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DEPARTMENT OF ENERGY AND MINES

MINERAL RESOURCES DIVISION

ECONOMIC GEOLOGY REPORT ER79-7

SPHAGNUM BOGS IN SOUTHERN MANITOBA AND THEIR IDENTIFICATION BY REMOTE SENSING

by
B.B. Bannatyne

1980

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MANITOBA
DEPARTMENT OF ENERGY AND MINES

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INTRODUCTION

This report presents results of a survey of selected bog areas in southern Manitoba to evaluate their potential for commercial development of *Sphagnum* peat moss. Many previously unreported bogs, containing large reserves of good quality *Sphagnum* peat moss, have been identified. The project was carried out under the Canada-Manitoba Mineral Exploration and Development Agreement.

Three bogs in southeastern Manitoba have been developed for commercial production of *Sphagnum* moss. Between 31 000 and 39 000 tonnes of moss valued at $2,600,000 to $3,700,000 are produced annually.

PREVIOUS WORK

Early surveys by Anrep (1912), Leverin (1946), and Cameron (1951) reported the composition of some accessible bog areas. A more detailed survey of southeastern Manitoba, based on a consultant's recommendations following a study of black and white aerial photographs, was reported by Bannatyne (1964), but only a few areas with *Sphagnum* moss were located. The Canada-Manitoba Soil Survey has mapped most of southern Manitoba, indicating areas of organic soil, particularly in southeastern Manitoba and Lac du Bonnet areas; more recent reports contain a detailed classification of the organic soils in the Washow Bay-Red Rose area and in the Roseau River area (Soils Reports 14, 15, and 19, and Monograph 17 respectively).

REMOTE SENSING

Examination of early LANDSAT-1 (ERTS) images in 1972 indicated different types of organic soils could be distinguished using remote sensing methods. Although bog areas can be differentiated from fens and marshes, manipulation of the images by various procedures in 1974 did not give data with sufficient precision for establishing a field work program. However, some larger *Sphagnum* bogs are identifiable on LANDSAT images.

The reader is referred to the booklet "Eye in the Sky — Introduction to Remote Sensing" by D. Harper (1976) for a discussion on remote sensing principles and methods.

C. Tarnocai (1972), using various film and filter combinations, assessed the value of conventional aerial photography and newer methods of remote sensing in mapping organic terrain and concluded that areas of *Sphagnum* moss could be identified best by using infrared photography. His personal advice was helpful in applying remote sensing methods to identification of *Sphagnum* bogs in southeastern Manitoba. Colour infrared film is sensitive to differences in the reflected energy from different types of vegetation. The *Sphagnum-Carex* association has a distinctive, prominent signature (Tarnocai, 1972), and can be differentiated easily from other vegetation associations.

As the first step in the present study, infrared photographs of southeastern Manitoba from Townships 1 to 19, and from Ranges 8E to 17E were taken on July 27, 1975, from a Falcon fan jet at an altitude of 11 000 m. A Wild RC-10 camera, Aerochrome Infrared film type 2443, and a 545-4.4x filter were used. A total of 790 line-kilometres was flown in 9 east-west lines. The photos are A37204, 001 to 125. (Other filters and photographs taken in other seasons may be useful in the detection of *Sphagnum* bogs. E.g., *Sphagnum* bogs are easily identifiable on infrared photographs taken November 6, 1974 of the Winnipeg area, extending eastward to Whitemouth River. A similar camera and film were used but with a Pan 520-3.3 AV filter. See flight roll A37129 IR, 6046 to 6104).

In the thermal infrared region, extending from 3 to 14 microns, the energy emitted by various types of vegetation can be measured. It is dependent both on the reflectance (related to the ground temperature of the plant) and on the emissivity (the readiness with which the plant will give up its heat by radiation). It is mainly the difference in emissivity that helps to distinguish types of vegetation in the thermal infrared regions.

A Daedalus sensor, used as a thermal infrared scanner, obtained a 127 mm and a bi-format 70 mm negative film output. The former recorded the response in the 8 to 14 micron range, and the latter in both the 3 to 5 micron and 8 to 14 micron range. These thermal data were obtained at the same time as the infrared photography, between 1435 and 1842 hours GMT, on July 27, 1975. In the 3 to 5 micron range, reflectance and emissivity both contribute to the radiant energy. In the 8 to 14 micron range, thermal emission is very high and reflectance is very low. For example, treeless peat plateaus will show a warm or light-toned signature, and a black spruce forest will be cooler or dark coloured. Manipulation and thermal slicing of the images can be useful in identifying *Sphagnum* bogs (Bannatyne, in press).

In addition, four Vinten cameras recorded images in band 6 (700 to 800 nanometres), band 5 (600-700nm), band 4 (500-600nm) and natural colour through a haze filter (HF3).

The infrared positive transparencies were examined on a Zeiss/Jena Interpretoscope. Initially, more than 30 target areas were selected in southeastern Manitoba. Subsequent ground truthing showed each of these areas had a more or less continuous surface growth of *Sphagnum* moss. Additional bog areas were selected for sampling based on both the infrared photography and previous reports of peat bogs (mainly Anrep, 1912).

FIELD WORK

The selected bog areas were sampled in 1976 and 1977. In addition to the work in southeastern Manitoba, some bogs in the Washow Bay area north of Riverton were sampled. Soils Report No. 19 (Smith et al., 1975), for the Red Rose-Washow Bay area showed 236,042 acres (955.26 km^2) underlain by the Julius Soils complex, consisting of thick deposits of peat moss. Following examination of conventional and natural colour aerial photographs, 12 bogs within the Julius complex were selected for sampling.

Samples were obtained from 286 sites in 50 bogs in 1976, and from 10 sites in 9 bogs in 1977.

A Hiller-type peat sampler (Djos Beus and Mattson Type II from Borros AB, Solna, Sweden) was used and samples were recovered at half-metre intervals to the bottom of the bog. Access was made from roads where possible, and by helicopter to the more remote sites.

ACKNOWLEDGEMENTS

Capable field assistance was given by Jim Lintott, Gary Pastushok and Hugh Rutherford, all students in botany, University of Manitoba, and by Ron Spokes, University of Winnipeg. The writer is indebted to them for most of the botanical identifications included in this report. The 1977 samples were collected with the assistance of David Parbery, a student at the University of Manitoba.

Permission to sample the bogs currently in production was kindly granted by D. Biglow, Manager for Manitoba Operations of Western Peat Moss Ltd. and by R. Warne, Plant Manager of Evergreen Peat and Fertilizer Ltd. in 1976.

Much of the laboratory work was done by Susan Wickstrom, a student of botany at the University of Manitoba, and by the writer. Many moisture content, ash and pH determinations were made by D. Snuggs and T. Somers of the Mineral Resources Division Geochemical Laboratory. The Grain Research Laboratory of the Canadian Grain Commission kindly consented to analyse 50 selected samples for nitrogen. An additional 74 nitrogen analyses were made by National Testing Laboratories Ltd., Winnipeg.

All the maps and profiles were drafted by Doug Bagwell.

The infrared photography was subsidized by the Canada Centre for Remote Sensing, and was arranged through the Manitoba Remote Sensing Centre.

1A. View to southeast across the Caribou South bog, showing marginal fens, light-toned Sphagnum-Carex areas, and treed Sphagnum bog with a Carex-Sphagnum surface drain immediately east of the lake that is 250 m in diameter.

1B. A predominantly open Sphagnum area in the Caribou South bog (site CS-65) with clumps of Eriophorum, ericaceous shrubs, and scattered, stunted Picea mariana; the depth of the bog is 4.2 m.

1C. Sampling of a moderately to densely treed bog (site NJ-208), where the dense shrub growth (Ledum-Chamaedaphne-Kalmia) obscures the continuous surface cover of Sphagnum; the depth of the bog is 4.1 m.

*PLATE **1.** Sphagnum bogs in southeastern Manitoba.*

SPHAGNUM PEAT AND THE PEAT MOSS INDUSTRY

SPHAGNUM BOGS

Sphagnum mosses have their most prolific growth in raised bogs (domed, ombrotrophic[1] bogs or peat plateaus). The typical raised bog has a black spruce-*Sphagnum*-ericaceous shrub[2] growth in the crestal parts, open *Sphagnum* heaths with scattered stunted spruce on its slopes, and *Sphagnum* mixed with *Carex* and supporting some stunted tamarack along areas where run-off from rainfall and snowmelt occurs. These bogs have a distinctive appearance, particularly on infrared photographs, but also on black and white photographs if a characteristic vegetation pattern, such as radial growth of trees, is well developed.

Peat bogs are discrete physiographic areas in which organic remains, in a humified to unhumified state, have accumulated. The site may have been originally a depression which became filled with plant remains, or the peat may occur in an area isolated from through drainage in which growth of *Sphagnum* moss has resulted in a convex or raised bog surface. Bogs are to be distinguished from 1) fens, open wetlands in which the water table is at the surface for much of the year, through which nutrient-rich water can flow and which are dominated by reeds, sedge, and grass, with *Sphagnum* in places; the underlying peat may be shallow to deep, and may be completely to partially decomposed; 2) swamps, forested wetlands underlain by peat; and 3) marshes, grassy wet areas having water as much as one or two metres deep, and only a small accumulation of peat. Various transitional types of bogs and fens are described by Heinselman (1970) and others.

Vegetation in the peat bogs consists of a surface growth of *Sphagnum* peat, and in most parts a moderate to dense growth of ericaceous shrubs. Sedge may be locally present in shallower parts, and tree growth ranges from isolated, stunted individuals to fairly dense forest growth, primarily of black spruce and some tamarack. A wide variation occurs in the composition of the surface growth, and in the depth and composition of the accumulated peat. The variations are related to the physiographic setting, and to the vegetation history of the bog. For example, small isolated *Sphagnum* bogs may develop in what were originally depressions in a physiographically elevated area. The vegetation may consist of a lower, completely decomposed organic soil layer, a layer of reed and sedge peat, possibly some forest peat, and an upper layer of dead, undecomposed *Sphagnum*. In some bogs, *Sphagnum* is the dominant vegetation from bottom to top, with only a thin layer of decomposed organics at the base.

Tarnocai (1970) has proposed a classification of peat landforms in Manitoba, and Zoltai et al. (1972, 1976) have proposed a classification of organic soils for Canada. Their "provisional and incomplete key to bogs" is included here as Table 1.

[1]Ombrotrophic bogs (Heinselman, 1970) are acidic peatlands, usually with convex surfaces, that depend upon precipitation for water and minerals.

[2]The commonest shrubs are generally *Ledum*, *Chamaedaphne* and *Kalmia* in various combinations, with *Andromeda* in places. (See Appendix 2, Table 8, for botanical and common names of bog vegetation).

TABLE 1 PROVISIONAL AND INCOMPLETE KEY TO BOGS (from Zoltai et al., 1972)

	TYPE
1. Surface not raised above surrounding terrain	
2. Surface concave — bowl bog	Bowl bog
2. Surface relatively level	
3. With abrupt marginal walls in permafrost terrain	Collapse bog
3. Without marginal walls	
4. With small sink pools	Sinkhole bog
4. Without sink pools	
5. Adjacent to water bodies	
6. Floating	Floating bog (includes Floating Island bog)
6. Not floating	Shore bog
5. Not adjacent to water	Flat bog
1. Surface raised or appreciably sloping	
7. Surface level to irregular, but not conspicuously domed or sloping	
8. With frozen core	
9. With network of polygonal figures	Polygonal peat plateau
9. Without fissures	
10. Without thaw pockets	Peat plateau
10. With oval or irregular thaw pockets	Thermokarst peat plateau
8. Without frozen core	Bog plateau
7. Surface domed or sloping	
11. Abruptly domed, usually in a fen matrix	
12. Frozen core	Palsa bog
12. Without frozen core	Peat mound bog
11. Gently domed, sloping, or with a "stepped" surface	
13. Topographically extensive	Blanket bog (includes slope bogs)
13. Topographically confined, usually with central pools and/or marginal wet troughs (flarks) and a marginal fen (lagg)	Raised bog

TABLE 2 VARIOUS PHYSIOGRAPHIC SETTINGS OF *SPHAGNUM* PEAT BOGS

Physiographic setting	Example
Drainage divide originating in organic soil complex	Middlebro bog
Height of land between watersheds, localized depression	Medika bog
Down slope from regional height of land	Poplar Creek bog
Down slope from regional height of land, with restricted drainage	Caribou cluster
Upward growth of *Sphagnum* resulting in a drainage divide, or formed along a drainage divide	North Julius bog
Large island-like raised bog surrounded by creeks	St. Labre bog
Isolated raised bog within regional organics	North Moose Lake bog in Washow Bay area
Areas peripheral to shallow organics	Northeast Elma bog
Isolated bog (probable infilling of a lake)	Southwest Elma bog
Bog area between rock ridges	St. George bog
Floating mat of *Sphagnum* moss, between rock ridges	Pointe du Bois bog

PHYSIOGRAPHIC SETTING

In Manitoba, bogs generally overlie glacial till that in places is covered by glacial sediments (clay, silt or gravel) or interrupted by bedrock outcrops. Southeastern Manitoba is underlain mainly by hummocky ground moraine and end moraine with a thin veneer of glacial lake clay and some alluvium. All the bogs are in the Precambrian Shield area except the Giroux bog, where Paleozoic carbonate rocks form the bedrock. Prominent beach ridges such as the Campbell Beach have been an important factor in restricting drainage in some areas, but have also supplied a means of access through the area (e.g. East Braintree — Moose Lake Road, Provincial Road No. 308).

In the Washow Bay area, north of Riverton, the bogs have formed on the irregular surface of the Interlake Till Plain, through which some outcrops of Ordovician dolomite protrude.

The *Sphagnum* bogs known from southern Manitoba were observed in various physiographic settings (Table 2).

THE PEAT MOSS INDUSTRY IN MANITOBA

The peat moss industry is described in numerous publications. The proceedings of a seminar on peat, sponsored by the Plant Science Department, University of Manitoba (Campbell, 1975) contains papers by Dunfield (1975) on methods of harvesting peat moss, and by Bannatyne (1975) on the history of the peat moss industry in Manitoba, as well as other papers of related interest. A report by Hunter (1975) on the wetlands and peatlands resources of New Brunswick contains a section on properties, harvesting methods and uses of peat moss. Recent advances in research, technology, and uses for peat are discussed in the proceedings of five International Peat Congresses (1954, 1963, 1968, 1972 and 1976) and by Ruel et al. (1977).

Production of peat moss in Manitoba began in 1941 from the Julius bog. In 1969, production began from the Medika or "Elma" bog, and in 1973, from the Evergreen bog. Production for the period from 1964 to 1978 is listed in Table 3. All three bogs are currently operated by Western Peat Moss Ltd. Recent changes in the peat moss industry in Manitoba are described in this report in the sections on the Medika, Julius, and Evergreen bogs. Clearing of the North Julius bog by Western Peat Moss Ltd. began in January, 1978; the bog was identified in the present survey.

More than 90 per cent of current production consists of peat moss for horticultural uses, primarily for the export market. Some poultry and stable litter are produced also, and a small amount of moss has a specialized market (e.g. smoking of whiskey malt). The natural market is the Central Plains of United States and Canada, although shipments in semi-trailers returning to such states as California, Mississippi and Ohio are extending the marketing area.

Some recent uses for peat moss are in compressed and fertilized peat pots, as an absorbent for oil from polluted beaches and waters, in mixtures with cement or resins for construction material, as a potential binder in pelletization of iron ore and as a filtering agent for treatment of certain industrial wastes. Manitoba peat moss has not been used extensively for these purposes.

The bogs discussed in this report are evaluated primarily for their horticultural moss potential and not as a source of fuel peat, for which humified peat, either of *Sphagnum* or reed and sedge type, is preferred because of its higher calorific value. Unhumified *Sphagnum* moss should be conserved for use in its specialized markets, and should not be used as a source of fuel or fuel products; its low bulk density and comparatively low heating value make it unsuitable for direct use as a fuel.

CALCULATION OF RESERVES IN PLACE AND POTENTIAL PRODUCTION

Numerous figures on the amount of peat in place required to yield a specified quantity of product have been published, but for purposes of reserve calculations in this report, the figures used in R. Bruce Graham and Associates Ltd. (1978) are judged to be most likely applicable to the Manitoba bogs, and are summarized below.

The calculations are based on the assumption that peat moss from an undrained *Sphagnum* bog of good quality will have an average dry weight of 0.06 gm/cc. Following drainage of the bog and drying to a moisture content of 40 per cent (a realistic value for most Canadian production using the vacuum milling method of harvesting), the shrinkage of the moss will be 50 per cent.

"This moss by calculation will have a bulk density of 0.2 gm/cc . . . the moss will weigh 200 kg/m^3 or 12.5 lbs. per cubic foot.

When passed through the shredder the moss is fluffed up and the uncompacted volume is greater than the moss in place. The moss is then bagged, a 6 cubic foot bale (0.17 m^3) usually weighing between 70 lbs (32 kg) and 100 lbs (45 kg) depending on the quality of moss and the moisture content. To achieve this weight the moss is generally compressed at 2:1 ratio after shredding. Assuming 40% moisture content and an average weight of 80 lbs (36.3 kgs) for a 6 cu. ft. bale, 80 lbs. of baled moss will equate to 6.4 cu. ft. of moss in place of 40% moisture content. Since the moss will shrink 50% on drying to 40% moisture, the amount of moss required for a bale in a virgin bog will be 12.8 cu. ft." (R. Bruce Graham and Associates Ltd., 1978).

Manitoba production to date has been recorded in short tons. Using the above values, a ton of product would consist of 25 bales, and would require 160 cu. ft. of moss dried to 40 per cent moisture content or 320 cu. ft. (9.0624 m^3) of moss in place in a virgin bog. In metric units, *1 tonne of product would require* 1.10231 x 9.0624 m^3 or *10 m^3 of moss in place.*

One km^2 (100 hectares) of bog with a recoverable layer of moss 1 m thick would yield, with 100 per cent recovery, sufficient moss for about 100 000 tonnes of product (which would be equivalent to 2,755,000 bales of compressed peat in 6 cu. ft. bales weighing 80 lbs. each).

RELEVANCE OF THE PRESENT SURVEY

In this survey, an attempt has been made to determine the size of each sampled bog, the quality of the moss, its depth and potential reserves. The field work and analyses have confirmed the presence of large deposits of *Sphagnum* moss. However, a detailed survey of each bog has not been attempted.

Before production could be considered, several other factors outside the scope of this report require evaluation. These are primarily:

a) facility of draining the bog;
b) removal of surface growth, in some cases involving a moderate to dense tree cover;
c) method of recovery, essentially to determine if the economical vacuum milling method can be employed;
d) provision for a plant site;
e) transportation facilities;
f) availability of a local labor force;
g) markets for the product, and competition from Manitoba and other sources.

It should be mentioned that other *Sphagnum* bogs are present in southeastern Manitoba — some previously surveyed (see Bannatyne, 1964), some noted during the present survey but not sampled, some suspected bogs noted in a recent re-examination of the infrared photographs, and probably some bogs that are not evident or have been overlooked in the photo-interpretation. As for the Washow Bay area, only a few selected sites have been sampled to assess the potential occurrence of high quality *Sphagnum* moss.

TABLE 3 PEAT MOSS PRODUCTION IN MANITOBA

Year	Short Tons	Tonnes	Value*	Value/ton	Value/tonne
1941-1963	145,764	132 234	$5,705,111	—	—
1964	28,083	25 476	1,285,016	$45.76	$50.44
1965	21,764	19 744	1,275,439	58.60	64.40
1966	20,464	18 565	518,195	25.32	27.91
1967	19,516	17 705	518,080	26.55	29.26
1968	19,407	17 606	425,482	21.92	24.17
1969	15,800	14 333	474,792	30.05	33.13
1970	14,885	13 503	440,588	29.66	32.63
1971	24,478	22 206	842,435	34.42	37.94
1972	26,701	24 227	1,001,191	37.50	41.33
1973	29,057	26 360	1,381,940	47.56	52.43
1974	20,463	18 564	1,176,001	57.47	63.35
1975	35,734	32 417	2,497,650	69.90	77.05
1976	34,185	31 012	2,684,454	78.53	86.56
1977	43,400	39 372	3,698,580	85.22	93.94
1978	45,000(p)	41 000(p)	3,825,000(p)	—	—

*Selling value, F.O.B. plant site, exclusive of value of containers.

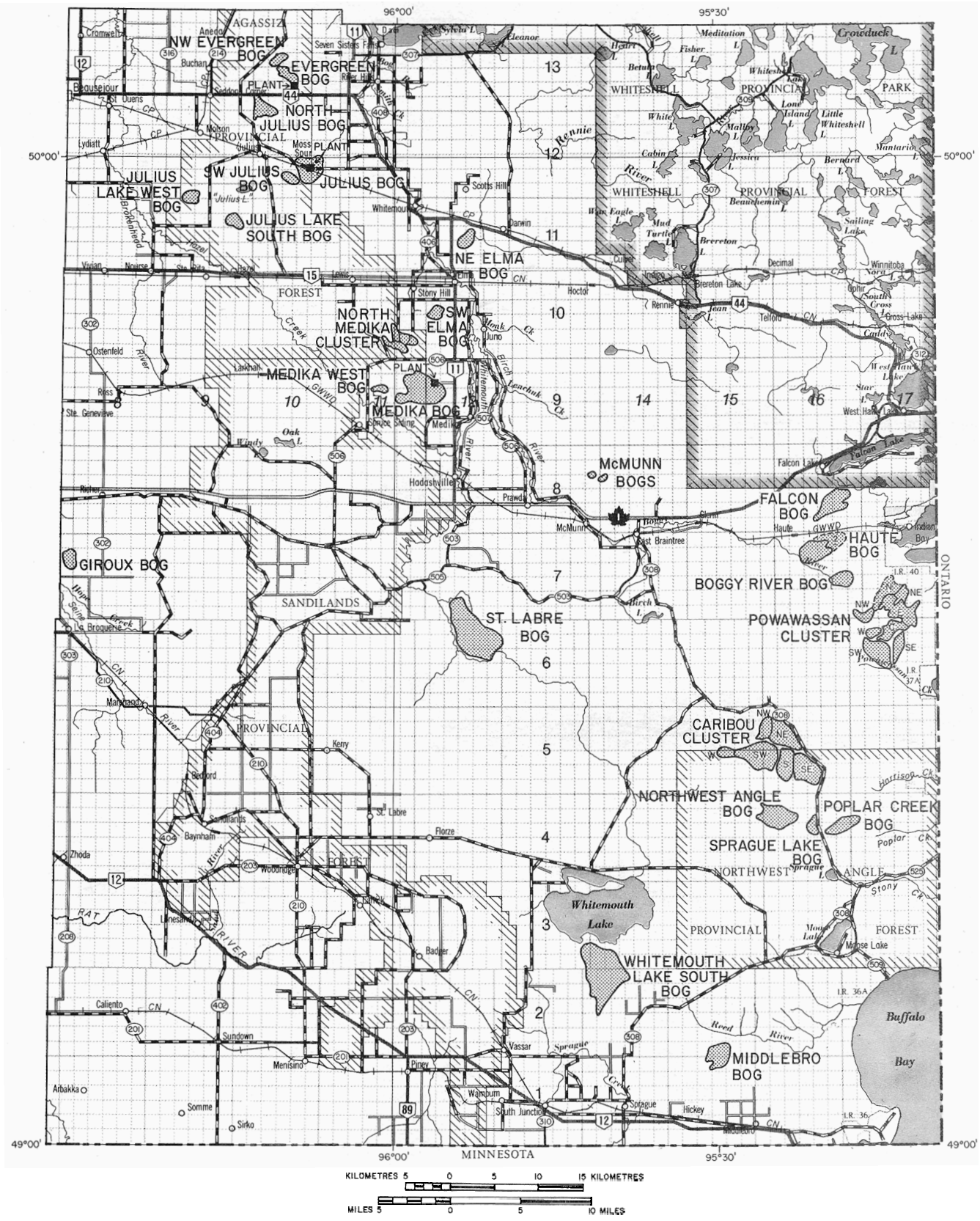


FIGURE 1: Location of sampled bogs in southeastern Manitoba.

SPHAGNUM BOGS IN SOUTHEASTERN MANITOBA

The area considered is townships 1 to 13, ranges 7 to 17 EPM, and the sampled bogs are shown in Figure 1. Access to the area is good, provided by highways 14, 1 and 12, by four railways (CN and CP main lines, GWWD railway, and CN Sprague line), and numerous secondary and forestry roads. However, many bogs in the area are inaccessible for sampling except by helicopter.

A reconnaissance survey of 36 bogs, with a combined area of 147.9 km^2 (36,539 acres) outlined an estimated total of more than 217 000 000 m^3 of *Sphagnum* peat moss, equivalent to about 21 700 000 tonnes of product (excluding the Elma and Julius bogs, but including the Evergreen bog). The results are summarized in Table 4. Only the upper unhumified layers, consisting of 75 to 100 per cent *Sphagnum*, are considered for each bog, but note "% *Sphagnum*" column for a few exceptions.

MIDDLEBRO BOG (REMOTE SENSING PHOTO A37204-031)

The Middlebro bog is a well defined raised bog of the drainage-divide type. Reed River, north of the bog, drains eastward to Lake of the Woods, and the Sprague bog to the west drains southwestward into the Mud River-Sprague River-Roseau River system. A domed and more densely treed axial part of the bog marks the drainage divide (Fig. 2). Mills et al. (1977) published a profile of the bog, details of vegetation, and morphological, physical and chemical analyses at selected sites.

Four sampling sites, MID-1 to MID-4 are located near the trail which crosses the bog from southwest to northeast. Results of laboratory analyses of the samples are listed in Appendix 1. The surface vegetation at each site is listed in Appendix 2. The bog surface consists of a continuous, slightly hummocky layer of *Sphagnum* moss, with a moderately dense growth of black spruce in the axial domed part (*Picea mariana — Ledum — Chamaedaphne* association) and a more open black spruce growth on the flanking plateau (*Picea mariana — Chamaedaphne — Kalmia* association).

The central domed part is underlain by 2 m of undecomposed peat, consisting 80 to 95 per cent of *Sphagnum*, mixed with some sedge and a few woody fragments. Absorptive value averages 17 (23 dry)[1]. This layer is underlain by 0.5 m of mesic *Sphagnum*-sedge peat with absorptive value of 11.5 (15.7 dry). A 0.2 m layer of humified peat overlies the basal clay.

In the plateau portion of the bog, the upper 0.5 m layer is composed of *Sphagnum*. The interval from 0.5 to 2 m, at the two sampled sites, ranged from 30 to 75 per cent *Sphagnum*, mixed with 10 to 37 per cent sedge. Absorptive value averages 15 (20 dry). The lowest 0.4 to 0.5 m layer is humified.

The total area of the raised bog is 1360 acres (5.5 km^2). Estimated volume of the high quality *Sphagnum* moss in the 400 acres of the domed part of the bog, to a depth of 2 m is 3 240 000 m^3 of peat, equivalent to 324 000 tonnes of product. The 960 acres (3.88 km^2) of the plateau part, to a depth of 1.5 m, contains an estimated 5 830 000 m^3 of mixed *Sphagnum*-sedge peat, equivalent to 583 000 tonnes of product, but quality may not be suitable for the export market.

Profiles showing the surface elevation, dominant vegetation, and depth and composition of the peat are shown in Mills et al. (1977, cross section C-C' and Profile No. S55). Results from the present survey are shown in Figure 3.

More detailed sampling would be necessary to determine if better quality peat occurs under the plateau parts of the bog. The occurrence of the submarginal quality *Sphagnum*-sedge peat, as shown in the reconnaissance sampling, may have an adverse effect on the development potential of the Middlebro bog.

WHITEMOUTH LAKE SOUTH BOG (R.S. PHOTO A37204-032)

A large area of organic soils, covering some 7,000 acres (28.33 km^2), extends southwards from Whitemouth Lake with maximum dimensions of 11.7 km north-south, and 6.1 km east-west. The area can be divided into 2300 acres (9.31 km^2) of raised bog in Township 3, and 3000 acres (12.14 km^2) of raised bog and bog drain in Township 2. Lowland swamp and transitional bog along the eastern margin cover 1,700 acres (6.88 km^2).

Access to the bog is difficult both by land and, because of widespread stunted tree growth, by helicopter. Landing sites were located mainly in the southern *Sphagnum*-drain area, with the exception of one site in a clearing near the top of the domed portion of the bog (WLS-12). Thus the better, treed part of the bog remains largely unsampled.

The *Sphagnum* moss has accumulated in this area as it forms a drainage divide. The part in Township 3 drains northward into Whitemouth Lake, the part in Township 2 drains southward into Sprague River, and a domed bog ridge extends along the western part of the bog (Fig. 4) which drains to the west.

Analyses of samples are listed in Appendix 1 (sampling sites WLS-5 to WLS-12), and surface vegetation in Appendix 2.

Although the bog has a more or less continuous growth of *Sphagnum* moss on the surface, the analyses show that the dead moss consists of a mixed *Sphagnum*-sedge peat. *Sphagnum* content ranges from 70 to 20 per cent with a corresponding sedge content of 10 to 50 per cent. The estimated volume of mixed *Sphagnum*-sedge peat in the domed parts and the *Sphagnum* drain to the south is 40 775 000 m^3, equivalent to 4 077 500 tonnes of product. However, this is a slightly decomposed mixed *Sphagnum*-sedge peat, and is not an export grade of *Sphagnum* moss.

The volumes in different parts of the bog are estimated as 3,000 acres (12.14 km^2) of domed bog, average depth 2.1 m, volume 25 500 000 m^3 with absorptive value of 14 (19 dry); 1,000 acres (4.05 km^2) in the southern drain, average depth 1.5 m, volume 6 075 000 m^3 with absorptive value of 11 (15 dry); and 1,300 acres (5.26 km^2) in the northern plateau, average depth 1.75 m, volume 9 200 000 m^3, with an estimated absorptive value of 13 (17.7 dry). The swampy area to the east of the bog may contain an additional 10 325 000 m^3 with low absorptive value, not included in the estimated total.

Cross sections through the bog are shown in Mills et al. (1977, Cross section A — A', and in Profile SJ6, p. 47). Results of the present survey are shown in Figure 3.

POPLAR CREEK BOG (R.S. PHOTO A37204-050)

The Poplar Creek bog is an elongated sloping bog 5 km long and 1.3 km wide extending northeasterly from the Campbell beach ridge (P.R. 308). The topographic map indicates a decrease in elevation of about 15 m from west to east across the bog (Fig. 5). Regional drainage is to the east, through Poplar Creek, to Lake of the Woods. The bog has a semi-open to moderately dense tree cover, as do the surrounding areas, and the only landing site for a Jet Ranger helicopter was found in a small swampy clearing on the south side of the bog.

The eastern half of the bog appeared from the air to be a good *Sphagnum* bog with a growth of scattered stunted spruce, but was not sampled. The one sampled location is in an anomalous area, possibly over a buried glacial beach ridge, in the western half of the bog. That sample showed 1.5 m of slightly humified *Sphagnum* peat mixed with 20 per cent reed and sedge peat, overlying 0.6 m of mesic mixed peat.

[1]The absorptive value quoted, e.g. 17, is that calculated for the standard 25 per cent moisture basis. The value in brackets, e.g. 23, is that determined on a dry basis. Individual absorptive values are listed in Appendix 1.

