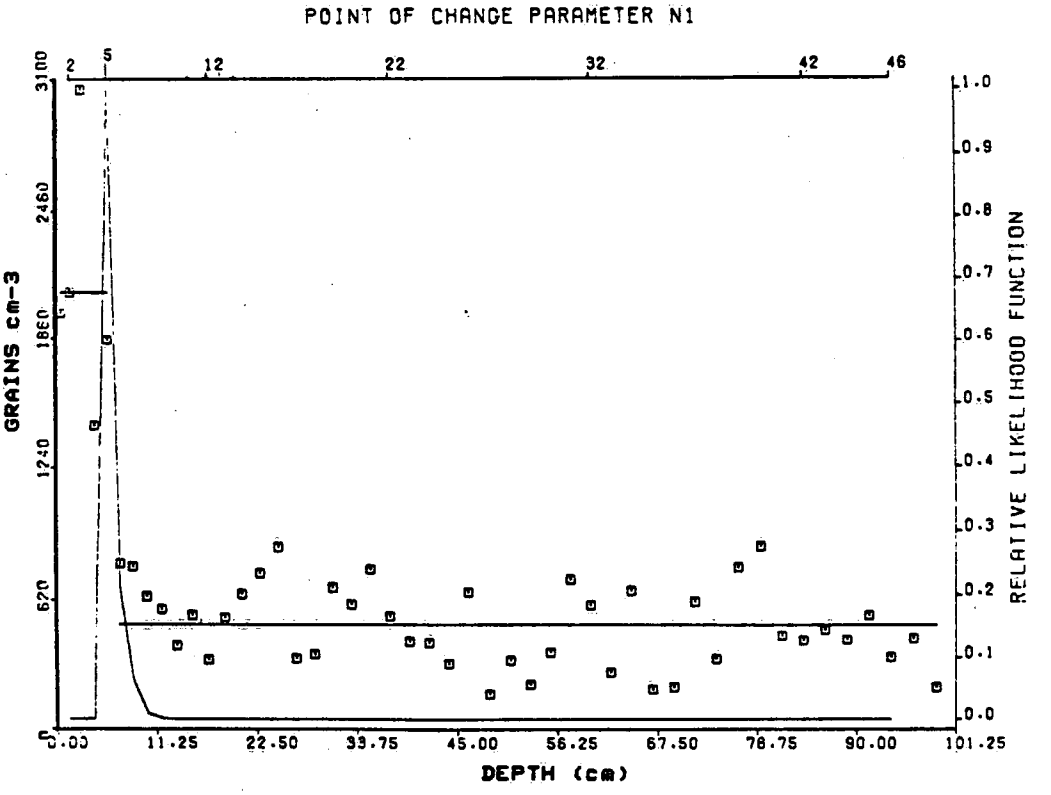


Figure 11. *Ambrosia* sp. point of change at sample 5 or an uncompacted depth of 6.4 cm for core 89.

(Fig.9). The Ambrosia sp. rise was identified as starting at a depth of 6.4 cm (Fig.11). Sedimentation rate of 0.76 mm yr-1 of uncompacted sediments or 3.52 mg cm-2 yr-1 was calculated for the top 6.4 cm.

Turkey Lake - Core 80

Core 80 collected from the broad channel to the north of the main body of the lake was from 5.2 meter of water about one kilometer from shore (Fig.2). The core length was 45 cm and subdivided into 36 samples. Enumeration of the fossil pollen started at a depth of 49 cm and continued to the surface (Fig.12). The Ambrosia sp. rise started at a depth of 19 cm (Fig.13). A sedimentation rate was calculated at 2.11 mm yr-1 of uncompacted sediments or 58 mg cm-2 yr-1 for the top 19.0 cm.

Turkey Lake - Core 90

The deepest part of the lake, 36.9 meters, was the site of this core, about 1.4 kilometers from shore. The core, 65 cm long, was subdivided into 58 samples. Starting at a depth of 53 cm, fossil pollen was enumerated from the sediments (Fig.12). The Ambrosia sp. rise started at 6.6 cm (Fig.14). The sedimentation rate for the upper 6.0 cm was 0.73 cm yr-1 or 6.11 mg cm-2 yr-1.

SEDIMENTOLOGY

The organic content of the sediment cores is a function of where the cores were obtained within the lakes. Core 87 from Wishart Lake had the highest percentage (21) of organic carbon while Turkey Lake (core 80) had the lowest percentage at zero. Organic carbon does not appear to have influenced

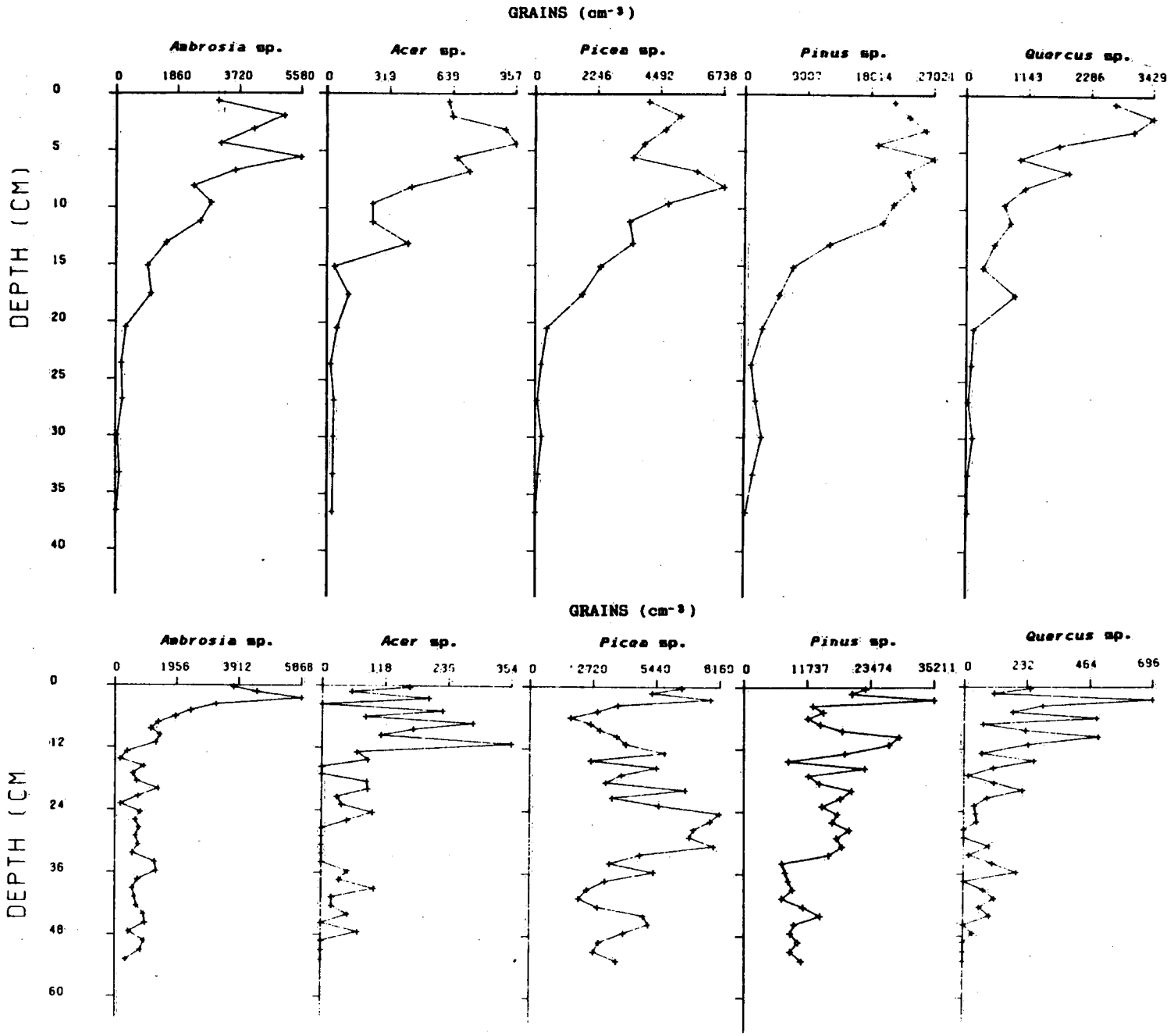


Figure 12. Profiles of Ambrosia sp, Acer sp., Picea sp., Pinus sp., and Quercus sp., for cores 80 (upper) and 90 (lower). Depths are uncompacted.

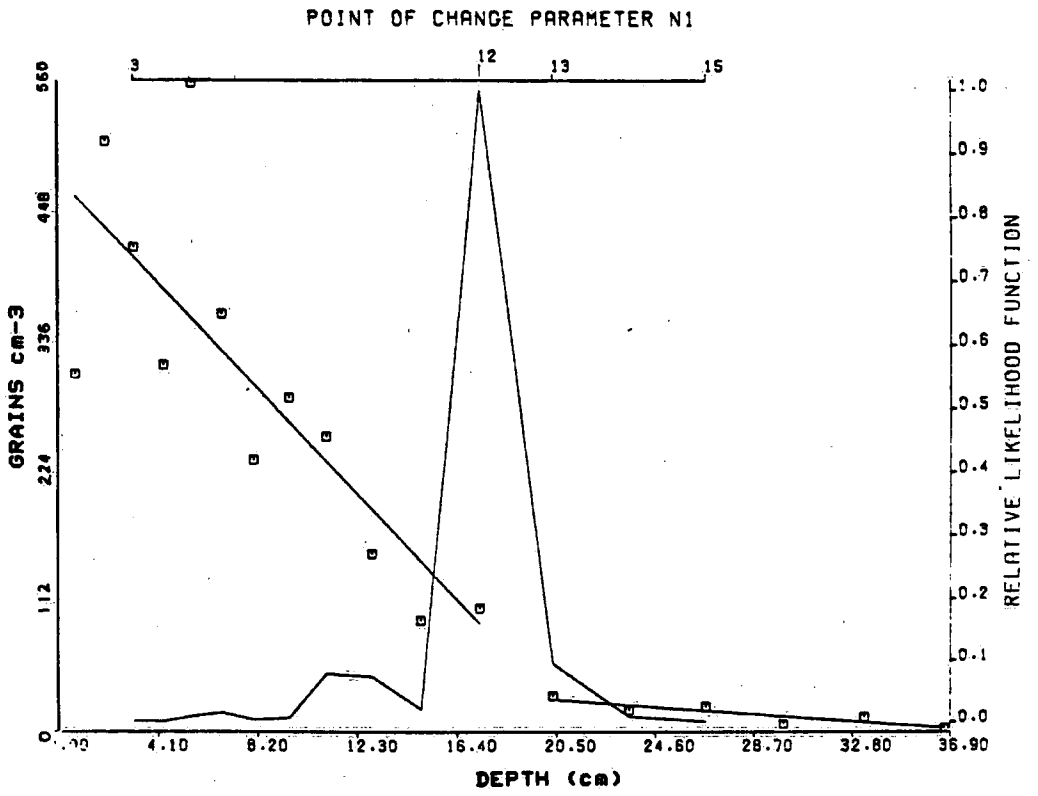


Figure 13. Ambrosia sp. point of change at sample 12 or an uncompacted depth of 19 cm for core 80. Volumes and depths are uncompacted.

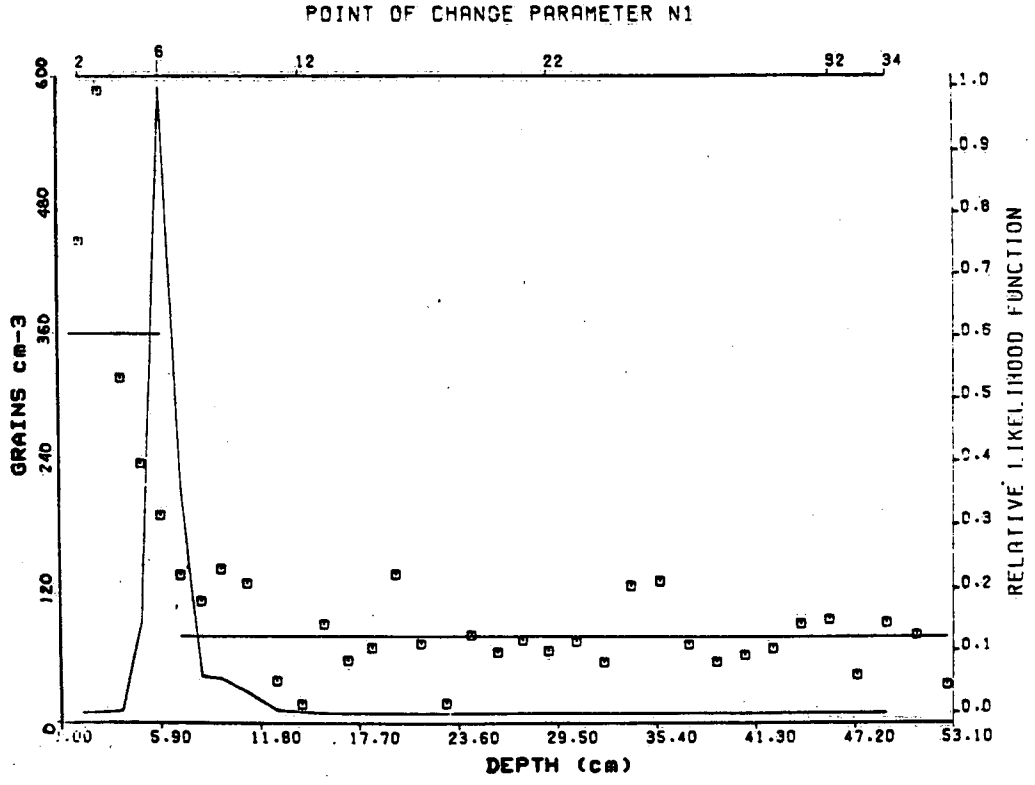


Figure 14. Ambrosia sp. point of change at sample 6 or an uncompacted depth of 6.6 cm for core 90. Volumes and depths are uncompacted.

the porosity of the sediments. Stepwise multiple regression analyzes indicate organic carbon volume had little effect on porosity, explaining less than half a percent of the variability seen in porosity.

Batchawana Lake - Core 79

The distribution of dry weight shows an increase at a depth of 53 cm (Fig.15). It reached its maximum at 42 cm and 29 cm then gradually decreased to its present level. The specific gravity of the sediments based on seven determinations is 1.770±.093 of the dry wseven.

Batchawana Lake - Core 84

Core 84, located northwest of the beaver dam and core 79, shows a gradual increase in dry weight from 182 to 110 cm then a gradual decrease to 15 cm and then a slight increase except for the last cm (Fig.16). The specific gravity of the sediments based on 10 determinations is 1.665±.076.

Batchawana Lake - Core 85

The distribution of dry weight for core 85 does not show the marked increase in dry weight of core 79 (Fig.17). The specific gravity of the sediments based on eight determinations is 1.572±.058.

Wishart Lake - Core 86

There is a gradual decrease in the dry weight of sediment (25.5 to 20.4 mg cm-3) from the bottom of the core (Fig.18) up to a depth 17 cm (1947 AD.) and then increases again. The specific gravity of the sediments based on five determinations is 1.686±.003.

Wishart Lake - Core 87

Similar to core 86, there is a gradual decrease in the

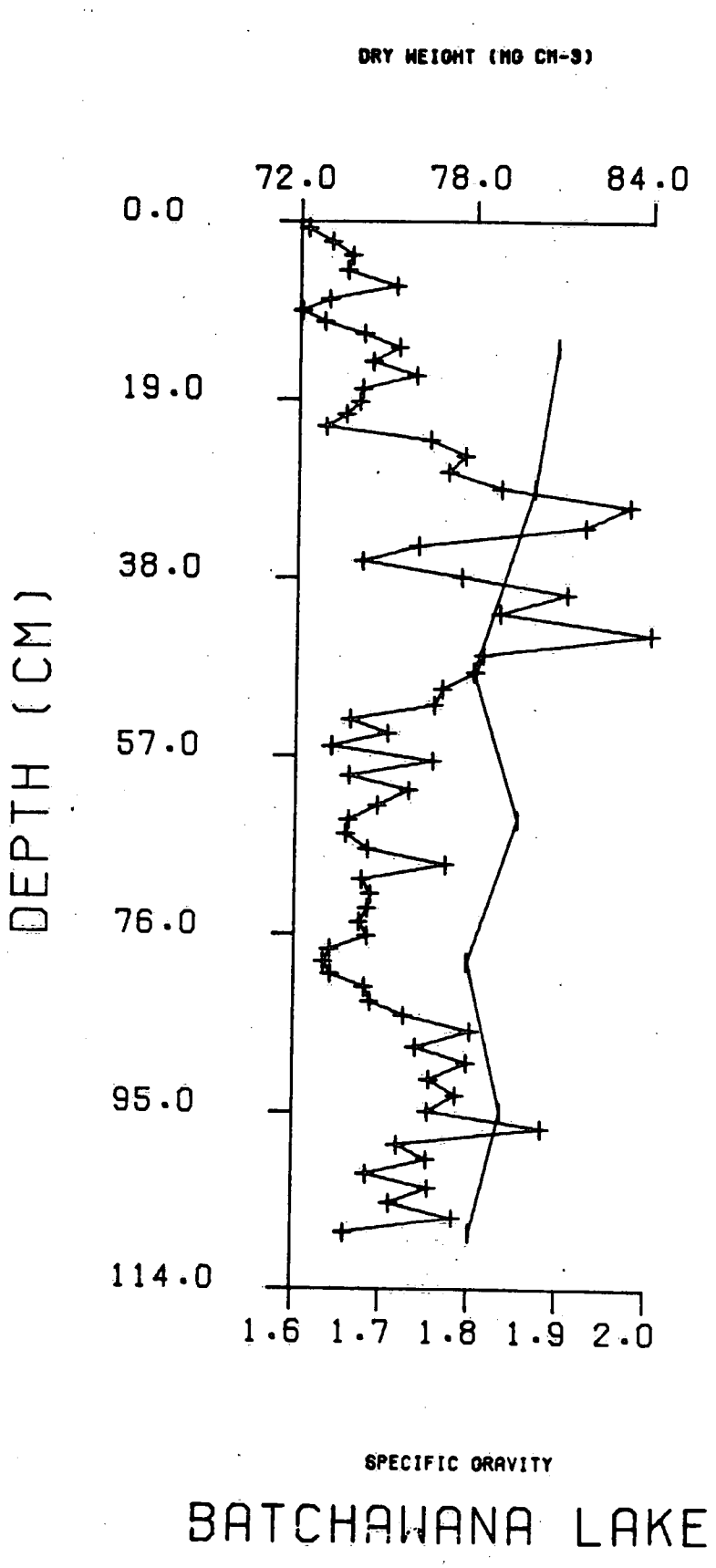


Figure 15. Distribution of dry weight (+) and specific gravity (') for core 79. Volumes and depths are uncompacted.

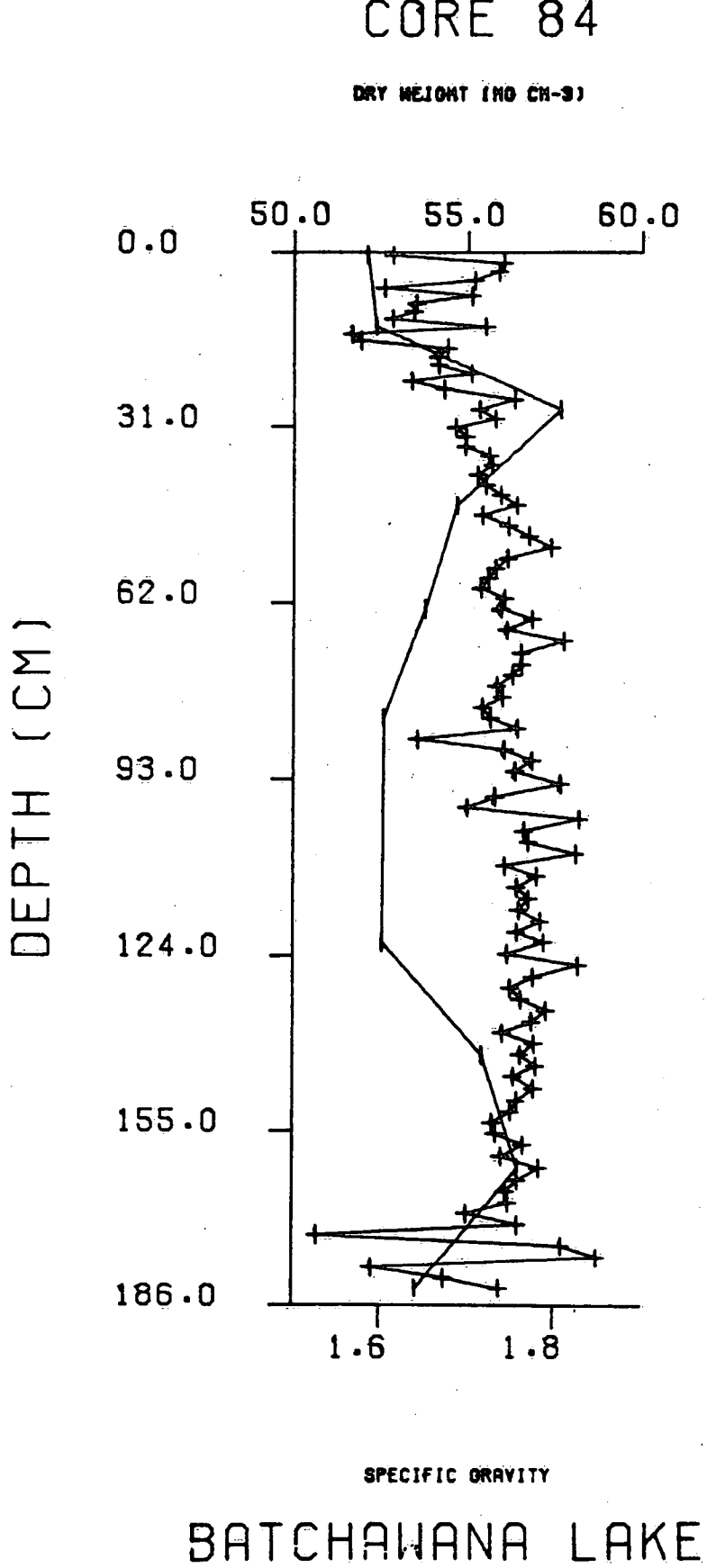


Figure 16. Distribution of dry weight (+) and specific gravity (') for core 84. Volumes and depths are uncompacted.

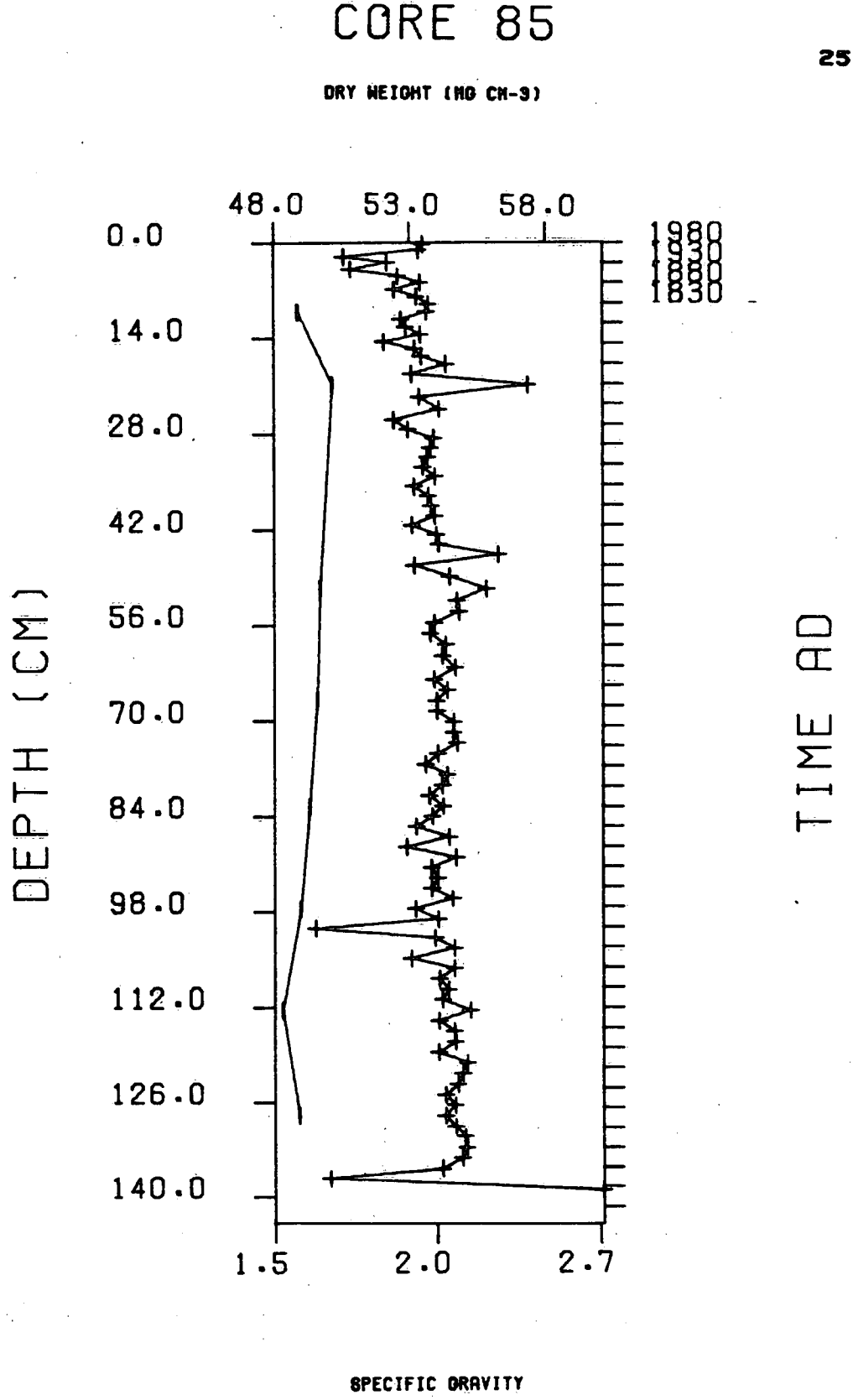


Figure 17. Distribution of dry weight (+) and specific gravity (') for core 85. Volumes and depths are uncompacted.

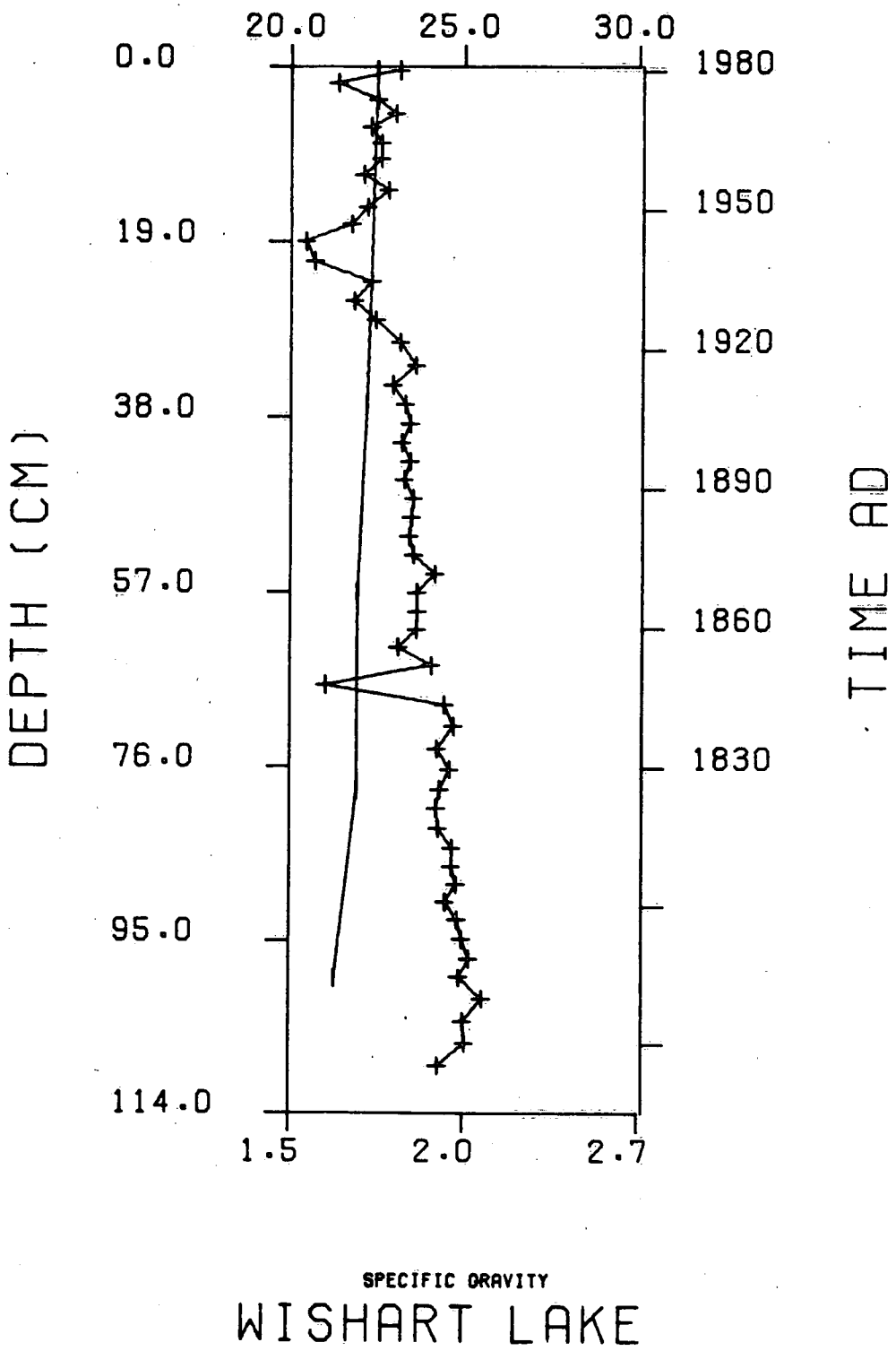


Figure 18. Distribution of dry weight (+) and specific gravity (') for core 86. Volumes and depths are uncompacted.

dry weight of the sediment (33.3 to 26.0 mg cm-3) up to a depth of 9.1 cm (1922 A.D.) then increases again (Fig.19). The specific gravity of the sediments based on five determinations is 1.719±.002.

Little Turkey Lake - Core 88

The dry weight of this core is relatively constant (32 to 36 mg cm-3) to 39.8 cm and then decreases to 30 mg cm-3 at a depth of 11.3 cm (1936 A.D.) and then increases to 33 mg cm-3 (Fig.20).The specific gravity of the sediments based on eight determinations is 1.782±.002.

Little Turkey Lake - Core 89

The dry weight of sediment decreases from the bottom of the core to a low of 38.6 mg cm-3 at a depth of 11.9 cm (Fig.21). The specific gravity of the sediments based on six determinations is 1.824±.002.

Turkey Lake - Core 80

The dry weight of the core (Fig.22) is fairly constant from the bottom of the core to a depth of 36.6 cm after which it decreases to the surface (range 240 to 284 mg cm-3). From 36.6 cm to the surface the dry weight decreases (266 to 212 mg cm-3). The specific gravity of the sediments based on six determinations is 2.478±.013. The presence of pyrite and near absence of organic carbon caused the specific gravity of the sediments to be higher in this core.

Turkey Lake - Core 90

There is a general tendency for the dry weight to decrease (Fig.23) from the bottom to the top of the core (77.4 to 68.3 mg cm-3).Specific gravity of the sediments based on six determinations is 1.955±.003. There is no evidence of the presence of pyrite as shown in the shallower site of core 80.

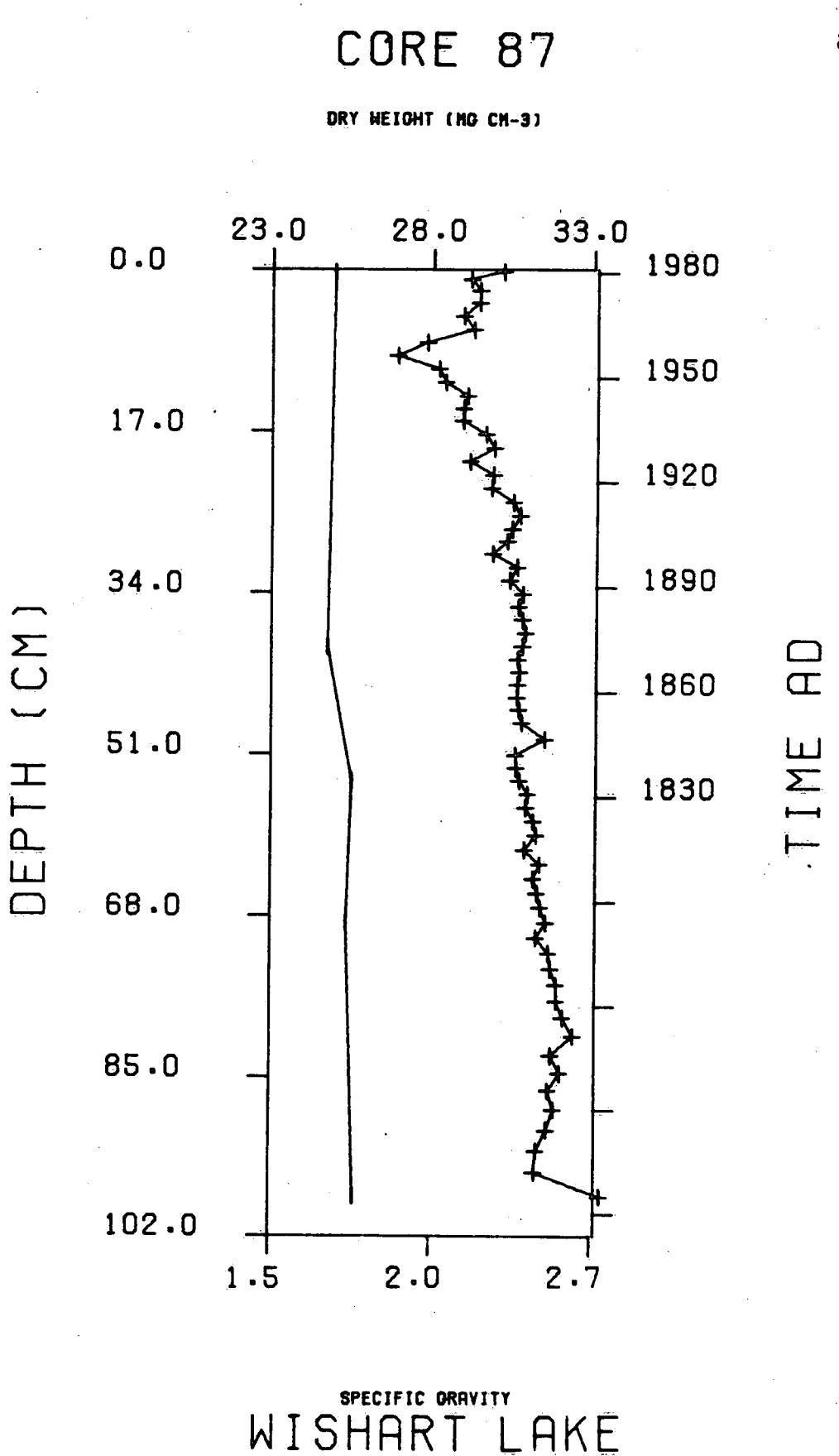


Figure 19. Distribution of dry weight (+) and specific gravity (') for core 87. Volumes and depths are uncompacted.

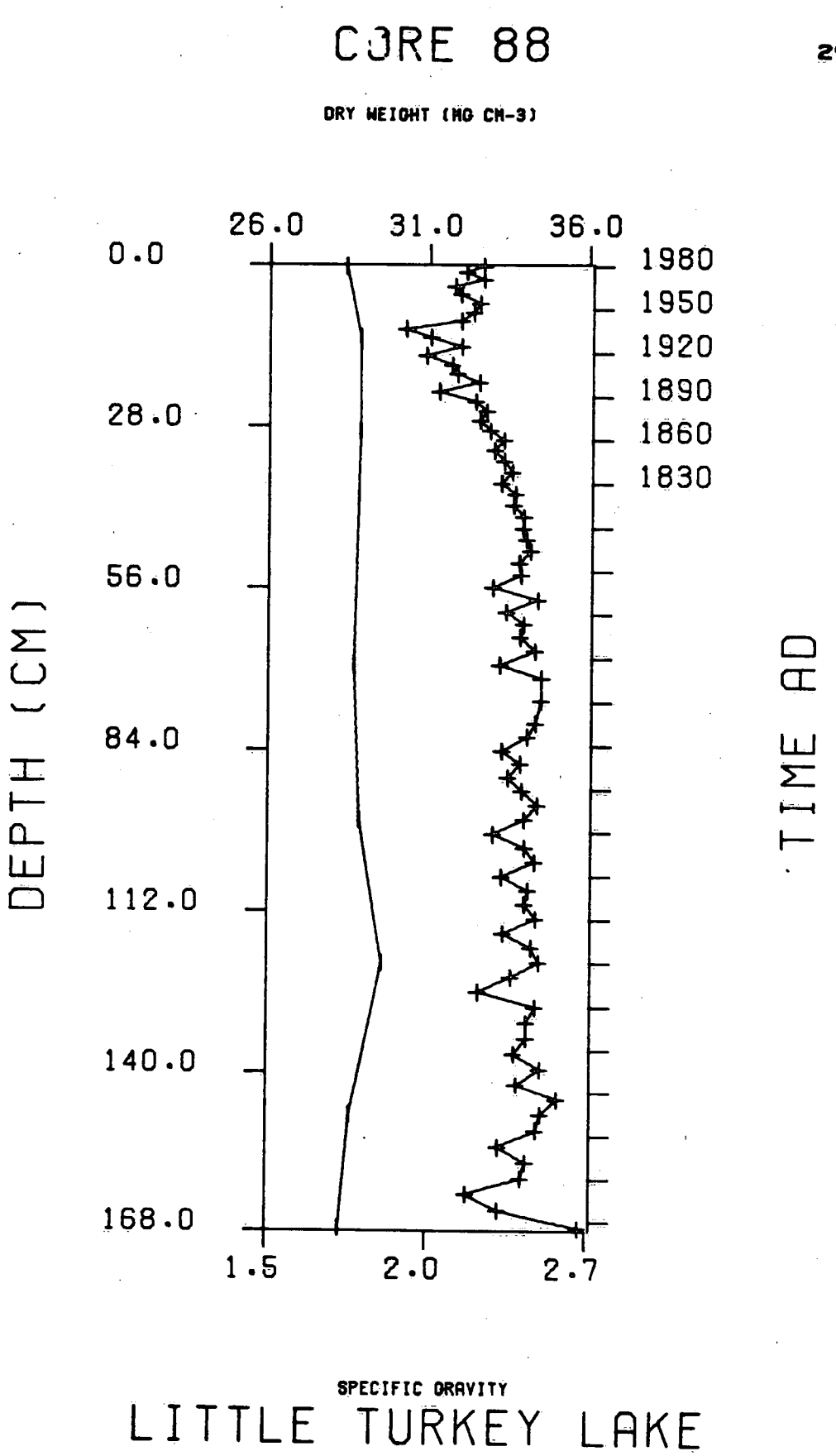


Figure 20. Distribution of dry weight (+) and specific gravity (') for core 88. Volumes and depths are uncompacted.

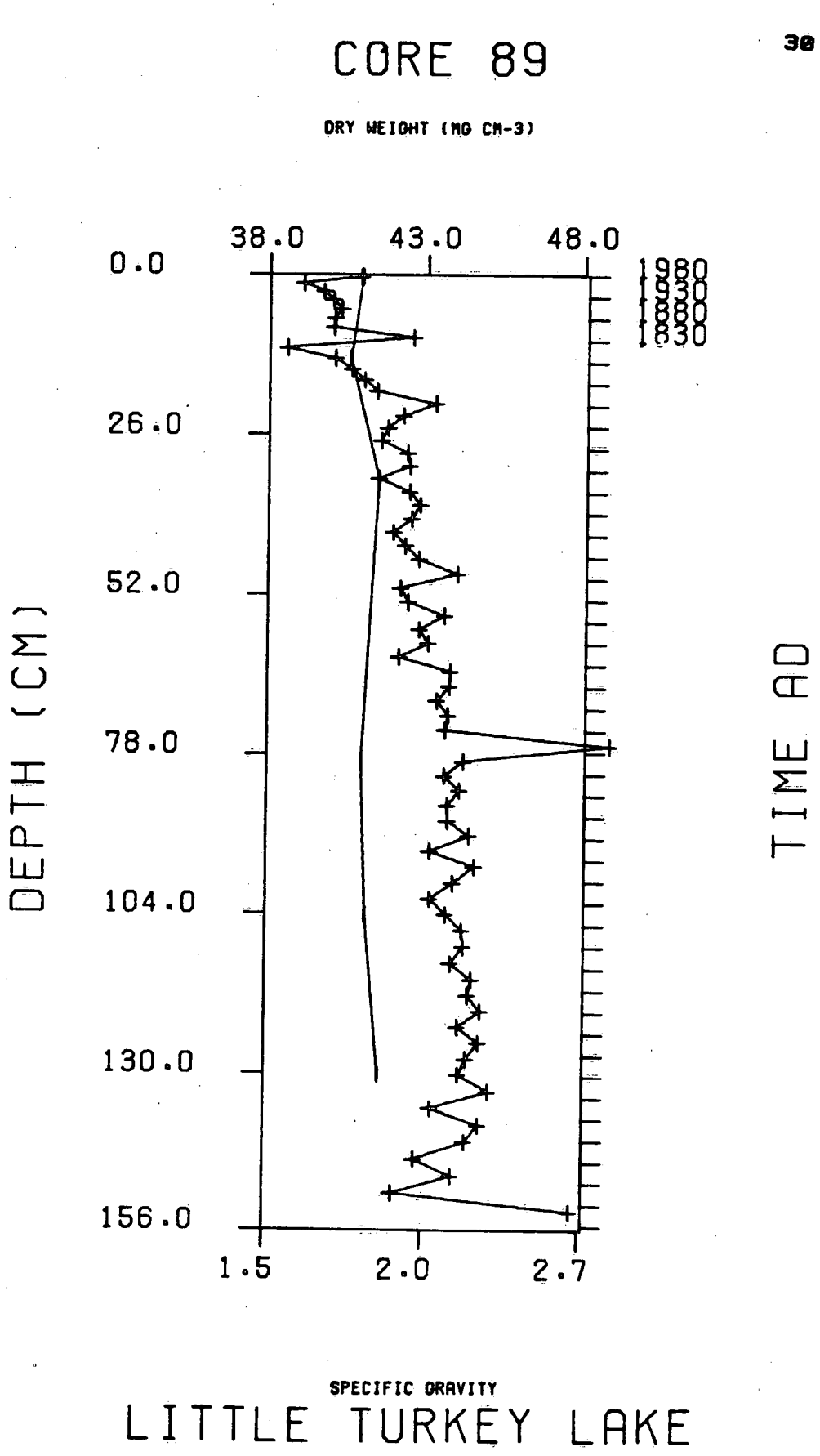


Figure 21. Distribution of dry weight (+) and specific gravity (') for core 89. Volumes and depths are uncompacted.

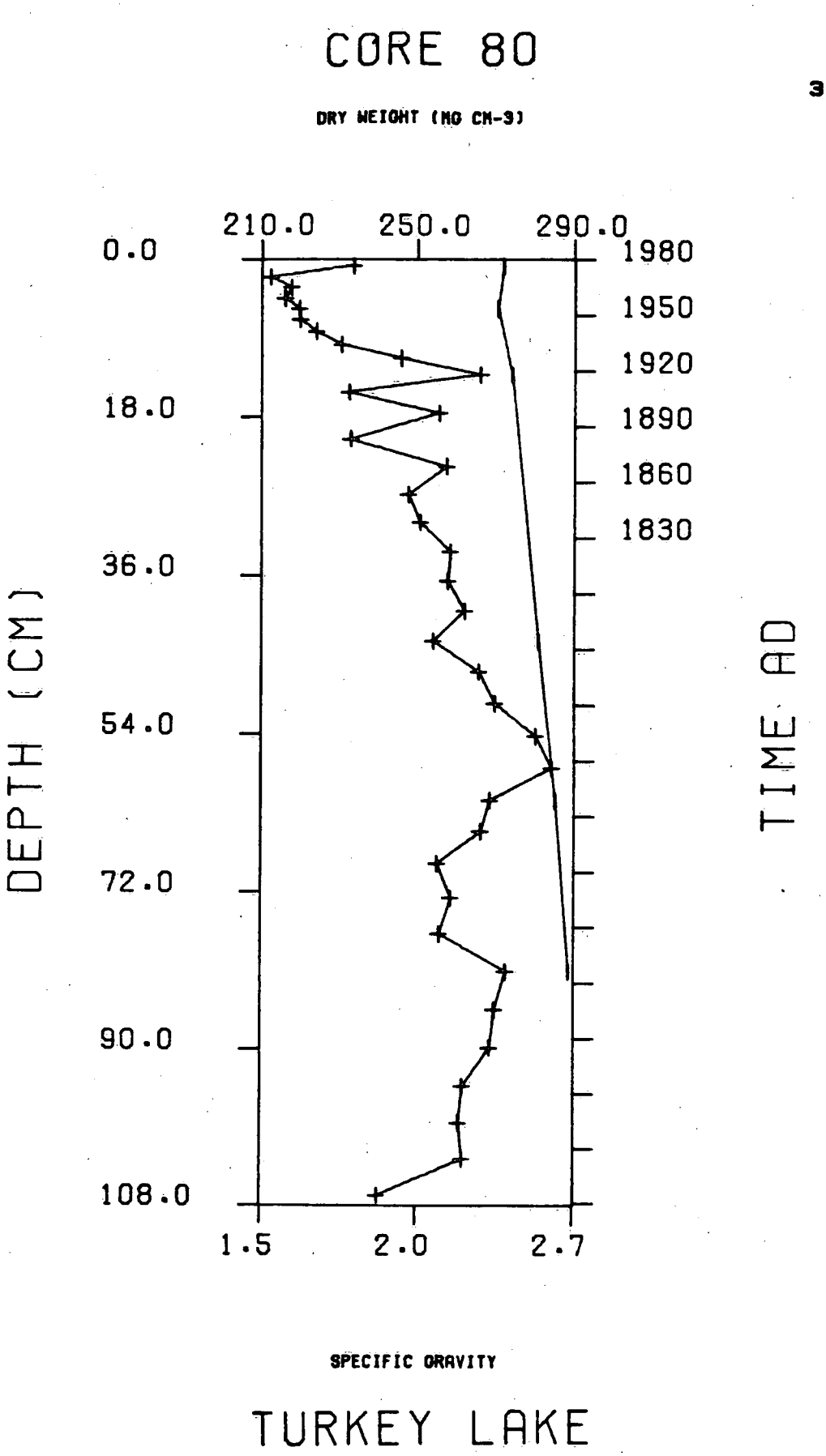


Figure 22. Distribution of dry weight (+) and specific gravity (') for core 80. Volumes and depths are uncompacted.

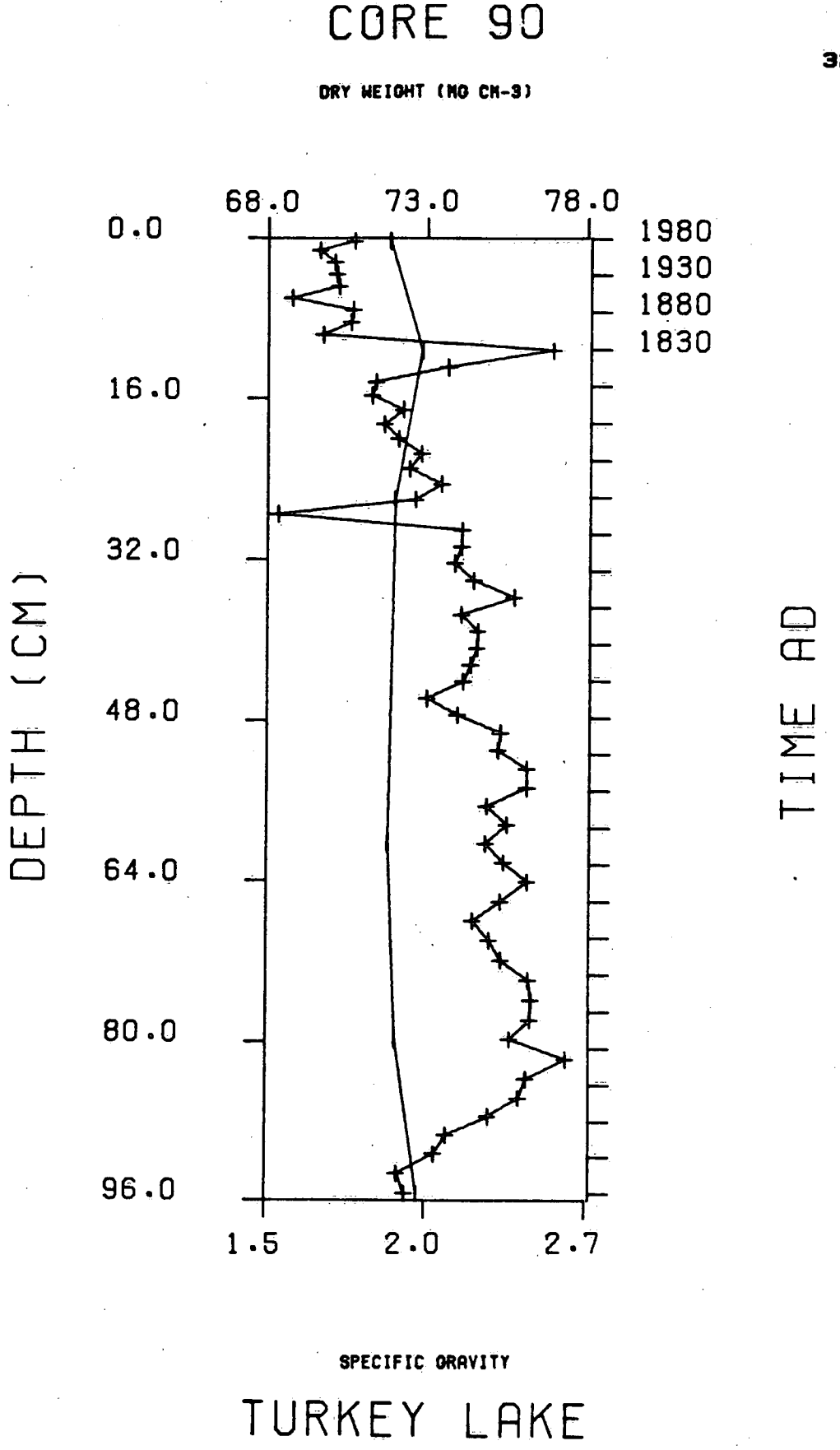


Figure 23. Distribution of dry weight (+) and specific gravity (') for core 90. Volumes and depths are uncompacted.

RESULTS

Batchawana Lake - Core 79

The increase in dry weight between 53 and 22 cm may be the result of closer packing of sediment particles. Finely disseminated organic particles when settled out with clay will produce a closer packing of the particles and in turn increase the pore volume or porosity. In order for there to be an increase in dry weight cm-3 of sample, the basin could have become a settling basin. This would have allowed the finer particles to settle out and increase the porosity. One may speculate that there are two possible mechanisms, or a combination of both: climatic change with a decrease in precipitation and/or an increase in evaporation. This would have had the effect of lowering the water level below the outflow thereby producing a settling basin. The other possible explanation is an obstruction of the outflow. Batchawana Lake is dumbell shaped (Fig.2) with a beaver dam in the constricted portion. Since core 79 is on the side of the dam away from the outflow, its position would have been in the restricted basin. Since beavers sometimes build dams or lodges to maintain a certain water level in a lake, the root cause for the lower water level and building the dam may have been climatic in nature.

The sediments of Batchawana lake are rich in diatoms with about 170 taxa. Preservation in core 79 is good throughout with no evidence of mechanical damage or dissolution of frustules. The sediments were analyzed for diatoms from a depth of 78.9 cm to the surface.

Tabellaria flocculosa, one of the major species, increased in numbers from 77.5 cm and up. This species is common in the littoral zone of Canadian Shield lakes and rivers but is also facultatively planktonic. Between 52 and 46 cm there is a substantial decrease in this species. During this period there was a temporary lowering of the inferred pH (Fig.24) and a change in the counts of several taxa (Fig.25), particularily Surirella delicatissima (Fig.26)

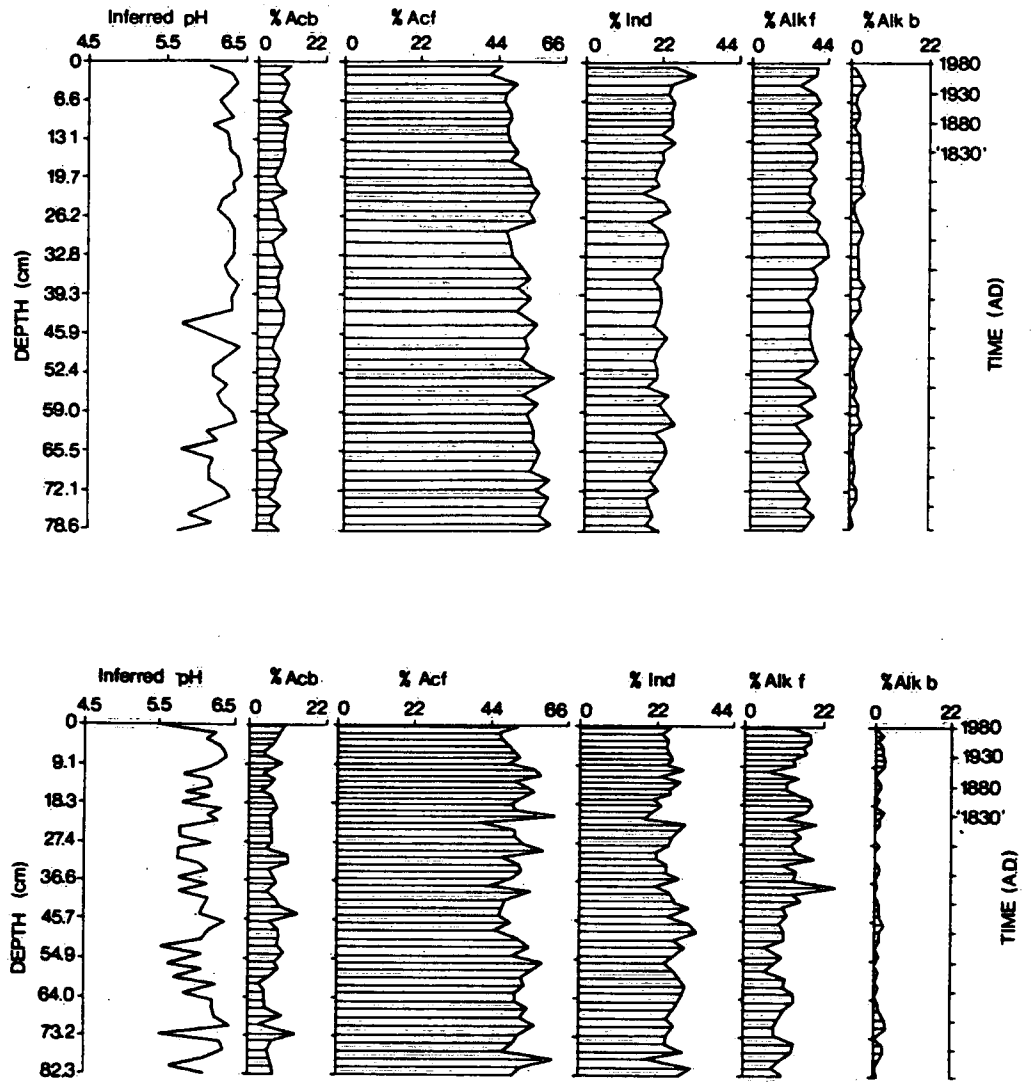


Figure 24. Profiles of inferred pH and pH categories for cores 79 (upper) and 84 (lower). The inferred pH was calculated from the equation by Davis & Anderson, 1985 (pH=6.4204-.83281LogB). Index B is based on the percentage of diatoms in each of five pH categories: Acb = acidobiontic, Acf = acidiphilous, Ind = indifferent, Alkf = alkaliphilous, Alkb = Alkalibiontic. Date determined from the point of change of Ambrosia sp. at 1890 A.D. Volumes and depths are uncompacted.

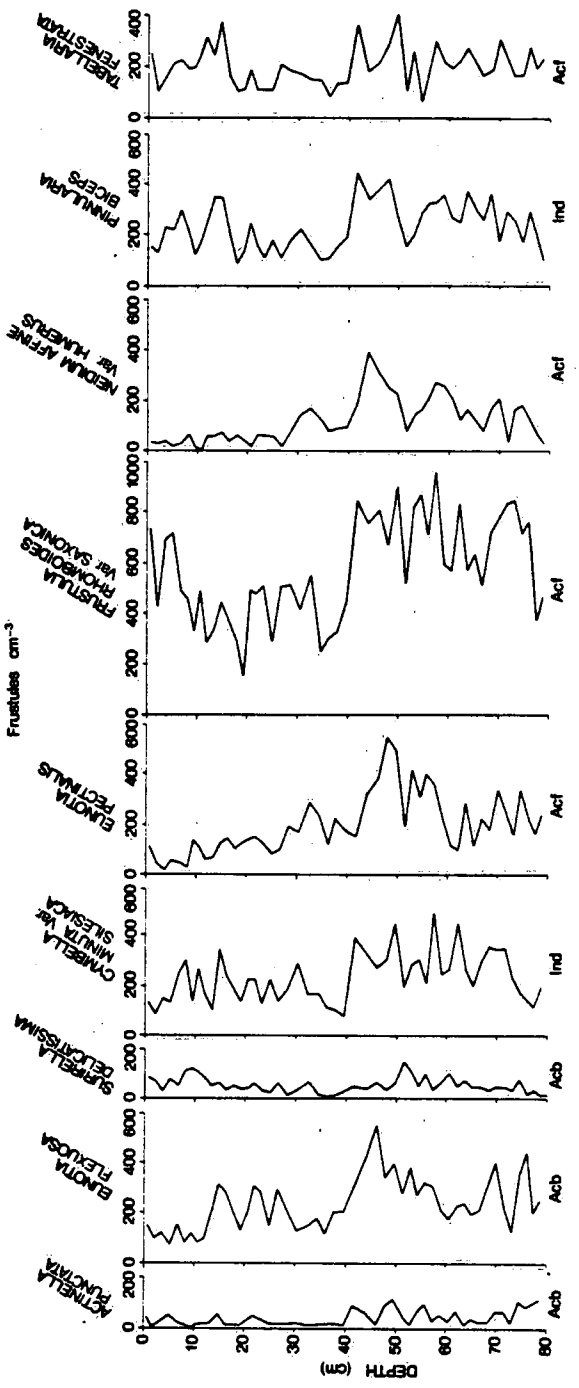


Figure 25. Selected diatom profiles for core 79. Volumes and depths are uncompacted.

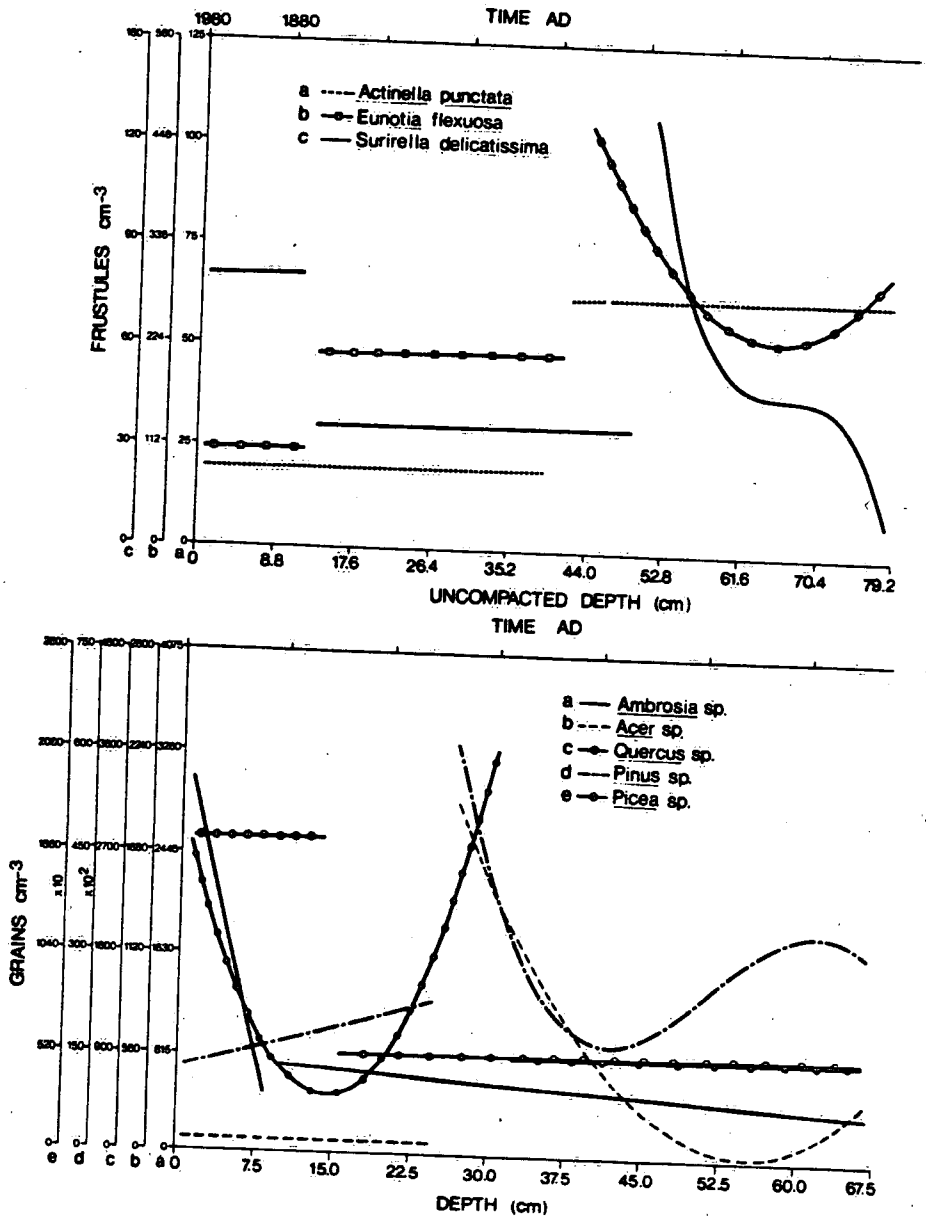


Figure 26. Point of change summaries for pollen and diatoms of core 79. The change in Quercus sp. pollen occurred at 31.4 cm while the pollen production of Acer sp. and Pinus sp. species dropped after 25.7 cm. The productivity of the diatom Surirella delicatissima dropped and levelled off at 50.5 cm as did Eunotia flexuosa at 47 cm. Actinella punctata productivity decreased at 40.6 cm. S. delicatissima increased again after 11.3 cm. Volumes and depths are uncompacted. For the sake of clarity, individual points have been omitted.

and several taxa of Eunotia sp. The temporary decline in inferred pH was reflected by a decrease in the plankter Cyclotella stelligera, classified here as alkaliphilic (-1). For example, its numbers declined from 125 before the disturbance, to 60 diatoms cm-3 of uncompacted sample. It is speculated that turbidity above the beaver dam was responsible for this decline. Subsequently, there was a slow increase in several alkaliphiles and in particular Cyclotella stelligera and C. comta. Populations of most acidiphiles remained steady (Fig.24).

The decline in pH, from 1945 AD to the surface, is reflected by several diatoms. Cyclotella comta declined in numbers, and several acidiphiles and acidobionts increased, e.g., Frustulia rhomboides var. saxonica, and Surirella delicatissima (Fig.25) are positively correlated with dissolved organic carbon (DOC) whereas some Cyclotella sp. and Achnanthes sp. are negatively correlated with DOC (Anderson and Davis, pers. commun.). In the surface samples several of the circumneutral taxa declined. Cymbella minuta var. silesiaca, and Pinnularia biceps. The inferred pH from the top sample was 6.0 which compares favorably with a hypolimnetic pH value of 6.03.

From a depth of 53 to 41.8 cm Pinus sp. decreased while Acer sp. increased (Fig.3). This period coincided with the establishment of the beaver dam. Acer sp. pollen increased from 55.9 to 26.7 cm, while Pinus sp. increased subtantially from 41.8 to 26.7 cm. Acer sp. and Pinus sp. pollen production decreased sharply after 25.7 cm. Quercus sp. until this time had been at a low level, however, there was a sharp rise in Quercus sp. pollen production at 31 cm but then it declined rapidily. These changes in pollen production spanned about 15.5 cm. There is no corresponding increase or decrease in diatoms for this part of the core. Another break in pollen production occurred between 14.9 and

and 12 cm. Quercus sp. declined rapidly at first, then increased just as rapidily. Picea sp. which had a constant pollen production until 14.9 cm suddenly increased and levelled off.

Batchawana Lake - Core 84

The flora was distinctly related to that of core 79 but contained higher numbers of Pinnularia sp. and Cyclotella sp. (Fig.27). Preservation was exellent throughout the core. The sediments were analyzed for diatoms from a depth of 82.2 cm to the surface.

The evidence indicates a major disturbance occurred to the lake ecosystem between 54 to 48 cm (Fig.28). The minimal values of inferred pH during this period corresponded to low numbers of Cyclotella sp. and Melosira sp. (Fig.24). The increase in Eunotia exigua should be noted. This is one of the most faithful acidobionts in shield Lakes (M.C. Taylor). There were increasing numbers of Cyclotella comta and Cyclotella stelligera, while Tabellaria flocculosa declined over much of this period before increasing in the top 25 cm. In the top 10 cm the numbers of the very abundant pH indifferent species, Pinnularia biceps and Pinnularia microstauron, tended to decline. In the two samples nearest the surface there was an increase in several acidiphiles, Frustulia rhomboides, several species of Neidium sp., and Tabellaria flocculosa. As noted above, Frustulia rhomboides is highly correlated with DOC indicating humification. Changes in the numbers of acidobiontic species did not appear to exert a major influence on diatom inferred pH in this core. The inferred pH for the top sample is 5.6.

The major break in pollen production occurred after 36 cm. At this time Pinus sp. decreased while Acer sp. increased (Fig.3). This pattern is similar to that seen for core 79. Picea sp. pollen continued to decline until about 33 cm. At a depth of 30 cm the Picea sp. pollen count was much higher and proceeded to drop rapidly until 20.8 cm.

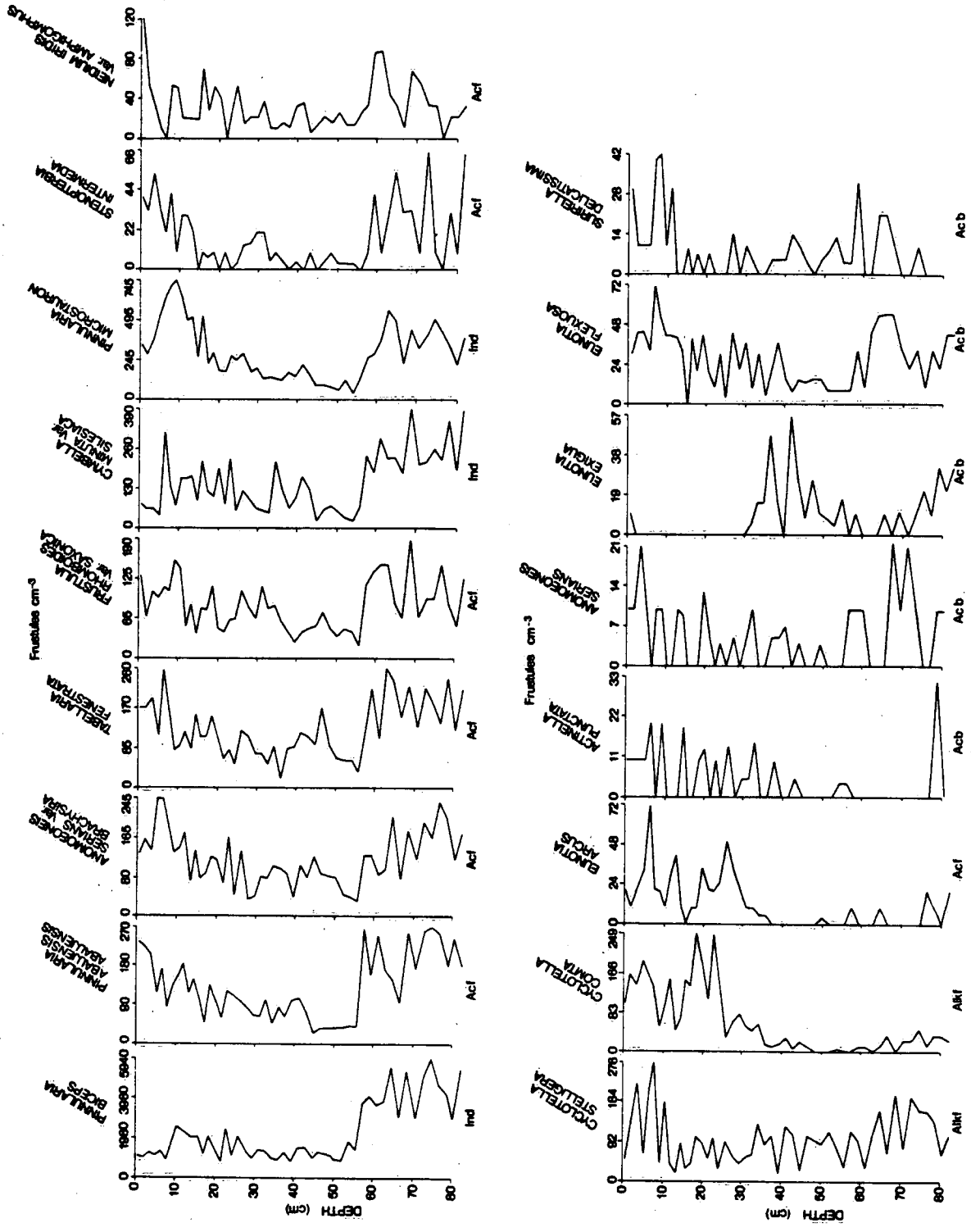


Figure 27. Selected diatom profiles for core 84. Volumes and depths are uncompacted.

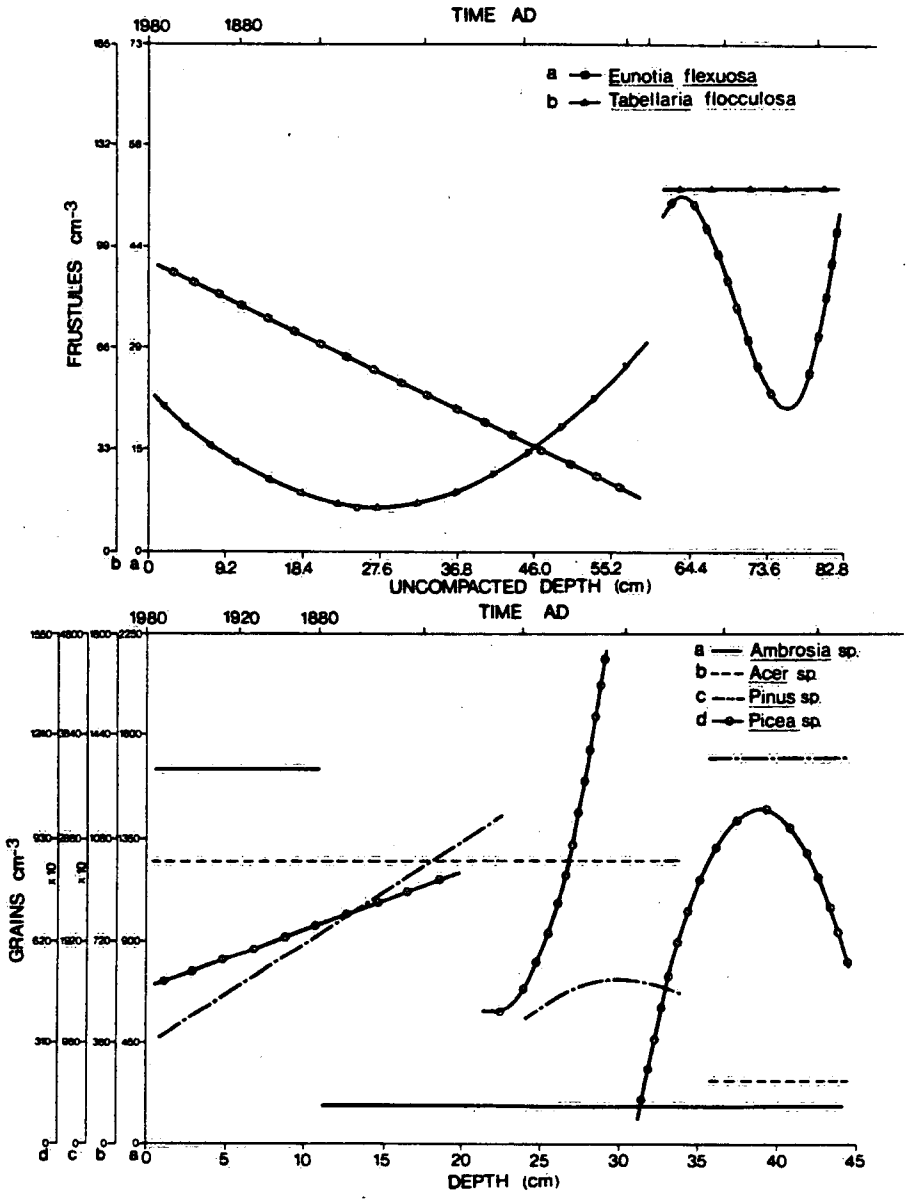


Figure 28. Point of change summaries for pollen and diatoms of core 84. The productivity of both *Pinus* sp. and *Picea* sp. changed at 35.2 cm. *Picea* sp. changed at 30.4 and 20.8 cm. The productivity of the diatoms changed at 56.8 cm. Volumes and depths are uncompacted. Individual points have been omitted for the sake of clarity.

This was also the time when Pinus sp. pollen increased and then gradually declined. Picea sp. followed Pinus sp. very closely except the change took place later.

Correlation between cores 79 and 84 was achieved through several species. Cymbella minuta var. silesiaca at 57 cm in core 79 appears to be correlated at 79 cm in core 84. Eunotia pectinalis var. minor at 56 cm in core 79 matches at 78 cm in core 84. Cymbella minuta var. silesiaca and Nitzschia hanchiana match up between 59 cm in core 79 and 69 cm in core 84. Between 48 cm in core 79 and 66 cm in core 84 Pinnularia biceps correlates. Further correlations occur for Cyclotella comta (1815 - 1830 AD), Anomoeoneis vitrea (1911 - 1925 AD), Anomeoneis serians var. acuta brachysira and Pinnularia abaujensis var. subundulata (1944 - 1959 AD), Pinnularia viridis (1956 - 1959 AD), and Cyclotella stelligera (1956 - 1973).

Batchawana Lake - Core 85

The preservation of diatoms in this core was inferior to that in cores 79 or 84. Many diatoms showed evidence of mechanical damage and the samples contained much diatom debris. Therefore, interpretations based on this core were not attemped.

Wishart Lake - Core 86

The diatoms of the core were well preserved. The sediments were analyzed for diatoms from a depth of 100 cm to the surface. The diatom flora was similar to cores 79, 84, and 85 of Batchawana Lake (Delorme et al, 1985). This core was especially rich in the planktonic centric diatom, Cyclotella stelligera.

The largest proportion of diatoms in core 86 were acidiphilous, ranging between 39 and 49 % (Fig.29). The alkaliphilous forms ranged between 18 and 31 %, and the indifferent forms between 19 and 29 %. The mean inferred pH

using the Davis - Anderson model was 6.2 ± .20. From figure 29, the bottom of the core appears to have had a slightly higher pH. The inferred pH for the top sample was 6.5 as compared to an actual value of 6.78.

There were several distinct times when the diatom floras increased and decreased significantly in the interval 57 to 15 cm. At 41 cm, eight species (Amphora ovalis, Cyclotella comta, Cymbella cuspidata, C. microcephala, Frustulia rhomboides var. saxonica, Navicula radiosa, Pinnularia biceps, and Synedra ulna) increased significantly beyond the previous concentrations (Fig.30). For many of the species the concentratons were more of a pulse than a sustained increase, as was the case in all the cores studied. These pulses may occur at more than one depth for a species. At a depth of 37 cm, 16 species (Fig.31) increased dramatically (Achnanthes saxonica, Anomoeoneis serians var. acuta, A. vitrea, Cymbella cesatii, Eunotia flexuosa, Frustulia rhomboides var. saxonica, Navicula baccilum, N. cryptocephala, N. pupula, N. radiosa, N. radiosa var. parva, N. subtilissima, Nitzschia palae, Stauroneis phoenicentron, and Tabellaria flocculosa). The increase in N. subtilissima (acb) is interesting since it occurs with other species more characteristics of neutral waters. The other major increase in taxa occurred at a depth of 30 cm. Sixteen species (Fig.32) showed a substantial increase in the number of frustules in the sediments (Achnanthes linearis, A. microcephala, A. minutissima, A. saxonica, A. sublaevis var. crassa, Cymbella cuspidata, C. microcephala, Eunotia tenella, Fragilaria capucina, Frustulia vulgaris, Gomphonema angustatum, Navicula pupula, N. pupula var. rectangularis, Nitzschia palae, Stenopterbia intermedia, and Tabellaria flocculosa).

None of the pollen types investigated had distribution peaks at the same intervals as the diatoms. However, they did have peaks of pollen production at 49 cm (Fig.6) which was within the interval 57 to 15 cm when diatom productivity appeared to fluctuate most.

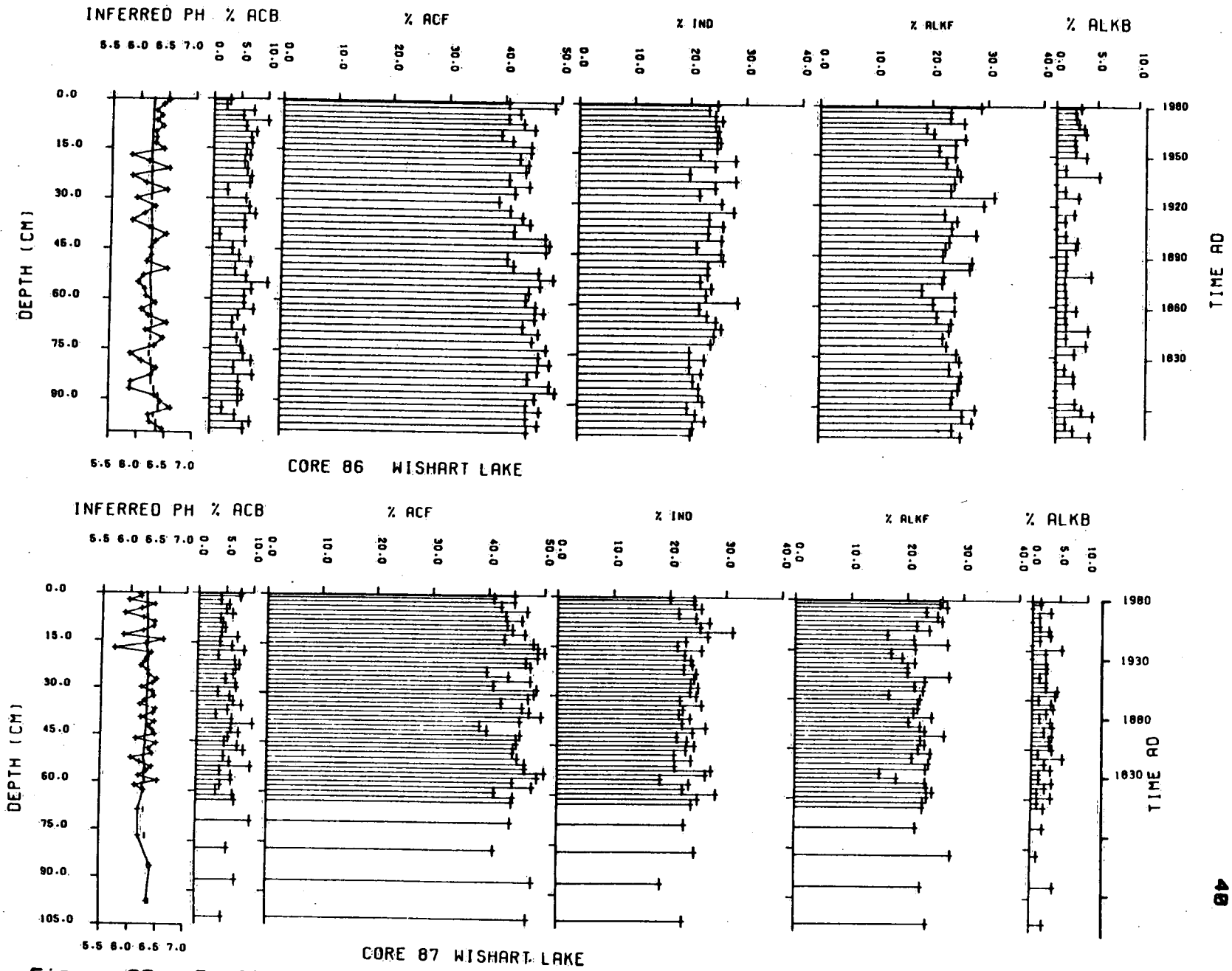


Figure 29. Profiles of inferred pH and pH categories for cores 86 (upper) and 87 (lower). The inferred pH was calculated from the equation by Davis & Anderson, 1985 pH=6.4204-.8328logB). Index B is based on the percentage of diatoms in each of five pH categories: Acb = acidobiontic, Acf = acidiphilous, Ind = indifferent, Alkf = alkaliphilous, Alkb = Alkalibiontic. Date determined from the point of change of Ambrosia sp. at 1890 A.D. Volumes and depths are uncompacted. Vertical lines on inferred pH plots are running means.

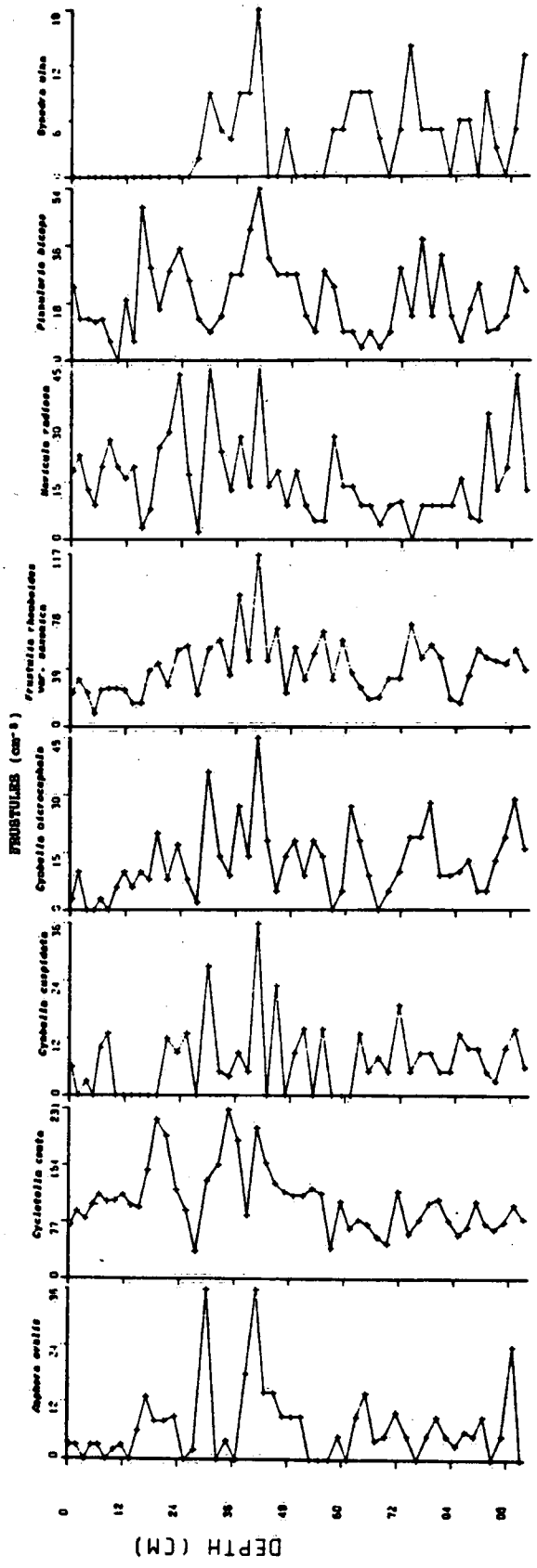


Figure 30. Selected diatom profiles for core B6 showing a pulse at a depth of 41 cm. Volumes and depths are uncompacted.

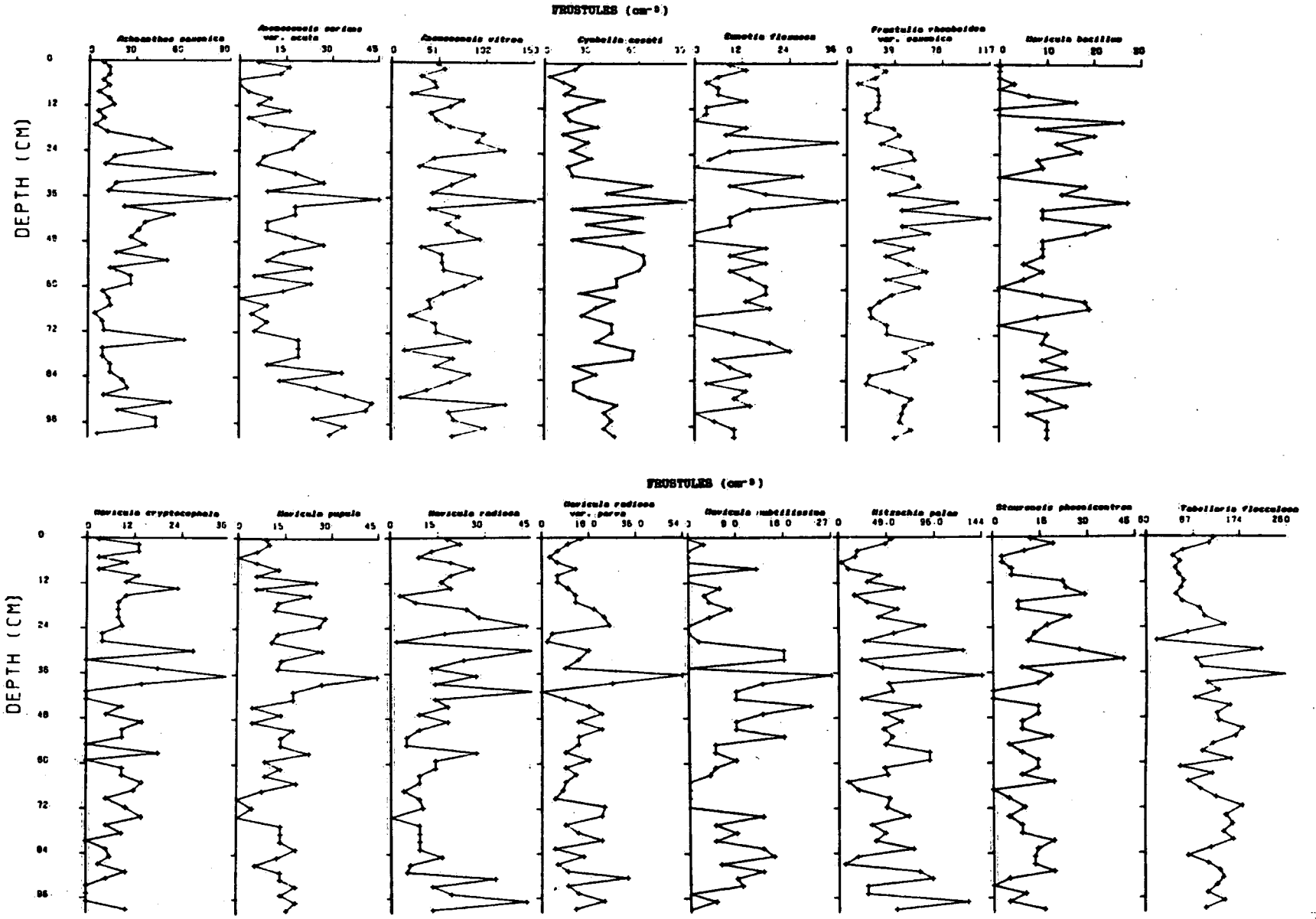


Figure 31. Selected diatom profiles for core 86 showing a pulse at a depth of 37 cm. Volumes and depths are uncompacted.

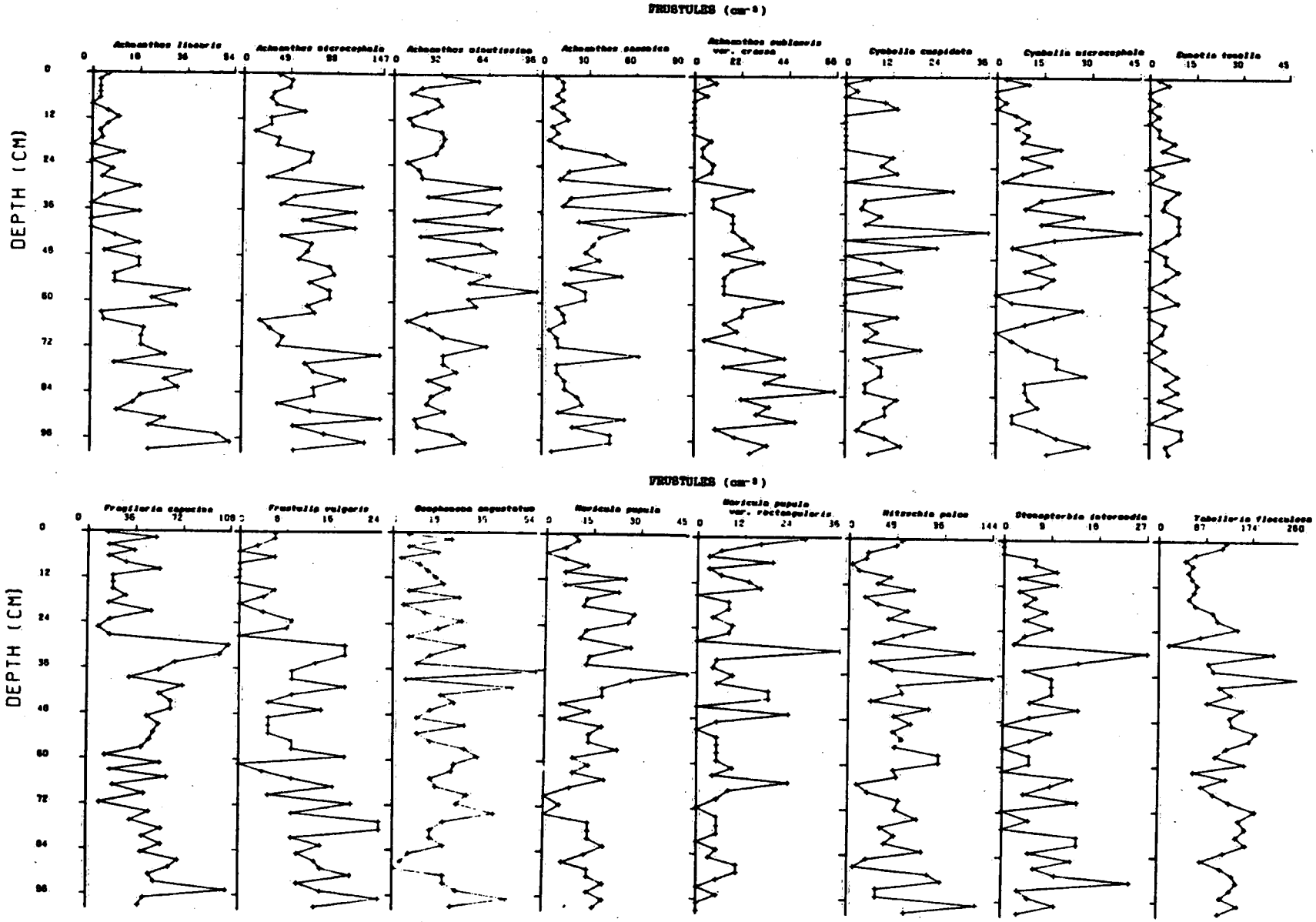


Figure 32. Selected diatom profiles for core 86 showing a pulse at a depth of 30 cm. Volumes and depths are uncompacted.

Wishart Lake - Core 87

This core was very similar to core 86 in terms of both the diatom flora and the absolute counts. There were, however, a large number of broken frustules particularily at depths of 9.1, 11.9, 45, and 46.4 cm. The sediments where analyzed for diatoms from 98 cm to the surface. Floristically, this core contained several diatoms which were either absent or rare in previous cores, e.g., Epithemia adnata var. procellus and E. sorex, Gomphonema oliveceum, Licmophora gracilis, Opephora martyii, and Rhopalodia gibba. These taxa generally favor water at, or above neutrality.

Acidiphilous diatoms made up the largest percentage of this core (38 to 50 %). Both the indifferent and alkaliphilous forms (Fig.29) were progressively less in numbers (18 to 31 %, 15 to 27 %). The mean inferred pH was calculated at 6.3 + .17. The top sample produced an inferred pH of 6.2.

Diatom productivity fluctuated considerably between 58 and 13 cm. In this interval, four discrete depths had a high incidence of species reaching peak production. The depths at which these peaks (Figs.33,34) occurred were at 50 cm (Achnanthes flexella, A. linearis curta, A. microcepha A. minutissima, A. saxonica, Anomoeoneis vitrea, Cyclotella bodanica, Eunotia tenella, Fragilaria capucina, F. construens, F. virescens, Navicula bacillum, Neidium affine, N. affine amphirhynchus, N. iridis, Nitzschia palea, Pinnularia abaujensis, Stauroneis livingstonii, and Tabellaria fenestrata), and 36 cm (Fig. 34, Achnanthes flexella, A. microcephala, Cymbella minuta silesiaca, Frustulia rhomboides var. saxonica, Gomphonema angustatum, Melosira italica, and Tabellaria flocculosa), and 26 cm (Fig. 35, Achananthes levanderi, Anomoeoneis serians var. brachysira, Eunotia fallax, E. flexuosa, Frustulia rhomboides, Navicula radiosa, Neidium affine, Stauroneis phoenicenteron, Stenopterbia intermedia, and Tabellaria fenestrata).

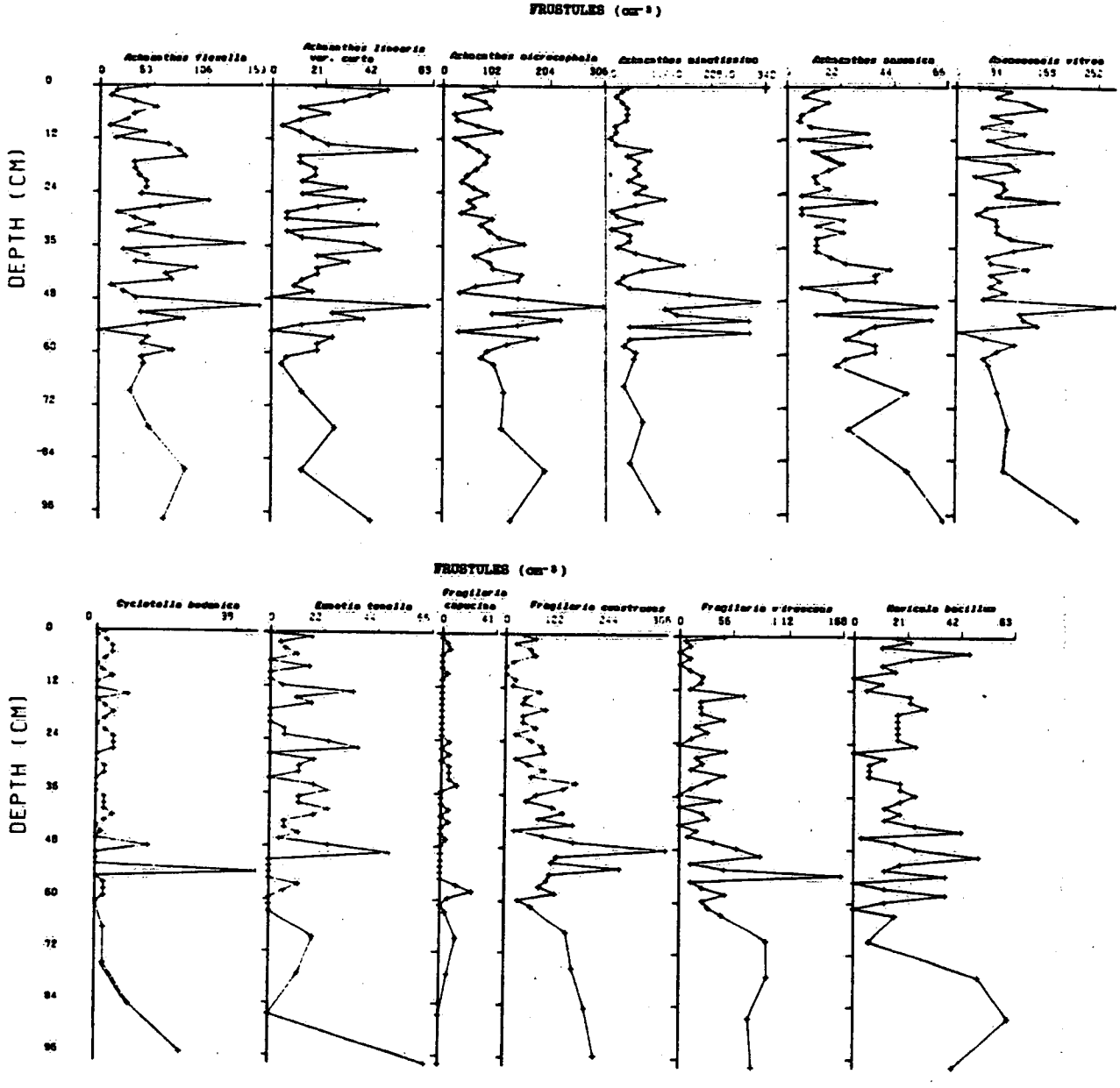


Figure 33. Selected diatom profiles for core 87 showing a pulse at a depth of 50 cm. Volumes and depths are uncompacted.

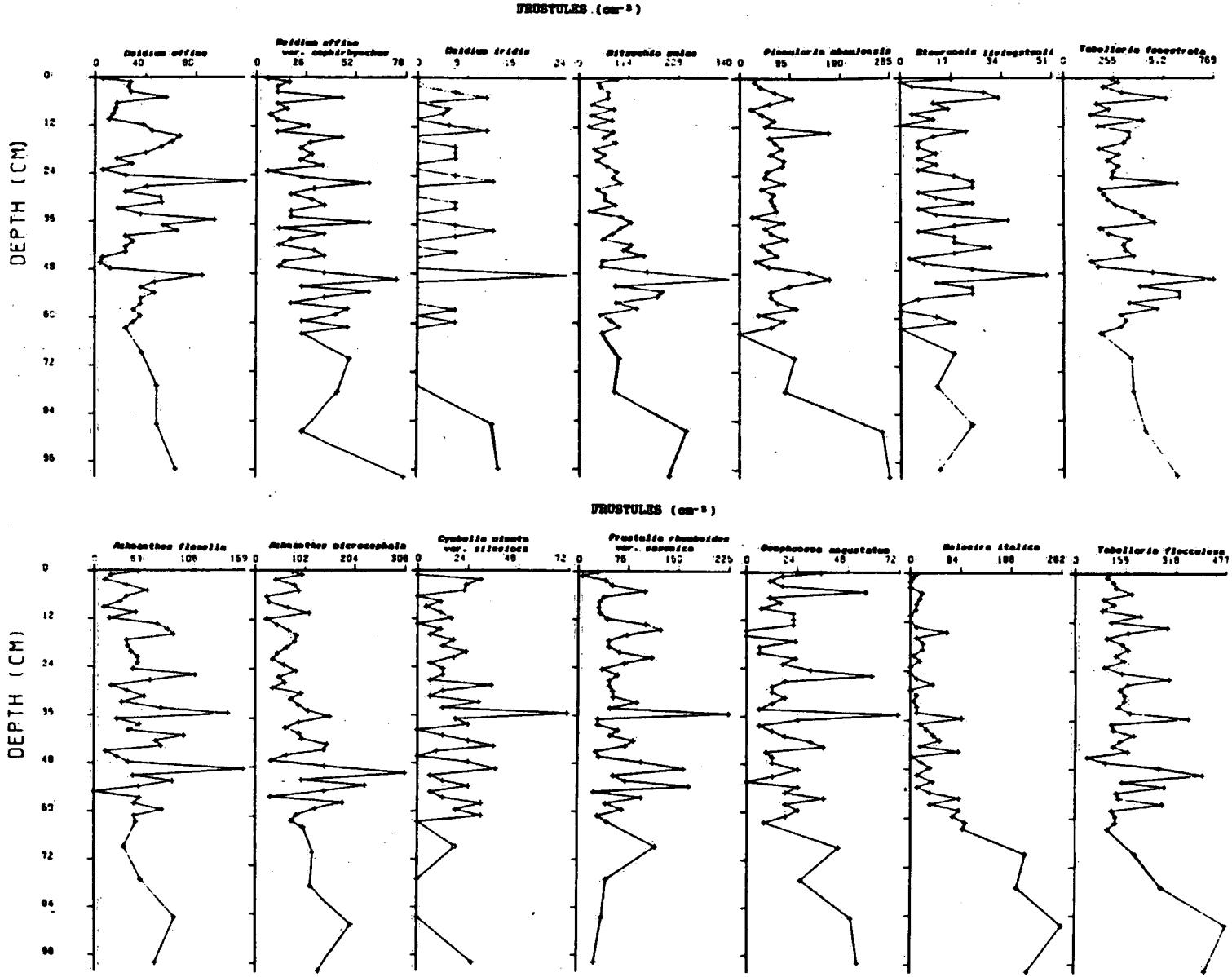


Figure 34. Selected diatom profiles for core 87 (upper) showing a pulse at a depth of 50 and 36 cm (lower). Volumes and depths are uncompacted.

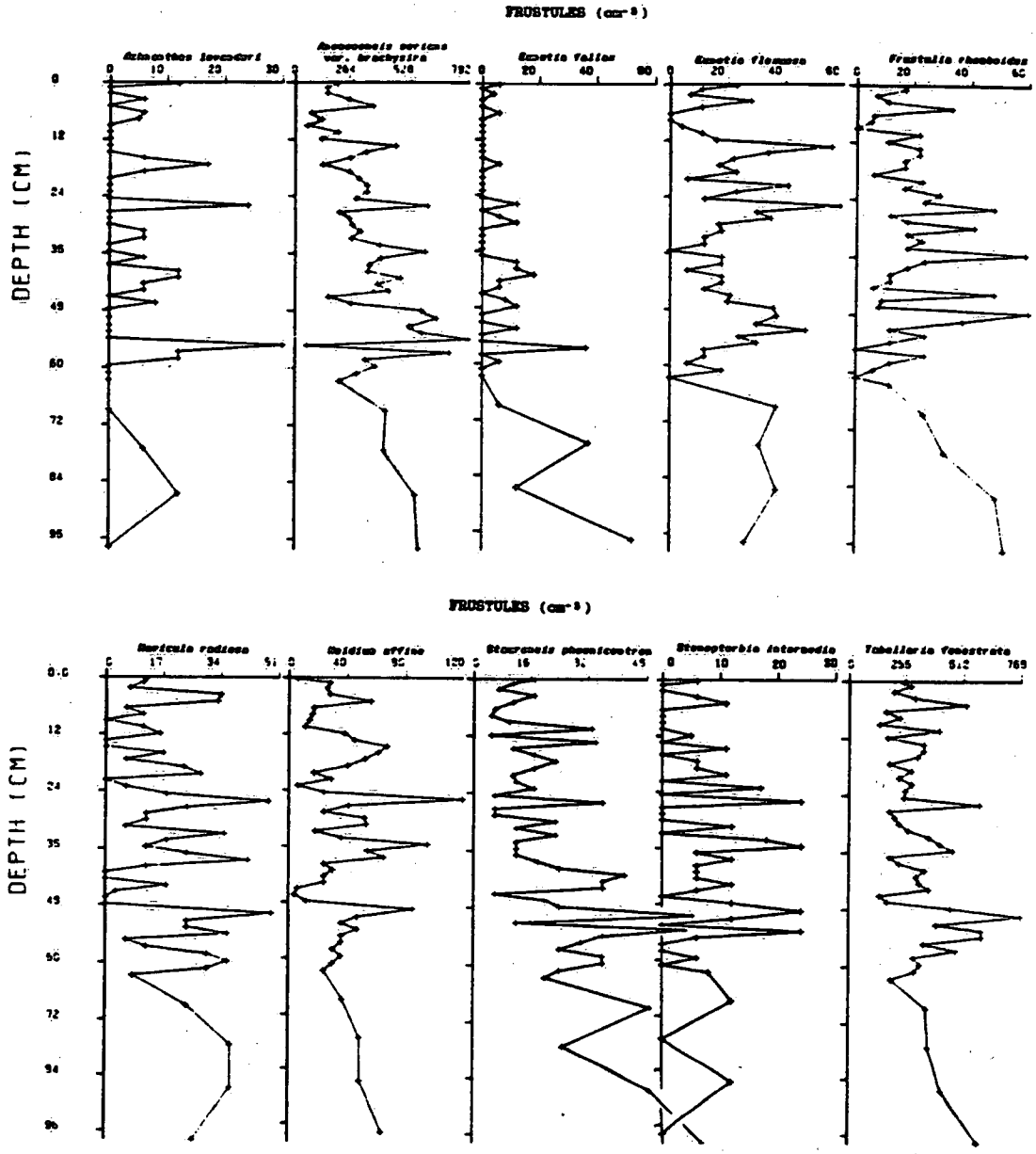


Figure 35. Selected diatom profiles for core 87 showing a pulse at a depth of 26 cm. Volumes and depths are uncompacted.

Peaks in pollen production (Fig.6) for Acer sp., Picea sp., Pinus sp., and Quercus sp. took place at 31 and 26 cm. For the latter depth, the peaks of Picea and Pinus spp. were not pronounced.

Correlations between cores 86 and 87 in Wishart Lake occurred for Acer sp. (1809-1813 AD), Navicula latelongitudinalis (1878-1880 AD), and Ambrosia sp. (1890 AD).

Little Turkey Lake - Core 88

Core 88 was very rich in planktonic diatoms especially Cyclotella sp. and Melosira sp. This necessitated counting extra strips in order to obtain reasonable estimates of the other diatoms present. Enumeration of diatoms began at a depth of 162 cm. The frustules showed excellent preservation.

The most abundant diatoms were acidiphilous (Fig.36), ranging between 28 and 41 %. The indifferent forms were lower in numbers at 21 to 33 %. The alkaliphilous forms were higher at 23 to 38 %. The inferred mean pH was 6.4 ± .15. The inferred pH value for the top sample was 6.6 compared to an actual value of 6.81.

Increases in the counts of the frustules of more than several species occurred at two depths. At 42 cm (Fig.37), Cymbella minuta silesiaca, Eunotia pectinalis, and Melosira italica increased significantly and similarily at 11 cm (Fig.37) Melosira ambigua, Navicula bacillum, N. pupula, and Pinnularia biceps increased. Significant increases took place in Picea sp. pollen (Fig.9) at 34 and 2.6 cm and for Pinus sp. at 32 cm.

Little Turkey Lake - Core 89

As may be expected, the diatom flora was very similar to the companion core 88, averaging 50 to 80 taxa per sample. Diatoms were analyzed from the core starting at a depth of

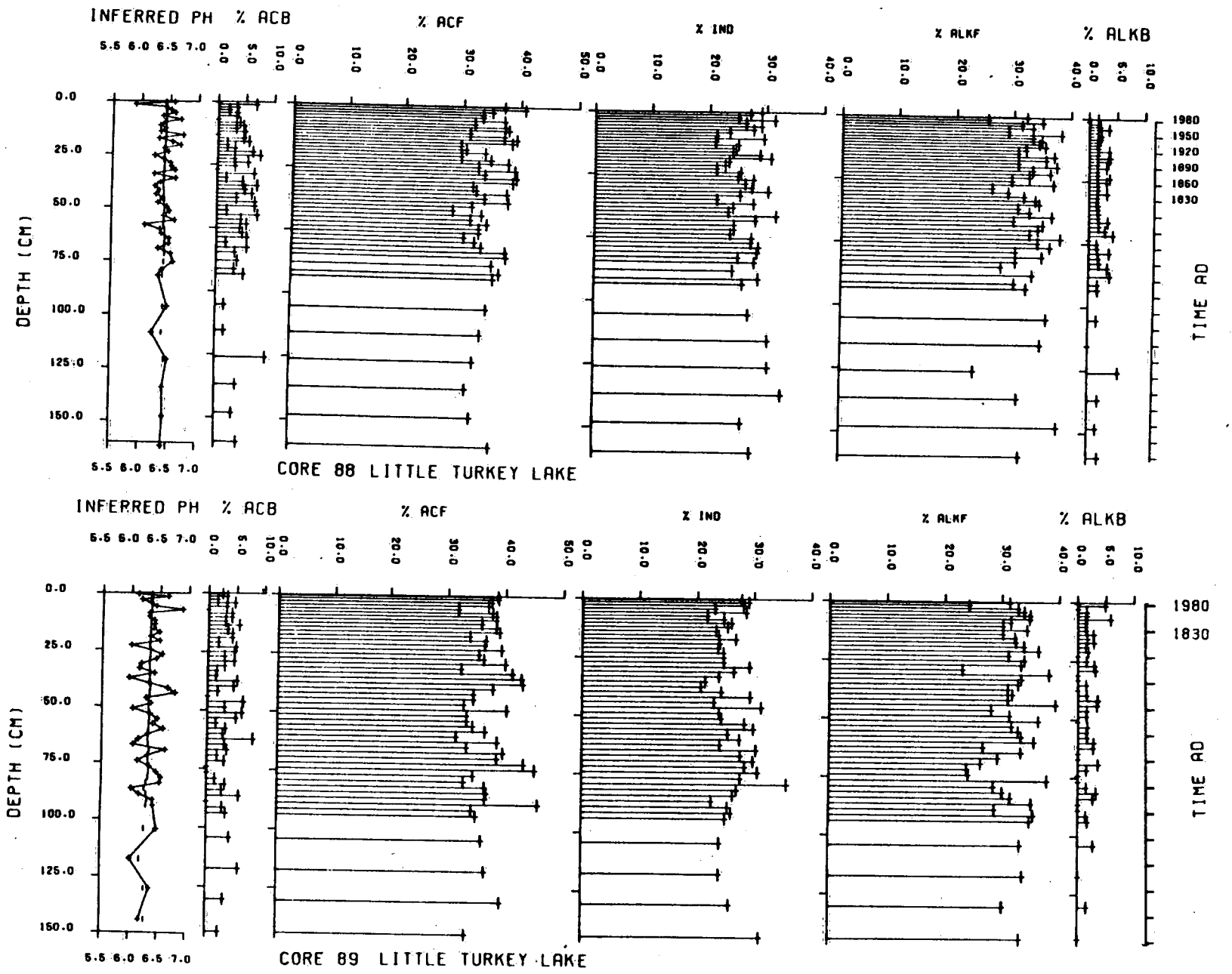


Figure 36. Profiles of inferred pH and pH categories for cores 88 (upper) and 89 (lower). The inferred pH was calculated from the equation by Davis & Anderson, 1985 (pH=6.4204-.8328iLogB). Index B is based on the percentage of diatoms in each of five pH categories: Acb = acidobiontic, Acf = acidiphilous, Ind = indifferent, Alkf = alkaliphilous, Alkb = Alkalibiontic. Date determined from the point of change of Ambrosia sp. at 1890 A.D. Volumes and depths are uncompacted. Vertical lines on inferred pH plots are running means.

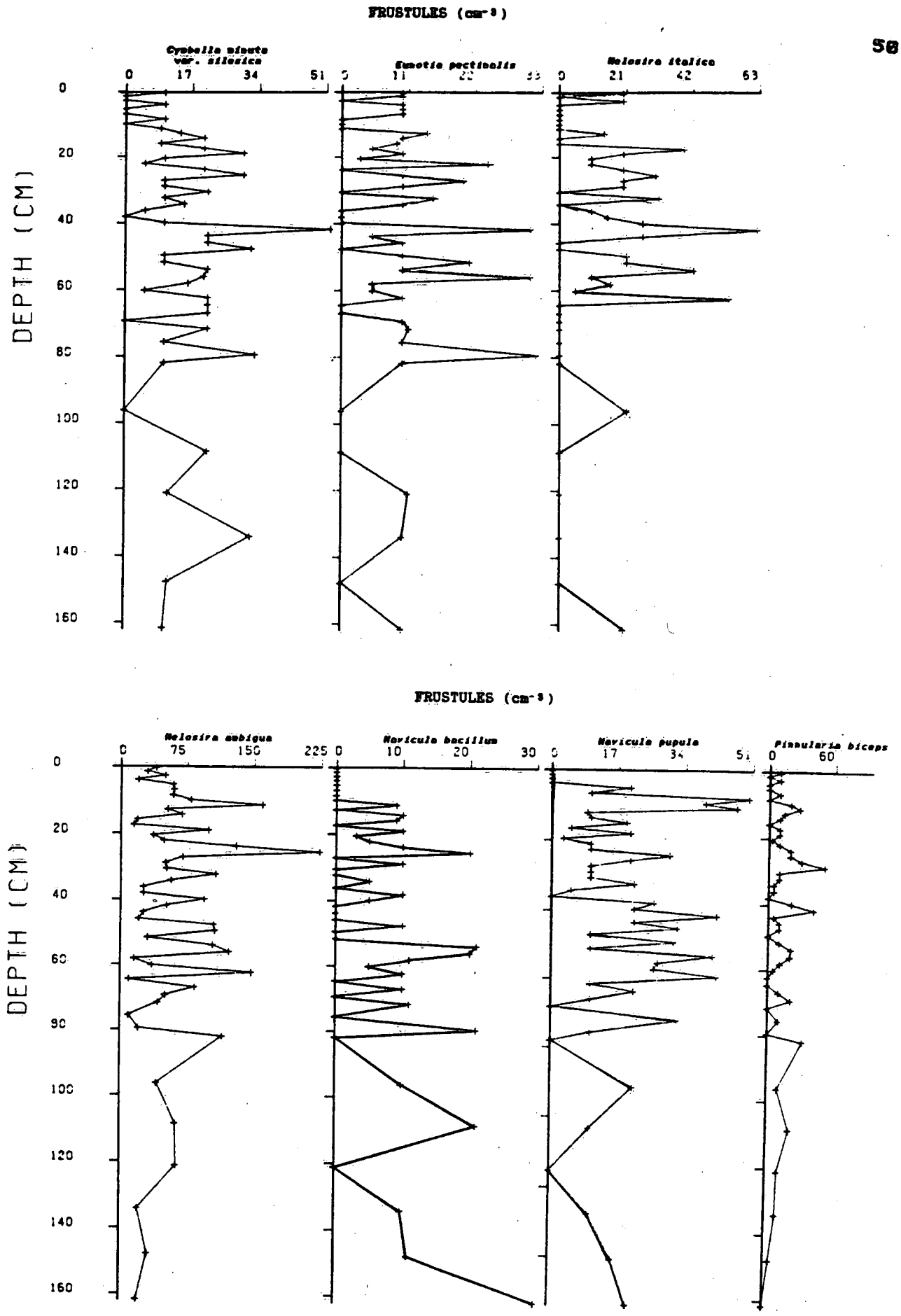


Figure 37. Selected diatom profiles for core 88 (upper) showing a pulse at a depth of 42 and 11 cm (lower). Volumes and depths are uncompacted.

144 cm. Preservation was good. Planktonic diatoms, particularily the centric Cyclotella stelligera, were once again dominant. Extra transects were counted to obtain reasonable estimates of the non-planktonic diatoms.

The acidiphilous diatoms represent between 31 and 46 % of the taxa. The indifferent and alkaliphilous forms (Fig.36) decrease (20 to 36 %, 23 to 39%) with the latter being slightly more numerous. The mean inferred pH was 6.4 ± .20. The inferred pH of the top sample was 6.1. The running mean, from bottom to top of the core, indicates the pH of this part of the lake has been increasing.

Diatom enumerations indicated several depths in the core where the species concentration increased simultaneously. At a depth of 94 cm the following diatoms increased (Fig.38): Achnanthes linearis, Fragilaria pinnata, Melosira ambigua, Navicula radiosa var. parva, and Stauroneis anceps. At 91 cm (Figs.38,39) Achnanthes exigua, A. flexella, Anomoeoneis serians var. brachysira, Cyclotella comta, Cymbella minuta silesiaca, Eunotia flexuosa, E. pectinalis, Fragilaria construens, F. pinnata, F. vaucheriae, Navicula bacillum, N. pupula, Pinnularia abaujensis, P. abaujensis var. linearis, P. biceps, Synedra delicatissima, and Tabellaria fenestrata increased simultaneously. Increases in the counts of Achnanthes linearis, A. linearis var. curta, A. microcephala, Anomoeoneis serians var. acuta, Fragilaria pinnata, Navicula tantula, Neidium affine, Nitzschia palea, occured at 89 cm (Fig.40). The diatoms species Cymbella microcephala, Fragilaria lapponica, and Tabellaria flocculosa increased significantly at a depth of 77 cm (Fig.40) along with the pollen types of Quercus sp., Acer sp., and Pinus sp. (Fig.9).

Correlation between cores 88 and 89 for Little Turkey Lake was obtained through the following species: Acer sp. (1813-1816 AD), Ambrosia sp. (1890, 1942-1976 AD), and

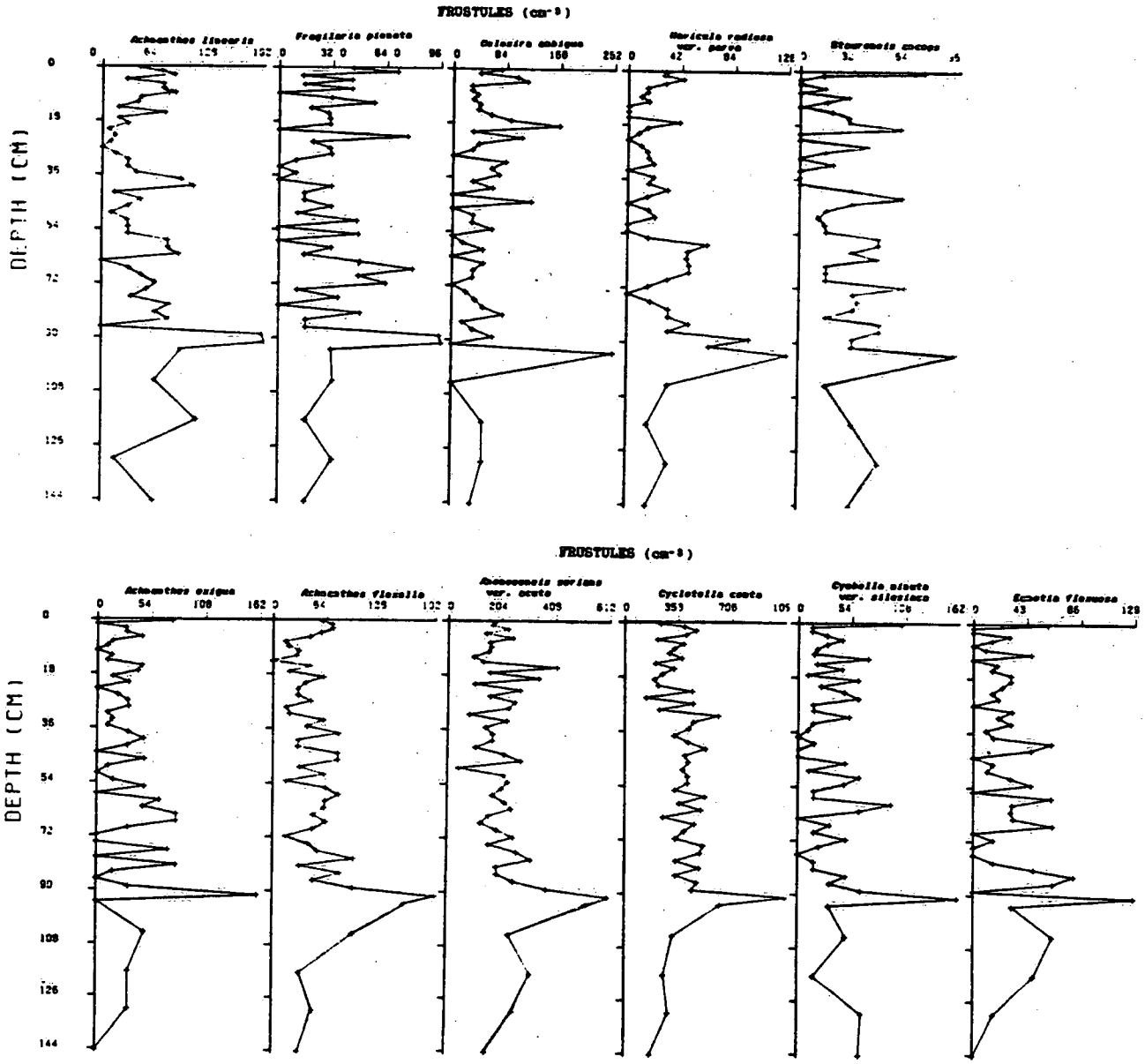


Figure 38. Selected diatom profiles for core 89 (upper) showing a pulse at a depth of 94 and 91 cm (lower). Volumes and depths are uncompacted.

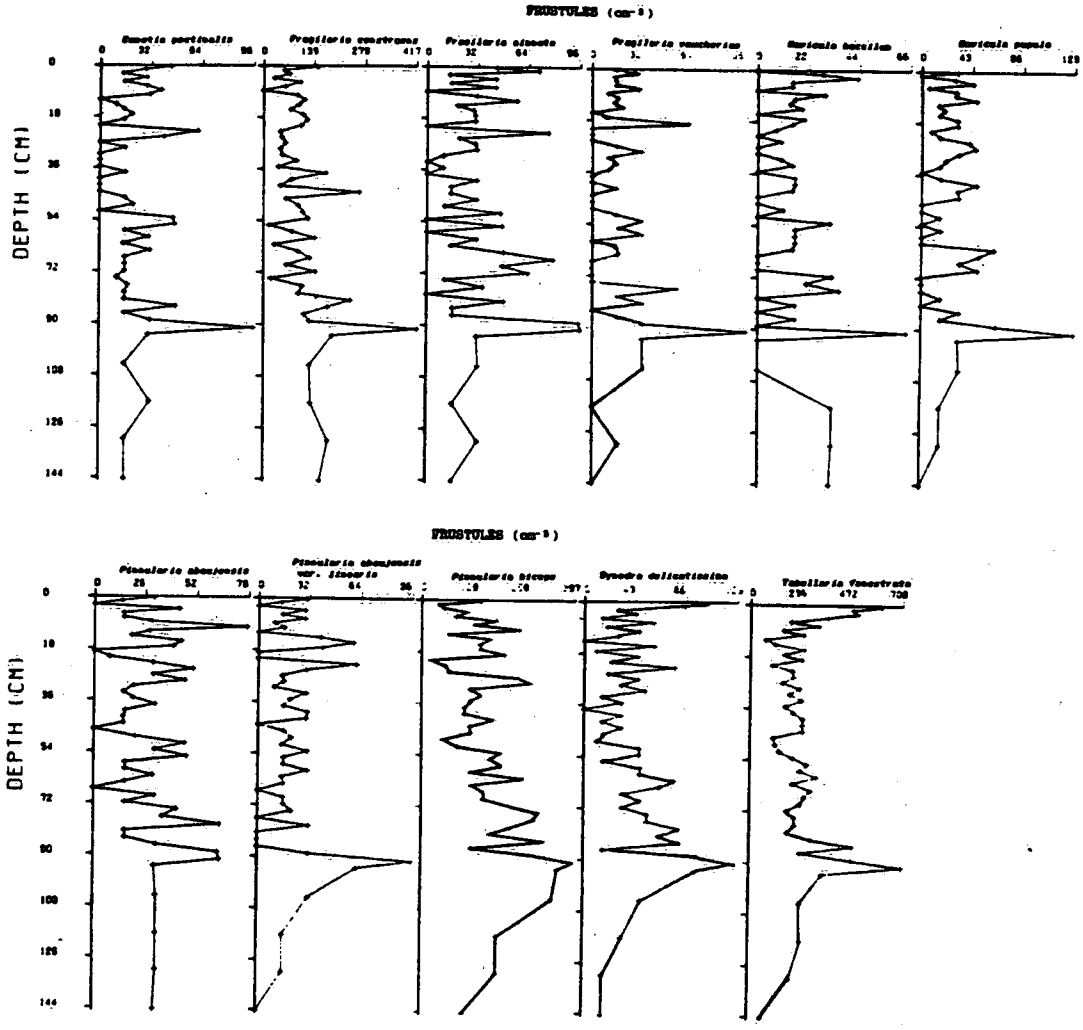


Figure 39. Selected diatom profiles for core 89 showing a pulse at a depth of 91 cm. Volumes and depths are uncompacted.

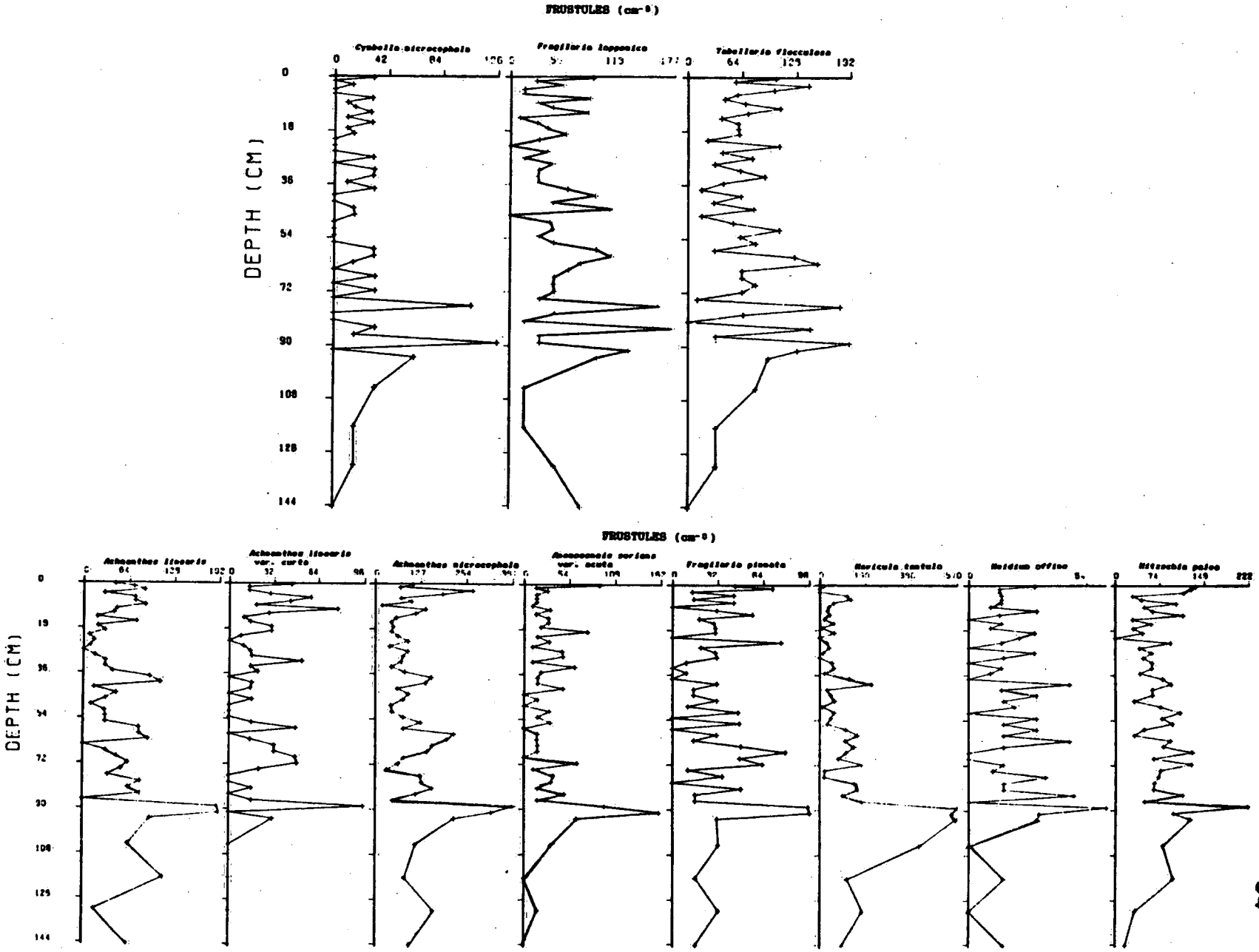


Figure 40. Selected diatom profiles for core 89 (upper) showing a pulse at a depth of 89 and 77 cm (lower). Volumes and depths are uncompacted.