TABLE 4 SUMMARY OF POTENTIAL RESERVES OF PEAT MOSS IN SAMPLED BOGS OF SOUTHEASTERN MANITOBA

SPHAGNUM PEAT MOSS[1]

Bog		Area acres	Area km²	Average depth in m.	Volume million m³	Thousands of tonnes of product	Average absorptive value: 25% (dry)	% *Sphagnum*	Notes
Middlebro	a)	400	1.62	2	3.24	324	17(23)	80-95	dome
	b)	960	3.88	1.5	5.83	583*	15(20)	60-95	plateau
Whitemouth	a)	3000	12.14	2.1	25.5		14(19)	25-50	dome
Lake South	b)	1000	4.05	1.5	6.075	4078*	11(15)	5-40	southern drain
	c)	1300	5.26	1.75	9.2		13(17.7)	30-70	northern plateau
Poplar Creek		1050	4.25	1.5	6.38	?	?	?	untested in east
Sprague Lake		400	1.62	3.5	5.67	567	15.9(22.3)	av. 80	includes 0.5 m 50% *Sphagnum*
Northwest Angle		1540	6.23	2.25	14.0	1400	16.4(22.4)	75-90	
Caribou cluster									
Southeast	a)	2320	9.39	2.7	25.4	2540	18.4(24.8)	75-100	upper layer
	b)	(2320)	(9.39)	1.1	10.3	1030*	15.3(20.4)	50-60	lower layer
South	a)	960	3.88	3.5	13.6	1360	19.7(26.6)	80-100	central & western
	b)	320	1.29	2.0	2.6	260	22.5(30.3)	80-100	eastern edge
Southwest	a)	1780	7.20	2.8	20.2	2020	18(24.2)	80-100	upper layer
	b)	(1780)	(7.20)	1.7	12.3	1230*	15.6(21)	50-70	lower layer
Northeast	a)	760	3.08	1.8	5.54	554	18.8(25.4)	79-97	
	b)	730	2.95	2.5	7.4	740	19.1(25.7)	75-95	
	c)	370	1.50	2.3	3.45	345	18.7(25.2)	80-98	
Northwest		940	3.80	2.0	7.6	760	18.9(25.5)	80-100	more testing required
Powawassan bogs:									
Southwest		1850	7.49	1.5	10.8	108	20.3(27.9)	80-99	more testing required
Southeast		1100	4.45	1.0+	4.4	440	15.5(20.9)	90-100	per m of good moss
Central		940	3.80	1.0	3.8	380	18.8(25.4)	80-95	
West	a)	345	1.40	2.0	3.4	340	18(24.3)	90-100	upper layer
	b)	(345)	(1.40)	1.5	1.5	150*	16.7(22.6)	50-85	lower layer
Northwest		420	1.70	1.0+	1.7	170	17.3(23.3)	89	per m of good moss
East		340	1.38	2.0	2.6	260	18.5(25.0)	80-90	central ridge only
St. Labre		2000	8.09	2.0	16.2	1620	15(20.3)	75-99	southern dome
Giroux		450	1.82	2.0+	3.64	364	16.3(22.1)	75-88	one hole only
Boggy River		450	1.82	2.0+	3.64	364	15.2(20.7)	81-91	one hole only
Haute		1300	5.26	1.0+	5.26	536	15.4(21.2)	80	per m; one hole
Falcon		1000	4.05	2.0	8.1	810	17.9(23.8)	77-94	northeastern dome
McMunn		75	0.30	1.0	0.3	30	12.3(16.7)	74	one hole only
Medika (Elma)		3000	12.14	1.0+	12	1200	16.7(22.6)	92-96	per m
North Medika cluster		500	2.02	1.0	2	200	variable	variable	drained in part
Southwest Elma		345	1.40	1.5	2	200	16(21.6)	79-99	
Northeast Elma		600	2.43	1.75	4.25	425	15.6(20.9)	60-95	60-70% in 1 of 5 holes
Julius Lake South		450	1.82	1.5	2.7	270	22.8(30.4)	86-92	two holes only
Julius Lake West		450	1.82	2.0	3.64	364	18.1(24.5)	77-98	
Southwest Julius		470	1.90	1.75	3.3	330	16(21.7)	80-90	
Julius		946	3.83	3.0	13.2	1320	14.4(19.8)	90+	original, Anrep (1912)
North Julius	a)	300	1.21	1.25	1.5	150	16.8(22.7)	81-92	southwestern lobe
	b)	800	3.24	2.0+	6.5	650	18(24.3)	81-96	main part
Evergreen	a)	200	0.81	3.0	2.5	250	19.8(27)	87-100	central lobe
	b)	138	0.56	2.13	1.2	120	?	?	northwestern lobe (Leverin, 1946)
Northwest Evergreen		240	0.97	1.5	1.45	145	18.7(25.3)	85-100	

Note: 1 km² = 100 hectares

[1]Unless otherwise noted. The tonnages marked with asterisks are of mixed *Sphagnum*-sedge peat.

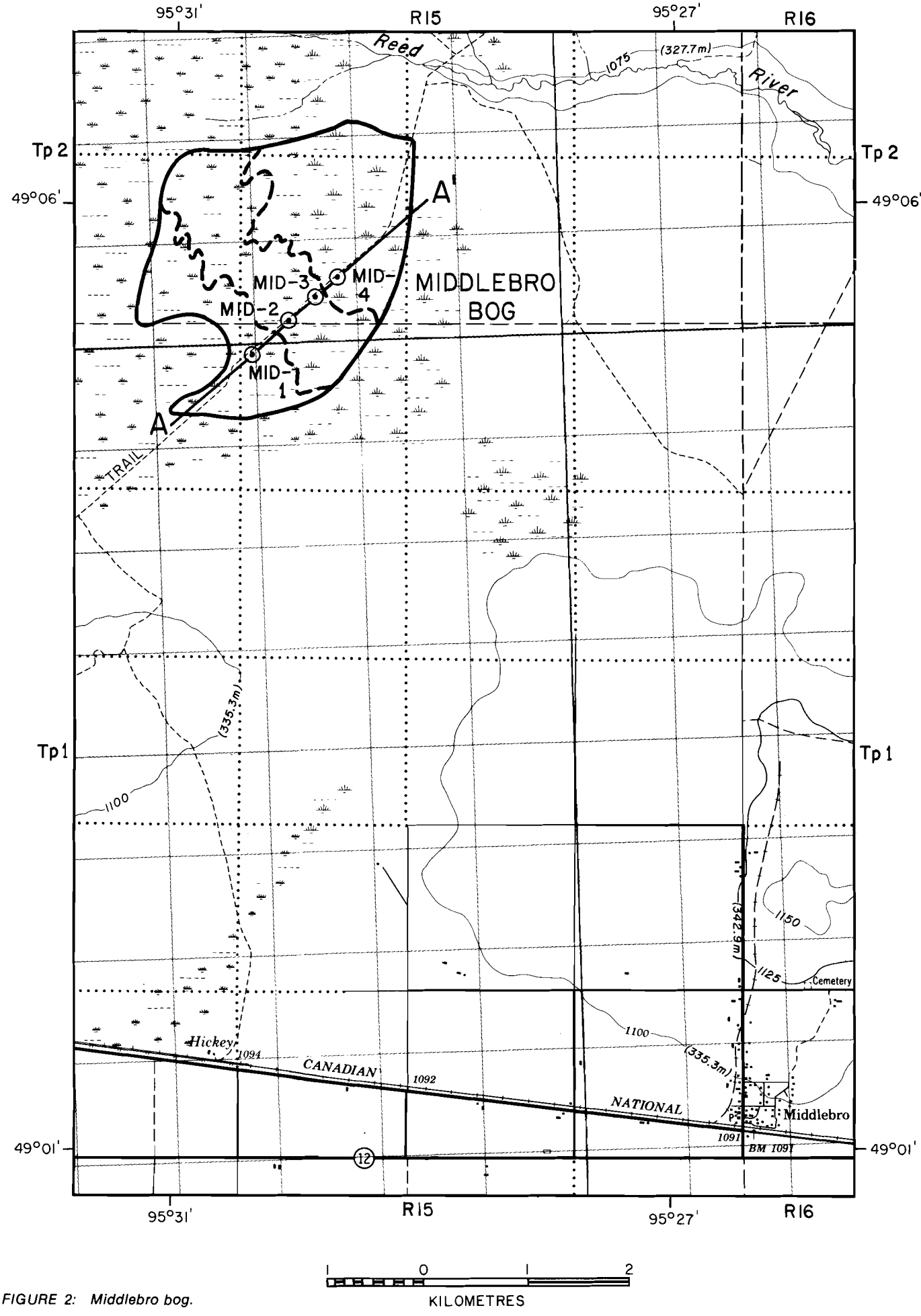


FIGURE 2: Middlebro bog.

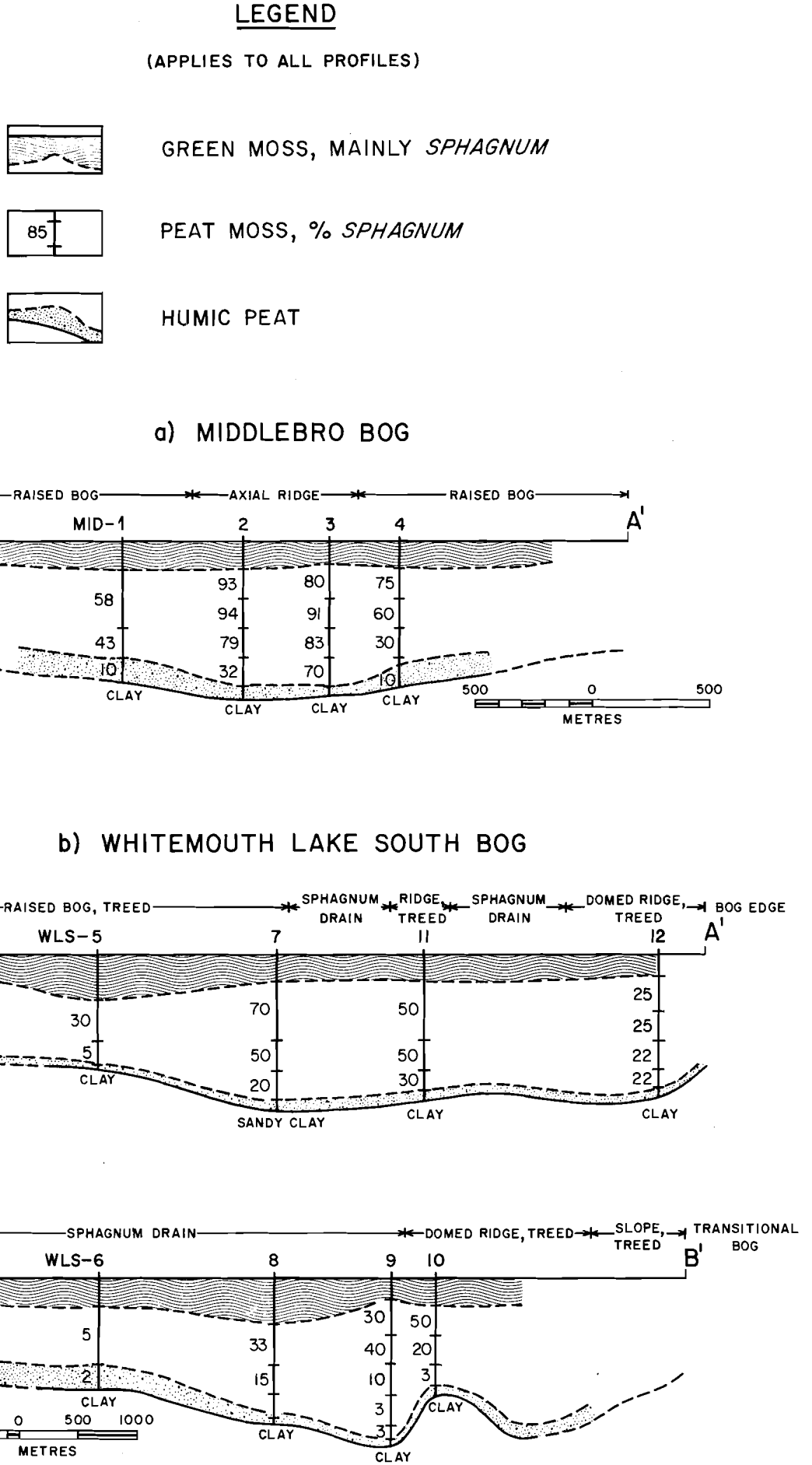


FIGURE 3: Profiles of Middlebro and Whitemouth Lake South bogs, showing percentage of Sphagnum.

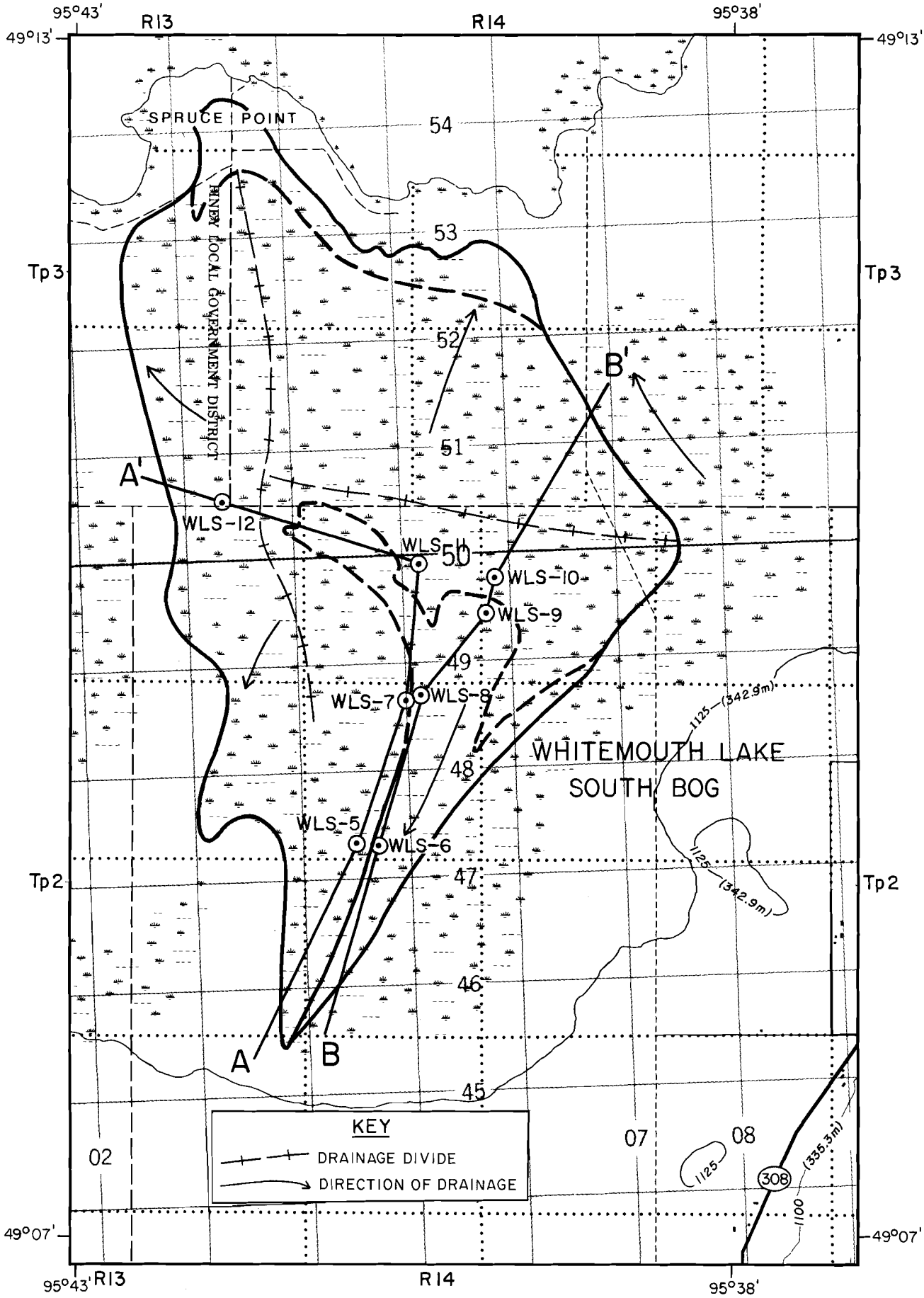


FIGURE 4: Whitemouth Lake South bog.

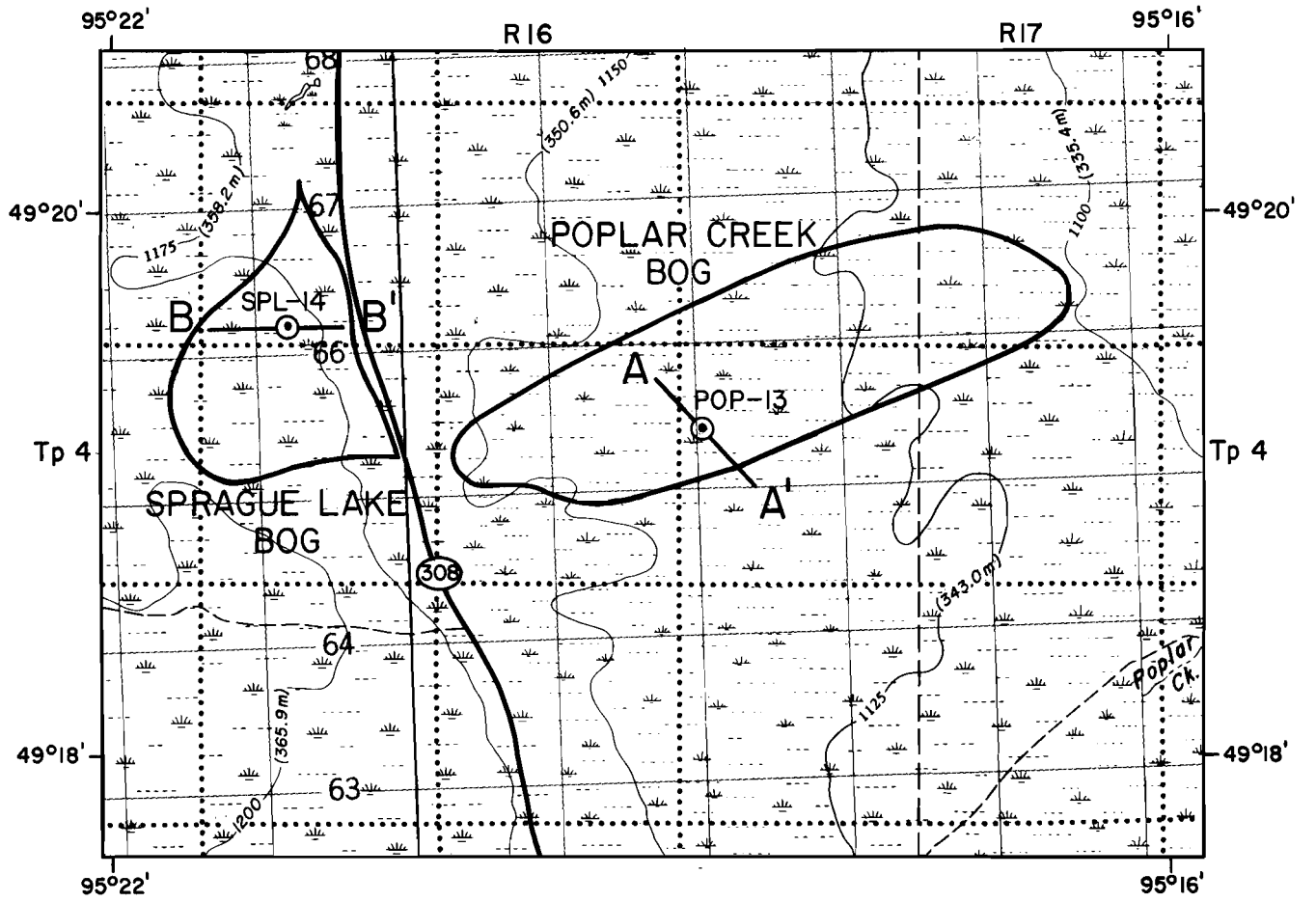


FIGURE 5: *Poplar Creek and Sprague Lake bogs.*

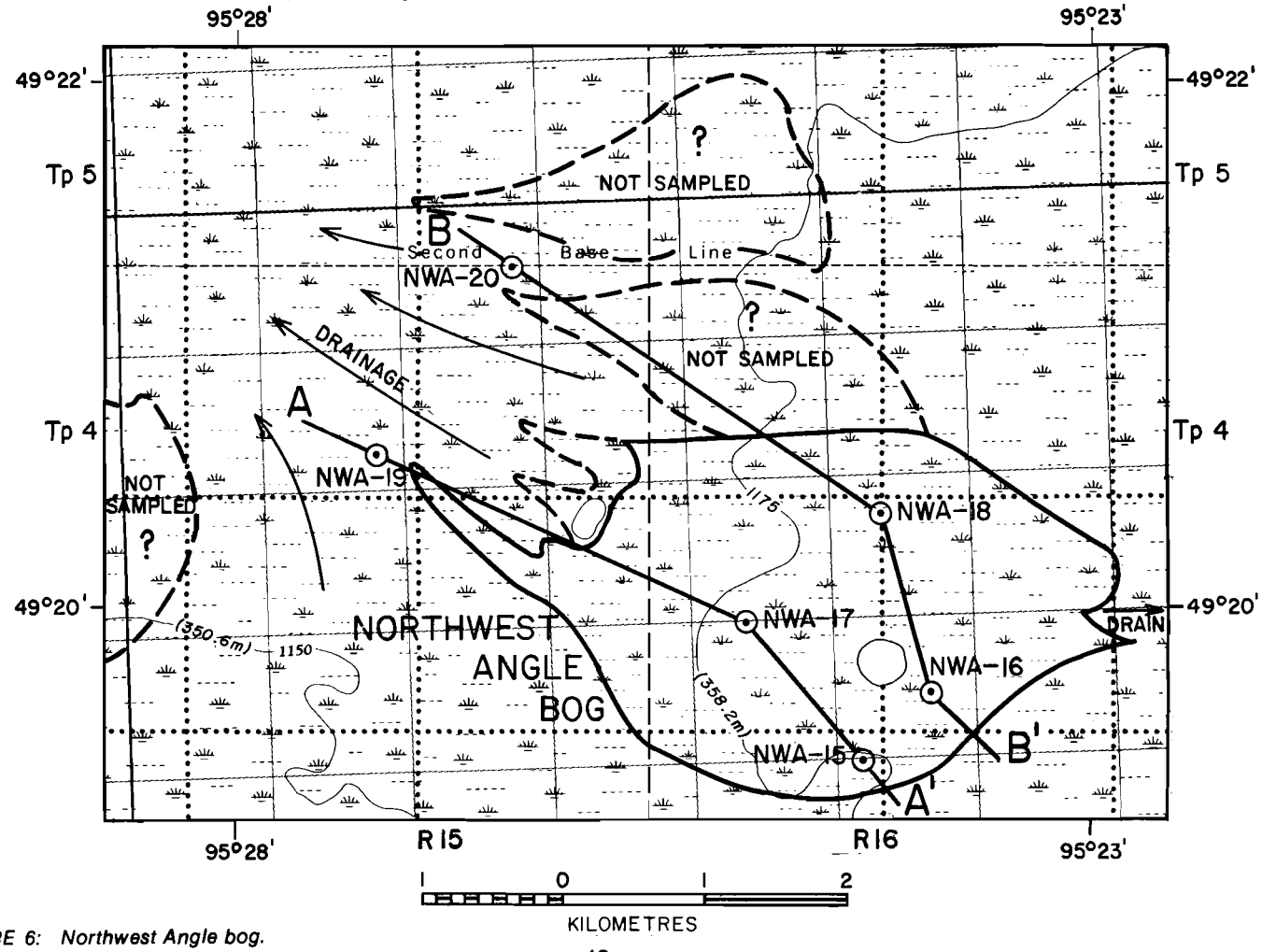


FIGURE 6: *Northwest Angle bog.*

As it is thought that the untested eastern half of the bog has a greater depth and better quality *Sphagnum* moss, estimates of volume and quality have not been made for this bog. However, peat sufficient for at least several hundred thousand tons of product could be expected in the eastern half of the bog, which is worthy of additional exploration.

SPRAGUE LAKE BOG (R.S. PHOTO A37204-49)

The Sprague Lake bog extends over 400 acres (1.62 km^2), immediately west of Provincial Road 308 (Fig. 5), 50 km by road from Sprague. It is a moderately to densely wooded bog, mainly black spruce and some tamarack; areas of open *Sphagnum* are present.

The bog is unusual in that it consists of layers of varied composition; for example, in hole SPL-14, the interval from 2.0 to 2.5 m consists of 40 per cent woody fragments and 50 per cent *Sphagnum*, with layers of good *Sphagnum* moss both above and below (see Appendix 1). These results correspond with previous samples from this bog taken closer to the road (Bannatyne, 1964, p. 17).

The bog is located on the northeastern slope of a topographic rise, and is bounded by the Campbell Beach ridge on its east side. Except for the layer of woody peat, the quality is generally good. The upper 3.5 m has an average absorptive value of 15.9 (22.3 dry), and the sedge content is low, ranging from 2 to 20 per cent. The bog is estimated to contain 5 670 000 m^3 of this material to a depth of 3.5 m, equivalent to 567 000 tonnes of product.

NORTHWEST ANGLE BOG (R.S. PHOTO A37204-49)

The main part of the Northwest Angle bog covers 1,540 acres (6.23 km^2). It occupies a height of land largely within the 358.2 m contour (Fig. 6). Drainage occurs both to the east and, mainly, to the west. Three other "satellite" *Sphagnum* areas are probably present, in 31-4-16E, 6-5-16E, and 27-4-15E, as shown in Figure 6, but these areas were not sampled.

The main bog area has a pond 335 m in diameter. The four sampled sites, NWA-15 to -18, indicate an upper layer composed 75 to 90 per cent of *Sphagnum*, ranging in thickness from 1.0 to 3.0 m. It is underlain by either a mixed *Sphagnum*-sedge layer, or by woody peat. The *Sphagnum* layer is partly humified (as much as 20 per cent in NWA-17), but has a high absorptive value of 16.4 (22.4 dry). Estimated volume of *Sphagnum* moss is 5 000 000 m^3 in the eastern 640 acres (2.59 km^2) and 9 000 000 m^3 in the western 900 acres (3.64 km^2), equivalent to a combined total of 1 400 000 tonnes of product. The variation from site to site suggests that more detailed sampling would be required to determine actual quantity of good moss (Figure 7).

The two samples taken to the west of the main bog were located in the "*Sphagnum* drain" area, which is swampy, as indicated by the vegetation (sites NWA-19 and -20, Appendix 2), and the underlying peat is a partly decomposed woody *Sphagnum*-sedge peat. The area is not included in tonnage estimates. As noted above, three other *Sphagnum* bogs may be present to the north and west. Their response on infrared photographs suggests a possible surface growth of *Sphagnum*, but additional sampling would be necessary to determine depth and quality of any moss that may be present.

THE CARIBOU CLUSTER OF BOGS (R.S. PHOTO A37204-055)

Several large, adjacent bogs occur 2 to 10 km south of the former Caribou forestry tower on the East Braintree — Moose Lake road, Provincial Road 308 (Fig. 8). The bogs cover a total of 39 km^2 in the western part of Township 5, Range 16 EPM, extending into the eastern central part of Township 5, Range 17 EPM. Several million tonnes of good quality *Sphagnum* moss, 1 to 5 m in depth occur within these bogs. Altogether 110 locations were sampled: sites 21 to 130.

The bog areas referred to as the Caribou cluster* occur mainly between the 343 m and 358 m contours, in a comparatively high part of the Whitemouth River Lowlands. This lowland area extends more than 50 km to the west, and is about 33 km wide, located south of the Trans-Canada Highway. Surficial organic deposits cover about 80 per cent of the area (Smith and Ehrlich, 1964, Fig. 5). The eastern boundary of the bog and lowland area is the Campbell Beach sand and gravel ridge formed in glacial Lake Agassiz. It forms a height of land, for the most part coincident with Provincial Road 308, that separates drainage eastward to Lake of the Woods and westward to Whitemouth River.

The Caribou cluster consists of four discrete bog areas in the southern part, separated by a low area of string fen, lakes and floating bog, from a large northern bog area consisting of coalescent sublobes, each with distinctive vegetation. The southern bogs are the Caribou Southeast, South, Southwest and West bogs. The northern part is divided into the Caribou Northwest and Northeast bogs. Because of the large quantity of high quality *Sphagnum* moss present in the Caribou cluster, the area was sampled in some detail, particularly the Caribou South bog.

CARIBOU SOUTHEAST BOG

Much of this large bog, covering 2,320 acres (9.39 km^2), is accessible from Provincial Road 308; the western parts were reached by helicopter. A variety of vegetation associations are present (Fig. 9). Although topographic surveys were not made, the vegetation pattern suggests a raised southern section, with drainage mainly to the north or northeast. An orange-toned response on the infrared photograph suggests sections of open *Sphagnum* in the northwestern part. The western two-thirds of the bog has more treed areas but also more open areas with *Carex* and *Eriophorum* and a greater thickness of *Sphagnum* moss (3 to 4 m). The eastern part has less tree cover, fewer *Carex* areas, and a thinner layer of good *Sphagnum* moss (1 to 3.5 m). The quality of the moss there is below average for the bog, the absorptive value for the upper layer being 16 (21 dry). One unusual open area extending about 100 m west from CSE-32 has growing *Sphagnum* plants so densely packed that the surface is virtually solid.

The results listed in Appendix 1 (CSE-21 to 47) indicate that the bog has a 2.7 m upper layer composed 75 to 100 per cent of *Sphagnum*, underlain by a 1.1 m layer of 50 to 60 per cent *Sphagnum* mixed with 20 per cent reed and sedge and 20 per cent humified material. The upper layer is estimated to contain 25.4 million m^3 of peat with an absorptive value of 18.4 (24.8 dry), equivalent to 2 540 000 tonnes of product. The absorptive value of the underlying layer is 15.3 (20.4 dry), and some of this material could be marketable. Its volume is estimated at 10 300 000 m^3, equivalent to 1 030 000 tonnes of product (Fig. 10).

The total estimated volume for the two layers is 35 700 000 m^3 in place, equivalent to about 3 570 000 tonnes of product. The peat throughout the bog has a low content of woody fragments, probably less than 3 per cent, and wood in the dead moss is virtually absent over large areas.

CARIBOU SOUTH BOG

The Caribou South bog contains large quantities of very good quality *Sphagnum* moss and is considered possibly the best bog

*The term "Caribou bog" has been applied to a bog area northeast of the Caribou forestry tower in part of Townships 6, Ranges 15 and 16 EPM (Johnston, 1921). It is of historical interest as the Dawson road traversed it. For lack of any other geographical names in the immediate area, the *Sphagnum* bogs described here are referred to as the "Caribou cluster". They have been used in this study as the type response of *Sphagnum* bogs to remote sensing.