Tabellaria fenestrata (1976-80 AD).

Turkey Lake - Core 80

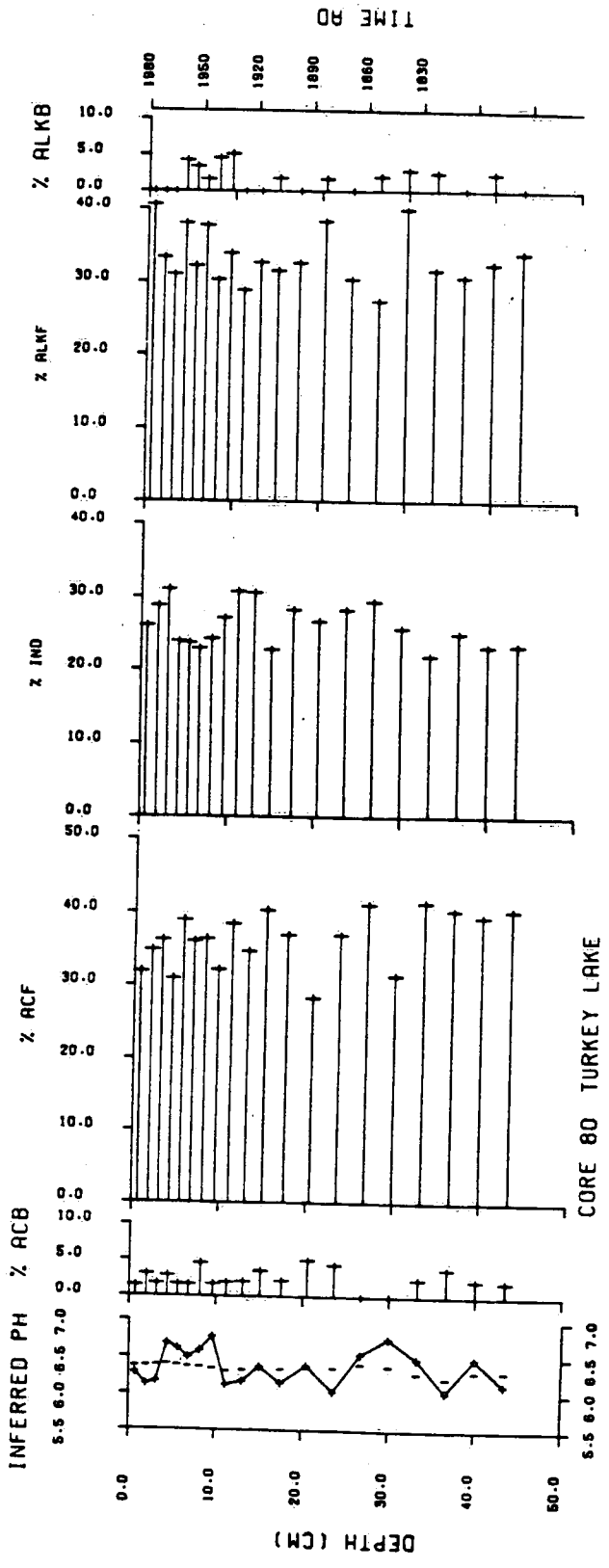
This core was unsatisfactory for analysis in that it contained very few diatoms. The sediments of this core were examined for diatoms starting at a depth of 103 cm. No diatoms were found below a depth of 43 cm. Diatoms were sparse in this core with up to 16 transects counted per slide compared to a normal of two to four for other cores.

The acidiphilous and alkaliphilous forms (Fig.41) were evenly distributed in the core (28 to 42 %, 27 to 41 %). The indifferent forms has a lower distribution (22 to 31 %). The inferred mean pH was 6.4 ± .25. The top sample had an inferred pH of 6.3 compared to an actual value of 5.99 for 1980.

Significant increases occurred in the number of diatom frustules in the interval 20 to 27 cm (Figs.42,43, Achnanthes fragilarioides, A. saxonica, A. sublaevis crassa, Amphora ovalis, Anomoeoneis serians var. brachysira, A. vitrea, Cyclotella bodanica, C. comta, C. kutzingiana, C. stelligera, Cymbella lunata, C. microcephala, Fragilaria lapponica, Frustulia rhomboides var. saxonica, Melosira distans, Navicula pupula, N. pupula var. rectangularis, Pinnularia abaujensis, and Tabellaria fenestrata). In addition there were significant counts at a depth of 8 cm (Fig.44, Achnanthes affinis, A. clevei, A. lanceolata, A. levanderi, A. microcephala, A. minutissima, Cyclotella ocellata, C. stelligera, Cymbella microcephala, Fragilaria construens var. venter, Navicula dicephala, N. pupula var. elliptica).

Turkey Lake - Core 90

This core was considerably different from the previously examined cores. Diatom enumeration started at 95 cm. The counts were dominated by two planktonic diatoms, Cyclotella



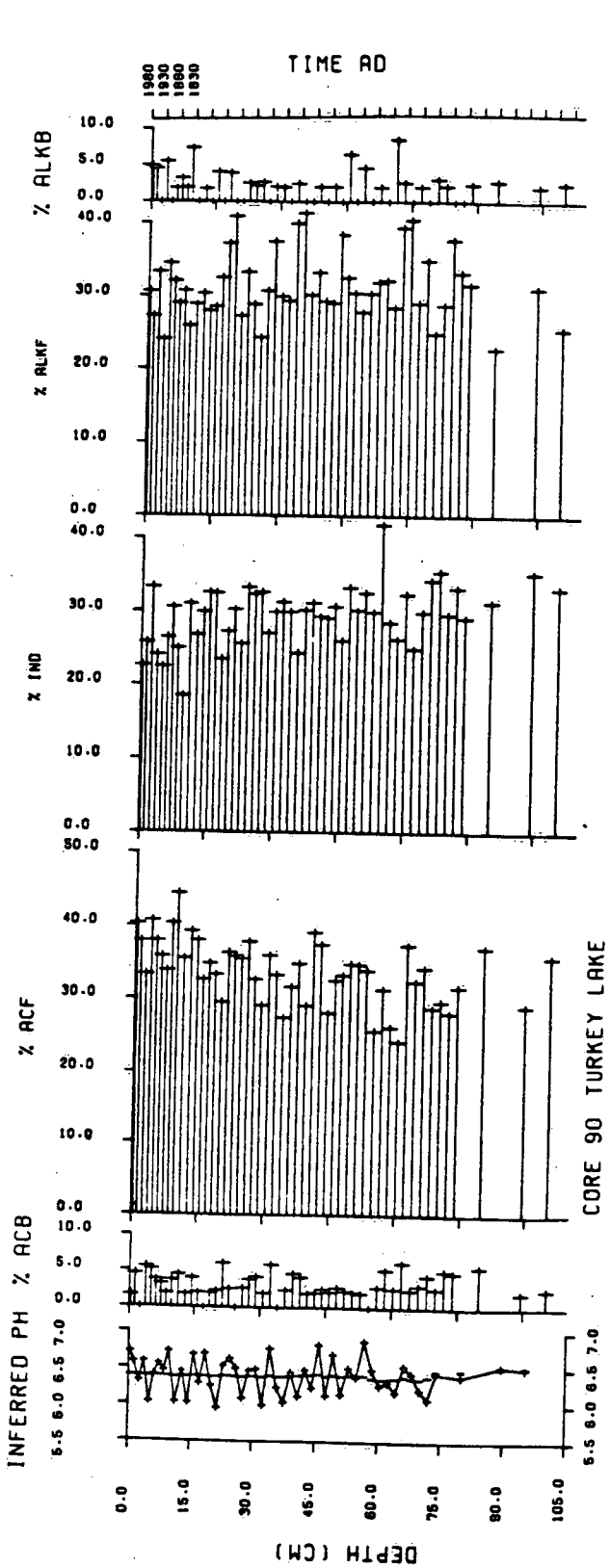


Figure 41. Profiles of inferred pH and pH categories for cores 80 (upper) and 90 (lower). The inferred pH was calculated from the equation by Davis & Anderson, 1985 (pH=5.4204-.83281LogB). Index B is based on the percentage of diatoms in each of five pH categories: Acb = acidobiontic, Acf = acidiphilous, Ind = indifferent, Alkf = alkaliphilous, Alkb = Alkalibiontic. Date determined from the point of change of Ambrosia sp. at 1890 A.D. Volumes and depths are uncompacted. Vertical lines on inferred pH plots are running means.

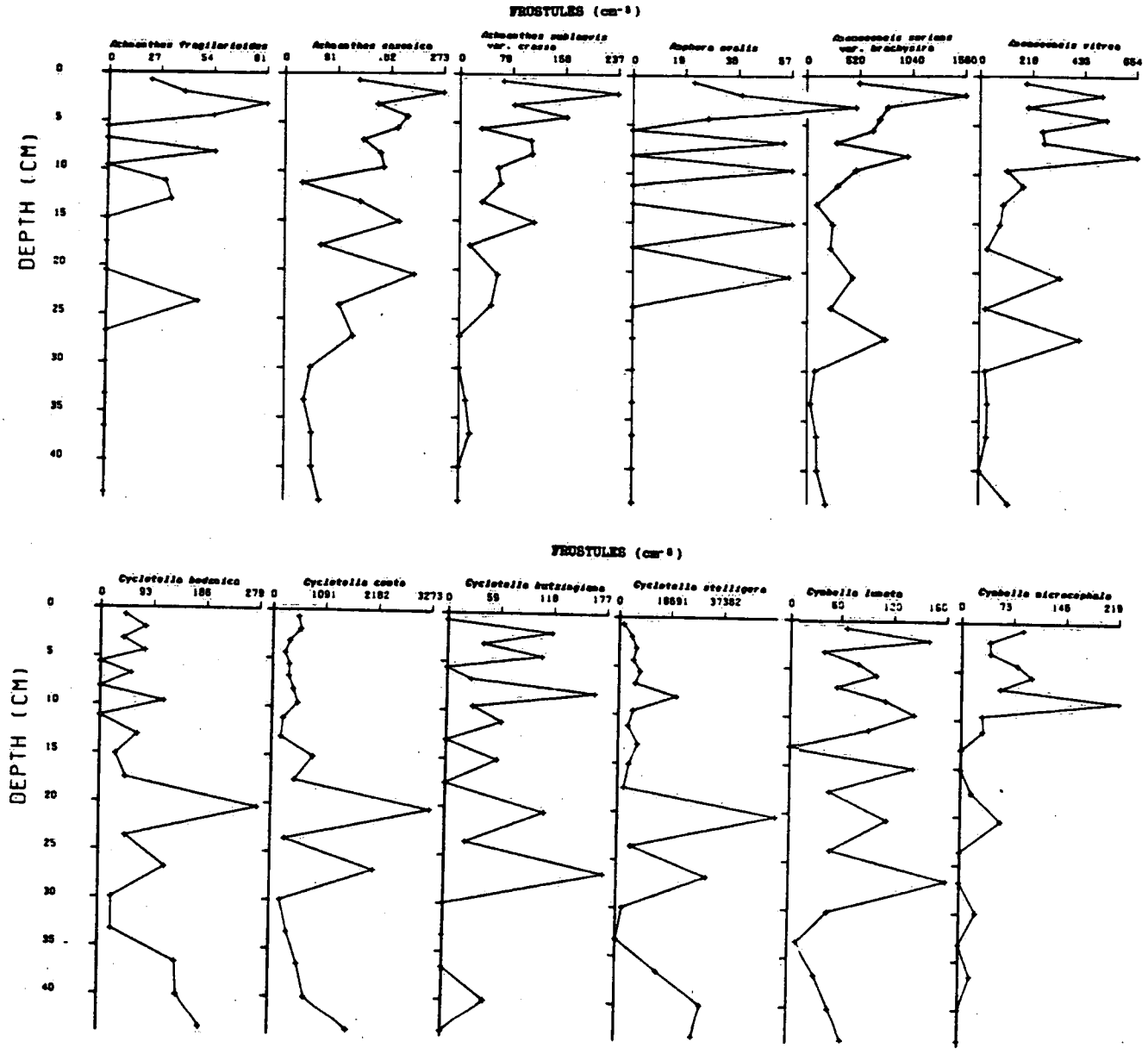


Figure 42. Selected diatom profiles for core 80 showing a pulse at a depth of 20-27 cm. Volumes and depths are uncompacted.

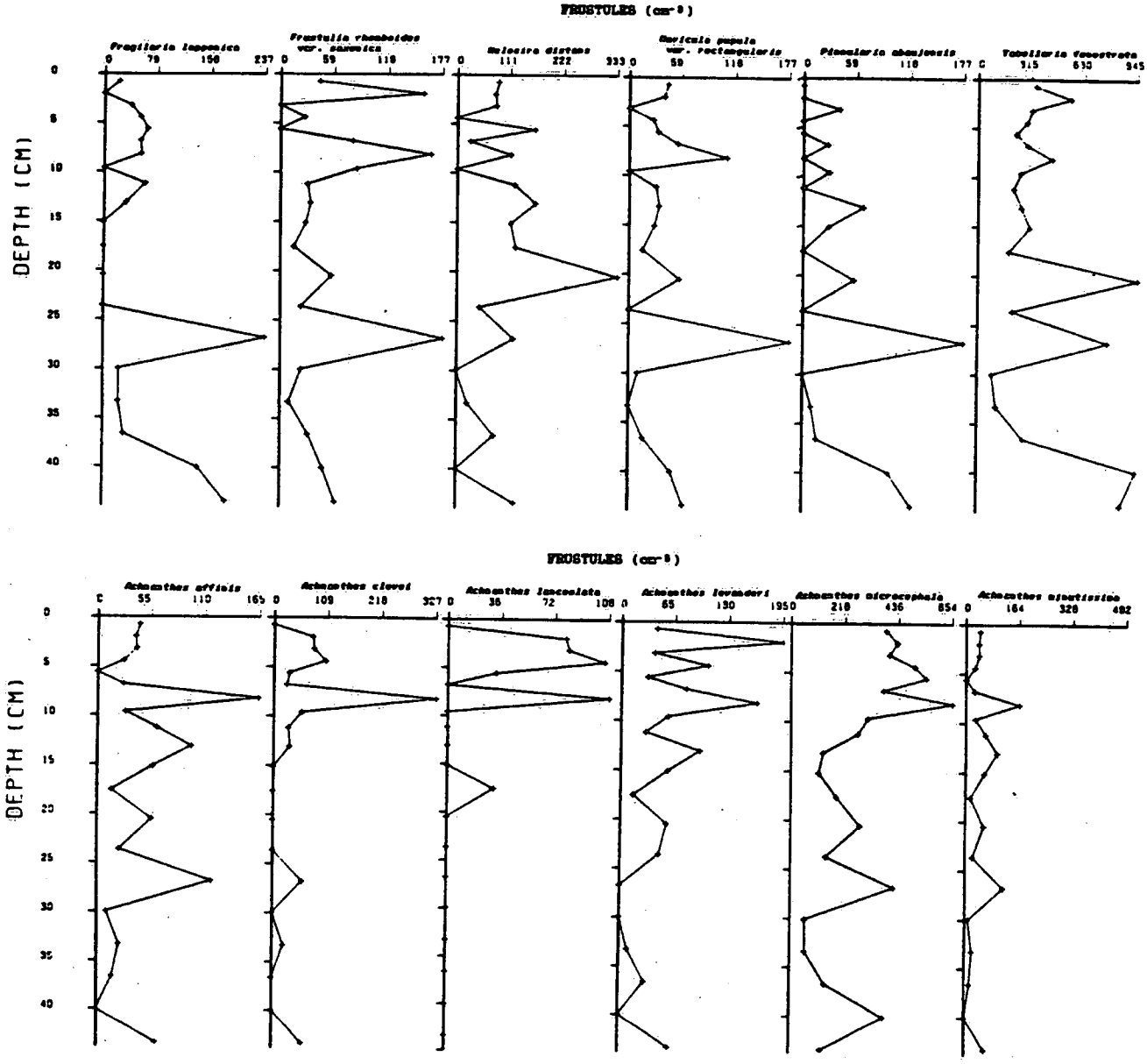


Figure 43. Selected diatom profiles for core 80 showing a pulse at a depth of 20-27 cm. Volumes and depths are uncompacted.

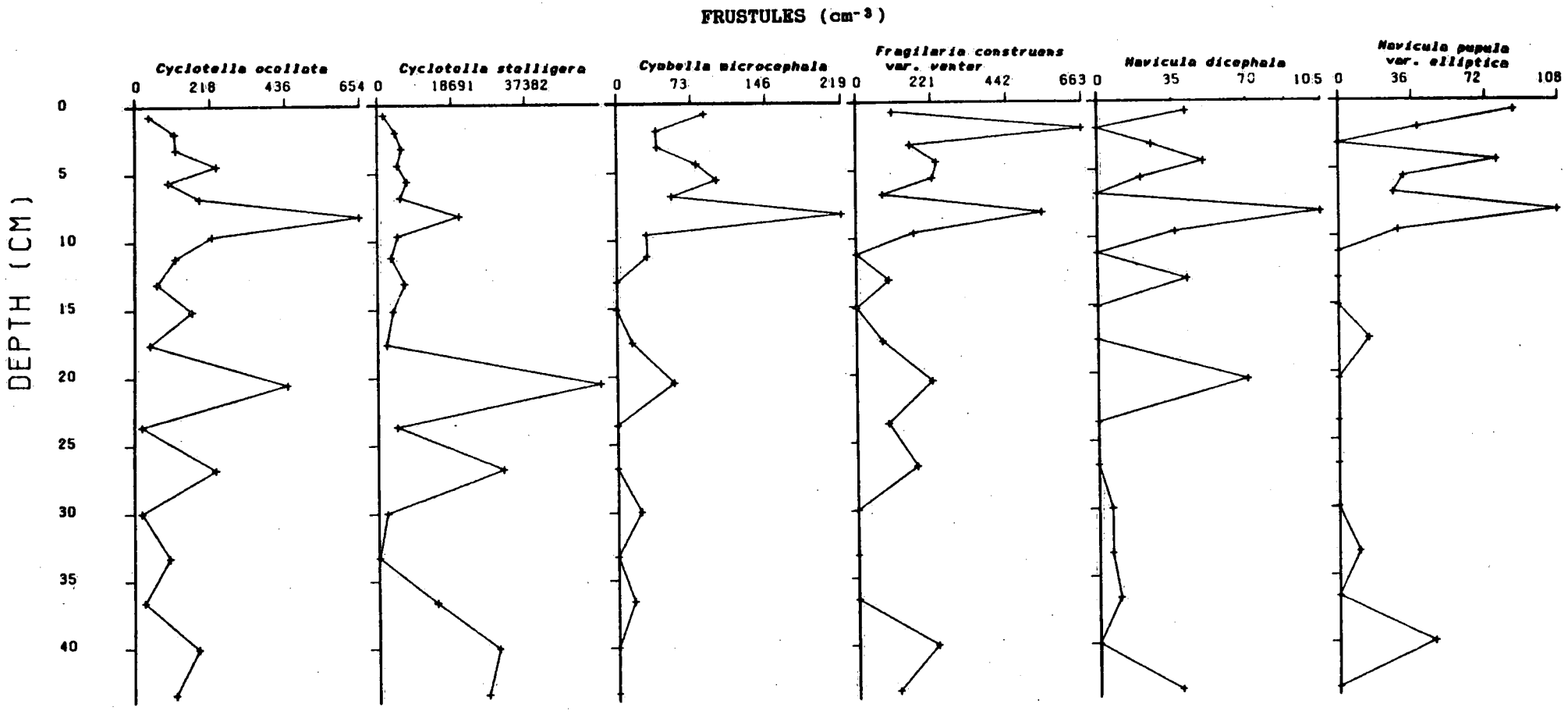


Figure 44. Selected diatom profiles for core 80 showing a pulse at a depth of 8 cm. Volumes and depths are uncompacted.

ocellata and C. stelligera, which formed at least 50% of the totals. The number of acidophilic diatoms, mainly Eunotia species, were greatly reduced. Also, in all samples a great many of the diatoms were broken or showed evidence of mechanical damage. An attempt was made to compensate for poor samples or for samples with a high percentage of Cyclotella sp. by counting extra transects, in several cases the count reached over 1000. The number of diatoms per gram showed a great variation with depth. This was probably partially due to mechanical damage to the frustules, in several samples the diatoms were very sparse.

The distribution of diatoms in core 90 was fairly evenly distributed between acidiphilous (Fig.41), indifferent, and alkaliphilous forms (24 to 45 %, 18 to 42 %, 22 to 42 %). The top sample had an inferred pH value of 6.3 compared to an actual value of 6.7. The inferred mean pH for the core was 6.4 + .24.

The number of diatom species per sample (30 to 66 species) was considerably lower than in the cores from the preceding lakes. This was only about half the number found in the headwater lakes. For the depth interval 32 to 39 cm (Fig.45) the following species had significant counts: Achnanthes exigua, A. linearis var. curta, A. sublaevis var. crassa, Cymbella lunata, C. microcephala, Fragilaria construens, F. lapponica, F. pinnata, Frustulia rhomboides, F. vulgaris, Navicula radiosa var. parva, and Nitzschia palea.

Between core correlation was achieved by Ambrosia sp. (1890), and Tabellaria fenestrata

DISCUSSION

Batchawana Lake North - Cores 79 & 84

Based on the point of change in regression models for several species of diatoms and pollen types, major changes were detected in their concentrations (Figs.27,28). Using their habitat requirements, the presence or absence of these

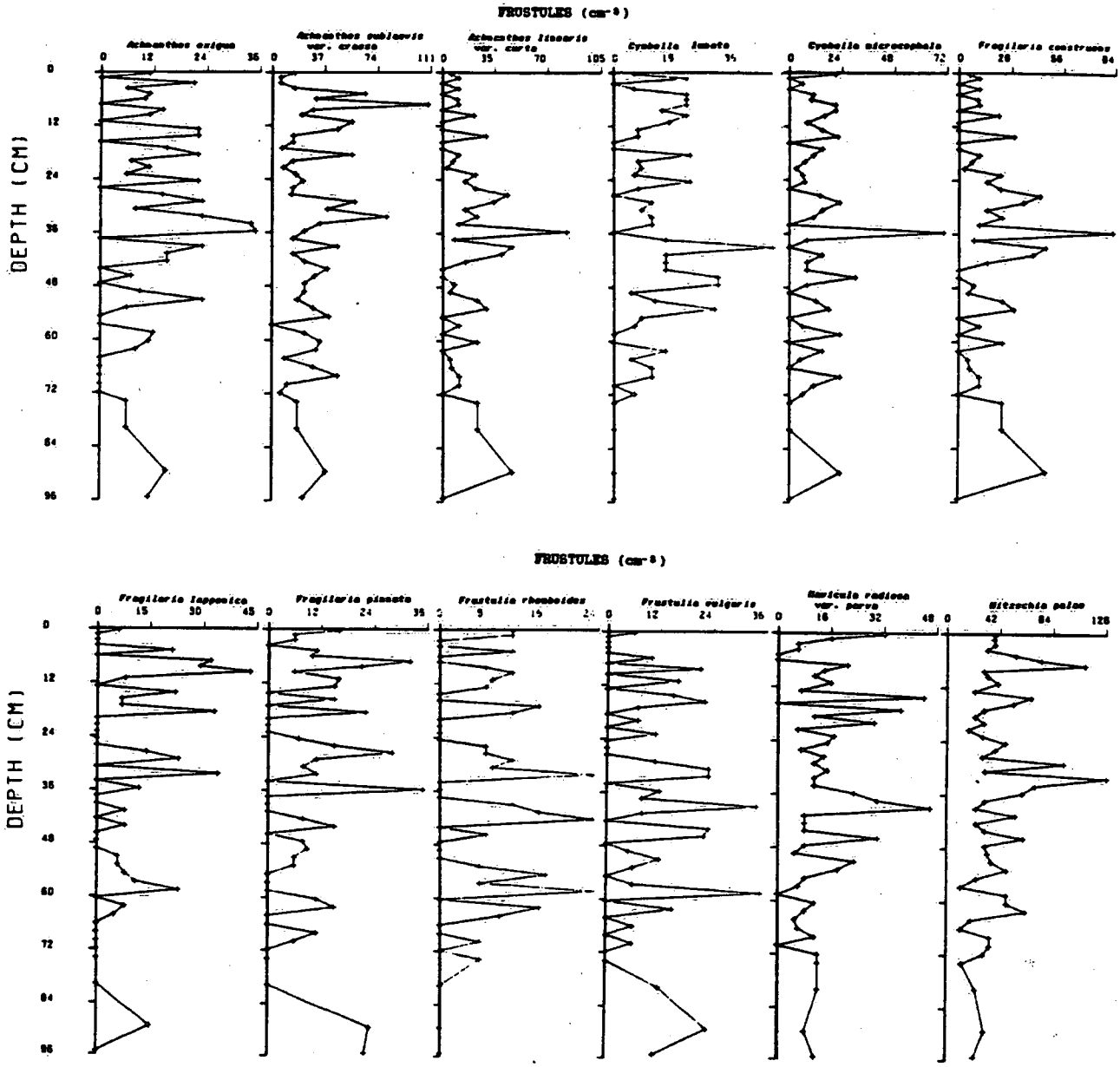


Figure 45. Selected diatom profiles for core 90 showing a pulse at a depth of 32-39 cm. Volumes and depths are uncompacted.

species allows one to hypothesize why the changes occurred. The explanations given are subjective and appear plausible, however, with more autecological information these explanations could be different. The depths given below refer primarily to core 79.

From about 60 to 46 cm (Fig.3,28) there was a decrease in Pinus sp. and Acer sp. pollen. The decrease in pollen production could be attributed to a decrease in the number of mature trees brought about by soil moisture deficiency and hence a regional decrease in annual precipitation. The increase in Frustulia rhomboides and Anomoeoneis serians var. brachysira during this interval suggests humification processes took place, possibly due to a drop in water levels. The low water level may have provided a habitat for increased numbers of emergent and submergent vegetation in the lake and thus increased surface area for the epiphitic diatom Eunotia flexuosa. Its success during the 9 cm could be attributed to an increase in attached aquatic plants, decrease in water level, and a regional decrease in precipitation. Surirella delicatissima was also successful during this period. The decreased water level and abundant plants would have ameliorated any water turbulence which these delicate diatoms could not have withstood. Both species are acidobionts which recognizes the edge of the lake at this time could have been swampy and contributed organic acids to the lake. It is speculated that the decrease in water level of the lake may have caused the beavers to build the dam to maintain the water level. The morphology of the lake ideally lent itself to this type of construction. Perhaps the demise of Surirella delicatissima around 53 cm signaled a major change of the habitat by an increase in water level.

The next major change took place between 36 and 28 cm (Fig.26). After 42 cm, both Pinus sp. and Acer sp. had regained their pollen productivity levels and continued to be very successful until 28 cm. Their demise as shown by a substantial drop in pollen concentration (Fig.3), signaled

the change. The tree types, particularly Acer sp., prefer moist soils indicating a probable increase in regional precipitation. This would indicate water levels for the lake increased during the core interval 53 and 28 cm. This should have affected the presence of the diatoms Eunotia flexuosa and Surirella delicatissima. Figures 26 and 28 indicate both species declined in productivity although E. flexuosa continued until about 44 cm. Tabellaria flocculosa also decreased as did Cyclotella stelligera because of increased turbidity above the dam. As noted before, the turbidity decreased the number of alkaliphile plankters therefore there was an apparent increase in the inferred pH from 6.2 to 6.3 (Fig.24) This change did not appear to have a pronounced effect on the habitat or flora, more than likely because the increase in precipitation was gradual over several hundred years.

The last major change occurred around 1830 AD. An increase in concentrations of Quercus sp. and Picea sp. can be interpreted as a corresponding increase in the pollen production. White and black spruce prefer well drained, moist soils around borders of swamps (Hosie, 1969). In addition black spruce also has a preference for stony slopes and drier hillsides of which there were plenty in the area. Red oak is a fast growing tree, only moderately tolerant of shade and therefore found on well drained sites. Indications from the pollen of these trees are that there was an expansion of untreed lake borders derived from a decrease in water levels and regional precipitation. The account of the naturalist, Louis Agassiz (1850), does not provide sufficient detail about the climate of the region around 1840-1850 to indicate agreement with the interpretation provided here. It is interesting to note that Surirella delicatissima increased again (Fig.25) following the change. The inferred pH decreased because of the decrease in the alkaliphile plankters and an increase in acidiphile and acidobiontic diatom species. The swampy soil of the expanded shore zone

of the lake appears to have selected the acidiphile and acidobionts which have a preference for humates in the aquatic habitat.

If the above interpretation of events is reasonable, then it would appear that climate was the major agent of change for Batchawana Lake. The trend to slightly more acidic waters began about 1830 AD. For this region, this date would have been too early to interpret decreasing pH changes as a result of atmospheric loading.

Wishart Lake - Core 86

Of the eight species which increased their productivity at the 41 cm level (Figs.29,30), four are classed as alkaliphilous and two as acidiphilous. The nannoplanktonic form, Cyclotella comta, is generally found in lakes with low dissolved nutrients (Patrick & Reimer, 1966). Amphora ovalis and C. comta are at times recovered as part of the periphyton while Cymbella cuspidata and C. microcephala more specifically are epiphytic. In the species summaries provided by Beaver (1981) the optimum pH for these species ranges between 6.5 and 8.5 with most species of this level being above pH 7. Ecologically, one could interpret these habitat requirements as being found in the euphotic zone of a lake or pond and probably more specifically the littoral biotope. Aquatic rooted plants would be required for the epiphytes as well as a suitable substrate for the periphyton.

Of the 15 species identified as being significantly productive at the 37 cm level (Fig.31), six belong to the genera Navicula. According to Patrick & Reimer (1966) some species of this genera prefer shallow water where there is little current activity, generally eutrophic water rich in dissolved nutrients. These are littoral diatoms. Nitzschia palea is found in habitats similar to that described for Navicula above, however, it is more tolerant of less desirable water quality situations. Three species, Navicula baccilum, N. cryptocephala, and N. pupula, have a preference for

higher total dissolved solids. The suggested increase in eutrophication and mineral content of the waters may indicate a quiescent period when water levels where being reduced.

Five of the 16 species identified as being productive at the 30 cm level belong to the genus Achnanthes. Patrick & Reimer (1966) suggest this genus appears as an epiphytic form where the whole valve may be attached to the substrate by a gelatinous mass or stalk. Two other genera, Cymbella and Gomphonema, are also epiphytic for a total of eight attached forms. The authors also indicate this form of attachment is a mechanism whereby these forms can survive in moving water such as streams. Their presence in lake sediments may indicate a change in the environment, whereby they were transported into the lake after the attachment became ineffective. The abundance of the epiphytic diatoms may be the refuse from the previous summer. The presence of significant numbers of epiphytic diatoms may also suggest the presence of aquatic macrophytes for the attachment of these diatoms. The inferred presence of plants suggests the lake was shallow enough, at the point where the core was collected, to allow plants to grow. This in itself is not surprising. However, why are there insignificant numbers of epiphytic diatoms before and after the event? One can surmise that aquatic macrophytes were not present and so the epiphytic diatoms were not successful. The reason for the absence of the macrophytes may well be the substrate was too far below the euphotic zone, where the core was collected, to allow for rooted plants to grow. One could then interpret the presence of significant numbers of epiphytic diatoms as indicating a reduction in the water level of the lake caused by a reduction in precipitation, increased evaporation, and warmer temperatures. Other factors such as changes in salinity, water temperature, and dissolved nutrients would also affect the biota. Stenopterbia intermedia is known as an inhabitant of iron-rich water along with some species of Eunotia (Patrick & Reimer, 1966). In order for water to

become iron-rich, it must become slightly acidic. The presence of Eunotia tennela, Stenopterbia intermedia, and Tabellaria flocculosa may well indicate the pH was in the 5.5 to 6.8 range.

Wishart Lake - Core 87

For the 50 cm level of this core, there are five species of the genus Achnanthes which showed a productivity pulse (Fig.33). As noted before these species are epiphytic forms commonly found in streams. Other species such as Neidium affine var. amphirhynchus and N. iridis are also found in water that is moving. There appears to be an even mix of alkaliphilous and acidiphilous species.

The 26 cm level shows a definite bias towards acidiphilous forms in the productivity pulse of diatoms (Figs.29,35). The decrease in Eunotia fallax toward the surface is very interesting since this is now recognized as and acidobiontic species.

Little Turkey Lake - Core 89

The diatom pulse at the 91 cm level shows an even distribution of acidiphilic and alkaliphilic diatoms (Figs.36,39). Four of the six alkaliphilic diatoms can also exist successfully as part of the periphyton. In common, Achnanthes flexella and Eunotia flexuosa live successfully in bogs and swamps. Presumably the latter two species would exist at the edge of the lake in areas that were continously wet but very shallow and then periodically flooded, washing the diatoms into the lake proper.

The presence of large numbers of alkaliphilous periphytic diatoms in a core sample may lead to erroneous conclusions about past pH. Of the more common alkaliphilous diatoms identified in the cores, eight were also found to be periphytic (Beaver, 1981). Of these, the following were found to be abundant at the 91 cm level: Cyclotella comta,

Fragilaria construens, F. pinnata, F. vaucheriae, and Melosira italica (see Appendix 4, 7). The following is one possible explanation for the association. In most cases the periphyton occurs on the substrate or submerged objects as a "compact felted coat which may be soft and slimy" (Welch, 1962). In some areas this organic layer may become a semipermeable membrane trapping methane gas produced by the decomposition of organic detritus. Another phenomena of this decomposition is the release of carbonate ions. The presence of the semipermeable periphytic membrane would cause the water beneath the microzone to become alkaline. This in turn may support the subsequent colonization of the periphytic layer by alkaliphilous diatoms. The interception of such a layer in a sedimentary core may result in an interpretation that a lake was becoming alkaline which in fact it may have been a sediment-water phenomenon. The presence of large numbers of alkaliphilous diatoms in an otherwise unbuffered system may be explained in this manner. For this core the 104 to 91 cm levels have a higher interpreted pH (6.4 to 6.5) than either before (6.0) or after (6.2). The anomalously high interpreted values could well be caused by the presence of a periphytic layer.

Turkey Lake - Core 80

The depth interval 20-27 cm contained a large number of planktonic species which show a productivity pulse (Figs.42,43). Species of Achnanthes (3) and Cymbella (2) indicate the presence of epiphytic forms which are commonly found in eutrophic - littoral waters rich in dissolved nutrients.

The 8 cm depth was very similar to the 20-27 cm interval in the distribution of planktonic and epiphytic diatoms (Fig.44).

Turkey Lake - Core 90

The depth interval 32-39 cm contains a good mix of planktonic (Fragilaria) and epiphytic species (Achnanthes and Cymbella) species (Fig.45). The majority of the species are alkaliphilous.

CONCLUSIONS

Paleolimnology should be able to shed some light on the factors which affect limnology and hence the habitat in which the diatoms lived. As indicated in the begining, the purpose of this study was to see if moderate loadings of air pollutants could be detected in lakes that were poorly buffered. Only cores 79 and 84 from the headwater lake (Batchawana Lake - north) show any sign of having a top sample with an inferred pH value less than the previous sample. In all of the cores studied, there is no sustained lowering of the inferred pH in the recent past. If there has been an effect on the aquatic regime by atmospheric loading, the sedimentary diatoms and the model used to infer pH has not detected it. The inferred pH from the top samples is very similar to the pH values measured during 1980 and 1981. This indicates the Davis - Anderson model was adequate.

There are many instances in the cores where the diatoms have shown an increase in productivity, similar to a pulse. Sometimes many species simultaneously, other times only a few species at a time. Similarily, there are reductions in the taxa. Autecological data on freshwater diatoms are not well documented in the literature. Therefore, the causes for the changes in species composition and productivity can only be provided in a subjective manner. Such factors as changes in water levels, salinity, pH, presence or absence of aquatic macrophytes have been inferred from the changes in species composition and productivity. In some cases these changes

suggest the influence of external factors such as vertebrates and climate. The latter being the most important long term factor of change or stability in the aquatic environment. Many of the changes in the diatom distribution seen in the cores studied are thought to have been produced by climate.

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APPENDIX 1

This appendix contains sample weight data (mg cm-3) including: wet weight (vial wt + wet sample wt), dry weight (vial wt + dry sample wt), and vial weight. The tables also include specific gravity (Delorme, 1985) of the sediments and the sedimentation rate. The rise of Ambrosia sp. pollen is used as the 1890 AD datum on which the sedimentation rate is calculated. Data for the following cores are included:

1. Batchawana Lake : north - Core 79
2. Batchawana Lake : north - Core 84
3. Batchawana Lake : south - Core 85
4. Wishart Lake - Core 86
5. Wishart Lake - Core 87
6. Little Turkey Lake - Core 88
7. Little Turkey Lake - Core 89
8. Turkey Lake - Core 80
9. Turkey Lake - Core 90

79 CORE NUMBER
1.770 SPECIFIC GRAVITY
81.073 SURFACE AREA 10.16 TUBE DIAMETER
49.483 SURFACE AREA 7.94 CUTTER DIAMETER
8.0991RATE OF SEDIMENTATION
8 NUMBER OF SAMPLES BELOW THE SURFACE BEFORE THE DIAMETER CHANGES TO CUTTER DIAMETER;IF≠ZERO≠SURFACE AREA = 49.483 OR VALUE OF LINE 5.

1	2	3	4
01	98.42	29.71	24.48
2	91.31	29.52	24.57
3	83.73	6.24	0.00
4	98.84	30.27	24.71
5	81.50	6.44	0.00
6	82.05	29.14	24.68
7	74.94	28.70	24.59
8	79.72	28.86	24.49
9	87.22	29.75	24.60
10	91.03	30.19	24.47
11	86.50	30.21	24.92
12	91.54	30.57	24.61
13	84.09	29.58	24.44
14	85.28	29.57	24.50
15	83.94	29.54	24.71
16	82.15	29.06	24.64
17	93.21	30.87	24.69
18	94.97	31.28	24.61
19	77.62	6.70	0.00
20	95.39	31.92	24.72
21	78.82	8.97	0.00
22	95.90	33.33	24.58
23	84.69	31.41	24.69
24	95.93	30.17	24.62
25	88.50	31.49	24.48
26	99.97	32.46	24.35
27	88.28	33.11	24.64
28	97.28	34.76	24.60
29	89.86	31.93	24.58
30	96.42	31.47	24.62
31	86.94	31.16	24.35
32	97.45	30.83	24.45
33	88.77	29.73	24.67
34	96.67	30.58	24.74
35	83.19	29.25	24.64
36	84.39	6.96	0.00
37	90.72	29.89	24.75
38	80.78	6.54	0.00
39	96.43	30.21	24.46
40	98.31	30.31	24.73
41	76.25	5.73	0.00
42	75.54	5.87	0.00
43	98.47	31.19	24.64
44	96.97	30.03	24.39
45	96.58	29.81	24.09
46	93.50	30.22	24.73
47	97.70	30.46	24.82
48	92.70	30.37	24.93
49	89.63	29.36	24.46
50	88.27	29.37	24.63
51	88.69	29.57	24.73
52	92.31	30.12	24.71
53	94.65	30.07	24.47
54	92.35	30.41	24.52
55	78.63	7.02	0.00
56	95.07	30.76	24.65
57	83.84	7.25	0.00
58	96.96	30.80	24.46
59	79.23	6.91	0.00
60	95.69	30.91	24.63
61	77.69	7.81	8.00
62	89.95	30.28	24.50
63	97.83	30.95	24.60
64	85.74	30.21	24.89
65	95.24	30.64	24.35
66	85.34	30.59	24.73
67	91.17	31.48	24.73

68 80.01 30.44 24.70
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CORE 79 - BATCHAWANA LAKE & NORTH - SEDIMENT DATA

1 SAMPLE NUMBER
2 WET WEIGHT + VIAL WEIGHT
3 DRY WEIGHT + VIAL WEIGHT
4 VIAL WEIGHT

SEDIMENTATION RATE = 8.92CM/(1980-1890) = 0.09911 CM/YR

84 CORE NUMBER
1.665 SPECIFIC GRAVITY
81.073 SURFACE AREA 10.16 TUBE DIAMETER
49.483 SURFACE AREA 7.94 CUTTER DIAMETER
8.1384 RATE OF SEDIMENTATION
6 NUMBER OF SAMPLES BELOW THE SURFACE BEFORE THE DIAMETER CHANGES TO CUTTER DIAMETER;IF#ZERO#SURFACE AREA = 49.483 OR VALUE OF LINE 5.

1	2	3	4
001	94.78	04.95	0.00
2	114.41	7.51	0.00
3	113.62	7.41	0.00
4	107.49	6.88	0.00
5	95.24	19.72	14.87
6	105.11	6.80	0.00
7	72.03	18.16	14.79
8	67.93	18.54	14.71
9	65.28	17.66	14.33
10	81.79	19.12	14.76
11	60.18	17.74	14.86
12	62.25	18.07	14.88
13	72.11	18.29	14.31
14	71.43	18.60	14.73
15	70.60	18.85	14.80
16	74.64	19.07	14.77
17	72.58	18.74	15.45
18	71.12	18.99	14.86
19	74.50	20.24	14.71
20	74.79	19.42	14.94
21	75.35	18.97	14.29
22	72.25	19.02	14.78
23	72.71	18.85	14.46
24	72.51	19.25	14.77
25	74.58	19.41	14.70
26	74.89	19.53	14.78
27	72.25	19.19	14.33
28	73.27	19.33	14.46
29	74.35	19.28	14.28
30	75.84	19.98	14.77
31	72.92	19.64	14.70
32	74.93	19.78	14.62
33	76.55	19.77	14.45
34	77.84	19.90	14.31
35	74.46	20.09	14.76
36	76.87	19.01	14.44
37	73.59	19.72	14.76
38	72.95	19.68	14.78
39	75.09	19.93	14.86
40	74.06	19.39	14.30
41	76.61	19.83	14.44
42	74.57	19.83	14.61
43	76.87	20.75	14.44
44	74.31	20.02	14.29
45	75.11	20.49	14.86
46	74.72	19.74	14.44
47	73.84	19.94	14.77
48	73.80	19.53	14.31
49	72.59	19.79	14.71
50	73.28	19.91	14.76
51	75.53	20.11	14.79
52	67.95	19.55	14.87
53	74.28	20.05	14.77
54	76.45	20.28	14.77
55	74.57	19.66	14.28
56	75.65	22.35	14.87
57	73.38	20.02	14.74
58	71.01	19.32	14.30
59	77.77	20.97	14.46
60	75.82	20.33	14.86
61	75.84	20.48	14.87
62	77.88	21.23	14.75
63	75.00	19.76	14.70
64	76.45	20.20	14.60
65	74.77	20.25	14.71
66	76.12	20.40	14.87
67	74.56	20.49	14.75
68	77.25	20.34	14.79
69	76.69	19.30	14.31
70	76.67	20.71	14.86
71	74.28	20.18	14.77
72	78.55	21.10	14.78
73	76.40	20.35	14.78
74	74.69	20.12	14.76

75	74.19	20.08	14.29
76	77.33	20.29	14.63
77	76.24	20.34	14.77
78	73.85	20.05	14.69
79	76.40	20.37	14.77
80	75.42	20.35	14.86
81	76.53	19.79	14.30
82	74.88	20.30	14.86
83	74.53	21.43	14.78
84	75.00	20.22	14.74
85	74.07	20.36	14.72
86	73.19	20.01	14.74
87	73.40	20.09	14.76
88	74.98	20.54	14.78
89	73.19	20.00	14.45
90	75.83	21.30	14.78
91	74.62	19.77	14.29
92	73.76	20.53	14.87
93	74.08	20.11	14.62
94	70.83	19.45	14.31
95	75.30	20.31	14.87
96	61.75	19.13	14.86
97	77.58	20.79	14.70
98	81.52	20.85	14.74
99	64.89	19.29	14.69
100	69.60	19.89	14.75
101	73.45	20.25	14.76

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CORE 84 - BATCHAWANA LAKE 8 NORTH - SEDIMENT DATA

1 SAMPLE NUMBER
2 WET WEIGHT + VIAL WEIGHT
3 DRY WEIGHT + VIAL WEIGHT
4 VIAL WEIGHT

SEDIMENTATION RATE = 12.595 CM/(1981-1890) = .138407CM/YR

85 CORE NUMBER
1.572 SPECIFIC GRAVITY
81.073 SURFACE AREA 10.16 TUBE DIAMETER
49.483 SURFACE AREA 7.94 CUTTER DIAMETER
0.0589 RATE OF SEDIMENTATION
3 NUMBER OF SAMPLES BELOW THE SURFACE BEFORE THE DIAMETER CHANGES TO CUTTER DIAMETER; IF ≠ ZERO ≠ SURFACE AREA = 49.483 OR VALUE OF LINE 5.

1	2	3	4
01	54.56	16.83	14.72
2	95.72	19.62	14.74
3	70.82	18.09	14.72
4	55.03	17.06	14.70
5	55.42	17.42	14.70
6	57.20	17.31	14.86
7	64.58	17.64	14.79
8	58.15	17.37	14.78
9	63.25	17.52	14.71
10	68.06	17.90	14.80
11	67.03	17.75	14.70
12	58.85	16.89	14.25
13	62.36	17.70	14.63
14	64.76	17.65	14.71
15	57.21	17.19	14.56
16	63.60	17.67	14.64
17	64.54	17.36	14.61
18	70.61	18.36	14.79
19	64.03	18.09	14.40
20	77.54	19.90	14.74
21	65.53	19.26	14.55
22	67.31	19.63	14.71
23	62.51	18.37	14.79
24	63.74	18.18	14.57
25	67.30	18.13	14.61
26	66.61	18.55	14.72
27	65.91	18.09	14.37
28	65.65	18.40	14.71
29	67.17	18.49	14.66
30	64.71	18.51	14.79
31	66.30	18.45	14.64
32	66.70	18.66	14.73
33	66.69	18.14	14.26
34	63.80	17.81	14.25
35	67.54	18.45	14.72
36	67.63	18.36	14.55
37	75.86	19.28	14.71
38	64.99	18.84	14.71
39	68.35	19.34	14.71
40	71.29	19.98	14.64
41	69.21	18.91	14.53
42	69.20	19.20	14.58
43	66.81	18.90	14.61
44	66.50	18.94	14.69
45	68.06	19.10	14.71
46	67.39	18.80	14.39
47	68.16	19.18	14.19
48	67.00	19.08	14.61
49	68.30	19.07	14.72
50	67.30	18.98	14.82
51	67.17	18.78	14.63
52	68.79	18.68	14.39
53	69.87	18.99	14.71
54	69.42	18.93	14.61
55	67.02	18.55	14.40
56	65.51	18.29	14.23
57	68.40	18.97	14.73
58	67.58	18.62	14.45
59	66.40	18.74	14.71
60	67.58	18.57	14.38
61	66.73	18.77	14.72
62	64.55	18.18	14.26
63	68.59	18.91	14.71
64	64.01	18.56	14.70
65	69.51	19.07	14.79
66	66.68	18.70	14.73
67	67.39	18.76	14.73

68	66.55	18.58	14.57
69	69.08	18.93	14.71
70	64.99	18.70	14.80
71	67.25	18.62	14.56
72	66.37	17.82	14.69
73	67.14	18.83	14.80
74	69.39	18.98	14.78
75	64.30	18.43	14.62
76	69.29	18.85	14.64
77	67.65	18.83	14.78
78	68.69	18.98	14.81
79	67.86	18.70	14.63
80	71.25	18.97	14.62
81	67.48	18.81	14.72
82	69.29	18.94	14.71
83	68.94	18.47	14.24
84	66.91	18.34	14.23
85	70.93	19.13	14.78
86	69.82	18.56	14.25
87	69.60	18.90	14.63
88	68.12	18.78	14.62
89	69.07	18.64	14.40
90	68.05	18.73	14.56
91	69.34	19.02	14.72
92	70.51	19.15	14.78
93	70.18	18.65	14.25
94	70.02	19.01	14.64
95	67.76	18.86	14.66
96	57.46	18.33	14.93
97	85.82	20.66	14.55
0	0	0	0

CORE 85 - BATCHAWANA LAKE 8 SOUTH - SEDIMENT DATA

1 SAMPLE NUUMBER
2 WET WEIGHT + VIAL WEIGHT
3 DRY WEIGHT + VIAL WEIGHT
4 VIAL WEIGHT

SEDIMENTATION RATE = 5.360 CM/(1981-1890) = 0.0589011 CM/YR

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86       CORE NUMBER
 1.6862SPECIFIC GRAVITY
81.073 SURFACE AREA 10.16     TUBE DIAMETER
49.483 SURFACE AREA  7.94     CUTTER DIAMETER
 0.5044RATE OF SEDIMENTATION
10         NUMBER OF SAMPLES BELOW THE SURFACE BEFORE THE DIAMETER CHANGES TO
           CUTTER DIAMETER;IF≠ZERO≠SURFACE AREA = 49.483 OR VALUE OF LINE 5.

1      2       3      4

  1   78.39   16.27 14.80
  2   85.20   17.42 14.10
  3   92.28   17.66 14.30
  4   94.91   17.03 14.79
  5   90.54   17.51 14.39
  6   93.18   18.05 14.88
  7   92.96   17.90 14.72
  8   89.26   17.63 14.55
  9   94.81   18.04 14.72
 10   90.83   18.02 14.62
 11   88.90   16.23 14.25
 12   85.09   16.68 14.75
 13   87.24   17.15 14.64
 14   61.66   16.57 14.26
 15   60.09   16.81 14.57
 16   62.35   16.79 14.40
 17   65.19   17.43 14.18
 18   66.93   16.92 14.32
 19   64.61   17.16 14.81
 20   65.90   17.00 14.58
 21   66.79   17.32 14.85
 22   65.57   17.03 14.66
 23   66.70   17.10 14.72
 24   65.90   17.04 14.71
 25   67.03   17.03 14.63
 26   66.93   17.14 14.79
 27   66.60   17.17 14.73
 28   66.65   16.60 14.23
 29   70.17   17.14 14.69
 30   67.54   17.25 14.72
 31   67.51   16.95 14.56
 32   67.64   17.00 14.72
 33   64.85   16.55 14.39
 34   69.47   16.68 14.32
 35   58.10   17.13 14.73
 36   71.59   17.24 14.71
 37   70.89   17.39 14.11
 38   69.75   17.11 14.39
 39   71.66   17.53 14.72
 40   71.06   17.28 14.80
 41   70.21   17.30 14.72
 42   70.34   17.13 14.55
 43   72.66   17.32 14.72
 44   72.96   16.67 14.25
 45   74.57   17.22 14.81
 46   72.73   16.67 14.41
 47   73.34   17.27 14.64
 48   74.31   17.26 14.64
 49   75.41   17.48 14.78
 50   74.19   17.28 14.72
 51   74.93   18.13 14.70
 52   73.95   17.51 14.73
 53   72.60   17.61 14.34
 54   70.21   17.55 14.76
0000000000000000000000

 CORE 86 - WISHART LAKE - SEDIMENT DATA

 1 SAMPLE NUMBER
 2 WET WEIGHT + VIAL WEIGHT
 3 DRY WEIGHT + VIAL WEIGHT
 4 VIAL WEIGHT

SEDIMENTATION RATE = 45.900CM/(1981-1890) = 0.504396 CM/YR
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 87      CORE NUMBER
 1.719 SPECIFIC GRAVITY
81.073 SURFACE AREA 10.16     TUBE DIAMETER
49.483 SURFACE AREA  7.94     CUTTER DIAMETER
 0.367ERATE OF SEDIMENTATION
 6      NUMBER OF SAMPLES BELOW THE SURFACE BEFORE THE DIAMTER CHANGES TO
        CUTTER DIAMETER;IF=ZERO=SURFACE AREA = 49.483 OR VALUE OF LINE 5.

1      2       3     4

 1   56.69   16.06 14.80
 2   84.55   17.45 14.87
 3   89.89   17.74 14.72
 4   91.32   18.08 14.71
 5   88.09   17.90 14.55
 6   90.36   18.18 14.80
 7   55.48   16.87 15.04
 8   52.77   16.45 14.63
 9   56.73   16.39 14.40
10   57.76   16.66 14.63
11   60.12   16.74 14.68
12   58.20   16.09 14.25
13   59.14   16.64 14.70
14   62.55   16.72 14.56
15   63.61   16.58 14.37
16   60.74   17.08 15.04
17   63.57   16.79 14.74
18   63.48   16.86 14.73
19   67.05   16.88 14.63
20   69.29   16.84 14.69
21   67.55   16.66 14.64
22   66.29   16.73 14.72
23   63.08   16.42 14.47
24   68.08   16.93 14.71
25   66.31   16.56 14.39
26   70.25   16.93 14.76
27   69.77   16.77 14.71
28   70.47   16.84 14.70
29   70.84   16.56 14.38
30   71.00   16.74 14.63
31   70.39   16.79 14.76
32   70.57   16.44 14.39
33   70.07   16.74 14.71
34   69.57   16.75 14.71
35   70.59   16.66 14.62
36   66.86   17.04 14.86
37   69.89   17.36 14.16
38   69.09   16.66 14.64
39   69.02   16.75 14.70
40   69.66   16.65 14.55
41   72.43   17.08 14.88
42   71.65   16.98 14.80
43   72.91   17.00 14.70
44   72.15   17.14 14.72
45   69.70   16.97 14.66
46   73.87   17.03 14.63
47   72.21   17.06 14.71
48   72.82   17.11 14.71
49   72.99   17.20 14.73
50   74.24   17.33 14.80
51   71.84   17.08 14.63
52   73.77   17.44 14.80
53   74.27   17.21 14.58
54   75.59   17.50 14.81
55   74.86   17.46 14.72
56   75.00   17.60 14.71
57   73.35   17.68 14.19
58   72.13   17.48 14.55
59   73.43   17.79 14.74
60   70.86   17.37 14.27
61   71.42   17.89 14.56
62   70.33   18.85 14.55
63   69.01   17.76 14.33
64   69.89   18.34 14.73
65   74.80   19.46 14.63
0000000000000000000000000

 CORE 87 - WISHART LAKE - SEDIMENT DATA
```

1 SAMPLE NUMBER
2 WET WEIGHT + VIAL WEIGHT
3 DRY WEIGHT + VIAL WEIGHT
4 VIAL WEIGHT

SEDIMENTATION RATE = 33.45 CM/(1981-1890) = 0.367582 CM/YR

```
88       CORE NUMBER
 1.782 SPECIFIC GRAVITY
81.073 SURFACE AREA 10.16     TUBE DIAMETER
49.483 SURFACE AREA  7.94     CUTTER DIAMETER
 0.251 RATE OF SEDIMENTATION
 7       NUMBER OF SAMPLES BELOW THE SURFACE BEFORE THE DIAMETER CHANGES TO
         CUTTER DIAMETER;IF≠ZERO≠SURFACE AREA = 49.483 OR VALUE OF LINE 5.

1      2       3      4

 1   65.87   16.50 14.84
 2   93.93   18.77 14.87
 3   97.77   17.36 14.59
 4   90.90   18.48 14.89
 5   92.45   18.55 14.77
 6   97.20   19.36 14.73
 7   95.20   18.57 14.68
 8   61.98   16.84 14.60
 9   55.92   16.42 14.30
10   59.17   17.00 14.69
11   62.75   17.21 14.72
12   59.45   17.24 14.74
13   61.66   17.21 14.77
14   62.17   17.17 14.74
15   65.04   17.41 14.77
16   60.01   16.86 14.46
17   64.44   17.34 14.43
18   65.66   17.19 14.47
19   65.19   17.49 14.78
20   66.10   17.23 14.46
21   68.10   17.65 14.75
22   66.56   17.38 14.43
23   67.90   17.93 14.72
24   68.77   18.12 14.78
25   67.76   17.79 14.78
26   69.56   17.93 14.84
27   65.01   17.99 14.75
28   66.84   18.21 14.68
29   70.27   18.10 14.83
30   70.12   17.60 14.30
31   71.01   18.14 14.77
32   69.21   18.32 14.61
33   69.52   18.40 14.73
34   66.85   18.31 14.78
35   71.68   18.38 14.83
36   67.71   17.72 14.30
37   69.36   17.99 14.29
38   69.47   18.74 14.83
39   70.31   18.76 14.44
40   67.23   18.21 14.46
41   71.47   18.92 14.83
42   71.89   24.20 14.74
43   70.95   18.98 14.89
44   70.01   18.81 14.74
45   67.41   18.38 14.43
46   69.50   18.55 14.76
47   66.36   18.76 14.83
48   69.51   18.86 14.73
49   70.69   18.92 14.56
50   69.65   19.02 14.71
51   67.02   18.74 14.78
52   69.76   18.92 14.73
53   70.57   18.98 14.66
54   67.71   18.72 14.69
55   70.19   18.92 14.78
56   66.88   18.83 14.78
57   70.84   19.34 14.86
58   67.87   18.87 14.68
59   70.36   19.14 14.76
60   71.13   19.35 14.86
61   68.64   18.84 14.77
62   65.94   18.95 14.75
63   70.23   18.92 14.30
64   70.03   19.41 14.85
65   69.89   19.42 14.73
66   68.60   18.99 14.44
67   70.63   19.12 14.31
68   69.15   19.26 14.77
```

69	72.66	19.67	14.86
70	71.22	19.53	14.83
71	70.71	19.63	14.73
72	67.52	19.10	14.60
73	66.84	19.39	14.67
74	69.49	19.46	14.72
75	65.36	19.31	14.83
76	67.49	19.38	14.44
77	73.99	20.46	14.69

8000000000000000000000

CORE 88 - LITTLE TURKEY LAKE - SEDIMENT DATA

1 SAPPLE NUMBER
2 WET WEIGHT + VIAL WEIGHT
3 DRY WEIGHT + VIAL WEIGHT
4 VIAL WEIGHT

SEDIMENTATION RATE = 22.915CM/(1981-1890)=0.251813 CM/YEAR

```
89      CORE NUMBER
 1.8241DENSITY
81.073 SURFACE AREA 10.16     TUBE DIAMETER
49.483 SURFACE AREA  7.94     CUTTER DIAMETER
 0.0706RATE OF SEDIMENTATION
 7      NUMBER OF SAMPLES BELOW THE SURFACE BEFORE THE DIAMETER CHANGES TO
        CUTTER DIAMETER;IF"ZERO"SURFACE AREA = 49.483 OR VALUE OF LINE 5.
```

1	2	3	4
1	80.43	17.39	14.73
2	86.57	18.83	14.77
3	90.86	19.08	14.57
4	93.26	19.58	14.73
5	94.65	19.64	14.73
6	93.56	19.62	14.76
7	92.82	19.10	14.31
8	71.82	18.37	14.73
9	59.71	17.92	14.77
10	63.61	18.09	14.61
11	65.34	18.47	14.87
12	66.31	18.42	14.68
13	67.45	18.54	14.65
14	72.87	19.05	14.68
15	69.89	19.06	14.80
16	68.31	18.78	14.57
17	67.65	18.61	14.46
18	70.20	19.12	14.77
19	70.36	19.17	14.76
20	67.69	18.99	14.67
21	70.28	19.37	14.78
22	71.14	19.51	14.78
23	70.13	19.07	14.45
24	68.97	19.42	14.78
25	70.04	19.54	14.87
26	70.82	19.37	14.58
27	73.25	19.65	14.15
28	69.36	19.25	14.57
29	70.18	19.47	14.77
30	73.25	19.83	14.85
31	70.91	19.42	14.62
32	71.77	19.58	14.73
33	69.12	19.24	14.44
34	73.56	19.95	14.77
35	73.26	19.76	14.57
36	72.29	19.79	14.63
37	73.20	19.91	14.67
38	73.11	19.96	14.75
39	87.74	20.97	14.45
40	74.49	20.06	14.69
41	72.98	19.85	14.66
42	74.23	20.16	14.76
43	73.24	20.09	14.77
44	72.89	19.84	14.44
45	74.79	20.16	14.59
46	71.74	19.97	14.66
47	75.18	20.68	14.80
48	73.60	20.67	14.88
49	71.48	19.85	14.42
50	73.08	20.51	14.84
51	74.19	20.60	14.74
52	74.18	20.60	14.66
53	73.37	20.54	14.76
54	74.98	20.54	14.71
55	74.89	20.46	14.79

```
56   75.85   20.47 14.71
57   73.98   20.44 14.73
58   75.52   20.47 14.62
59   74.53   20.53 14.68
60   74.02   20.85 14.84
61   75.62   20.70 14.31
62   71.49   20.23 14.32
63   75.08   20.71 14.43
64   74.36   20.93 14.73
65   70.74   20.62 14.70
66   73.44   21.12 14.81
67   69.38   20.71 14.79
68   81.42   22.00 14.42
0000000000000000000000
```

CORE 89 - LITTLE TURKEY LAKE - SEDIMENT DATA

1 SAMPLE NUMBER
2 WET WEIGHT + VIAL WEIGHT
3 DRY WEIGHT + VIAL WEIGHT
4 VIAL WEIGHT

SEDIMENTATION RATE = 6.425 CM/(1981-1890)=0.0706044 CM/YEAR

```
80       CORE NUMBER
 2.4784SPECIFIC GRAVITY
81.073 SURFACE AREA 10.16     TUBE DIAMETER
49.483 SURFACE AREA  7.94     CUTTER DIAMETER
 0.2112RATE OF SEDIMENTATION
 0       NUMBER OF SAMPLES BELOW THE SURFACE BEFORE THE DIAMETER CHANGES TO
         CUTTER DIAMETER;IF≠ZERO≠SURFACE AREA = 49.483 OR VALUE OF LINE 5.

1      2       3      4

 1 104.16   41.22  24.82
 2 100.29   36.35  24.39
 3 103.81   38.19  24.67
 4 104.53   38.34  24.96
 5  98.64   37.23  24.64
 6 104.18   38.45  24.44
 7 110.78   40.94  24.87
 8 109.63   41.86  24.91
 9 112.11   45.39  24.60
10 118.91   52.16  24.46
11  87.21   47.38  24.62
12 103.91   61.54  24.57
13  94.95   59.87  24.70
14 106.76   66.05  24.58
15 101.21   62.39  24.34
16 104.20   66.06  24.33
17 107.77   67.16  24.82
18 107.83   68.03  24.56
19 110.01   69.31  24.41
20 106.47   67.91  24.62
21 112.75   72.03  24.57
22 115.48   74.44  24.70
23 120.30   76.11  24.65
24 122.51   77.46  24.57
25 114.20   72.86  24.59
26 112.77   71.54  24.69
27 109.61   72.98  24.85
28 113.21   77.69  24.65
29 112.07   77.29  24.72
30 121.21   84.27  24.44
31 119.92   83.48  24.60
32 119.95   84.12  24.78
33 116.12   81.39  24.46
34 114.41   78.87  24.37
35 114.85   78.95  24.58
36 105.80   74.59  24.69
0000000000000000000000

 CORE 80 - TURKEY LAKE - SEDIMENT DATA

 1 SAMPLE NUMBER
 2 WET WEIGHT + VIAL WEIGHT
 3 DRY WEIGHT + VIAL WEIGHT
 4 VIAL WEIGHT

SEDIMENTATION RATE = 19.01 CM/(1980-1890)= 0.211222 CM/YEAR
```

```
 90      CORE NUMBER
  1.955 SPECIFIC GRAVITY
 81.073 SURFACE AREA 10.16     TUBE DIAMETER
 49.483 SURFACE AREA  7.94     CUTTER DIAMETER
  0.0733RATE OF SEDIMENTATION
  9      NUMBER OF SAMPLES BELOW THE SURFACE BEFORE THE DIAMTER CHANGES TO
         CUTTER DIAMETER;IF≠ZERO≠SURFACE AREA = 49.483 OR VALUE OF LINE 5.

 1      2       3      4

  1   68.08   17.99 14.28
  2   93.22   21.38 14.65
  3   95.90   21.71 14.75
  4   96.17   21.71 14.77
  5   96.55   21.70 14.73
  6   88.25   21.05 14.88
  7   99.25   22.02 14.82
  8   98.59   21.76 14.74
  9   93.68   21.40 14.66
 10   97.36   21.53 14.29
 11   76.41   20.35 14.72
 12   68.63   19.59 14.66
 13   68.29   19.56 14.67
 14   71.55   20.03 14.83
 15   69.02   19.38 14.31
 16   70.80   19.89 14.69
 17   72.97   20.12 14.68
 18   71.23   19.67 14.29
 19   74.66   20.34 14.65
 20   71.58   20.32 14.67
 21   61.84   19.34 14.48
 22   74.91   20.78 14.57
 23   75.31   21.01 14.85
 24   75.11   20.87 14.86
 25   76.46   21.02 14.79
 26   79.91   21.38 14.74
 27   75.28   20.86 14.73
 28   76.91   21.11 14.84
 29   76.22   20.58 14.31
 30   76.04   20.94 14.72
 31   75.03   20.62 14.44
 32   72.16   20.73 14.72
 33   74.33   20.84 14.58
 34   77.02   21.51 14.67
 35   76.49   21.31 14.45
 36   78.56   21.90 14.70
 37   78.82   21.85 14.71
 38   75.74   21.24 14.48
 39   77.06   21.67 14.63
 40   74.98   21.27 14.30
 41   76.66   22.04 14.87
 42   77.82   22.29 14.78
 43   75.96   22.16 14.79
 44   73.84   21.67 14.45
 45   75.40   22.13 14.88
 46   76.14   22.05 14.77
 47   77.59   22.16 14.59
 48   77.53   21.87 14.30
 49   78.03   22.19 14.70
 50   76.67   22.05 14.71
 51   80.45   22.38 14.61
 52   78.11   22.14 14.78
 53   77.49   22.28 14.89
 54   76.05   21.83 14.94
 55   72.59   21.47 14.60
 56   71.79   21.87 14.70
 57   69.90   21.83 14.75
 58   70.21   22.07 14.62
0000000000000000000000