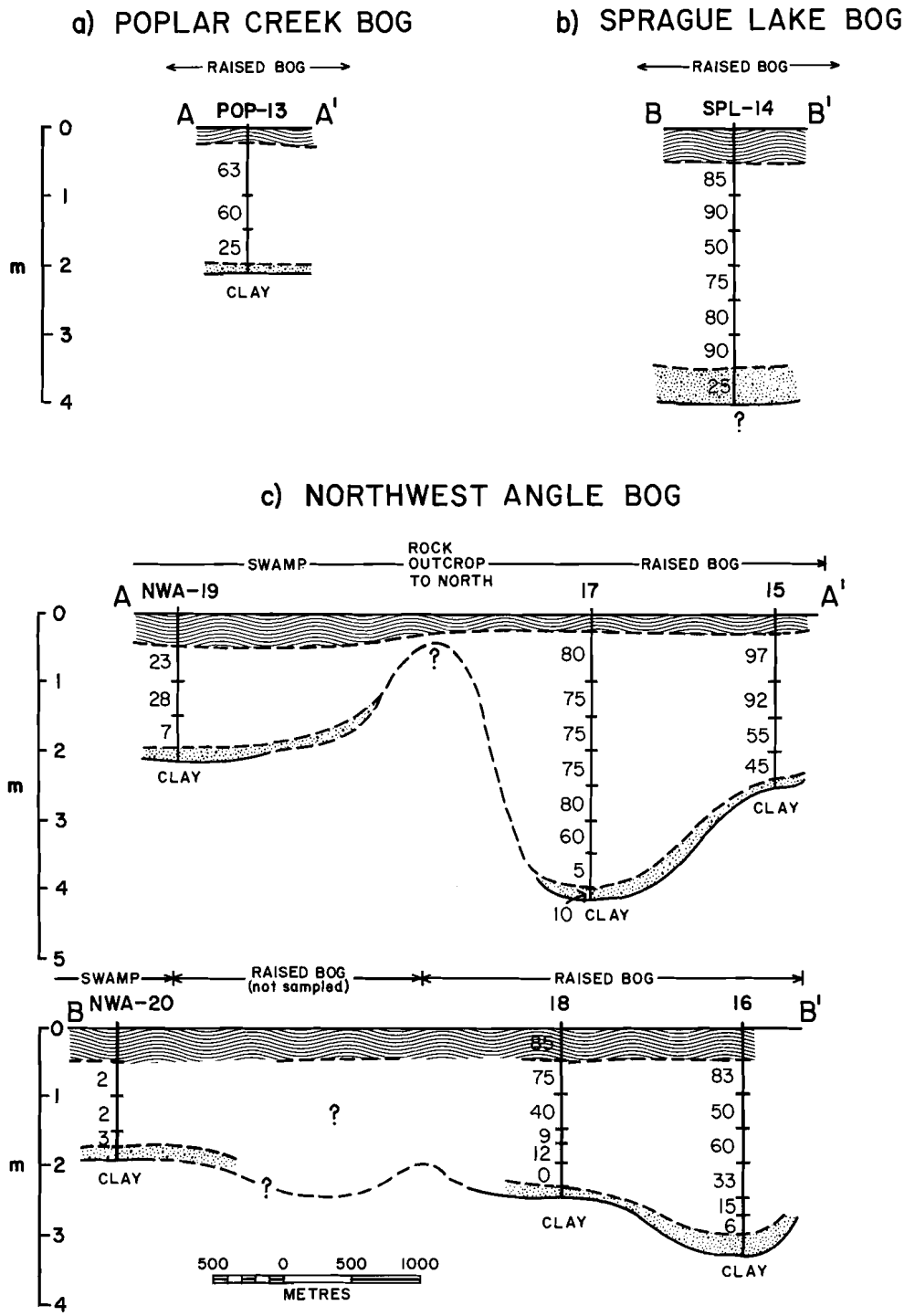


FIGURE 7: Profiles of Poplar Creek, Sprague Lake, and Northwest Angle bogs, showing percentage of Sphagnum.

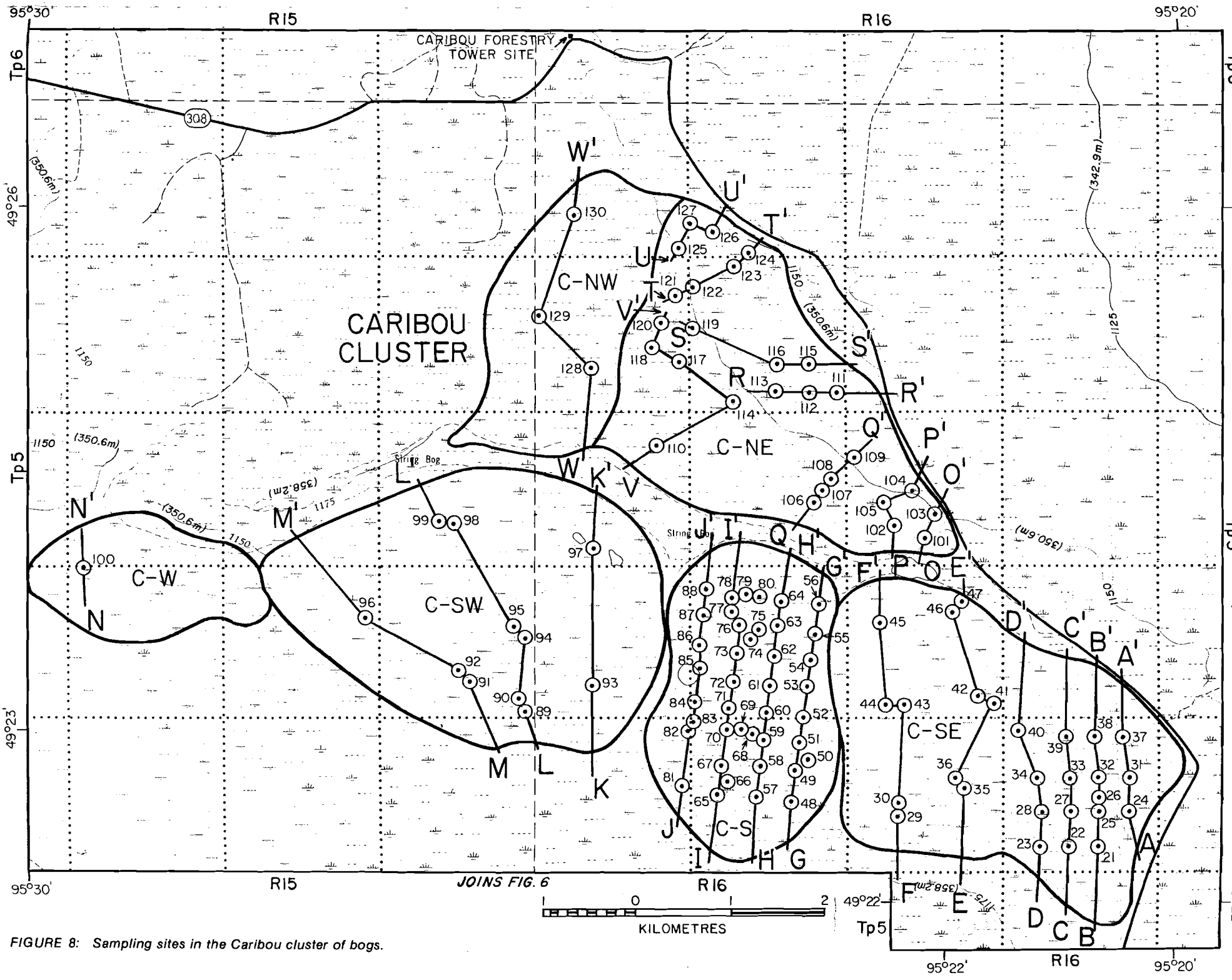
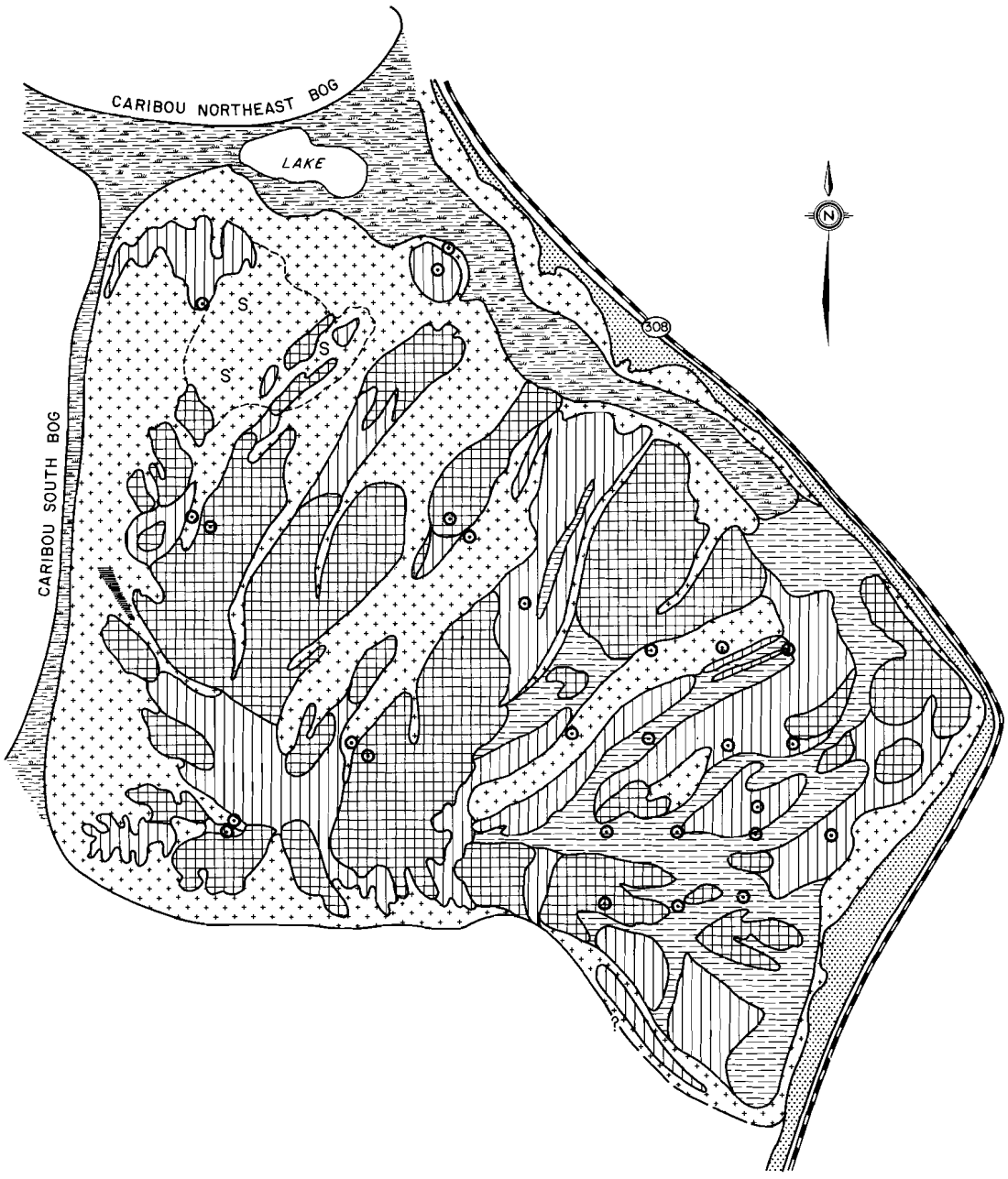


FIGURE 8: Sampling sites in the Caribou cluster of bogs.



LEGEND

RICH FOREST OF *ABIES BALSAMEA* + *POPULUS BALSAMIFERA*, WITH GROUND COVER PRIMARILY OF *RIBES AMERICANUM*, *RUBUS* SPP., AND *ROSA ACICULARIS*.

OPEN MEADOW DOMINATED BY *CAREX* SPP. AND *ERIOPHORUM* SPP., WIDELY SCATTERED STUNTED *PICEA MARIANA* AND *LARIX LARICINA* WITH SURFACE COVER OF *SPHAGNUM*; S= PATCHES OF OPEN *SPHAGNUM*.

DISCONTINUOUS LIGHT COVER OF *PICEA MARIANA* WITH GROUND COVER OF *CHAMAEDAPHNE* + *LEDUM* + *KALMIA* OVERLYING *SPHAGNUM*.

CONTINUOUS COVER OF MODERATE DENSITY *PICEA MARIANA* WITH GROUND COVER OF *SPHAGNUM*, AND *CHAMAEDAPHNE* + *LEDUM* + *KALMIA*.

CONTINUOUS COVER OF DENSE *PICEA MARIANA* WITH GROUND COVER CONSISTING OF *SPHAGNUM*, *CHAMAEDAPHNE* + *KALMIA* + *LEDUM*.

OPEN SWAMP WITH SCATTERED ISLANDS OF *PICEA MARIANA*; FLOATING BOG IN PART.

PATTERNED FEN, SURFACE DRAIN

SAMPLING LOCATION

PROVINCIAL ROAD (GRAVEL)

300 0 300 600 900
METRES

FIGURE 9: Natural vegetation communities of the Caribou Southeast bog.

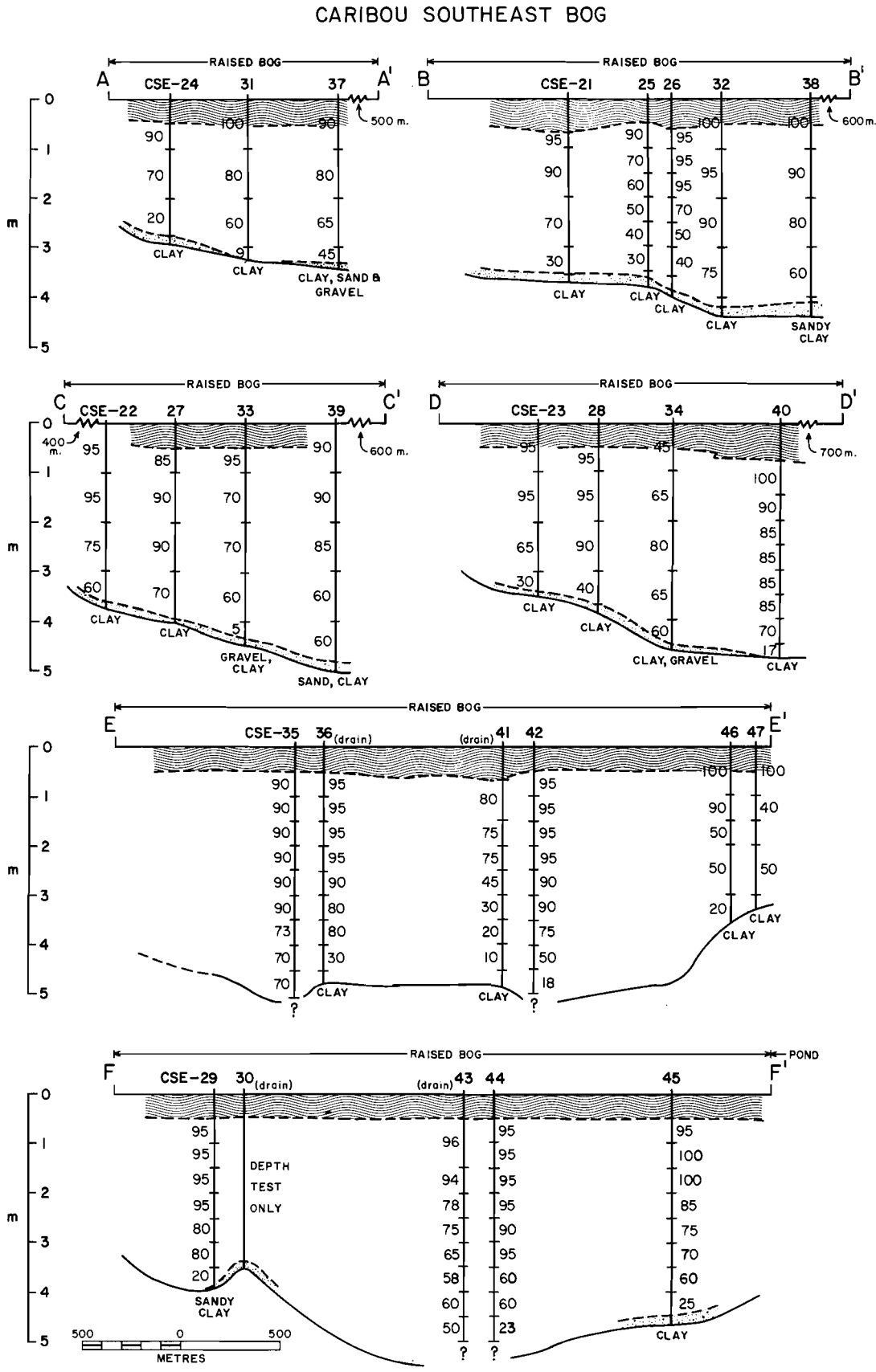
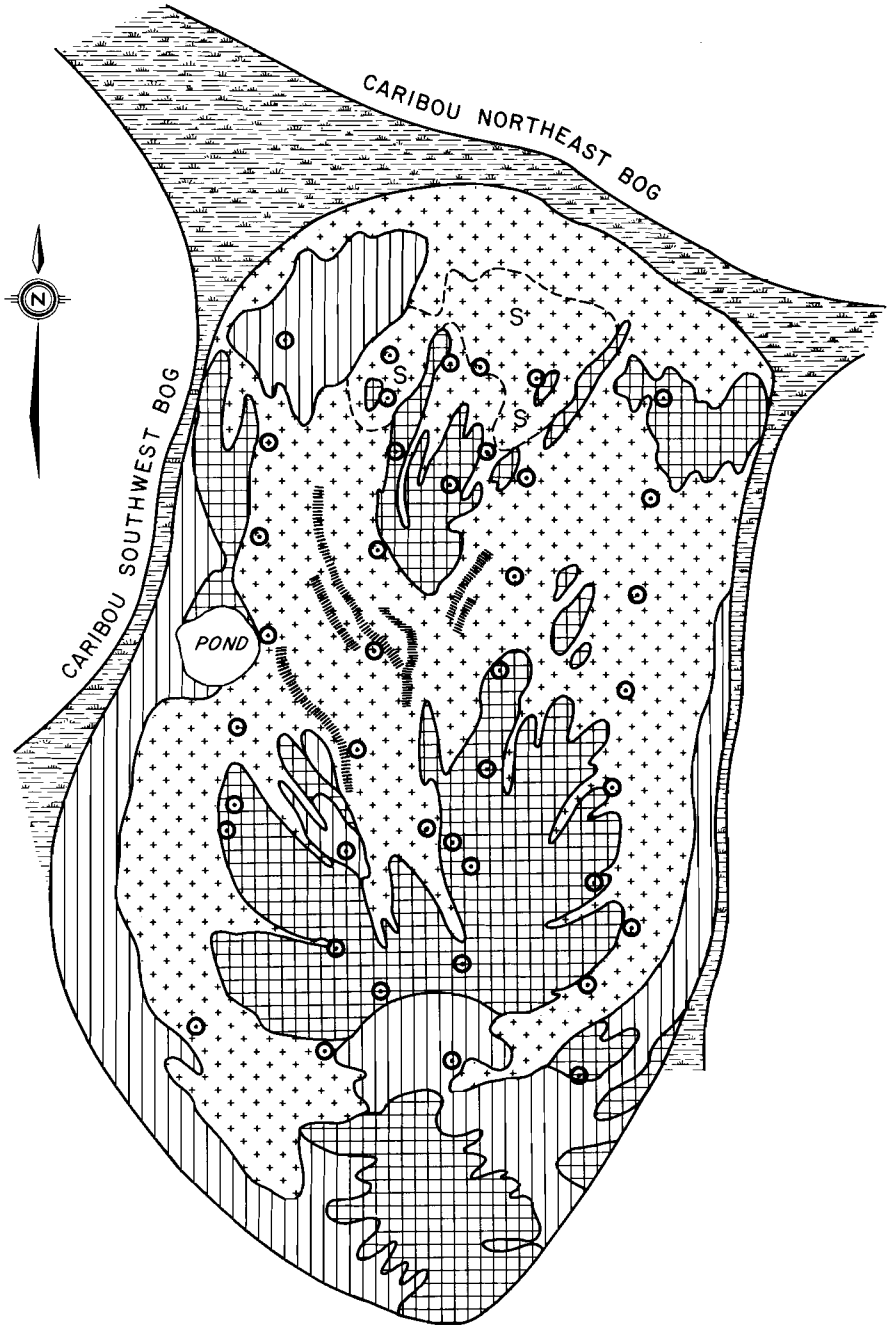


FIGURE 10: Profiles of Caribou Southeast bog, showing percentage of Sphagnum.



LEGEND

S S — OPEN MEADOW DOMINATED BY *CAREX* SPP. AND *ERIOPHORUM* SPP., WIDELY SCATTERED STUNTED *PICEA MARIANA* AND *LARIX LARICINA* WITH SURFACE COVER OF *SPHAGNUM*; S= PATCHES OF OPEN *SPHAGNUM*.

MODERATE TO VERY LIGHT DENSITY COVER OF *PICEA MARIANA* WITH GROUND COVER OF *SPHAGNUM*, AND *CHAMAEDAPHNE* + *LEDUM* + *KALMIA*.

CONTINUOUS COVER OF DENSE *PICEA MARIANA* WITH GROUND COVER CONSISTING OF *SPHAGNUM, CHAMAEDAPHNE* + *KALMIA* + *LEDUM*.

OPEN SWAMP WITH SCATTERED ISLANDS OF *PICEA MARIANA*; FLOATING BOG IN PART.

PATTERNED FEN, SURFACE DRAINS

SAMPLING LOCATION

300 0 300 600 900
METRES

FIGURE 11: Natural vegetation communities of the Caribou South bog.

located in the survey. After reconnaissance sampling indicated the bog exceeded 5 m in depth in many places, it was decided to sample it on a 300 m grid. Forty-one sites, CS-48 to 88 were sampled (Fig. 8). Mineral rights in section 8 are held by Hudson's Bay Company, and the remainder is Crown Land.

The vegetation associations of the bog surface are shown in Figure 11. Aside from some areas of moderately to densely treed *Picea mariana*, the bog is either only sparsely treed or consists of large open areas of either *Sphagnum* or *Sphagnum* + *Carex* that can be distinguished on the infrared photos because the *Sphagnum* areas have a distinctive orange tone. A pond 250 m in diameter in the west central part is surrounded by peat several metres in thickness. It is bordered with a narrow fringe of spruce and a dense shrub growth. One feature of the bog is patterned bands with abundant *Carex* that occur as surface drains in the north-central part. These are probably wet in normal years, but the water table was at the *Sphagnum* surface in the very dry summer of 1976. North-south profiles along the sampled grid lines indicate the good *Sphagnum* layer is thinner along the eastern side (Fig. 12). From these, it is estimated that 960 acres (3.88 km^2) are underlain by 3.5 m of 80 to 100 per cent *Sphagnum*, or 13 605 400 m^3, and that an additional 320 acres (1.29 km^2) are underlain by 2 m of similar *Sphagnum*, or 2 591 300 m^3. Total estimated *Spnagnum* moss is thus 16 196 700 m^3 equivalent to 1 620 000 tonnes of product. Much additional material consisting of 50 to 75 per cent *Sphagnum* is present at depth; it is mixed with both sedge and humified material. The content of woody fragments is uniformly low, with a few minor exceptions (see Appendix 1).

Nine sites were sampled in the reconnaissance survey, and a tonnage calculation, based on these holes only, yielded a figure 9.4 per cent higher than the final estimate. This over-estimate is attributed to sampling only one location in the shallower eastern part of the bog. However, this may give some indication of the validity of other tonnage estimates made in this report.

CARIBOU SOUTHWEST BOG

The Caribou Southwest bog extends over 1,780 acres (7.20 km^2) and contains large reserves of *Sphagnum* moss. Only 11 sites were sampled, CWS-89 to 99, (Fig. 8) and tonnage estimates are considered tentative.

The vegetation patterns, as shown in Figure 13, indicate a northwestward sloping, domed, treed area crosses the bog with drainage to the west and north. The northeastern third of the bog is either open or sparsely treed, and much of the area has a similar response in infrared photos to the open *Sphagnum* areas in other parts of the Caribou cluster. Two small ponds are present there.

Based only on the 11 sampled sites, an upper layer of 80 to 100 per cent *Sphagnum* has an average thickness of 2.8 m (Fig. 14) and an average absorptive value of 18 (24.2 dry). The volume is estimated at 20 200 000 m^3, equivalent to 2 020 000 tonnes of product. An underlying layer 1.7 m thick consists of 50 to 70 per cent *Sphagnum*, 20 to 10 per cent sedge, some woody fragments, and a variable amount of humified material. The absorptive value averages 15.6 (21 dry) and the estimated volume is 12 300 000 m^3, equivalent to 1 230 000 tonnes of product. More detailed testing would be required to determine whether some of this marginal material is marketable.

CARIBOU WEST BOG

In the remote sensing photographs, this bog shows a response suggesting a good *Sphagnum* bog. Where it was sampled, west of the central part, the surface consists of an extensive growth of *Sphagnum*, (Fig. 8). However, analyses of the samples show the peat below the 0.5 m layer of living *Sphagnum* consists of 2.5 m of reed and sedge peat, slightly humified, with only 14 to 32 per cent of admixed *Sphagnum* (Fig. 14). The 1:50 000 topographic map indicates the bog is domed, as it is outlined by the 350 m contour.

It is possible that this area was originally a "*Sphagnum* drain" outlet for the Caribou cluster of bogs, and has only relatively recently acquired a surface growth of *Sphagnum*. Further testing, particularly in the central and eastern parts would be necessary to determine whether more *Sphagnum* is present in those areas. The results of the single test to date do not indicate any reserves of good *Sphagnum* in this bog.

CARIBOU NORTHEAST BOG

This large bog can be subdivided into three physiographic areas; a northeastern domed area of 760 acres (3.08 km^2), an open "central" area of 730 acres (2.95 km^2), and a discrete eastern sublobe of 370 acres (1.5 km^2). The bog is accessible from Provincial Road 308, (Fig. 8). The vegetation communities are shown in Figure 15.

a) Northeastern domed area (treed ridge)

This part of the Caribou Northeast bog is a 760-acre (3.08 km^2) bog plateau paralleling the Campbell Beach ridge. Aerial photos show a northwest-oriented central ridge, with growth of spruce radiating outward on all sides. On the extreme northeastern side, where it encroaches on the beach ridge, the bog is only 1 to 3 m deep. The upper layer of good *Sphagnum* is 1 to 2 m thick, underlain in places by *Sphagnum* mixed with small to large amounts of reed and sedge peat; humification increases considerably with depth.

In the central ridge area (CNE-116-122), good *Sphagnum* moss is at least 3 m thick, and is underlain by a thin layer of partly humified mixed peat.

On the southwestern side of the ridge, (CNE-119, 121, and 125), about 2.5 m of *Sphagnum* is present, underlain by 2 m of slightly to moderately humified *Sphagnum* (25 to 70 per cent) with some intermixed reed and sedge peat. That area of thick bog merges southwestward into the central bog of similar thickness (4.5 m).

Assuming an average thickness of 1.8 m for the good *Sphagnum* layer, (Fig. 16) reserves are 5 540 000 m^3, equivalent to 554 000 tonnes of product.

b) Open area to southwest

The southwestern 730 acres (2.95 km^2) of the bog is an open, wet meadow with abundant *Carex* and *Eriophorum*, but with a generally continuous cover of *Sphagnum* moss. Some very widely scattered, stunted spruce and tamarack are present. Open wet areas, or drains, are present over much of the bog, and an area of moderately-treed bog on the eastern side is included.

Five widely spaced sampling sites within this part indicate a uniform depth of 4.5 to 5 m (Fig. 16). At three of these locations (CNE-110, 118, 120) a layer of *Sphagnum* moss 3 to 3.5 m deep is present, underlain by about 1.5 m of mixed *Sphagnum*-sedge peat with some woody fragments. In the other two locations (CNE-114, 117) the *Sphagnum* layer is 1.5 to 2 m thick, with an underlying layer of 3.5 m that is at least 20 per cent humified, and contains about 50 per cent *Sphagnum*, mixed with some reed and sedge peat, and some woody fragments. More sampling is required for an accurate assessment of resources, but if a layer averaging 2.5 m of *Sphagnum* is present, reserves would be 7 400 000 m^3, equivalent to 740 000 tonnes of product.

c) Eastern sublobe

A 370-acre (1.5 km^2) oval-shaped raised or domed peat plateau is present in the southeastern part of the Caribou Northeast bog. The plateau bog is generally moderately treed, and a central area of dense growth has some trees of large size. At least two open *Sphagnum* heaths with some scattered stunted spruce are present. Thickness of the bog is variable, being 2.2 m on the north side, 3.3 m on the east side, 4.5 m in the centre, and 4.9 m near the western side, where it merges into the "central" bog (Fig. 17).

The layer of good *Sphagnum* moss averages 2.3 m thick, and is underlain by a 1 to 2 m layer of *Sphagnum*-sedge peat that is variably humified. Reserves of this good *Sphagnum* moss are estimated at 3 450 000 m^3 equivalent to 345 000 tonnes of product.

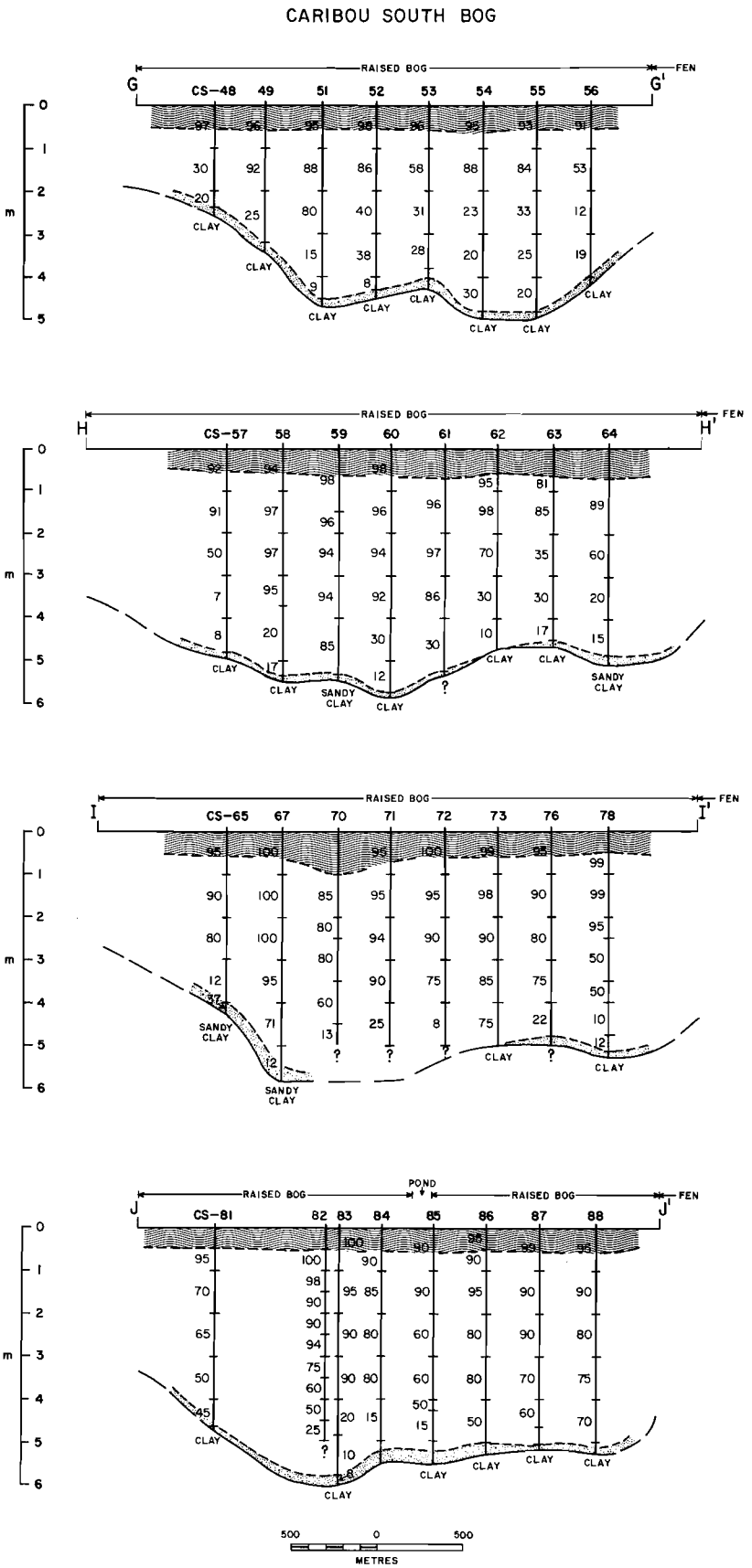


FIGURE 12: Profiles of the Caribou South bog, showing percentage of Sphagnum.

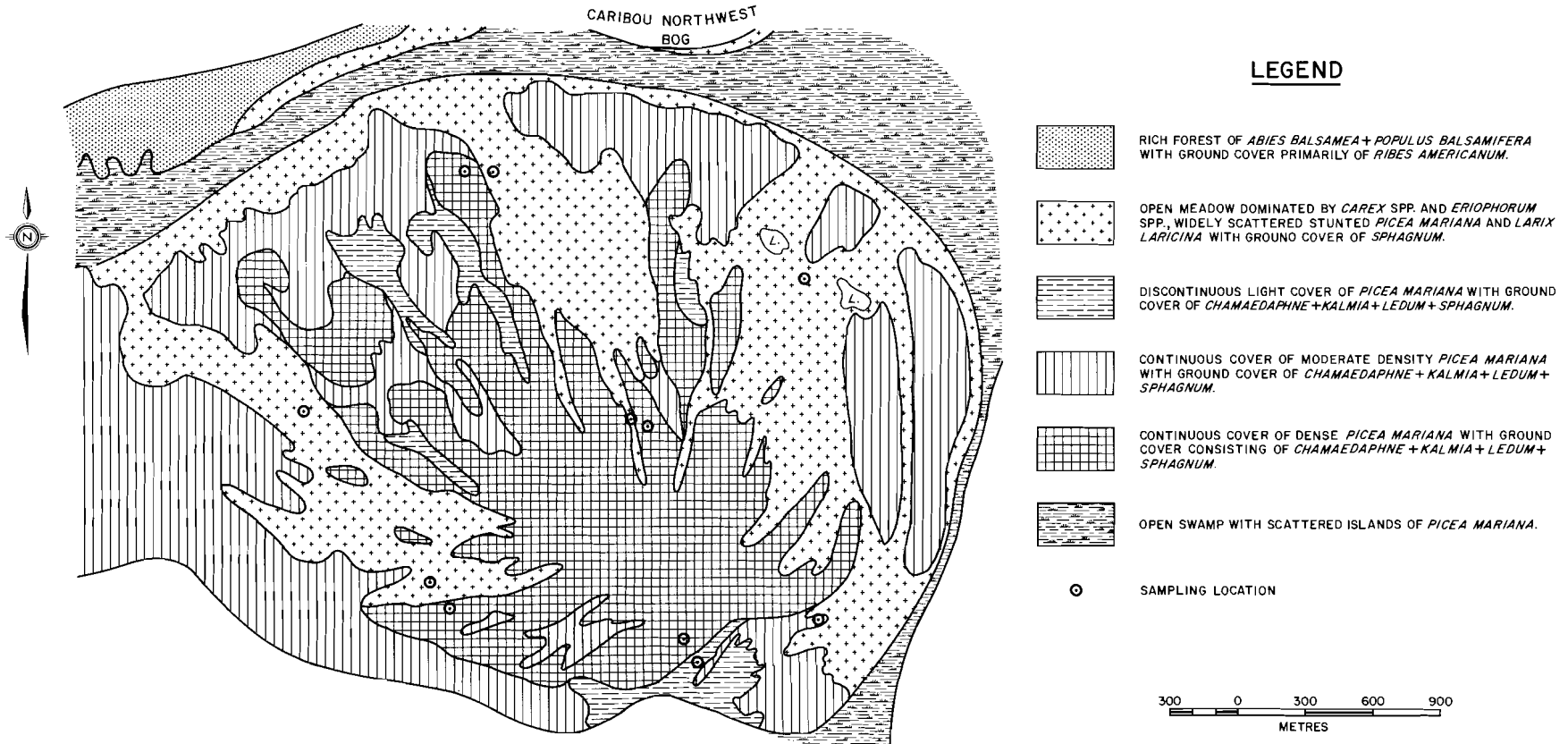


FIGURE 13: Natural vegetation communities of the Caribou Southwest bog.

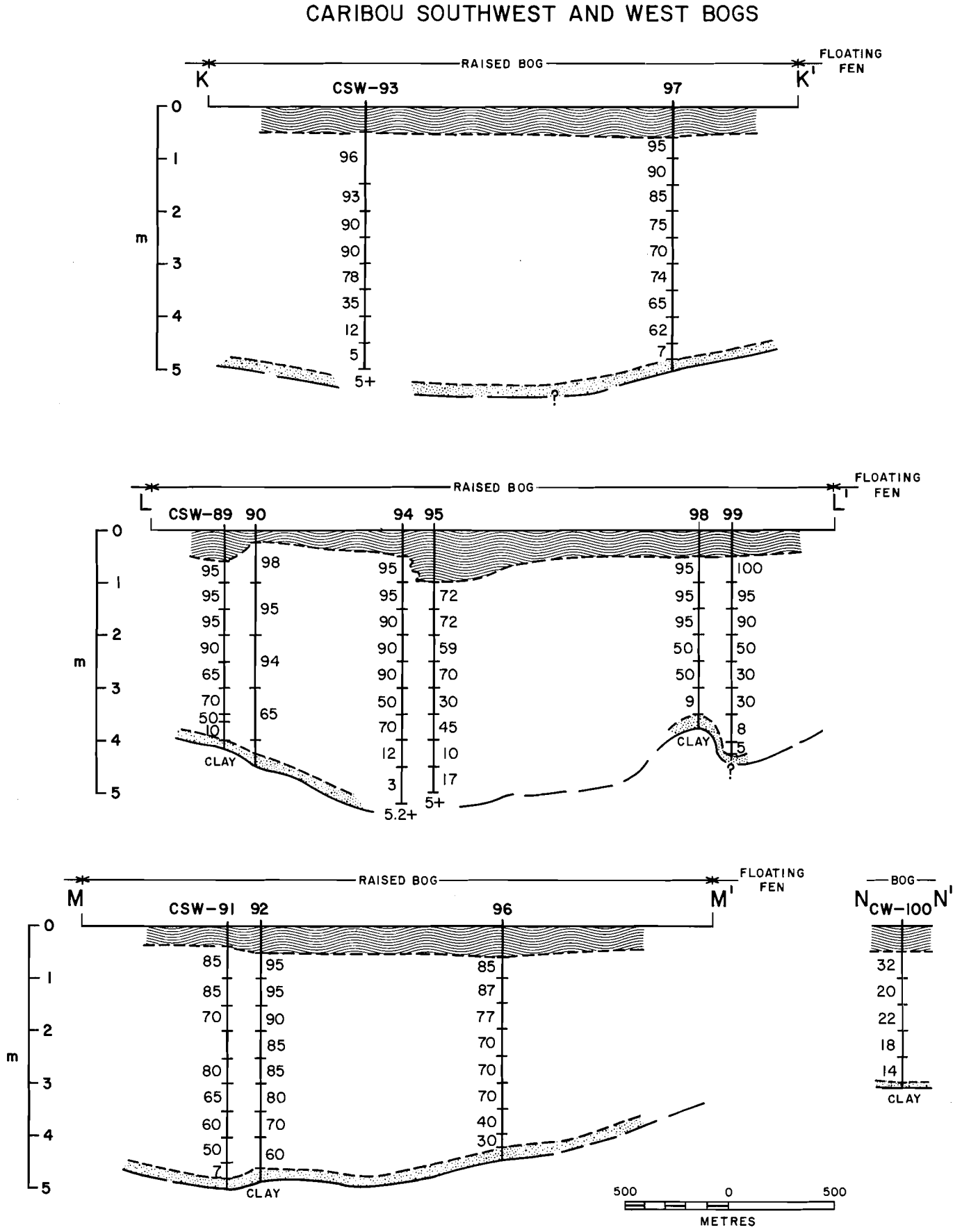


FIGURE 14: Profiles of Caribou Southwest and West bogs, showing percentage of Sphagnum.

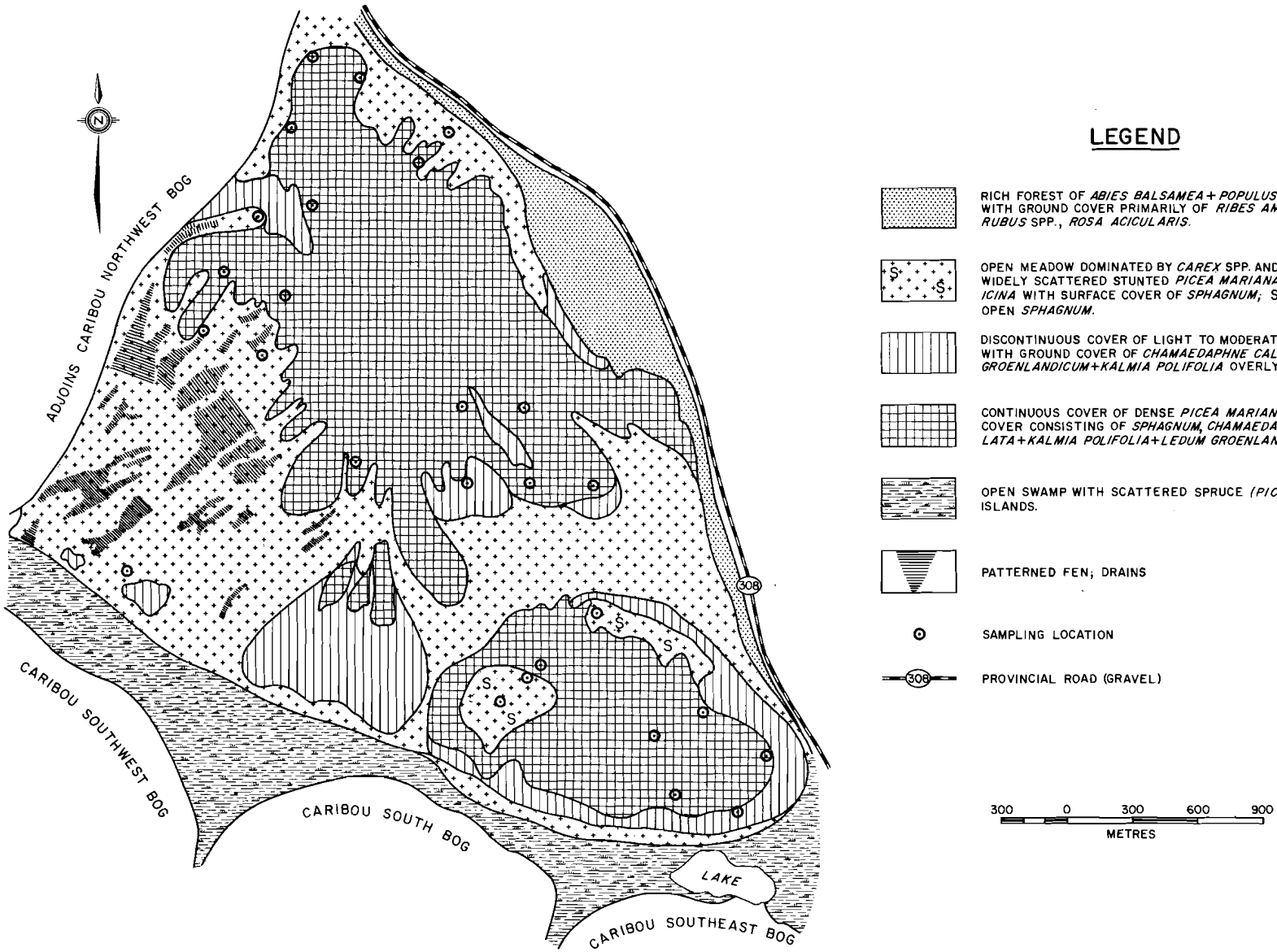


FIGURE 15: Natural vegetation communities of the Caribou Northeast bog.

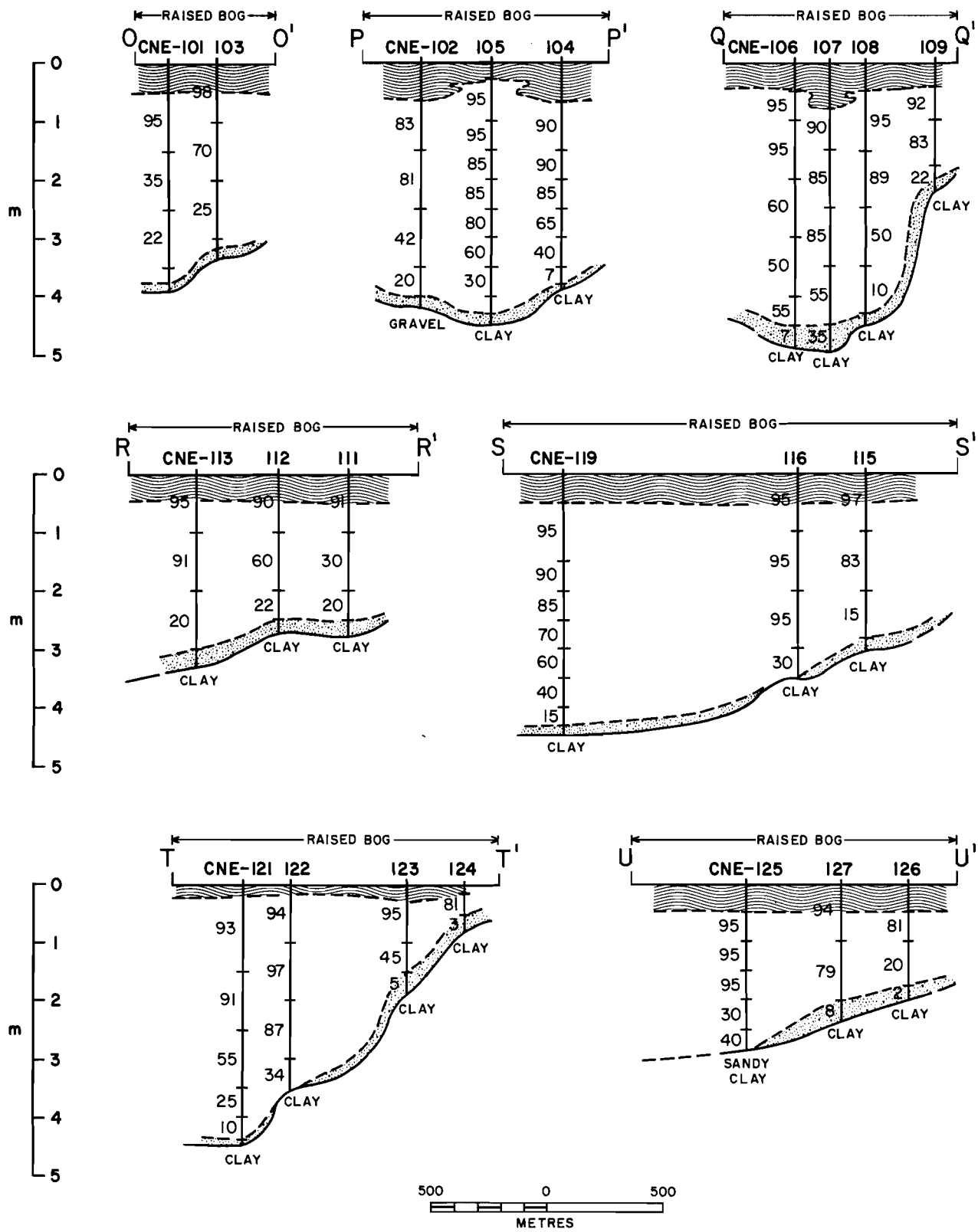


FIGURE 16: Profiles of Caribou Northeast bog, showing percentage of Sphagnum.

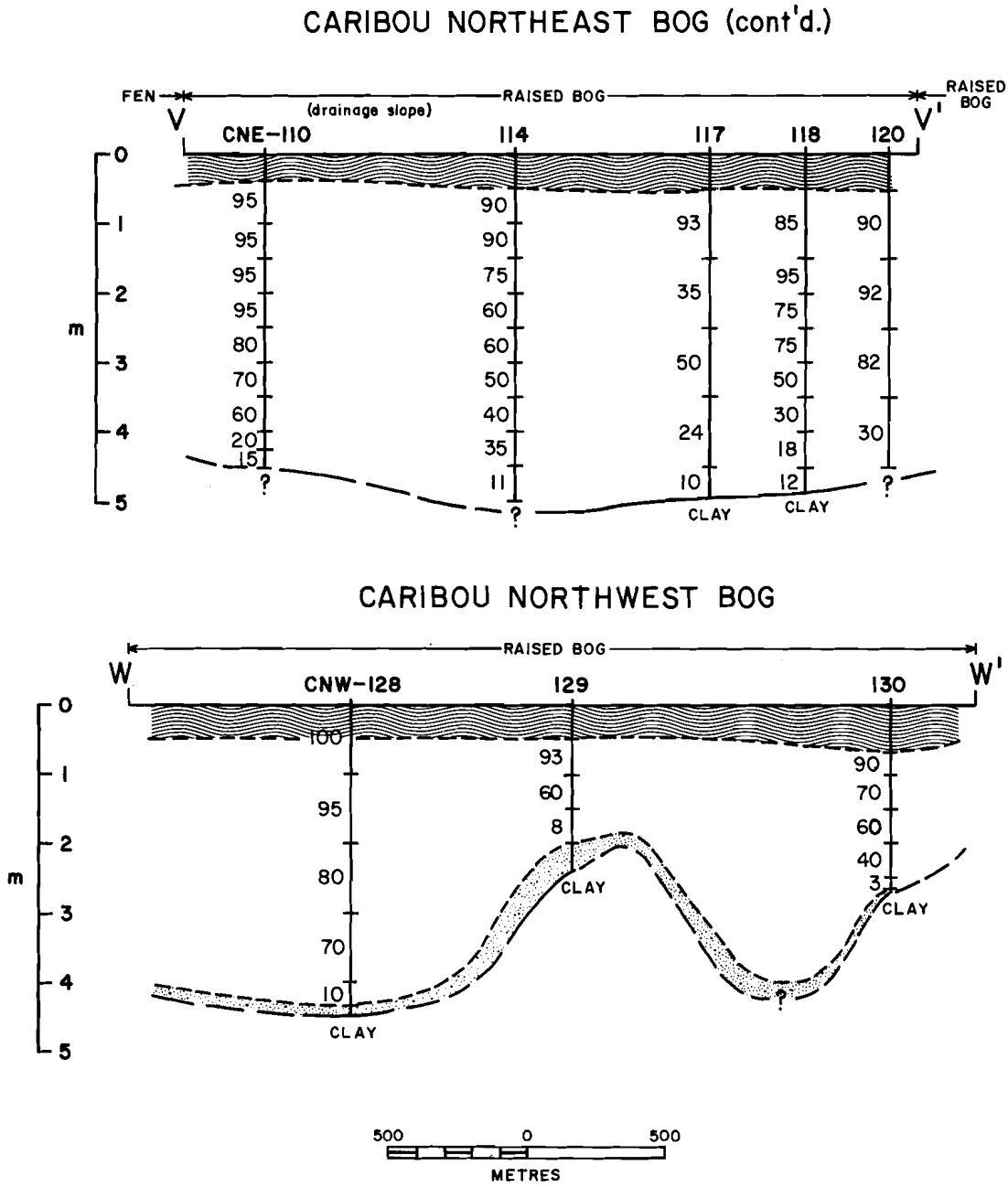


FIGURE 17: Profiles of Caribou Northeast and Caribou Northwest bogs, showing percentage of Sphagnum.

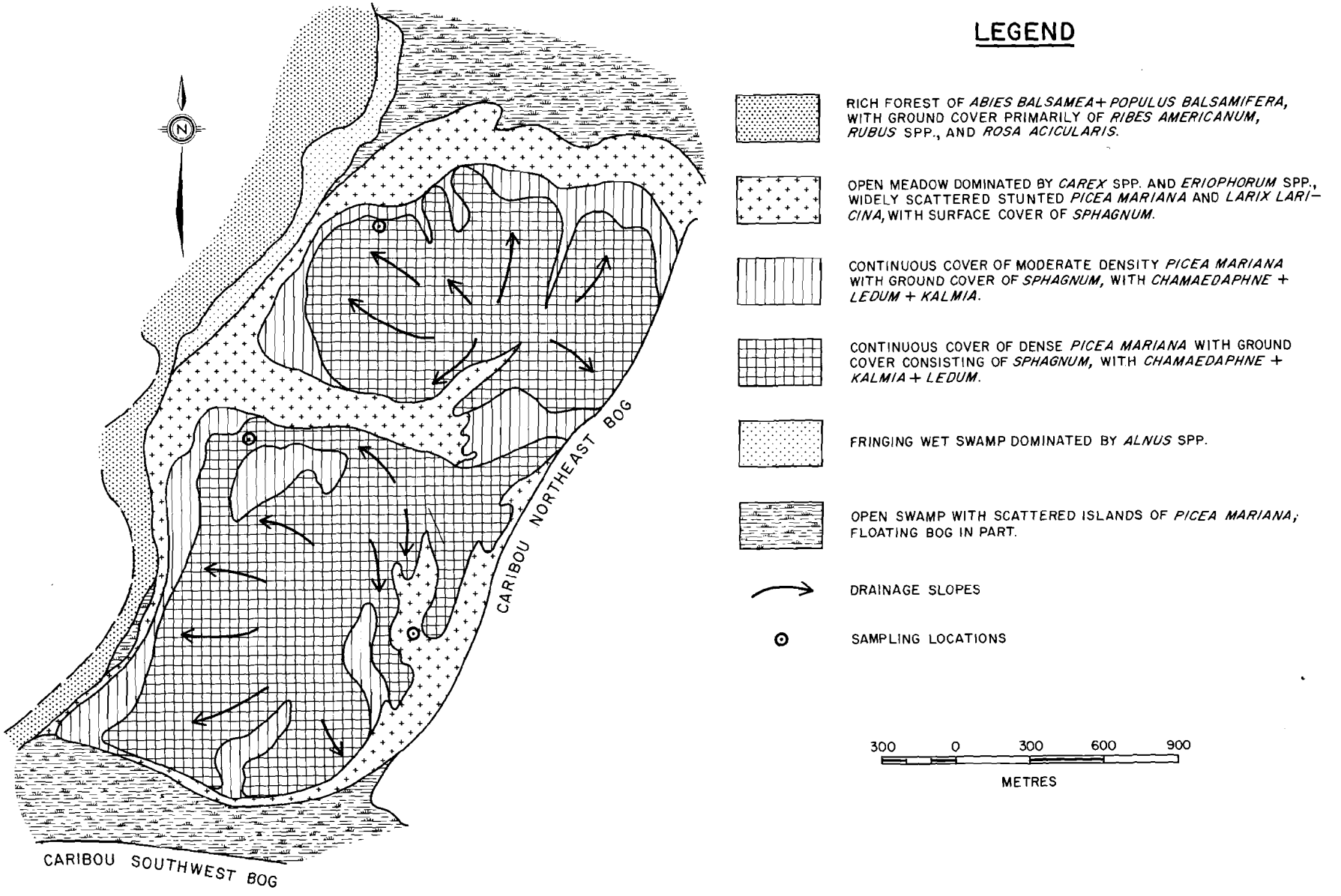


FIGURE 18: Natural vegetation communities of the Caribou Northwest bog.

CARIBOU NORTHWEST BOG

This bog covers 940 acres (3.80 km^2). Where sampled, it consists of 1 to 3 m of *Sphagnum*, underlain by 1 m of 60 to 70 per cent of *Sphagnum*, with the remainder reed and sedge peat and humified material (Fig. 17). Generally the bog is fairly densely treed (Fig. 18). If an average of 2 m of *Sphagnum* is present, the peat resources could be 7 600 000 m^3 of peat, or 760 000 tonnes of product. Additional testing is required to confirm these reserves. It is possible they could be increased, as a thicker layer of *Sphagnum* is probably present in the central parts of the two lobes that compose the bog, and the three samples sites are all located towards the edges of the lobes (Fig. 8).

THE POWAWASSAN CLUSTER OF BOGS **(R.S. PHOTO A37204-054)**

The Powawassan bogs consist of a complex cluster of drainage-divide bogs, teardrop-shaped bogs and *Sphagnum* drains. They are located along a regional watershed 2 to 10 km south of Snowshoe Bay, Shoal Lake, and extend over an area of 32 km^2 (Fig. 19).

Some of the bogs, PW, PSW, PSE, PNW and possibly PN, are discrete bog plateaus, sparsely to moderately treed with black spruce, and separated by open *Sphagnum-Carex* meadows. These are moderately deep bogs containing good *Sphagnum* moss. Bog PC has some good *Sphagnum* but also contains abundant admixed sedge; it has developed along a drainage divide, and large *Sphagnum* drains (lower wet areas with abundant *Carex*) extend southward to Powawassan River and westward to Boggy River. Bog PE also has formed along a drainage divide, and has adjoining *Sphagnum* drains to the southwest to Boggy River and to the northeast to Snowshoe Bay. Bog PN, a complex bog plateau covering 1,300 acres (5.26 km^2), was not sampled; it has a moderately dense tree cover.

The entire bog complex lies between the 327.7 m and 335.3 m contours (Fig. 19). It is remote from all current transportation facilities. It extends 6.4 to 14.5 km south of the Greater Winnipeg Water District (GWWD) Railway. A proposed road from the Minnesota border to Falcon Lake would pass within a few kilometres of the bogs, but no immediate plans for its construction are known. Although the complex contains large reserves of *Sphagnum* moss, its remote location, and possible problems of drainage, make it unattractive for commercial development at present. The limited amount of sampling is insufficient for precise reserve estimates, but some conjectural figures are given for each bog for planning purposes. A minimum amount of 2 700 000 tonnes of product is projected for the total complex.

Detailed analytical results and descriptions of surface vegetation are listed in Appendices 1 and 2, sampling sites 131 to 145.

POWAWASSAN SOUTHWEST BOG (PSW)

This bog covers 1,850 acres (7.49 km^2), of which about 60 per cent is mainly open *Sphagnum* (with *Carex* and *Eriophorum*) and 40 per cent is a central dome of black spruce showing a radial growth pattern. Limited sampling indicates the eastern edge is mainly reed and sedge, and that composition and depth are variable. In the northwestern part, the bog is 80 per cent *Sphagnum* to a depth of 1.5 to 2.0 m. Sample location PSW-132 (Fig. 20) in the central part showed 3.5 m of undecomposed *Sphagnum*. Estimates of total volume are uncertain because of limited data, but the bog could contain 22 500 000 m^3 in place, equivalent to 2 250 000 tonnes of product to a depth of 3.0 m. It is estimated that this includes 1 089 000 tonnes of higher quality peat moss.

POWAWASSAN SOUTHEAST BOG (PSE)

Only one sample of peat was obtained from this bog. It showed good *Sphagnum* moss to a depth of 1 m, underlain by 1.35 m composed 50 per cent of *Sphagnum*, mixed with reed and sedge peat, all moderately humified. More sampling would be required to determine whether or not better quality and greater thickness of peat are present in this bog.

The bog consists of two coalescent lobes that have a combined area of 1,100 acres (4.45 km^2). For each metre of *Sphagnum* moss, the bog would contain 4 400 000 m^3, equivalent to 440 000 tonnes of product.

POWAWASSAN CENTRAL BOG (PC)

This bog is irregularly shaped, consisting of a dome of *Sphagnum* moss with a light to moderate black spruce cover. It has formed along the drainage divide between the Boggy River and Powawassan River systems. The uppermost part consists of good *Sphagnum* to a depth of 1.5 m, but that layer thins on the flanks of the ridge. There the organic soil is a slightly to moderately humified woody peat, containing both *Sphagnum* and reed and sedge. The bog covers a large area, but is not as likely to be a source of high quality *Sphagnum* peat moss. If an upper layer averaging 1 m thick is present over the entire area, the volume of *Sphagnum* moss could be 3 800 000 m^3, equivalent to 380 000 tonnes of product, of which about 50 per cent would be green moss. It could be underlain by as much as 5 700 000 m^3 (570 000 tonnes of product) of woody peat.

POWAWASSAN WEST BOG (PW)

The bog is a well-defined oval-shaped peat plateau containing many open *Sphagnum* areas (some with *Carex* and *Eriophorum*) and scattered patches of black spruce. The upper layer of 2 to 3 m of unhumified *Sphagnum* moss, with absorptive value of 18.0 (24.3 dry), is underlain by 2.0 to 1.5 m respectively of partially humified *Sphagnum* moss, mixed with sedge and woody fragments, with absorptive value of 16.7 (22.6 dry). The 345 acres (1.4 km^2), to a depth of 3.5 m, could contain 4 900 000 m^3 of peat, equivalent to 490 000 tonnes of product, of which 336 000 tonnes could be higher quality peat moss.

POWAWASSAN NORTHWEST BOG (PNW)

A lightly to moderately treed bog plateau covers 420 acres (1.7 km^2) in the northwestern part of the Powawassan complex. Where sampled, the bog consists of a 1 m layer of 89 per cent *Sphagnum*, 1 m of mesic mixed *Sphagnum* + reed and sedge peat, and 1.8 m of progressively more humified peat. Absorptive value of the peat averages 14.4 (17.2 dry). Although the surface consists of a continuous hummocky *Sphagnum* cover under the black spruce, open areas of *Sphagnum* are absent. The 420 acres, if underlain by an average of 3.5 m of peat, could contain 5 900 000 m^3 of peat, equivalent to 590 000 tonnes of product. Additional sampling in the more central part of the bog is required to determine what percentage of this would be high quality *Sphagnum* peat moss.

POWAWASSAN EAST BOG (PE)

This bog is located along the drainage divide between the Boggy River system and creeks draining into Snowshoe Bay, part of Shoal Lake. It differs from Powawassan Central bog in that the treed domal ridge is much broader, and is underlain by 2 m of good *Sphagnum* moss near the ridge crest; that in turn is underlain by 1.5 m of slightly to moderately humified woody peat. A hole on the western flanks of the ridge showed less than 1 m of *Sphagnum*, underlain by 1.5 m of slightly to moderately humified woody *Sphagnum*-sedge peat. The central ridge area of 340 acres (1.38 km^2) could be underlain by 2 600 000 m^3 of *Sphagnum*, equivalent to 260 000 tonnes of product; reserves in the flanking 1,000 acres have not been estimated.

POWAWASSAN NORTHEAST BOG (PNE)

The sample in bog PNE was taken in a "*Sphagnum* drain", as tree cover prevented a helicopter landing closer to the domed ridge. The sample was a moderately humified woody *Sphagnum* peat.