 CORE 90 - TURKEY LAKE - SEDIMENT DATA

 1 SAMPLE NUMBER
 2 WET WEIGHT + VIAL WEIGHT
 3 DRY WEIGHT + VIAL WEIGHT
 4 VIAL WEIGHT

SEDIMENTATION RATE = 6.595 CM/(1981-1890)=0.0732778 CM/YEAR
```

APPENDIX 2

A number of physical parameters are calculated for each core. Time is also included. The calculations are based on dry weight for each sample and an average of the specific gravity for the core. Time BP (Before Present) refers to the years 1980. This is to be understood in connection with all datings that follow, though it may not always be repeated. The equations used to calculate the parameters are given at the end of this appendix. Data for the following cores are included:

1. Batchawana Lake : north - Core 79
2. Batchawana Lake : north - Core 84
3. Batchawana Lake : south - Core 85
4. Wishart Lake - Core 86
5. Wishart Lake - Core 87
6. Little Turkey Lake - Core 88
7. Little Turkey Lake - Core 89
8. Turkey Lake - Core 80
9. Turkey Lake - Core 90

SAMPLE NUMBER	WET WT.	DRY WT.	CUMM. DRY WT.	WATER CONTENT	SED. VOL.	TOTAL VOLUME	COMP. THICK	COMP. DEPTH	COMP. MID PT	SAMPLE POROSITY	UNCOMP THICK	UNCOMP DEPTH	UNCOMP MID PT	TIME B.P.
1	73.94	5.23	.11	68.71	2.95	71.66	1.45	1.45	.72	95.88	1.45	1.45	.72	7
2	66.74	4.95	.21	61.79	2.80	64.59	1.31	2.75	2.10	95.67	1.36	2.80	2.13	21
3	83.73	6.24	.33	77.49	3.53	81.02	1.64	4.39	3.57	95.65	1.69	4.50	3.65	37
4	74.13	5.56	.44	68.57	3.14	71.71	1.45	5.84	5.12	95.62	1.51	6.01	5.25	53
5	81.50	6.44	.57	75.06	3.64	78.70	1.59	7.43	6.64	95.38	1.71	7.72	6.86	69
6	57.37	4.46	.66	52.91	2.52	55.43	1.12	8.55	7.99	95.45	1.22	8.94	8.33	84
7	50.35	4.11	.75	46.24	2.32	48.56	.98	9.53	9.04	95.22	1.14	10.08	9.51	96
8	55.23	4.37	.84	50.86	2.47	53.33	1.08	10.61	10.07	95.37	1.20	11.28	10.68	108
9	62.62	5.15	.94	57.47	2.91	60.38	1.22	11.83	11.22	95.18	1.39	12.67	11.98	121
10	66.56	5.72	1.06	60.84	3.23	64.07	1.29	13.12	12.48	94.96	1.52	14.19	13.43	136
11	61.58	5.29	1.16	56.29	2.99	59.28	1.20	14.32	13.72	94.96	1.42	15.61	14.90	151
12	66.93	5.96	1.28	60.97	3.37	64.34	1.30	15.62	14.97	94.77	1.57	17.18	16.40	
13	59.65	5.14	1.39	54.51	2.90	57.41	1.16	16.78	16.20	94.94	1.39	18.57	17.87	
14	60.78	5.07	1.49	55.71	2.86	58.57	1.18	17.97	17.37	95.11	1.37	19.94	19.25	
15	59.23	4.83	1.59	54.40	2.73	57.13	1.15	19.12	18.54	95.22	1.31	21.25	20.59	
16	57.51	4.42	1.68	53.09	2.50	55.59	1.12	20.24	19.68	95.51	1.21	22.46	21.86	
17	68.52	6.18	1.80	62.34	3.49	65.83	1.33	21.58	20.91	94.70	1.62	24.08	23.27	
18	70.36	6.67	1.94	63.69	3.77	67.46	1.36	22.94	22.26	94.41	1.72	25.80	24.94	
19	77.62	6.70	2.07	70.92	3.79	74.71	1.51	24.45	23.69	94.93	1.74	27.54	26.67	
20	70.67	7.20	2.22	63.47	4.07	67.54	1.36	25.81	25.13	93.98	1.83	29.36	28.45	
21	78.82	8.97	2.40	69.85	5.07	74.92	1.51	27.33	26.57	93.24	2.15	31.52	30.44	
22	71.32	8.75	2.57	62.57	4.94	67.51	1.36	28.69	28.01	92.68	2.14	33.66	32.59	
23	60.00	6.72	2.71	53.28	3.80	57.08	1.15	29.84	29.27	93.35	1.77	35.43	34.54	
24	71.31	5.55	2.82	65.76	3.14	68.90	1.39	31.24	30.54	95.45	1.50	36.92	36.17	
25	64.02	7.01	2.96	57.01	3.96	60.97	1.23	32.47	31.85	93.50	1.81	38.73	37.83	
26	75.62	8.11	3.13	67.51	4.58	72.09	1.46	33.93	33.20	93.64	2.00	40.73	39.73	
27	63.64	8.47	3.30	55.17	4.79	59.96	1.21	35.14	34.53	92.02	2.15	42.87	41.80	
28	72.68	10.16	3.50	62.52	5.74	68.26	1.38	36.52	35.83	91.59	2.42	45.29	44.08	
29	65.28	7.35	3.65	57.93	4.15	62.08	1.25	37.77	37.14	93.31	1.88	47.17	46.23	
30	71.80	6.85	3.79	64.95	3.87	68.82	1.39	39.16	38.47	94.38	1.75	48.93	48.05	
31	62.59	6.81	3.93	55.78	3.85	59.63	1.21	40.37	39.77	93.55	1.77	50.70	49.81	
32	73.00	6.38	4.06	66.62	3.60	70.22	1.42	41.79	41.08	94.87	1.66	52.36	51.53	
33	64.10	5.06	4.16	59.04	2.86	61.90	1.25	43.04	42.41	95.38	1.37	53.73	53.04	
34	71.93	5.84	4.28	66.09	3.30	69.39	1.40	44.44	43.74	95.25	1.56	55.29	54.51	
35	58.55	4.61	4.37	53.94	2.60	56.54	1.14	45.58	45.01	95.39	1.26	56.55	55.92	
36	84.39	6.96	4.51	77.43	3.93	81.36	1.64	47.23	46.40	95.17	1.82	58.36	57.45	
37	65.97	5.14	4.62	60.83	2.90	63.73	1.29	48.51	47.87	95.44	1.39	59.76	59.06	
38	80.78	6.54	4.75	74.24	3.69	77.93	1.57	50.09	49.30	95.26	1.72	61.48	60.62	
39	71.97	5.75	4.86	66.22	3.25	69.47	1.40	51.49	50.79	95.32	1.54	63.02	62.25	
40	73.58	5.58	4.98	68.00	3.15	71.15	1.44	52.93	52.21	95.57	1.51	64.53	63.77	
41	76.25	5.73	5.09	70.52	3.24	73.76	1.49	54.42	53.68	95.61	1.56	66.09	65.31	
42	75.54	5.87	5.21	69.67	3.32	72.99	1.47	55.90	55.16	95.46	1.58	67.66	66.87	
43	73.83	6.55	5.34	67.28	3.70	70.98	1.43	57.33	56.61	94.79	1.70	69.36	68.51	
44	72.58	5.64	5.46	66.94	3.19	70.13	1.42	58.75	58.04	95.46	1.52	70.88	70.12	
45	72.49	5.72	5.57	66.77	3.23	70.00	1.41	60.16	59.46	95.38	1.53	72.42	71.65	
46	68.77	5.49	5.68	63.28	3.10	66.38	1.34	61.51	60.83	95.33	1.47	73.89	73.15	
47	72.88	5.64	5.80	67.24	3.19	70.43	1.42	62.93	62.22	95.48	1.52	75.41	74.65	
48	67.77	5.44	5.91	62.33	3.07	65.40	1.32	64.25	63.59	95.30	1.46	76.87	76.14	

SAMPLE NUMBER	WET WT.	DRY WT.	CUMM. DRY WT.	WATER CONTENT	SED. VOL.	TOTAL VOLUME	COMP. THICK	COMP. DEPTH	COMP. MID PT	SAMPLE POROSITY	UNCOMP THICK	UNCOMP DEPTH	UNCOMP MID PT	TIME B.P.
49	65.17	4.90	6.01	60.27	2.77	63.04	1.27	65.52	64.89	95.61	1.34	78.21	77.54	
50	63.64	4.74	6.10	58.90	2.68	61.58	1.24	66.77	66.15	95.65	1.30	79.51	78.86	
51	63.96	4.84	6.20	59.12	2.73	61.85	1.25	68.02	67.39	95.58	1.32	80.83	80.17	
52	67.60	5.41	6.31	62.19	3.06	65.25	1.32	69.34	68.68	95.32	1.45	82.29	81.56	
53	70.18	5.60	6.42	64.58	3.16	67.74	1.37	70.71	70.02	95.33	1.50	83.79	83.04	
54	67.83	5.89	6.54	61.94	3.33	65.27	1.32	72.03	71.37	94.90	1.56	85.34	84.57	
55	78.63	7.02	6.68	71.61	3.97	75.58	1.53	73.55	72.79	94.75	1.80	87.14	86.24	
56	70.42	6.11	6.81	64.31	3.45	67.76	1.37	74.92	74.24	94.91	1.60	88.75	87.95	
57	83.84	7.25	6.95	76.59	4.10	80.69	1.63	76.55	75.74	94.92	1.86	90.61	89.68	
58	72.50	6.34	7.08	66.16	3.58	69.74	1.41	77.96	77.26	94.86	1.66	92.27	91.44	
59	79.23	6.91	7.22	72.32	3.90	76.22	1.54	79.50	78.73	94.88	1.78	94.05	93.16	
60	71.06	6.28	7.35	64.78	3.55	68.33	1.38	80.88	80.19	94.81	1.64	95.69	94.87	
61	77.69	7.81	7.51	69.88	4.41	74.29	1.50	82.38	81.63	94.06	1.94	97.63	96.66	
62	65.45	5.78	7.62	59.67	3.27	62.94	1.27	83.66	83.02	94.81	1.53	99.16	98.40	
63	73.23	6.35	7.75	66.88	3.59	70.47	1.42	85.08	84.37	94.91	1.66	100.82	99.99	
64	60.85	5.32	7.86	55.53	3.01	58.54	1.18	86.26	85.67	94.87	1.43	102.25	101.53	
65	70.89	6.29	7.99	64.60	3.55	68.15	1.38	87.64	86.95	94.79	1.64	103.89	103.07	
66	60.61	5.86	8.11	54.75	3.31	58.06	1.17	88.81	88.23	94.30	1.56	105.45	104.67	
67	66.44	6.67	8.24	59.77	3.77	63.54	1.28	90.10	89.46	94.07	1.72	107.17	106.31	
68	55.31	5.74	8.36	49.57	3.24	52.81	1.07	91.17	90.63	93.86	1.56	108.73	107.95	

DENSITY = 1.770

CORE 79 - BATCHAWANA LAKE : NORTH - SEDIMENT DATA

SAMPLE NUMBER	WET WT.	DRY WT.	CUMM. DRY WT.	WATER CONTENT	SED. VOL.	TOTAL VOLUME	COMP. THICK	COMP. DEPTH	COMP. MID PT	SAMPLE POROSITY	UNCOMP THICK	UNCOMP DEPTH	UNCOMP MID PT	TIME B.P.
1	94.78	4.95	.06	89.83	2.97	92.80	1.14	1.14	.57	96.80	1.14	1.14	.57	4
2	114.41	7.51	.15	106.90	4.51	111.41	1.37	2.52	1.83	95.95	1.64	2.78	1.96	14
3	113.62	7.41	.25	106.21	4.45	110.66	1.36	3.88	3.20	95.98	1.62	4.40	3.59	26
4	107.49	6.88	.33	100.61	4.13	104.74	1.29	5.18	4.53	96.05	1.52	5.93	5.16	37
5	80.37	4.85	.39	75.52	2.91	78.43	.97	6.14	5.66	96.29	1.13	7.05	6.49	47
6	105.11	6.80	.47	98.31	4.08	102.39	1.26	7.41	6.77	96.01	1.51	8.56	7.81	57
7	57.24	3.37	.54	53.87	2.02	55.89	1.13	8.54	7.97	96.38	1.26	9.82	9.19	67
8	53.22	3.83	.62	49.39	2.30	51.69	1.04	9.58	9.06	95.55	1.43	11.25	10.54	76
9	50.95	3.33	.69	47.62	2.00	49.62	1.00	10.58	10.08	95.97	1.26	12.52	11.89	86
10	67.03	4.36	.77	62.67	2.62	65.29	1.32	11.90	11.24	95.99	1.57	14.09	13.30	96
11	45.32	2.88	.83	42.44	1.73	44.17	.89	12.80	12.35	96.08	1.12	15.20	14.64	106
12	47.37	3.19	.90	44.18	1.92	46.10	.93	13.73	13.26	95.84	1.23	16.43	15.82	115
13	57.80	3.98	.98	53.82	2.39	56.21	1.14	14.86	14.29	95.75	1.46	17.89	17.16	124
14	56.70	3.87	1.06	52.83	2.32	55.15	1.11	15.98	15.42	95.79	1.43	19.32	18.61	135
15	55.80	4.05	1.14	51.75	2.43	54.18	1.09	17.07	16.52	95.51	1.50	20.82	20.07	145
16	59.87	4.30	1.22	55.57	2.58	58.15	1.18	18.25	17.66	95.56	1.56	22.38	21.60	
17	57.13	3.29	1.29	53.84	1.98	55.82	1.13	19.38	18.81	96.46	1.23	23.62	23.00	
18	56.26	4.13	1.37	52.13	2.48	54.61	1.10	20.48	19.93	95.46	1.52	25.14	24.38	
19	59.79	5.53	1.49	54.26	3.32	57.58	1.16	21.64	21.06	94.23	1.96	27.10	26.12	
20	59.85	4.48	1.58	55.37	2.69	58.06	1.17	22.82	22.23	95.37	1.62	28.72	27.91	
21	61.06	4.68	1.67	56.38	2.81	59.19	1.20	24.01	23.41	95.25	1.68	30.40	29.56	
22	57.47	4.24	1.76	53.23	2.55	55.78	1.13	25.14	24.58	95.43	1.55	31.95	31.18	
23	58.25	4.39	1.85	53.86	2.64	56.50	1.14	26.28	25.71	95.33	1.60	33.55	32.75	
24	57.74	4.48	1.94	53.26	2.69	55.95	1.13	27.41	26.85	95.19	1.63	35.18	34.37	
25	59.88	4.71	2.03	55.17	2.83	58.00	1.17	28.58	28.00	95.12	1.69	36.88	36.03	
26	60.11	4.75	2.13	55.36	2.85	58.21	1.18	29.76	29.17	95.10	1.71	38.58	37.73	
27	57.92	4.86	2.23	53.06	2.92	55.98	1.13	30.89	30.33	94.79	1.76	40.34	39.46	
28	58.81	4.87	2.32	53.94	2.92	56.86	1.15	32.04	31.47	94.86	1.75	42.10	41.22	
29	60.07	5.00	2.43	55.07	3.00	58.07	1.17	33.21	32.63	94.83	1.79	43.88	42.99	
30	61.07	5.21	2.53	55.86	3.13	58.99	1.19	34.41	33.81	94.70	1.85	45.73	44.81	
31	58.22	4.94	2.63	53.28	2.97	56.25	1.14	35.54	34.97	94.73	1.78	47.52	46.62	
32	60.31	5.16	2.73	55.15	3.10	58.25	1.18	36.72	36.13	94.68	1.84	49.35	48.44	
33	62.10	5.32	2.84	56.78	3.20	59.98	1.21	37.93	37.33	94.67	1.88	51.23	50.29	
34	63.53	5.59	2.96	57.94	3.36	61.30	1.24	39.17	38.55	94.52	1.95	53.18	52.20	
35	59.70	5.33	3.06	54.37	3.20	57.57	1.16	40.33	39.75	94.44	1.90	55.08	54.13	
36	62.43	4.57	3.16	57.86	2.74	60.60	1.22	41.56	40.95	95.47	1.64	56.72	55.90	
37	58.83	4.96	3.26	53.87	2.98	56.85	1.15	42.71	42.13	94.76	1.78	58.50	57.61	
38	58.17	4.90	3.35	53.27	2.94	56.21	1.14	43.84	43.28	94.76	1.77	60.27	59.39	
39	60.23	5.07	3.46	55.16	3.05	58.21	1.18	45.02	44.43	94.77	1.81	62.08	61.17	
40	59.76	5.09	3.56	54.67	3.06	57.73	1.17	46.19	45.60	94.70	1.82	63.90	62.99	
41	62.17	5.39	3.67	56.78	3.24	60.02	1.21	47.40	46.79	94.61	1.90	65.80	64.85	
42	59.96	5.22	3.77	54.74	3.14	57.88	1.17	48.57	47.98	94.58	1.86	67.66	66.73	
43	62.43	6.31	3.90	56.12	3.79	59.91	1.21	49.78	49.17	93.67	2.19	69.84	68.75	
44	60.02	5.73	4.02	54.29	3.44	57.73	1.17	50.95	50.36	94.04	2.03	71.87	70.86	
45	60.25	5.63	4.13	54.62	3.38	58.00	1.17	52.12	51.53	94.17	1.99	73.86	72.87	
46	60.28	5.30	4.24	54.98	3.18	58.16	1.18	53.29	52.71	94.53	1.88	75.75	74.80	
47	59.07	5.17	4.34	53.90	3.11	57.01	1.15	54.45	53.87	94.55	1.85	77.60	76.67	
48	59.49	5.22	4.45	54.27	3.14	57.41	1.16	55.61	55.03	94.54	1.86	79.46	78.53	
49	57.88	5.08	4.55	52.80	3.05	55.85	1.13	56.74	56.17	94.54	1.83	81.30	80.38	
50	58.52	5.15	4.66	53.37	3.09	56.46	1.14	57.88	57.31	94.52	1.85	83.15	82.22	
51	60.74	5.32	4.76	55.42	3.20	58.62	1.18	59.06	58.47	94.55	1.89	85.03	84.09	
52	53.08	4.68	4.86	48.40	2.81	51.21	1.03	60.10	59.58	94.51	1.75	86.78	85.91	
53	59.51	5.28	4.96	54.23	3.17	57.40	1.16	61.26	60.68	94.48	1.88	88.67	87.72	
54	61.68	5.51	5.08	56.17	3.31	59.48	1.20	62.46	61.86	94.44	1.94	90.61	89.64	
55	60.29	5.38	5.18	54.91	3.23	58.14	1.17	63.63	63.05	94.44	1.91	92.51	91.56	

SAMPLE NUMBER	WET WT.	DRY WT.	CUMM. DRY WT.	WATER CONTENT	SED. VOL.	TOTAL VOLUME	COMP. THICK	COMP. DEPTH	COMP. MID PT	SAMPLE POROSITY	UNCOMP THICK	UNCOMP DEPTH	UNCOMP MID PT	TIME B.P.
56	60.78	7.48	5.34	53.30	4.49	57.79	1.17	64.80	64.22	92.23	2.59	95.11	93.81	
57	58.64	5.28	5.44	53.36	3.17	56.53	1.14	65.94	65.37	94.39	1.89	97.00	96.06	
58	56.71	5.02	5.54	51.69	3.02	54.71	1.11	67.05	66.50	94.49	1.83	98.83	97.92	
59	63.31	6.51	5.67	56.80	3.91	60.71	1.23	68.28	67.66	93.56	2.24	101.07	99.95	
60	60.96	5.47	5.79	55.49	3.29	58.78	1.19	69.46	68.87	94.41	1.93	103.00	102.03	
61	60.97	5.61	5.90	55.36	3.37	58.73	1.19	70.65	70.06	94.26	1.98	104.98	103.99	
62	63.13	6.48	6.03	56.65	3.89	60.54	1.22	71.87	71.26	93.57	2.23	107.21	106.09	
63	60.30	5.06	6.13	55.24	3.04	58.28	1.18	73.05	72.46	94.79	1.81	109.01	108.11	
64	61.85	5.60	6.25	56.25	3.36	59.61	1.20	74.26	73.65	94.36	1.97	110.98	109.99	
65	60.06	5.54	6.36	54.52	3.33	57.85	1.17	75.43	74.84	94.25	1.96	112.94	111.96	
66	61.25	5.53	6.47	55.72	3.32	59.04	1.19	76.62	76.02	94.37	1.95	114.89	113.92	
67	59.81	5.74	6.58	54.07	3.45	57.52	1.16	77.78	77.20	94.01	2.03	116.92	115.91	
68	62.46	5.55	6.70	56.91	3.33	60.24	1.22	79.00	78.39	94.47	1.94	118.87	117.90	
69	62.38	4.99	6.80	57.39	3.00	60.39	1.22	80.22	79.61	95.04	1.77	120.64	119.75	
70	61.81	5.85	6.92	55.96	3.51	59.47	1.20	81.42	80.82	94.09	2.05	122.69	121.66	
71	59.51	5.41	7.03	54.10	3.25	57.35	1.16	82.58	82.00	94.33	1.93	124.61	123.65	
72	63.77	6.32	7.15	57.45	3.80	61.25	1.24	83.82	83.20	93.80	2.17	126.79	125.70	
73	61.62	5.57	7.27	56.05	3.35	59.40	1.20	85.02	84.42	94.37	1.96	128.74	127.76	
74	59.93	5.36	7.37	54.57	3.22	57.79	1.17	86.19	85.60	94.43	1.91	130.65	129.70	
75	59.90	5.79	7.49	54.11	3.48	57.59	1.16	87.35	86.77	93.96	2.05	132.70	131.67	
76	62.70	5.66	7.61	57.04	3.40	60.44	1.22	88.57	87.96	94.38	1.98	134.68	133.69	
77	61.47	5.57	7.72	55.90	3.35	59.25	1.20	89.77	89.17	94.35	1.96	136.64	135.66	
78	59.16	5.36	7.83	53.80	3.22	57.02	1.15	90.92	90.34	94.35	1.91	138.55	137.59	
79	61.63	5.60	7.94	56.03	3.36	59.39	1.20	92.12	91.52	94.34	1.97	140.52	139.53	
80	60.56	5.49	8.05	55.07	3.30	58.37	1.18	93.30	92.71	94.35	1.94	142.46	141.49	
81	62.23	5.49	8.16	56.74	3.30	60.04	1.21	94.51	93.91	94.51	1.93	144.39	143.43	
82	60.02	5.44	8.27	54.58	3.27	57.85	1.17	95.68	95.10	94.35	1.93	146.32	145.36	
83	59.75	6.65	8.41	53.10	3.99	57.09	1.15	96.84	96.26	93.00	2.34	148.66	147.49	
84	60.26	5.48	8.52	54.78	3.29	58.07	1.17	98.01	97.42	94.33	1.94	150.60	149.63	
85	59.35	5.64	8.63	53.71	3.39	57.10	1.15	99.16	98.59	94.07	2.01	152.61	151.60	
86	58.45	5.27	8.74	53.18	3.17	56.35	1.14	100.30	99.73	94.38	1.89	154.50	153.55	
87	58.64	5.33	8.84	53.31	3.20	56.51	1.14	101.44	100.87	94.34	1.91	156.41	155.45	
88	60.20	5.76	8.96	54.44	3.46	57.90	1.17	102.61	102.03	94.03	2.04	158.45	157.43	
89	58.74	5.55	9.07	53.19	3.33	56.52	1.14	103.76	103.19	94.10	1.98	160.43	159.44	
90	60.25	6.52	9.20	53.73	3.92	57.65	1.16	104.92	104.34	93.21	2.29	162.71	161.57	
91	60.33	5.48	9.32	54.85	3.29	58.14	1.17	106.10	105.51	94.34	1.94	164.66	163.68	
92	58.89	5.66	9.43	53.23	3.40	56.63	1.14	107.24	106.67	94.00	2.02	166.67	165.67	
93	59.46	5.49	9.54	53.97	3.30	57.27	1.16	108.40	107.82	94.24	1.95	168.63	167.65	
94	56.52	5.14	9.64	51.38	3.09	54.47	1.10	109.50	108.95	94.33	1.87	170.50	169.56	
95	60.43	5.44	9.75	54.99	3.27	58.26	1.18	110.68	110.09	94.39	1.93	172.43	171.46	
96	46.89	4.27	9.84	42.62	2.56	45.18	.91	111.59	111.13	94.32	1.68	174.11	173.27	
97	62.88	6.09	9.96	56.79	3.66	60.45	1.22	112.81	112.20	93.95	2.11	176.22	175.17	
98	66.78	6.11	10.09	60.67	3.67	64.34	1.30	114.11	113.46	94.30	2.08	178.30	177.26	
99	50.20	4.60	10.18	45.60	2.76	48.36	.98	115.09	114.60	94.29	1.76	180.06	179.18	
100	54.85	5.14	10.28	49.71	3.09	52.80	1.07	116.16	115.62	94.15	1.89	181.96	181.01	
101	58.69	5.49	10.40	53.20	3.30	56.50	1.14	117.30	116.73	94.16	1.96	183.92	182.94	

DENSITY = 1.665

CORE 84 - BATCHAWANA LAKE : NORTH - SEDIMENT DATA

SAMPLE NUMBER	WET WT.	DRY WT.	CUMM. DRY WT.	WATER CONTENT	SED. VOL.	TOTAL VOLUME	COMP. THICK	COMP. DEPTH	COMP. MID PT	SAMPLE POROSITY	UNCOMP THICK	UNCOMP DEPTH	UNCOMP MID PT	TIME B.P.
1	39.84	2.11	.03	37.73	1.34	39.07	.48	.48	.24	96.56	.48	.48	.24	
2	80.98	4.88	.09	76.10	3.10	79.20	.98	1.46	.97	96.08	1.12	1.60	1.04	
3	56.10	3.37	.13	52.73	2.14	54.87	.68	2.14	1.80	96.09	.81	2.41	2.01	
4	40.33	2.36	.18	37.97	1.50	39.47	.80	2.93	2.53	96.20	.90	3.32	2.87	
5	40.72	2.72	.23	38.00	1.73	39.73	.80	3.74	3.33	95.64	1.07	4.39	3.85	
6	42.34	2.45	.28	39.89	1.56	41.45	.84	4.57	4.16	96.24	.93	5.32	4.86	
7	49.79	2.85	.34	46.94	1.81	48.75	.99	5.56	5.07	96.28	1.07	6.39	5.86	
8	43.37	2.59	.39	40.78	1.65	42.43	.86	6.42	5.99	96.12	.99	7.38	6.88	
9	48.54	2.81	.45	45.73	1.79	47.52	.96	7.38	6.90	96.24	1.06	8.43	7.90	
10	53.26	3.10	.51	50.16	1.97	52.13	1.05	8.43	7.90	96.22	1.15	9.59	9.01	
11	52.33	3.05	.57	49.28	1.94	51.22	1.04	9.47	8.95	96.21	1.14	10.72	10.16	
12	44.60	2.64	.62	41.96	1.68	43.64	.88	10.35	9.91	96.15	1.00	11.73	11.23	
13	47.73	3.07	.69	44.66	1.95	46.61	.94	11.29	10.82	95.81	1.16	12.89	12.31	
14	50.05	2.94	.75	47.11	1.87	48.98	.99	12.28	11.78	96.18	1.10	13.99	13.44	
15	42.65	2.63	.80	40.02	1.67	41.69	.84	13.12	12.70	95.99	1.01	15.00	14.50	
16	48.96	3.03	.86	45.93	1.93	47.86	.97	14.09	13.61	95.97	1.14	16.14	15.57	
17	49.93	2.75	.92	47.18	1.75	48.93	.99	15.08	14.58	96.42	1.03	17.17	16.66	
18	55.82	3.57	.99	52.25	2.27	54.52	1.10	16.18	15.63	95.83	1.31	18.48	17.83	
19	49.63	3.69	1.06	45.94	2.35	48.29	.98	17.16	16.67	95.14	1.39	19.88	19.18	
20	62.80	5.16	1.17	57.64	3.28	60.92	1.23	18.39	17.77	94.61	1.80	21.67	20.77	
21	50.98	4.71	1.26	46.27	3.00	49.27	1.00	19.38	18.88	93.92	1.77	23.44	22.56	
22	52.60	4.92	1.36	47.68	3.13	50.81	1.03	20.41	19.90	93.84	1.82	25.26	24.35	
23	47.72	3.58	1.43	44.14	2.28	46.42	.94	21.35	20.88	95.09	1.37	26.63	25.94	
24	49.17	3.61	1.51	45.56	2.30	47.86	.97	22.31	21.83	95.20	1.36	27.99	27.31	
25	52.69	3.52	1.58	49.17	2.24	51.41	1.04	23.35	22.83	95.64	1.31	29.30	28.64	
26	51.89	3.83	1.66	48.06	2.44	50.50	1.02	24.37	23.86	95.18	1.42	30.72	30.01	
27	51.54	3.72	1.73	47.82	2.37	50.19	1.01	25.39	24.88	95.28	1.39	32.11	31.42	
28	50.94	3.69	1.80	47.25	2.35	49.60	1.00	26.39	25.89	95.27	1.38	33.49	32.80	
29	52.51	3.83	1.88	48.68	2.44	51.12	1.03	27.42	26.91	95.23	1.42	34.91	34.20	
30	49.92	3.72	1.96	46.20	2.37	48.57	.98	28.40	27.91	95.13	1.40	36.31	35.61	
31	51.66	3.81	2.03	47.85	2.42	50.27	1.02	29.42	28.91	95.18	1.42	37.73	37.02	
32	51.97	3.93	2.11	48.04	2.50	50.54	1.02	30.44	29.93	95.05	1.46	39.19	38.46	
33	52.43	3.88	2.19	48.55	2.47	51.02	1.03	31.47	30.96	95.16	1.44	40.63	39.91	
34	49.55	3.56	2.26	45.99	2.26	48.25	.98	32.45	31.96	95.31	1.34	41.97	41.30	
35	52.82	3.73	2.34	49.09	2.37	51.46	1.04	33.49	32.97	95.39	1.38	43.35	42.66	
36	53.08	3.81	2.42	49.27	2.42	51.69	1.04	34.53	34.01	95.31	1.41	44.76	44.06	
37	61.15	4.57	2.51	56.58	2.91	59.49	1.20	35.74	35.13	95.11	1.62	46.39	45.58	
38	50.28	4.13	2.59	46.15	2.63	48.78	.99	36.72	36.23	94.61	1.55	47.94	47.16	
39	53.64	4.63	2.69	49.01	2.95	51.96	1.05	37.77	37.25	94.33	1.70	49.64	48.79	
40	56.65	5.34	2.79	51.31	3.40	54.71	1.11	38.88	38.32	93.79	1.91	51.55	50.60	
41	54.68	4.38	2.88	50.30	2.79	53.09	1.07	39.95	39.41	94.75	1.60	53.16	52.35	
42	54.62	4.62	2.98	50.00	2.94	52.94	1.07	41.02	40.48	94.45	1.69	54.84	54.00	
43	52.20	4.29	3.06	47.91	2.73	50.64	1.02	42.04	41.53	94.61	1.59	56.43	55.64	
44	51.81	4.25	3.15	47.56	2.70	50.26	1.02	43.06	42.55	94.62	1.58	58.01	57.22	
45	53.35	4.39	3.24	48.96	2.79	51.75	1.05	44.10	43.58	94.60	1.62	59.63	58.82	
46	53.00	4.41	3.33	48.59	2.81	51.40	1.04	45.14	44.62	94.54	1.63	61.26	60.44	
47	53.97	4.99	3.43	48.98	3.17	52.15	1.05	46.20	45.67	93.91	1.83	63.08	62.17	
48	52.19	4.27	3.51	47.92	2.72	50.64	1.02	47.22	46.71	94.64	1.58	64.67	63.88	

SAMPLE NUMBER	WET WT.	DRY WT.	CUMM. DRY WT.	WATER CONTENT	SED. VOL.	TOTAL VOLUME	COMP. THICK	COMP. DEPTH	COMP. MID PT	SAMPLE POROSITY	UNCOMP THICK	UNCOMP DEPTH	UNCOMP MID PT	TIME B.P.
49	53.58	4.35	3.60	49.23	2.77	52.00	1.05	48.27	47.75	94.68	1.60	66.27	65.47	
50	52.48	4.16	3.69	48.32	2.65	50.97	1.03	49.30	48.79	94.81	1.54	67.81	67.04	
51	52.54	4.15	3.77	48.39	2.64	51.03	1.03	50.33	49.82	94.83	1.54	69.35	68.58	
52	54.40	4.29	3.86	50.11	2.73	52.84	1.07	51.40	50.87	94.84	1.57	70.92	70.13	
53	54.36	4.28	3.94	50.08	2.72	52.80	1.07	52.47	51.93	94.84	1.57	72.49	71.70	
54	54.81	4.32	4.03	50.49	2.75	53.24	1.08	53.54	53.00	94.84	1.58	74.07	73.28	
55	52.62	4.15	4.11	48.47	2.64	51.11	1.03	54.58	54.06	94.83	1.54	75.60	74.83	
56	51.28	4.06	4.20	47.22	2.58	49.80	1.01	55.58	55.08	94.81	1.52	77.12	76.36	
57	53.67	4.24	4.28	49.43	2.70	52.13	1.05	56.64	56.11	94.83	1.56	78.68	77.90	
58	53.13	4.17	4.37	48.96	2.65	51.61	1.04	57.68	57.16	94.86	1.54	80.22	79.45	
59	51.69	4.03	4.45	47.66	2.56	50.22	1.01	58.69	58.19	94.90	1.50	81.72	80.97	
60	53.20	4.19	4.53	49.01	2.67	51.68	1.04	59.74	59.22	94.84	1.55	83.26	82.49	
61	52.01	4.05	4.61	47.96	2.58	50.54	1.02	60.76	60.25	94.90	1.51	84.77	84.02	
62	50.29	3.92	4.69	46.37	2.49	48.86	.99	61.75	61.25	94.90	1.47	86.24	85.51	
63	53.88	4.20	4.78	49.68	2.67	52.35	1.06	62.80	62.28	94.90	1.54	87.79	87.01	
64	49.31	3.86	4.86	45.45	2.46	47.91	.97	63.77	63.29	94.87	1.46	89.25	88.52	
65	54.72	4.28	4.94	50.44	2.72	53.16	1.07	64.85	64.31	94.88	1.57	90.81	90.03	
66	51.95	3.97	5.02	47.98	2.53	50.51	1.02	65.87	65.36	95.00	1.48	92.29	91.55	
67	52.66	4.03	5.10	48.63	2.56	51.19	1.03	66.90	66.39	94.99	1.49	93.78	93.03	
68	51.98	4.01	5.18	47.97	2.55	50.52	1.02	67.92	67.41	94.95	1.49	95.27	94.52	
69	54.37	4.22	5.27	50.15	2.68	52.83	1.07	68.99	68.46	94.92	1.55	96.82	96.04	
70	50.19	3.90	5.35	46.29	2.48	48.77	.99	69.98	69.48	94.91	1.47	98.28	97.55	
71	52.69	4.06	5.43	48.63	2.58	51.21	1.03	71.01	70.49	94.96	1.50	99.79	99.03	
72	40.68	3.13	5.49	37.55	1.99	39.54	.80	71.81	71.41	94.96	1.26	101.05	100.42	
73	52.34	4.03	5.58	48.31	2.56	50.87	1.03	72.84	72.32	94.96	1.49	102.55	101.80	
74	54.61	4.20	5.66	50.41	2.67	53.08	1.07	73.91	73.38	94.97	1.54	104.08	103.32	
75	49.68	3.81	5.74	45.87	2.42	48.29	.98	74.89	74.40	94.98	1.44	105.52	104.80	
76	54.65	4.21	5.82	50.44	2.68	53.12	1.07	75.96	75.42	94.96	1.54	107.06	106.29	
77	52.87	4.05	5.90	48.82	2.58	51.40	1.04	77.00	76.48	94.99	1.50	108.56	107.81	
78	53.88	4.17	5.99	49.71	2.65	52.36	1.06	78.06	77.53	94.93	1.53	110.09	109.33	
79	53.23	4.07	6.07	49.16	2.59	51.75	1.05	79.10	78.58	95.00	1.50	111.60	110.84	
80	56.63	4.35	6.16	52.28	2.77	55.05	1.11	80.22	79.66	94.97	1.58	113.17	112.38	
81	52.76	4.09	6.24	48.67	2.60	51.27	1.04	81.25	80.73	94.93	1.51	114.68	113.93	
82	54.58	4.23	6.33	50.35	2.69	53.04	1.07	82.32	81.79	94.93	1.55	116.23	115.46	
83	54.70	4.23	6.41	50.47	2.69	53.16	1.07	83.40	82.86	94.94	1.55	117.78	117.01	
84	52.68	4.11	6.50	48.57	2.61	51.18	1.03	84.43	83.92	94.89	1.52	119.30	118.54	
85	56.15	4.35	6.58	51.80	2.77	54.57	1.10	85.54	84.98	94.93	1.58	120.88	120.09	
86	55.57	4.31	6.67	51.26	2.74	54.00	1.09	86.63	86.08	94.92	1.57	122.45	121.67	
87	54.97	4.27	6.76	50.70	2.72	53.42	1.08	87.71	87.17	94.91	1.56	124.01	123.23	
88	53.50	4.16	6.84	49.34	2.65	51.99	1.05	88.76	88.23	94.91	1.53	125.54	124.78	
89	54.67	4.24	6.93	50.43	2.70	53.13	1.07	89.83	89.29	94.92	1.55	127.09	126.32	
90	53.49	4.17	7.01	49.32	2.65	51.97	1.05	90.88	90.36	94.90	1.54	128.63	127.86	
91	54.62	4.30	7.10	50.32	2.74	53.06	1.07	91.95	91.42	94.84	1.57	130.20	129.42	
92	55.73	4.37	7.19	51.36	2.78	54.14	1.09	93.05	92.50	94.87	1.59	131.79	131.00	
93	55.93	4.40	7.28	51.53	2.80	54.33	1.10	94.15	93.60	94.85	1.60	133.39	132.59	
94	55.38	4.37	7.36	51.01	2.78	53.79	1.09	95.23	94.69	94.83	1.59	134.98	134.19	
95	53.10	4.20	7.45	48.90	2.67	51.57	1.04	96.27	95.75	94.82	1.55	136.53	135.76	
96	42.53	3.40	7.52	39.13	2.16	41.29	.83	97.11	96.69	94.76	1.36	137.89	137.21	
97	71.27	6.11	7.64	65.16	3.89	69.05	1.40	98.50	97.81	94.37	2.03	139.92	138.91	

DENSITY = 1.572

CORE 85 - BATCHAWANA LAKE : SOUTH - SEDIMENT DATA

SAMPLE NUMBER	WET WT.	DRY WT.	CUMM. DRY WT.	WATER CONTENT	SED. VOL.	TOTAL VOLUME	COMP. THICK	COMP. DEPTH	COMP. MID PT	SAMPLE POROSITY	UNCOMP THICK	UNCOMP DEPTH	UNCOMP MID PT	TIME B.P.
1	63.59	1.47	.02	62.12	.87	62.99	.78	.78	.39	98.62	.78	.78	.39	1
2	71.10	3.32	.06	67.78	1.97	69.75	.86	1.64	1.21	97.18	1.90	2.68	1.73	3
3	77.98	3.36	.10	74.62	1.99	76.61	.94	2.58	2.11	97.40	1.82	4.50	3.59	7
4	80.12	2.24	.13	77.88	1.33	79.21	.98	3.56	3.07	98.32	1.19	5.69	5.10	10
5	76.15	3.12	.17	73.03	1.85	74.88	.92	4.48	4.02	97.53	1.71	7.40	6.54	13
6	78.30	3.17	.21	75.13	1.88	77.01	.95	5.43	4.96	97.56	1.71	9.11	8.26	16
7	78.24	3.18	.24	75.06	1.89	76.95	.95	6.38	5.91	97.55	1.72	10.83	9.97	20
8	74.71	3.08	.28	71.63	1.83	73.46	.91	7.29	6.83	97.51	1.70	12.54	11.68	23
9	80.09	3.32	.32	76.77	1.97	78.74	.97	8.26	7.77	97.50	1.78	14.31	13.42	27
10	76.21	3.40	.37	72.81	2.02	74.83	.92	9.18	8.72	97.30	1.87	16.18	15.25	30
11	44.65	1.98	.41	42.67	1.17	43.84	.89	10.07	9.63	97.32	1.82	18.01	17.09	34
12	40.34	1.93	.44	38.41	1.14	39.55	.80	10.87	10.47	97.11	1.89	19.90	18.95	38
13	42.60	2.51	.50	40.09	1.49	41.58	.84	11.71	11.29	96.42	2.43	22.32	21.11	42
14	47.40	2.31	.54	45.09	1.37	46.46	.94	12.65	12.18	97.05	2.07	24.39	23.36	46
15	45.52	2.24	.59	43.28	1.33	44.61	.90	13.55	13.10	97.02	2.05	26.45	25.42	50
16	47.95	2.39	.64	45.56	1.42	46.98	.95	14.50	14.02	96.98	2.13	28.57	27.51	55
17	51.01	3.25	.70	47.76	1.93	49.69	1.00	15.50	15.00	96.12	2.81	31.38	29.98	59
18	52.61	2.60	.75	50.01	1.54	51.55	1.04	16.54	16.02	97.01	2.20	33.58	32.48	64
19	49.80	2.35	.80	47.45	1.39	48.84	.99	17.53	17.04	97.15	2.05	35.63	34.61	69
20	51.32	2.42	.85	48.90	1.44	50.34	1.02	18.55	18.04	97.15	2.08	37.71	36.67	73
21	51.94	2.47	.90	49.47	1.47	50.94	1.03	19.58	19.06	97.12	2.11	39.82	38.76	77
22	50.91	2.37	.95	48.54	1.41	49.95	1.01	20.59	20.08	97.19	2.04	41.86	40.84	81
23	51.98	2.38	1.00	49.60	1.41	51.01	1.03	21.62	21.10	97.23	2.03	43.89	42.88	85
24	51.19	2.33	1.04	48.86	1.38	50.24	1.02	22.63	22.13	97.25	2.00	45.89	44.89	89
25	52.40	2.40	1.09	50.00	1.42	51.42	1.04	23.67	23.15	97.23	2.04	47.93	46.91	93
26	52.14	2.35	1.14	49.79	1.39	51.18	1.03	24.71	24.19	97.28	2.00	49.93	48.93	97
27	51.87	2.44	1.19	49.43	1.45	50.88	1.03	25.73	25.22	97.16	2.08	52.02	50.98	101
28	52.42	2.37	1.24	50.05	1.41	51.46	1.04	26.77	26.25	97.27	2.01	54.03	53.02	105
29	55.48	2.45	1.29	53.03	1.45	54.48	1.10	27.88	27.32	97.33	2.03	56.06	55.05	109
30	52.82	2.53	1.34	50.29	1.50	51.79	1.05	28.92	28.40	97.10	2.14	58.20	57.13	113
31	52.95	2.39	1.39	50.56	1.42	51.98	1.05	29.97	29.45	97.27	2.02	60.22	59.21	117
32	52.92	2.28	1.43	50.64	1.35	51.99	1.05	31.02	30.50	97.40	1.93	62.15	61.19	121
33	50.46	2.16	1.48	48.30	1.28	49.58	1.00	32.03	31.52	97.42	1.87	64.02	63.08	125
34	55.15	2.36	1.52	52.79	1.40	54.19	1.10	33.12	32.57	97.42	1.96	65.98	65.00	129
35	43.37	2.40	1.57	40.97	1.42	42.39	.86	33.98	33.55	96.64	2.28	68.26	67.12	133
36	56.88	2.53	1.62	54.35	1.50	55.85	1.13	35.11	34.54	97.31	2.07	70.33	69.30	137
37	56.78	3.28	1.69	53.50	1.95	55.45	1.12	36.23	35.67	96.49	2.66	72.99	71.66	142
38	55.36	2.72	1.74	52.64	1.61	54.25	1.10	37.32	36.77	97.03	2.24	75.23	74.11	147
39	56.94	2.81	1.80	54.13	1.67	55.80	1.13	38.45	37.89	97.01	2.29	77.52	76.38	152
40	56.26	2.48	1.85	53.78	1.47	55.25	1.12	39.57	39.01	97.34	2.04	79.56	78.54	
41	55.49	2.58	1.90	52.91	1.53	54.44	1.10	40.67	40.12	97.19	2.13	81.69	80.62	
42	55.79	2.58	1.96	53.21	1.53	54.74	1.11	41.77	41.22	97.20	2.13	83.82	82.75	
43	57.94	2.60	2.01	55.34	1.54	56.88	1.15	42.92	42.35	97.29	2.11	85.92	84.87	
44	58.71	2.42	2.06	56.29	1.44	57.73	1.17	44.09	43.51	97.51	1.96	87.89	86.91	
45	59.76	2.41	2.11	57.35	1.43	58.78	1.19	45.28	44.68	97.57	1.94	89.83	88.86	
46	58.32	2.26	2.15	56.06	1.34	57.40	1.16	46.44	45.86	97.66	1.85	91.68	90.76	
47	58.70	2.63	2.20	56.07	1.56	57.63	1.16	47.60	47.02	97.29	2.12	93.80	92.74	
48	59.67	2.62	2.26	57.05	1.55	58.60	1.18	48.79	48.19	97.35	2.10	95.90	94.85	

SAMPLE NUMBER	WET WT.	DRY WT.	CUMM. DRY WT.	WATER CONTENT	SED. VOL.	TOTAL VOLUME	COMP. THICK	COMP. DEPTH	COMP. MID PT	SAMPLE POROSITY	UNCOMP THICK	UNCOMP DEPTH	UNCOMP MID PT	TIME B.P.
49	60.63	2.70	2.31	57.93	1.60	59.53	1.20	49.99	49.39	97.31	2.15	98.05	96.97	
50	59.47	2.56	2.36	56.91	1.52	58.43	1.18	51.17	50.58	97.40	2.06	100.10	99.08	
51	60.23	3.43	2.43	56.80	2.03	58.83	1.19	52.36	51.76	96.54	2.69	102.79	101.45	
52	59.22	2.78	2.49	56.44	1.65	58.09	1.17	53.53	52.95	97.16	2.22	105.02	103.90	
53	58.26	3.27	2.55	54.99	1.94	56.93	1.15	54.68	54.11	96.59	2.61	107.63	106.32	
54	55.45	2.79	2.61	52.66	1.65	54.31	1.10	55.78	55.23	96.95	2.30	109.93	108.78	

DENSITY = 1.686

CORE 86 - WISHART LAKE - SEDIMENT DATA

SAMPLE NUMBER	WET WT.	DRY WT.	CUMM. DRY WT.	WATER CONTENT	SED. VOL.	TOTAL VOLUME	COMP. THICK	COMP. DEPTH	COMP. MID PT	SAMPLE POROSITY	UNCOMP THICK	UNCOMP DEPTH	UNCOMP MID PT	TIME B.P.
1	41.89	1.26	.02	40.63	.73	41.36	.51	.51	.26	98.23	.51	.51	.26	1
2	69.68	2.58	.05	67.10	1.50	68.60	.85	1.36	.93	97.81	1.08	1.59	1.05	3
3	75.17	3.02	.08	72.15	1.76	73.91	.91	2.27	1.81	97.62	1.25	2.84	2.22	6
4	76.61	3.37	.13	73.24	1.96	75.20	.93	3.20	2.73	97.39	1.40	4.24	3.54	10
5	73.54	3.35	.17	70.19	1.95	72.14	.89	4.09	3.64	97.30	1.41	5.66	4.95	13
6	75.56	3.38	.21	72.18	1.97	74.15	.91	5.00	4.54	97.35	1.41	7.07	6.36	17
7	40.44	1.83	.25	38.61	1.06	39.67	.80	5.80	5.40	97.32	1.32	8.38	7.73	21
8	38.14	1.82	.28	36.32	1.06	37.38	.76	6.56	6.18	97.17	1.35	9.74	9.06	25
9	42.33	1.99	.32	40.34	1.16	41.50	.84	7.40	6.98	97.21	1.41	11.15	10.44	28
10	43.13	2.03	.36	41.10	1.18	42.28	.85	8.25	7.82	97.21	1.43	12.58	11.87	32
11	45.44	2.06	.41	43.38	1.20	44.58	.90	9.15	8.70	97.31	1.42	14.00	13.29	36
12	43.95	1.84	.44	42.11	1.07	43.18	.87	10.02	9.59	97.52	1.27	15.27	14.63	40
13	44.44	1.94	.48	42.50	1.13	43.63	.88	10.91	10.46	97.41	1.34	16.61	15.94	43
14	47.99	2.16	.53	45.83	1.26	47.09	.95	11.86	11.38	97.33	1.46	18.07	17.34	47
15	49.24	2.21	.57	47.03	1.29	48.32	.98	12.83	12.35	97.34	1.48	19.55	18.81	51
16	45.70	2.04	.61	43.66	1.19	44.85	.91	13.74	13.29	97.35	1.40	20.95	20.25	55
17	48.83	2.05	.65	46.78	1.19	47.97	.97	14.71	14.22	97.51	1.37	22.32	21.63	59
18	48.75	2.13	.70	46.62	1.24	47.86	.97	15.68	15.19	97.41	1.43	23.75	23.03	63
19	52.42	2.25	.74	50.17	1.31	51.48	1.04	16.72	16.20	97.46	1.48	25.22	24.49	67
20	54.60	2.15	.79	52.45	1.25	53.70	1.09	17.80	17.26	97.67	1.40	26.62	25.92	71
21	52.91	2.02	.83	50.89	1.18	52.07	1.05	18.85	18.33	97.74	1.33	27.95	27.29	74
22	51.57	2.01	.87	49.56	1.17	50.73	1.03	19.88	19.37	97.70	1.33	29.27	28.61	78
23	48.61	1.95	.91	46.66	1.13	47.79	.97	20.85	20.36	97.63	1.31	30.58	29.93	82
24	53.37	2.22	.95	51.15	1.29	52.44	1.06	21.90	21.37	97.54	1.45	32.03	31.30	85
25	51.92	2.17	.99	49.75	1.26	51.01	1.03	22.94	22.42	97.53	1.43	33.46	32.74	89
26	55.49	2.17	1.04	53.32	1.26	54.58	1.10	24.04	23.49	97.69	1.41	34.86	34.16	93
27	55.06	2.06	1.08	53.00	1.20	54.20	1.10	25.13	24.59	97.79	1.34	36.21	35.54	97
28	55.77	2.14	1.12	53.63	1.24	54.87	1.11	26.24	25.69	97.73	1.39	37.60	36.90	101
29	56.46	2.18	1.17	54.28	1.27	55.55	1.12	27.37	26.80	97.72	1.41	39.01	38.30	104
30	56.37	2.11	1.21	54.26	1.23	55.49	1.12	28.49	27.93	97.79	1.37	40.38	39.69	108
31	55.63	2.03	1.25	53.60	1.18	54.78	1.11	29.59	29.04	97.84	1.32	41.70	41.04	112
32	56.18	2.05	1.29	54.13	1.19	55.32	1.12	30.71	30.15	97.84	1.33	43.03	42.37	115
33	55.36	2.03	1.33	53.33	1.18	54.51	1.10	31.81	31.26	97.83	1.32	44.36	43.70	119
34	54.86	2.04	1.37	52.82	1.19	54.01	1.09	32.91	32.36	97.80	1.33	45.69	45.02	123
35	55.97	2.04	1.42	53.93	1.19	55.12	1.11	34.02	33.46	97.85	1.33	47.02	46.35	126
36	55.00	2.18	1.46	52.82	1.27	54.09	1.09	35.11	34.57	97.66	1.42	48.44	47.73	130
37	55.73	3.20	1.52	52.53	1.86	54.39	1.10	36.21	35.66	96.58	2.03	50.47	49.45	135
38	54.45	2.02	1.57	52.43	1.18	53.61	1.08	37.29	36.75	97.81	1.32	51.79	51.13	139
39	54.32	2.05	1.61	52.27	1.19	53.46	1.08	38.37	37.83	97.77	1.34	53.13	52.46	143
40	55.11	2.10	1.65	53.01	1.22	54.23	1.10	39.47	38.92	97.75	1.37	54.49	53.81	147
41	57.55	2.20	1.69	55.35	1.28	56.63	1.14	40.62	40.04	97.74	1.42	55.91	55.20	150
42	56.85	2.18	1.74	54.67	1.27	55.94	1.13	41.75	41.18	97.73	1.41	57.32	56.62	
43	58.21	2.30	1.78	55.91	1.34	57.25	1.16	42.90	42.32	97.66	1.48	58.80	58.06	
44	57.43	2.42	1.83	55.01	1.41	56.42	1.14	44.04	43.47	97.50	1.55	60.35	59.57	
45	55.04	2.31	1.88	52.73	1.34	54.07	1.09	45.14	44.59	97.51	1.50	61.84	61.09	
46	59.24	2.40	1.93	56.84	1.40	58.24	1.18	46.31	45.72	97.60	1.53	63.37	62.61	
47	57.50	2.35	1.98	55.15	1.37	56.52	1.14	47.45	46.88	97.58	1.51	64.88	64.12	
48	58.11	2.40	2.02	55.71	1.40	57.11	1.15	48.61	48.03	97.56	1.53	66.41	65.65	

SAMPLE NUMBER	WET WT.	DRY WT.	CUMM. DRY WT.	WATER CONTENT	SED. VOL.	TOTAL VOLUME	COMP. THICK	COMP. DEPTH	COMP. MID PT	SAMPLE POROSITY	UNCOMP THICK	UNCOMP DEPTH	UNCOMP MID PT	TIME B.P.
49	58.26	2.47	2.07	55.79	1.44	57.23	1.16	49.77	49.19	97.49	1.57	67.99	67.20	
50	59.44	2.53	2.13	56.91	1.47	58.38	1.18	50.95	50.36	97.48	1.60	69.59	68.79	
51	57.21	2.45	2.18	54.76	1.43	56.19	1.14	52.08	51.51	97.46	1.57	71.15	70.37	
52	58.97	2.64	2.23	56.33	1.54	57.87	1.17	53.25	52.67	97.35	1.67	72.82	71.99	
53	59.69	2.63	2.28	57.06	1.53	58.59	1.18	54.43	53.84	97.39	1.66	74.48	73.65	
54	60.78	2.69	2.34	58.09	1.56	59.65	1.21	55.64	55.04	97.38	1.69	76.17	75.32	
55	60.14	2.74	2.39	57.40	1.59	58.99	1.19	56.83	56.24	97.30	1.72	77.88	77.02	
56	60.29	2.89	2.45	57.40	1.68	59.08	1.19	58.03	57.43	97.15	1.80	79.68	78.78	
57	59.16	3.49	2.52	55.67	2.03	57.70	1.17	59.19	58.61	96.48	2.15	81.83	80.76	
58	57.58	2.93	2.58	54.65	1.70	56.35	1.14	60.33	59.76	96.98	1.85	83.68	82.76	
59	58.69	3.05	2.64	55.64	1.77	57.41	1.16	61.49	60.91	96.91	1.90	85.58	84.63	
60	56.59	3.10	2.70	53.49	1.80	55.29	1.12	62.61	62.05	96.74	1.96	87.54	86.56	
61	56.86	3.33	2.77	53.53	1.94	55.47	1.12	63.73	63.17	96.51	2.09	89.63	88.59	
62	55.78	3.50	2.84	52.28	2.04	54.32	1.10	64.83	64.28	96.25	2.21	91.85	90.74	
63	54.68	3.43	2.91	51.25	2.00	53.25	1.08	65.90	65.36	96.25	2.19	94.04	92.94	
64	54.36	3.61	2.98	50.75	2.10	52.85	1.07	66.97	66.44	96.03	2.31	96.35	95.19	
65	60.17	4.83	3.08	55.34	2.81	58.15	1.18	68.15	67.56	95.17	2.90	99.25	97.80	

DENSITY = 1.719

CORE 87 - WISHART LAKE - SEDIMENT DATA

SAMPLE NUMBER	WET WT.	DRY WT.	CUMM. DRY WT.	WATER CONTENT	SED. VOL.	TOTAL VOLUME	COMP. THICK	COMP. DEPTH	COMP. MID PT	SAMPLE POROSITY	UNCOMP THICK	UNCOMP DEPTH	UNCOMP MID PT	TIME B.P.
1	51.03	1.66	.02	49.37	.93	50.30	.62	.62	.31	98.15	.62	.62	.31	1
2	79.06	3.90	.07	75.16	2.19	77.35	.95	1.57	1.10	97.17	1.48	2.10	1.36	5
3	83.18	2.77	.10	80.41	1.55	81.96	1.01	2.59	2.08	98.10	1.04	3.14	2.62	10
4	76.01	3.59	.15	72.42	2.01	74.43	.92	3.50	3.04	97.29	1.38	4.52	3.83	15
5	77.68	3.78	.19	73.90	2.12	76.02	.94	4.44	3.97	97.21	1.44	5.96	5.24	21
6	82.47	4.63	.25	77.84	2.60	80.44	.99	5.43	4.94	96.77	1.74	7.70	6.83	27
7	80.52	3.89	.30	76.63	2.18	78.81	.97	6.41	5.92	97.23	1.47	9.17	8.43	34
8	47.38	2.24	.34	45.14	1.26	46.40	.94	7.34	6.87	97.29	1.40	10.57	9.87	39
9	41.62	2.12	.39	39.50	1.19	40.69	.82	8.17	7.75	97.08	1.40	11.97	11.27	45
10	44.48	2.31	.43	42.17	1.30	43.47	.88	9.04	8.60	97.02	1.49	13.46	12.71	51
11	48.03	2.49	.48	45.54	1.40	46.94	.95	9.99	9.52	97.02	1.56	15.01	14.23	57
12	44.71	2.50	.53	42.21	1.40	43.61	.88	10.87	10.43	96.78	1.62	16.63	15.82	63
13	46.89	2.44	.58	44.45	1.37	45.82	.93	11.80	11.34	97.01	1.54	18.17	17.40	69
14	47.43	2.43	.63	45.00	1.36	46.36	.94	12.74	12.27	97.06	1.53	19.70	18.93	75
15	50.27	2.64	.69	47.63	1.48	49.11	.99	13.73	13.23	96.98	1.62	21.32	20.51	82
16	45.55	2.40	.73	43.15	1.35	44.50	.90	14.63	14.18	96.97	1.53	22.85	22.08	88
17	50.01	2.91	.79	47.10	1.63	48.73	.98	15.61	15.12	96.65	1.79	24.64	23.75	95
18	51.19	2.72	.85	48.47	1.53	50.00	1.01	16.62	16.12	96.95	1.66	26.30	25.47	101
19	50.41	2.71	.90	47.70	1.52	49.22	.99	17.62	17.12	96.91	1.66	27.97	27.13	108
20	51.64	2.77	.96	48.87	1.55	50.42	1.02	18.64	18.13	96.92	1.68	29.65	28.81	115
21	53.35	2.90	1.02	50.45	1.63	52.08	1.05	19.69	19.16	96.88	1.74	31.39	30.52	122
22	52.13	2.95	1.08	49.18	1.66	50.84	1.03	20.72	20.20	96.74	1.79	33.18	32.28	129
23	53.18	3.21	1.14	49.97	1.80	51.77	1.05	21.76	21.24	96.52	1.93	35.10	34.14	136
24	53.99	3.34	1.21	50.65	1.87	52.52	1.06	22.82	22.29	96.43	1.99	37.09	36.10	144
25	52.98	3.01	1.27	49.97	1.69	51.66	1.04	23.87	23.35	96.73	1.81	38.90	37.99	151
26	54.72	3.09	1.33	51.63	1.73	53.36	1.08	24.95	24.41	96.75	1.83	40.73	39.82	
27	54.26	3.24	1.40	51.02	1.82	52.84	1.07	26.02	25.48	96.56	1.93	42.66	41.69	
28	55.16	3.53	1.47	51.63	1.98	53.61	1.08	27.10	26.56	96.31	2.08	44.74	43.70	
29	55.44	3.27	1.54	52.17	1.84	54.01	1.09	28.19	27.64	96.60	1.93	46.66	45.70	
30	55.82	3.30	1.60	52.52	1.85	54.37	1.10	29.29	28.74	96.59	1.94	48.60	47.63	
31	56.24	3.37	1.67	52.87	1.89	54.76	1.11	30.40	29.84	96.55	1.97	50.57	49.59	
32	54.60	3.71	1.75	50.89	2.08	52.97	1.07	31.47	30.93	96.07	2.19	52.76	51.67	
33	54.79	3.67	1.82	51.12	2.06	53.18	1.07	32.54	32.00	96.13	2.17	54.93	53.85	
34	52.07	3.53	1.89	48.54	1.98	50.52	1.02	33.56	33.05	96.08	2.14	57.07	56.00	
35	56.85	3.55	1.96	53.30	1.99	55.29	1.12	34.68	34.12	96.40	2.06	59.13	58.10	
36	53.41	3.42	2.03	49.99	1.92	51.91	1.05	35.73	35.20	96.30	2.05	61.18	60.15	
37	55.07	3.70	2.11	51.37	2.08	53.45	1.08	36.81	36.27	96.12	2.18	63.36	62.27	
38	54.64	3.91	2.19	50.73	2.19	52.92	1.07	37.88	37.34	95.85	2.31	65.66	64.51	
39	55.87	4.32	2.27	51.55	2.42	53.97	1.09	38.97	38.42	95.51	2.52	68.18	66.92	
40	52.77	3.75	2.35	49.02	2.10	51.12	1.03	40.00	39.49	95.88	2.26	70.44	69.31	
41	56.64	4.09	2.43	52.55	2.30	54.85	1.11	41.11	40.56	95.82	2.37	72.80	71.62	
42	57.15	9.46	2.62	47.69	5.31	53.00	1.07	42.18	41.65	89.98	5.48	78.28	75.54	
43	56.06	4.09	2.71	51.97	2.30	54.27	1.10	43.28	42.73	95.77	2.38	80.66	79.47	
44	55.27	4.07	2.79	51.20	2.28	53.48	1.08	44.36	43.82	95.73	2.39	83.05	81.86	
45	52.98	3.95	2.87	49.03	2.22	51.25	1.04	45.39	44.88	95.67	2.37	85.42	84.24	
46	54.74	3.79	2.94	50.95	2.13	53.08	1.07	46.47	45.93	95.99	2.24	87.66	86.54	
47	53.53	3.93	3.02	49.60	2.21	51.81	1.05	47.51	46.99	95.74	2.35	90.00	88.83	
48	54.78	4.13	3.11	50.65	2.32	52.97	1.07	48.58	48.05	95.62	2.43	92.44	91.22	

SAMPLE NUMBER	WET WT.	DRY WT.	CUMM. DRY WT.	WATER CONTENT	SED. VOL.	TOTAL VOLUME	COMP. THICK	COMP. DEPTH	COMP. MID PT	SAMPLE POROSITY	UNCOMP THICK	UNCOMP DEPTH	UNCOMP MID PT	TIME B.P.
49	56.13	4.36	3.20	51.77	2.45	54.22	1.10	49.68	49.13	95.49	2.53	94.97	93.70	
50	54.94	4.31	3.28	50.63	2.42	53.05	1.07	50.75	50.22	95.44	2.53	97.50	96.24	
51	52.24	3.96	3.36	48.28	2.22	50.50	1.02	51.77	51.26	95.60	2.40	99.90	98.70	
52	55.03	4.19	3.45	50.84	2.35	53.19	1.07	52.85	52.31	95.58	2.46	102.36	101.13	
53	55.91	4.32	3.53	51.59	2.42	54.01	1.09	53.94	53.39	95.51	2.52	104.88	103.62	
54	53.02	4.03	3.62	48.99	2.26	51.25	1.04	54.97	54.46	95.59	2.42	107.30	106.09	
55	55.41	4.14	3.70	51.27	2.32	53.59	1.08	56.06	55.52	95.67	2.42	109.72	108.51	
56	55.10	4.05	3.78	51.05	2.27	53.32	1.08	57.14	56.60	95.74	2.38	112.10	110.91	
57	55.98	4.48	3.87	51.50	2.51	54.01	1.09	58.23	57.68	95.35	2.60	114.70	113.40	
58	53.19	4.19	3.96	49.00	2.35	51.35	1.04	59.26	58.75	95.42	2.51	117.21	115.96	
59	55.60	4.38	4.04	51.22	2.46	53.68	1.08	60.35	59.81	95.42	2.56	119.77	118.49	
60	56.27	4.49	4.14	51.78	2.52	54.30	1.10	61.45	60.90	95.36	2.60	122.37	121.07	
61	53.87	4.07	4.22	49.80	2.28	52.08	1.05	62.50	61.97	95.61	2.42	124.79	123.58	
62	51.19	4.20	4.30	46.99	2.36	49.35	1.00	63.50	63.00	95.22	2.58	127.37	126.08	
63	55.93	4.62	4.40	51.31	2.59	53.90	1.09	64.59	64.04	95.19	2.69	130.06	128.71	
64	55.18	4.56	4.49	50.62	2.56	53.18	1.07	65.66	65.12	95.19	2.67	132.73	131.39	
65	55.16	4.69	4.58	50.47	2.63	53.10	1.07	66.73	66.20	95.04	2.75	135.48	134.11	
66	54.16	4.55	4.67	49.61	2.55	52.16	1.05	67.79	67.26	95.11	2.70	138.18	136.83	
67	56.32	4.81	4.77	51.51	2.70	54.21	1.10	68.88	68.34	95.02	2.78	140.96	139.57	
68	54.38	4.49	4.86	49.89	2.52	52.41	1.06	69.94	69.41	95.19	2.66	143.62	142.29	
69	57.80	4.81	4.96	52.99	2.70	55.69	1.13	71.07	70.51	95.15	2.74	146.36	144.99	
70	56.39	4.70	5.06	51.69	2.64	54.33	1.10	72.17	71.62	95.15	2.72	149.08	147.72	
71	55.98	4.90	5.15	51.08	2.75	53.83	1.09	73.25	72.71	94.89	2.85	151.92	150.50	
72	52.92	4.50	5.25	48.42	2.53	50.95	1.03	74.28	73.77	95.04	2.71	154.63	153.28	
73	55.17	4.72	5.34	50.45	2.65	53.10	1.07	75.36	74.82	95.01	2.77	157.40	156.01	
74	54.77	4.74	5.44	50.03	2.66	52.69	1.06	76.42	75.89	94.95	2.79	160.19	158.79	
75	50.53	4.48	5.53	46.05	2.51	48.56	.98	77.40	76.91	94.82	2.78	162.97	161.58	
76	53.05	4.94	5.63	48.11	2.77	50.88	1.03	78.43	77.92	94.55	2.97	165.94	164.45	
77	59.30	5.77	5.74	53.53	3.24	56.77	1.15	79.58	79.00	94.30	3.23	169.16	167.55	

DENSITY = 1.782

CORE 88 - LITTLE TURKEY LAKE - SEDIMENT DATA

SAMPLE NUMBER	WET WT.	DRY WT.	CUMM. DRY WT.	WATER CONTENT	SED. VOL.	TOTAL VOLUME	COMP. THICK	COMP. DEPTH	COMP. MID PT	SAMPLE POROSITY	UNCOMP THICK	UNCOMP DEPTH	UNCOMP MID PT	TIME B.P.
1	65.70	2.66	.03	63.04	1.46	64.50	.80	.80	.40	97.74	.80	.80	.40	6
2	71.80	4.06	.08	67.74	2.23	69.97	.86	1.66	1.23	96.82	1.27	2.07	1.43	20
3	76.29	4.51	.14	71.78	2.47	74.25	.92	2.57	2.12	96.67	1.39	3.45	2.76	39
4	78.53	4.85	.20	73.68	2.66	76.34	.94	3.52	3.05	96.52	1.48	4.94	4.20	60
5	79.92	4.91	.26	75.01	2.69	77.70	.96	4.47	4.00	96.54	1.49	6.43	5.68	81
6	78.80	4.86	.32	73.94	2.66	76.60	.94	5.42	4.95	96.52	1.48	7.91	7.17	102
7	78.51	4.79	.38	73.72	2.63	76.35	.94	6.36	5.89	96.56	1.46	9.37	8.64	123
8	57.09	3.64	.45	53.45	2.00	55.45	1.12	7.48	6.92	96.40	1.71	11.09	10.23	146
9	44.94	3.15	.52	41.79	1.73	43.52	.88	8.36	7.92	96.03	1.63	12.72	11.90	
10	49.00	3.48	.59	45.52	1.91	47.43	.96	9.32	8.84	95.98	1.74	14.46	13.59	
11	50.47	3.60	.66	46.87	1.97	48.84	.99	10.31	9.81	95.96	1.77	16.23	15.34	
12	51.63	3.74	.73	47.89	2.05	49.94	1.01	11.32	10.81	95.89	1.83	18.06	17.14	
13	52.80	3.89	.81	48.91	2.13	51.04	1.03	12.35	11.83	95.82	1.88	19.94	19.00	
14	58.19	4.37	.90	53.82	2.40	56.22	1.14	13.48	12.92	95.74	2.02	21.96	20.95	
15	55.09	4.26	.99	50.83	2.34	53.17	1.07	14.56	14.02	95.61	2.02	23.97	22.97	
16	53.74	4.21	1.07	49.53	2.31	51.84	1.05	15.61	15.08	95.55	2.02	25.99	24.98	
17	53.19	4.15	1.16	49.04	2.28	51.32	1.04	16.64	16.12	95.57	2.00	27.99	26.99	
18	55.43	4.35	1.24	51.08	2.38	53.46	1.08	17.72	17.18	95.54	2.05	30.04	29.02	
19	55.60	4.41	1.33	51.19	2.42	53.61	1.08	18.81	18.26	95.49	2.08	32.12	31.08	
20	53.02	4.32	1.42	48.70	2.37	51.07	1.03	19.84	19.32	95.36	2.08	34.20	33.16	
21	55.50	4.59	1.51	50.91	2.52	53.43	1.08	20.92	20.38	95.29	2.16	36.37	35.29	
22	56.36	4.73	1.61	51.63	2.59	54.22	1.10	22.01	21.47	95.22	2.21	38.58	37.47	
23	55.68	4.62	1.70	51.06	2.53	53.59	1.08	23.10	22.56	95.27	2.17	40.75	39.66	
24	54.19	4.64	1.80	49.55	2.54	52.09	1.05	24.15	23.62	95.12	2.21	42.96	41.86	
25	55.17	4.67	1.89	50.50	2.56	53.06	1.07	25.22	24.69	95.17	2.21	45.17	44.07	
26	56.24	4.79	1.99	51.45	2.63	54.08	1.09	26.31	25.77	95.14	2.24	47.41	46.29	
27	59.10	5.50	2.10	53.60	3.02	56.62	1.14	27.46	26.89	94.67	2.50	49.91	48.66	
28	54.79	4.68	2.19	50.11	2.57	52.68	1.06	28.52	27.99	95.13	2.22	52.13	51.02	
29	55.41	4.70	2.29	50.71	2.58	53.29	1.08	29.60	29.06	95.16	2.22	54.34	53.24	
30	58.40	4.98	2.39	53.42	2.73	56.15	1.13	30.73	30.17	95.14	2.29	56.63	55.49	
31	56.29	4.80	2.49	51.49	2.63	54.12	1.09	31.83	31.28	95.14	2.24	58.87	57.75	
32	57.04	4.85	2.58	52.19	2.66	54.85	1.11	32.94	32.38	95.15	2.25	61.13	60.00	
33	54.68	4.80	2.68	49.88	2.63	52.51	1.06	34.00	33.47	94.99	2.28	63.40	62.27	
34	58.79	5.18	2.78	53.61	2.84	56.45	1.14	35.14	34.57	94.97	2.37	65.77	64.59	
35	58.69	5.19	2.89	53.50	2.85	56.35	1.14	36.28	35.71	94.95	2.37	68.14	66.96	
36	57.66	5.16	2.99	52.50	2.83	55.33	1.12	37.40	36.84	94.89	2.38	70.52	69.33	
37	58.53	5.24	3.10	53.29	2.87	56.16	1.13	38.53	37.96	94.88	2.40	72.92	71.72	
38	58.36	5.21	3.21	53.15	2.86	56.01	1.13	39.66	39.10	94.90	2.39	75.31	74.11	
39	73.29	6.52	3.34	66.77	3.57	70.34	1.42	41.08	40.37	94.92	2.67	77.98	76.64	
40	59.80	5.37	3.45	54.43	2.94	57.37	1.16	42.24	41.66	94.87	2.43	80.40	79.19	
41	58.32	5.19	3.55	53.13	2.85	55.98	1.13	43.38	42.81	94.92	2.38	82.78	81.59	
42	59.47	5.40	3.66	54.07	2.96	57.03	1.15	44.53	43.95	94.81	2.45	85.23	84.01	
43	58.47	5.32	3.77	53.15	2.92	56.07	1.13	45.66	45.09	94.80	2.43	87.67	86.45	
44	58.45	5.40	3.88	53.05	2.96	56.01	1.13	46.79	46.23	94.71	2.47	90.14	88.90	
45	60.20	5.57	3.99	54.63	3.05	57.68	1.17	47.96	47.38	94.71	2.51	92.64	91.39	
46	57.08	5.31	4.10	51.77	2.91	54.68	1.11	49.06	48.51	94.68	2.46	95.10	93.87	
47	60.38	5.88	4.21	54.50	3.22	57.72	1.17	50.23	49.65	94.42	2.64	97.74	96.42	
48	58.72	5.79	4.33	52.93	3.17	56.10	1.13	51.36	50.80	94.34	2.64	100.38	99.06	

SAMPLE NUMBER	WET WT.	DRY WT.	CUMM. DRY WT.	WATER CONTENT	SED. VOL.	TOTAL VOLUME	COMP. THICK	COMP. DEPTH	COMP. MID PT	SAMPLE POROSITY	UNCOMP THICK	UNCOMP DEPTH	UNCOMP MID PT	TIME B.P.
49	57.06	5.43	4.44	51.63	2.98	54.61	1.10	52.47	51.92	94.55	2.51	102.89	101.63	
50	58.24	5.67	4.56	52.57	3.11	55.68	1.13	53.59	53.03	94.42	2.59	105.48	104.19	
51	59.45	5.86	4.67	53.59	3.21	56.80	1.15	54.74	54.17	94.34	2.65	108.13	106.81	
52	59.52	5.94	4.79	53.58	3.26	56.84	1.15	55.89	55.31	94.27	2.68	110.82	109.48	
53	58.61	5.78	4.91	52.83	3.17	56.00	1.13	57.02	56.45	94.34	2.63	113.45	112.13	
54	60.27	5.83	5.03	54.44	3.20	57.64	1.16	58.19	57.60	94.45	2.62	116.07	114.76	
55	60.10	5.67	5.14	54.43	3.11	57.54	1.16	59.35	58.77	94.60	2.55	118.62	117.34	
56	61.14	5.76	5.26	55.38	3.16	58.54	1.18	60.53	59.94	94.61	2.57	121.19	119.91	
57	59.25	5.71	5.38	53.54	3.13	56.67	1.15	61.68	61.10	94.48	2.59	123.78	122.48	
58	60.90	5.85	5.49	55.05	3.21	58.26	1.18	62.85	62.27	94.49	2.61	126.39	125.08	
59	59.85	5.85	5.61	54.00	3.21	57.21	1.16	64.01	63.43	94.39	2.64	129.03	127.71	
60	59.18	6.01	5.73	53.17	3.29	56.46	1.14	65.15	64.58	94.16	2.72	131.75	130.39	
61	61.31	6.39	5.86	54.92	3.50	58.42	1.18	66.33	65.74	94.00	2.83	134.58	133.16	
62	57.17	5.91	5.98	51.26	3.24	54.50	1.10	67.43	66.88	94.05	2.73	137.31	135.95	
63	60.65	6.28	6.11	54.37	3.44	57.81	1.17	68.60	68.02	94.04	2.80	140.11	138.71	
64	59.63	6.20	6.23	53.43	3.40	56.83	1.15	69.75	69.18	94.02	2.79	142.91	141.51	
65	56.04	5.92	6.35	50.12	3.25	53.37	1.08	70.83	70.29	93.92	2.77	145.68	144.29	
66	58.63	6.31	6.48	52.32	3.46	55.78	1.13	71.96	71.39	93.80	2.87	148.55	147.11	
67	54.59	5.92	6.60	48.67	3.25	51.92	1.05	73.00	72.48	93.75	2.81	151.36	149.95	
68	67.00	7.58	6.75	59.42	4.16	63.58	1.28	74.29	73.65	93.46	3.18	154.54	152.95	

DENSITY = 1.824

CORE 89 - LITTLE TURKEY LAKE - SEDIMENT DATA

SAMPLE NUMBER	WET WT.	DRY WT.	CUMM. DRY WT.	WATER CONTENT	SED. VOL.	TOTAL VOLUME	COMP. THICK	COMP. DEPTH	COMP. MID PT	SAMPLE POROSITY	UNCOMP THICK	UNCOMP DEPTH	UNCOMP MID PT	TIME B.P.
1	79.34	16.40	.33	62.94	6.62	69.56	1.41	1.41	.70	90.49	1.41	1.41	.70	3
2	75.90	11.96	.57	63.94	4.83	68.77	1.39	2.80	2.10	92.98	1.13	2.53	1.97	9
3	79.14	13.52	.85	65.62	5.46	71.08	1.44	4.23	3.51	92.32	1.24	3.78	3.15	15
4	79.57	13.38	1.12	66.19	5.40	71.59	1.45	5.68	4.96	92.46	1.24	5.02	4.40	21
5	74.00	12.59	1.37	61.41	5.08	66.49	1.34	7.02	6.35	92.36	1.15	6.16	5.59	26
6	79.74	14.01	1.65	65.73	5.65	71.38	1.44	8.46	7.74	92.08	1.28	7.44	6.80	32
7	85.91	16.07	1.98	69.84	6.49	76.33	1.54	10.01	9.24	91.50	1.44	8.87	8.16	39
8	84.72	16.95	2.32	67.77	6.84	74.61	1.51	11.52	10.76	90.83	1.47	10.34	9.61	46
9	87.51	20.79	2.74	66.72	8.39	75.11	1.52	13.03	12.27	88.83	1.69	12.04	11.19	53
10	94.45	27.70	3.30	66.75	11.18	77.93	1.57	14.61	13.82	85.66	2.08	14.12	13.08	62
11	62.59	22.76	3.76	39.83	9.18	49.01	.99	15.60	15.10	81.26	1.96	16.08	15.10	72
12	79.34	36.97	4.51	42.37	14.92	57.29	1.16	16.76	16.18	73.96	2.89	18.97	17.53	83
13	70.25	35.17	5.22	35.08	14.19	49.27	1.00	17.75	17.25	71.20	3.02	22.00	20.49	97
14	82.18	41.47	6.06	40.71	16.74	57.45	1.16	18.91	18.33	70.87	3.22	25.22	23.61	112
15	76.87	38.05	6.83	38.82	15.36	54.18	1.09	20.01	19.46	71.66	3.07	28.29	26.76	127
16	79.87	41.73	7.67	38.14	16.84	54.98	1.11	21.12	20.56	69.37	3.33	31.62	29.96	142
17	82.95	42.34	8.53	40.61	17.09	57.70	1.17	22.28	21.70	70.39	3.28	34.90	33.26	
18	83.27	43.47	9.40	39.80	17.54	57.34	1.16	23.44	22.86	69.41	3.37	38.28	36.59	
19	85.60	44.90	10.31	40.70	18.12	58.82	1.19	24.63	24.04	69.19	3.43	41.70	39.99	
20	81.85	43.29	11.19	38.56	17.47	56.03	1.13	25.76	25.20	68.82	3.41	45.11	43.41	
21	88.18	47.46	12.15	40.72	19.15	59.87	1.21	26.97	26.37	68.01	3.57	48.68	46.90	
22	90.78	49.74	13.15	41.04	20.07	61.11	1.24	28.21	27.59	67.15	3.69	52.37	50.53	
23	95.65	51.46	14.19	44.19	20.77	64.96	1.31	29.52	28.87	68.03	3.67	56.04	54.21	
24	97.94	52.89	15.26	45.05	21.34	66.39	1.34	30.86	30.19	67.85	3.72	59.76	57.90	
25	89.61	48.27	16.23	41.34	19.48	60.82	1.23	32.09	31.48	67.97	3.60	63.36	61.56	
26	88.08	46.85	17.18	41.23	18.91	60.14	1.22	33.31	32.70	68.56	3.52	66.88	65.12	
27	84.76	48.13	18.15	36.63	19.42	56.05	1.13	34.44	33.87	65.35	3.77	70.65	68.77	
28	88.56	53.04	19.23	35.52	21.40	56.92	1.15	35.59	35.02	62.40	4.10	74.76	72.70	
29	87.35	52.57	20.29	34.78	21.21	55.99	1.13	36.72	36.16	62.11	4.11	78.87	76.81	
30	96.77	59.83	21.50	36.94	24.14	61.08	1.23	37.96	37.34	60.47	4.39	83.26	81.06	
31	95.32	58.88	22.69	36.44	23.76	60.20	1.22	39.17	38.57	60.53	4.36	87.62	85.44	
32	95.17	59.34	23.89	35.83	23.95	59.78	1.21	40.38	39.78	59.94	4.42	92.04	89.83	
33	91.66	56.93	25.04	34.73	22.97	57.70	1.17	41.55	40.97	60.19	4.35	96.39	94.22	
34	90.04	54.50	26.14	35.54	21.99	57.53	1.16	42.71	42.13	61.77	4.18	100.57	98.48	
35	90.27	54.37	27.24	35.90	21.94	57.84	1.17	43.88	43.30	62.07	4.16	104.73	102.65	
36	81.11	49.90	28.25	31.21	20.14	51.35	1.04	44.92	44.40	60.78	4.16	108.89	106.81	

DENSITY = 2.478

CORE 80 - TURKEY LAKE - SEDIMENT DATA