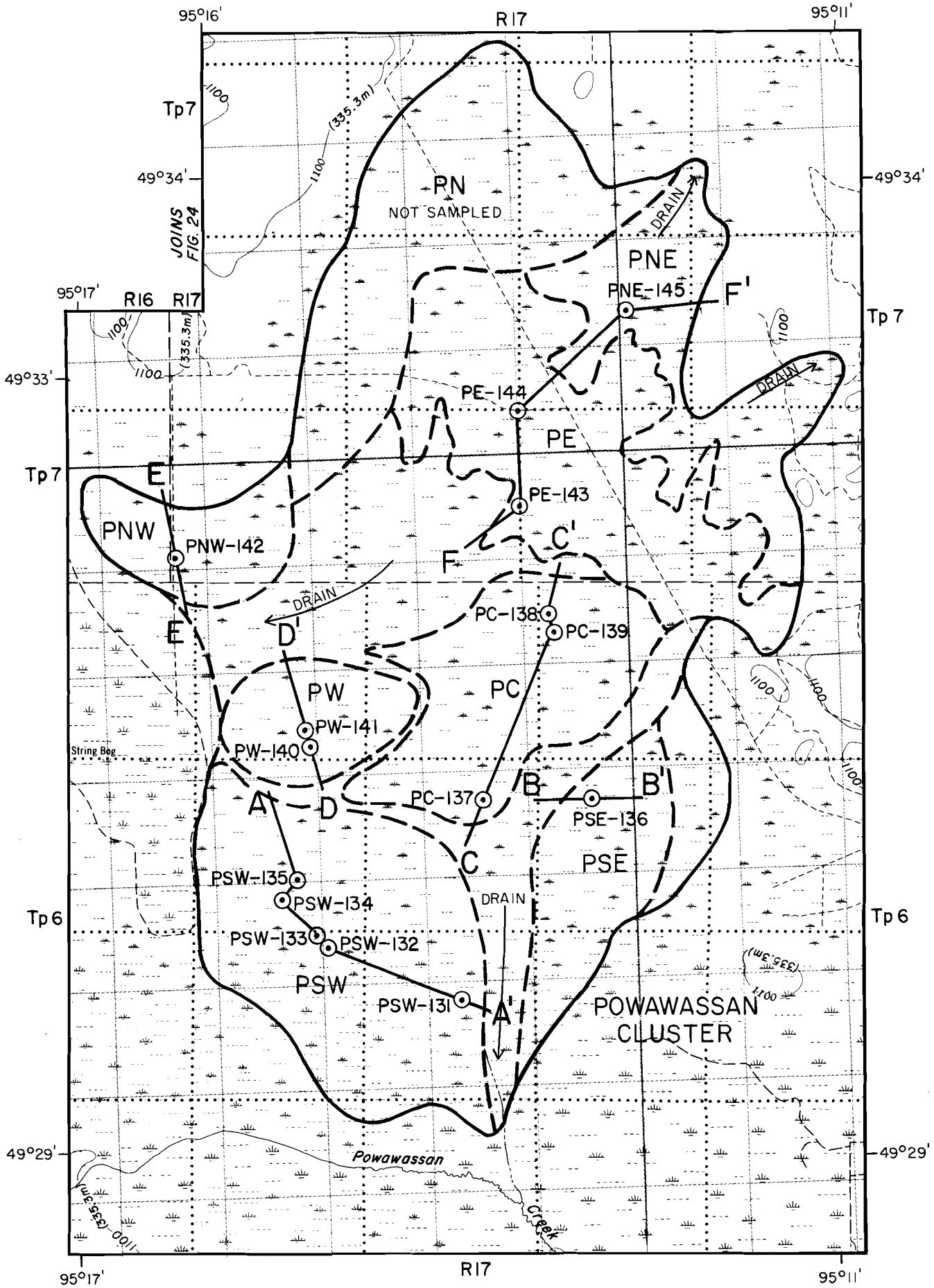


FIGURE 19: Powawassan cluster of bogs.

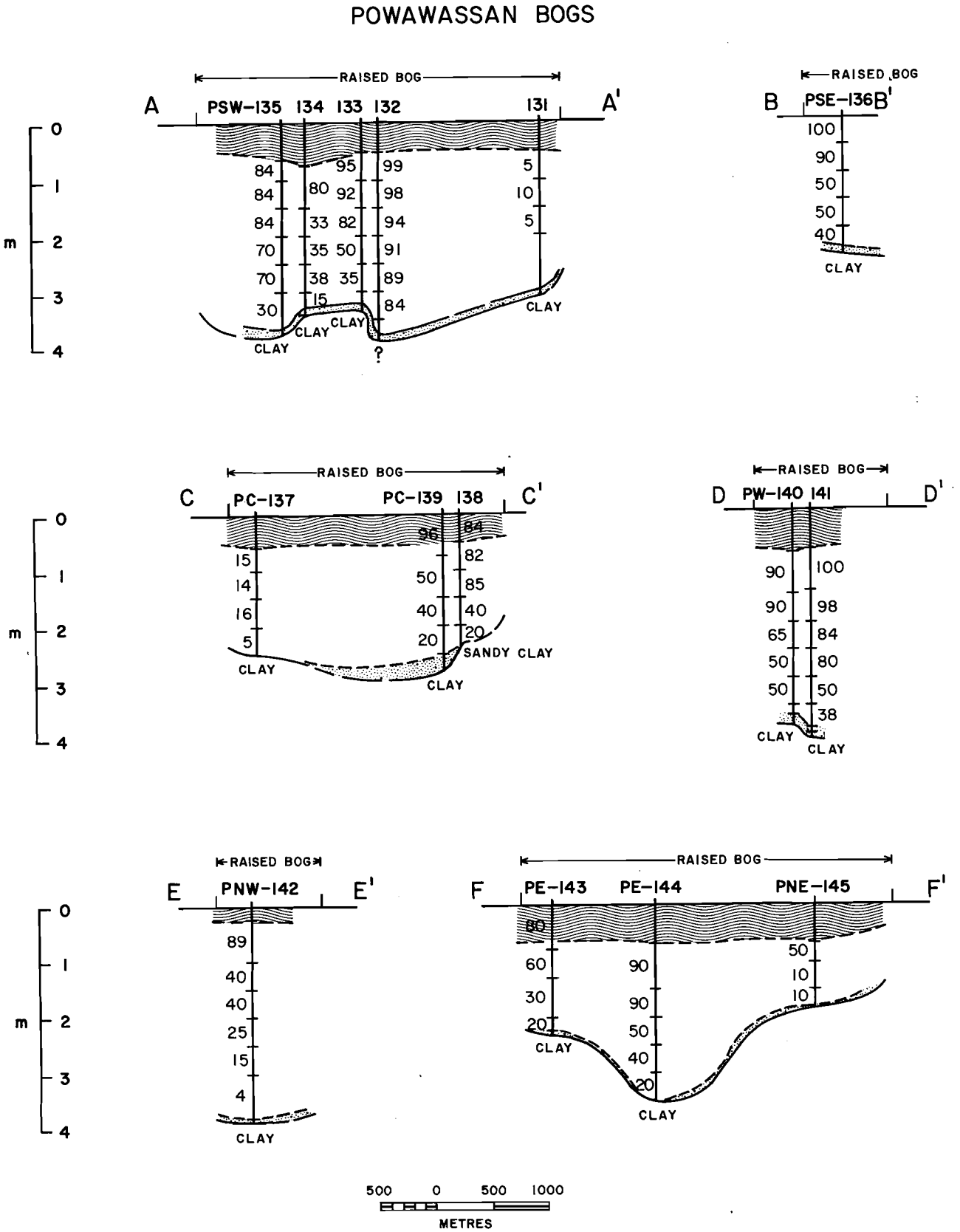


FIGURE 20: Profiles of the Powawassan bogs, showing percentage of Sphagnum.

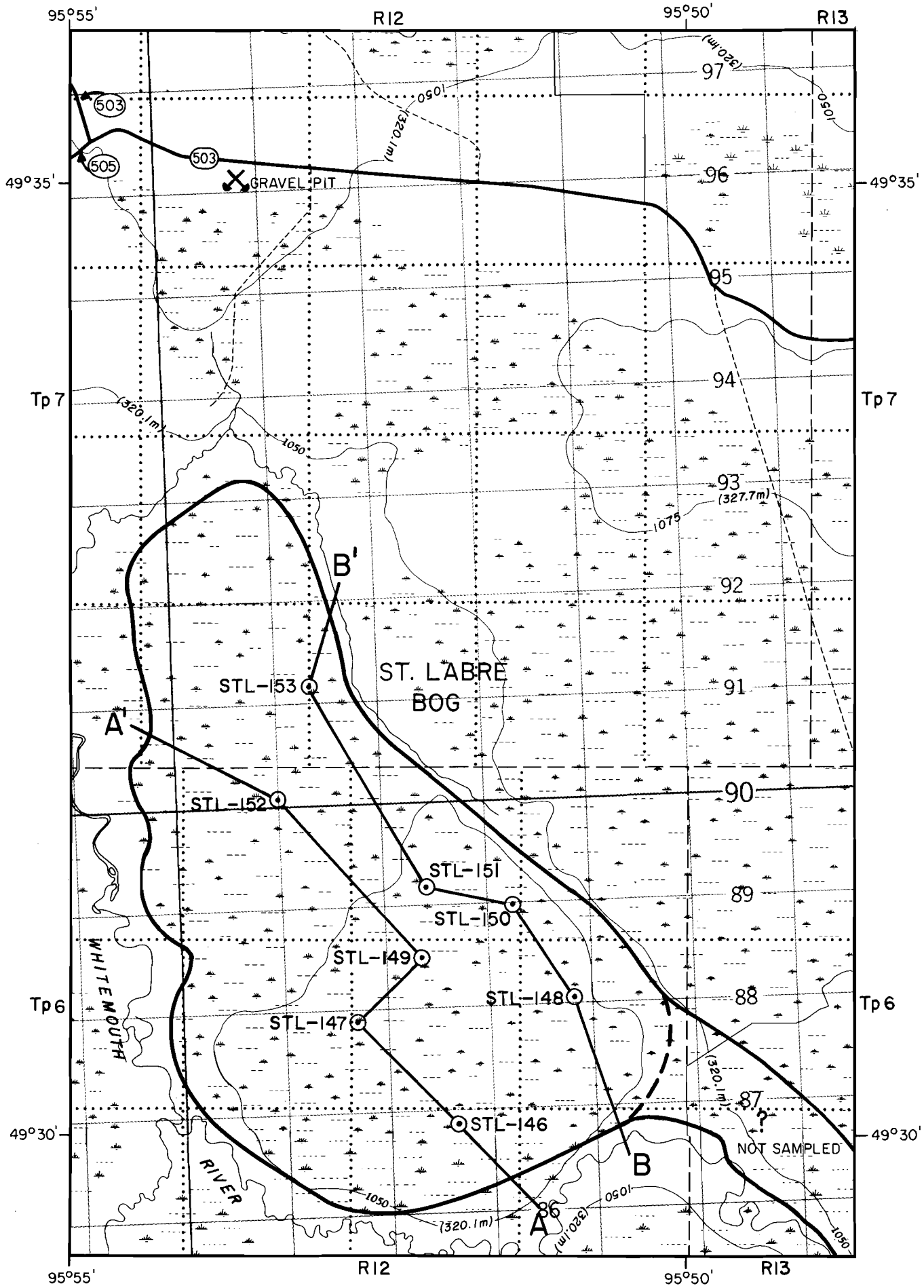


FIGURE 21: St. Labre bog.

POWAWASSAN NORTH BOG (PN)

A large bog covering 1,300 acres (5.26 km²) is present along the northern part of the Powawassan cluster of bogs (Fig. 19). The infrared photos suggest it is a fairly heavily treed *Sphagnum* bog, but the area was not sampled. It is located at the northern end of the height of land separating drainage to Snowshoe Bay, Powawassan River and Boggy River, and could possibly contain large reserves of *Sphagnum* peat moss.

ST. LABRE BOG (R.S. PHOTO A37204-058)

The St. Labre bog is located 11 to 18.3 km south of the Trans-Canada Highway near Hadashville. It lies northeast of Whitemouth River, opposite its junction with St. Labre Creek. The bog is unusual in that it is almost totally surrounded by creeks and rivers (Fig. 21). Winter logging operations have resulted in the clearing of the southeastern fringe of the bog. Because of surrounding wetlands, accessibility is poor. An all-weather forestry road is located 3.3 km north of the northeastern corner of the bog.

St. Labre bog covers an area of 22.7 km² or 5,605 acres. Access for sampling was by helicopter. The southern 3,700 acres (14.97 km²) of the bog has the distinct pattern of a raised *Sphagnum* bog on infrared photographs. This area is outlined by the 320 m contour. The northern third is well treed, and was sampled only in more open areas (STL-152, 153).

The bog has a continuous surface layer of *Sphagnum*, which in more open areas is mixed with abundant *Carex* and *Eriophorum*. The central portion of the southern raised peat is heavily treed, mainly *Picea mariana*.

The area within the 320 m contour would appear, on the basis of limited sampling, to be the part most suitable for development (sites STL-146 to 151, Fig. 22). An estimated 2,000 acres (8.09 km²) has a depth of 2 m of moss with absorptive value above 15 (20.3 dry), i.e. 16 200 000 m³ of good quality moss in place, equivalent to 1 620 000 tonnes of product. It is underlain by 10 800 000 m³ (1 080 000 tonnes) of partly humified *Sphagnum*-sedge peat with average absorptive value of 12.5 (17 dry) and which is apparently uniform in quality, but unsuitable for the export market as the *Sphagnum* content is low. The SE, SW and NW¼ of sec. 26, tp. 6, rge. 12E is Hudson's Bay Company land. Reserves in the other 3,605 acres (14.61 km²) of the bog are probably considerable, but are not estimated here because of the uncertainty of the extent of the lower quality layer, and because of the small number of sampled sites.

A southeastern extension of the bog may cover 500 acres (2.02 km²) in parts of sections 19, 20 and 30 in township 6, range 13 EPM.

GIROUX BOG (R.S. PHOTOS A37129-6057 and A37204-065)

The Giroux bog is located 50 km southeast of Winnipeg and is 7 km south of the Trans-Canada Highway, or 5 km from the Canadian National Railway at Giroux (Fig. 23). It is located near the edge of the Southeastern Lake Terrace physiographic area, at an elevation of 275 m, about 25 m above the eastern level of the Central Lowlands of the Red River Valley. Although located only 2 km northeast of the Seine River, it drains northeastward into a fen area 4 km across to a tributary that meanders northwest for 9 km to the Seine River.

The surficial tree growth has been burned but the underlying *Sphagnum* has been little affected. New poplar and blueberry growth has been established. Where sampled in the southeastern part (GIR-154) of the oval-shaped bog, the peat consists of 2 m of good *Sphagnum* moss with absorptive value of 16.3 (22.1 dry), overlying 1 m of partially humified sedge-*Sphagnum* peat. The bog may have a thicker layer of *Sphagnum* towards the centre. If a 2 m layer of *Sphagnum* is present over 450 acres (1.82 km²), reserves would be 3 640 000 m³ of peat moss, equivalent to 364 000 tonnes of product.

Although the bog is identifiable on the 1975 infrared photos, e.g. A37204-065, it is much better defined on an October 1974 infrared photo, A37129-6057, as its brown tone is in distinct contrast with the surrounding ground.

BOGGY RIVER BOG (R.S. PHOTO A37204-072)

The bog, densely treed with black spruce, is located immediately east of Boggy River, 5 to 7 km south of the GWWD Railway (Fig. 24). A pond at the east end drains westward through a *Carex-Sphagnum* drain that provides a suitable helicopter landing site. One sample (BR-155), taken northeast of the centre, is composed of a 2 m layer of good *Sphagnum* moss with an absorptive value of 15.2 (20.7 dry). The lower 0.75 m is a partly humified mixed peat (Fig. 22).

Although an estimate of reserves cannot be made from one sample, the potential of the bog can be placed at 2 m of *Sphagnum*, over 450 acres (1.82 km²), for 3 640 000 m³ in place, equivalent to 364 000 tonnes of product.

The infrared photos of the area suggest that another elongated bog is located immediately to the south, but depth and quality of any *Sphagnum* moss present are not known.

HAUTE BOG (R.S. PHOTO A37204-072)

The large Haute bog is of interest because of its location near the Greater Winnipeg Water District Railway, the only means of surface access to this area (Fig. 24). A semi-open, generally stunted growth of black spruce limits landing sites to near the edge of the bog. The one sample taken from the northern central part of the deposit (HTE-156) was disappointing in that it consisted of a 1 m layer of good *Sphagnum* overlying 1.5 m of a partly humified mixed *Sphagnum* + reed and sedge peat (Fig. 22). The absorptive value of the *Sphagnum* layer is 15.4 (21.2 dry), and of the mixed peat layer is 11.9 (16.1 dry). The response on infrared photographs of the organic soil area extending northeastward from the bog to the railway suggests this area may also contain some *Sphagnum*. The surface growth, where sampled, consisted of a thick, rolling carpet of *Sphagnum*. The bog deserves to be sampled in more detail. For each 1 m layer, extending over 1,300 acres (5.26 km²), the bog contains 5 260 000 m³ of moss, equivalent to 526 000 tonnes of product.

FALCON BOG (R.S. PHOTO A37204-072)

A large bog located from 2 to 4 km south of the west end of Falcon Lake contains a variety of surface vegetation and peat composition. The bog is of the drainage-divide type, with the eastern slope draining through Falcon River to Falcon Lake, and the western slope draining southwestward into the Boggy River system (Fig. 24).

Where sampled on the eastern side, the bog is densely treed. The layer of good *Sphagnum* thickens from 1 m to 3m towards the crestal part of the dome (FAL-161 to-159), and is underlain by 2 to 1 m respectively of increasingly humified *Sphagnum* + reed and sedge (12 to 30 per cent) peat, with some woody fragments in places. The absorptive value of the upper layers ranges from 15.9 to 19.9 (21.5 to 26.2 dry). Profiles of the bog are shown in Figure 22.

On the western slope, the tree cover hindered landing with a helicopter near the crestal ridge, and the samples taken were 1 km to the southwest, in the *Sphagnum* drain portion of the bog (FAL-157, -158). A 0.5 m layer of *Sphagnum* is present, overlying a moderately to mostly humified peaty layer containing 10 to 40 per cent *Sphagnum* and 5 to 40 per cent woody fragments. Although the total bog area is 1,630 acres (6.6 km²), reserves are estimated here for only the northeastern 1,000 acres (4.05 km²), the domed part. This area could have an average of 2 m of good *Sphagnum*, for 8 100 000 m³ of peat moss or 810 000 tonnes of product.

McMUNN BOGS (R.S. PHOTO A37204-070)

The large area of organic soil extending from Moss Lake (Tp. 10, Rge. 14 EPM) south to the Trans-Canada Highway, and west to Highway 11 contains much organic soil, but examination of the remote sensing photos indicates the areas are mainly fens. During closer examination of the photos prior to aerial reconnaissance of

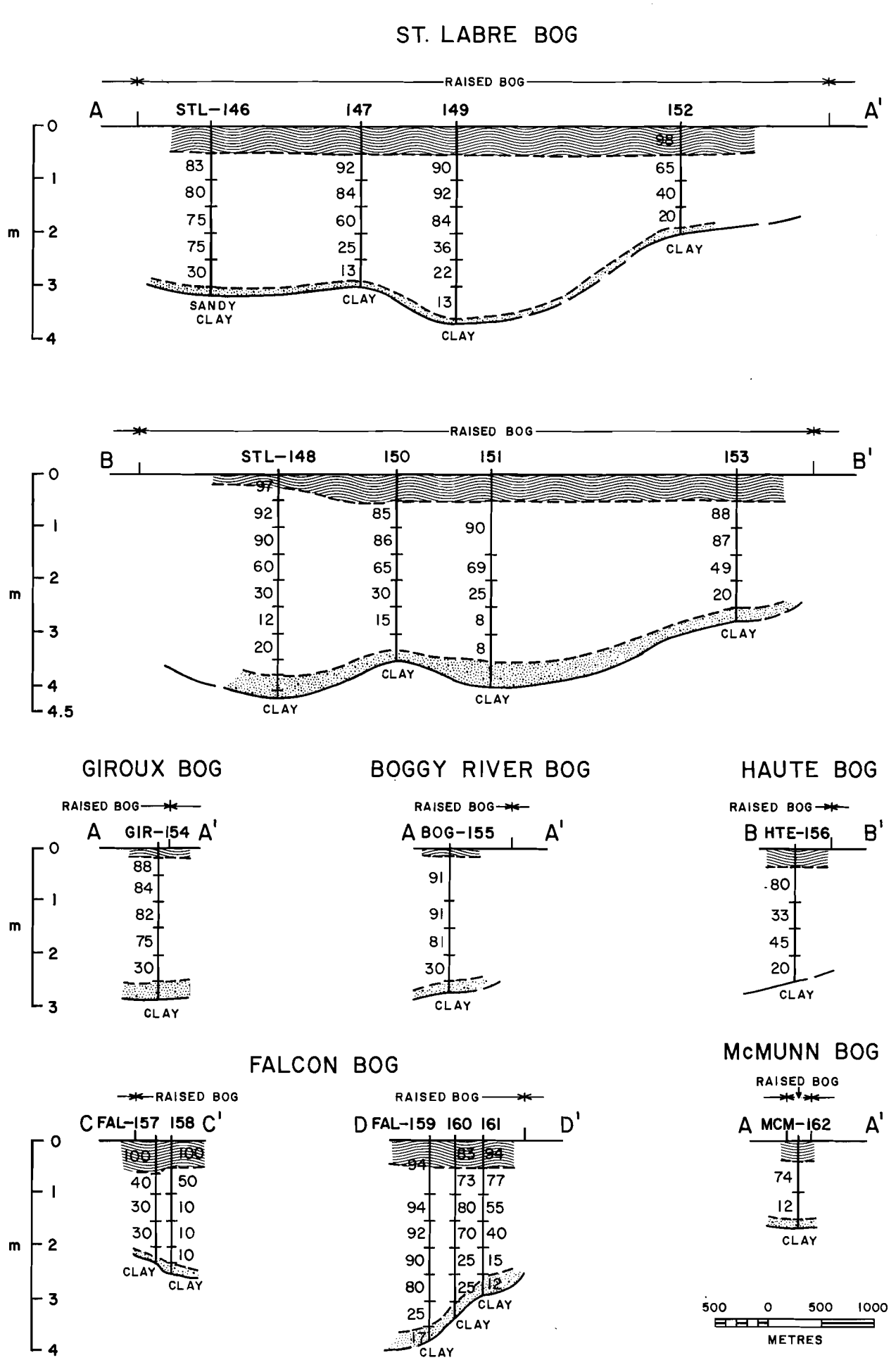


FIGURE 22: Profiles of St. Labre, Giroux, Boggy River, Haute, Falcon and McMunn bogs, showing percentage of Sphagnum.

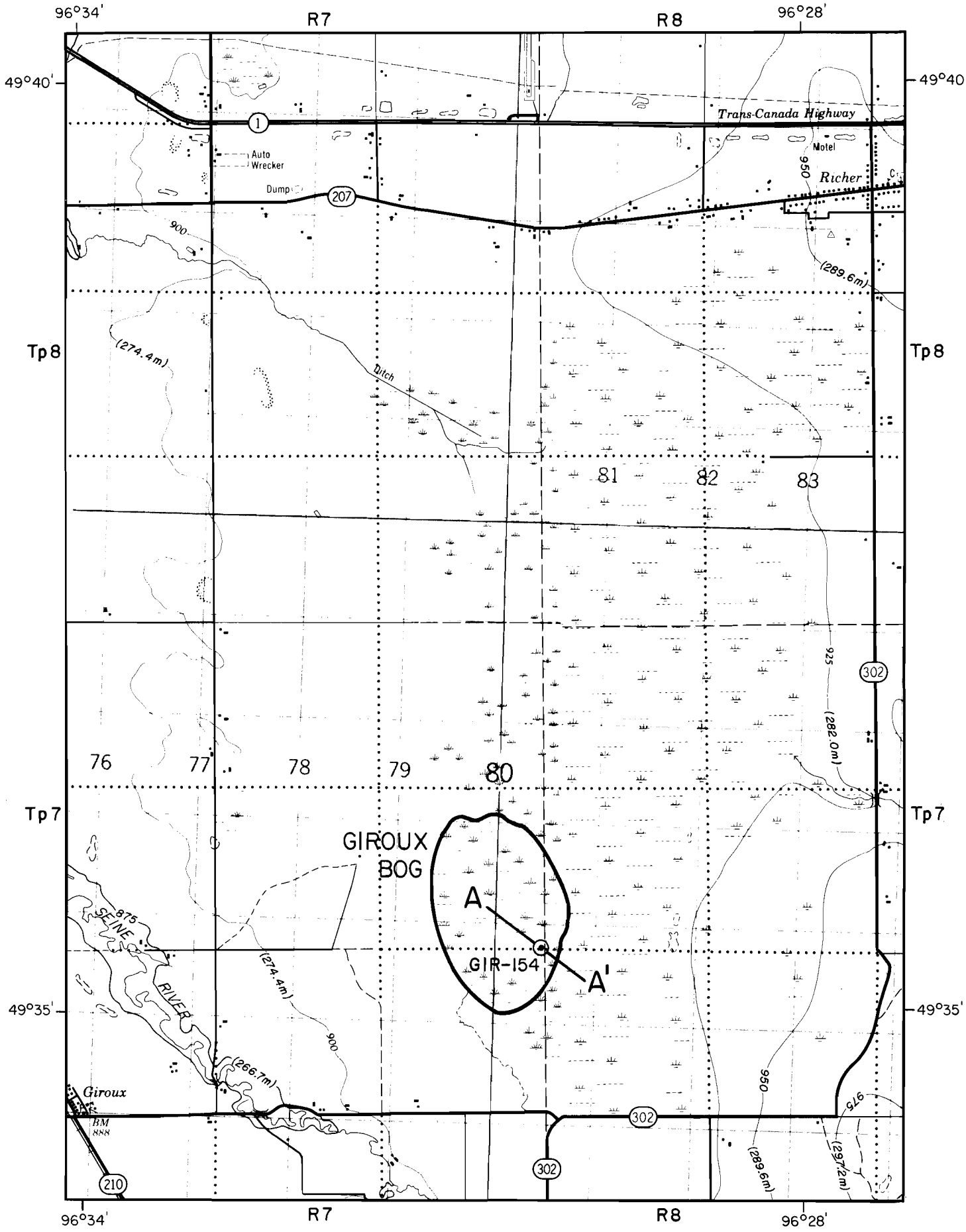


FIGURE 23: Giroux bog.

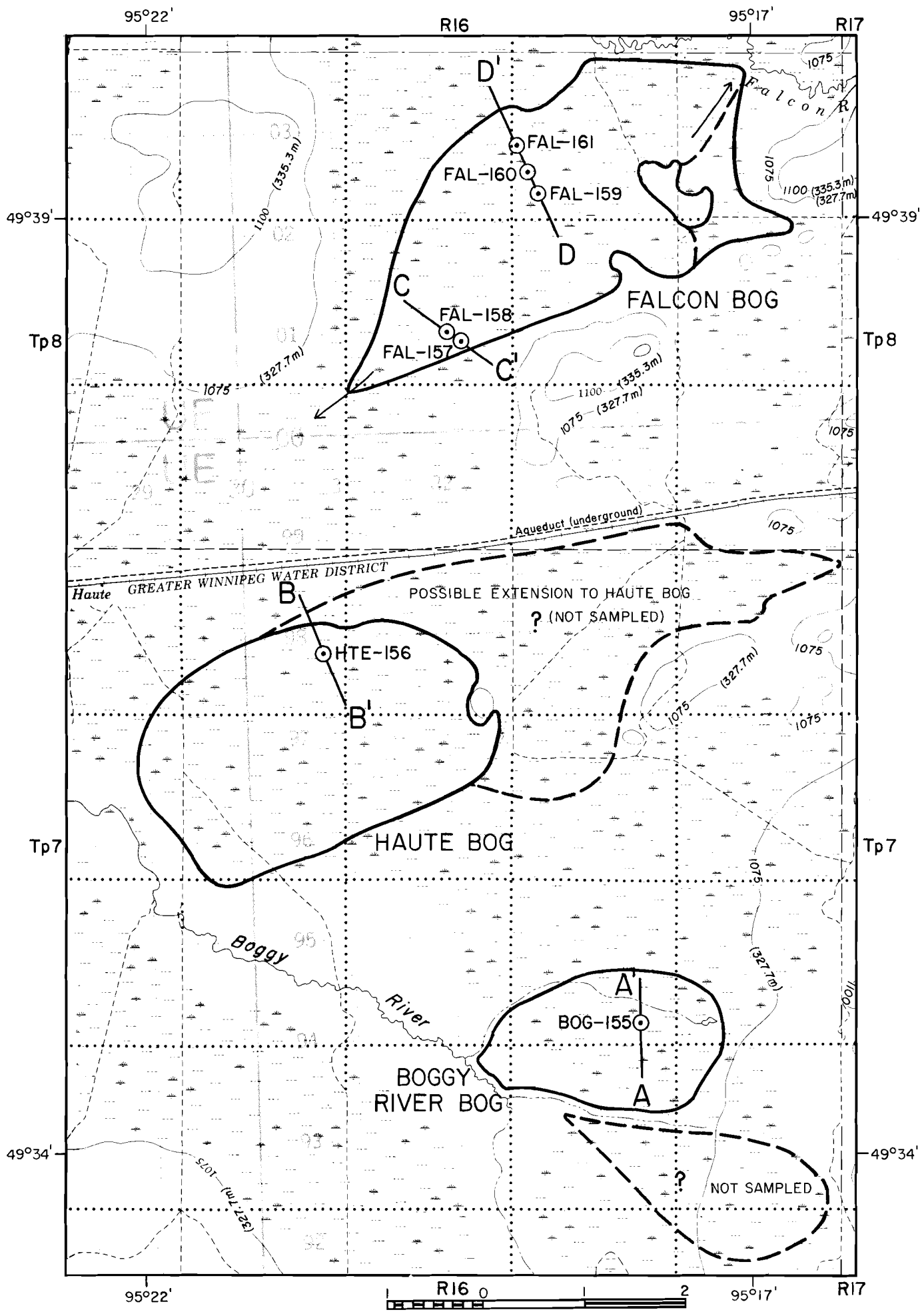


FIGURE 24: Boggy River, Haute and Falcon bogs.

the area in 1977, a *Sphagnum* pattern was noted 5 km north of McMunn (Fig. 25).

A small bog, covering 75 acres (0.3 km^2) has the distinctive open *Sphagnum* heath with stunted spruce, and a core area of semi-open black spruce underlain by *Sphagnum*. Where sampled, the bog consisted of a 1 m layer of *Sphagnum*, underlain by 0.75 m of humified mixed peat (MCM-162, Fig. 22). It is probable that the peat layer is thicker in the treed part of the bog. A somewhat similar bog with a denser tree cover is located 0.5 km to the northwest. For the sampled bog, a 1 m layer of *Sphagnum* contains 304,000 m^3 of moss or 30 400 tonnes of product. This is a small bog, but its location 4 to 5 km north of the Trans-Canada Highway offers potential for a small-scale operation.

MEDIKA WEST BOG (R.S. PHOTO A37204-081)

This bog is a somewhat swampy reed and sedge type, and is not of interest as a source of *Sphagnum* peat. The material from the sampled site MDW-163 is predominantly reed-sedge peat to a depth of 1 m, and the underlying peat is humified to the base of the bog at 1.7 m (Fig. 26 and 27).

MEDIKA BOG (Western Peat Moss Ltd. — Elma Plant) (R.S. PHOTO A37204-080)

The 3,000 acre (12.14 km^2) Medika bog was located by Western Peat Moss Ltd., and peat permits (subsequently converted to leases) were obtained in 1961. In 1978, 4,000 acres (16.19 km^2) were held under quarrying mineral leases QL-113 to 119 inclusive.

The main drainage ditch, eastward to the Whitemouth River, and a road into the bog, were completed in the mid-1960s. The original bog surface was sampled in its northeastern part in 1963 (Bannatyne, 1964). Originally, a plant was to be built beside the Canadian National mainline at Elma, but this plan was abandoned. Production began in 1969, and the moss was trucked to the Julius bog plant also operated by Western Peat Moss Ltd. A new shredding and baling plant was built on the northeastern side of the Medika bog, and completed in 1974. It is called the Elma plant by the company. Following construction of subsidiary drainage ditches, and removal of surface vegetation, the peat is harvested by the vacuum milling method. Most bales are trucked to the CN line at Elma; but a growing percentage of production is being loaded at the plant into semi-trailers for shipment mainly to the United States, as far as the Gulf states and California.

By 1977, bog development had proceeded to the point where new fields being opened to the southwest would require drainage westward to the Hazel Creek-Brokenhead River system (D. Biglow, personal communication).

The bog is located along the drainage divide between the Hazel Creek-Brokenhead River systems and the Whitemouth River systems.

One sample was taken, with the operator's permission, in an undeveloped part of the bog, about 30 m north of the working area in 1976 (Fig. 26). The site has been partially drained, accounting for the lesser thickness than that recorded in a previous survey. The upper 2 m consists of 92 to 96 per cent *Sphagnum*, (Fig. 27) with an average absorptive value of 16.7 (22.6 dry). A random test sample of the product consisted of 94 per cent *Sphagnum*, and had an absorptive value of 11.6 (15.8 dry), indicating a reduction of about 30 per cent in absorptive value during harvesting processes. The product, however, is of high quality, and well above A.S.T.M. specifications, Type I Sphagnum moss peat (Farnham, 1968). Ash content ranges from 4.0 to 9.9 per cent for the upper *Sphagnum* layer; pH ranges from 4.5 to 5.6 (sample MED-164, Appendices 1 and 2).

The bog contains abundant reserves, but the company has not published reserve figures. For each metre of good *Sphagnum* moss, the volume over a 3,000 acre area would be 12 000 000 m^3 of moss equivalent to 1 200 000 tonnes of product.

NORTH MEDIKA CLUSTER (NMC) (R.S. PHOTO A37204-080)

A series of bogs with a distinct *Sphagnum* response on the remote sensing photographs is located in the area 4 to 7 km south of Highway 15 and 5 to 7 km west of Highway 11 (Fig. 26).

The eastern two bogs look promising on the surface, but a deep ditch has been excavated sometime ago along the road leading north from the bog area. The thick surface layer of *Sphagnum* is dried out and crumbles readily, making traversing of the bog difficult. The bogs are shallow, possibly because of their development along the southwestern slopes of glacial beach ridges, as indicated by the sand and gravel or sandy clay intersected below each bog. One ridge forms the northeastern edge of the bog area. The greatest depth in the 18 locations sampled, NMC-165 to 182, was 2.42 m in NMC-175 (Fig. 27). The bogs could have a potential 1 m *Sphagnum* layer over an aggregate area of some 500 acres (2.02 km^2), totalling 2 000 000 m^3 of peat moss, or 200 000 tonnes of product; almost half of this would be either living moss or dried-out moss. Surface growth consists of other mosses mixed with *Sphagnum*. Quality of the upper *Sphagnum* layer is variable, and abundant sedge is present in some parts. Intervening areas, as between sites 172 and 175, are wet with dwarf birch (*Betula glandulosa*), *Sphagnum* and sedge.

SOUTHWEST ELMA BOG (R.S. PHOTO A37204-080)

This bog was sampled in a previous survey (Bannatyne, 1963) and was considered to have some potential for *Sphagnum* moss. More detailed sampling of the bog confirmed this result. In particular, the western part of the bog, through which a wide swath of tree cover has been burned off, was found to be underlain by good *Sphagnum* (Fig. 28, site 183).

The bog contains an average 1.5 m of *Sphagnum* overlying 1 to 1.5 m of partly humified peat containing abundant *Sphagnum* mixed with some reed and sedge and, in places, woody fragments. The upper *Sphagnum* layer, where sampled at SW-EL-183 to 186, has an average absorptive value of 16 (21.6 dry) (Fig. 27). This layer, extending over 345 acres (1.4 km^2), could contain 2 000 000 m^3 of peat, equivalent to 200 000 tonnes of product.

NORTHEAST ELMA BOG (R.S. PHOTO A37204-080 and 089)

The Northeast Elma bog is well situated in regard to transportation facilities. It is 0.8 km east of Highway 11, 0.4 km south of Highway 44, 4 km north of the Canadian National main line, and 4 km south of the Canadian Pacific main line. It was first brought to the attention of the writer by T. Wong, Department of Highways, after a survey along a projected highway route traversing the bog indicated 3 to 5 m of peat. The main bog area is shown in Figure 28; untested extensions of the bog are present to the northwest, and eastward between the pond in section 22 and Bog River. Aerial photographs suggest that the area southeast of the main bog area is a patterned fen.

In the five sampled sites, NE-EL 187 to 191, an upper layer 1.5 to 2 m thick consists of more than 80 per cent *Sphagnum*, except site 191, which has 60 to 70 per cent *Sphagnum* (Fig. 27). The underlying 0.5 to 1 m consists of mixed *Sphagnum*-sedge peat with 30 to 60 per cent *Sphagnum*, and woody fragments. The lowest layers are partially humified. The absorptive value of the upper layer averages 15.6 (20.9 dry). If the upper *Sphagnum* layer, with an average depth of 1.75 m, extends over 600 acres (2.43 km^2), it would contain 4 250 000 m^3 equivalent to 425 000 tonnes of product. Although the layer may be thinner on the western side of the bog, the survey profile indicates it thickens to the east. Additional sampling is warranted to determine the limits of the bog and the quality of the peat to the north and east of the area sampled in the present survey.

JULIUS LAKE SOUTH BOG (R.S. PHOTO A37204-087)

A bog 2 to 4 km south of Julius Lake covers 450 acres (1.82 km^2) and consists of a central open *Sphagnum* heath bordered by treed bog (Fig. 29). Aerial photographs of the bog show broad, light toned

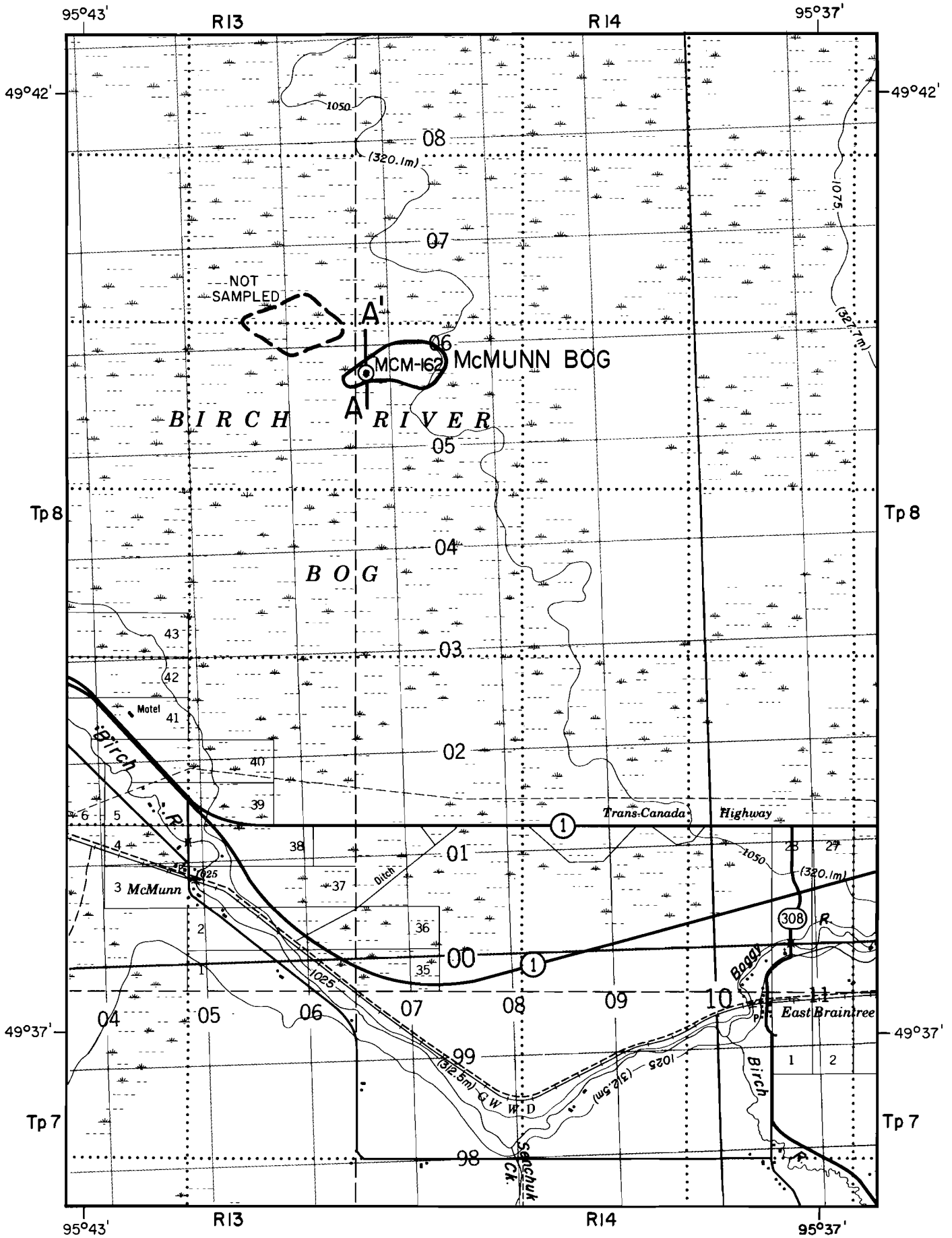


FIGURE 25: McMunn bogs.

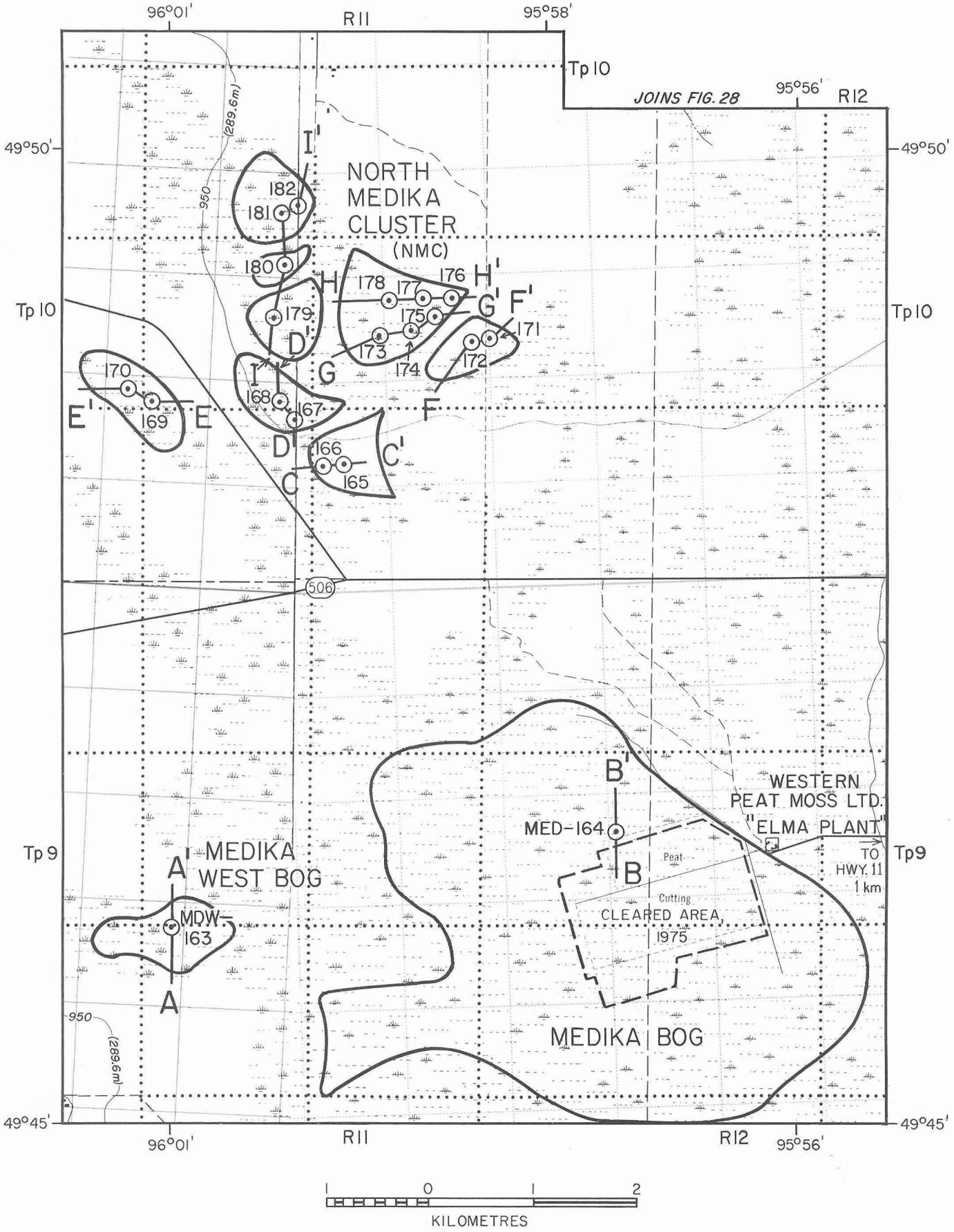


FIGURE 26: Medika West, Medika (Elma) and North Medika bogs.

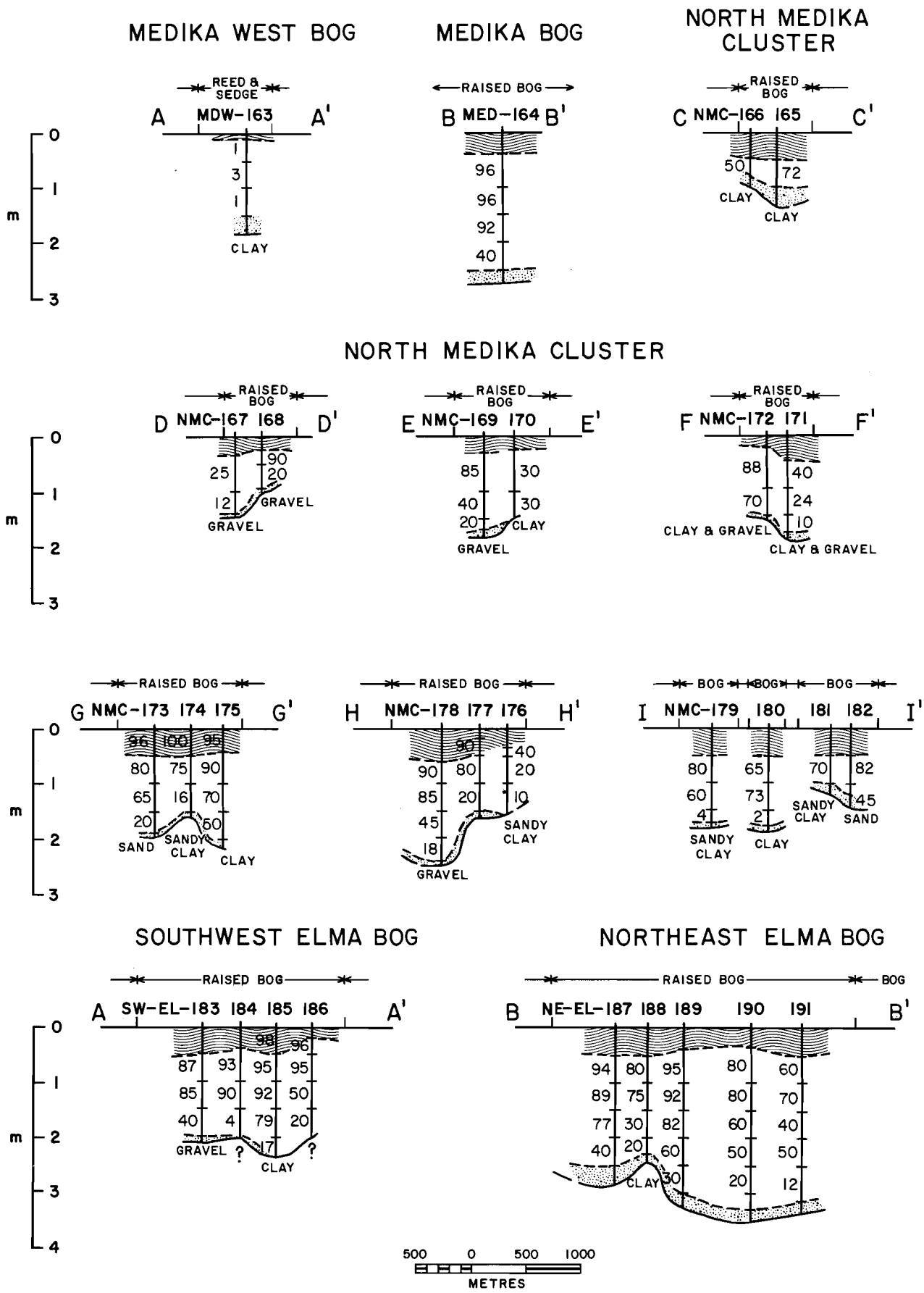


FIGURE 27: Profiles of Medika West, Medika, North Medika, Southwest Elma and Northeast Elma bogs, showing percentage of Sphagnum.

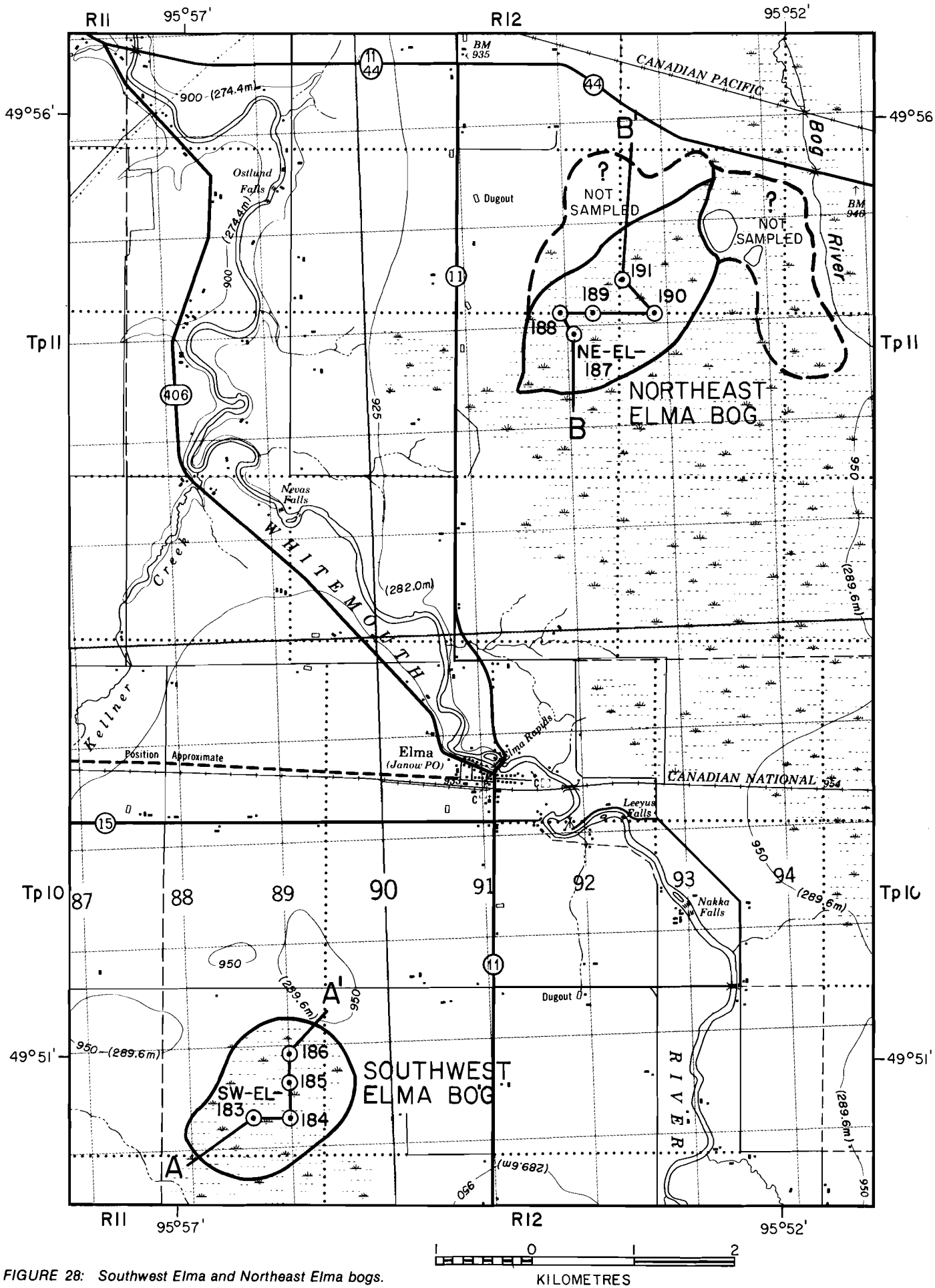


FIGURE 28: Southwest Elma and Northeast Elma bogs.

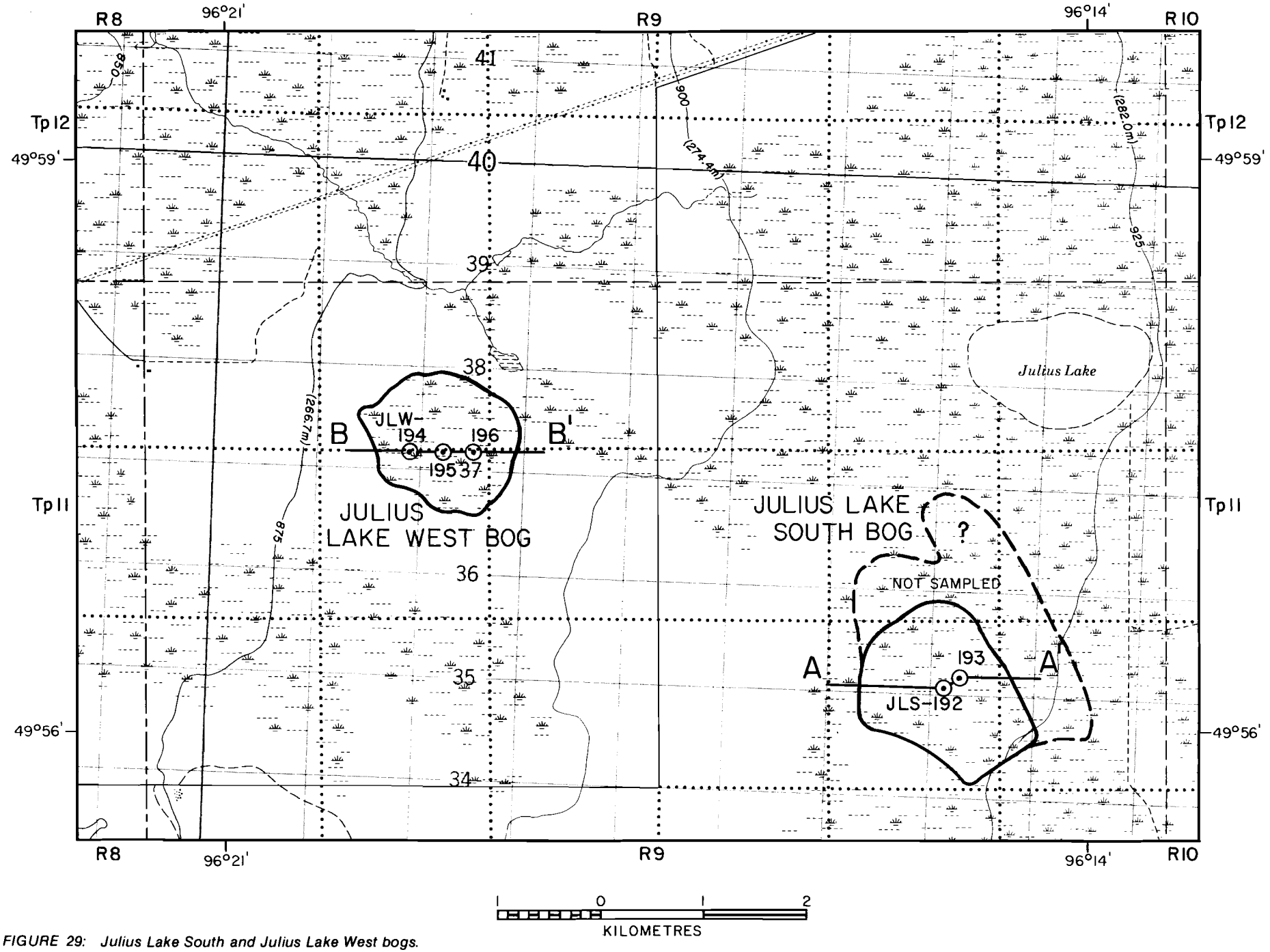


FIGURE 29: Julius Lake South and Julius Lake West bogs.

swaths criss-crossing the bog, a pattern which, in other areas, is known to result from destruction of the tree cover by forest fires. In the two areas sampled, evidence of such fires was not seen, but may be present in the treed area northeast of the sampled sites JLS-192 and 193.

Where tested, the bog consists of 1 to 1.5 m of *Sphagnum* moss, overlying 1.5 m to 1.3 m of partly humified mixed peat (Fig. 30).

If a 1.5 m upper layer of *Sphagnum* is present, the bog would contain 2 700 000 m^3 of moss, equivalent 270 000 tonnes of product. The bog deserves to be sampled in more detail because of its location 8 km southwest of the Julius bog peat plant, and to determine if the good *Sphagnum* extends north and east of the outlined bog, as suggested in Figure 29.

JULIUS LAKE WEST BOG (R.S. PHOTO A37204-086)

The Julius Lake West bog can be reached by a trail extending west from the forestry road west of Julius Lake. It covers an area of some 450 acres (1.82 km^2), and has a distinctive raised dome pattern on infrared photographs. It is a relatively isolated bog, and probably drains to the north and northwest through two bogs and two creeks to the Brokenhead River (Fig. 29).

The results from three sampling sites, JLW-194 to 196, show the central part of the bog consists of open *Sphagnum* heaths within treed spruce areas, and is consistently between 2.5 and 3 m deep (Fig. 30). The thickness of the upper *Sphagnum* layer ranges from 1 to 2.5 m, the latter thickness separated from the clay bottom by 0.2 m of humified peat. The samples from locations 195 and 196 show little sign of humification, but in location 194 the lower sample is partly humified. The lower layers consist of 25 to 63 per cent *Sphagnum*, mixed with reed and sedge peat.

An average thickness of 2 m of good *Sphagnum* over the 450 acre area would contain 3 640 000 m^3 of moss, equivalent to 364 000 tonnes of product.

SOUTHWEST JULIUS BOG (R.S. PHOTO A37204-087)

Immediately southwest of the Julius bog, and separated from it by a narrow swampy strip, is a domed bog covering at least 470 acres (1.9 km^2), with a probable extension to the west (Fig. 31). It shows a well-defined *Sphagnum* response on infrared photos and has a central radiating growth of black spruce.

The bog was sampled from its northeastern edge towards the centre, SWJ-197 to -199, where the peat thickened from 1.5 to 2.5 m (Fig. 30). The bog is notable for having a minimum of humified peat (less than 10 per cent) even at the bog/clay contact. An average thickness of 1.75 m of good *Sphagnum* moss, over the 470 acres, would contain 3 300 000 m^3 equivalent to 330 000 tonnes of product.

JULIUS BOG (R.S. PHOTO A37204-087)

Western Peat Moss Ltd. operates a peat plant at Moss Spur, on the mainline of the Canadian Pacific railway in the centre of the Julius bog (Fig. 31, Plate 1). The history of peat production and some analyses of peat have been recorded previously (Bannatyne, 1964, 1975). A sample from near the centre of the bog, from an unworked but drained part showed 4.5 m of mainly *Sphagnum* moss, with an absorptive value of 14.4 (19.8 dry). Anrep (1912) published a map showing the original thickness of peat.

In recent years, that portion of the bog south of the railway that had been worked by the block cutting method (note the trenches and stacked peat in Plate 1), was levelled off, and is now worked by the vacuum milling method. The bog has been worked continuously since 1940 and an estimated 345 000 tonnes of product have been recovered between 1940 and 1977. Anrep (1912) estimated reserves in the central 946 acres (3.83 km^2) where the moss was greater than 3 m in thickness as 13 234 666 m^3. Using a conversion factor of 10 m^3/tonne of product, original reserves would be about 1 323 000 tonnes of product, although this figure may include some humified peat in the lower layer. The company has not published figures on the reserves remaining, but they are believed to be substantial, based on the above figures. Along the northeastern edge of the bog, the best material has been removed, and a small area there has been removed from production as a humified peat layer has been exposed (D. Biglow, personal communication).

The company holds quarrying mineral leases QL-66 to QL-68, covering 1,520 acres (6.15 km^2).

NORTH JULIUS BOG (R.S. PHOTO A37204-087)

The North Julius bog is unusual in that it occurs in a shallow basinal area surrounded by three topographic highs (+290 m) as shown in Figure 32. The northern tip is transected by Highway 44, and that part of the bog is drained by a ditch leading northwest and west, draining through other bogs to the Brokenhead River system. A shallower sublobe forms the southwestern part of the bog. Profiles of the bog are shown in Figure 30.

The southwestern lobe is 1.5 to 2 m deep, has an area of 300 acres (1.21 km^2), and has an upper layer 1.0 to 1.5 m thick of good *Sphagnum* (NJ-200 to 202). If this layer averages 1.25 m, the lobe would contain 1 500 000 m^3 of moss, equivalent to 150 000 tonnes of product.

The remainder of the bog, some 1,000 acres (4.05 km^2), can be divided into two parts. A western part has a layer of *Sphagnum* 1 to 2 m thick, in sharp contact with underlying partly humified mixed *Sphagnum* and reed and sedge peat that is 3 to 2 m thick respectively (average bog depth exceeds 4 m). This part, as shown by holes 204 and 205, merges eastward to an eastern part which is reported to have a good thickness of *Sphagnum* moss (D. Biglow, personal communication).

Following the identification of this bog, quarrying mineral lease QL-60, covering 640 acres (2.59 km^2), was obtained by Western Peat Moss Limited. The company sampled the bog in detail, and large reserves were outlined, particularly in the eastern part of the bog. Production of peat moss by the vacuum milling method began in the fall of 1979.