SAMPLE NUMBER	WET WT.	DRY WT.	CUMM. DRY WT.	WATER CONTENT	SED. VOL.	TOTAL VOLUME	COMP. THICK	COMP. DEPTH	COMP. MID PT	SAMPLE POROSITY	UNCOMP THICK	UNCOMP DEPTH	UNCOMP MID PT	TIME B.P.
1	53.80	3.71	.05	50.09	1.90	51.99	.64	.64	.32	96.35	.64	.64	.32	4
2	78.57	6.73	.13	71.84	3.44	75.28	.93	1.57	1.11	95.43	1.18	1.82	1.23	17
3	81.15	6.96	.21	74.19	3.56	77.75	.96	2.53	2.05	95.42	1.21	3.04	2.43	33
4	81.40	6.94	.30	74.46	3.55	78.01	.96	3.49	3.01	95.45	1.21	4.24	3.64	50
5	81.82	6.97	.39	74.85	3.57	78.42	.97	4.46	3.97	95.45	1.21	5.46	4.85	66
6	73.37	6.17	.46	67.20	3.16	70.36	.87	5.33	4.89	95.51	1.10	6.55	6.01	82
7	84.43	7.20	.55	77.23	3.68	80.91	1.00	6.32	5.83	95.45	1.24	7.80	7.18	98
8	83.85	7.02	.64	76.83	3.59	80.42	.99	7.32	6.82	95.53	1.22	9.01	8.41	115
9	79.02	6.74	.72	72.28	3.45	75.73	.93	8.25	7.78	95.45	1.18	10.20	9.60	132
10	83.07	7.24	.87	75.83	3.70	79.53	1.61	9.86	9.05	95.34	1.88	12.08	11.14	153
11	61.69	5.63	.98	56.06	2.88	58.94	1.19	11.05	10.45	95.11	1.53	13.61	12.84	
12	53.97	4.93	1.08	49.04	2.52	51.56	1.04	12.09	11.57	95.11	1.38	14.99	14.30	
13	53.62	4.89	1.18	48.73	2.50	51.23	1.04	13.13	12.61	95.12	1.37	16.36	15.68	
14	56.72	5.20	1.28	51.52	2.66	54.18	1.09	14.22	13.67	95.09	1.44	17.80	17.08	
15	54.71	5.07	1.39	49.64	2.59	52.23	1.06	15.28	14.75	95.04	1.42	19.22	18.51	
16	56.11	5.20	1.49	50.91	2.66	53.57	1.08	16.36	15.82	95.03	1.44	20.66	19.94	
17	58.29	5.44	1.60	52.85	2.78	55.63	1.12	17.48	16.92	95.00	1.49	22.16	21.41	
18	56.94	5.38	1.71	51.56	2.75	54.31	1.10	18.58	18.03	94.93	1.49	23.64	22.90	
19	60.01	5.69	1.83	54.32	2.91	57.23	1.16	19.74	19.16	94.91	1.55	25.19	24.42	
20	56.91	5.65	1.94	51.26	2.89	54.15	1.09	20.83	20.28	94.66	1.56	26.75	25.97	
21	47.36	4.86	2.04	42.50	2.49	44.99	.91	21.74	21.29	94.47	1.42	28.17	27.46	
22	60.34	6.21	2.16	54.13	3.18	57.31	1.16	22.90	22.32	94.46	1.68	29.85	29.01	
23	60.46	6.16	2.29	54.30	3.15	57.45	1.16	24.06	23.48	94.52	1.66	31.51	30.68	
24	60.25	6.01	2.41	54.24	3.07	57.31	1.16	25.22	24.64	94.64	1.63	33.14	32.32	
25	61.67	6.23	2.54	55.44	3.19	58.63	1.18	26.40	25.81	94.56	1.67	34.81	33.98	
26	65.17	6.64	2.67	58.53	3.40	61.93	1.25	27.65	27.03	94.52	1.75	36.57	35.69	
27	60.55	6.13	2.79	54.42	3.14	57.56	1.16	28.82	28.24	94.55	1.66	38.22	37.39	
28	62.07	6.27	2.92	55.80	3.21	59.01	1.19	30.01	29.41	94.56	1.68	39.90	39.06	
29	61.91	6.27	3.05	55.64	3.21	58.85	1.19	31.20	30.60	94.55	1.68	41.59	40.74	
30	61.32	6.22	3.17	55.10	3.18	58.28	1.18	32.38	31.79	94.54	1.67	43.26	42.42	
31	60.59	6.18	3.30	54.41	3.16	57.57	1.16	33.54	32.96	94.51	1.67	44.93	44.09	
32	57.44	6.01	3.42	51.43	3.07	54.50	1.10	34.64	34.09	94.36	1.65	46.57	45.75	
33	59.75	6.26	3.55	53.49	3.20	56.69	1.15	35.79	35.21	94.35	1.69	48.27	47.42	
34	62.35	6.84	3.68	55.51	3.50	59.01	1.19	36.98	36.38	94.07	1.82	50.08	49.17	
35	62.04	6.86	3.82	55.18	3.51	58.69	1.19	38.17	37.57	94.02	1.82	51.91	50.99	
36	63.86	7.20	3.97	56.66	3.68	60.34	1.22	39.39	38.78	93.90	1.89	53.80	52.85	
37	64.11	7.14	4.11	56.97	3.65	60.62	1.23	40.61	40.00	93.98	1.88	55.67	54.74	
38	61.26	6.76	4.25	54.50	3.46	57.96	1.17	41.78	41.20	94.03	1.81	57.48	56.58	
39	62.43	7.04	4.39	55.39	3.60	58.99	1.19	42.97	42.38	93.90	1.86	59.34	58.41	
40	60.68	6.97	4.53	53.71	3.57	57.28	1.16	44.13	43.55	93.78	1.86	61.21	60.28	
41	61.79	7.17	4.68	54.62	3.67	58.29	1.18	45.31	44.72	93.71	1.90	63.11	62.16	
42	63.04	7.51	4.83	55.53	3.84	59.37	1.20	46.51	45.91	93.53	1.97	65.08	64.09	
43	61.17	7.37	4.98	53.80	3.77	57.57	1.16	47.67	47.09	93.45	1.96	67.04	66.06	
44	59.39	7.22	5.12	52.17	3.69	55.86	1.13	48.80	48.24	93.39	1.94	68.98	68.01	
45	60.52	7.25	5.27	53.27	3.71	56.98	1.15	49.95	49.38	93.49	1.93	70.91	69.95	
46	61.37	7.28	5.42	54.09	3.72	57.81	1.17	51.12	50.54	93.56	1.93	72.85	71.88	
47	63.00	7.57	5.57	55.43	3.87	59.30	1.20	52.32	51.72	93.47	1.99	74.83	73.84	
48	63.23	7.57	5.72	55.66	3.87	59.53	1.20	53.52	52.92	93.50	1.98	76.82	75.83	

SAMPLE NUMBER	WET WT.	DRY WT.	CUMM. DRY WT.	WATER CONTENT	SED. VOL.	TOTAL VOLUME	COMP. THICK	COMP. DEPTH	COMP. MID PT	SAMPLE POROSITY	UNCOMP THICK	UNCOMP DEPTH	UNCOMP MID PT	TIME B.P.
49	63.33	7.49	5.87	55.84	3.83	59.67	1.21	54.73	54.13	93.58	1.96	78.78	77.80	
50	61.96	7.34	6.02	54.62	3.75	58.37	1.18	55.91	55.32	93.57	1.94	80.72	79.75	
51	65.84	7.77	6.18	58.07	3.97	62.04	1.25	57.16	56.54	93.59	2.01	82.73	81.73	
52	63.33	7.36	6.33	55.97	3.76	59.73	1.21	58.37	57.77	93.70	1.93	84.67	83.70	
53	62.60	7.39	6.48	55.21	3.78	58.99	1.19	59.56	58.97	93.59	1.95	86.61	85.64	
54	61.11	6.89	6.62	54.22	3.52	57.74	1.17	60.73	60.15	93.90	1.84	88.45	87.53	
55	57.99	6.87	6.76	51.12	3.51	54.63	1.10	61.83	61.28	93.57	1.87	90.32	89.39	
56	57.09	7.17	6.90	49.92	3.67	53.59	1.08	62.92	62.37	93.16	1.96	92.28	91.30	
57	55.15	7.08	7.04	48.07	3.62	51.69	1.04	63.96	63.44	92.99	1.96	94.24	93.26	
58	55.59	7.45	7.19	48.14	3.81	51.95	1.05	65.01	64.49	92.66	2.06	96.30	95.27	

DENSITY = 1.955

CORE 90 - TURKEY LAKE - SEDIMENT DATA

Methods of computation of various parameters given in appendix II

Ideally, the sample from the core would have the shape of a cylinder 1 cm high, 5 cm in diameter, surface area of 19.635 cm^2, and a volume of 19.635 cm^3.

Water volume (gms = cm^3) = Wet weight - Dry weight

Total volume = Water volume + Sediment volume

$$\text{Sediment Volume} = \frac{\text{dry wt (gm)}}{\text{density (gms/cm}^3)}$$

Density = gms/cm^3

$$\text{Cumulative dry weight (gm/cm}^2) = \frac{\text{dry weight (gms)}}{\text{surface area of sample (19.635 cm}^2)}$$

$$\text{Porosity} = \frac{\text{Water volume}}{\text{Total volume}} = \phi$$

$$\text{Uncompacted thickness} = \frac{SV_z}{SV_o} \times \frac{TV_o}{TV_z} - 1 + \frac{TV_z}{19.635}$$

or

$$\frac{\phi_o - \phi_z}{1 - \phi_o} + \frac{TV_z}{19.635}$$

where SV_z is the sediment volume of the sample

SV_o is the sediment volume of the initial sample

TV_z is the total volume of the sample

TV_o is the total volume of the initial sample

ϕ_z is the porosity of the sample

ϕ_o is the porosity of the initial sample

APPENDIX 3

Data included in this appendix is for five pollen types. Ambrosia sp. rise is used as the datum (1890) from which sedimentation rates are calculated. The pollen types are Ambrosia sp. Acer sp. Quercus sp. Pinus sp. Picea sp. The pollen is represented in these tables as grains cm-3 per uncompacted sample. The preparation of the samples and methods used are given in Harper (1982). Data for the following cores are included:

1. Batchawana Lake : north - Core 79
2. Batchawana Lake : north - Core 84
3. Batchawana Lake : south - Core 85
4. Wishart Lake - Core 86
5. Wishart Lake - Core 87
6. Little Turkey Lake - Core 88
7. Little Turkey Lake - Core 89
8. Turkey Lake - Core 80
9. Turkey Lake - Core 90

1	2	3	4	5	6
.72	4069	0	3132	15211	17666
2.13	1901	554	2496	15731	11015
3.65	1548	105	1865	20272	11508
5.25	1454	8	1976	17340	13984
6.86	365	0	333	3606	2948
8.33	1356	33	992	13040	16383
9.51	911	0	497	15338	25660
10.68	1095	0	680	19085	25586
11.98	575	0	151	12601	14388
13.43	514	0	237	23470	25290
14.90	427	0	213	17975	9415
16.40	740	0	476	25445	8887
17.87	662	515	809	15459	2429
19.25	1838	0	1962	18350	2998
20.59	795	0	2169	23435	5497
21.86	380	0	1456	26098	5574
23.27	199	0	1039	25940	5715
24.94	308	231	1233	19651	6627
26.67	409	1965	2375	70035	9337
28.45	678	1493	1629	23556	4344
30.44	874	2796	4410	74820	9265
32.59	624	312	803	12277	2633
34.54	421	884	631	18492	2485
36.17	753	1574	958	31225	2875
37.83	805	178	536	30144	5993
39.73	722	412	1031	23725	3919
41.80	212	106	353	6506	1343
44.08	165	165	544	7925	1561
46.23	787	423	484	20896	4421
48.05	715	129	390	18532	6372
49.81	182	91	1460	25560	4290
51.53	872	124	1246	28037	7476
53.04	685	293	1077	32904	4504
54.51	414	103	1348	24381	2904
55.92	277	277	739	31912	7307
57.45	657	0	575	34121	10852
59.06	339	84	679	28266	3395
60.62	354	70	1558	29759	4818
62.25	301	150	754	33823	6190
63.77	143	286	2437	46602	12186
65.31	498	187	561	26322	4054
66.87	300	75	902	30304	2857
9999	9999	9999	9999	9999	9999

CORE 79 - BATCHAWANA LAKE 8 NORTH - POLLEN DATA

1 UNCOMPACTED DEPTH - MID POINT
2 AMBROSIA SP.
3 ACER SP.
4 QUERCUS SP.
5 PINUS SP.
6 PICEA SP.

EACH NUMBER REFERS TO A COLUMN NUMBER.
COUNTS ARE GRAINS PER CUBIC CM OF UNCOMPACTED SAMPLE.

1	2	3	4	5	6
.57	2228	955	796	13370	4934
1.96	1596	1689	751	7696	3848
3.59	1917	1106	1400	17912	5234
5.16	1234	411	720	14397	5244
6.49	686	457	1257	9827	5999
7.81	1066	457	609	14776	9140
9.19	606	1616	1616	24038	7070
10.54	540	925	925	10950	4550
11.89	85	1194	767	17619	8270
13.30	436	436	747	22349	5416
14.64	725	1036	1450	24865	5905
15.82	603	804	502	27423	7634
17.16	382	1050	382	17756	6205
18.61	361	963	241	20286	8608
20.07	712	534	801	32479	7831
21.60	853	1706	1564	31136	3696
23.00	439	1098	439	27785	4612
24.38	67	1007	470	11614	5166
26.12	105	944	472	13734	6552
27.91	459	1204	344	14568	9463
29.56	0	1098	1255	15533	15377
31.18	278	334	945	14230	1779
32.75	214	1283	718	16140	4275
34.37	357	1785	535	13389	4195
36.03	705	353	1293	46541	8697
37.73	1167	500	834	36848	8837
39.46	997	83	415	43959	11301
41.22	928	309	0	47966	13152
42.99	301	0	0	18603	4895
44.81	218	87	218	22708	5371
9999999	9999999	9999999	9999999	9999999	9999999

CORE 84 - BATCHAWANA LAKE : NORTH - POLLEN DATA

1 UNCOMPACTED DEPTH - MID POINT
2 AMBROSIA SP.
3 ACER SP.
4 QUERCUS SP.
5 PINUS SP.
6 PICEA SP.

EACH NUMBER REFERS TO A COLUMN NUMBER.
COUNTS ARE GRAINS PER CUBIC CM OF UNCOMPACTED SAMPLE.

1	2	3	4	5	6
.24	2504	0250	0876	13522	04883
1.04	6091	174	3132	27674	4003
2.00	2833	191	880	6585	1799
2.85	2717	159	719	8712	1998
3.84	1745	235	660	5756	2736
4.84	1344	355	790	6919	2680
5.83	317	158	317	7028	1707
6.86	334	401	267	6961	1137
7.88	174	174	348	9227	1915
8.98	477	238	557	11226	636
10.12	911	0	651	11331	1041
11.19	532	106	106	10764	2770
12.27	225	74	225	8327	1050
13.40	1641	615	287	20103	4307
14.45	169	678	339	14752	2543
15.52	699	93	279	9702	1072
16.60	554	138	416	9848	3051
17.77	528	105	422	15117	2854
19.12	674	149	74	14687	1873
20.71	84	169	0	9491	1524
22.50	64	258	64	11332	1683
24.29	0	232	0	15681	2671
25.88	0	118	0	5042	1304
27.24	10	0	0	3589	541
28.57	1621	162	973	23030	4054
29.94	417	46	232	10169	1253
31.34	262	87	262	23083	2098
32.72	600	0	54	9933	1473
34.12	524	157	157	13281	1994
35.52	717	89	179	10499	1794
36.93	237	59	237	7378	2082
38.37	272	0	227	11267	3861
39.82	511	56	739	7563	511
41.20	433	108	758	10076	2275
42.56	368	122	245	12660	7866
43.96	141	23	188	6095	2528
9999999999999999999999999999999999					

CORE 85 - BATCHAWANA LAKE ; SOUTH - POLLEN DATA

1 UNCOMPACTED DEPTH- MID POINT
2 AMBROSIA SP.
3 ACER SP.
4 QUERCUS SP.
5 PINUS SP.
6 PICEA SP.

EACH NUMBER REFERS TO A COLUMN NUMBER.
COUNTS ARE GRAINS PER CUBIC CM OF UNCOMPACTED SAMPLE.

1	2	3	4	5	6
.39	1973	0	441	7684	1220
1.73	1214	18	217	5000	598
3.59	1324	31	93	5653	592
5.10	974	37	123	3269	370
6.54	1458	25	50	4009	390
8.26	865	10	41	3768	268
9.97	1174	8	39	4109	672
11.68	1230	15	75	3195	420
13.42	1301	13	94	2817	389
15.25	1280	28	0	3925	825
17.09	2417	42	104	5647	625
18.95	1666	20	51	3588	736
21.11	1331	0	171	3704	1279
23.36	959	0	49	2293	740
25.42	975	0	38	3355	1013
27.51	1184	80	20	2750	1445
29.98	2168	117	163	3473	1212
32.48	1164	44	59	4950	2018
34.61	722	0	59	3259	1171
36.67	1586	22	132	4317	1806
38.76	2955	0	68	5604	2309
40.84	1575	0	0	4630	1423
42.88	962	0	67	3514	1231
44.89	1145	45	202	3301	1662
46.91	581	116	163	2881	1301
48.93	826	61	184	8596	3671
50.98	767	12	24	2925	1333
53.02	535	0	55	2592	919
55.05	901	26	26	5192	1298
57.13	536	17	17	2976	1479
59.21	621	24	24	3441	1434
61.19	411	97	72	5558	1426
63.08	563	68	23	3853	1014
65.00	321	0	40	4013	1324
67.12	416	0	73	5956	2651
69.30	398	31	31	4439	1653
71.66	401	105	296	4631	2023
74.11	513	43	599	9968	3251
76.38	298	0	133	6301	1725
78.54	314	143	114	5860	2287
80.62	114	205	182	3031	2028
82.75	239	154	342	4582	1727
84.87	369	154	154	5620	2733
86.91	469	213	213	7209	3498
88.86	309	71	119	4890	1994
90.76	167	67	67	5096	2731
92.74	260	43	237	4567	2251
9999999999	9999999999	9999999999	9999999999	9999999999	9999

CORE 86 - WISHART LAKE - POLLEN DATA

1 UNCOMPACTED DEPTH- MID POINT
2 AMBROSIA SP.
3 ACER SP.
4 QUERCUS SP.
5 PINUS SP.
6 PICEA SP.

EACH NUMBER REFERS TO A COLUMN NUMBER.
COUNTS ARE GRAINS PER CUBIC CM OF UNCOMPACTED SAMPLE.

1	2	3	4	5	6
.26	3027	170	194	6273	872
1.05	1808	117	70	5048	1080
2.22	1695	16	32	4419	1219
3.54	1979	45	136	5845	660
4.95	2416	0	94	4880	540
6.36	1173	48	72	4548	503
7.73	1164	30	90	3926	418
9.06	2906	56	140	5617	866
10.44	1822	35	71	6332	1610
11.87	1991	48	72	5517	1655
13.29	2390	74	89	7924	2435
14.63	1423	53	53	4547	1608
15.94	1688	44	44	8661	1821
17.34	1259	44	102	6529	2445
18.81	803	100	100	6106	2591
20.25	1401	31	185	6375	1909
21.63	870	19	57	6845	2080
23.03	939	0	89	7445	1932
24.49	816	82	98	6511	1599
25.92	1116	248	248	7996	1859
27.29	729	84	196	8268	1878
28.61	608	32	128	6276	1665
29.93	314	57	128	6162	2211
31.30	971	167	288	14804	5749
32.74	509	0	85	5814	1016
34.16	322	0	97	8012	1448
35.54	97	0	0	7231	1169
36.90	266	88	80	6391	1758
38.30	195	49	49	6958	1333
39.69	178	25	51	6808	1499
41.84	97	24	12	4474	2286
42.37	182	0	36	6991	2913
43.70	320	21	43	6784	2581
45.02	168	0	21	6702	1571
46.35	112	0	84	6987	2301
47.73	282	15	30	5353	2840
99999999999999999999999999999999999999					

CORE 87 - WISHART LAKE - POLLEN DATA

1 UNCOMPACTED DEPTH- MID POINT
2 AMBROSIA SP.
3 ACER SP.
4 QUERCUS SP.
5 PINUS SP.
6 PICEA SP.

EACH NUMBER REFERS TO A COLUMN NUMBER.
COUNTS ARE GRAINS PER CUBIC CM OF UNCOMPACTED SAMPLE.

1	2	3	4	5	6
.31	2232	95	380	7836	3514
1.36	2848	58	233	6220	3488
2.62	3283	86	216	4968	3024
3.83	3267	63	63	4713	2102
5.24	2029	0	125	4683	1905
6.83	1967	32	32	4474	2475
8.43	1611	0	63	6727	3127
9.87	3118	0	255	5855	3627
11.27	1675	0	51	7565	3097
12.71	1343	0	0	7459	3184
14.23	1518	0	23	5779	2901
15.82	1000	40	120	7641	3400
17.40	529	28	56	4373	1142
18.93	754	108	54	4578	1131
20.51	483	44	0	4347	1273
22.08	133	0	0	3486	764
23.75	196	0	0	5190	2056
25.47	662	0	0	5199	1796
27.13	511	0	0	8943	1405
28.81	139	11	11	3038	970
30.52	42	0	0	1538	832
32.28	348	58	232	17470	4701
34.14	674	0	135	19349	6405
36.10	48	0	24	3459	943
37.99	564	0	245	17005	1693
39.82	183	66	432	11269	848
41.69	358	134	492	9940	2642
43.70	200	33	400	11511	2235
45.70	154	61	184	8607	1875
47.63	464	0	105	9005	1940
49.59	370	111	222	10983	2626
51.67	173	121	259	11449	1332
53.85	357	102	510	10548	1682
56.00	148	74	266	10406	1451
58.10	467	23	701	14467	2594
99999999999999999999999999999999999999					

CORE 88 - LITTLE TURKEY LAKE - POLLEN DATA

1 UNCOMPACTED DEPTH- MID POINT
2 AMBROSIA SP.
3 ACER SP.
4 QUERCUS SP.
5 PINUS SP.
6 PICEA SP.

EACH NUMBER REFERS TO A COLUMN NUMBER.
COUNTS ARE GRAINS PER CUBIC CM OF UNCOMPACTED SAMPLE.

1	2	3	4	5	6
.40	1981	15	30	7109	1906
1.43	2085	0	0	7425	1490
2.76	3053	46	228	9889	2643
4.19	1444	0	58	6970	1829
5.68	1853	185	111	6930	2223
7.17	790	75	151	5345	1317
8.64	776	97	48	11585	2133
10.23	638	58	232	12624	2612
11.90	578	260	260	13149	2601
13.58	404	231	404	12245	2888
15.34	549	73	73	10396	4759
17.14	336	0	135	16345	10157
18.99	538	0	287	13523	4914
20.94	650	0	260	17496	5203
22.96	746	39	511	13787	3417
24.98	867	0	515	15445	4661
26.98	343	160	252	14277	2859
29.01	362	207	621	16980	3158
31.08	680	91	363	21362	4672
33.16	602	0	195	16715	3180
35.28	765	135	135	21650	3556
37.47	544	0	136	15154	3539
39.66	423	169	169	16149	2452
41.85	417	250	167	11671	3001
44.06	316	90	406	11409	1984
46.28	658	44	307	19869	3860
48.66	170	56	113	11344	2883
51.01	333	0	100	11300	3066
53.23	216	0	0	10254	3022
55.48	371	29	0	16849	5854
57.75	719	0	30	13182	2397
60.00	599	0	70	12399	2748
62.26	275	39	79	9271	2475
64.58	666	0	0	24869	5757
66.95	194	18	35	10786	2970
69.33	205	0	0	8496	3719
71.72	617	69	103	11686	4969
74.11	342	0	380	7752	3653
76.64	778	177	353	9827	3853
79.19	876	0	110	7279	4304
81.59	453	0	48	5798	5082
84.00	431	0	92	5943	5296
86.45	481	0	0	6028	4302
88.90	433	0	29	6837	5048
91.39	551	0	79	7267	3673
93.87	348	0	32	6387	4521
96.42	439	0	0	7112	6700
99.06	282	0	0	5927	4010
9999999999999999999999999999999999999					

CORE 89 - LITTLE TURKEY LAKE - POLLEN DATA

1 UNCOMPACTED DEPTH- MID POINT
2 AMBROSIA SP.
3 ACER SP.
4 QUERCUS SP.
5 PINUS SP.
6 PICEA SP.

EACH NUMBER REFERS TO A COLUMN NUMBER.
COUNTS ARE GRAINS PER CUBIC CM OF UNCOMPACTED SAMPLE.

1	2	3	4	5	6
.70	3091	618	2721	21394	4081
1.97	5077	635	3427	23482	5204
3.15	4174	904	3061	25811	4661
4.40	3166	957	1695	18925	3903
5.59	5579	656	985	27021	3500
6.80	3607	721	1876	23231	5772
8.16	2353	428	1070	24066	6738
9.61	2886	231	693	21242	4733
11.19	2554	232	812	19733	3366
13.08	1541	411	514	12127	3494
15.10	973	37	299	6961	2320
17.53	1078	111	892	5021	1674
20.49	312	51	127	2559	414
23.61	187	20	90	1013	214
26.76	222	37	37	1666	74
29.96	66	33	116	2553	232
33.26	126	31	31	1330	95
36.59	28	28	28	337	28
9999	9999	9999	9999	9999	9999

CORE 80 - BIG TURKEY LAKE - POLLEN DATA

1 UNCOMPACTED DEPTH- MID POINT
2 AMBROSIA SP.
3 ACER SP.
4 QUERCUS SP.
5 PINUS SP.
6 PICEA SP.

EACH NUMBER REFERS TO A COLUMN NUMBER.
COUNTS ARE GRAINS PER CUBIC CM OF UNCOMPACTED SAMPLE.

1	2	3	4	5	6
.32	3748	163	244	22491	6519
1.23	4472	55	110	19984	5244
2.43	5868	199	696	35211	7758
3.64	3188	0	290	12812	3768
4.85	2389	225	180	14740	2885
6.01	1912	81	488	11877	1749
7.18	1375	282	70	14170	2608
8.41	1134	170	227	18206	3006
9.60	1429	110	494	28792	3736
11.14	1298	354	236	26896	4129
12.84	390	65	65	18674	5791
14.30	172	86	258	8297	2622
15.68	917	0	108	22397	5451
17.08	576	0	16	11994	3941
18.51	696	84	111	14014	3260
19.94	1381	86	216	19936	6688
21.41	735	28	85	17678	3536
22.90	183	37	37	14494	5555
24.42	816	95	43	17346	8158
25.97	654	47	47	16357	7758
27.46	767	0	0	19524	7051
29.01	667	0	0	17152	6861
30.68	753	0	94	18176	7911
32.32	561	0	19	15687	4749
33.98	1277	0	106	7128	3440
35.69	1323	49	196	7739	5339
37.39	728	33	0	8275	3244
39.06	568	99	74	9087	2469
40.74	631	19	115	7073	2122
42.42	695	19	58	11023	2934
44.09	924	49	97	14151	4911
45.75	966	0	0	9370	5126
47.42	441	68	34	8660	4041
49.17	935	0	0	10010	2979
50.99	821	0	0	8599	2750
52.85	350	0	0	10629	3738

99999999999999999999999999999999999999

CORE 90 - BIG TURKEY LAKE - POLLEN DATA

1 UNCOMPACTED DEPTH- MID POINT
2 AMEROSIA SP.
3 ACER SP.
4 QUERCUS SP.
5 PINUS SP.
6 PICEA SP.

EACH NUMBER REFERS TO A COLUMN NUMBER.
COUNTS ARE GRAINS PER CUBIC CM OF UNCOMPACTED SAMPLE.

APPENDIX 4

Diatom enumeration was done on contract through Canada Department of Supply and Service. Not all of the diatoms identified are referenced in this appendix. For a complete data set refer to Duthie & McKee (1983). The diatoms are recorded as frustules cm-3 uncompacted sample. Data for the following cores are included:

1. Batchawana Lake : north - Core 79
2. Batchawana Lake : north - Core 84
3. Batchawana Lake : south - Core 85
4. Wishart Lake - Core 86
5. Wishart Lake - Core 87
6. Little Turkey Lake - Core 88
7. Little Turkey Lake - Core 89
8. Turkey Lake - Core 80
9. Turkey Lake - Core 90

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
.72	13	55	194	41	27	55	583	111	13	63	264	83	402	138	4183	97	
2.16	70	14	125	0	14	14	561	140	14	125	84	154	392	84	84	125	
3.65	85	18	85	28	18	0	350	57	18	161	85	132	246	151	75	57	
5.25	56	9	85	47	22	0	321	47	28	141	75	189	198	132	65	65	
6.86	39	19	87	19	29	0	290	173	19	67	9	96	300	251	58	77	
8.33	37	37	56	9	9	0	376	84	0	65	28	169	338	300	37	28	
9.51	92	27	130	0	9	0	334	130	37	64	55	120	288	138	120	55	
10.68	112	70	253	14	0	14	421	70	0	84	196	84	759	267	98	42	
11.98	28	28	214	14	42	28	314	85	14	71	171	314	291	171	171	28	
13.43	29	29	144	19	58	0	330	67	19	106	173	241	377	106	106	39	
14.90	72	14	100	57	0	43	359	43	28	186	244	115	574	344	86	72	
16.48	19	10	29	10	10	10	175	67	19	77	204	233	282	233	117	67	
17.87	0	28	94	9	28	9	123	38	38	65	152	114	209	190	85	18	
19.25	21	14	106	6	6	14	49	21	21	42	85	42	128	135	21	14	
20.55	9	0	75	28	0	0	170	36	28	18	94	57	180	227	18	57	
21.86	0	9	65	46	9	18	160	46	65	37	56	140	188	225	0	150	
23.27	10	10	117	29	19	0	88	58	39	19	137	156	235	127	29	58	
24.94	0	0	104	14	14	0	111	29	44	29	52	96	67	223	52	44	
26.67	0	0	59	19	19	0	98	68	59	49	43	147	68	138	118	39	
28.45	0	0	70	19	10	0	171	19	91	60	50	121	141	181	40	70	
30.44	32	21	64	21	21	0	138	64	74	32	53	117	138	288	85	128	
32.59	31	20	42	10	20	0	83	42	52	136	63	83	240	167	104	94	
34.54	6	14	43	14	36	21	50	43	58	14	36	43	80	168	73	50	
36.17	0	0	71	14	14	6	49	57	35	35	42	78	106	114	14	21	
37.83	19	0	69	19	40	10	139	40	89	49	49	158	178	109	29	19	
39.73	0	0	42	10	10	10	125	31	20	72	42	93	197	83	42	42	
41.80	0	0	211	91	30	91	363	91	45	75	60	242	166	393	75	60	
44.08	0	0	144	64	32	129	151	48	48	80	16	274	193	322	64	129	
46.23	0	0	60	15	30	45	240	60	135	90	75	225	225	270	150	150	
48.05	0	0	90	90	30	15	180	90	90	15	150	210	135	301	45	105	
49.81	0	0	132	118	29	103	132	103	103	89	162	236	177	444	118	162	
51.53	44	0	236	44	14	14	147	118	29	0	118	29	132	192	0	118	
53.04	0	0	156	14	0	57	85	28	14	42	42	127	199	284	42	100	
54.51	0	0	188	72	14	116	203	72	29	72	87	173	232	305	87	87	
55.92	0	14	211	99	56	169	99	70	42	42	155	140	239	211	42	155	
57.45	0	14	296	29	89	89	296	74	59	44	89	147	340	488	74	89	
59.06	0	0	242	57	57	114	142	156	57	42	170	256	456	242	85	100	
60.62	14	29	351	29	14	102	175	29	44	58	219	131	263	263	29	204	
62.25	0	14	230	72	0	43	101	43	57	28	129	157	244	445	101	157	
63.77	14	0	242	14	28	99	242	114	14	57	85	156	327	256	14	156	
65.31	0	14	114	42	71	42	242	28	42	0	14	327	142	199	28	213	
66.87	0	0	343	28	0	114	228	171	14	14	214	100	185	300	43	214	
68.51	14	0	148	29	29	74	177	74	29	14	148	192	177	356	59	252	
70.12	0	0	71	71	14	57	257	57	28	43	100	157	171	343	57	171	
71.65	0	0	101	72	14	101	288	86	28	28	115	158	317	346	43	129	
73.15	0	0	115	28	14	57	129	28	43	57	72	215	316	230	72	101	
74.65	0	0	185	114	0	157	300	86	43	14	43	157	271	171	14	142	
76.14	14	14	172	86	14	86	287	72	43	14	100	172	344	143	14	200	
77.54	9	0	103	103	9	75	159	93	37	0	84	65	140	113	9	84	
78.86	9	0	178	121	9	93	93	28	9	9	84	74	121	196	9	131	

CORE 79 - BATCHAWANA LAKE # NORTH - DIATOM DATA (PART1)

1 UNCOMPACTED DEPTH - MID POINT
2 ACHNANTHES LEVANDERI (+1)
3 ACHNANTHES LINEARIS (0)
4 ACHNANTHES MINUTISSIMA (0)
5 ACTINELLA PUNCTATA (+5)
6 AMPHORA OVALIS (-1)
7 ANOMOEONEIS SERIANS VAR. ACUTA (+1)
8 ANOMOEONEIS SERIANS VAR. BRACHYSIRA (+1)
9 ANOMOEONEIS VITREA (+1)
10 CALONEIS BACILLUM (-1)
11 CYCLOTELLA COMTA (-1)
12 CYCLOTELLA STELLIGERA (-1)
13 CYMBELLA LUNATA (+1)
14 CYMBELLA MICROCEPHALA (-)
15 CYMBELLA MINUTA VAR. SILESIACA (0)
16 DIPLONEIS MARGINESTRIATA (+1)
17 EUNOTIA ARCUS (+1)

EACH NUMBER REFERS TO A COLUMN NUMBER.
(+1) REFERS TO PH FACTOR.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
.72	41	152	69	27	111	69	13	27	27	27	83	124	41	69	458	41
2.13	56	98	0	42	42	196	98	0	56	14	112	42	14	42	631	98
3.65	38	123	28	28	18	161	18	28	38	0	75	38	0	0	568	57
5.25	38	75	94	18	56	179	104	38	28	0	56	38	0	0	539	28
6.86	19	154	67	29	48	87	9	0	29	0	96	67	0	9	551	19
8.43	37	84	37	46	28	75	56	113	18	37	37	150	9	37	573	0
9.51	120	120	74	27	138	64	46	9	46	27	37	138	9	27	491	0
10.68	112	84	84	70	112	42	56	0	28	42	28	224	154	112	576	0
11.98	28	100	100	0	57	28	57	14	28	42	42	185	28	57	685	0
13.43	29	202	96	29	67	39	96	29	0	19	77	261	29	0	580	0
14.90	43	316	143	43	128	14	157	28	28	0	0	287	43	43	1019	0
16.40	58	292	145	10	145	29	48	19	19	29	39	155	48	10	789	0
17.87	76	214	38	57	104	9	28	28	9	28	38	104	0	38	903	0
19.25	49	135	42	28	128	21	42	78	6	14	35	114	28	6	571	14
20.59	66	198	75	47	141	28	85	75	9	0	85	57	66	9	815	0
21.86	131	310	93	18	150	103	113	46	18	28	103	103	0	0	601	0
23.27	78	293	29	10	127	29	39	29	10	0	48	29	0	29	774	0
24.94	44	148	29	0	81	74	44	22	7	14	81	29	14	14	425	7
26.67	39	296	19	0	98	59	98	39	49	19	128	89	0	10	316	39
28.45	56	211	40	0	191	30	91	50	10	0	171	141	0	30	484	19
30.44	74	128	32	0	171	0	96	85	11	43	160	11	21	21	545	32
32.59	63	146	42	0	283	0	73	94	10	31	178	94	20	10	356	42
34.54	50	182	14	29	233	36	21	65	6	0	109	50	29	0	387	0
36.17	42	121	6	14	121	42	35	21	14	0	106	28	14	28	242	28
37.83	40	208	0	29	218	19	10	99	0	10	188	29	0	19	388	10
39.73	51	208	20	42	177	93	42	62	10	42	177	51	0	20	447	0
41.80	75	303	60	15	151	181	30	121	15	45	196	121	15	45	848	30
44.08	80	419	48	48	322	97	80	129	16	0	64	161	64	0	1032	32
46.23	75	556	45	45	376	240	45	150	30	0	165	30	30	15	917	45
48.05	90	346	30	45	542	210	165	150	30	0	165	45	0	75	918	45
49.81	162	399	103	59	484	132	44	236	0	59	59	118	29	14	992	103
51.53	162	281	59	44	192	59	0	74	14	29	59	14	14	89	458	29
53.04	142	384	71	42	412	114	85	270	14	28	114	100	57	57	669	57
54.51	116	275	58	29	305	116	58	29	14	14	144	188	29	29	1074	43
55.92	225	324	70	14	395	113	84	169	0	0	99	169	28	140	790	56
57.45	59	311	103	44	355	147	14	192	14	44	147	14	59	59	858	59
59.06	228	213	42	14	213	100	28	156	28	42	100	213	28	42	641	71
60.62	263	175	131	14	117	117	29	29	29	29	131	58	0	117	600	102
62.25	230	230	28	101	101	86	28	172	0	0	101	72	14	0	704	57
63.77	213	242	114	42	284	71	14	156	14	28	142	142	0	28	826	114
65.31	85	199	57	42	114	71	28	85	14	14	142	57	28	0	640	42
66.87	228	214	57	14	228	128	114	43	0	14	114	71	0	28	587	86
68.51	267	311	104	74	177	59	74	133	0	59	44	162	59	0	697	89
70.12	185	400	57	0	329	171	57	157	28	14	142	71	86	57	786	57
71.65	86	230	57	43	244	72	43	86	0	72	201	72	0	28	734	43
73.15	101	129	57	43	158	115	0	244	14	14	115	43	28	43	647	57
74.65	128	357	114	43	329	257	228	214	14	43	157	28	0	57	729	71
76.14	100	445	244	43	215	86	186	128	14	28	28	157	28	43	689	57
77.54	93	206	169	18	160	93	65	65	0	18	56	46	0	9	263	65
78.86	159	253	93	56	234	121	56	74	0	0	103	84	37	18	328	46

CORE 79 - BATCHAWANA LAKE # NORTH - DIATOM DATA (CONTINUED PART 2)

1 UNCOMPACTED DEPTH - MID POINT
2 EUNOTIA ELEGANS (+1)
3 EUNOTIA FLEXUOSA (+5)
4 EUNOTIA INCISA (+1)
5 EUNOTIA MAIOR (+1)
6 EUNOTIA PECTINALIS (+1)
7 EUNOTIA PECTINALIS VAR. MINOR (+1)
8 EUNOTIA PECTINALIS VAR. RECTA (+1)
9 EUNOTIA SERRA (+1)
10 EUNOTIA SERRA VAR. DIADEMA (+1)
11 EUNOTIA TENELLA (+1)
12 EUNOTIA VANHEURCKII (+1)
13 FRAGILARIA SP (UNIDENTIFIED) (-1)
14 FRAGILARIA CONSTRUENS VAR. VENTER (-1)
15 FRAGILARIA LAPPONICA (0)
16 FRUSTULIA RHOMBOIDES (+1)
17 FRUSTULIA RHOMBOIDES VAR. CAPITATA (+1)

EACH NUMBER REFERS TO A COLUMN NUMBER.
(+1) REFERS TO PH FACTOR.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
.72	736	13	27	27	166	180	27	69	13	41	0	27	27	166	55	41
2.13	420	56	28	56	294	140	112	42	0	28	0	56	42	112	14	84
3.65	692	57	0	38	123	85	47	18	0	38	0	0	9	66	0	161
5.25	719	47	0	65	132	321	56	56	0	18	0	18	9	132	18	85
6.86	483	67	0	58	77	271	77	19	0	29	0	0	39	144	9	96
8.33	461	65	9	46	160	56	122	46	0	65	0	0	18	93	9	160
9.51	334	18	0	27	166	83	138	37	0	18	0	9	9	102	0	83
10.68	492	14	14	70	477	56	56	28	0	0	0	70	0	84	28	140
11.98	285	28	14	42	285	100	100	100	29	58	0	14	43	145	58	292
13.43	328	19	0	19	202	144	116	106	9	58	0	9	0	125	19	106
14.90	445	43	28	28	316	100	143	72	28	72	0	0	14	186	43	57
16.40	370	39	19	10	155	77	145	58	10	39	0	29	19	88	10	88
17.87	295	28	9	0	104	133	85	66	0	57	0	38	18	18	28	104
19.25	156	0	14	14	71	64	49	42	6	42	0	6	6	78	14	78
20.59	493	0	18	9	123	85	66	47	57	18	0	28	18	57	0	47
21.86	479	0	0	0	75	113	18	65	28	65	0	9	9	37	0	46
23.27	509	0	29	29	78	88	39	88	58	58	10	10	0	48	29	10
24.94	290	7	14	14	59	111	14	59	29	59	44	22	0	22	22	81
26.67	504	29	19	10	68	108	59	138	29	19	10	39	10	29	19	89
28.45	514	10	19	10	70	91	40	60	10	80	0	30	10	40	19	91
30.44	417	11	32	21	106	106	32	64	11	138	0	53	21	53	11	96
32.59	555	31	42	20	31	73	115	42	10	167	0	20	10	73	31	63
34.54	248	14	29	6	80	50	36	36	36	124	6	29	6	36	14	65
36.17	306	0	0	14	100	63	42	35	21	78	6	42	14	35	21	49
37.83	328	10	29	10	89	79	69	29	19	89	29	49	29	59	10	19
39.73	447	0	31	10	83	72	20	114	20	93	20	20	10	0	31	145
41.80	848	15	30	30	181	166	75	181	30	181	60	60	30	60	75	60
44.08	758	48	32	16	290	129	64	177	48	387	16	0	0	97	32	129
46.23	812	15	45	30	150	105	45	165	45	301	30	15	15	60	0	120
48.05	677	15	75	30	135	30	150	30	75	241	60	90	30	150	15	105
49.81	903	44	29	44	207	44	132	74	44	222	44	14	59	103	44	162
51.53	518	14	29	29	207	103	59	44	0	74	29	0	14	118	89	29
53.04	826	0	28	14	127	100	114	100	42	142	28	28	28	100	14	42
54.51	870	43	14	0	232	232	173	72	29	159	14	29	29	116	43	58
55.92	719	14	14	14	155	99	140	84	0	197	42	14	28	56	42	99
57.45	961	14	59	29	251	89	103	236	44	266	103	103	14	118	29	118
59.06	598	57	57	0	185	199	127	185	42	256	42	42	28	199	57	127
60.62	571	0	58	44	117	234	73	58	29	204	14	0	14	117	44	102
62.25	834	0	57	0	215	201	143	129	28	115	57	28	14	115	43	43
63.77	569	0	14	14	142	242	85	57	14	156	57	28	0	199	42	85
65.31	640	14	0	14	85	71	28	199	28	114	42	57	0	28	14	42
66.87	515	14	0	0	185	214	28	185	71	71	28	57	14	71	28	86
68.51	726	14	29	29	74	74	222	222	29	162	14	104	29	222	44	162
70.12	786	0	28	0	43	228	86	100	28	200	71	0	28	100	28	157
71.65	835	14	28	0	101	101	273	57	28	28	57	0	0	158	72	86
73.15	848	14	0	0	57	158	101	143	14	158	72	0	14	86	14	57
74.65	714	14	28	0	128	142	100	142	14	171	43	0	14	43	71	157
76.14	761	0	14	14	172	115	72	100	0	115	0	0	0	28	57	100
77.54	375	9	28	0	75	75	46	28	18	56	9	0	18	75	18	75
78.86	469	18	46	28	37	18	56	28	28	18	0	28	0	46	28	74

9999999999999999999999999999999999999999999999999999999999999999999999999999999999999999999999999999999

CORE 79 - BATCHAWANA LAKE : NORTH - DIATOM DATA (CONTINUED PART 3)

1 UNCOMPACTED DEPTH - MID POINT
2 FRUSTULIA RHOMBOIDES VAR. SAXONICA (+1)
3 GOMPHONEMA ANGUSTATUM (-1)
4 GOMPHOENMA APICATUM (0)
5 NAVICULA PUPULA (-1)
6 NAVICULA RADIOSA (0)
7 NAVICULA RADIOSA VAR. PARVA (0)
8 NEIDIUM AFFINE (+1)
9 NEIDIUM AFFINE VAR. AMPHIRHYNCHUS (+1)
10 NEIDIUM AFFINE VAR. HUMERUS (+1)
11 NEIDIUM AFFINE VAR. LONGICEPS (+1)
12 NEIDIUM DUBIUM (+1)
13 NEIDIUM IRIDIS VAR. AMPHIGOMPHUS (+1)
14 NITZSCHIA HANCHIANA (-5)
15 NITZSCHIA PALEA (-1)
16 NITZSCHIA SIGMOIDEA (-1)
17 PINNULARIA ABAUJENSIS (+1)

EACH NUMBER REFERS TO A COLUMN NUMBER.
(+1) REFERS TO PH FACTOR.
COUNTS ARE FRUSTULES PER CUBIC CM OF UNCOMPACTED SAMPLE

1	2	3	4	5	6	7	8	9	10	11	12
.72	41	152	13	27	55	124	55	9	10	11	12
2.14	125	125	84	42	182	154	84	0	83	250	55
3.65	151	227	28	38	47	151	38	0	70	98	42
5.25	56	217	47	18	104	47	38	18	28	151	18
6.86	39	300	37	0	106	19	58	38	75	208	56
8.33	75	216	18	0	65	9	46	9	48	222	125
9.51	46	120	83	18	27	37	46	46	113	188	65
10.68	56	168	42	14	56	182	168	112	120	194	111
11.98	114	257	14	0	100	114	71	42	112	238	28
13.43	58	348	0	0	67	77	67	67	85	314	28
14.90	57	344	43	0	143	72	86	100	48	241	29
16.40	29	195	48	10	67	33	39	88	57	373	100
17.87	57	85	18	0	76	66	38	38	29	155	77
19.25	28	128	14	0	48	85	49	6	47	94	9
20.59	38	244	47	9	38	114	47	57	35	106	14
21.86	28	150	18	0	46	37	28	37	38	180	57
23.27	29	107	19	0	127	48	48	19	56	103	37
24.94	67	178	29	0	22	29	7	7	29	107	48
26.67	59	108	10	29	98	128	59	10	22	104	29
28.45	60	181	19	0	121	111	40	19	59	207	49
30.44	43	224	42	21	64	117	32	32	10	181	60
32.59	31	156	42	31	20	115	42	10	63	171	43
34.54	29	94	6	21	73	65	36	14	14	146	10
36.17	28	100	6	21	57	100	14	28	6	145	21
37.83	59	148	10	29	89	123	49	19	10	178	28
39.73	83	186	0	42	42	103	42	42	31	129	29
41.80	106	439	60	15	135	151	15	60	45	135	51
44.08	113	339	48	80	97	241	0	48	32	363	75
46.23	45	376	60	60	150	150	60	60	60	177	80
48.05	75	421	30	75	75	225	45	90	30	210	30
49.81	118	266	29	44	147	147	44	59	59	286	30
51.53	29	147	14	44	162	355	44	44	147	399	29
53.04	14	199	57	71	114	227	14	42	114	103	29
54.51	29	290	29	72	101	363	0	101	43	256	85
55.92	99	324	56	14	155	324	84	28	99	58	29
57.45	89	325	14	59	118	296	59	59	29	183	99
59.06	28	356	14	14	86	270	85	85	57	296	74
60.62	58	263	29	14	58	366	72	99	102	213	14
62.25	101	244	14	28	72	143	43	72	43	190	44
63.77	57	369	0	42	71	142	28	99	71	215	101
65.31	142	299	100	42	57	57	42	28	42	270	57
66.87	28	257	71	86	71	243	28	43	43	212	29
68.51	29	356	0	14	59	222	89	89	29	157	43
70.12	128	171	14	100	0	100	57	57	43	177	133
71.65	43	288	28	86	86	86	57	28	43	300	28
73.15	101	259	43	72	101	115	86	28	28	230	28
74.65	200	171	43	0	128	128	28	57	71	158	57
76.14	72	287	28	43	100	86	28	28	14	157	57
77.54	18	188	0	28	18	65	18	9	28	272	57
78.86	28	93	0	9	37	18	18	18	9	188	28
9999999999	9999999999	9999999999	9999999999	9999999999	9999999999	9999999999	9999999999	9999999999	9999999999	224	9

CORE 79 - BATCHAWANA LAKE # NORTH - DIATOM DATA (CONTINUED PART 4)

1 UNCOMPACTED DEPTH - MID POINT
2 PINNULARIA ABAUJENSIS VAR. SUBUNDULLATA (+1)
3 PINNULARIA BICEPS (0)
4 PINNULARIA VIRIDIS (+1)
5 STAURONEIS ANCEPS (0)
6 STAURONEIS ANCEPS F. GRACILIS (0)
7 STAURONEIS ANCEPS F. LINEARIS (0)
8 STAURONEIS PHOENICENTERON (0)
9 STENOPTERBIA INTERMEDIA (+1)
10 SURIRELLA DELICATISSIMA (+5)
11 TABELLARIA FENESTRATA (+1)
12 TABELLARIA FLOCCULOSA (+5)

EACH NUMBER REFERS TO A COLUMN NUMBER.
(+1) REFERS TO PH FACTOR.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
.57	10	0	10	10	10	131	40	101	50	10	20	10	81	20	0	10
1.96	32	10	10	10	10	161	21	161	139	10	64	10	64	10	10	0
3.59	21	32	10	21	0	139	43	139	225	10	21	86	64	21	0	0
5.16	10	0	10	10	21	245	0	191	64	10	53	10	42	32	10	0
6.49	30	40	20	0	40	243	71	161	212	10	50	40	313	71	30	0
7.81	31	10	0	10	0	190	106	137	275	10	31	10	137	21	10	0
9.19	20	31	20	10	41	134	0	51	41	0	51	20	72	20	0	0
10.54	20	30	0	0	71	143	41	92	184	10	30	20	164	10	20	0
11.89	10	0	0	0	30	173	20	152	40	10	20	51	163	30	20	0
13.30	0	10	0	10	21	75	21	42	21	10	32	42	171	42	0	0
14.64	0	0	19	9	0	138	29	69	89	9	19	19	89	9	9	0
15.82	10	20	0	0	10	80	20	150	30	10	10	10	220	0	10	0
17.16	20	0	0	0	0	90	34	139	41	7	20	0	118	10	10	0
18.61	10	0	10	0	10	125	62	250	104	0	10	10	104	10	10	0
20.07	0	0	13	13	7	118	20	187	90	7	34	7	194	34	7	0
21.60	5	0	0	5	0	68	10	111	53	0	5	10	79	21	5	0
23.00	30	20	10	0	0	163	20	245	102	10	10	51	225	20	0	0
24.38	21	15	0	4	0	46	4	146	31	4	4	15	57	25	0	0
26.12	35	14	14	0	21	136	50	29	93	7	21	57	122	50	7	0
27.91	32	15	0	5	0	37	10	64	58	5	10	37	90	32	5	0
29.56	15	5	5	0	5	43	15	80	43	0	26	15	64	21	0	0
31.18	21	15	5	5	5	84	36	52	57	0	15	15	57	10	0	5
32.75	5	10	15	10	5	79	15	42	63	10	15	21	53	10	15	15
34.37	15	15	0	0	10	105	42	58	132	10	21	21	216	5	10	15
36.03	21	10	0	0	5	101	32	15	85	5	10	21	122	5	10	47
37.73	26	5	10	5	21	90	32	10	106	0	15	53	64	0	0	15
39.46	0	5	0	5	10	42	15	15	21	5	0	15	101	0	5	0
41.22	14	35	0	7	0	106	21	28	127	7	7	49	170	0	0	56
42.99	21	10	5	0	15	80	10	5	107	5	37	10	128	0	5	26
44.81	21	8	0	4	4	125	4	21	25	4	25	4	25	0	8	8
46.62	21	26	0	0	26	90	15	10	106	5	21	26	63	0	15	26
48.44	21	21	0	0	21	86	43	0	96	10	0	15	75	0	5	10
50.29	8	21	0	4	8	82	17	0	87	4	8	17	56	4	8	8
52.20	39	13	0	0	8	48	26	0	114	0	13	17	35	0	0	4
54.13	4	4	4	0	4	43	25	4	77	0	17	8	25	0	0	17
55.90	0	4	4	0	16	34	13	0	34	0	13	21	68	0	4	0
57.61	21	32	0	10	21	127	74	0	117	21	42	42	234	10	0	10
59.39	32	53	0	10	10	127	32	10	96	21	64	10	181	0	10	0
61.17	21	10	0	10	0	86	10	10	32	0	43	0	291	0	0	0
62.99	21	32	0	0	21	97	21	0	107	21	21	21	226	0	32	0
64.85	54	65	0	0	21	207	174	10	163	32	10	32	229	10	21	10
66.73	10	54	0	0	10	75	86	32	65	0	21	21	183	0	21	0
68.75	22	66	0	22	11	177	77	0	199	11	66	55	387	0	11	11
70.86	21	21	0	10	32	119	32	21	76	10	21	32	206	0	10	0
72.87	54	54	0	21	0	194	32	21	194	0	43	32	216	0	0	10
74.80	32	54	0	10	21	161	118	43	161	10	54	43	259	0	21	21
76.67	75	21	0	0	32	235	85	10	160	10	53	42	224	21	0	10
78.53	10	21	32	0	10	204	43	32	139	10	21	32	343	10	10	32
80.38	10	10	0	10	21	116	42	31	63	10	53	21	191	0	0	21
82.22	21	10	0	10	32	171	42	21	107	32	64	32	385	21	10	32

CORE 84 - BATCHAWANA LAKE 8 NORTH - DIATOM DATA (PART 1)

1 UNCOMPACTED DEPTH - MID POINT
2 ACHNANTHES MICROCEPHALA (0)
3 ACHNANTHES MINUTISSIMA (0)
4 ACTINELLA PUNCTATA (+5)
5 ANOMOEONEIS SERIANS (+5)
6 ANOMOEONEIS SERIANS VAR. ACUTA (+1)
7 ANOMOEONEIS SERIANS VAR. BRACYSIRA (+1)
8 ANOMOEONEIS VITREA (+1)
9 CYCLOTELLA COMTA (-1)
10 CYCLOTELLA STELLIGERA (-1)
11 CYMBELLA CESATI (0)
12 CYMBELLA LUNATA (+1)
13 CYMBELLA MICROCEPHALA (-1)
14 CYMBELLA MINUTA VAR.SILESIACA (0)
15 EUNOTIA ARCUS (+1)
16 EUNOTIA ELEGANS (+1)
17 EUNOTIA EXIGUA (+5)

EACH NUMBER REFERS TO A COLUMN NUMBER.
(+1) REFERS TO PH FACTOR.
COUNTS ARE FRUSTULES PER CUBIC CM OF UNCOMPACTED SAMPLE

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
.57	30	50	30	0	30	131	20	131	0	61	40	0	91	91	10	121	
1.96	43	53	32	0	10	139	10	64	10	32	10	0	139	75	32	53	
3.59	43	10	21	0	0	225	32	107	10	86	53	10	128	107	10	32	
5.16	32	53	21	0	21	127	42	96	10	21	0	0	64	32	10	10	
6.49	71	30	10	20	60	121	71	111	30	81	40	10	121	71	0	0	
7.81	53	0	0	21	10	84	42	106	10	53	42	31	84	53	0	53	
9.19	41	31	41	10	0	72	0	154	0	20	31	0	134	51	10	51	
10.54	41	10	30	0	71	153	30	143	0	71	51	41	51	61	0	20	
11.89	40	30	10	0	20	40	0	51	10	20	20	10	61	30	10	20	
13.30	32	64	9	0	21	42	21	85	10	20	20	10	61	30	10	20	
14.64	0	9	9	0	0	29	9	39	0	9	9	9	29	49	0	19	
15.82	40	10	10	10	30	40	10	80	10	30	10	10	50	60	10	70	
17.16	20	31	0	7	28	20	20	76	13	48	34	20	34	34	7	28	
18.61	41	0	10	0	83	41	41	114	0	10	10	0	41	83	0	52	
20.07	20	13	7	13	55	20	7	48	13	34	34	0	28	34	0	41	
21.60	10	5	15	5	10	15	5	42	10	15	21	5	5	15	5	0	
23.00	30	0	0	0	61	41	20	61	10	20	41	10	61	102	20	30	
24.38	4	21	31	0	10	42	0	63	15	15	0	0	15	42	4	52	
26.12	43	14	29	0	29	35	14	107	14	35	50	0	29	65	7	14	
27.91	21	15	42	10	10	37	5	79	0	0	26	0	10	26	0	21	
29.56	37	5	5	26	10	37	15	64	10	5	0	5	15	37	0	21	
31.18	10	5	0	5	31	42	10	115	10	15	21	5	26	21	10	36	
32.75	31	5	10	5	0	63	10	79	10	10	21	0	31	36	5	10	
34.37	5	5	15	26	21	26	15	84	10	5	15	15	26	42	5	10	
36.03	21	10	0	0	10	26	10	58	5	15	32	10	5	21	0	15	
37.73	37	21	5	10	21	42	10	42	5	5	15	5	32	21	0	10	
39.46	15	10	21	15	5	37	5	26	10	15	5	5	15	21	5	31	
41.22	7	21	7	21	14	35	7	42	7	21	21	0	21	42	7	35	
42.99	15	0	5	32	37	15	10	48	0	26	21	10	5	43	15	5	
44.81	13	8	4	13	8	25	8	52	0	13	21	0	0	13	0	13	
46.62	15	15	5	15	31	31	15	74	0	5	26	0	21	31	0	21	
48.44	15	5	5	0	32	21	15	48	5	10	5	5	10	10	0	15	
50.29	8	4	8	8	35	13	4	35	4	13	13	0	25	30	4	25	
52.20	8	8	4	8	8	13	0	48	0	13	17	0	26	26	4	13	
54.13	8	13	4	4	8	13	8	43	4	0	0	8	13	34	0	13	
55.90	8	8	4	13	16	4	4	21	4	8	4	4	13	16	0	25	
57.61	32	10	0	10	10	96	21	117	0	21	32	0	74	64	10	32	
59.39	10	21	42	10	53	42	0	138	10	32	21	21	106	53	0	85	
61.17	43	32	32	21	10	54	10	150	0	32	21	0	86	118	10	86	
62.99	53	10	43	0	53	75	10	150	21	32	21	0	64	129	21	43	
64.85	54	54	10	10	32	54	10	87	21	65	43	54	98	54	10	32	
66.73	54	21	32	10	43	21	0	65	0	32	32	21	32	75	0	10	
68.75	33	22	22	0	132	132	22	188	11	66	55	32	55	121	33	66	
70.86	21	0	43	10	98	54	10	65	0	32	54	0	43	87	10	54	
72.87	32	65	10	43	108	86	32	97	0	32	65	10	86	173	10	32	
74.80	10	32	32	0	108	64	10	97	21	54	43	21	108	140	10	32	
76.67	32	10	64	42	64	117	32	149	32	10	21	32	96	128	10	0	
78.53	21	21	53	10	75	64	21	86	43	32	10	10	64	53	0	21	
80.38	42	0	21	0	42	31	21	53	10	31	10	0	42	21	21	21	
82.22	42	21	32	32	21	192	21	128	32	21	10	32	85	96	21	32	

CORE 84 - BATCHANANA LAKE : NORTH - DIATOM DATA (CONTINUED PART 2)

2 EUNOTIA FLEXUOSA (+5)
3 EUNOTIA PECTINALIS (+1)
4 EUNOTIA PECTINALIS VAR. MINOR (+1)
5 EUNOTIA VANHEURCKII (+1)
6 FRAGILARIA CONSTRUENS VAR. VENTER (-1)
7 FRUSTULIA RHOMBOIDES RHOMBOIDES (+1)
8 FRUSTULIA RHOMBOIDES VAR. CAPITATA (+1)
9 FRUSTULIA RHOMBOIDES VAR. SAXONICA (+1)
10 GOMPHONEMA ANGUSTATUM (-1)
11 NAVICULA RADIOSA (0)
12 NAVICULA RADIOSA VAR. PARVA (0)
13 NAVICULA SUBTILISSIMA (+1)
14 NEIDIUM AFFINE (+1)
15 NEIDIUM AFFINE VAR. AMPHIRYNCHUS (+1)
16 NEIDIUM IRIDIS (+1)
17 NEIDIUM IRIDIS VAR. AMPHIGOMPHUS (+1)

EACH NUMBER REFERS TO A COLUMN NUMBER.
(+1) REFERS TO PH FACTOR.
COUNTS ARE FRUSTULES PER CUBIC CM OF UNCOMPACTED SAMPLE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
.57	30	0	30	233	10	172	0	1096	30	10	344	20	10	30	20	10
1.96	86	10	10	226	10	204	32	1012	10	32	280	32	10	32	10	107
3.59	43	21	21	204	0	128	10	1269	53	32	376	0	10	43	43	75
5.16	21	10	21	116	10	64	42	1129	32	32	532	32	32	0	32	64
6.49	40	30	20	171	10	40	30	1316	10	20	637	50	10	30	10	50
7.81	21	10	63	84	10	10	21	911	10	53	710	21	21	0	0	74
9.19	20	10	20	134	10	10	0	1734	31	20	743	20	10	10	20	20
10.54	0	0	0	153	0	0	10	2543	20	41	635	20	20	30	20	30
11.89	0	0	40	183	0	20	0	2346	10	10	489	30	10	10	10	20
13.30	10	0	10	117	0	21	53	2140	10	21	513	10	10	21	10	21
14.64	9	19	29	148	0	0	9	1967	9	9	268	9	0	0	19	9
15.82	0	0	90	109	0	10	10	2042	10	20	520	0	30	10	0	10
17.16	0	7	28	48	0	7	0	1189	7	7	222	20	7	13	20	48
18.61	10	0	31	135	0	20	10	2024	20	0	292	31	20	52	10	62
20.07	7	7	20	97	7	7	13	1394	13	7	180	20	13	13	13	20
21.60	0	5	0	63	0	5	0	849	0	5	175	15	5	10	10	26
23.00	10	10	10	122	0	0	41	2437	41	0	276	41	10	30	10	51
24.38	10	0	21	114	4	4	31	1120	4	10	245	10	10	4	4	31
26.12	7	0	35	100	0	7	0	2009	7	7	287	21	7	7	14	14
27.91	0	5	10	85	0	5	10	1288	10	5	170	15	5	15	0	10
29.56	0	0	15	69	0	5	21	954	10	26	198	15	10	5	10	10
31.18	0	0	21	63	0	0	10	1433	15	26	131	5	10	15	0	5
32.75	10	10	21	100	0	15	10	1352	15	15	142	21	15	21	5	5
34.37	5	15	26	47	5	5	10	994	5	5	132	5	0	0	15	31
36.03	0	0	5	85	0	0	5	885	5	5	122	26	10	5	0	10
37.73	5	15	5	64	0	5	26	1283	10	5	171	10	10	5	5	21
39.46	10	0	15	101	31	5	42	807	5	5	148	5	0	15	5	15
41.22	7	14	56	106	42	7	78	1470	21	14	220	21	0	7	14	42
42.99	5	5	26	75	75	15	32	1526	21	10	161	0	10	10	15	15
44.81	4	8	17	25	25	0	38	976	4	0	90	0	0	8	0	13
46.62	5	10	15	37	21	21	37	1296	0	0	95	5	21	10	31	37
48.44	0	5	26	37	32	5	10	1122	10	5	75	5	10	0	5	21
50.29	4	0	8	39	13	17	4	937	8	13	65	8	4	4	8	17
52.20	4	0	4	39	8	17	8	860	13	4	128	0	8	13	13	48
54.13	4	0	13	43	8	4	4	1792	8	8	47	13	8	0	0	4
55.90	0	0	0	43	4	4	13	1396	4	4	137	4	8	0	16	38
57.61	10	21	32	266	10	32	0	3671	32	32	266	10	21	21	21	53
59.39	21	0	32	159	10	21	10	4072	21	0	288	32	0	21	10	181
61.17	10	10	43	248	21	43	10	3602	32	0	377	21	0	0	21	75
62.99	21	0	32	172	21	10	10	3790	21	0	559	0	10	32	43	215
64.85	10	0	54	152	32	21	54	5482	65	10	491	0	0	10	32	251
66.73	21	10	43	97	10	21	21	3047	21	32	226	10	32	10	0	118
68.75	22	33	33	255	22	55	11	5253	44	11	443	33	11	11	44	177
70.86	0	10	32	173	10	32	0	2954	10	10	326	0	32	10	10	119
72.87	32	0	21	260	43	21	10	4962	32	10	400	0	21	10	65	97
74.80	10	10	32	270	10	43	0	5938	21	21	507	0	32	21	32	86
76.67	53	21	75	256	21	21	10	4580	10	32	428	10	0	10	10	128
78.53	10	0	0	182	10	32	21	4148	32	21	332	21	10	10	0	193
80.38	21	0	21	244	21	42	0	2955	10	0	223	10	10	0	42	63
82.22	21	21	21	182	32	10	10	5402	42	0	385	21	0	10	32	182

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CORE 84 - BATCHAWANA LAKE : NORTH - DIATOM DATA (CONTINUED PART 3)

1 UNCOMPACTED DEPTH - MID DEPTH
2 NEIDIUM IRIDIS VAR. AMPLICATUM (+1)
3 NITZSCHIA HANCHIANA (-5)
4 NITZSCHIA PALEA (-1)
5 PINNULARIA ABAUJENSIS ABAUJENSIS (+1)
6 PINNULARIA ABAUJENSIS VAR. LINEARIS (+1)
7 PINNULARIA ABAUJENSIS VAR. SUBUNDULATA (+1)
8 PINNULARIA APPENDICULATA (0)
9 PINNULARIA BICEPS (0)
10 PINNULARIA BICEPS F. PETERSENII (0)
11 PINNULARIA BREBISSONII (+1)
12 PINNULARIA MICROSTAURON (0)
13 PINNULARIA SUBCAPITATA VAR. PAUCISTRIATA (+1)
14 PINNULARIA SUDETICA (+1)
15 PINNULARIA VIRIDIS (+1)
16 STAURONEIS ANCEPS ANCEPS (0)
17 STAURONEIS ANCEPS VAR. GRACILIS (0)

EACH NUMBER REFERS TO A COLUMN NUMBER.
(+1) REFERS TO PH FACTOR.
COUNTS ARE FRUSTULES PER CUBIC CM OF UNCOMPACTED SAMPLE

1	2	3	4	5	6
.57	10	40	30	172	61
1.96	0	32	10	172	75
3.59	10	53	10	193	21
5.16	0	32	10	116	10
6.49	10	20	40	253	30
7.81	0	42	42	169	31
9.19	0	10	10	82	41
10.54	10	30	30	92	20
11.89	30	30	0	122	10
13.30	0	21	0	85	32
14.64	19	0	9	158	39
15.82	10	10	0	109	50
17.16	28	7	7	111	28
18.61	0	10	0	156	20
20.07	20	0	7	110	13
21.60	15	10	0	63	10
23.00	41	0	0	82	10
24.38	4	4	0	52	4
26.12	21	14	14	122	21
27.91	5	15	0	111	10
29.56	15	21	10	75	26
31.18	0	21	5	74	10
32.75	0	5	0	53	10
34.37	0	10	0	89	26
36.03	0	5	5	21	26
37.73	15	0	5	85	21
39.46	15	5	5	90	5
41.22	7	0	14	120	21
42.99	0	10	10	112	26
44.81	4	0	4	95	34
46.62	5	5	0	169	31
48.44	15	10	5	91	54
50.29	8	4	8	65	56
52.20	4	4	13	61	35
54.13	8	4	4	60	51
55.90	0	0	4	34	38
57.61	21	10	32	117	74
59.39	0	42	0	213	74
61.17	0	10	0	108	150
62.99	32	32	21	258	97
64.85	32	54	21	229	163
66.73	0	32	10	151	65
68.75	0	33	0	221	143
70.86	10	10	0	130	119
72.87	0	65	10	216	140
74.80	10	10	0	183	129
76.67	21	0	0	138	128
78.53	0	32	0	236	75
80.38	0	10	0	127	74
82.22	0	64	0	214	139
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CORE 84 - BATCHAWANA LAKE # NORTH - DIATOM DATA (CONTINUED PART 4)

2 STAURONEIS ANCEPS F. LINEARIS (0)
3 STENOPTERBIA INTERMEDIA (+1)
4 SURIRELLA DELICATISSIMA (+5)
5 TABELLARIA FENESTRATA (+1)
6 TABELLARIA FLOCCULOSA (+5)

EACH NUMBER REFERS TO A COLUMN NUMBER.
(+1) REFERS TO PH FACTOR.
COUNTS ARE FRUSTULES PER CUBIC CM OF UNCOMPACTED SAMPLE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
0.24	17	23	3	7	65	54	21	106	13	20	13	23	10	10	20	13
1.04	123	82	41	103	575	143	0	61	0	164	123	205	61	20	61	0
2.00	116	39	0	78	661	135	0	252	19	97	97	58	78	39	78	19
2.85	27	20	0	33	127	46	6	13	6	33	53	20	33	20	53	20
3.84	14	24	4	4	137	24	4	9	0	39	14	29	14	4	34	9
4.84	4	15	10	0	71	10	4	4	0	10	20	15	15	10	25	4
5.83	3	10	0	10	51	27	0	3	3	20	10	3	7	0	17	0
6.86	20	30	10	10	232	81	10	81	10	81	20	10	20	20	60	20
7.88	10	20	0	51	112	61	0	163	10	71	71	20	0	10	30	20
8.98	16	8	12	8	99	45	0	24	4	28	16	37	4	4	24	4
10.12	7	7	0	3	51	37	3	20	7	27	24	7	13	3	20	0
11.19	12	5	4	4	43	16	5	10	2	5	5	8	4	2	10	0
12.27	7	7	3	10	67	23	41	0	7	13	7	17	7	0	17	7
13.40	2	0	4	2	51	15	4	0	2	15	10	7	4	4	10	0
14.45	10	5	0	0	36	5	15	5	2	10	7	5	2	2	2	4
15.52	8	4	0	12	61	10	16	16	4	24	8	10	4	2	2	4
16.60	1	3	0	3	31	25	44	0	4	4	3	11	3	0	4	1
17.77	41	34	13	28	180	131	139	0	7	28	34	34	20	7	20	13
19.12	27	47	20	13	218	75	116	0	7	54	54	47	0	7	41	0
20.71	0	55	22	11	231	121	121	44	11	132	22	110	0	22	22	22
22.50	41	92	20	20	461	174	122	10	30	133	92	61	0	10	92	30
24.29	83	166	20	20	1061	291	187	0	20	249	166	62	0	62	0	0
25.88	4	30	10	20	166	25	4	0	4	35	25	35	0	14	25	14
27.24	20	20	10	20	244	172	40	0	0	30	20	40	0	10	20	0
28.57	13	13	0	20	186	62	20	0	13	20	68	13	0	27	27	0
29.94	20	25	10	4	160	35	0	0	10	10	31	35	15	4	20	0
31.34	27	0	13	13	178	89	0	7	7	41	41	41	7	13	27	7
32.72	51	31	20	20	402	82	10	62	41	31	62	72	20	20	31	20
34.12	41	31	10	10	228	135	31	83	41	20	73	41	20	10	20	10
35.52	41	27	7	13	156	34	68	20	13	27	47	41	7	0	7	7
36.93	7	41	13	41	241	110	68	13	13	55	34	55	13	13	27	7
38.37	10	83	20	31	259	41	52	20	10	197	41	31	20	20	31	41
39.82	12	8	4	24	145	33	4	41	0	62	24	45	12	12	20	12
41.20	4	20	0	4	148	66	51	82	15	45	25	15	10	10	25	10
42.56	10	20	0	4	130	31	103	67	15	31	10	25	4	10	36	4
43.96	46	15	4	25	119	31	109	57	4	62	4	31	10	0	15	4
45.47	21	7	43	21	180	50	144	50	7	43	29	35	7	0	50	21
47.06	7	0	7	40	190	27	95	74	7	33	27	40	13	0	27	7
48.68	21	73	42	52	324	115	251	157	10	94	52	52	0	21	63	21
50.49	32	10	53	75	481	107	160	214	21	96	32	117	10	10	53	42
52.24	95	63	10	52	464	147	63	84	21	95	52	74	21	0	63	21
53.88	52	42	21	52	368	231	10	115	42	126	21	52	52	0	52	42
55.52	52	41	0	10	239	134	72	93	0	52	20	31	20	10	20	20
57.10	31	31	20	31	176	155	41	196	10	72	51	31	0	10	10	51
58.70	31	10	10	41	313	114	73	135	10	104	52	31	0	0	62	20
60.32	41	41	20	31	313	145	52	83	10	114	62	31	52	10	20	31
62.04	52	52	0	84	262	73	63	136	10	84	21	31	73	10	42	21
63.75	51	72	0	20	351	72	62	123	10	83	93	31	10	31	72	62
65.34	42	31	10	42	230	209	63	209	0	94	31	73	31	0	42	42
66.91	93	20	0	41	312	104	41	124	20	83	41	62	10	41	62	20

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CORE 85 - BATCHAWANA LAKE # SOUTH - DIATOM DATA (PART 1)

1 UNCOMPACTED DEPTH - MID POINT
2 ACHNANTHES MICROCEPHALA (0)
3 ACHNANTHES MINUTISSIMA (0)
4 ANOMOEONEIS SERIANS (+5)
5 ANOMOEONEIS SERIANS VAR. ACUTA (+1)
6 ANOMOEONEIS SERIANS VAR. BRACHYSIRA (+1)
7 ANOMOEONEIS VITREA (+1)
8 CYCLOTELLA COMTA (-1)
9 CYCLOTELLA STELLIGERA (-1)
10 CYMBELLA CESATI (0)
11 CYMBELLA LUNATA (+1)
12 CYMBELLA MICROCEPHALA (-1)
13 CYMBELLA MINUTA VAR. SILESIACA (0)
14 EUNOTIA ELEGANS (+1)
15 EUNOTIA EXIGUA (+5)
16 EUNOTIA FLEXUOSA (+5)
17 EUNOTIA INCISA (+1)

EACH NUMBER REFERS TO A COLUMN NUMBER.
(+1) REFERS TO PH FACTOR.
COUNTS ARE FRUSTULES PER CUBIC CM OF UNCOMPACTED SAMPLE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
0.24	0	17	23	3	7	58	0	109	7	41	20	10	7	10	10	27
1.04	20	103	20	20	61	369	103	472	61	205	123	0	0	82	20	123
2.00	0	97	78	39	39	213	0	388	0	155	174	0	58	39	19	39
2.85	0	13	40	0	53	46	0	193	20	66	53	0	6	53	6	27
3.84	4	9	14	14	19	59	0	147	9	59	29	0	14	44	24	19
4.84	10	4	10	0	0	25	0	91	4	20	15	4	4	20	0	51
5.83	3	10	0	3	17	27	0	75	13	10	23	7	3	7	7	37
6.86	30	10	10	10	0	50	0	161	10	50	50	0	0	30	0	40
7.88	0	30	0	0	0	71	0	235	20	41	10	10	0	0	41	51
8.98	4	4	4	0	16	82	12	99	8	16	16	12	8	20	8	41
10.12	7	7	10	7	20	55	7	92	0	7	7	7	3	13	10	20
11.19	2	5	0	4	14	14	0	51	5	8	4	2	2	14	4	14
12.27	3	3	0	3	13	61	17	41	3	30	20	3	3	17	3	23
13.40	2	7	2	0	0	20	15	38	0	20	15	7	2	10	4	15
14.45	2	5	4	2	0	15	14	54	0	5	4	2	2	7	2	12
15.52	2	12	0	0	4	33	5	47	0	14	10	5	2	8	5	24
16.60	3	7	3	0	0	25	7	46	1	10	3	10	1	8	4	20
17.77	7	7	13	20	0	69	20	187	34	41	62	41	13	83	0	48
19.12	7	27	13	7	27	122	20	218	27	47	27	27	20	47	20	27
20.71	33	44	33	11	22	132	44	331	22	88	66	77	0	33	33	77
22.50	30	10	0	0	20	184	41	512	41	153	41	71	30	143	20	82
24.29	0	41	0	41	0	208	104	603	20	291	83	41	41	104	0	124
25.88	4	25	10	0	0	75	10	261	4	35	40	4	4	10	14	25
27.24	0	61	20	30	20	61	0	244	20	61	40	40	0	30	20	50
28.57	7	13	7	7	13	55	41	241	7	110	20	20	7	27	7	20
29.94	10	15	10	15	4	77	31	190	20	31	15	10	4	15	25	41
31.34	0	13	7	7	55	151	47	199	0	47	20	7	13	47	13	27
32.72	10	20	31	20	20	123	82	247	20	62	31	10	0	51	10	51
34.12	31	20	20	10	41	93	41	291	10	52	41	20	10	52	10	31
35.52	7	41	13	7	0	68	41	204	27	34	13	27	13	41	7	41
36.93	13	27	13	34	27	89	27	220	7	83	34	0	13	13	13	48
38.37	10	20	31	20	0	145	41	207	41	52	20	20	31	72	0	41
39.82	4	16	16	24	0	104	24	145	12	33	37	12	4	29	0	20
41.20	10	15	10	25	10	56	25	117	10	20	4	20	4	45	10	45
42.56	0	31	15	10	31	36	31	130	4	25	10	10	20	20	4	15
43.96	4	10	4	4	20	67	20	140	10	25	25	4	4	20	4	20
45.47	21	35	14	43	29	43	35	302	0	35	14	14	7	35	14	35
47.06	7	7	7	0	13	115	13	183	20	33	27	20	0	33	7	27
48.68	0	31	10	10	31	188	125	461	42	115	84	0	0	42	0	42
50.49	10	32	21	32	96	181	42	481	10	64	42	21	21	64	32	107
52.24	10	52	31	0	0	168	158	432	10	105	95	10	42	74	31	115
53.88	21	21	0	31	0	126	84	136	0	73	126	42	0	126	10	73
55.52	31	20	0	10	20	176	62	197	10	52	52	31	0	52	10	72
57.10	0	10	31	20	93	176	41	321	0	113	31	0	0	41	31	31
58.70	52	20	31	10	41	135	62	313	0	52	52	10	0	104	20	41
60.32	0	20	10	0	0	156	41	427	20	41	31	52	0	62	10	62
62.04	10	31	21	0	21	146	63	430	0	31	42	21	0	125	21	31
63.75	31	20	20	0	41	175	123	279	10	72	93	31	10	93	31	41
65.34	0	31	31	31	42	199	52	335	21	73	42	42	0	30	42	31
66.91	31	62	20	20	104	145	114	312	10	52	73	0	10	83	10	52
9999999999	9999999999	9999999999	9999999999	9999999999	9999999999	9999999999	9999999999	9999999999	9999999999	9999999999	9999999999	9999999999	9999999999	9999999999	9999999999	9999999999

CORE 85 - BATCHAWANA LAKE : SOUTH - DIATOM DATA (CONTINUED PART 2)

1 UNCOMPACTED DEPTH - MID POINT
2 EUNOTIA MEISTERI (+5)
3 EUNOTIA PECTINALIS (+1)
4 EUNOTIA PECTINALIS VAR. MINOR (+1)
5 EUNOTIA TENELLA (+1)
6 FRAGILARIA CONSTRUENS VAR. VENTER (-1)
7 FRUSTULIA RHOMBOIDES (+1)
8 FRUSTULIA RHOMBOIDES VAR. CAPITATA (+1)
9 FRUSTULIA RHOMBOIDES VAR. SAXONICA (+1)
10 GOMPHONEMA ANGUSTATUM (-1)
11 NAVICULA RADIOSA (0)
12 NAVICULA RADIOSA VAR. PARVA (0)
13 NAVICULA SUBTILISSIMA (+1)
14 NITZSCHIA HANCHIANA (-5)
15 NITZSCHIA PALEA (-1)
16 PINNULARIA ABAUJENSIS (+1)
17 PINNULARIA BICEPS (0)

EACH NUMBER REFERS TO A COLUMN NUMBER.
(+1) REFERS TO PH FACTOR.
COUNTS ARE FRUSTULES PER CUBIC CM OF UNCOMPACTED SAMPLE

1	2	3	4	5	6	7
0.24	13	0	10	7	58	37
1.04	61	20	82	0	452	184
2.00	135	0	58	0	563	155
2.85	20	0	40	6	180	66
3.84	19	19	29	0	113	24
4.84	15	4	15	0	76	40
5.83	7	3	7	0	75	30
6.86	10	10	50	30	303	111
7.88	20	10	41	30	204	122
8.98	12	8	8	4	82	45
10.12	7	0	10	7	79	24
11.19	10	5	0	2	34	14
12.27	10	3	3	0	44	23
13.40	2	2	7	10	28	13
14.45	5	0	4	2	54	12
15.52	4	2	5	4	30	8
16.60	7	0	3	0	19	3
17.77	41	7	0	0	111	20
19.12	13	7	34	27	88	13
20.71	66	11	66	22	154	11
22.50	82	30	41	41	133	51
24.29	62	0	187	41	374	104
25.88	20	0	10	14	140	45
27.24	20	0	10	0	162	61
28.57	48	7	13	13	117	55
29.94	35	15	10	4	165	67
31.34	34	13	20	7	130	41
32.72	31	20	10	20	237	82
34.12	31	30	10	31	166	93
35.52	27	20	13	20	136	27
36.93	34	7	7	20	158	48
38.37	62	0	0	31	280	124
39.82	4	4	12	8	174	41
41.20	30	4	15	10	153	45
42.56	10	4	15	4	192	67
43.96	0	0	15	15	187	57
45.47	43	7	7	29	281	29
47.06	7	0	13	7	170	88
48.68	63	31	52	10	241	31
50.49	149	21	64	75	257	64
52.24	63	0	63	31	147	63
53.88	31	0	42	42	273	52
55.52	62	0	10	20	280	104
57.10	31	0	31	31	331	31
58.70	52	0	62	52	417	41
60.32	41	10	52	52	271	52
62.04	42	21	31	52	335	52
63.75	31	10	20	72	279	72
65.34	42	21	42	42	283	52
66.91	41	0	20	31	239	62
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CORE 85 - BATCHAWANA LAKE 8 SOUTH - DIATOM DATA (CONTINUED PART 3)

1 UNCOMPACTED DEPTH - MID POINT
2 PINNULARIA MICROSTAURON (0)
3 PINNULARIA SUDETICA (+1)
4 STENOPTERBIA INTERMEDIA (+1)
5 STENOPTERBIA PELAGICA (+1)
6 TABELLARIA FENESTRATA (+1)
7 TABELLARIA FLOCCULOSA (+5)

EACH NUMBER REFERS TO A COLUMN NUMBER.
(+1) REFERS TO PH FACTOR.
COUNTS ARE FRUSTULES PER CUBIC CM OF UNCOMPACTED SAMPLE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
.39	3	27	12	6	9	38	35	9	6	3	6	6	100	50	3	9	73
1.73	6	22	6	3	25	51	57	13	10	3	3	16	127	57	0	6	92
3.59	0	19	3	3	23	48	19	13	0	0	3	13	103	32	0	0	81
5.10	3	2	3	3	15	32	12	9	6	3	0	0	67	46	9	9	101
6.54	0	10	3	3	0	29	29	13	0	3	6	0	76	48	0	13	114
8.26	3	19	22	0	3	35	32	6	0	0	19	3	80	22	0	0	105
9.97	6	10	19	6	10	64	22	13	0	2	3	10	115	77	0	3	106
11.68	6	16	6	10	16	29	10	16	0	3	6	6	107	63	6	16	114
13.42	13	10	23	6	19	29	13	6	0	0	10	16	116	42	3	0	100
15.25	6	23	6	3	0	13	32	10	0	6	3	3	120	48	6	6	97
17.09	4	17	8	4	8	38	34	4	8	13	13	8	88	63	4	4	147
18.95	8	16	8	0	12	36	32	12	4	8	16	24	122	99	4	8	217
21.11	24	24	16	12	20	72	28	40	4	8	8	20	147	92	4	8	195
23.36	9	52	9	0	17	69	9	52	9	9	0	17	232	121	0	17	121
25.42	8	21	3	8	13	51	17	17	8	0	13	8	148	46	8	21	93
27.51	4	2	9	4	2	26	19	11	0	2	0	6	45	30	4	2	37
29.98	18	45	0	18	36	125	71	80	27	36	9	18	330	89	9	18	134
32.48	0	9	0	5	32	55	23	18	9	0	9	27	160	64	9	27	155
34.61	9	44	9	0	49	40	71	13	9	4	4	9	146	44	0	18	230
36.67	9	36	0	18	54	117	63	90	18	0	9	45	323	153	0	9	189
38.76	5	41	9	0	50	63	14	23	18	18	23	18	199	41	5	14	86
40.84	9	81	18	0	36	117	72	54	18	36	9	18	188	72	0	9	206
42.88	0	41	18	9	23	41	18	36	23	14	9	9	226	59	9	5	158
44.89	0	45	5	18	9	72	58	32	27	14	9	9	387	72	0	14	130
46.91	5	36	0	5	9	68	68	27	14	9	5	18	209	95	0	5	118
48.93	0	45	14	18	14	59	23	36	32	9	5	27	186	32	5	5	113
50.98	0	59	5	18	9	91	41	18	18	9	5	14	172	54	9	0	113
53.02	0	46	23	9	32	96	64	50	14	0	9	9	214	54	5	0	123
55.05	0	28	5	9	14	70	51	14	14	0	14	23	163	56	14	0	116
57.13	23	50	9	37	18	91	96	27	14	0	0	5	196	96	5	5	41
59.21	14	55	5	23	37	91	50	27	41	5	5	23	233	78	0	5	105
61.19	18	32	14	32	14	68	55	9	23	0	5	14	283	55	5	5	68
63.08	4	31	4	4	9	76	22	13	22	9	9	0	107	40	4	0	80
65.00	0	37	0	5	14	19	9	14	14	14	5	9	121	42	9	5	74
67.12	0	12	4	20	20	29	24	4	20	4	4	4	150	20	0	4	57
69.30	5	14	0	19	14	43	33	9	5	5	0	9	118	47	0	0	47
71.66	0	24	10	19	14	38	62	10	24	10	19	5	124	48	10	14	119
74.11	9	38	9	28	28	145	33	61	42	5	5	19	234	84	5	0	61
76.38	5	33	5	9	19	66	33	9	14	0	0	19	175	14	5	5	80
78.54	19	51	19	38	28	75	42	9	42	5	0	19	206	66	0	0	103
80.62	5	23	9	28	28	108	23	14	33	9	0	9	206	47	9	5	108
82.75	14	37	5	33	23	75	37	14	65	5	5	33	243	84	0	9	79
84.87	3	16	3	19	22	76	25	22	22	3	10	13	206	63	3	3	60
86.91	6	22	10	16	10	38	22	25	35	6	0	25	152	38	6	0	70
88.86	14	34	5	10	14	72	34	10	29	5	14	34	144	10	5	5	105
90.76	0	61	9	28	33	146	14	52	47	9	19	43	297	123	5	5	75
92.74	6	41	6	22	22	54	16	19	10	0	6	41	143	61	3	6	67
94.85	10	34	5	48	14	87	39	43	19	5	14	24	226	67	14	5	77
96.97	24	67	10	53	34	130	48	43	34	24	10	34	254	101	5	0	101
99.08	19	29	0	22	19	55	16	6	26	0	6	29	158	65	6	3	81

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CORE 86 - WISHART LAKE - DIATOM DATA (PART 1)

1 UNCOMPACTED DEPTH - MID PCINT
2 ACHNANTHES EXIGUA (-1)
3 ACHNANTHES FLEXELLA (0)
4 ACHNANTHES LEVANDERI (+1)
5 ACHNANTHES LINEARIS (0)
6 ACHNANTHES LINEARIS F. CURTA (0)
7 ACHNANTHES MICROCEPHALA (0)
8 ACHNANTHES MINUTISSIMA (0)
9 ACHNANTHES SAXONICA (+1)
10 ACHNANTHES SUBLAEVIS VAR. CRASSA (0)
11 AMPHORA OVALIS (-1)
12 ANOMOEONEIS FOLLIS (0)
13 ANOMOEONEIS SERIANS VAR. ACUTA (+1)
14 ANOMOEONEIS SERIANS VAR. BRACHYSIRA (+1)
15 ANOMOEONEIS VITREA (+1)
16 CALONEIS BACILLUM (-1)
17 CYCLOTELLA BODANICA (-1)
18 CYCLOTELLA COMTA (-1)

EACH NUMBER REFERS TO A COLUMN NO.
(+1) REFERS TO PH FACTOR.
COUNTS ARE FRUSTULES PER CUBIC CM OF UNCOMPACTED SAMPLE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
.39	1366	23	6	18	3	12	6	0	0	9	0	6	29	3	6	3	15
1.73	1268	19	0	10	10	6	13	0	0	0	13	6	3	38	6	6	51
3.59	1319	3	3	13	0	6	10	6	0	3	6	0	13	19	0	6	16
5.10	1262	12	0	17	0	3	0	3	0	3	6	3	20	12	0	15	3	35
6.54	1783	19	10	10	3	3	0	3	10	6	3	3	22	19	3	6	3	16
8.26	1745	13	13	16	0	16	0	3	3	6	13	3	29	16	0	3	0	29
9.97	2346	38	0	10	6	6	10	22	3	13	3	3	32	13	3	10	3	54
11.68	1782	22	0	16	10	6	0	3	6	3	0	16	13	3	0	16	3	19
13.42	1941	13	0	13	6	0	3	3	3	3	0	3	3	3	3	6	6	19
15.25	1868	16	0	13	10	6	0	0	3	0	0	13	13	3	3	16	3	19
17.09	1922	34	0	21	8	13	0	4	4	13	4	8	8	8	8	8	4	29
18.95	2459	12	0	47	20	8	4	4	4	8	20	12	28	4	8	8	0	16
21.11	3802	28	12	24	8	0	0	8	12	36	4	28	8	12	8	20	4	48
23.36	1800	17	9	35	17	17	0	9	9	9	0	17	35	0	35	0	8	17
25.42	2395	30	13	8	8	0	0	17	0	4	8	4	21	4	4	8	2	8
27.51	744	15	0	15	2	4	4	4	0	0	2	4	6	0	2	2	2	17
29.98	3936	18	27	36	36	0	18	18	9	27	9	36	18	9	4	9	9	107
32.48	2526	68	5	23	14	14	0	0	0	9	5	23	18	5	2	3	0	100
34.61	3008	40	4	31	9	31	0	18	0	18	4	22	35	4	9	4	4	66
36.67	4696	90	9	63	27	9	18	36	0	36	18	36	18	9	18	18	9	54
38.76	2647	18	5	54	14	0	0	14	5	14	0	14	14	9	14	9	2	32
40.84	3514	63	36	45	45	9	0	0	9	9	9	18	27	9	18	9	9	72
42.88	2325	27	0	50	18	0	5	14	0	9	14	27	32	5	9	0	5	54
44.89	3012	63	23	32	5	5	9	9	0	0	5	9	14	0	27	0	0	63
46.91	2052	18	0	9	14	0	5	0	14	0	9	9	14	5	9	14	0	63
48.93	1786	50	9	27	18	27	14	27	0	18	5	14	14	5	5	0	0	45
50.98	2254	63	14	27	9	23	5	0	0	9	5	27	27	9	23	0	0	54
53.02	2993	64	0	46	18	14	5	18	5	18	9	27	23	5	14	9	0	50
55.05	1574	60	14	56	14	5	0	19	0	9	9	19	14	0	14	0	0	47
57.13	3996	46	0	32	0	5	0	27	0	14	5	0	14	5	5	14	0	41
59.21	1826	46	0	27	5	14	14	9	5	18	32	9	18	9	27	5	14	14
61.19	1194	23	0	14	27	14	5	0	5	18	5	14	9	0	18	0	5	55
63.08	1346	45	13	18	18	22	0	9	4	13	0	9	31	0	4	0	4	18
65.00	1877	33	5	19	9	5	0	14	9	19	0	14	14	5	0	0	0	60
67.12	918	24	8	37	0	8	0	16	0	0	20	12	12	4	4	12	0	20
69.30	1236	43	5	14	5	24	5	9	5	0	5	14	33	0	9	0	0	43
71.66	999	43	19	24	10	10	5	19	0	10	24	19	29	5	24	5	5	10
74.11	1490	33	5	23	19	9	5	9	0	19	0	9	42	0	14	19	9	47
76.38	947	57	9	33	19	5	5	9	5	24	9	19	47	5	5	9	9	33
78.54	1745	56	9	14	28	14	5	19	5	5	14	14	42	9	5	9	5	56
80.62	1047	19	5	33	9	5	0	9	0	9	5	28	37	5	0	5	0	42
82.75	1299	33	5	23	9	9	14	19	5	14	19	19	23	9	9	9	5	56
84.87	732	19	13	13	10	3	6	13	10	3	3	16	19	3	6	10	0	41
86.91	581	19	10	19	13	3	0	3	3	13	16	48	16	10	6	10	0	69
88.86	949	29	10	19	5	14	5	0	5	10	19	24	19	5	10	14	0	62
90.76	1358	47	5	9	5	5	9	14	5	14	5	33	19	0	9	5	0	47
92.74	507	38	3	32	13	0	0	0	0	0	0	29	22	10	0	3	0	51
94.85	871	43	10	24	19	10	0	10	0	5	5	14	10	10	14	5	106	
96.97	1323	38	14	53	29	24	10	14	10	10	5	19	38	5	10	19	0	43
99.08	573	45	6	45	16	13	6	22	3	10	6	29	16	6	13	10	0	39

CORE 86 - WISHART LAKE - DIATOM DATA (CONTINUED PART 2)

1 UNCOMPACTED DEPTH - MID POINT
2 CYCLOTELLA STELLIGERA (-1)
3 CYMBELLA CESATI (0)
4 CYMBELLA CUSPIDATA (0)
5 CYMBELLA LUNATA (+1)
6 CYMBELLA MICROCEPHALA (-1)
7 CYMBELLA MINUTA VAR. SILESIACA (0)
8 EUNOTIA ELEGANS (+1)
9 EUNOTIA EXIGUA (+5)
10 EUNOTIA FALLAX (+5)
11 EUNOTIA FLEXUOSA (+5)
12 EUNOTIA INCISA (+1)
13 EUNOTIA PECTINALIS (+1)
14 EUNOTIA PECTINALIS VAR. MINOR (+1)
15 EUNOTIA PECTINALIS VAR. RECTA (+1)
16 EUNOTIA TENELLA (+1)
17 EUNOTIA VANHEURCKII (+1)
18 FRAGILARIA CAPUCINA (0)

EACH NUMBER REFERS TO A COLUMN NO.
(+1) REFERS TO PH FACTOR.
COUNTS ARE FRUSTULES PER CUBIC CM OF UNCOMPACTED SAMPLE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
.39	20	9	3	18	6	23	6	6	97	50	6	0	3	6	9	27	18
1.73	22	29	3	6	10	32	6	22	19	57	0	0	13	10	10	16	22
3.59	19	19	6	13	3	23	3	6	10	48	6	0	13	3	6	6	13
5.10	23	3	0	0	6	9	0	17	26	29	3	3	3	6	0	3	9
6.54	19	3	0	3	13	25	6	3	41	29	13	0	10	3	6	19	19
8.26	32	10	0	13	3	26	0	10	80	26	10	6	3	10	13	3	26
9.97	13	13	6	13	3	26	0	13	19	38	0	16	13	6	6	6	19
11.68	35	10	6	3	3	25	0	16	6	22	0	0	10	3	25	13	16
13.42	19	16	6	3	0	16	0	19	52	42	0	0	23	10	6	16	19
15.25	26	0	0	3	3	16	6	6	29	52	6	26	10	3	23	0	3
17.09	46	17	0	8	0	38	4	25	59	38	0	8	8	4	13	8	8
18.95	71	20	8	8	8	43	0	4	59	43	16	20	8	4	12	8	24
21.11	64	0	8	20	12	28	4	12	44	44	16	12	8	0	28	4	28
23.36	52	9	9	35	0	52	9	26	35	95	0	17	9	9	26	9	43
25.42	17	17	0	4	0	55	8	17	25	17	4	8	4	4	13	8	17
27.51	6	2	2	2	0	22	0	6	2	4	13	9	4	2	11	0	2
29.98	53	18	9	0	18	53	18	27	18	36	18	0	27	9	27	36	45
32.48	55	18	9	9	18	59	18	14	46	41	5	18	0	9	14	5	23
34.61	40	22	4	13	9	35	13	9	57	49	13	13	18	13	13	4	13
36.67	72	18	9	18	0	90	9	54	9	45	0	27	36	9	45	9	27
38.76	63	27	9	5	9	45	9	5	18	54	18	9	14	0	27	5	14
40.84	108	0	9	9	18	117	18	45	18	18	0	9	0	9	18	18	45
42.88	100	18	0	63	32	45	9	18	18	32	27	23	0	9	18	18	14
44.89	18	14	18	49	5	67	5	23	41	27	23	18	9	5	5	0	18
46.91	46	14	5	5	18	23	14	14	23	46	9	9	5	5	14	23	9
48.93	91	23	9	14	27	54	5	9	32	27	5	9	14	0	5	5	18
50.98	86	18	9	9	23	32	5	27	32	63	9	9	9	14	18	0	9
53.02	36	14	5	14	14	50	5	9	27	23	9	5	9	9	14	5	5
55.05	33	23	0	23	5	65	9	14	33	9	0	9	0	5	14	5	5
57.13	37	9	0	5	14	32	9	27	37	14	0	5	18	5	23	5	27
59.21	37	27	0	37	5	59	18	32	41	18	0	0	0	0	9	5	14
61.19	37	9	0	18	9	37	0	23	27	18	5	9	9	5	14	9	14
63.08	76	9	0	9	13	27	4	22	45	9	9	18	9	4	9	4	9
65.00	56	37	0	42	0	19	9	14	37	42	5	19	14	5	19	23	9
67.12	12	4	4	8	8	20	16	16	8	33	8	8	12	8	8	8	4
69.30	14	24	9	9	5	33	5	28	9	28	0	0	5	5	0	5	9
71.66	62	24	0	38	14	33	19	24	24	14	10	10	10	0	5	0	10
74.11	66	19	5	14	5	70	9	38	19	42	5	9	14	5	0	5	0
76.38	61	14	0	43	5	47	24	19	9	24	14	14	5	0	14	5	9
78.54	108	14	0	5	5	56	24	14	56	42	9	9	9	5	14	5	9
80.62	84	37	9	14	0	47	9	14	33	51	14	14	5	5	14	0	9
82.75	79	23	5	23	5	19	14	19	0	28	5	5	9	0	19	5	9
84.87	13	22	0	10	10	16	10	6	54	38	6	19	6	0	13	3	16
86.91	60	44	6	95	10	35	13	3	51	48	16	6	3	0	6	10	6
88.86	77	0	5	62	14	53	14	0	19	67	0	10	10	5	14	10	5
90.76	71	24	5	52	5	47	19	19	61	66	24	14	5	5	14	5	33
92.74	32	16	0	22	10	45	10	19	73	57	26	6	0	6	19	0	13
94.85	43	58	5	58	5	43	14	24	58	24	39	10	0	0	14	5	19
96.97	96	38	5	10	10	53	24	43	67	57	34	10	0	5	19	0	43
99.08	61	61	0	32	13	39	13	22	87	32	29	10	10	3	16	0	13

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CORE 86 - WISHART LAKE - DIATOM DATA (CONTINUED PART 3)

1 UNCOMPACTED DEPTH - MID POINT
2 FRAGILARIA CONSTRUENS (+1)
3 FRAGILARIA LAPPONICA (0)
4 FRAGILARIA PINNATA (-1)
5 FRAGILARIA VIRESCENS (+1)
6 FRUSTULIA RHOMBOIDES (+1)
7 FRUSTULIA RHOMBOIDES VAR. SAXONICA (+1)
8 FRUSTULIA VULGARIS (+1)
9 GOMPHONEMA ANGUSTATUM (-1)
10 MELOSIRA AMBIGUA (-1)
11 MELOSIRA DISTANS (+1)
12 MELOSIRA ITALICA (-1)
13 NAVICULA BACILLUM (-1)
14 NAVICULA CRYPTOCEPHALA (-1)
15 NAVICULA LATELONGITUDINALIS (0)
16 NAVICULA PUPULA (-1)
17 NAVICULA PUPULA VAR. RECTANGULARIS (-1)
18 NAVICULA RADIOSA (0)

EACH NUMBER REFERS TO A COLUMN NO.
(+1) REFERS TO PH FACTOR.
COUNTS ARE FRUSTULES PER CUBIC CM OF UNCOMPACTED SAMPLE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
.39	15	0	35	12	6	3	6	0	53	4	15	12	0	23	3	35	0
1.73	10	3	38	6	3	0	3	0	47	0	22	10	3	13	3	32	6
3.59	6	0	16	16	3	3	10	6	19	6	26	13	6	13	6	45	3
5.10	3	0	20	6	6	0	12	3	17	3	17	9	3	12	3	43	9
6.54	6	0	6	3	0	0	6	3	3	0	10	3	3	13	3	48	3
8.26	13	13	35	13	3	6	10	0	10	3	29	6	0	6	3	35	3
9.97	6	0	29	6	0	6	0	6	42	3	19	3	3	0	0	45	3
11.68	6	0	13	25	0	0	3	6	29	6	16	3	3	19	3	38	0
13.42	10	6	13	10	3	0	0	6	65	3	13	0	3	6	3	23	3
15.25	13	3	29	13	3	3	3	10	16	3	19	3	0	48	0	52	10
17.09	13	4	25	25	0	8	4	4	29	4	42	17	0	29	0	50	0
18.95	20	8	24	24	8	4	20	20	59	8	43	16	4	16	0	79	8
21.11	24	4	20	16	8	0	4	8	40	4	28	16	0	28	0	52	12
23.36	26	0	43	35	17	0	9	9	86	35	69	9	0	35	17	86	0
25.42	4	0	13	21	0	0	4	4	55	17	8	4	0	25	0	34	4
27.51	2	2	2	4	0	0	0	0	26	2	15	0	0	13	0	11	0
29.98	18	18	45	18	0	0	0	0	125	18	53	9	0	9	0	27	0
32.48	14	18	18	32	5	0	18	9	23	9	32	5	0	14	9	100	18
34.61	9	0	18	13	0	0	27	9	44	0	49	13	0	27	0	66	9
36.67	54	27	45	45	18	0	18	9	144	0	27	0	0	27	0	45	9
38.76	27	14	23	27	9	14	9	0	50	5	50	14	0	41	0	50	18
40.84	0	9	36	27	9	9	9	9	54	9	27	18	0	54	0	54	0
42.88	9	9	14	18	0	5	0	5	23	5	36	14	0	32	0	104	0
44.89	18	23	18	18	14	0	5	5	81	14	36	23	0	27	0	54	5
46.91	23	14	32	18	5	5	18	0	46	18	46	9	0	27	0	50	0
48.93	14	9	14	23	0	5	9	0	63	9	41	9	0	27	5	59	9
50.98	23	9	18	14	9	5	0	9	45	5	36	9	0	14	0	77	5
53.02	14	18	18	18	9	0	5	5	54	18	41	14	0	9	0	32	0
55.05	14	5	23	23	0	0	9	9	47	5	37	0	0	28	5	28	5
57.13	9	5	14	5	0	0	0	5	91	9	32	0	0	23	5	14	5
59.21	18	9	37	9	5	0	9	5	91	5	32	0	0	9	0	32	0
61.19	9	5	27	18	5	9	5	9	46	0	27	5	5	9	0	27	0
63.08	13	4	13	53	0	4	9	4	49	0	31	4	4	4	0	27	4
65.00	9	0	5	33	14	5	5	5	9	0	37	5	0	9	0	37	0
67.12	8	0	12	20	0	0	8	4	20	4	29	12	4	4	0	29	0
69.30	5	0	19	24	9	0	0	5	51	5	38	9	0	9	0	33	0
71.66	24	0	33	24	5	5	5	0	48	5	57	14	0	29	0	24	0
74.11	23	14	19	23	9	0	5	5	70	9	42	0	9	14	0	9	0
76.38	9	5	14	14	0	0	9	0	33	14	33	9	5	38	0	43	0
78.54	14	9	24	9	0	5	9	9	47	14	51	5	0	14	0	9	0
80.62	23	5	28	37	9	5	5	14	37	23	56	14	5	33	0	19	0
82.75	5	14	9	14	0	5	0	9	75	5	42	0	0	14	0	23	5
84.87	16	16	13	18	3	0	3	0	19	3	38	0	3	6	0	25	3
86.91	6	6	29	19	6	3	6	0	6	6	57	13	0	16	0	6	3
88.86	10	14	19	14	0	0	5	0	81	0	77	5	5	24	0	10	0
90.76	33	9	24	19	0	0	5	0	94	0	43	5	0	9	0	33	0
92.74	10	10	10	16	3	6	3	0	29	6	10	0	3	10	0	41	0
94.85	14	0	19	10	5	0	0	0	29	5	34	14	0	14	5	58	0
96.97	24	5	43	34	5	5	19	5	130	14	38	0	5	29	0	48	0
99.08	13	0	19	35	10	6	3	3	58	13	65	3	3	22	3	52	3

CORE 86 - WISHART LAKE - DIATOM DATA (CONTINUED PART 4)

1 UNCOMPACTED DEPTH - MID POINT
2 NAVICULA RADIOSA VAR. PARVA (0)
3 NAVICULA SUBTILISSIMA (+1)
4 NEIDIUM AFFINE (+1)
5 NEIDIUM AFFINE VAR. AMPHIRHYNCHUS (+1)
6 NEIDIUM HITCHCOCKII (+1)
7 NEIDIUM IRIDIS (+1)
8 NEIDIUM IRIDIS VAR. AMPHIGOMPHUS (+1)
9 NEIDIUM IRIDIS VAR. AMPLIATUM (+1)
10 NITZSCHIA PALEA (-1)
11 NITZSCHIA SIGMOIDEA (-1)
12 PINNULARIA ABAUJENSIS (+1)
13 PINNULARIA ABAUJENSIS VAR.LINEARIS (+1)
14 PINNULARIA ABAUJENSIS VAR. SUBUNDULATA (+1)
15 PINNULARIA BICEPS (0)
16 PINNULARIA MESOLEPTA (+1)
17 PINNULARIA MICROSTAURON (0)
18 PINNULARIA SUBCAPITATA VAR. PAUCISTRIATA (+1)

EACH NUMBER REFERS TO A COLUMN NO.
(+1) REFERS TO PH FACTOR.
COUNTS ARE FRUSTULES PER CUBIC CM OF UNCOMPACTED SAMPLE

1	2	3	4	5	6	7	8	9	10	11	12
.39	3	9	18	3	12	0	0	9	0	132	125
1.73	3	3	0	10	19	0	0	19	0	143	117
3.59	3	10	6	0	10	0	0	10	0	71	68
5.10	0	6	3	0	3	6	0	6	0	5790	49
6.54	10	6	3	10	3	6	6	3	0	51	63
8.26	0	19	10	3	6	10	10	3	0	77	54
9.97	3	13	3	0	6	3	0	10	0	109	61
11.68	3	13	0	0	22	10	3	10	0	66	70
13.42	6	10	0	0	23	3	6	6	0	126	65
15.25	10	13	0	0	29	6	3	6	0	81	55
17.09	13	4	4	0	8	4	4	4	0	122	67
18.95	20	8	4	0	8	8	0	4	0	134	99
21.11	20	8	8	16	24	4	4	4	0	127	108
23.36	17	0	0	9	17	9	9	26	0	224	146
25.42	30	4	8	4	13	4	4	25	0	143	76
27.51	0	6	0	4	11	2	0	6	2	69	19
29.98	0	9	9	18	27	27	0	9	9	277	214
32.48	23	9	0	5	41	14	5	9	5	205	91
34.61	18	27	4	9	9	4	4	22	4	186	102
36.67	18	18	18	36	18	9	0	36	9	431	260
38.76	18	5	5	14	14	9	0	14	9	271	113
40.84	9	9	9	18	0	9	9	0	18	242	135
42.88	14	18	0	14	0	5	5	23	0	163	90
44.89	0	0	0	5	14	14	0	18	0	202	157
46.91	5	18	14	0	14	5	0	5	5	159	132
48.93	0	9	9	5	9	0	5	23	0	204	136
50.98	14	23	23	9	9	9	0	9	0	186	181
53.02	5	18	5	5	18	5	9	14	0	196	168
55.05	5	5	9	23	5	0	0	5	0	140	126
57.13	5	5	0	14	9	5	5	18	5	150	105
59.21	5	0	5	5	14	5	9	27	5	237	160
61.19	0	9	9	5	14	0	9	9	9	146	64
63.08	13	9	13	4	9	13	4	18	9	192	125
65.00	9	14	9	5	19	9	5	5	9	204	79
67.12	4	8	8	8	0	4	0	33	4	122	102
69.30	5	9	5	5	5	14	5	14	0	170	132
71.66	5	10	14	5	10	0	5	19	5	171	181
74.11	14	19	9	9	5	5	5	19	14	319	150
76.38	9	24	0	0	9	0	0	14	5	270	163
78.54	9	24	9	9	9	14	0	19	5	263	145
80.62	14	5	19	9	19	14	5	19	5	238	164
82.75	5	14	5	14	14	5	5	28	0	294	122
84.87	10	16	13	6	13	13	3	22	6	257	79
86.91	16	19	13	6	13	6	3	10	6	222	117
88.86	0	5	19	10	19	10	0	10	0	331	139
90.76	5	9	9	5	5	24	0	66	9	391	146
92.74	16	16	3	3	0	3	13	13	3	201	134
94.85	14	10	5	10	10	5	0	39	0	356	116
96.97	10	10	14	0	5	10	14	19	5	278	149
99.08	3	16	3	3	16	3	10	16	13	238	113
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CORE 86 - WISHART LAKE - DIATOM DATA (CONTINUED PART 5)

1 UNCOMPACTED DEPTH - MID POINT
2 PINNULARIA SUDETICA (+1)
3 PINNULARIA VIRIDIS (+1)
4 STAURONEIS ANCEPS (0)
5 STAURONEIS LIVINGSTONII (+1)
6 STAURONEIS PHOENICENTERON (0)
7 STENOPTERBIA INTERMEDIA (+1)
8 STENOPTERBIA PELAGICA (+1)
9 SURIRELLA DELICATISSIMA (+5)
10 SYNEDRA ULNA (-1)
11 TABELLARIA FENESTRATA (+1)
12 TABELLARIA FLOCCULOSA (+5)

EACH NUMBER REFERS TO A COLUMN NO.
(+1) REFERS TO PH FACTOR.
COUNTS ARE FRUSTULES PER CUBIC CM OF UNCOMPACTED SAMPLE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
.26	6	46	12	0	17	75	23	17	23	0	0	35	191	41	0	6	156
1.05	6	17	0	0	45	95	17	11	17	0	0	17	145	95	0	0	67
2.22	0	11	0	0	38	41	11	7	11	0	4	4	147	72	4	7	94
3.54	6	34	6	6	28	79	17	17	11	11	11	28	248	124	6	11	248
4.95	11	56	0	22	11	89	22	11	33	11	33	56	356	156	0	11	322
6.36	6	34	6	6	22	22	22	6	6	17	0	28	73	62	0	6	140
7.73	0	27	5	5	11	27	21	5	11	5	5	48	123	96	0	0	161
9.06	0	10	0	4	4	66	10	10	14	10	4	7	55	45	4	4	90
10.44	0	44	0	11	11	109	11	33	11	0	11	22	196	120	0	11	153
11.87	22	16	0	16	16	22	5	5	5	5	22	5	121	55	0	0	148
13.29	11	67	0	11	22	45	11	34	45	0	11	78	459	89	0	0	358
14.63	0	78	0	56	56	67	45	11	34	11	0	34	324	168	0	22	290
15.94	6	84	6	28	11	84	22	17	39	11	6	84	251	0	0	0	0
17.34	0	34	17	0	11	80	34	23	29	6	0	52	126	91	0	6	91
18.81	0	35	6	12	17	63	29	17	12	0	0	29	248	109	0	12	144
20.25	0	39	0	11	17	45	34	11	17	6	0	11	292	34	0	6	197
21.63	6	46	0	46	12	35	23	12	12	17	0	29	329	81	0	0	87
23.03	6	46	0	35	29	58	40	17	12	12	0	23	328	86	0	6	86
24.49	12	41	0	18	12	83	30	6	12	6	6	24	278	71	6	12	136
25.92	12	107	24	24	36	48	59	36	36	0	24	130	604	178	0	12	189
27.29	0	59	0	6	18	59	30	6	18	0	12	41	201	53	6	12	171
28.61	0	18	0	18	6	35	6	6	6	0	12	12	247	35	0	0	88
29.93	0	35	0	12	6	93	12	23	29	6	0	23	261	69	6	0	139
31.30	6	53	6	12	41	71	36	12	24	6	6	24	301	71	6	6	154
32.74	0	29	6	18	6	88	6	23	12	0	0	12	258	70	6	6	117
34.16	24	71	0	18	12	107	24	12	30	30	0	42	386	95	12	0	149
35.54	36	142	0	0	36	154	24	12	12	12	0	59	593	166	0	0	249
36.90	24	24	6	24	42	89	12	12	24	0	12	12	392	101	0	0	65
38.30	18	48	0	6	18	60	30	18	18	6	0	6	340	54	0	6	107
39.69	0	36	12	6	30	89	54	24	30	6	6	0	333	60	6	6	107
41.04	24	95	12	12	18	95	77	42	30	6	6	12	481	125	0	6	131
42.37	18	65	6	30	18	149	36	36	36	0	6	24	375	60	6	12	131
43.70	0	71	6	24	12	142	18	36	30	0	6	30	427	77	0	6	190
45.02	6	12	0	9	9	62	12	6	3	3	3	9	151	59	0	0	53
46.35	8	24	8	8	16	32	24	20	16	8	0	8	256	87	4	4	51
47.73	8	36	0	60	0	143	83	24	36	0	24	60	573	48	0	0	95
49.45	12	158	0	37	61	304	158	61	85	0	24	49	645	280	0	37	268
51.13	12	41	0	24	24	94	59	12	18	12	0	30	520	112	0	0	177
52.46	0	83	0	71	36	224	71	59	47	0	24	94	578	118	0	0	71
53.81	0	47	0	36	12	142	142	36	24	0	0	12	792	142	0	0	83
55.20	18	0	30	30	0	30	24	30	0	12	0	269	54	0	0	114	1566
56.62	0	48	12	12	24	179	143	24	60	0	0	131	704	48	12	0	227
58.06	6	42	12	36	18	121	24	36	36	6	12	18	320	103	24	6	127
59.57	6	72	0	12	18	84	18	36	42	12	6	42	367	72	6	6	114
61.09	6	42	0	6	6	72	30	24	42	6	6	42	281	48	0	6	84
62.61	8	44	0	8	4	97	28	20	28	8	4	16	202	57	4	0	109
68.79	18	31	0	37	12	116	18	49	31	6	0	12	415	73	12	6	159
77.02	6	49	6	6	25	111	37	25	49	12	18	37	406	92	6	6	104
86.56	24	85	12	73	12	195	24	49	37	6	24	61	549	85	0	24	220
97.80	26	64	0	64	39	129	52	64	103	52	0	39	566	214	0	60	296

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CORE 87 - WISHART LAKE - DIATOM DATA (PART 1)

1 UNCOMPACTED DEPTH - MID POINT
2 ACHNANTHES EXIGUA (-1)
3 ACHNANTHES FLEXELLA (0)
4 ACHNANTHES LEVANDERI (+1)
5 ACHNANTHES LINEARIS (0)
6 ACHNANTHES LINEARIS F. CURTA (0)
7 ACHNANTHES MICROCEPHALA (0)
8 ACHNANTHES MINUTISSIMA (0)
9 ACHNANTHES SAXONICA (+1)
10 ACHNANTHES SUBLAEVIS VAR. CRASSA (0)
11 AMPHORA OVALIS (-1)
12 ANOMOEONEIS FOLLIS (0)
13 ANOMOEONEIS SERIANS VAR. ACUTA (+1)
14 ANOMOEONEIS SERIANS VAR. BRACHYSIRA (+1)
15 ANOMOEONEIS VITREA (+1)
16 CALONEIS BACILLUM (-1)
17 CYCLOTELLA BODANICA (-1)
18 CYCLOTELLA COMTA (-1)

EACH NUMBER REFERS TO A COLUMN NO.
(+1) REFERS TO PH FACTOR.
COUNTS ARE FRUSTULES PER CUBIC CM OF UNCOMPACTED SAMPLE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
.26	3443	17	0	41	0	0	12	0	6	23	0	6	12	0	0	0	23
1.05	3095	50	0	28	0	0	17	6	0	11	0	22	39	6	17	0	17
2.22	1740	23	0	19	4	30	0	0	4	7	7	11	23	7	4	7	23
3.54	3727	101	6	28	6	23	11	23	0	28	0	17	23	11	6	6	40
4.95	7123	133	0	22	11	22	0	0	0	11	11	11	45	11	11	45	67
6.36	2332	62	0	34	0	0	0	6	6	0	17	11	11	11	0	17	39
7.73	3958	48	5	43	11	11	11	5	0	0	5	11	5	5	16	11	5
9.06	1144	35	7	21	10	4	0	4	0	4	4	10	28	4	0	10	17
10.44	3147	76	0	11	22	11	0	0	0	11	22	33	33	11	0	11	55
11.87	1117	55	5	38	0	16	11	11	0	16	5	11	16	0	5	5	5
13.29	8642	123	11	56	22	0	0	34	0	56	0	22	22	22	34	11	56
14.63	3209	123	0	0	0	11	11	0	0	34	11	0	0	0	11	11	45
15.94	0	0	6	28	11	6	6	17	0	22	0	11	0	0	17	0	61
17.34	2318	68	0	46	11	17	0	11	6	17	11	11	11	0	0	0	40
18.81	2812	81	0	12	12	12	23	12	0	23	6	17	23	0	0	17	35
20.25	2361	56	6	23	17	23	11	11	0	6	17	6	28	0	0	23	17
21.63	3591	46	0	17	12	17	0	6	0	41	6	6	17	6	6	17	29
23.03	3563	52	0	6	23	6	6	6	0	23	0	0	0	0	6	17	35
24.49	2905	106	0	53	36	12	0	0	0	12	6	12	0	0	24	6	30
25.92	5096	154	0	71	12	12	0	12	12	59	0	24	36	24	36	12	83
27.29	3283	112	6	41	18	6	0	6	0	30	12	18	0	12	0	0	12
28.61	2162	82	0	41	24	35	6	0	6	35	18	6	6	0	18	24	24
29.93	2315	98	12	35	29	12	6	0	12	17	12	12	17	0	12	6	41
31.30	3379	83	6	30	12	6	0	6	0	18	6	36	18	18	12	24	59
32.74	2032	76	6	12	12	29	0	12	0	12	6	29	18	0	0	0	12
34.16	1971	71	6	18	12	12	6	6	0	12	0	12	24	0	18	0	18
35.54	2823	131	0	59	0	71	0	0	0	0	12	0	12	0	24	24	36
36.90	1248	42	6	18	0	18	6	0	0	18	6	24	0	0	12	6	30
38.30	1897	54	6	42	12	24	18	6	12	18	0	6	0	0	12	6	18
39.69	1188	125	6	12	6	0	0	6	12	6	6	60	18	0	24	6	42
41.04	2219	107	6	42	30	12	0	0	18	18	0	6	12	0	18	0	54
42.37	1499	60	18	24	6	24	0	24	6	18	6	18	12	12	6	6	60
43.70	1543	119	18	36	24	36	6	18	6	12	0	36	18	0	6	18	59
45.02	1420	32	3	21	3	9	0	0	0	21	0	6	9	0	12	9	36
46.35	994	47	8	27	4	0	4	4	8	20	4	20	0	4	4	0	16
47.73	3746	143	0	48	0	24	0	0	12	36	0	36	48	0	24	24	83
49.45	3467	194	12	73	24	37	12	0	0	37	12	24	37	12	49	0	109
51.13	1807	77	6	24	18	6	0	6	0	30	0	18	18	0	0	12	24
52.46	2373	71	36	36	47	12	0	24	12	47	24	12	36	24	0	0	94
53.81	1975	201	0	24	24	24	12	12	0	24	0	24	24	47	0	0	12
55.20	0	0	0	18	18	6	0	6	0	30	18	12	0	0	0	0	30
56.62	2231	71	0	60	12	12	0	12	36	12	24	60	24	12	12	0	71
58.06	1280	97	6	30	6	30	6	6	0	12	6	30	6	6	6	0	12
59.57	1711	114	6	36	6	18	0	0	6	6	0	30	24	12	0	12	42
61.09	1412	90	12	30	6	30	0	0	0	18	12	24	12	6	0	6	24
62.61	1343	44	0	28	8	0	12	8	0	0	8	20	12	4	0	4	20
68.79	1891	0	6	43	0	18	6	6	6	37	12	37	12	0	18	12	37
77.02	2151	92	18	31	18	0	12	12	37	31	18	12	12	0	12	0	49
86.56	3234	122	37	61	37	0	12	24	12	37	12	24	0	12	0	24	122
97.80	4691	347	26	77	39	26	13	0	52	26	0	52	0	0	64	0	39

CORE 87 - WISHART LAKE - DIATOM DATA (CONTINUED PART 2)

1 UNCOMPACTED DEPTH - MID POINT
2 CYCLOTELLA STELLIGERA (-1)
3 CYMBELLA CESATI (0)
4 CYMBELLA CUSPIDATA (0)
5 CYMBELLA LUNATA (+1)
6 CYMBELLA MICROCEPHALA (-1)
7 CYMBELLA MINUTA VAR. SILESIACA (0)
8 EUNOTIA ELEGANS (+1)
9 EUNOTIA EXIGUA (+5)
10 EUNOTIA FALLAX (+5)
11 EUNOTIA FLEXUOSA (+5)
12 EUNOTIA INCISA (+1)
13 EUNOTIA PECTINALIS (+1)
14 EUNOTIA PECTINALIS VAR. MINOR (+1)
15 EUNOTIA PECTINALIS VAR. RECTA (+1)
16 EUNOTIA TENELLA (+1)
17 EUNOTIA VANHUERCKII (+1)
18 FRAGILARIS CAPUCINA (0)

EACH NUMBER REFERS TO A COLUMN NO.
(+1) REFERS TO PH FACTOR.
COUNTS ARE FRUSTULES PER CUBIC CM OF UNCOMPACTED SAMPLE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
.26	41	6	6	46	17	29	17	35	35	23	12	17	0	0	23	12	12
1.05	67	17	6	6	17	6	11	17	50	22	6	22	0	11	11	6	11
2.22	23	23	0	11	7	41	4	11	30	19	0	11	0	4	7	4	7
3.54	56	17	17	0	11	51	17	17	73	51	0	45	0	6	17	17	34
4.95	67	67	11	11	33	100	0	56	22	22	22	22	0	22	33	33	33
6.36	17	34	6	0	6	39	6	11	11	51	17	11	0	0	6	11	6
7.73	0	11	16	11	5	32	0	16	11	32	11	16	0	0	5	5	11
9.06	0	4	0	24	0	31	7	7	10	24	10	0	0	0	7	0	0
10.44	22	44	0	22	22	33	22	22	0	33	0	11	0	0	22	0	11
11.87	16	0	11	11	11	44	5	22	0	0	0	5	0	11	5	0	16
13.29	78	34	11	67	22	101	56	22	0	34	11	22	0	0	22	22	0
14.63	45	11	11	22	22	123	11	0	89	78	67	22	0	0	11	0	0
15.94	39	56	11	22	17	73	22	0	17	56	11	28	0	17	17	0	17
17.34	91	23	0	23	17	46	11	23	29	11	23	17	0	0	11	6	6
18.81	40	40	12	46	6	46	6	6	29	75	23	17	0	0	6	0	23
20.25	39	23	0	17	23	62	0	6	0	23	6	17	0	0	11	6	28
21.63	69	41	17	29	17	110	23	23	23	52	17	17	0	0	0	0	0
23.03	23	35	12	12	29	69	12	17	6	17	0	17	0	6	23	0	6
24.49	59	6	0	0	24	36	6	30	47	59	0	24	0	0	12	0	18
25.92	83	95	12	48	48	59	24	59	36	48	12	0	0	0	24	0	48
27.29	88	24	12	18	12	47	18	18	53	24	41	12	0	0	12	0	24
28.61	24	0	0	24	18	47	18	12	12	12	0	6	0	0	24	0	12
29.93	52	17	12	12	41	52	17	12	23	29	12	6	0	0	6	0	12
31.30	89	30	30	47	18	53	18	18	24	30	6	6	0	0	6	0	6
32.74	59	41	6	29	23	88	23	12	18	41	12	18	0	0	6	0	35
34.16	160	83	12	12	18	48	6	6	71	71	12	18	0	0	12	0	18
35.54	131	59	0	0	59	225	48	71	71	119	95	24	0	0	24	0	12
36.90	71	71	6	42	24	30	12	24	36	36	18	18	0	6	12	0	24
38.30	48	54	6	0	18	30	24	6	60	60	30	12	0	6	18	12	42
39.69	107	12	6	24	12	60	6	12	65	83	42	18	0	12	6	0	12
41.04	131	30	24	30	12	48	6	18	42	71	54	12	0	0	48	0	0
42.37	77	18	18	0	6	83	6	30	60	54	18	24	0	6	30	0	0
43.70	154	36	24	18	48	71	12	36	77	190	89	42	0	0	30	0	18
45.02	21	3	3	9	9	27	9	9	18	27	3	3	0	0	12	0	3
46.35	87	16	4	36	8	32	0	12	39	59	20	16	0	4	4	0	0
47.73	155	83	12	60	60	95	8	12	119	251	36	24	0	0	12	0	0
49.45	365	61	12	85	37	158	37	24	37	219	12	49	0	0	61	24	49
51.13	118	53	6	12	12	53	12	12	118	112	41	18	0	0	36	6	24
52.46	106	36	12	47	24	71	12	0	71	71	12	12	0	0	47	0	24
53.81	260	118	47	166	12	166	12	24	0	47	36	36	0	12	36	0	36
55.20	102	30	12	12	0	24	6	18	36	84	90	0	0	0	24	12	6
56.62	95	83	36	24	24	95	36	36	60	95	36	12	0	12	36	0	12
58.06	78	36	12	48	12	42	24	18	139	84	90	36	0	0	18	0	30
59.57	114	30	24	24	6	66	24	24	151	54	78	12	0	0	18	6	36
61.09	30	72	24	30	0	30	6	18	150	16	102	0	0	0	24	6	30
62.61	60	32	28	44	12	44	0	8	133	28	97	16	0	0	12	0	8
68.79	140	43	85	91	24	116	12	43	159	116	213	6	0	0	24	0	24
77.02	154	98	80	92	31	43	25	25	176	123	197	49	0	0	6	0	37
86.56	183	134	134	73	49	37	12	49	134	220	281	61	0	0	61	24	37
97.80	205	77	257	77	52	26	39	52	270	218	218	39	0	0	64	13	26

CORE 87 - WISHART LAKE - DIATOM DATA (CONTINUED PART 3)

1 UNCOMPACTED DEPTH - MID POINT
2 FRAGILARIA CONSTRUENS (+1)
3 FRAGILARIA LAPPONICA (0)
4 FRAGILARIA PINNATA ^ VARS (-1)
5 FRAGILARIA VIRESCENS (+1)
6 FRUSTULIA RHOMBOIDES (+1)
7 FRUSTULIA RHOMBOIDES VAR. SAXONICA (+1)
8 FRUSTULIA VULGARIS (+1)
9 GOMPHONEMA ANGUSTATUM ^ VARS (-1)
10 MELOSIRA AMBIGUA (-1)
11 MELOSIRA DISTANS (+1)
12 MELOSIRA ITALICA (-1)
13 NAVICULA BACILLUM (-1)
14 NAVICULA CRYPTOCEPHALA (-1)
15 NAVICULA LATELONGITUDINALIS (0)
16 NAVICULA PUPULA (-1)
17 NAVICULA PUPULA VAR. RECTANGULARIS (-1)
18 NAVICULA RADIOSA (0)

EACH NUMBER REFERS TO A COLUMN NO.
(+1) REFERS TO PH FACTOR.
COUNTS ARE FRUSTULES PER CUBIC CM OF UNCOMPACTED SAMPLE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
.26	17	6	6	6	6	0	6	0	87	0	29	0	0	23	0	12	0
1.05	17	6	28	17	0	0	0	6	45	0	28	0	0	17	0	11	0
2.22	15	15	26	11	0	0	4	0	49	4	38	0	0	7	4	23	0
3.54	23	28	28	11	6	6	6	0	67	11	67	0	0	17	6	34	0
4.95	22	22	56	45	22	11	0	0	67	0	100	0	0	11	0	33	0
6.36	11	11	17	11	17	0	6	0	28	0	56	6	0	28	0	45	0
7.73	5	11	16	16	5	5	11	0	80	0	21	11	0	48	5	27	0
9.06	0	0	14	7	0	4	0	0	28	4	42	4	7	4	0	17	0
10.44	11	33	11	11	0	0	0	0	76	0	65	11	0	55	0	22	0
11.87	11	0	38	27	11	5	0	0	22	0	49	5	0	27	0	11	0
13.29	22	22	45	11	0	11	0	0	78	11	168	11	0	45	0	11	0
14.63	45	11	67	45	11	0	0	11	56	0	56	11	0	34	11	45	0
15.94	28	28	61	28	17	0	0	0	84	0	67	6	6	22	0	39	0
17.34	29	17	52	23	6	6	0	0	34	0	80	23	0	17	0	34	0
18.81	12	6	40	29	6	6	6	0	58	6	58	0	0	23	0	35	0
20.25	28	6	17	23	11	6	6	0	39	0	84	11	0	28	0	17	0
21.63	12	12	29	35	0	0	0	6	63	0	81	12	17	17	0	17	0
23.03	17	6	6	6	6	0	0	0	86	6	52	6	0	23	0	17	0
24.49	12	18	24	24	0	6	6	6	77	6	47	12	12	12	0	6	0
25.92	48	24	119	59	12	12	0	12	95	0	83	0	0	36	0	24	0
27.29	6	0	41	30	6	0	6	0	41	0	41	0	0	24	6	30	0
28.61	47	6	24	18	0	0	0	0	59	18	64	0	0	6	0	12	0
29.93	6	6	52	29	0	0	0	0	58	0	58	0	0	29	6	12	0
31.30	0	6	53	36	30	6	0	0	83	18	65	6	0	36	0	36	0
32.74	23	0	18	18	0	6	0	0	23	6	70	0	0	18	6	29	0
34.16	6	18	36	18	0	0	12	0	95	0	24	12	0	36	6	42	0
35.54	24	0	95	59	24	0	0	0	119	0	83	24	12	59	0	48	0
36.90	24	18	54	12	12	6	12	0	95	0	48	30	0	6	0	12	0
38.30	6	0	65	36	6	12	6	0	77	0	60	0	6	0	0	6	0
39.69	18	24	24	18	12	6	6	0	54	0	89	0	0	36	0	36	0
41.04	12	24	30	12	6	0	0	0	119	12	42	12	18	65	0	30	0
42.37	6	42	24	30	18	0	12	0	101	30	54	24	0	18	0	30	0
43.70	24	18	24	36	12	6	0	0	148	6	71	36	6	36	0	65	0
45.02	6	15	6	15	3	0	0	0	53	6	30	3	3	15	0	3	0
46.35	12	12	4	12	0	0	8	4	51	8	55	8	0	16	0	20	0
47.73	36	24	12	36	24	0	0	0	155	12	131	0	0	60	0	24	0
49.45	61	24	85	73	12	24	24	0	341	37	170	49	0	73	0	49	0
51.13	30	47	47	24	12	0	12	0	83	18	94	0	12	30	0	36	0
52.46	0	24	36	59	12	0	0	0	189	36	59	12	12	36	0	12	0
53.81	12	36	47	36	0	0	0	0	178	47	59	0	12	24	0	24	0
55.20	18	18	36	18	0	0	12	0	84	6	72	18	0	30	12	48	0
56.62	24	48	36	48	12	0	12	0	131	24	107	36	12	60	0	24	0
58.06	18	24	30	42	6	6	12	6	48	12	36	18	6	42	0	18	0
59.57	12	18	36	24	6	0	0	0	72	0	84	0	12	36	6	54	0
61.09	18	18	30	48	0	6	6	6	90	30	60	12	0	36	0	54	0
62.61	16	20	24	24	8	0	0	0	52	0	0	0	4	4	4	12	0
68.79	12	18	37	49	6	0	6	0	91	6	104	12	6	85	0	43	0
77.02	43	49	49	43	18	0	0	18	80	18	86	25	12	43	0	18	0
86.56	49	37	49	24	12	12	37	24	244	24	269	85	37	85	12	61	0
97.80	0	39	64	77	13	13	0	0	205	26	283	64	13	103	26	26	0

CORE 87 - WISHART LAKE - DIATOM DATA (CONTINUED PART 4)

1 UNCOMPACTED DEPTH - MID POINT
2 NAVICULA RADIOSA VAR. PARVA (0)
3 NAVICULA SUBTILISSIMA (+1)
4 NEIDIUM AFFINE (+1)
5 NEIDIUM AFFINE VAR. AMPHIRHYNCUS (+1)
6 NEIDIUM HITCHCOCKII (+1)
7 NEIDIUM IRIDIS (+1)
8 NEIDIUM IRIDIS VAR. AMPHIGOMPHUS (+1)
9 NEIDIUM IRIDIS VAR. AMPLIATUM (+1)
10 NITZSCHIA PALEA (-1)
11 NITZSCHIA SIGMOIDEA (-1)
12 PINNULARIA ABAUJENSIS (+1)
13 PINNULARIA ABAUJENSIS VAR.LINEARIS (+1)
14 PINNULARIA ABAUJENSIS VAR.SUBUNDULATA (+1)
15 PINNULARIA BICEPS (0)
16 PINNULARIA MESOLEPTA (+1)
17 PINNULARIA MICROSTAURON (0)
18 PINNULARIA SUBCAPITATA VAR. PAUCISTRIATA (+1)

EACH NUMBER REFERS TO A COLUMN NO.
(+1) REFERS TO PH FACTOR.
COUNTS ARE FRUSTULES PER CUBIC CM OF UNCOMPACTED SAMPLE

1	2	3	4	5	6	7	8	9	10	11	12
.26	6	0	0	17	0	6	12	23	0	248	104
1.05	6	6	17	0	0	0	0	17	0	279	101
2.22	0	11	19	4	0	0	0	4	4	203	120
3.54	11	11	6	28	17	6	0	23	0	298	130
4.95	22	0	11	33	0	11	0	11	0	522	178
6.36	0	17	6	11	6	0	0	11	0	168	90
7.73	11	21	11	16	27	0	11	21	5	230	123
9.06	7	14	7	4	10	0	4	0	4	139	87
10.44	0	11	0	11	22	0	0	11	0	403	207
11.87	11	5	5	0	5	5	0	0	5	175	115
13.29	11	11	0	22	0	0	0	34	0	336	291
14.63	22	22	11	11	34	11	22	67	0	335	168
15.94	28	34	11	6	11	0	11	39	6	307	101
17.34	29	17	11	6	6	6	11	23	0	183	149
18.81	12	6	17	12	6	6	6	23	0	282	167
20.25	11	17	11	6	6	11	17	6	0	225	129
21.63	29	17	17	12	17	0	6	46	0	283	156
23.03	6	0	23	6	6	17	23	35	6	253	92
24.49	6	0	6	18	18	0	0	36	0	248	148
25.92	0	12	24	24	48	24	0	48	0	581	296
27.29	36	24	30	24	17	0	0	12	0	183	165
28.61	18	12	24	6	12	0	6	0	6	206	141
29.93	6	12	23	12	12	0	6	17	6	226	156
31.30	18	6	18	24	30	12	30	6	18	266	154
32.74	6	6	6	6	12	0	0	6	6	357	135
34.16	12	18	24	12	12	18	18	42	0	404	172
35.54	0	12	24	36	24	24	36	36	0	463	356
36.90	12	12	30	18	6	6	0	42	0	184	113
38.30	12	12	6	6	18	12	12	42	6	227	119
39.69	6	18	6	18	12	6	12	30	6	339	184
41.04	0	6	30	18	0	6	0	24	0	302	142
42.37	6	30	36	30	24	6	30	24	0	315	119
43.70	18	42	30	18	12	12	18	36	6	356	166
45.02	6	3	9	3	3	6	9	6	3	139	38
46.35	4	8	8	8	12	0	4	16	0	174	95
47.73	0	24	0	24	0	12	12	71	0	453	263
49.45	24	49	24	49	37	24	12	24	0	766	402
51.13	6	30	30	12	18	12	18	0	0	390	148
52.46	12	24	24	24	36	0	24	59	24	590	281
53.81	12	12	47	24	12	24	36	47	0	591	130
55.20	18	6	6	6	6	6	12	30	0	335	138
56.62	24	24	48	0	12	8	24	71	0	477	274
58.06	12	12	18	0	18	0	6	18	0	290	115
59.57	24	6	30	12	12	6	12	18	6	319	127
61.09	36	18	18	18	24	0	0	30	0	293	126
62.61	12	0	4	0	0	8	8	16	0	190	101
68.79	6	18	18	18	18	12	6	24	6	348	189
77.02	6	12	25	12	31	0	0	12	0	356	271
86.56	37	24	49	24	24	12	37	37	0	415	476
97.80	39	77	26	13	39	0	0	0	13	579	411
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CORE 87 - WISHART LAKE - DIATOM DATA (CONTINUED PART 5)

1 UNCOMPACTED DEPTH - MID POINT
2 PINNULARIA SUDETICA (+1)
3 PINNULARIA VIRIDIS (+1)
4 STAURONEIS ANCEPS (0)
5 STAURONEIS LIVINGSTONII (+1)
6 STAURONEIS PHOENICENTERON (0)
7 STENOPTERBIA INTERMEDIA (+1)
8 STENOPTERBIA PELAGICA (+1)
9 SURIRELLA DELICATISSIMA (+5)
10 SYNEDRA ULNA (-1)
11 TABELLARIA FENESTRATA (+1)
12 TABELLARIA FLOCCULOSA (+5)

EACH NUMBER REFERS TO A COLUMN NO.
(+1) REFERS TO PH FACTOR.
COUNTS ARE FRUSTULES PER CUBIC CM OF UNCOMPACTED SAMPLE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
.31	20	40	50	50	270	30	40	0	40	180	280	10	190	15758	110	40	0
1.36	30	59	30	0	128	59	30	10	20	227	89	0	177	7085	69	20	30
2.62	20	30	0	0	121	10	30	10	10	241	80	10	342	6536	30	0	0
3.83	0	20	39	39	68	29	29	39	29	126	107	0	272	5457	29	10	10
5.24	29	10	20	39	88	0	39	10	10	226	98	0	697	6822	69	49	10
6.83	10	30	10	10	58	70	70	30	40	199	169	10	577	6587	139	20	20
8.43	10	69	0	30	59	79	20	20	10	188	99	0	396	5700	59	20	30
9.87	0	39	10	10	108	10	39	20	20	296	99	20	128	4323	0	10	20
11.27	9	37	28	0	47	0	28	9	9	402	75	28	383	5372	75	37	28
12.71	5	14	14	5	96	29	29	5	29	124	48	14	201	2554	14	9	5
14.23	10	39	49	49	197	39	39	20	30	207	79	10	197	5564	128	10	30
15.82	29	19	29	9	114	29	0	0	29	266	124	0	352	4855	67	0	9
17.40	20	10	25	34	49	20	15	25	15	264	98	10	205	3499	59	10	10
18.93	10	49	10	0	59	10	20	10	0	237	39	10	306	4922	79	10	20
20.51	10	7	24	30	43	13	13	20	3	87	30	3	110	1327	20	7	0
22.08	5	14	14	14	53	10	14	10	5	145	39	10	184	2806	29	5	10
23.75	10	50	10	0	151	0	30	20	0	170	80	20	431	5927	50	0	50
25.47	20	20	40	10	131	30	51	20	30	243	121	20	475	7551	71	30	0
27.13	30	30	111	10	201	20	20	40	20	181	181	30	222	5862	80	30	0
28.81	20	51	61	0	153	20	41	20	0	203	142	51	193	4099	71	0	31
30.52	0	62	41	21	103	10	10	10	52	257	113	10	278	4257	21	10	10
32.28	5	20	31	5	112	41	15	15	18	203	66	10	142	3020	66	26	10
34.14	0	0	15	5	52	10	15	5	15	206	77	5	113	2496	26	10	21
36.10	0	15	15	5	57	15	10	15	0	145	67	5	135	2796	26	10	5
37.99	15	26	21	10	62	15	0	5	5	159	46	0	246	2462	21	5	5
39.82	10	31	26	10	114	10	26	10	21	234	130	21	156	3281	42	15	0
41.69	21	31	41	31	197	21	52	41	21	321	72	41	321	6162	93	10	10
43.70	16	26	21	21	120	21	26	21	16	209	58	5	73	2764	31	16	21
45.70	0	21	31	0	83	31	21	21	10	439	42	10	157	4118	63	31	0
47.63	32	21	42	0	136	0	42	42	42	283	105	10	220	6223	73	21	21
49.59	0	32	42	0	95	32	21	10	21	338	63	0	454	4158	42	0	21
51.67	21	31	52	21	105	0	31	31	0	418	83	10	136	5800	42	31	42
53.85	10	21	63	21	136	31	42	21	42	407	42	21	313	4945	42	52	31
56.00	51	41	10	10	81	10	31	10	51	407	51	20	224	7897	122	61	20
58.10	16	37	37	5	96	21	21	16	11	207	91	11	160	3392	80	21	32
60.15	10	26	10	5	88	5	31	21	10	273	52	5	165	3633	26	21	15
62.27	21	53	84	53	157	42	31	53	21	230	94	0	209	6450	126	21	10
64.51	21	21	31	0	125	21	42	42	10	219	42	0	209	3978	42	42	10
66.92	53	53	21	21	84	32	32	10	10	180	95	10	307	4526	74	10	21
69.31	10	51	72	10	92	21	51	51	21	338	61	21	297	5415	72	31	51
71.62	32	32	11	0	106	32	21	32	32	287	32	0	287	4578	43	21	11
75.54	0	21	64	10	148	10	32	32	0	307	106	10	201	5857	95	10	10
79.47	32	32	53	0	138	32	74	42	10	212	42	0	265	4092	21	33	0
81.86	10	32	53	32	115	21	53	32	10	305	95	32	210	4139	42	21	0
96.24	31	21	31	10	63	10	42	21	21	220	63	10	283	3193	42	21	0
108.51	21	74	74	42	127	0	63	32	32	380	74	21	359	7789	137	63	21
121.07	43	43	75	32	171	11	32	11	0	267	53	11	203	4975	64	11	21
134.11	10	63	21	42	84	0	32	32	42	284	42	10	210	5650	84	0	42
147.72	27	11	27	11	96	5	21	11	11	298	43	5	213	5650	69	11	21
161.58	0	10	59	10	139	10	20	30	30	368	90	0	199	8421	109	50	40

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CORE 88 - LITTLE TURKEY LAKE - DIATOM DATA (PART 1)

1 UNCOMPACTED DEPTH - MID POINT
2 ACHNANTHES EXIGUA (-1)
3 ACHNANTHES FLEXELLA (0)
4 ACHNANTHES LINEARIS (0)
5 ACHNANTHES LINEARIS F. CURTA (0)
6 ACHNANTHES MICROCEPHALA (0)
7 ACHNANTHES MINUTISSMA (0)
8 ACHNANTHES SAXONICA (+1)
9 ACHNANTHES SUBLAEVIS VAR. CRASSA (0)
10 ANOMOEONEIS SERIANS VAR. ACUTA (+1)
11 ANOMOEONEIS SERIANS VAR. BRACHYSIRA (+1)
12 ANOMOEONEIS VITREA (+1)
13 COCCONEIS PLACENTULA (-1)
14 CYCLOTELLA COMTA (-1)
15 CYCLOTELLA STELLIGERA (-1)
16 CYMBELLA CESATI (0)
17 CYMBELLA LUNATA (+1)
18 CYMBELLA MICROCEPHALA (-1)

EACH NUMBER REFERS TO A COLUMN NO.
(+1) REFERS TO PH FACTOR.
COUNTS ARE FRUSTULES PER CUBIC CM OF UNCOMPACTED SAMPLE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
.31	10	0	10	160	30	10	0	10	20	20	0	20	40	30	20	0	0
1.36	0	10	10	10	30	0	0	10	0	10	0	0	30	89	0	0	0
2.62	0	0	0	40	40	0	0	10	50	30	10	0	50	50	20	0	0
3.83	10	0	10	10	49	0	0	10	10	20	10	20	20	39	0	0	0
5.24	0	0	10	39	10	10	0	20	20	10	0	29	59	69	0	0	20
6.83	0	30	10	20	10	0	0	10	70	70	0	20	60	149	0	0	10
8.43	10	0	0	20	0	20	0	40	20	10	0	20	59	69	0	0	50
9.87	0	20	0	10	39	10	20	20	39	20	0	0	79	39	0	0	39
11.27	9	0	0	19	65	9	28	19	19	19	0	9	159	131	0	9	47
12.71	14	9	14	24	24	14	24	14	9	14	5	9	53	48	14	0	9
14.23	20	10	10	10	79	20	0	0	20	20	0	10	69	39	0	10	10
15.82	9	0	9	0	38	9	0	29	19	38	0	9	19	143	0	9	19
17.40	20	10	5	34	10	5	0	0	15	29	0	5	15	98	39	0	5
18.93	30	10	10	30	49	10	0	0	10	30	10	0	99	128	20	10	20
20.51	10	3	3	7	13	3	0	3	20	3	3	10	37	77	10	3	3
22.08	5	5	24	19	24	0	0	0	24	14	5	10	49	116	10	5	10
23.75	20	10	0	30	0	0	0	10	0	30	0	10	130	241	20	10	10
25.47	30	20	10	91	10	10	0	10	10	30	0	20	223	141	30	20	30
27.13	10	10	20	101	51	10	40	20	80	40	10	0	70	262	20	0	20
28.81	10	10	10	20	31	0	20	10	10	10	10	0	51	153	20	10	10
30.52	21	10	0	62	41	21	21	21	31	31	0	21	52	288	0	0	10
32.28	10	0	15	0	0	15	26	10	26	31	5	0	107	147	31	0	10
34.14	15	10	10	0	31	0	10	5	15	5	0	0	57	26	0	5	21
36.10	5	0	0	0	21	0	21	10	5	10	5	5	26	78	10	0	5
37.99	0	0	0	36	21	5	10	0	0	5	0	0	26	77	15	10	0
39.82	10	10	0	21	10	0	10	10	26	5	0	0	94	78	26	5	26
41.69	52	21	31	31	0	0	10	21	62	10	0	0	52	124	62	0	21
43.70	21	5	5	66	31	16	16	21	10	21	21	0	26	168	26	0	42
45.70	21	10	10	21	10	21	10	10	10	10	21	0	21	42	0	0	21
47.63	32	21	0	10	73	21	0	10	10	21	0	0	105	105	0	10	32
49.59	10	21	10	106	63	21	10	0	21	42	10	21	106	74	21	0	10
51.67	10	21	21	21	63	31	10	21	31	10	0	21	31	126	21	0	31
53.85	21	31	10	42	10	10	0	0	21	21	31	21	104	136	42	21	10
56.00	20	10	31	92	20	0	10	20	71	41	10	41	122	81	10	20	41
58.10	16	16	5	42	16	5	0	0	0	16	0	0	16	64	16	11	27
60.15	5	21	5	41	26	15	5	5	15	10	0	26	36	41	5	5	26
62.27	21	42	10	53	31	21	21	21	21	42	10	10	147	136	53	10	42
64.51	21	42	0	21	21	21	10	31	10	10	10	31	10	31	0	0	10
66.92	21	32	0	64	10	64	0	10	21	42	21	10	84	127	0	10	21
69.31	0	10	10	51	51	0	0	10	31	51	0	0	51	41	0	0	10
71.62	21	32	11	74	53	11	21	21	53	43	0	11	43	106	0	11	0
75.54	10	0	10	53	21	32	0	21	32	53	0	10	10	138	0	0	32
79.47	33	10	32	74	10	32	21	0	10	10	0	0	21	138	0	21	10
81.86	10	0	10	63	21	53	0	0	0	0	0	0	115	158	0	0	0
96.24	0	0	0	73	31	10	10	10	10	10	0	0	42	105	21	10	21
108.51	21	42	0	32	53	32	32	0	21	32	0	21	63	74	0	21	10
121.07	11	11	11	53	21	32	0	0	11	11	11	0	64	11	0	0	0
134.11	32	0	10	32	10	10	0	0	32	10	10	0	21	42	0	10	10
147.72	11	11	0	11	16	27	11	0	11	5	0	5	32	48	0	11	16
161.58	10	10	10	10	10	20	0	0	0	0	0	10	20	129	20	30	20

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CORE 88 - LITTLE TURKEY LAKE - DIATOM DATA (CONTINUED PART 2)

1 UNCOMPACTED DEPTH - MID POINT
2 CYMBELLA MINUTA VAR. SILESIACA (0)
3 EUNOTIA FLEXUOSA (+5)
4 EUNOTIA PECTINALIS (+1)
5 FRAGILARIA CAPUCINA (-1)
6 FRAGILARIA LAPPONICA (0)
7 FRAGILARIA PINNATA ^ VARS (-1)
8 FRAGILARIA VAUCHERIAE (-1)
9 FRUSTULIA RHOMBOIDES (+1)
10 FRUSTULIA RHOMBOIDES VAR. SAXONICA (+1)
11 FRUSTULA VULGARIS (+1)
12 GOMPHONEMA ACUMINATUM (-5)
13 GOMPHONEMA ANGUSTATUM ^ VARS (-1)
14 MELOSIRA AMBIGUA (-1)
15 MELOSIRA DISTANS (+1)
16 MELOSIRA ITALICA (-1)
17 NAVICULA BACILLUM (-1)
18 NAVICULA PUPULA (-1)

EACH NUMBER REFERS TO A COLUMN NO.
(+1) REFERS TO PH FACTOR.
COUNTS ARE FRUSTULES PER CUBIC CM OF UNCOMPACTED SAMPLE

1	2	3	4	5	6	7	8	9	10	11	12	13
.31	60	50	10	10	110	0	30	10	0	50	501	130
1.36	30	10	20	10	39	10	20	10	10	39	444	39
2.62	20	0	10	0	30	10	30	20	0	91	312	50
3.83	10	0	0	0	29	29	10	10	20	20	311	39
5.24	20	10	0	0	0	0	20	0	0	20	363	59
6.83	20	20	0	10	60	10	20	20	20	20	428	90
8.43	20	10	0	10	79	0	30	0	40	10	188	59
9.87	10	10	10	0	69	10	0	0	10	0	138	50
11.27	28	0	9	9	37	0	75	19	0	28	168	65
12.71	14	0	9	14	62	0	14	0	14	0	86	29
14.23	20	0	10	10	30	0	49	0	10	10	118	39
15.82	38	29	9	0	67	19	38	0	0	29	86	19
17.40	0	15	0	5	25	10	49	25	15	5	107	34
18.93	0	0	0	10	79	0	39	39	10	10	99	39
20.51	3	7	0	0	30	3	7	10	3	13	77	13
22.08	5	0	0	0	29	5	19	5	10	5	121	14
23.75	0	40	0	0	70	10	50	0	30	20	110	50
25.47	0	0	0	0	40	10	51	20	71	20	182	10
27.13	30	0	20	10	70	20	91	0	51	10	91	40
28.81	10	0	10	0	92	0	61	10	10	10	153	10
30.52	41	0	21	10	72	10	72	0	52	0	154	21
32.28	26	20	20	5	51	10	51	10	5	5	66	10
34.14	10	10	5	15	52	15	15	5	10	26	41	21
36.10	5	5	21	5	36	0	31	5	5	10	67	5
37.99	21	5	0	0	10	21	15	10	15	5	62	21
39.82	31	10	5	15	36	5	57	10	26	15	94	47
41.69	0	0	31	10	93	10	31	21	41	0	114	31
43.70	42	16	21	0	47	5	53	5	10	16	68	21
45.70	10	0	42	10	73	10	63	10	42	63	199	52
47.63	53	0	21	10	32	10	126	0	32	32	189	21
49.59	10	10	21	0	32	0	42	21	53	0	84	21
51.67	52	42	31	0	83	0	42	10	31	52	261	42
53.85	31	21	21	0	31	0	63	10	31	10	167	42
56.00	31	41	41	10	41	0	122	31	61	31	214	61
58.10	27	16	11	16	42	0	27	11	21	37	80	37
60.15	10	31	21	5	36	5	31	15	26	26	72	26
62.27	10	31	0	0	115	0	178	21	53	21	168	42
64.51	10	0	10	0	42	0	94	0	21	10	167	31
66.92	10	21	32	0	21	10	64	0	10	10	138	64
69.31	21	21	10	0	102	10	61	0	21	31	72	72
71.62	21	11	0	21	32	0	43	11	0	43	106	11
75.54	32	21	10	0	64	10	64	0	0	21	116	64
79.47	32	10	10	10	64	32	127	10	32	32	159	64
81.86	0	10	42	0	74	10	63	10	0	32	105	32
96.24	10	10	10	10	53	0	21	21	10	63	115	31
108.51	32	10	74	10	95	0	106	32	42	32	222	84
121.07	32	21	53	0	75	11	21	0	11	32	128	43
134.11	63	32	0	0	137	0	84	21	32	105	95	32
147.72	16	11	11	5	53	11	85	5	27	21	101	43
161.58	30	10	40	0	70	0	99	30	0	10	119	40
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CORE 88 - LITTLE TURKEY LAKE - DIATOM DATA (CONTINUED PART 3)

1 UNCOMPACTED DEPTH - MID POINT
2 NAVICULA RADIOSA (0)
3 NAVICULA RADIOSA VAR. PARVA (0)
4 NAVICULA SUBTILISSIMA (+1)
5 NEIDIUM AFFINE (+1)
6 NITZSCHIA PALEA (-1)
7 PINNULARIA ABAUJENSIS (+1)
8 PINNULARIA BICEPS (0)
9 STAURONEIS ANCEPS (0)
10 STAURONEIS ANCEPS F. GRACILIS (0)
11 SYNEDRA DELECTISSIMA (-1)
12 TABELLARIA FENESTRATA (+1)
13 TABELLARIA FLOCCULOSA (+5)

EACH NUMBER REFERS TO A COLUMN NO.
(+1) REFERS TO PH FACTOR.
COUNTS ARE FRUSTULES PER CUBIC CM OF UNCOMPACTED SAMPLE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
.40	74	59	15	44	44	103	59	44	30	89	177	74	15	236	12155	74	30
1.43	0	70	28	70	14	70	42	42	14	14	168	112	0	392	8627	42	14
2.76	28	71	43	85	14	270	57	57	43	28	227	157	0	469	12310	100	43
4.19	29	57	15	29	29	187	43	29	15	15	144	57	0	402	5253	86	15
5.68	44	44	15	72	58	72	44	15	29	15	246	115	0	217	8575	87	15
7.17	15	15	15	72	43	101	29	29	15	15	158	115	43	389	7481	130	0
8.64	10	19	10	86	19	19	10	19	10	10	163	67	19	326	4491	67	19
10.23	0	31	16	46	77	139	0	31	16	31	154	92	62	293	9170	123	16
11.90	14	28	0	42	28	112	56	42	14	14	98	14	42	377	5531	42	42
13.58	10	0	0	19	10	58	39	29	10	29	135	39	10	203	4169	19	10
15.34	44	44	0	74	15	44	29	15	59	29	412	74	0	323	9556	74	44
17.14	40	20	0	20	30	50	20	10	20	20	159	20	10	248	4254	30	10
18.99	15	60	0	30	30	45	45	60	15	75	344	60	90	195	5504	45	15
20.94	31	39	8	8	8	63	0	47	8	16	102	47	8	219	4410	23	0
22.96	0	30	15	15	0	91	76	15	46	30	274	76	0	442	6615	61	30
24.98	20	30	0	10	10	40	40	50	20	10	161	30	30	142	5370	60	20
26.98	30	45	30	0	15	90	30	60	75	45	255	45	15	450	6509	90	30
29.01	31	16	31	16	16	77	92	61	16	46	230	61	0	230	5644	92	16
31.08	10	20	0	31	51	72	20	41	10	10	82	51	31	614	4708	51	41
33.16	15	60	15	30	15	45	45	75	30	60	225	60	0	450	5855	135	0
35.28	10	41	20	41	20	82	20	61	20	20	144	113	0	421	5537	103	51
37.47	31	78	16	93	0	155	31	124	31	16	170	139	16	325	6157	78	16
39.66	46	31	62	108	16	139	31	77	92	16	169	92	16	416	9387	77	46
41.85	30	30	15	15	15	61	15	0	15	46	106	30	0	531	7739	46	15
44.06	0	77	15	46	0	92	15	46	31	0	214	92	0	397	6140	46	15
46.28	47	77	31	31	16	77	16	62	31	16	278	47	0	418	7604	77	16
48.66	11	32	11	11	0	43	21	21	21	0	43	11	11	382	3822	43	11
51.01	0	61	15	30	0	46	61	30	15	30	213	76	0	412	7040	106	15
53.23	16	16	16	31	0	77	61	77	46	16	230	138	0	413	7376	77	77
55.48	47	63	31	31	16	126	47	94	63	31	205	63	0	330	10940	79	31
57.75	0	78	47	78	47	78	47	62	47	0	171	62	16	527	8581	31	16
60.00	62	62	16	78	0	218	62	109	78	16	218	62	62	359	13960	203	62
62.26	46	61	0	91	15	198	107	152	15	15	243	76	0	502	12660	122	15
64.58	79	48	0	0	32	158	95	63	63	16	158	111	0	253	11185	48	16
66.95	79	63	0	32	32	143	48	32	63	16	127	143	0	459	11935	206	16
69.33	31	47	16	47	47	79	63	31	47	0	188	79	0	392	8619	47	0
71.72	0	16	16	63	48	63	79	79	32	63	252	63	0	332	11457	126	32
74.11	0	42	21	53	21	32	42	32	32	11	158	63	0	515	5207	63	21
76.64	71	53	0	35	0	124	18	71	0	35	265	159	0	494	10590	88	35
79.19	0	96	0	80	0	128	64	96	32	32	319	96	16	336	13321	32	16