If the good *Sphagnum* layer is 2 m thick, the 800 acres (3.24 km^2) in the main part of the bog would contain 6 500 000 m^3 of moss in place, equivalent to 650 000 tonnes of product.

Interpretation of infrared photographs suggests that another bog area, located 1 km to the southeast, could contain some *Sphagnum* moss (Fig. 32).

EVERGREEN BOG (R.S. PHOTO A37204-102)

This bog was described by Leverin (1943, 1946, his "bog North of Highway 1"), and several attempts to bring it into production were made by Molson Peat Co. in the early 1950s and by Northern Plastics Limited (?) in 1964. As the developed part of the bog is privately owned, records of these attempts are incomplete in the Mineral Resources Division files.

Evergreen Peat and Fertilizer Limited acquired the bog, and production was achieved from 1973 to mid-1976, when the company was placed in receivership. A ditch drains the bog to the east, and the company erected a plant using a rotary drier. The entire depth of good moss was excavated, but this proved to be an expensive method of production, particularly with the increase in fuel costs in 1974 (Dunfield, 1975). The plant and bog were acquired by Western Peat Moss Ltd. in the fall of 1977. By 1979, the northeastern part of the bog had been prepared for production by the vacuum milling method.

The bog was sampled in 1976 with permission of the owners (Fig. 32). Ten locations were tested, EVE-209 to -218. Results show that the bog, though covered by a moderately dense growth of *Picea mariana*, is underlain by very high quality *Sphagnum* moss. The edges are shallow (EVE-211, 218), but the remainder has a fairly uniform depth of 3 m of moss consisting 87 to 100 per cent of *Sphagnum*. Average absorptive value is 19.8 (27 dry). The good

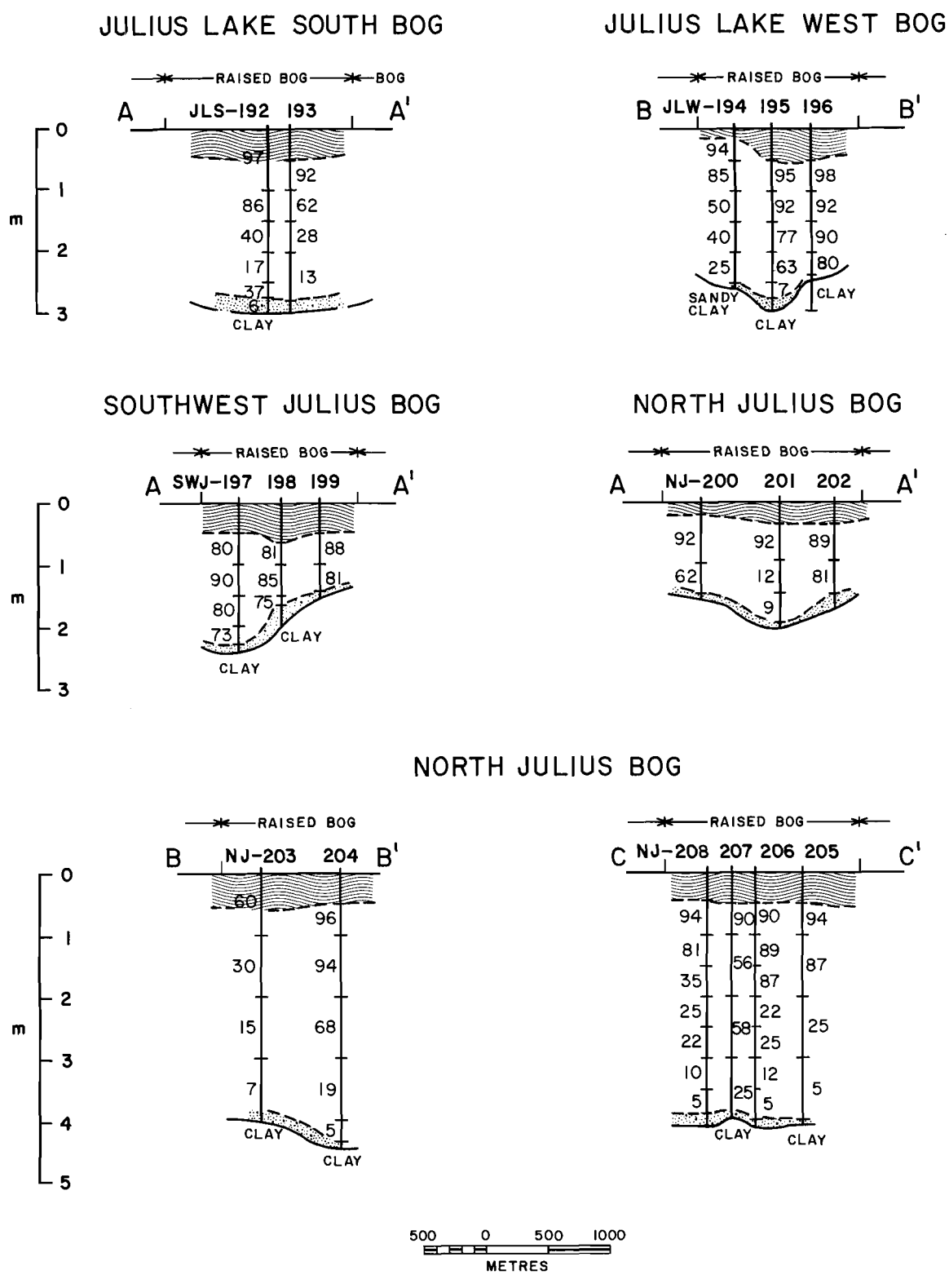


FIGURE 30: Profiles of the Julius Lake South, Julius Lake West, Southwest Julius and North Julius bogs, showing percentage of Sphagnum.

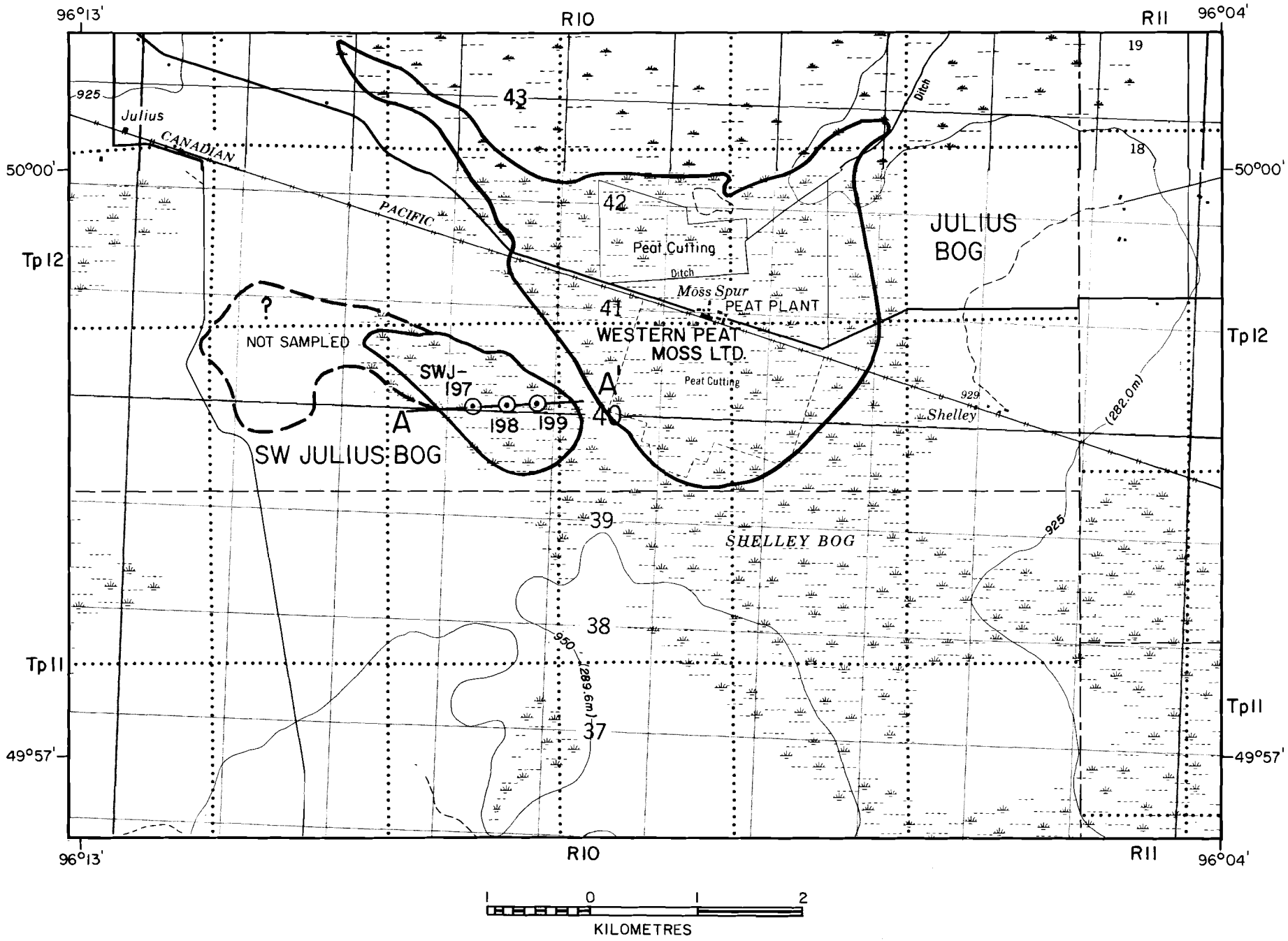


FIGURE 31: Southwest Julius and Julius bogs.

PLATE 2. Aerial photograph of the Julius bog (A21992-159, National Air Photo Library). North is to the top; scale is 1:15 840.

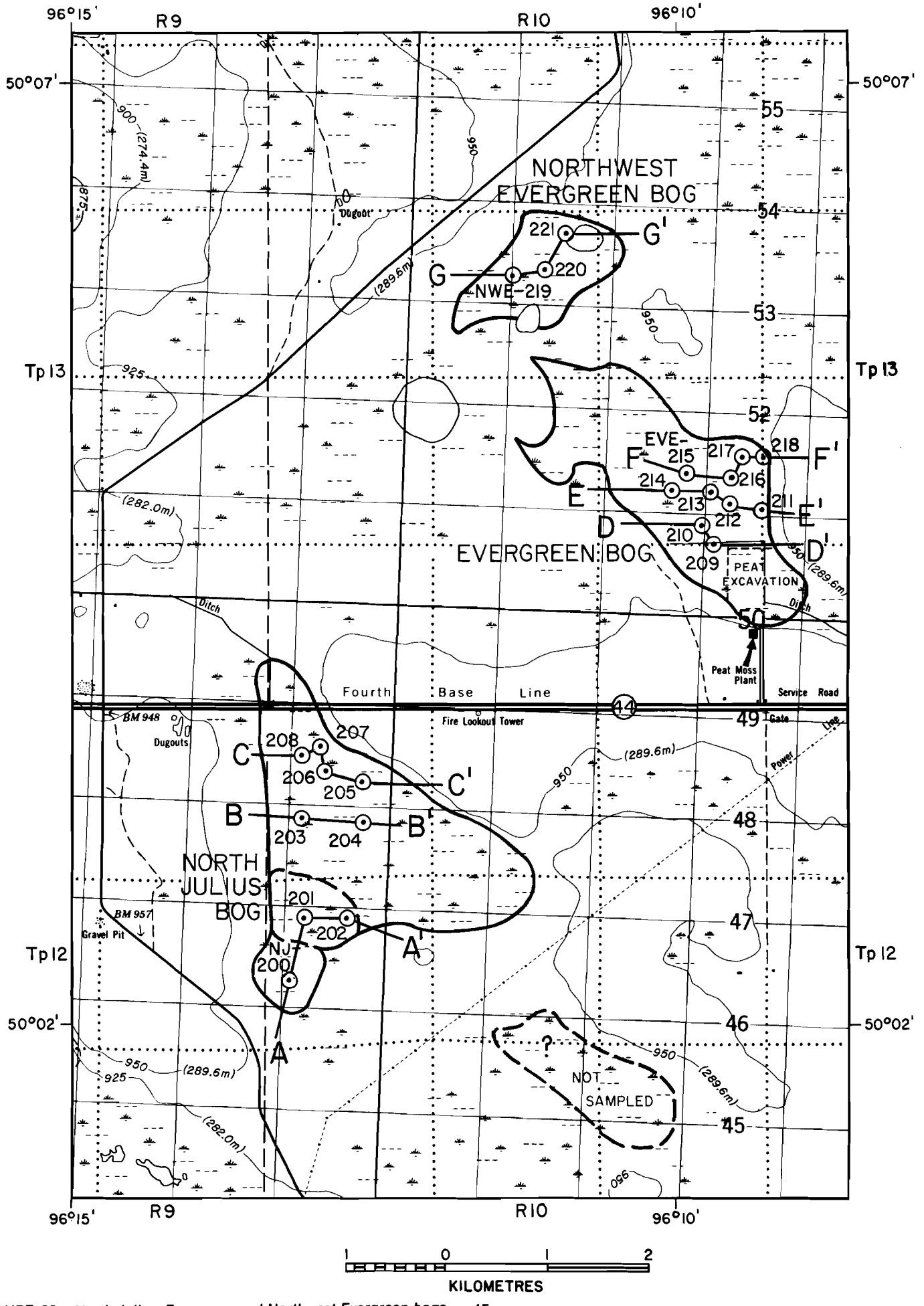


FIGURE 32: North Julius, Evergreen and Northwest Evergreen bogs. 45

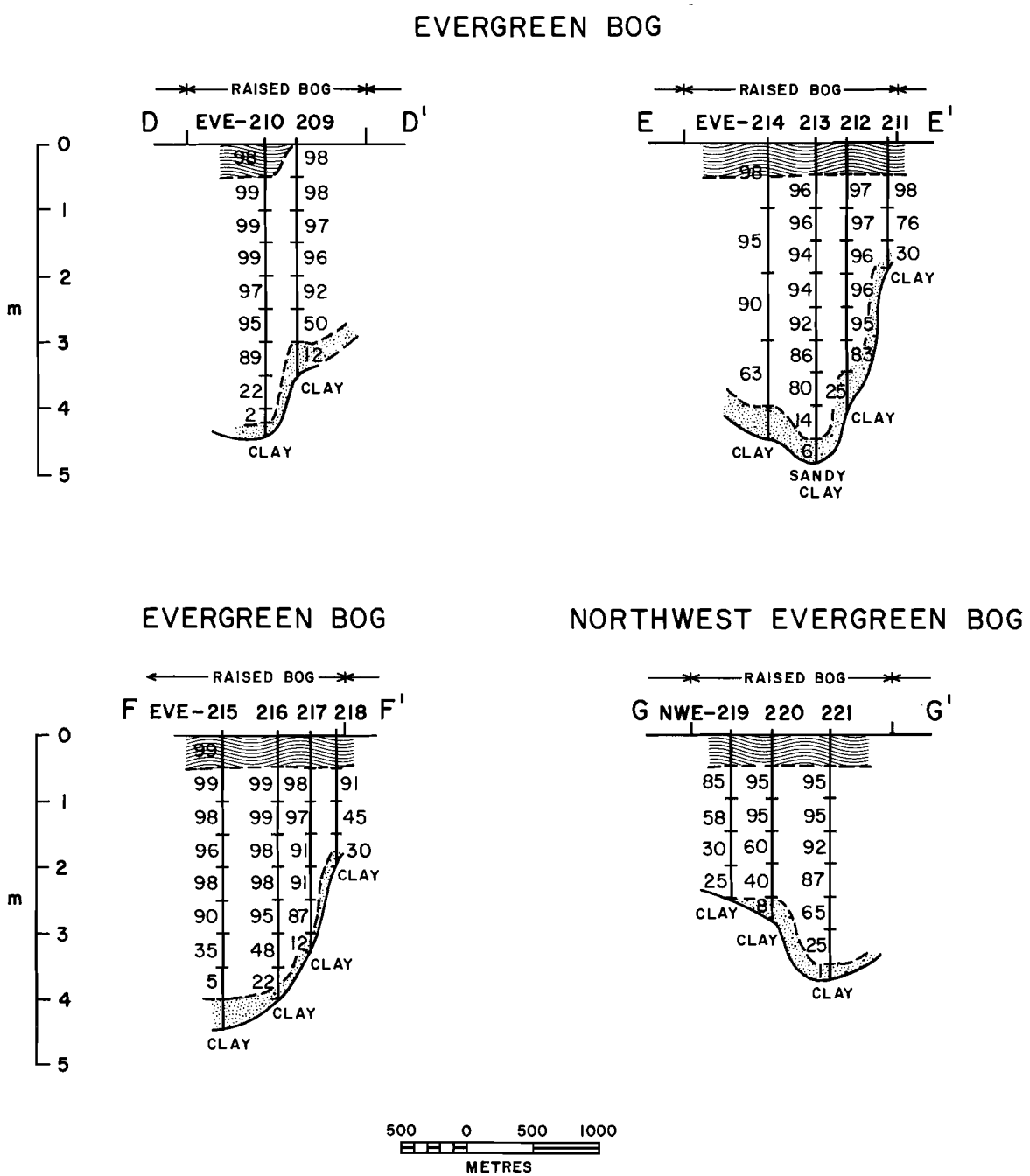


FIGURE 33: Profiles of Evergreen and Northwest Evergreen bogs, showing percentage of Sphagnum.

Sphagnum layer is 3.5 to 4 m thick in some locations. At location EVE-213, total depth of the bog is 4.9 m (Fig. 33).

The northwestern lobe was untested in this survey, but Leverin (1946) reported a depth of 2.13 m of good moss there. The results of the present survey indicate that the moss sampled in the central lobe is of much higher quality than the samples tested by Leverin, who reported an average absorptive value of 12.1 (16.5 dry).

Estimated reserves in 200 acres (0.81 km²) of the central lobe and 138 acres (0.56 km²) of the northwestern lobe are 2 500 000 m³ and 1 200 000 m³ respectively, equivalent to 250 000 and 120 000 tonnes. Total reserves are thus estimated at 370 000 tonnes of product. Some additional reserves may be present in the NE¼ of section 4.

NORTHWEST EVERGREEN BOG (R.S. PHOTO A37204-102)

This is a discrete bog, separated from the northwestern tip of the Evergreen bog by 200 m of a shallow sedgy fen. Two ponds about 300 m across occur within the bog (Fig. 32). Sample NWE-221, near the west side of the northern pond, has an upper 2.5 m of unhumified *Sphagnum* peat with an absorptive value of 18.7 (25.3 dry). In samples 220 and 219, the *Sphagnum* layer is 1.5 and 1.0 m thick respectively, and the lower layers have more sedge and are partly humified (Fig. 33). The entire bog has a surface layer of *Sphagnum* under a moderately dense cover of *Picea mariana*. If an average thickness of 1.5 m of *Sphagnum* is present over the bog area of 240 acres (0.97 km²), estimated volume is 1 450 000 m³ of peat in place, equivalent to 145 000 tonnes of product. The bog is worthy of more detailed sampling to determine reserves accurately, because of its proximity to the Evergreen bog.

BOGS IN THE PINAWA — POINTE DU BOIS — PINE FALLS REGION

Eight bogs were sampled in this region (Fig. 34). Six of the bogs were selected for sampling because of their response on infrared photographs; some *Sphagnum* moss was found in parts of each bog. Two bogs, the Lee River ("Transmission") bog and the Pointe du Bois ("Litter") bog had been described by Anrep (1912) as containing *Sphagnum*; the bogs were visible but not distinctive on the infrared photographs. Profiles of the bogs are shown in Figure 37.

1) RADAR BOG (R.S. PHOTO A37204-102)

The bog (Fig. 35) is 1.75 m deep. Although *Sphagnum* hummocks and, in places, a continuous mat of *Sphagnum* form the surface layer, the underlying peat is primarily a moderately humified reed and sedge peat (RAD-222 to -224). Thus the bog is not considered a commercial source of *Sphagnum* moss.

2) MOOSWA LAKE BOG (R.S. PHOTO A37204-102, 103)

Results from four sampled sites, MWL-225 to -228, Figure 35, indicate varied surface vegetation and peat composition. Other mosses besides *Sphagnum* are present, and are abundant in some parts of the bog. The upper 1 to 1.5 m layer consists 60 to 85 per cent of *Sphagnum*, with a variable amount of reed and sedge peat. Additional testing, particularly near MWL-225, could outline some *Sphagnum* peat, but an estimate of reserves is not warranted on available data.

3) NORTH PINAWA BOG (R.S. PHOTO A37204-101)

Where sampled at NPW-229 to -231, Figure 36, the bog has a large component of reed and sedge peat, mixed with some *Sphagnum* moss and 5 to 25 per cent woody fragments. Although *Sphagnum* hummocks form the surface growth in the central part, the bog is not considered a likely source of commercial *Sphagnum* moss.

4) WENDIGO BOG (R.S. PHOTO A37204-109)

The surface layer at WEN-222 and -223, Figure 38, is a more or less continuous layer of *Sphagnum* moss. The upper 1 to 1.5 m layer is composed predominantly of *Sphagnum*, with 12 per cent reed and sedge peat, and is slightly to moderately humified. It would contain sufficient peat for, at most, a few tens of thousands of tonnes of product, but may possibly be suitable for a small-scale operation.

5) LEE RIVER BOG (R.S. PHOTO A37204-109)

The Lee River bog, Figure 38, is somewhat similar to the Wendigo bog, but is apparently more humified (LEE-234, 235). It forms the northeastern part of the "Transmission bog" mapped by Anrep (1912), much of which has been drained.

6) POINTE DU BOIS BOG (R.S. PHOTO A37204-111)

The Pointe du Bois bog, Figure 39, referred to as the "Litter bog" by Anrep (1912), has 3 to 3.5 m of good quality *Sphagnum* moss at PDB-236 and -237. It may contain as much as 1 000 000 m³ of good moss with an average absorptive value of 18.2 (24.6 dry), equivalent to 100 000 tonnes of product. However, at both sampling sites the bog is a floating mat with water an additional 3 m deep underlying the peat (Fig. 37). This was not specifically noted by Anrep, who recorded a maximum depth of 5 m in the bog; it may be a recent development following road and rail construction nearby. The bog appears solid on surface; it was only when sampled that its floating nature was detected. A small pond is present in the southern part of the bog which lies between two ridges of Precambrian gneiss.

7) ST. GEORGE BOG (R.S. PHOTO A37204-123)

The western margin of the St. George bog, located between ridges of Precambrian granite, consists of an upper 1 m layer of *Sphagnum* with 15 to 30 per cent reed and sedge peat, overlying 1 m of partly humified mixed peat (STG-238, -239, Fig. 37, 40). However, a sample at STG-240, towards the central part of the bog, showed a 2 m layer of good *Sphagnum* moss with an absorptive value of 19.2 (26 dry). The bog requires more detailed sampling to determine the quantity of commercial *Sphagnum* peat moss.

8) PINE FALLS BOG (R.S. PHOTO A37204-123, 124)

A bog area west of the road from Powerview is referred to here as the Pine Falls bog, but is only part of a large area with organic soil, as shown by the swamp symbols in Figure 40. At PF-241 and -242, the bog contains reed and sedge peat with a small amount of *Sphagnum*. *Sphagnum* hummocks form the surface of PF-242, and the percentage of *Sphagnum* in the peat apparently increases westward from the Powerview road. However, reserves of *Sphagnum* are not estimated for this bog. It was sampled mainly to determine the bog composition in an area where interpretation of infrared response was uncertain.

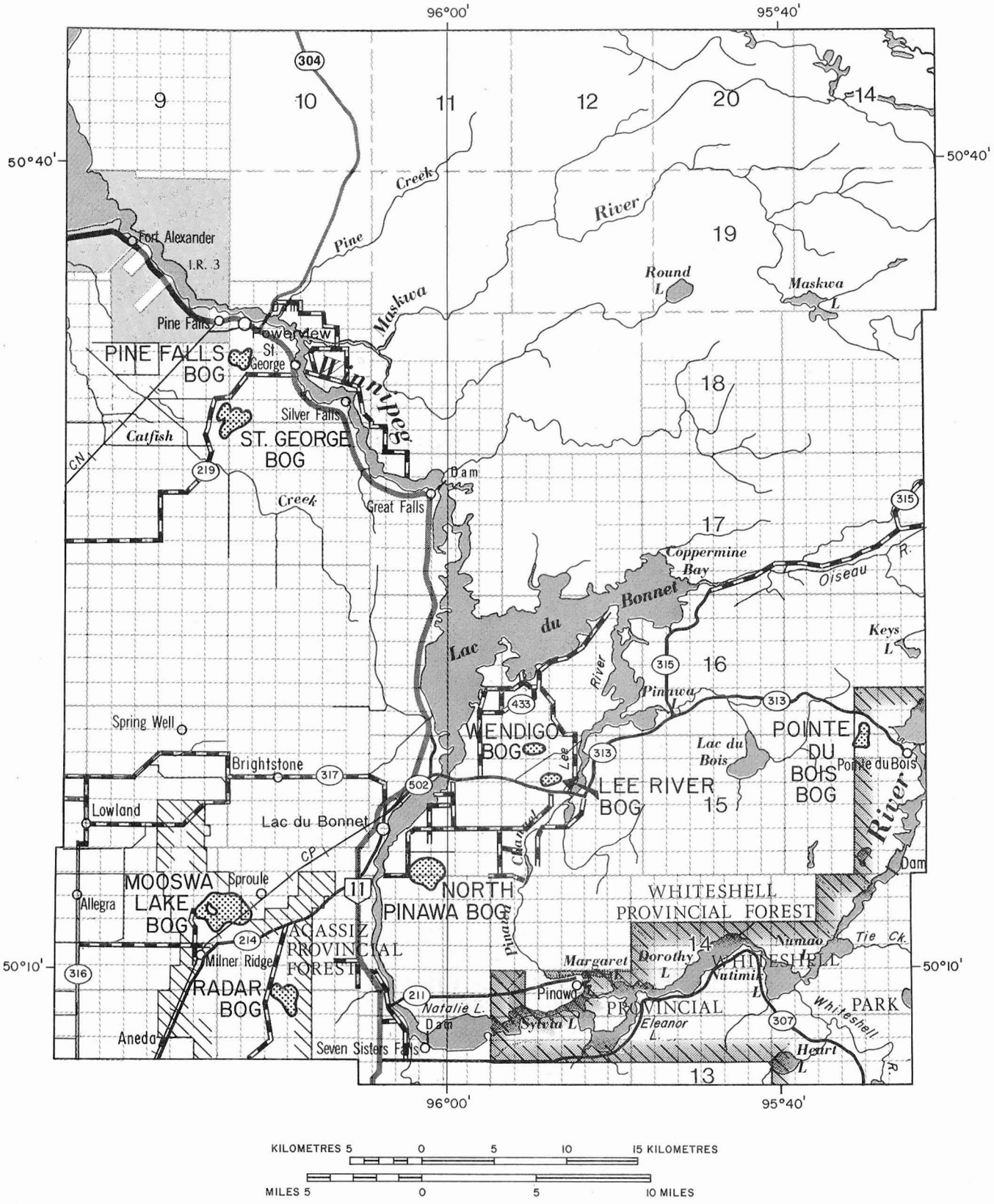


FIGURE 34: Location of sampled bogs in the Pinawa-Pointe du Bois-Pine Falls region.

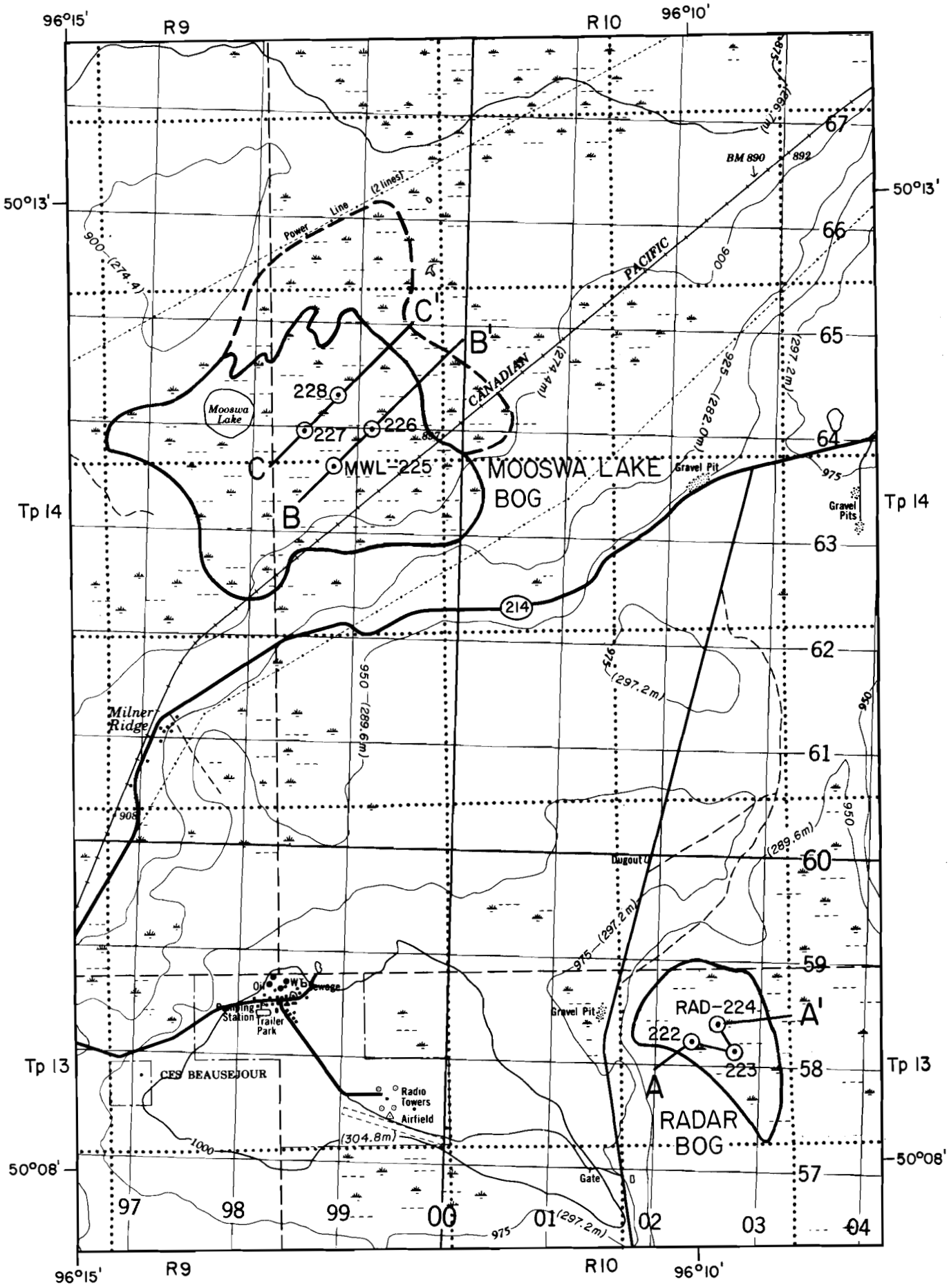


FIGURE 35: Radar and Mooswa Lake bogs.