81.59	79	32	16	63	16	158	158	95	79	16	189	63	0	489	11128	110	16
84.00	16	80	16	80	0	112	159	127	64	48	191	191	16	335	20328	80	32
86.45	0	48	48	0	16	48	16	95	48	16	253	63	16	475	8861	127	63
88.90	32	95	32	190	95	379	95	158	63	95	379	158	32	442	20669	253	32
91.39	160	192	0	192	0	321	128	192	96	160	610	128	64	1059	28358	257	96
93.87	0	156	31	94	31	218	94	187	62	62	530	156	0	624	19689	218	0
104.19	48	95	16	63	0	111	48	95	48	32	237	142	32	315	11570	174	32
117.35	32	32	16	113	0	81	32	96	32	0	321	145	32	257	13050	145	16
130.39	32	48	16	16	0	160	96	32	0	16	256	0	0	287	12936	144	32
144.30	0	31	0	62	0	93	16	77	31	0	154	0	0	170	6395	31	0
9999	9999	9999	9999	9999	9999	9999	9999	9999	9999	9999	9999	9999	9999	9999	9999	9999	9999

CORE 89 - LITTLE TURKEY LAKE - DIATOM DATA (PART 1)

1 UNCOMPACTED DEPTH - MID POINT
2 ACHNANTHES EXIGUA (-1)
3 ACHNANTHES FLEXELLA (0)
4 ACHNANTHES LEVANDERI (+1)
5 ACHNANTHES LINEARIS (0)
6 ACHNANTHES LINEARIS F. CURTA (0)
7 ACHNANTHES MICROCEPHALA (0)
8 ACHNANTHES MINUTISSIMA (0)
9 ACHNANTHES SAXONICA (+1)
10 ACHNANTHES SUBLAEVIS VAR. CRASSA (0)
11 ANOMOEONEIS SERIANS VAR. ACUTA (+1)
12 ANOMOEONEIS SERIANS VAR.BRACHYSIRA (+1)
13 ANOMOEONEIS VITREA (+1)
14 COCCONEIS PLACENTULA (-1)
15 CYCLOTELLA COMTA (-1)
16 CYCLOTELLA STELLIGERA (-1)
17 CYMBELLA CESATII (0)
18 CYMBELLA LUNATA (+1)

EACH NUMBER REFERS TO A COLUMN NUMBER
(+1) REFERS TO PH FACTOR.
COUNTS ARE FRUSTULES PER CUBIC CM OF UNCOMPACTED SAMPLE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
.40	30	103	59	44	74	148	30	89	44	15	0	15	30	0	0	74	177
1.43	0	14	0	28	0	56	0	28	70	28	28	42	0	14	0	42	126
2.76	14	14	0	14	0	71	43	57	14	14	0	14	43	0	14	100	242
4.19	0	29	29	29	29	29	72	15	43	15	0	29	43	43	29	115	115
5.68	0	44	15	15	0	101	44	15	15	15	0	15	0	0	29	29	144
7.17	29	29	0	29	58	58	0	86	43	29	29	15	43	15	0	29	158
8.64	10	19	10	38	0	0	29	29	0	10	10	38	10	0	0	38	173
10.23	16	16	46	31	77	92	123	46	31	16	16	0	16	0	0	31	185
11.90	28	70	0	0	0	112	70	84	56	14	14	14	0	0	0	42	140
13.58	10	19	19	10	125	97	19	10	19	19	0	19	10	0	0	39	48
15.34	29	44	15	15	0	74	0	29	29	0	0	0	15	0	0	59	221
17.14	10	10	30	20	149	109	109	40	30	10	0	20	0	0	10	89	198
18.99	15	60	30	15	195	120	75	60	30	60	0	45	15	0	0	165	254
20.94	0	23	23	0	8	102	23	31	0	0	0	23	0	0	0	31	31
22.96	0	46	15	61	91	46	46	0	76	0	0	0	30	0	0	107	229
24.98	0	60	20	40	30	50	40	40	20	0	10	0	10	0	0	40	121
26.98	30	15	0	0	270	60	105	15	30	15	15	30	0	15	0	30	225
29.01	0	16	31	16	16	46	169	46	31	31	16	108	0	16	0	0	153
31.08	31	51	20	0	123	51	72	31	10	10	0	10	0	0	10	82	133
33.16	30	15	30	0	195	90	75	30	0	15	0	15	0	0	30	60	195
35.28	10	10	10	0	103	41	92	31	10	10	10	20	0	10	10	72	215
37.47	31	0	16	16	31	170	31	62	0	0	0	62	0	0	31	31	248
39.66	0	16	62	0	31	77	0	92	31	0	16	46	0	0	16	62	416
41.85	0	0	46	0	0	46	0	46	15	15	0	15	0	15	0	0	212
44.06	15	0	0	0	122	260	46	107	15	0	0	15	0	0	15	122	138
46.28	16	47	16	16	0	62	0	0	31	0	16	16	0	0	31	0	170
48.66	0	11	11	21	43	95	106	43	11	0	11	43	0	0	0	32	85
51.01	0	61	30	0	61	107	30	46	46	15	30	15	0	0	15	30	168
53.23	0	46	46	46	168	122	31	31	0	31	0	46	0	31	31	61	199
55.48	0	16	0	47	142	16	31	47	47	16	0	16	0	0	31	0	31
57.75	31	16	62	16	93	78	31	93	0	31	0	16	0	16	16	16	62
60.00	31	93	31	31	156	140	47	109	31	0	16	31	0	0	16	47	172
62.26	15	61	30	15	91	30	0	76	15	15	0	46	15	0	0	0	122
64.58	0	0	32	32	48	95	95	63	48	16	32	16	0	0	0	48	95
66.95	32	32	63	16	0	127	32	48	79	0	16	32	0	0	0	32	48
69.33	0	16	0	16	0	63	157	47	47	0	0	16	0	0	0	31	31
71.72	32	48	16	16	79	142	32	48	63	0	32	48	32	0	0	0	32
74.11	0	21	0	11	74	21	53	32	11	0	21	32	11	0	0	21	21
76.64	106	0	0	18	0	106	53	159	35	53	0	18	0	0	18	35	106
79.19	0	16	16	16	0	96	0	48	0	16	0	16	32	0	16	48	96
81.59	0	16	48	16	0	237	158	16	48	32	16	48	32	0	0	79	111
84.00	32	48	80	48	32	175	48	175	16	0	0	32	16	16	0	16	96
86.45	16	32	63	16	127	111	48	32	16	16	16	63	0	0	32	32	111
88.90	126	63	0	32	0	126	0	32	95	32	32	32	0	0	32	63	63
91.39	0	160	128	96	0	417	64	128	96	96	32	96	0	0	32	0	64
93.87	62	31	31	31	125	187	0	94	31	31	31	31	0	0	0	250	62
104.19	32	48	63	16	111	126	32	16	32	32	0	63	0	16	0	0	111
117.35	16	16	48	32	0	129	96	16	16	0	0	32	0	0	0	48	16
130.39	16	64	16	16	0	176	160	48	32	16	32	0	0	16	0	48	112
144.30	0	62	0	16	0	154	0	77	16	0	31	0	0	0	0	31	31

CORE 89 - LITTLE TURKEY LAKE - DIATOM DATA (CONTINUED PART 2)

1 UNCOMPACTED DEPTH - MID POINT
2 CYMBELLA MICROCEPHALA (-1)
3 CYMBELLA MINUTA VAR. SILESIACA (0)
4 EUNOTIA FLEXUOSA (+5)
5 EUNOTIA PECTINALIS (+1)
6 FRAGILARIA CAPUCINA (-1)
7 FRAGILARIA CONSTRUENS (+1)
8 FRAGILARIA CONSTUENS VAR. VENTER (-1)
9 FRAGILARIA LAPPONICA (0)
10 FRAGILARIA PINNATA ^ VARS. (-1)
11 FRAGILARIA VAUCHERIAE (-1)
12 FRUSTULIA RHOMBOIDES (+1)
13 FRUSTULIA RHOMBOIDES VAR. SAXONICA (+1)
14 FRUSTULIA VULGARIS (+1)
15 GOMPHONEMA ACUMINATUM (-5)
16 GOMPHONEMA ANGUSTATUM (-1)
17 MELOSIRA AMBIGUA (-1)
18 MELOSIRA DISTANS (+1)

EACH NUMBER REFERS TO A COLUMN NUMBER
(+1) REFERS TO PH FACTOR.
COUNTS ARE FRUSTULES PER CUBIC CM OF UNCOMPACTED SAMPLE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
.40	0	0	30	44	30	30	15	30	133	30	30	148	0	74	44	103	605	103
1.43	0	28	0	42	28	0	0	14	126	14	14	42	0	14	14	84	476	56
2.76	0	43	28	0	43	14	0	14	114	0	0	57	0	0	28	28	498	142
4.19	57	15	43	15	29	0	115	15	29	43	29	115	0	0	29	43	359	101
5.68	29	15	6	44	15	0	130	15	44	15	15	87	0	15	6	15	188	58
7.17	43	0	29	29	15	58	58	15	101	15	29	187	43	0	29	58	316	43
8.64	48	29	29	57	10	0	38	10	48	29	10	134	10	29	29	19	153	67
10.23	77	16	46	62	16	0	31	31	62	77	16	246	16	16	31	46	246	108
11.90	56	14	14	14	0	0	42	14	112	28	0	70	42	0	56	28	70	70
13.58	19	19	19	29	0	0	19	0	29	19	39	174	39	19	39	0	116	39
15.34	59	0	15	0	0	0	59	15	59	44	59	147	29	29	44	59	250	59
17.14	79	20	30	10	40	0	10	10	30	40	40	149	59	30	30	10	159	59
18.99	90	15	30	75	15	0	60	30	45	0	0	209	15	60	30	45	239	60
20.94	78	8	8	8	8	0	0	23	0	8	0	23	31	0	16	23	102	23
22.96	30	0	15	76	0	15	30	15	91	30	61	61	61	0	15	76	198	107
24.98	151	10	40	20	10	0	40	0	40	50	30	70	30	40	30	20	201	40
26.98	30	0	45	75	15	0	15	30	60	30	15	240	30	15	15	45	150	75
29.01	92	0	31	31	16	16	0	16	46	46	16	276	31	0	46	31	230	31
31.08	20	10	20	51	20	0	51	0	61	20	10	123	72	20	72	51	184	61
33.16	90	15	15	105	0	0	60	15	60	15	30	150	30	0	105	15	240	90
35.28	41	0	0	41	20	0	20	10	41	20	20	123	61	0	41	31	164	41
37.47	0	16	16	31	16	16	124	0	78	31	16	109	31	0	16	0	201	16
39.66	31	16	46	31	31	0	215	46	92	16	31	108	31	31	108	31	246	62
41.85	61	15	30	15	15	0	30	15	61	15	30	182	61	61	61	15	243	30
44.06	77	0	31	15	0	15	46	31	61	15	0	122	61	31	46	31	244	77
46.28	47	0	0	108	16	0	62	16	31	0	16	124	31	16	62	16	108	16
48.66	64	11	0	32	21	0	11	21	74	21	21	53	11	11	21	11	117	53
51.01	76	0	15	30	0	0	61	0	107	46	15	91	46	15	30	46	137	107
53.23	31	31	0	0	0	31	46	31	77	31	31	199	16	16	46	46	199	61
55.48	16	16	16	16	16	0	31	16	94	47	16	173	31	47	142	16	267	79
57.75	31	16	0	62	62	0	109	31	47	16	16	202	47	47	62	47	233	31
60.00	31	16	0	93	47	0	156	16	31	16	31	125	47	31	47	47	312	125
62.26	30	15	61	152	46	0	107	46	91	30	15	259	137	46	76	76	198	152
64.58	79	0	48	63	48	0	142	16	79	16	16	126	32	16	48	63	284	63
66.95	32	0	32	48	48	0	111	0	127	0	0	158	16	16	48	32	253	63
69.33	0	0	47	31	31	0	79	0	63	31	16	157	63	16	16	47	235	79
71.72	48	32	0	142	16	0	174	16	126	16	16	221	126	63	126	32	174	63
74.11	53	21	0	11	0	0	21	11	74	42	21	295	42	32	32	53	210	11
76.64	18	35	0	71	18	0	18	35	71	35	0	282	35	35	35	53	212	179
79.19	96	0	16	80	32	16	144	16	64	64	32	224	80	32	80	80	176	64
81.59	16	16	0	79	32	0	158	16	63	16	0	174	0	16	16	63	284	0
84.00	48	0	32	175	48	16	96	48	112	16	0	311	80	48	112	80	478	144
86.45	32	16	16	63	32	16	174	0	48	32	0	127	63	48	32	16	238	32
88.90	0	0	63	63	95	0	569	63	221	63	32	284	63	32	95	95	474	190
91.39	32	64	128	96	64	0	545	32	96	64	96	385	160	32	128	128	706	128
93.87	62	0	31	187	125	0	562	31	125	31	62	343	62	94	62	94	343	94
104.19	79	0	32	79	32	0	410	0	79	32	32	331	32	16	48	48	237	79
117.35	0	32	16	48	16	0	113	16	96	32	16	193	64	32	48	32	241	32
130.39	32	32	16	16	32	0	176	0	32	32	16	192	80	48	80	16	192	32
144.30	0	31	0	16	16	0	93	16	16	31	0	108	47	31	31	16	62	0

99999999999999999999999999999999999999999999999999999999999999999999999999999999999999999999999999999

CORE 89 - LITTLE TURKEY LAKE - DIATOM DATA (CONTINUED PART 3)

1 UNCOMPACTED DEPTH - MID POINT
2 MELOSIRA ITALICA (-1)
3 NAVICULA BACILLUM (-1)
4 NAVICULA PUPULA (-1)
5 NAVICULA RADIOSA (0)
6 NAVICULA RADIOSA VAR. PARVA (0)
7 NAVICULA SUBTILISSIMA (+1)
8 NAVICULA TANTULA (+1)
9 NEIDIUM AFFINE (+1)
10 NITZSCHIA PALEA (-1)
11 PINNULARIA ABAUJENSIS (+1)
12 PINNULARIA ABAUJENSIS VAR. LINEARIS (+1)
13 PINNULARIA BICEPS (0)
14 PINNULARIA BREBISSONII VAR. DIMINUTA (+1)
15 STAURONEIS ANCEPS (0)
16 STAURONEIS ANCEPS F. GRACILIS (0)
17 SYNEDRA DELICATISSIMA (-1)
18 TABELLARIA FENESTRATA (+1)
19 TABELLARIA FLOCCULOSA (+5)

EACH NUMBER REFERS TO A COLUMN NUMBER
(+1) REFERS TO PH FACTOR.
COUNTS ARE FRUSTULES PER CUBIC CM OF UNCOMPACTED SAMPLE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
.70	43	0	108	65	22	0	43	43	43	0	384	235	127	65	22	22	43
1.97	39	79	196	79	39	79	196	312	156	39	430	390	272	235	39	39	39
3.15	40	81	81	40	81	81	40	119	81	81	398	119	159	81	0	81	40
4.40	27	105	78	159	54	105	105	132	78	54	500	237	210	159	27	27	105
5.59	0	32	98	129	0	32	32	193	98	0	547	290	193	32	32	0	64
6.80	27	27	54	79	0	0	79	79	27	54	374	346	134	106	0	54	54
8.16	164	327	164	274	55	108	164	108	0	0	654	491	164	108	55	0	55
9.61	29	57	112	140	0	0	57	112	0	0	309	198	169	57	57	57	0
11.19	61	30	119	89	30	0	30	119	30	30	269	30	30	61	30	0	30
13.08	96	33	162	33	33	0	96	66	0	33	129	66	129	33	0	0	0
15.10	57	0	28	83	0	0	57	28	0	28	111	28	196	111	0	57	57
17.53	15	0	31	31	0	31	15	0	0	0	183	90	62	15	15	0	0
20.49	56	0	56	166	0	0	56	56	0	56	278	110	222	56	0	56	0
23.61	23	0	23	0	47	0	47	23	0	0	140	47	93	47	0	0	47
26.76	117	60	117	117	0	0	0	177	0	60	414	117	117	0	60	0	117
29.96	10	0	10	0	0	0	0	10	0	0	55	10	45	0	0	0	0
33.26	23	23	10	23	0	0	10	0	0	0	57	10	34	10	0	0	0
36.59	16	0	31	47	0	0	31	47	0	16	137	47	47	16	0	0	16
39.99	0	0	47	0	0	0	0	0	0	47	374	95	47	0	0	0	422
43.41	61	61	0	120	0	0	61	61	0	0	120	242	61	0	0	0	0

CORE 80 - TURKEY LAKE - DIATOM DATA (PART 1)

1 UNCOMPACTED DEPTH - MID POINT
2 ACHNANTHES AFFINIS (-1)
3 ACHNANTHES CLEVEI (-1)
4 ACHNANTHES EXIGUA (-1)
5 ACHNANTHES FLEXELLA (0)
6 ACHNANTHES FRAGILARIOIDES (0)
7 ACHNANTHES LANCEOLATA (0)
8 ACHNANTHES LEVANDERI (+1)
9 ACHNANTHES LINEARIS (0)
10 ACHNANTHES LINEARIS F. CURTA (0).
11 ACHNANTHES MARGINULATA (+1)
12 ACHNANTHES MICROCEPHALA (0)
13 ACHNANTHES MINUTISSIMA (0)
14 ACHNANTHES SAXONICA (+1)
15 ACHNANTHES SUBLAEVIS V. CRASSA (0)
16 ACHNANTHES UNIDENTIFIED SP. (0)
17 AMPHORA OVALIS (-1)
18 ANOMOEONEIS SERIANS V. ACUTA (+1)

EACH NUMBER REFERS TO A COLUMN NUMBER
COUNTS ARE FRUSTULES PER CUBIC CM OF SAMPLE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
.70	514	192	43	536	0	43	1667	193	65	86	22	22	43	0	214	108	22
1.97	1558	507	79	934	116	116	4673	623	156	39	116	0	39	0	235	663	0
3.15	794	199	40	358	40	119	6197	398	40	40	119	0	40	0	81	159	40
4.40	712	527	78	263	105	237	5216	368	78	78	0	0	27	132	290	237	54
5.59	644	259	0	354	0	98	7570	708	98	98	0	0	32	0	96	225	64
6.80	294	267	54	246	27	139	5931	428	54	54	54	0	0	106	161	79	54
8.16	984	654	0	438	164	654	20643	765	108	219	108	0	0	219	219	546	55
9.61	478	112	112	533	29	224	5224	478	140	29	29	83	112	0	140	169	0
11.19	299	180	0	239	61	119	3589	360	89	30	0	61	0	89	119	0	61
13.08	96	96	66	194	0	66	6979	194	0	0	66	33	33	0	96	96	33
15.10	251	83	28	865	57	166	4017	83	139	0	57	57	0	57	28	0	0
17.53	229	31	46	497	0	46	2372	62	46	15	15	15	15	46	77	77	0
20.49	445	332	278	3271	110	445	56071	110	110	56	222	56	56	0	110	222	0
23.61	231	23	47	300	23	23	4978	70	47	0	93	23	23	0	47	93	0
26.76	767	414	117	2125	177	237	31840	354	177	0	177	0	0	0	117	177	237
29.96	78	23	23	221	0	23	2300	23	45	23	10	0	10	23	0	0	23
33.26	34	34	23	377	0	104	286	34	10	0	10	10	0	23	10	0	23
36.59	91	31	137	595	0	31	14842	47	31	16	16	0	0	78	47	0	31
39.99	95	0	140	748	47	187	30489	422	47	0	140	95	47	234	47	234	140
43.41	181	120	181	1630	0	120	27711	604	61	0	0	61	61	0	543	120	181

CORE 80 - TURKEY LAKE - DIATOM DATA (PART 2)

1 UNCOMPACTED DEPTH - MID POINT
2 ANOMOEONEIS SERIANS V. BRACHYSIRA (+1)
3 ANOMOEONEIS VITREA (+1)
4 CYCLOTELLA BODANICA (-1)
5 CYCLOTELLA COMTA (-1)
6 CYCLOTELLA KUTZINGIANA (0)
7 CYCLOTELLA OCELLATA (-1)
8 CYCLOTELLA STELLIGERA (-1)
9 CYMBELLA CESATII (0)
10 CYMBELLA LUNATA (+1)
11 CYMBELLA MICROCEPHALA (-1)
12 CYMBELLA MINUTA V. SILESIACA (0)
13 EUNOTIA FLEXUOSA (+5)
14 EUNOTIA PECTINALIS (+1)
15 FRAGILARIA CAPUCINA (-1)
16 FRAGILARIA CONSTRUENS (+1)
17 FRAGILARIA CONSTRUENS V. VENTER (-1)
18 FRAGILARIA LAPPONICA (0)

EACH NUMBER REFERS TO A COLUMN NUMBER
COUNTS ARE FRUSTULES PER CUBIC CM OF SAMPLE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
.70	86	43	86	65	86	86	43	127	65	235	65	171	0	86	0	22	22
1.97	195	156	78	0	78	39	39	235	78	702	39	467	0	272	39	0	39
3.15	119	0	81	40	159	0	0	159	81	517	81	318	40	81	40	0	40
4.40	132	27	0	78	78	78	27	210	132	527	27	395	0	54	54	27	54
5.59	64	0	161	32	32	32	32	256	64	420	64	161	0	32	32	0	32
6.80	79	79	27	0	106	27	54	54	54	455	0	267	27	134	0	0	27
8.16	164	164	111	164	108	108	108	108	55	601	0	327	0	164	0	0	55
9.61	29	83	0	57	29	29	0	198	83	478	29	112	29	198	29	0	57
11.19	30	30	119	0	0	0	30	30	61	388	0	238	0	0	0	61	0
13.08	0	33	162	66	0	0	33	33	0	452	0	96	66	129	33	96	33
15.10	57	28	111	0	57	0	28	57	0	336	28	111	28	139	57	57	28
17.53	15	15	121	0	15	15	15	0	15	258	15	77	0	106	15	0	0
20.49	110	56	332	110	166	0	56	166	56	721	0	222	56	445	56	0	0
23.61	47	23	47	0	0	0	0	23	23	161	23	47	0	140	23	0	0
26.76	117	177	117	0	0	0	177	60	0	599	0	237	177	473	60	60	0
29.96	23	23	0	10	10	0	10	0	0	65	0	88	0	45	0	10	0
33.26	10	10	23	10	10	10	0	0	0	68	0	23	10	34	23	0	0
36.59	0	31	78	16	31	0	16	47	47	91	16	47	16	243	0	16	0
39.99	0	47	0	0	0	47	47	95	0	422	47	140	95	282	0	95	140
43.41	120	61	120	61	61	0	61	61	0	181	0	0	120	362	0	61	0

CORE 8C - TURKEY LAKE - DIATOM DATA (PART 3)

1 UNCOMPACTED DEPTH - MID POINT
2 FRAGILARIA PINNATA & VARIETIES (-1)
3 FRUSTULIA RHOMBOIDES V. SAXONICA (+1)
4 MELOSIRA DISTANS (+1)
5 NAVICULA DICEPHALA (-1)
6 NAVICULA PUPULA (-1)
7 NAVICULA PUPULA V. ELLIPTICA (-1)
8 NAVICULA PUPULA V. RECTANGULARIS (-1)
9 NAVICULA RADIOSA (0)
10 NAVICULA RADIOSA V. PARVA (0)
11 NAVICULA TANTULA (+1)
12 NEIDIUM AFFINE (+1)
13 NITZSCHIA PALEA (-1)
14 PINNULARIA ABAUJENSIS (+1)
15 PINNULARIA BICEPS (0)
16 PINNULARIA MICROSTAURON (0)
17 STAURONEIS ANCEPS (0)
18 SYNEDRA DELICATISSIMA (-1)

EACH NUMBER REFERS TO A COLUMN NUMBER
COUNTS ARE FRUSTULES PER CUBIC CM OF SAMPLE

1	2	3
.70	341	65
1.97	546	156
3.15	318	239
4.40	290	105
5.59	225	98
6.80	294	27
8.16	438	108
9.61	252	83
11.19	210	0
13.08	257	0
15.10	307	28
17.53	183	15
20.49	943	222
23.61	207	93
26.76	767	177
29.96	88	23
33.26	114	10
36.59	274	47
39.99	935	95
43.41	846	61
9999999	9999999	9999

CORE 80 - TURKEY LAKE - DIATOM DATA (PART 4)

1 UNCOMPACTED DEPTH - MID POINT
2 TABELLARIA FENESTRATA (+1)
3 TABELLARIA FLOCCULOSA (+5)

EACH NUMBER REFERS TO A COLUMN NUMBER
COUNTS ARE FRUSTULES PER CUBIC CM OF SAMPLE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
.32	11	27	21	44	136	0	44	16	6	174	38	71	157	2495	8155	6	21
1.23	0	37	11	16	70	11	6	6	11	203	48	37	155	960	2582	21	0
2.43	21	0	6	16	113	21	16	6	6	172	48	32	108	1958	4369	0	6
3.64	6	6	16	21	81	16	21	16	6	70	11	32	81	1223	2404	6	0
4.85	11	21	65	21	161	65	65	65	11	108	54	194	119	3705	4631	21	11
6.01	10	10	74	53	169	10	64	31	0	212	64	53	74	3281	3239	21	10
7.18	0	54	44	97	130	21	54	109	21	293	54	97	87	2844	2649	21	21
8.41	14	44	29	58	152	0	65	29	7	173	29	51	65	1866	2039	14	21
9.60	11	32	37	32	102	21	37	21	6	80	21	43	96	3462	3056	21	16
11.14	0	8	24	40	111	31	40	56	8	87	48	24	71	3801	2138	16	8
12.84	22	38	53	61	151	7	22	46	7	121	22	91	83	3246	3087	7	15
14.30	22	52	22	59	147	22	29	15	0	103	22	59	88	4584	2865	7	22
15.68	0	29	37	29	88	37	15	15	7	110	44	22	118	2951	2510	0	0
17.08	15	22	15	37	74	7	29	7	0	96	37	22	89	2651	1448	0	15
18.51	22	78	67	22	166	0	67	56	33	166	56	33	200	6721	2485	22	11
19.94	7	15	89	60	60	15	15	15	15	96	29	22	96	1962	2005	7	7
21.41	11	0	8	14	25	6	11	8	0	33	17	8	28	902	721	8	3
22.90	6	0	6	11	67	6	6	17	6	67	11	11	73	1773	1235	6	6
24.42	22	15	30	53	83	22	15	22	22	83	22	38	83	1970	2152	22	7
25.97	0	38	75	60	75	7	22	15	7	82	22	30	105	1979	1844	7	0
27.46	14	28	36	28	70	7	21	14	7	134	63	49	70	2428	1394	0	14
29.01	23	58	115	69	46	11	23	58	11	115	23	80	241	5207	2363	11	23
30.68	8	23	23	30	46	8	23	39	39	91	23	84	206	2381	2014	8	15
32.32	23	34	23	23	126	23	69	80	0	240	46	34	149	3731	2907	11	11
33.98	34	34	0	103	58	23	58	34	11	127	81	34	207	5040	2301	11	0
35.69	35	35	35	82	93	0	35	23	0	167	93	35	141	4518	2060	0	70
37.39	0	23	30	39	46	15	15	15	15	115	30	69	222	2063	1352	15	8
39.06	23	34	46	46	138	46	81	46	0	81	34	58	161	4812	2325	46	0
40.74	15	8	30	15	107	8	30	15	0	100	46	23	169	1934	1451	15	15
42.42	15	15	15	8	115	23	23	23	8	69	23	39	215	2206	1401	15	8
44.09	0	0	23	15	84	30	23	39	8	130	23	39	77	2549	2986	15	8
45.75	7	22	30	68	121	53	75	30	7	143	60	22	181	1809	2118	30	30
47.42	0	8	46	30	76	38	46	23	0	69	30	23	145	1646	2057	30	8
49.17	9	5	52	9	79	14	5	23	5	61	14	9	107	1213	839	5	0
50.99	23	18	23	29	128	12	18	18	6	58	23	29	192	1628	1838	12	12
52.85	6	23	53	47	159	12	53	29	6	88	12	18	141	1716	1882	29	18
54.74	0	8	40	23	110	0	47	40	0	94	31	23	204	2897	2332	8	0
56.58	0	18	6	23	29	0	18	0	6	93	6	11	174	2202	1206	6	6
58.41	12	12	47	23	117	12	47	23	0	199	105	23	140	4577	2475	0	23
60.28	11	23	23	11	208	69	104	34	0	104	23	23	197	3791	2821	0	0
62.16	8	8	62	23	93	23	15	31	23	124	47	15	202	2212	3306	15	15
64.09	0	19	23	5	61	14	23	9	9	61	23	9	217	1788	917	5	5
66.06	0	0	6	23	76	29	29	29	6	52	11	11	70	1671	2275	11	0
68.01	0	58	69	46	138	11	92	46	23	127	34	58	252	3100	2663	11	23
69.95	0	11	18	0	104	11	18	11	0	58	34	18	133	1762	1391	0	11
71.88	0	12	23	12	104	18	6	6	0	81	35	18	187	1584	1909	6	6
73.84	6	35	23	23	71	6	23	18	6	47	18	23	142	2644	1632	0	0
79.75	6	29	23	12	76	12	18	18	12	64	12	23	152	2102	1822	0	0
89.39	15	46	53	61	228	15	53	38	8	61	30	30	190	2597	3304	0	23
95.27	11	11	33	22	56	11	22	22	11	78	67	11	413	3034	1540	0	0

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CORE 90 - BIG TURKEY LAKE - DIATOM DATA (PART 1)

1 UNCOMPACTED DEPTH - MID POINT
2 ACHNANTHES EXIGUA (-1)
3 ACHNANTHES FLEXELLA (0)
4 ACHNANTHES LINEARIS (0)
5 ACHNANTHES LINEARIS F. CURTA (0)
6 ACHNANTHES MICROCEPHALA (0)
7 ACHNANTHES MINUTISSIMA (0)
8 ACHNANTHES SAXONICA (+1)
9 ACHNANTHES SUBLAEVIS VAR. CRASSA (0)
10 ANOMOEONEIS SERIANS VAR. ACUTA (+1)
11 ANOMOEONEIS SERIANS VAR. BRACHYSIRA (+1)
12 ANOMOEONEIS VITREA (+1)
13 CYCLOTELLA BODANICA (-1)
14 CYCLOTELLA COMTA (-1)
15 CYCLOTELLA OCELLATA (FORMA) (-1)
16 CYCLOTELLA STELLIGERA (-1)
17 CYMBELLA LUNATA (+1)
18 CYMBELLA MICROCEPHALA (-1)

EACH NUMBER REFERS TO A COLUMN NO.
(+1) REFERS TO PH FACTOR.
COUNTS ARE FRUSTULES PER CUBIC CM OF UNCOMPACTED SAMPLE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
.32	0	11	0	6	11	6	16	11	32	6	11	21	32	21	38	179	38
1.23	11	0	28	11	16	0	6	11	16	0	6	6	16	11	37	134	58
2.43	16	0	6	0	0	0	6	0	11	0	11	0	6	11	38	113	21
3.64	6	6	0	11	16	0	0	0	11	0	11	16	6	0	32	91	38
4.85	11	11	21	0	65	21	11	11	21	0	43	11	0	0	54	119	21
6.01	10	21	21	10	21	0	10	0	10	10	64	31	0	10	74	169	21
7.18	11	11	44	11	44	32	32	0	11	0	32	21	21	32	109	163	54
8.41	14	7	7	0	14	29	21	7	7	21	72	0	14	14	29	49	16
9.60	0	21	21	21	11	43	6	11	11	0	107	11	11	16	32	48	16
11.14	0	24	8	0	8	8	16	8	16	16	16	24	16	8	40	95	16
12.84	7	15	22	0	53	0	15	7	7	0	7	7	7	15	22	76	7
14.30	7	7	7	29	37	22	0	0	22	15	7	15	44	15	66	95	0
15.68	15	7	0	0	0	7	15	0	7	22	44	7	0	0	52	52	22
17.08	7	0	7	0	29	7	0	15	0	7	37	7	37	7	29	96	29
18.51	45	22	45	11	78	33	22	11	11	0	78	45	11	11	22	144	11
19.94	0	15	22	7	22	0	0	0	15	7	37	22	29	7	29	37	22
21.41	0	3	0	3	8	0	0	0	0	0	6	0	6	3	17	39	0
22.90	11	6	0	22	39	0	0	0	11	11	17	17	17	11	28	50	0
24.42	38	0	7	15	7	0	7	0	7	0	30	22	15	15	46	61	7
25.97	15	15	15	22	0	0	15	7	0	0	38	0	7	7	38	45	15
27.46	7	0	14	43	21	14	28	7	21	0	28	7	14	7	28	77	14
29.01	23	34	34	34	161	23	11	11	11	11	149	0	11	0	92	80	0
30.68	0	15	0	15	15	0	8	8	0	23	8	23	15	15	30	84	8
32.32	0	11	23	23	11	34	11	23	0	23	23	34	11	34	126	137	11
33.98	23	0	11	11	46	0	0	0	0	0	92	23	11	0	69	127	11
35.69	12	23	47	82	23	12	35	0	23	12	59	35	23	23	59	117	12
37.39	8	15	23	8	0	0	0	0	0	8	23	15	30	0	30	61	0
39.06	23	0	11	46	0	0	0	11	11	34	11	11	46	0	23	116	11
40.74	15	0	8	39	0	8	0	15	15	8	8	8	8	8	54	62	8
42.42	0	15	15	15	0	0	8	23	15	0	54	15	8	0	23	46	0
44.09	39	8	8	0	0	8	15	0	0	23	0	15	8	0	30	61	8
45.75	7	15	15	0	22	0	0	7	0	22	15	38	30	15	60	83	15
47.42	0	8	0	8	0	0	8	0	8	0	15	30	8	23	30	69	15
49.17	9	5	5	5	37	0	9	0	9	5	12	5	5	9	32	47	5
50.99	6	6	0	23	0	6	6	0	6	12	29	12	23	6	35	58	18
52.85	6	18	12	29	0	6	6	6	0	6	0	12	18	12	47	82	12
54.74	0	0	8	0	0	8	0	16	0	0	0	23	8	0	23	31	0
56.58	0	6	11	11	0	11	0	6	0	6	0	11	6	0	11	47	6
58.41	0	12	12	0	12	23	0	23	0	35	12	0	0	0	47	70	35
60.28	11	11	23	23	0	0	11	0	0	0	0	23	11	0	47	58	23
62.16	0	15	23	0	0	8	15	15	0	15	15	15	8	0	62	55	8
64.09	0	0	5	5	43	5	0	9	0	0	0	5	5	5	19	28	5
66.06	0	6	6	6	11	0	0	0	0	6	11	11	6	0	11	47	18
68.01	11	11	11	11	0	0	11	0	0	0	23	23	11	0	34	92	11
69.95	11	0	6	11	23	0	6	6	0	6	0	11	0	6	34	63	11
71.88	12	6	0	0	29	0	0	0	0	0	0	0	12	0	29	47	18
73.84	6	6	0	23	53	0	0	6	0	0	0	23	12	0	12	59	23
79.75	6	6	0	23	18	0	0	0	0	12	12	12	12	0	23	41	6
89.39	0	8	23	46	23	15	23	0	15	23	0	8	8	0	30	61	8
95.27	0	11	0	0	0	0	22	0	33	11	22	11	11	0	22	67	22

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CORE 90 - BIG TURKEY LAKE - DIATOM DATA (CONTINUED PART 2)

1 UNCOMPACTED DEPTH - MID PCINT
2 CYMBELLA MINUTA VAR. SILESIACA (0)
3 EUNOTIA FLEXUOSA (+5)
4 FRAGILARIA CAPUCINA (-1)
5 FRAGILARIA CONSTRUENS (+1)
6 FRAGILARIA CONSTRUENS VAR. VENTER (-1)
7 FRAGILARIA LAPPONICA (0)
8 FRAGILARIA PINNATA & VARS. (-1)
9 FRUSTULIA RHOMBOIDES (+1)
10 FRUSTULIA RHOMBOICES VAR. SAXONICA (+1)
11 FRUSTULIA VULGARIS (+1)
12 MELOSIRA DISTANS (+1)
13 NAVICULA RADIOSA (0)
14 NAVICULA RADIOSA VAR. PARVA (0)
15 NAVICULA SUBTILISSIMA (+1)
16 NITZSCHIA PALEA (-1)
17 TABELLARIA FENESTRATA (+1)
18 TABELLARIA FLOCCULOSA (+5)

EACH NUMBER REFERS TO A COLUMN NO.
(+1) REFERS TO PH FACTOR.
COUNTS ARE FRUSTULES PER CUBIC CM OF UNCOMPACTED SAMPLE

APPENDIX 5

The data included in this appendix are the determinations of the percentage of diatoms in each of five categories: acidobiontic (acb), acidiphilous (acf), indifferent (ind), alkaliphilous (alkf), and alkalibiontic (alkb). Index B is calculated using Renberg & Hellberg (1982) equation

$$\text{Index B} = \frac{\%ind + 5 * \%alkf + 40 * \%acb}{\% ind + 3.5 * \% alkf + 208 * \% acb}$$

No diatoms were removed from the data set before calculating index B. Inferred pH was calculated using the Davis & Anderson (1985) full equation based on New England data. pH = 6.4204 + (-0.828 * lgt(index B)). Data for the following cores are included:

1. Batchawana Lake : north - Core 79
2. Batchawana Lake : north - Core 84
3. Wishart Lake - Core 86
4. Wishart Lake - Core 87
5. Little Turkey Lake - Core 88
6. Little Turkey Lake - Core 89
7. Turkey Lake - Core 80
8. Turkey Lake - Core 90

.72	9.5745	44.6809	25.5319	19.1489	1.0638	3.0462	6.0
2.13	6.2500	41.2500	31.2500	18.7500	2.5000	1.3288	6.3
3.65	8.5714	48.5714	24.2857	14.2857	4.2857	1.1356	6.3
5.25	8.0000	46.6667	24.0000	18.6667	2.6667	1.5300	6.2
6.86	6.7568	45.9459	25.6757	20.2703	1.3513	2.1671	6.1
8.33	9.4595	47.2973	24.3243	16.2162	2.7027	1.7138	6.2
9.51	5.1948	48.0519	24.6753	19.4805	2.5974	1.2661	6.3
10.68	8.6420	46.9136	24.6914	18.5185	1.2346	2.7147	6.0
11.98	8.4337	46.9880	21.6867	20.4819	2.4096	1.6797	6.2
13.43	7.6923	47.4359	25.6410	16.6667	2.5641	1.5808	6.2
14.90	7.7922	49.3506	22.0779	18.1818	2.5974	1.5851	6.2
16.40	7.5000	47.5000	22.5000	18.7500	3.7500	1.1356	6.3
17.87	6.4935	51.9481	20.7792	16.8831	3.8961	1.0791	6.3
19.25	4.9383	53.0864	19.7531	18.5185	3.7037	.9962	6.4
20.59	5.6338	53.5211	21.1268	16.9014	2.8169	1.3370	6.3
21.86	8.3333	55.5556	15.2778	16.6667	4.1667	1.1963	6.3
23.27	3.9474	53.9474	22.3684	18.4211	1.3158	1.9655	6.1
24.94	5.4054	52.7027	24.3243	16.2162	1.3513	2.2202	6.1
26.67	6.1728	54.3210	17.2840	19.7531	2.4691	1.5175	6.2
28.45	8.7500	46.2500	22.5000	18.7500	3.7500	1.2243	6.3
30.44	4.7619	47.6190	23.8095	21.4286	2.3810	1.2709	6.3
32.59	5.1948	48.0519	22.0779	22.0779	2.5974	1.2376	6.3
34.54	7.3171	51.2195	21.9512	17.0732	2.4390	1.6537	6.2
36.17	6.3291	53.1646	18.9873	16.9873	2.5317	1.4991	6.2
37.83	6.6667	49.3333	21.3333	18.6667	4.0000	1.0308	6.4
39.73	5.7971	53.6232	21.7391	15.9420	2.8986	1.3358	6.3
41.80	8.2353	49.4118	21.1765	17.6471	3.5294	1.2877	6.3
44.08	7.8947	55.2632	19.7368	17.1053	.0000	7.6860	5.6
46.23	6.4935	51.9481	23.3766	16.8831	1.2987	2.4373	6.0
48.05	5.0000	52.5000	21.2500	17.5000	3.7500	.9923	6.4
49.81	7.1429	51.1905	20.2381	19.0476	2.3810	1.6332	6.2
51.53	6.4935	54.5455	20.7792	16.8831	1.2987	2.5133	6.0
53.04	5.1282	60.2564	20.5128	12.8205	1.2821	2.5849	6.0
54.51	6.3291	55.6962	17.7215	17.7215	2.5317	1.5556	6.2
55.92	5.0000	51.2500	23.7500	18.7500	1.2500	2.1393	6.1
57.45	6.9767	55.8140	20.9302	13.9535	2.3256	1.8043	6.2
59.06	3.7500	52.5000	23.7500	17.5000	2.5000	1.2289	6.3
60.62	4.6512	53.4884	25.5814	12.7907	3.4884	1.0715	6.3
62.25	9.0909	54.5455	19.4805	15.5844	1.2987	3.0606	6.0
63.77	3.7037	54.3210	23.4568	17.2840	1.2346	2.0398	6.1
65.31	5.8824	55.8824	23.5294	14.7059	.0000	7.1765	5.7
66.87	5.5556	55.5556	22.2222	15.2778	1.3889	2.3138	6.1
68.51	7.6923	53.8462	20.5128	16.6667	1.2821	2.7493	6.0
70.12	6.7568	59.4595	18.9189	13.5135	1.3513	2.7643	6.0
71.65	6.1728	55.5556	20.9877	14.8148	2.4691	1.6073	6.2
73.15	4.0000	58.6667	17.3333	17.3333	2.6667	1.2860	6.3
74.65	7.7922	57.1429	18.1818	15.5844	1.2987	2.8902	6.0
76.14	5.2632	56.5789	19.7368	18.4211	.0000	6.0938	5.7
77.54	5.0000	60.0000	17.5000	16.2500	1.2500	2.4716	6.0
78.86	7.4074	55.5556	22.2222	14.8148	.0000	8.0500	5.6

DEPTH %ACB %ACF %IND %ALKF %ALKB INDEXB INFERRED PH

P1=6.4204+(-.8328*LGT(B1)) * DAVIS ^ ANDERSEN, 1984, FULL RANGE,
USING INDEX B, NEW ENGLAND DATA
INDB79 85/09/24. 13.57.28.

COL	1	MIN=	.72	MAX=	78.86	MEAN=	39.3792	VAR=	580.486
COL	2	MIN=	3.7037	MAX=	9.5745	MEAN=	6.54042	VAR=	2.39203
COL	3	MIN=	41.25	MAX=	60.2564	MEAN=	52.1194	VAR=	18.1908
COL	4	MIN=	15.2778	MAX=	31.25	MEAN=	21.8507	VAR=	7.86315
COL	5	MIN=	12.7907	MAX=	22.0779	MEAN=	17.2911	VAR=	4.26619
COL	6	MIN=	0	MAX=	4.2857	MEAN=	2.19833	VAR=	1.28523
COL	7	MIN=	.9923	MAX=	8.05	MEAN=	2.1977	VAR=	2.65935
COL	8	MIN=	5.666	MAX=	6.4232	MEAN=	6.19445	VAR=	3.50246E-2

.57	9.8592	50.7042	25.3521	14.0845	.0000	9.0189	5.6
1.96	8.6956	46.3768	23.1884	18.8406	2.8986	1.4991	6.2
3.59	7.5949	46.8354	25.3165	18.9873	1.2658	2.4654	6.0
5.16	6.8493	49.3151	24.6575	16.4384	2.7397	1.4420	6.2
6.49	3.7975	50.6329	25.3165	17.7215	2.5317	1.1930	6.3
7.81	4.4776	52.2388	26.8657	13.4328	2.9851	1.1789	6.3
9.19	9.0909	48.4848	24.2424	15.1515	3.0303	1.5581	6.2
10.54	6.5574	55.7377	29.5082	6.5574	1.6393	2.4857	6.0
11.89	3.5088	57.8947	22.8070	15.7895	.0000	5.7977	5.7
13.30	7.1429	50.0000	28.5714	12.5000	1.7857	2.1280	6.1
14.64	6.0000	54.0000	26.0000	12.0000	2.0000	1.8873	6.1
15.82	3.3898	55.9322	25.4237	15.2542	.0000	5.5914	5.7
17.16	6.3492	52.3810	20.6349	19.0476	1.5873	2.0736	6.1
18.61	7.1429	50.0000	23.2143	19.6429	.0000	6.0777	5.7
20.07	7.9365	50.7937	20.6349	17.4603	3.1746	1.3944	6.3
21.60	6.1539	61.5385	18.4615	12.3077	1.5385	2.5135	6.0
23.00	6.3492	41.2698	30.1587	20.6349	1.5873	1.7913	6.2
24.38	6.3492	50.7937	28.5714	14.2857	.0000	6.8283	5.7
26.12	6.5574	50.8197	26.2295	16.3934	.0000	6.4902	5.7
27.91	6.7797	52.5424	25.4237	13.5593	1.6949	2.1854	6.1
29.56	5.0000	58.3333	21.6667	15.0000	.0000	6.9214	5.7
31.18	10.9375	46.8750	21.8750	20.3125	.0000	7.4622	5.6
32.75	10.9375	51.5625	25.0000	10.9375	1.5625	3.1044	6.0
34.37	5.7143	52.8571	24.2857	15.7143	1.4286	2.2141	6.1
36.03	7.1429	50.0000	28.5714	14.2857	.0000	7.1818	5.7
37.73	7.8652	43.8202	21.3483	25.8427	1.1236	2.3807	6.1
39.46	5.1724	55.1724	25.8621	13.7931	.0000	6.8605	5.7
41.22	7.4627	47.7612	26.8657	16.4179	1.4925	2.2979	6.1
42.99	8.5714	47.1429	31.4286	11.4286	1.4286	2.7025	6.0
44.81	14.2857	46.4286	25.0000	12.5000	1.7857	3.1672	6.0
46.62	5.9702	49.2537	31.3433	10.4478	2.9851	1.3231	6.3
48.44	8.3333	45.0000	33.3333	11.6667	1.6667	2.3279	6.1
50.29	8.8235	51.4706	26.4706	11.7647	1.4706	2.8117	6.0
52.20	8.3333	55.0000	30.0000	6.6667	.0000	11.9687	5.5
54.13	10.0000	50.0000	26.6667	11.6667	1.6667	2.7340	6.0
55.90	7.5472	58.4906	24.5283	9.4340	.0000	10.7541	5.5
57.61	8.4746	55.9322	27.1186	6.7797	1.6949	2.7609	6.0
59.39	6.3492	52.3810	28.5714	12.6984	.0000	7.4565	5.6
61.17	3.3333	53.3333	30.0000	11.6667	1.6667	1.7143	6.2
62.99	4.9180	50.8197	29.5082	14.7541	.0000	5.9192	5.7
64.85	4.4776	50.7463	28.3582	14.9254	1.4925	1.9074	6.1
66.73	5.0848	54.2373	27.1186	11.8644	1.6949	1.9933	6.1
68.75	10.1449	52.1739	24.6377	10.1449	2.8986	1.8524	6.1
70.86	3.6364	56.3636	27.2727	9.0909	3.6364	1.0060	6.4
72.87	14.0625	51.5625	25.0000	9.3750	.0000	14.6216	5.4
74.80	6.9444	50.0000	25.0000	15.2778	2.7778	1.4606	6.2
76.67	5.7143	47.1429	30.0000	14.2857	2.8571	1.2721	6.3
78.53	6.8606	62.1212	19.6970	10.6061	1.5152	2.5979	6.0
80.38	6.7797	52.5424	32.2034	8.4746	.0000	9.1507	5.6
82.22	7.2464	50.7246	28.9855	11.5942	1.4493	2.5321	6.0

DEPTH %ACB %ACF %IND %ALKF %ALKB INDEXB INFERRED PH
P1=6.4204+(-.8328*LGT(B1)) * DAVIS ^ ANDERSEN, 1984, FULL RANGE,
USING INDEX B, NEW ENGLAND DATA
INDB84 85/09/24. 14.06.14.

COL	1	MIN=	.57	MAX=	82.22	MEAN=	38.7062	VAR=	596.062
COL	2	MIN=	3.3333	MAX=	14.2857	MEAN=	7.11811	VAR=	5.69797
COL	3	MIN=	41.2698	MAX=	62.1212	MEAN=	51.5508	VAR=	17.7105
COL	4	MIN=	18.4615	MAX=	33.3333	MEAN=	26.1659	VAR=	11.0486
COL	5	MIN=	6.5574	MAX=	25.8427	MEAN=	13.7901	VAR=	15.1569
COL	6	MIN=	0	MAX=	3.6364	MEAN=	1.37506	VAR=	1.22836
COL	7	MIN=	1.006	MAX=	14.6216	MEAN=	3.96114	VAR=	10.0415
COL	8	MIN=	5.4502	MAX=	6.4182	MEAN=	6.01736	VAR=	6.52815E-2

.39	2.9703	40.5941	24.7525	28.7129	2.9703	.7769	6.5
1.73	2.3256	48.8372	23.2558	23.2558	2.3256	1.0131	6.4
3.59	7.3171	42.6829	24.3902	23.1707	2.4390	1.4380	6.2
5.10	5.4054	40.5405	25.6757	25.6757	2.7027	1.0912	6.3
6.54	10.0000	43.3333	24.4444	18.8889	3.3333	1.4229	6.2
8.26	5.9524	45.2381	25.0000	20.2381	3.5714	1.0161	6.4
9.97	7.8652	39.3258	24.7191	25.8427	2.2472	1.4977	6.2
11.68	6.8966	41.3793	25.2874	24.1379	2.2988	1.4189	6.2
13.42	7.0588	44.7059	24.7059	21.1765	2.3529	1.5033	6.2
15.25	6.0241	44.5783	21.6867	24.0964	3.6145	.9782	6.4
17.09	6.7416	42.6966	28.0899	22.4719	.0000	4.7895	5.8
18.95	5.8140	44.1860	24.4186	24.4186	1.1628	2.0296	6.1
21.11	6.2500	43.7500	19.7917	25.0000	5.2083	.7294	6.5
23.36	7.0422	40.8451	28.1690	23.9437	.0000	4.5912	5.8
25.42	6.6667	44.4444	24.4444	23.3333	1.1111	2.2703	6.1
27.51	2.7027	41.8919	21.6216	31.0811	2.7027	.8032	6.4
29.98	6.0976	39.0244	25.6098	29.2683	.0000	3.6286	5.9
32.48	6.6667	41.1111	27.7778	22.2222	2.2222	1.4470	6.2
34.61	7.7778	43.3333	23.3333	24.4444	1.1111	2.4078	6.1
36.67	5.8824	44.7059	25.8824	23.5294	.0000	4.4783	5.8
38.76	5.8140	41.8605	23.2558	27.9070	1.1628	1.8868	6.1
40.84	1.2821	47.4359	25.6410	23.0769	2.5641	.8194	6.4
42.88	5.8824	48.2353	21.1765	22.3529	2.3529	1.4077	6.2
44.89	3.6585	47.5610	25.6098	21.9512	1.2195	1.7500	6.2
46.91	4.9383	40.7407	25.9259	27.1605	1.2346	1.6796	6.2
48.93	6.9767	41.8605	23.2558	26.7442	1.1628	2.1103	6.1
50.98	4.2105	46.3158	23.1579	22.1053	4.2105	.7621	6.5
53.02	6.2500	48.9583	21.8750	21.8750	1.0417	2.4494	6.0
55.05	10.2273	46.5909	23.8636	18.1818	1.1364	3.1676	6.0
57.13	7.2289	44.5783	22.8916	24.0964	1.2048	2.2538	6.1
59.21	5.9524	44.0476	28.5714	20.2381	1.1905	2.1358	6.1
61.19	6.0241	45.7831	21.6867	24.0964	2.4096	1.3421	6.3
63.08	7.6923	47.2527	23.0769	20.8791	1.0989	2.6394	6.0
65.00	4.9383	45.6790	24.6914	23.4568	1.2346	1.8766	6.1
67.12	3.8462	43.5897	25.6410	23.0769	3.8462	.7617	6.5
69.30	6.0976	46.3415	24.3902	21.9512	1.2195	2.1466	6.1
71.66	4.7619	45.2381	23.8095	22.6190	3.5714	.9013	6.4
74.11	5.5556	47.7778	20.0000	24.4444	2.2222	1.3923	6.3
76.38	5.9524	46.4286	22.6190	25.0000	.0000	4.4757	5.8
78.54	7.3684	48.4211	20.0000	23.1579	1.0526	2.5931	6.0
80.62	4.2105	46.3158	22.1053	25.2632	2.1053	1.2492	6.3
82.75	7.6087	44.5652	20.6522	25.0000	2.1739	1.5975	6.2
84.87	5.1546	48.4536	21.6495	24.7423	.0000	4.3429	5.8
86.91	5.1546	49.4845	21.6495	23.7113	.0000	4.5419	5.8
88.86	5.8824	45.8824	22.3529	23.5294	2.3529	1.3574	6.3
90.76	5.1546	44.3299	19.5876	27.8351	3.0928	.9920	6.4
92.74	2.2222	46.6667	21.1111	25.5556	4.4444	.5814	6.6
94.85	4.5455	44.3182	22.7273	27.2727	1.1364	1.7689	6.2
96.97	7.2165	46.3918	20.6186	23.7113	2.0619	1.6588	6.2
99.08	6.0606	44.4444	20.2020	25.2525	4.0404	.8897	6.4

DEPTH %ACB %ACF %IND %ALKF %ALKB INDEXB INFERRED PH
P1=6.4204+(-.8328*LGT(81)) * DAVIS & ANDERSEN, 1984, FULL RANGE,
USING INDEX B, NEW ENGLAND DATA
INDB86 85/09/24. 14.09.31.

COL	1	MIN=	.39	MAX=	99.08	MEAN=	48.13	VAR=	903.823
COL	2	MIN=	1.2821	MAX=	10.2273	MEAN=	5.82651	VAR=	3.10063
COL	3	MIN=	39.0244	MAX=	49.4845	MEAN=	44.6551	VAR=	7.02583
COL	4	MIN=	19.5876	MAX=	28.5714	MEAN=	23.537	VAR=	5.18469
COL	5	MIN=	18.1818	MAX=	31.0811	MEAN=	24.0231	VAR=	6.36438
COL	6	MIN=	0	MAX=	5.2083	MEAN=	1.95835	VAR=	1.67385
COL	7	MIN=	.5814	MAX=	4.7895	MEAN=	1.93724	VAR=	1.35886
COL	8	MIN=	5.8539	MAX=	6.6166	MEAN=	6.23782	VAR=	4.04394E-2

.26	7.6923	44.6154	20.0000	26.1538	1.5385	1.9834	6.1
1.05	7.5758	40.9091	24.2424	25.7576	1.5152	1.9128	6.1
2.22	4.0541	44.5946	24.3243	27.0270	.0000	3.4432	5.9
3.54	5.5556	42.2222	25.5556	23.3333	3.3333	.9822	6.4
4.95	5.0633	46.8354	21.5190	25.3165	1.2658	1.8564	6.1
6.36	6.1539	43.0769	24.6154	26.1538	.0000	4.1854	5.9
7.73	4.0541	45.9459	27.0270	21.6216	1.3513	1.6848	6.2
9.86	4.4776	43.2836	25.3731	23.8806	2.9851	.9758	6.4
10.44	4.9180	44.2623	31.1475	16.3934	3.2787	1.0148	6.4
11.87	4.2254	46.4789	26.7606	21.1268	1.4084	1.6936	6.2
13.29	7.1429	42.8571	22.8571	27.1429	.0000	4.4364	5.8
14.63	4.0000	48.0000	21.3333	21.3333	5.3333	.6270	6.5
15.94	6.0976	48.7805	25.6098	17.0732	2.4390	1.4720	6.2
17.34	8.3333	50.0000	22.6190	19.0476	.0000	6.7867	5.7
18.81	3.7500	48.7500	23.7500	21.2500	2.5000	1.1341	6.3
20.25	6.6667	46.6667	24.0000	20.0000	2.6667	1.3717	6.3
21.63	7.5000	47.5000	22.5000	20.0000	2.5000	1.5448	6.2
23.03	6.8493	39.7260	24.6575	27.3973	1.3699	1.8520	6.1
24.49	6.4103	43.5897	24.3590	23.0769	2.5641	1.3054	6.3
25.92	5.0000	47.5000	23.7500	21.2500	2.5000	1.2530	6.3
27.29	6.8182	40.9091	25.0000	22.7273	4.5455	.8435	6.4
28.61	6.9444	48.6111	23.6111	16.6667	4.1667	1.0235	6.4
29.93	3.7037	48.1481	24.6914	22.2222	1.2346	1.7539	6.2
31.30	5.7471	47.1264	21.8391	21.8391	3.4483	1.0354	6.4
32.74	6.4103	42.3077	25.6410	21.7949	3.8462	.9542	6.4
34.16	7.8947	46.0526	22.3684	21.0526	2.6316	1.4948	6.2
35.54	5.4054	47.2973	21.6216	24.3243	1.3513	1.8770	6.1
36.90	3.3708	49.4382	23.5955	20.2247	3.3708	.8648	6.4
38.30	6.1728	45.6790	22.2222	22.2222	3.7037	.9951	6.4
39.69	9.8901	38.4615	26.3736	23.0769	2.1978	1.7831	6.2
41.04	6.0241	39.7590	24.0964	26.5060	3.6145	.9145	6.4
42.37	7.4468	45.7447	21.2766	22.3404	3.1915	1.2335	6.3
43.70	5.4945	45.0549	23.0769	23.0769	3.2967	1.0179	6.4
45.02	4.8780	45.1220	24.3902	21.9512	3.6585	.8968	6.4
46.35	7.2289	44.5783	22.8916	24.0964	1.2048	2.2538	6.1
47.73	8.3333	44.4444	20.8333	20.8333	5.5556	.8308	6.4
49.45	4.7619	45.2381	23.8095	23.8095	2.3810	1.2092	6.3
51.13	5.8140	46.5116	20.9302	23.2558	3.4884	1.0146	6.4
52.46	9.5890	46.5753	27.3973	15.0685	1.3699	2.8228	6.0
53.81	4.1667	50.0000	26.3889	18.0556	1.3889	1.8493	6.1
55.20	6.0976	48.7805	18.2927	23.1707	3.6585	1.0234	6.4
56.62	6.1728	44.4444	23.4568	23.4568	2.4691	1.3234	6.3
58.06	4.2553	47.8723	22.3404	24.4681	1.0638	1.9380	6.1
59.57	3.5294	41.1765	28.2353	23.5294	3.5294	.7632	6.5
61.09	6.5217	44.5652	25.0000	22.8261	1.0870	2.2885	6.1
62.61	6.8182	44.3182	23.8636	22.7273	2.2727	1.4853	6.2
68.79	9.6774	44.0860	22.5806	21.5054	2.1505	1.9088	6.1
77.02	5.5556	41.1111	24.4444	27.7778	1.1111	1.8713	6.1
86.56	7.1429	47.9592	18.3673	22.4490	4.0816	1.0114	6.4
97.80	4.7059	47.0588	22.3529	23.5294	2.3529	1.2426	6.3

DEPTH %ACB %ACF %IND %ALKF %ALKB INDEXB INFERRED PH
P1=6.4204+(-.8328*LGT(B1)) * DAVIS & ANDERSEN, 1984, FULL RANGE,
USING INDEX B, NEW ENGLAND DATA
IND887 85/09/24. 14.11.11.

COL	1	MIN=	.26	MAX=	97.8	MEAN=	34.873	VAR=	532.413
COL	2	MIN=	3.3708	MAX=	9.8901	MEAN=	6.04183	VAR=	2.63803
COL	3	MIN=	38.4615	MAX=	50	MEAN=	45.2805	VAR=	8.01384
COL	4	MIN=	18.2927	MAX=	31.1475	MEAN=	23.7398	VAR=	5.53543
COL	5	MIN=	15.0685	MAX=	27.7778	MEAN=	22.4984	VAR=	8.0465
COL	6	MIN=	0	MAX=	5.5556	MEAN=	2.43944	VAR=	1.75171
COL	7	MIN=	.627	MAX=	6.7867	MEAN=	1.6612	VAR=	1.16967
COL	8	MIN=	5.7278	MAX=	6.5892	MEAN=	6.28464	VAR=	2.99321E-2

.31	.0000	37.0968	29.0323	32.2581	1.6129	.6786	6.5
1.36	6.7797	40.6780	27.1186	25.4237	.0000	4.3212	5.8
2.62	3.3333	35.0000	25.0000	35.0000	1.6667	1.0178	6.4
3.83	1.9608	33.3333	31.3725	31.3725	1.9608	.7833	6.5
5.24	3.5088	33.3333	26.3158	33.3333	3.5088	.6387	6.5
6.83	3.2258	37.0968	29.0323	29.0323	1.6129	1.1270	6.3
8.43	.0000	31.9149	27.6596	38.2979	2.1277	.4783	6.6
9.87	3.9216	37.2549	23.5294	33.3333	1.9608	1.0418	6.4
11.27	4.5455	37.8788	21.2121	34.8485	1.5152	1.2790	6.3
12.71	3.2787	31.1475	29.5082	34.4262	1.6393	.9674	6.4
14.23	4.8387	37.0968	20.9677	35.4839	1.6129	1.2525	6.3
15.82	.0000	39.2857	25.0000	32.1429	3.5714	.4232	6.7
17.40	4.6154	38.4615	24.6154	30.7692	1.5385	1.3454	6.3
18.93	5.5556	29.6296	24.0741	37.0370	3.7037	.7124	6.5
20.51	1.6949	30.5085	28.8136	35.5932	3.3898	.4796	6.6
22.08	3.0769	33.8462	30.7692	30.7692	1.5385	1.0606	6.3
23.75	6.2500	29.6875	23.4375	37.5000	3.1250	.8571	6.4
25.47	7.5758	34.8485	22.7273	33.3333	1.5152	1.6500	6.2
27.13	3.0303	37.8788	21.2121	36.3636	1.5152	1.0631	6.3
28.81	5.4545	32.7273	25.4545	32.7273	3.6364	.7645	6.5
30.52	3.1250	39.0625	25.0000	29.6875	3.1250	.7404	6.5
32.28	.0000	33.8462	27.6923	36.9231	1.5385	.6095	6.5
34.14	6.5574	39.3443	26.2295	26.2295	1.6393	1.6444	6.2
36.10	1.6129	38.7097	27.4194	29.0323	3.2258	.5980	6.6
37.99	4.5455	31.8182	30.3030	31.8182	1.5152	1.2159	6.3
39.82	7.0422	32.3944	25.3521	33.8028	1.4084	1.5857	6.2
41.69	4.9180	37.7049	21.3115	34.4262	1.6393	1.2751	6.3
43.70	6.1539	33.8462	27.6923	30.7692	1.5385	1.4694	6.2
45.70	3.4483	37.9310	24.1379	32.7586	1.7241	1.0822	6.3
47.63	6.6667	31.6667	23.3333	36.6667	1.6667	1.3518	6.3
49.59	6.6667	28.3333	31.6667	30.0000	3.3333	.8859	6.4
51.67	1.7544	33.3333	28.0702	35.0877	1.7544	.7784	6.5
53.85	7.1429	31.4286	24.2857	34.2857	2.8571	1.0315	6.4
56.00	4.2857	34.2857	24.2857	32.8571	4.2857	.6097	6.5
58.18	5.2632	32.8947	23.6842	38.1579	.0000	2.5356	6.0
60.15	4.1096	32.8767	27.3973	34.2466	1.3699	1.2065	6.3
62.27	4.5455	30.3030	27.2727	36.3636	1.5152	1.1333	6.3
64.51	5.3571	32.1429	28.5714	30.3571	3.5714	.7753	6.5
66.92	1.6667	33.3333	28.3333	35.0000	1.6667	.7909	6.5
69.31	5.3571	37.5000	25.0000	30.3571	1.7857	1.3168	6.3
71.62	3.2787	37.7049	27.8689	27.8689	3.2787	.7248	6.5
75.54	3.7037	35.1852	24.0741	33.3333	3.7037	.6438	6.5
79.47	3.1746	36.5079	28.5714	30.1587	1.5873	1.1065	6.3
81.86	4.8387	35.4839	25.8065	32.2581	1.6129	1.2680	6.3
96.24	1.4925	34.3284	26.8657	35.8209	1.4925	.8238	6.4
108.51	1.5152	33.3333	30.3030	34.8485	.0000	1.6915	6.2
121.07	8.9286	32.1429	30.3571	23.2143	5.3571	.7943	6.5
134.11	3.6364	30.9091	32.7273	30.9091	1.8182	.9865	6.4
147.72	3.0303	31.8182	25.7576	37.8788	1.5152	.9506	6.4
161.58	3.9216	35.2941	27.4510	31.3725	1.9608	1.0337	6.4

DEPTH %ACB %ACF %IND %ALKF %ALKB INDEXB INFERRED PH
P1=6.4204+(-.8328*LGT(B1)) + DAVIS & ANDERSEN, 1984, FULL RANGE,
USING INDEX B, NEW ENGLAND DATA
INDB88 85/09/24. 14.13.31.

COL	1	MIN=	.31	MAX=	161.58	MEAN=	46.7252	VAR=	1481.85
COL	2	MIN=	0	MAX=	8.9286	MEAN=	4.00771	VAR=	4.42834
COL	3	MIN=	28.3333	MAX=	40.678	MEAN=	34.4834	VAR=	9.19132
COL	4	MIN=	20.9677	MAX=	32.7273	MEAN=	26.4735	VAR=	8.36072
COL	5	MIN=	23.2143	MAX=	38.2979	MEAN=	32.9107	VAR=	11.0471
COL	6	MIN=	0	MAX=	5.3571	MEAN=	2.12477	VAR=	1.19435
COL	7	MIN=	.4232	MAX=	4.3212	MEAN=	1.09203	VAR=	.365609
COL	8	MIN=	5.8911	MAX=	6.7314	MEAN=	6.4239	VAR=	2.30365E-2

.40	2.4096	38.5542	27.7108	31.3253	.0000	2.3070	6.1
1.43	3.2258	38.7097	29.0323	24.1935	4.8387	.5526	6.6
2.76	1.5625	37.5000	28.1250	32.8125	.0000	1.9454	6.1
4.19	4.6154	36.9231	23.0769	33.8462	1.5385	1.2750	6.3
5.68	3.1746	31.7460	28.5714	34.9206	1.5873	.9754	6.4
7.17	.0000	37.6812	21.7391	34.7826	5.7971	.2731	6.8
8.64	4.1096	38.3562	24.6575	31.5068	1.3699	1.3463	6.3
10.23	4.1096	38.3562	26.0274	30.1370	1.3699	1.3677	6.3
11.90	2.9851	35.8209	25.3731	34.3284	1.4925	1.0560	6.4
13.58	5.4794	38.3562	23.2877	30.1370	2.7397	1.0226	6.4
15.34	3.3898	38.9831	23.7288	32.2034	1.6949	1.1087	6.3
17.14	4.2254	33.8028	26.7606	32.3944	2.8169	.8209	6.4
18.99	4.2254	36.6197	23.9437	33.8028	1.4084	1.2775	6.3
20.94	1.8182	36.3636	23.6364	36.3636	1.8182	.8010	6.5
22.96	4.9180	39.3443	24.5902	31.1475	.0000	3.1288	6.0
24.98	4.6154	35.3846	24.6154	33.8462	1.5385	1.2488	6.3
26.98	2.8986	36.2319	24.6377	33.3333	2.8986	.7081	6.5
29.01	4.6154	40.0000	29.2308	23.0769	3.0769	.9357	6.4
31.08	2.9412	32.3529	26.4706	38.2353	.0000	1.9083	6.1
33.16	1.5873	41.2698	23.8095	33.3333	.0000	2.0904	6.1
35.28	1.4286	42.8571	21.4286	32.8571	1.4286	1.0074	6.4
37.47	5.1724	43.1034	20.6897	31.0345	.0000	3.4267	5.9
39.66	4.5455	37.8788	24.2424	31.8182	1.5152	1.3215	6.3
41.85	1.7241	34.4828	29.3103	31.0345	3.4483	.5304	6.6
44.06	.0000	34.4262	22.9508	39.3443	3.2787	.3790	6.7
46.28	6.2500	32.8125	31.2500	28.1250	1.5625	1.4922	6.2
48.66	2.9851	40.2985	23.8806	31.3433	1.4925	1.1696	6.3
51.01	6.0606	33.3333	24.2424	36.3636	.0000	2.8600	6.0
53.23	5.0000	33.3333	28.3333	31.6667	1.6667	1.2376	6.3
55.48	1.4925	34.3284	29.8507	32.8358	1.4925	.8537	6.4
57.75	3.1746	36.5079	25.3968	33.3333	1.5873	1.0683	6.3
60.00	2.7397	31.5068	27.3973	35.6164	2.7397	.6575	6.5
62.26	8.0000	38.6667	24.0000	26.6667	2.6667	1.3257	6.3
64.58	3.0303	33.3333	30.3030	33.3333	.0000	2.1649	6.1
66.95	3.4483	39.6552	27.5862	29.3103	.0000	2.7947	6.0
69.33	1.7544	38.5965	29.8246	26.3158	3.5088	.5849	6.6
71.72	2.9851	43.2836	28.3582	23.8805	1.4925	1.3333	6.3
74.11	.0000	45.1613	30.6452	24.1935	.0000	2.2238	6.1
76.64	.0000	34.4828	27.5862	37.9310	.0000	1.2473	6.3
79.19	1.4286	32.8571	35.7143	28.5714	1.4286	.8867	6.4
81.59	3.1746	36.5079	26.9841	30.1587	3.1746	.7078	6.5
84.00	2.6316	36.8421	26.3158	31.5789	2.6316	.7500	6.5
86.45	5.6338	36.6197	22.5352	35.2113	.0000	2.9565	6.0
88.90	.0000	45.7627	25.4237	28.8136	.0000	2.0134	6.1
91.39	2.7397	34.2466	26.0274	35.6164	1.3699	1.0275	6.4
93.87	3.3333	35.0000	25.0000	35.0000	1.6667	1.0178	6.4
104.19	4.0000	36.0000	24.0000	33.3333	2.6667	.8491	6.4
117.35	5.6338	36.6197	23.9437	33.8028	.0000	3.0396	6.0
130.39	3.0303	39.3939	25.7576	30.3030	1.5152	1.1641	6.3
144.30	2.2222	33.3333	31.1111	33.3333	.0000	1.9399	6.1

DEPTH %ACB %ACF %IND %ALKF %ALKB INDEXB INFERRED PH

PI=6.4204+(-.8328*LGT(B1)) * DAVIS & ANDERSEN, 1984, FULL RANGE,
USING INDEX 8, NEW ENGLAND DATA
INDB89 85/09/24. 14.16.07.

COL	1	MIN=	.4	MAX=	144.3	MEAN=	49.29	VAR=	1264.26
COL	2	MIN=	0	MAX=	8	MEAN=	3.21051	VAR=	3.15333
COL	3	MIN=	31.5068	MAX=	45.7627	MEAN=	37.0718	VAR=	11.3306
COL	4	MIN=	20.6897	MAX=	35.7143	MEAN=	26.1823	VAR=	8.92414
COL	5	MIN=	23.0769	MAX=	39.3443	MEAN=	31.9691	VAR=	13.2462
COL	6	MIN=	0	MAX=	5.7971	MEAN=	1.56639	VAR=	1.84656
COL	7	MIN=	.2731	MAX=	3.4267	MEAN=	1.4036	VAR=	.602922
COL	8	MIN=	5.975	MAX=	6.8899	MEAN=	6.35028	VAR=	4.00935E-2

.70	1.4493	31.8841	26.0870	40.5797	.0000	1.4483	6.2
1.97	3.0303	34.8485	28.7879	33.3333	.0000	2.2292	6.1
3.15	1.7241	36.2069	31.0345	31.0345	.0000	2.0123	6.1
4.40	2.8169	30.9859	23.9437	38.0282	4.2254	.4753	6.6
5.59	1.6949	38.9831	23.7288	32.2034	3.3898	.5700	6.6
6.80	1.6393	36.0656	22.9508	37.7049	1.6393	.8099	6.4
8.16	4.5455	36.3636	24.2424	30.3030	4.5455	.6244	6.5
9.61	1.6949	32.2034	27.1186	33.8983	5.0848	.3683	6.7
11.19	1.9231	38.4615	30.7692	28.8462	.0000	2.2774	6.1
13.08	2.0408	34.6939	30.6122	32.6531	.0000	1.9718	6.1
15.18	3.5088	40.3509	22.8070	31.5789	1.7544	1.1304	6.3
17.53	2.1739	36.9565	28.2609	32.6087	.0000	2.1069	6.1
20.49	5.0000	28.3333	26.6667	38.3333	1.6667	1.0807	6.3
23.61	4.3478	36.9565	28.2609	30.4348	.0000	2.8710	6.0
26.76	.0000	41.1765	29.4118	27.4510	1.9608	.6977	6.5
29.96	.0000	31.4286	25.7143	40.0000	2.8571	.3855	6.7
33.26	2.4390	41.4634	21.9512	31.7073	2.4390	.8246	6.4
36.59	3.8462	40.3846	25.0000	30.7692	.0000	2.8696	6.0
39.99	2.3256	39.5349	23.2558	32.5581	2.3256	.8064	6.4
43.41	2.1277	40.4255	23.4043	34.0426	.0000	2.1791	6.1

DEPTH %ACB %ACF %IND %ALKF %ALKB INDEXB INFERRED PH
P1=6.4204+(-.8328*LGT(B1)) * DAVIS ^ ANDERSEN, 1984, FULL RANGE,
USING INDEX B, NEW ENGLAND DATA
INDB80 85/09/24. 14.02.35.

COL	1	MIN=	.7	MAX=	43.41	MEAN=	17.5675	VAR=	181.527
COL	2	MIN=	0	MAX=	5	MEAN=	2.4164	VAR=	1.78875
COL	3	MIN=	28.3333	MAX=	41.4634	MEAN=	36.3854	VAR=	14.7411
COL	4	MIN=	21.9512	MAX=	31.0345	MEAN=	26.2004	VAR=	8.61113
COL	5	MIN=	27.451	MAX=	40.5797	MEAN=	33.4034	VAR=	13.5052
COL	6	MIN=	0	MAX=	5.0848	MEAN=	1.59442	VAR=	2.99611
COL	7	MIN=	.3683	MAX=	2.871	MEAN=	1.38704	VAR=	.711832
COL	8	MIN=	6.039	MAX=	6.7817	MEAN=	6.37517	VAR=	6.02731E-2

.32	1.6129	40.3226	22.5806	30.6452	4.8387	.4425	6.7
1.23	4.5455	37.8788	25.7576	27.2727	4.5455	.6485	6.5
2.43	.0000	33.3333	33.3333	33.3333	.0000	1.3333	6.3
3.64	5.5556	40.7407	24.0741	24.0741	5.5556	.6353	6.5
4.85	5.1724	37.9310	22.4138	34.4828	.0000	2.9277	6.0
6.01	3.7736	35.8491	26.4151	32.0755	1.8868	1.0413	6.4
7.18	3.2258	33.8710	30.6452	29.0323	3.2258	.6846	6.5
8.41	1.9231	40.3846	25.0000	30.7692	1.9231	.8927	6.4
9.60	3.7037	44.4444	18.5185	25.9259	7.4074	.4277	6.7
11.14	4.4444	35.5556	31.1111	28.8889	.0000	2.9244	6.0
12.84	1.7857	39.2857	26.7857	30.3571	1.7857	.9041	6.4
14.30	4.0000	36.0000	30.0000	28.0000	.0000	2.9688	6.0
15.68	2.0408	32.6531	32.6531	28.5714	4.0816	.4840	6.6
17.08	.0000	34.8837	32.5581	32.5581	.0000	1.4127	6.2
18.51	1.9608	33.3333	23.5294	37.2549	3.9216	.4652	6.6
19.94	2.2727	29.5455	27.2727	40.9091	.0000	1.5600	6.2
21.41	6.0606	36.3636	30.3030	27.2727	.0000	3.6145	5.9
22.90	2.5641	35.8974	25.6410	33.3333	2.5641	.7339	6.5
24.42	.0000	35.5556	33.3333	28.8889	2.2222	.5638	6.6
25.97	2.7027	37.8378	32.4324	24.3243	2.7027	.8053	6.4
27.46	3.8462	32.6923	32.6923	30.7692	.0000	2.4931	6.0
29.01	4.1667	29.1667	27.0833	37.5000	2.0833	.8859	6.4
30.68	2.0000	36.0000	30.0000	30.0000	2.0000	.8262	6.4
32.32	5.8824	33.3333	31.3725	29.4118	.0000	3.2263	5.9
33.98	.0000	27.5000	30.0000	40.0000	2.5000	.3807	6.7
35.69	2.4390	31.7073	24.3902	41.4634	.0000	1.6547	6.2
37.39	4.6512	34.8837	30.2326	30.2326	.0000	2.8718	6.0
39.06	4.1667	29.1667	31.2500	33.3333	2.0833	.9218	6.4
40.74	1.9608	39.2157	29.4118	29.4118	.0000	2.2963	6.1
42.42	2.0833	37.5000	29.1667	29.1667	2.0833	.8421	6.4
44.09	2.5641	28.2051	30.7692	38.4615	.0000	1.6589	6.2
45.75	2.1739	32.6087	26.0870	32.6087	6.5217	.3269	6.8
47.42	2.7778	33.3333	33.3333	30.5556	.0000	2.2178	6.1
49.17	2.3256	34.8837	30.2326	27.9070	4.6512	.4723	6.6
50.99	2.1739	34.7826	32.6087	30.4348	.0000	2.1094	6.1
52.85	2.0000	34.0000	30.0000	32.0000	2.0000	.7821	6.5
54.74	.0000	25.8065	41.9355	32.2581	.0000	1.1042	6.3
56.58	2.8571	31.4286	28.5714	28.5714	8.5714	.2846	6.8
58.41	5.2632	26.3158	26.3158	39.4737	2.6316	.8211	6.4
60.28	2.7027	24.3243	32.4324	40.5405	.0000	1.5039	6.2
62.16	6.2500	37.5000	25.0000	29.1667	2.0833	1.3136	6.3
64.09	2.5000	32.5000	30.0000	35.0000	.0000	1.9180	6.1
66.06	3.1250	34.3750	34.3750	25.0000	3.1250	.7211	6.5
68.01	4.4444	28.8889	35.5556	28.8889	2.2222	.9499	6.4
69.95	2.7027	29.7297	29.7297	37.8378	.0000	1.7667	6.2
71.88	5.1282	28.2051	33.3333	33.3333	.0000	2.5299	6.0
73.84	4.8780	31.7073	29.2683	31.7073	2.4390	.9486	6.4
79.75	5.7143	37.1429	31.4286	22.8571	2.8571	1.0612	6.3
89.39	2.0833	29.1667	35.4167	31.2500	2.0833	.7155	6.5
95.27	2.5641	35.8974	33.3333	25.6410	2.5641	.7885	6.5

DEPTH %ACB %ACF %IND %ALKF %ALKB INDEXB INFERRED PH
P1=6.4204+(-.8328*LGT(B1)) ↑ DAVIS & ANDERSEN, 1984, FULL RANGE,
USING INDEX 8, NEW ENGLAND DATA
INDB90 85/09/24. 14.17.57.

COL	1	MIN=	.32	MAX=	95.27	MEAN=	37.1458	VAR=	631.864
COL	2	MIN=	0	MAX=	6.25	MEAN=	3.05538	VAR=	2.75315
COL	3	MIN=	24.3243	MAX=	44.4444	MEAN=	33.9127	VAR=	18.4468
COL	4	MIN=	18.5185	MAX=	41.9355	MEAN=	29.5937	VAR=	16.8996
COL	5	MIN=	22.8571	MAX=	41.4634	MEAN=	31.455	VAR=	20.8854
COL	6	MIN=	0	MAX=	8.5714	MEAN=	1.98321	VAR=	4.50535
COL	7	MIN=	.2846	MAX=	3.6145	MEAN=	1.31727	VAR=	.768058
COL	8	MIN=	5.9557	MAX=	6.875	MEAN=	6.39644	VAR=	5.66538E-2