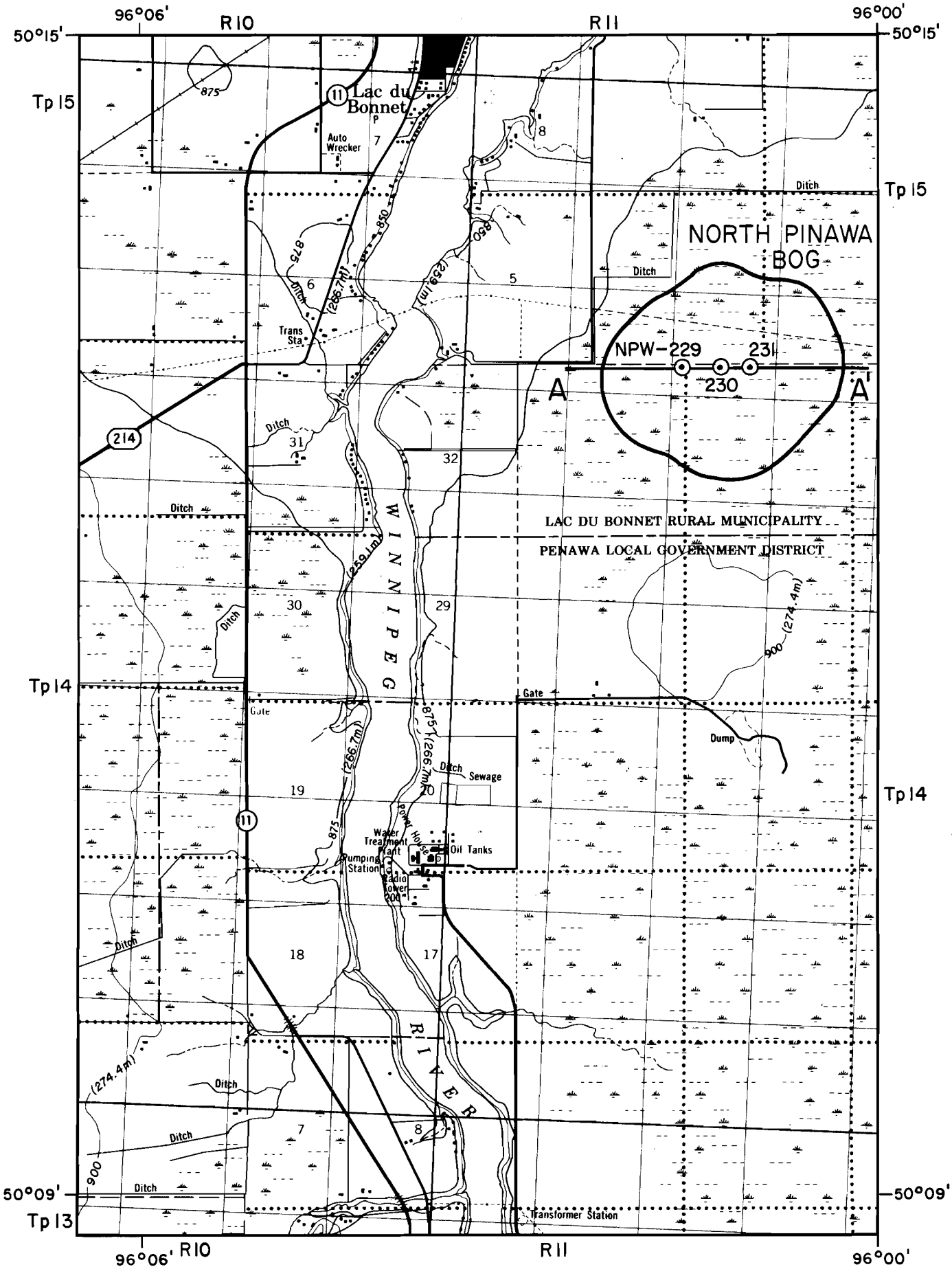


FIGURE 36: North Pinawa bog.

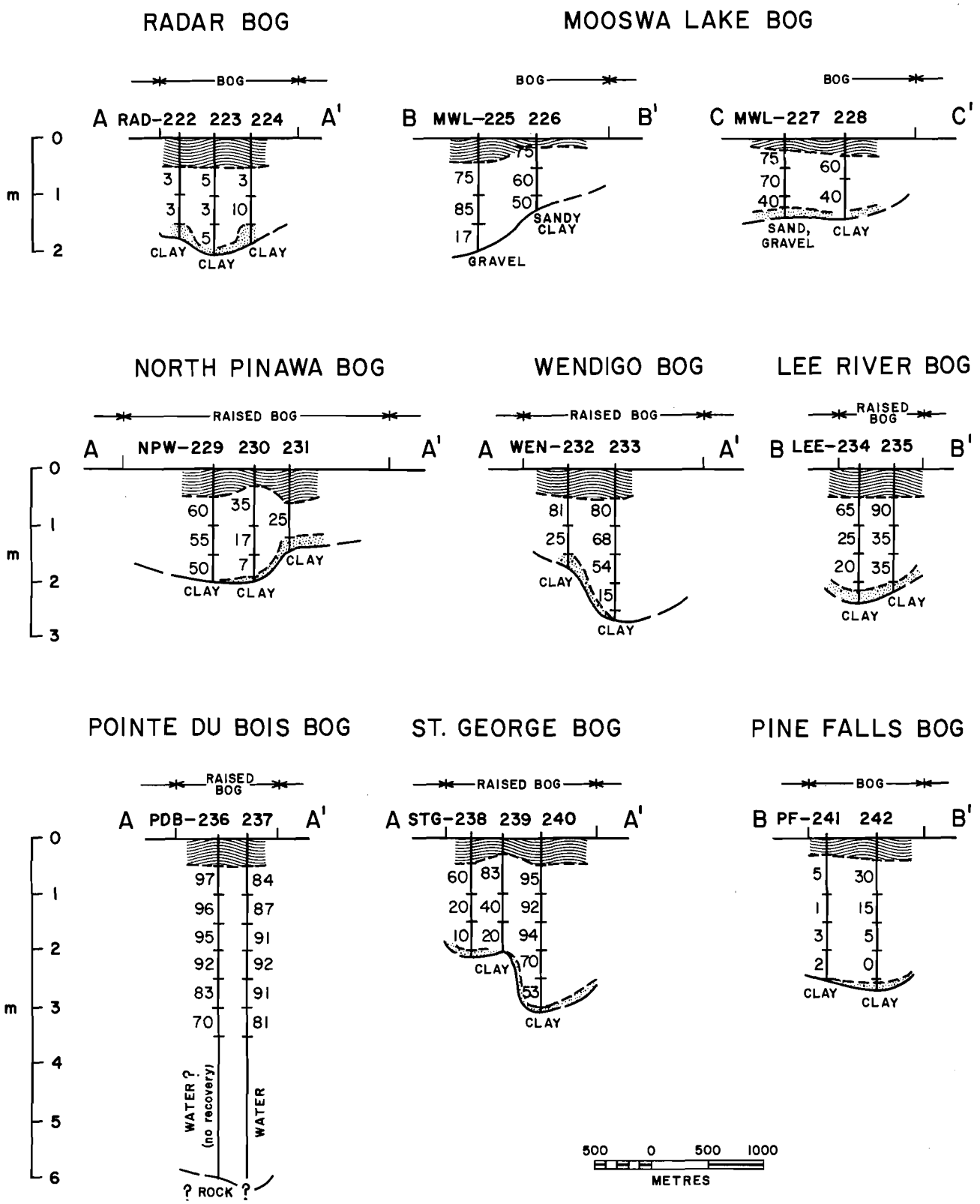


FIGURE 37: Profiles of Radar, Mooswa Lake, North Pinawa, Wendigo, Lee River, Pointe du Bois, St. George and Pine Falls bogs, showing percentage of Sphagnum.

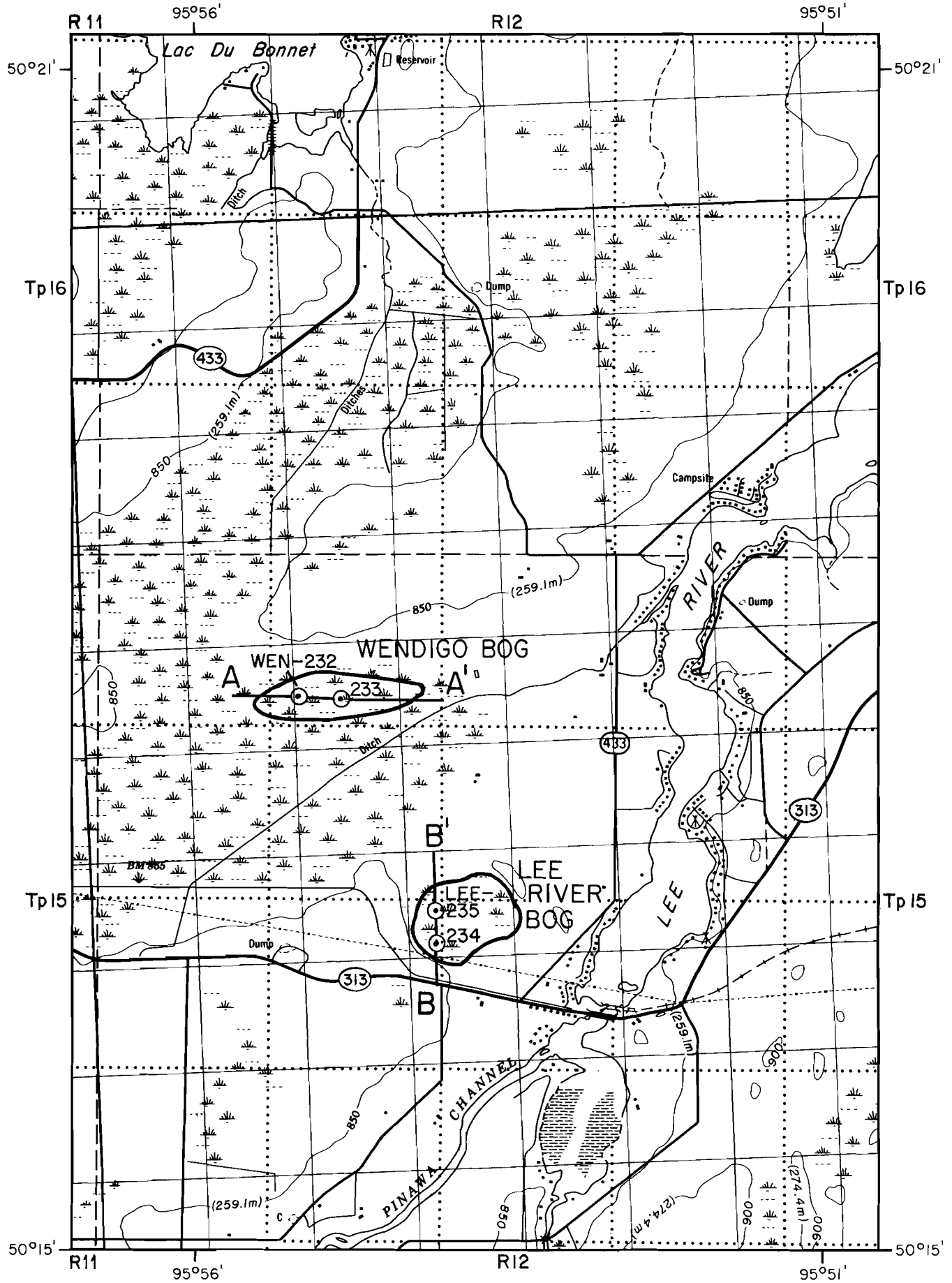


FIGURE 38: Wendigo and Lee River bogs.

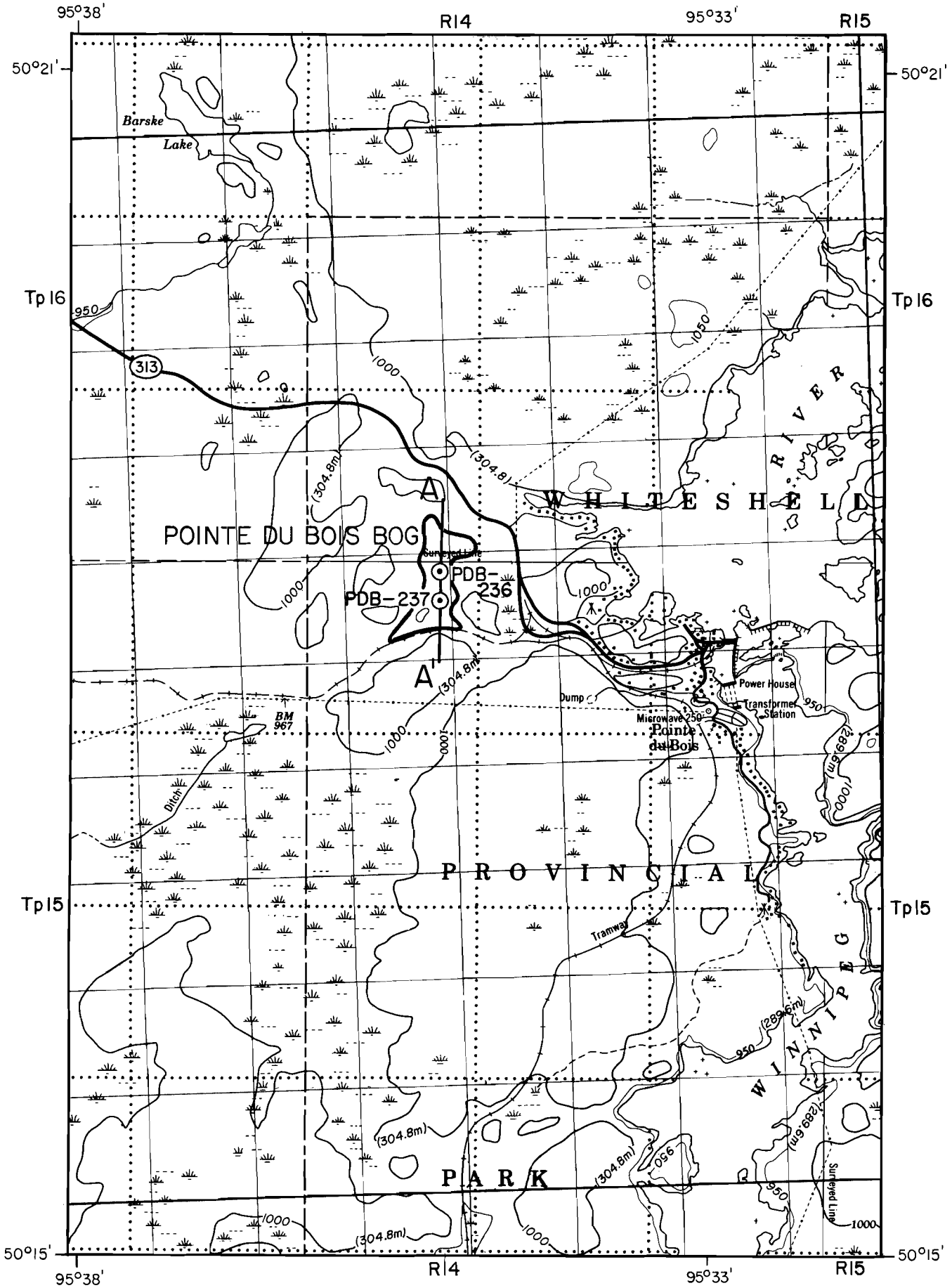


FIGURE 39: Pointe du Bois bog.

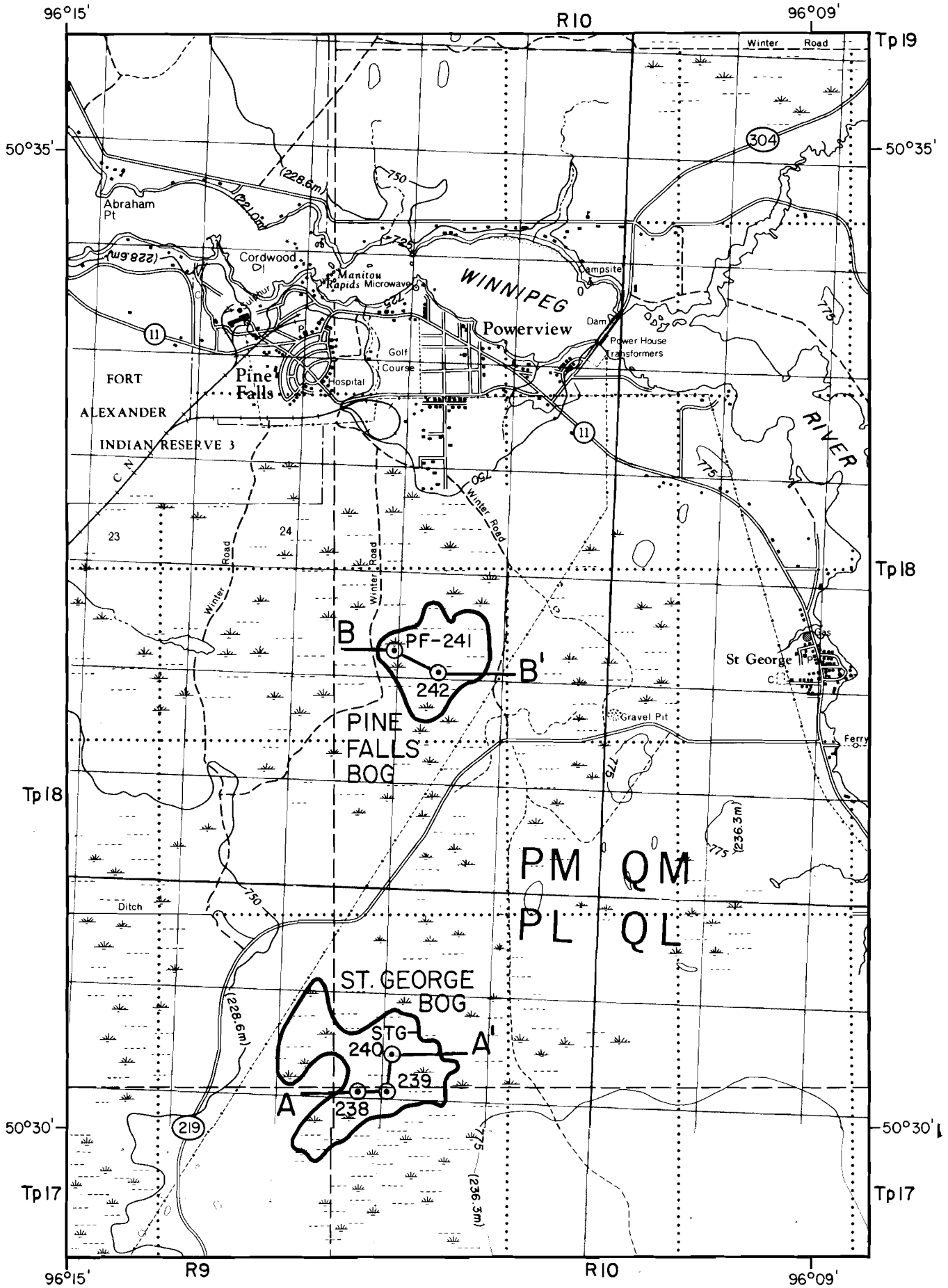


FIGURE 40: St. George and Pine Falls bogs.

SAMPLING OF SELECTED *SPHAGNUM* PEAT BOGS IN THE WASHOW BAY AREA

In 1975 the Manitoba Soil Survey Soils Report No. 19, on the "Soils of the Red Rose-Washow Bay Area", was published (Smith et al., 1975). The Julius complex, dominated by the Julius Series ("a *Sphagno-Fibrisol*, developed on extremely acid, uniform deposits of fibric *Sphagnum* mosses more than 5 feet [1.52 m] deep"), is mapped as covering 236,042 acres (955.26 km²), or 13.4 per cent of the total map area. The majority of the deposits occur on the Icelandic River Plain and the Sturgeon Bay Lowlands, subdivisions of the Lake Winnipeg Lowland (Smith et al., op. cit., p. 7). The most accessible area, containing the highest concentration of the Julius Complex, is the eastern half of the Icelandic River plain: a) between Ramsay Point on the western shore of Washow Bay and the end of P.R. 234 at Matheson Island, and b) on the Grindstone Point peninsula, shown in Figure 41.

This area is 130 to 200 km due north from Winnipeg. Black and white aerial photos and some natural colour photos (for the western portion only) were examined, and 13 bog areas were selected for sampling. These areas generally are discrete raised bog plateaus within larger areas mapped as Julius complex soils (see Fig. 42 and 43, this report, compared with Soils Report No. 19 soil map). The bog areas were recognized by either open areas of *Sphagnum* moss with stunted tree growth, or as lightly to moderately treed raised bog areas with distinctive features easily recognized on the aerial photographs. Infrared photographs are not as yet available for this area.

Those bogs accessible from the new road into the Grindstone Point Recreational area and from the Matheson Island road were sampled by land traverse. Remoter parts of the larger bogs (Ramsay Point; Hay Point, and Black Point bogs) and otherwise inaccessible bogs (Washow Bay, North Moose Lake, Biscuit Harbour, and Birch Lake bogs) were reached by helicopter.

The results of the survey are shown in Figures 44 to 46, and in Appendices 1 and 2, sampling sites 243 to 296. Surface growth, character of the peat moss, and depth of the bogs are listed. Estimated tonnages of high-quality *Sphagnum* peat are listed in Table 5.

It is obvious from the results that very large reserves of high quality *Sphagnum* peat moss are available in the area. A feature of many of the sampled deposits, indicative of their above average quality, is the uniformly high absorptive values of the peat moss. The values are greater than for many of the bogs in southeastern Manitoba, and consistent with the degree of humification and lower ash content of the Washow Bay deposits.

The economics of developing these bogs will depend upon:

1) ease of drainage of the bogs;
2) accessibility; possible shipment of compressed peat by barge down Lake Winnipeg to Selkirk could be considered;
3) availability of labour force in the sparsely populated area;
4) climatic factors: average precipitation (about 50 cm) and average mean temperature (about 1° C) are similar to most parts of southeastern Manitoba;
5) transportation costs;
6) capital costs of plant development and operation.

These factors will require evaluation before development of any of the bogs could be achieved. Nevertheless, the present preliminary survey has shown the existence of very large reserves of high quality *Sphagnum* peat moss.

The most accessible bogs — the Hay Point, Black Point, Ramsay Point, Beaver Point, and the North and South Bullhead and South Doghead areas — have a combined estimated reserve of some 8 200 000 tonnes of high quality *Sphagnum* peat moss (82 000 000 m³ of peat in place).

TABLE 5 ESTIMATED RESERVES OF GOOD *SPHAGNUM* PEAT MOSS IN SAMPLED BOGS IN THE WASHOW BAY AREA

Bog	Area km²	Area acres	Assumed thickness of good *Sphagnum*	Volume: m³ (000,000)	Product: tonnes (000,000)
Hay Point	5.83	1440	2.5 m	14.5	1.45
Washow Bay	4.05	1000	1.75 m	7.1	0.71
Black Point	5.99	1480	1.5 m	9.0	0.90
Little Grindstone Point	1.29	320	1.0 m	1.3	0.13
Ramsay Point	13.03	3220	2.5 m	32.6	3.26
Beaver Point	4.05	1000	2.0 m	9.0	0.90
North Moose Lake	2.43	600	2.5 m	6.0	0.60
Biscuit Harbour	4.57	1130	2.0 m	9.0	0.90
Birch Lake	2.83	700	2.5 m	7.0	0.70
South Bullhead	2.59	640	3.0 m	7.7	0.77
North Bullhead	2.59	640	1.75 m	4.4	0.44
South Doghead	2.59	640	2.25 m	5.8	0.58
North Doghead	2.59	640	0.5 m	1.2	0.12
TOTAL				113.6	11.36

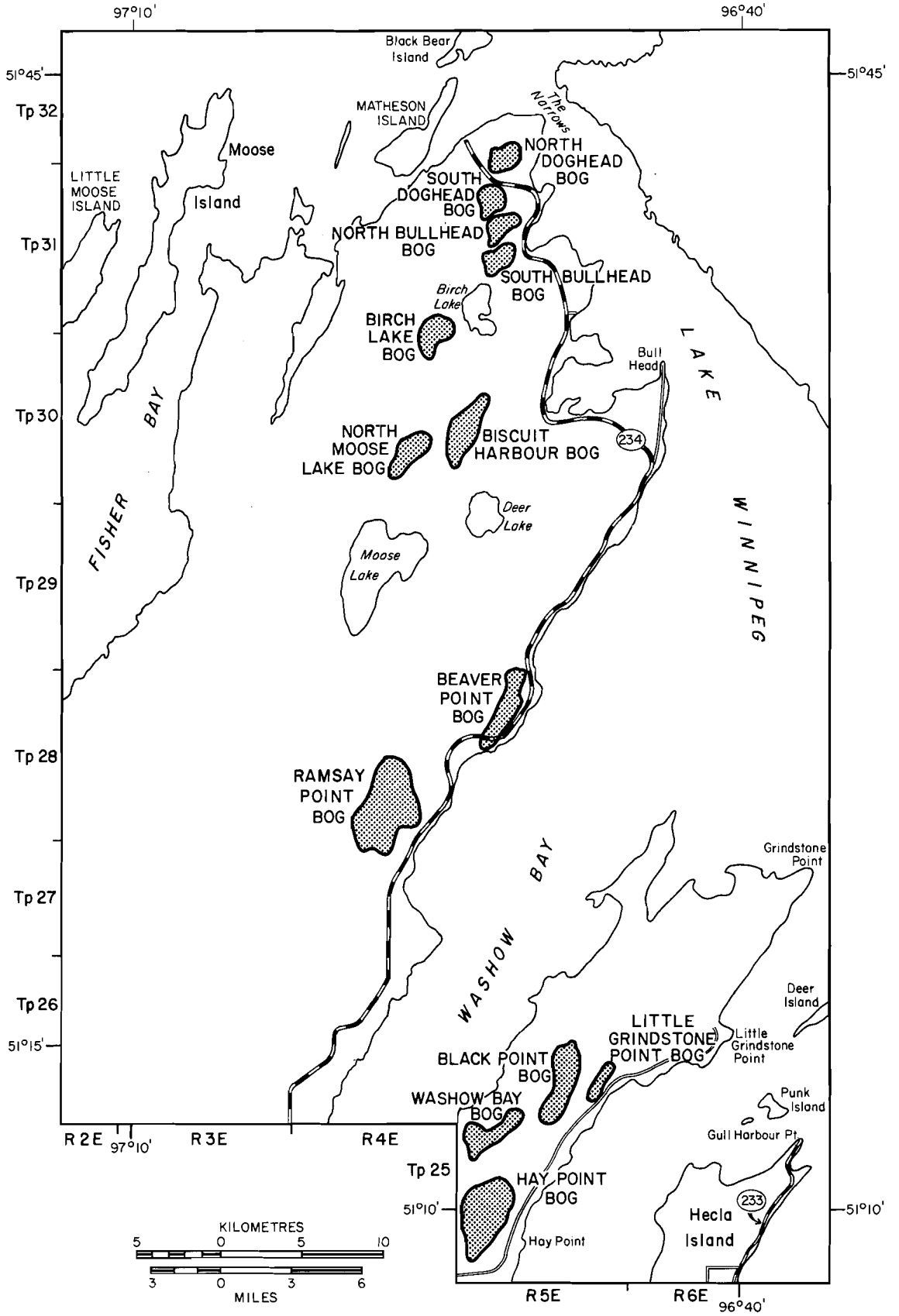


FIGURE 41: Location of sampled bogs in the Washow Bay area.

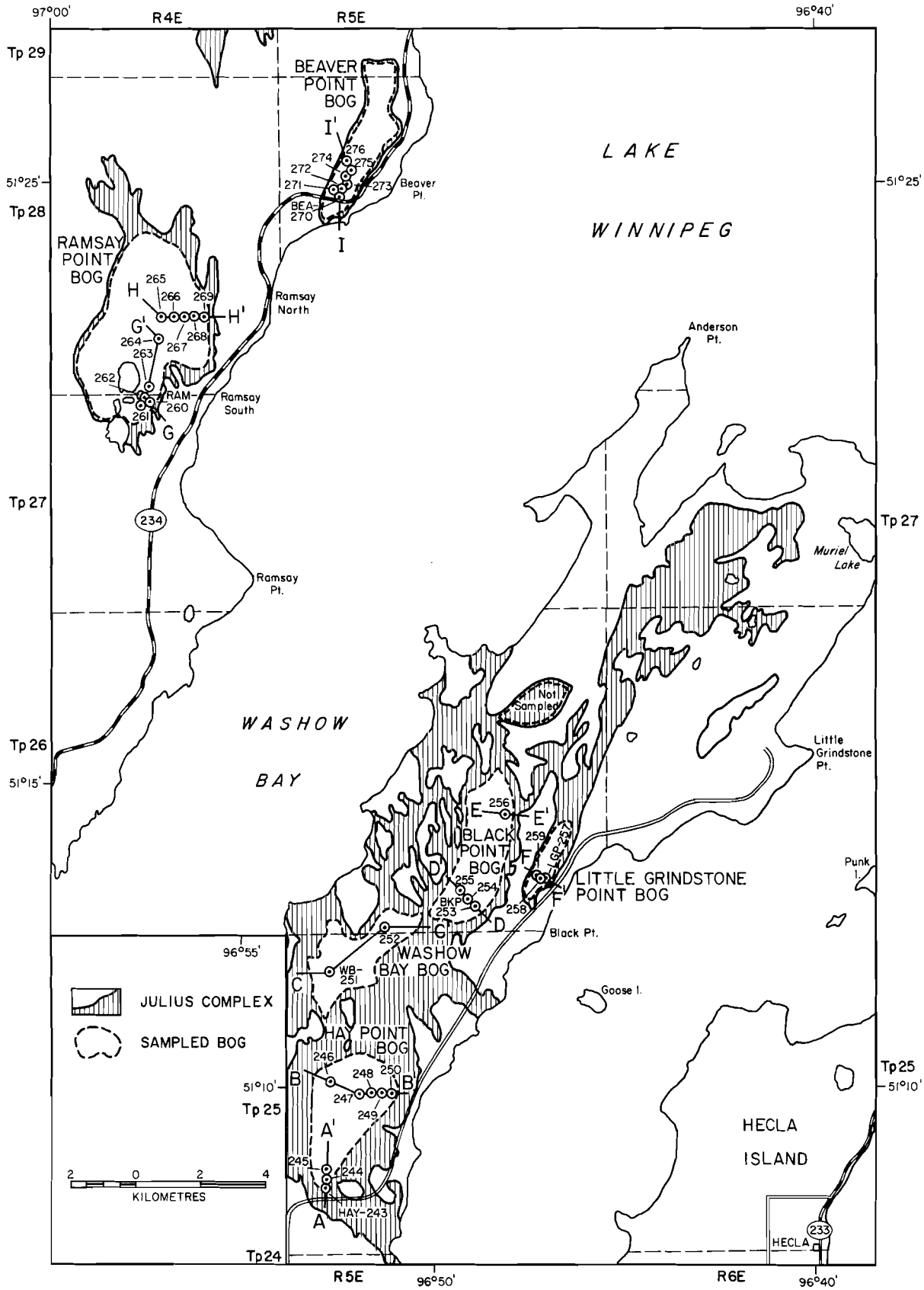


FIGURE 42: Hay Point, Washow Bay, Black Point, Little Grindstone Point, Ramsay Point and Beaver Point bogs.

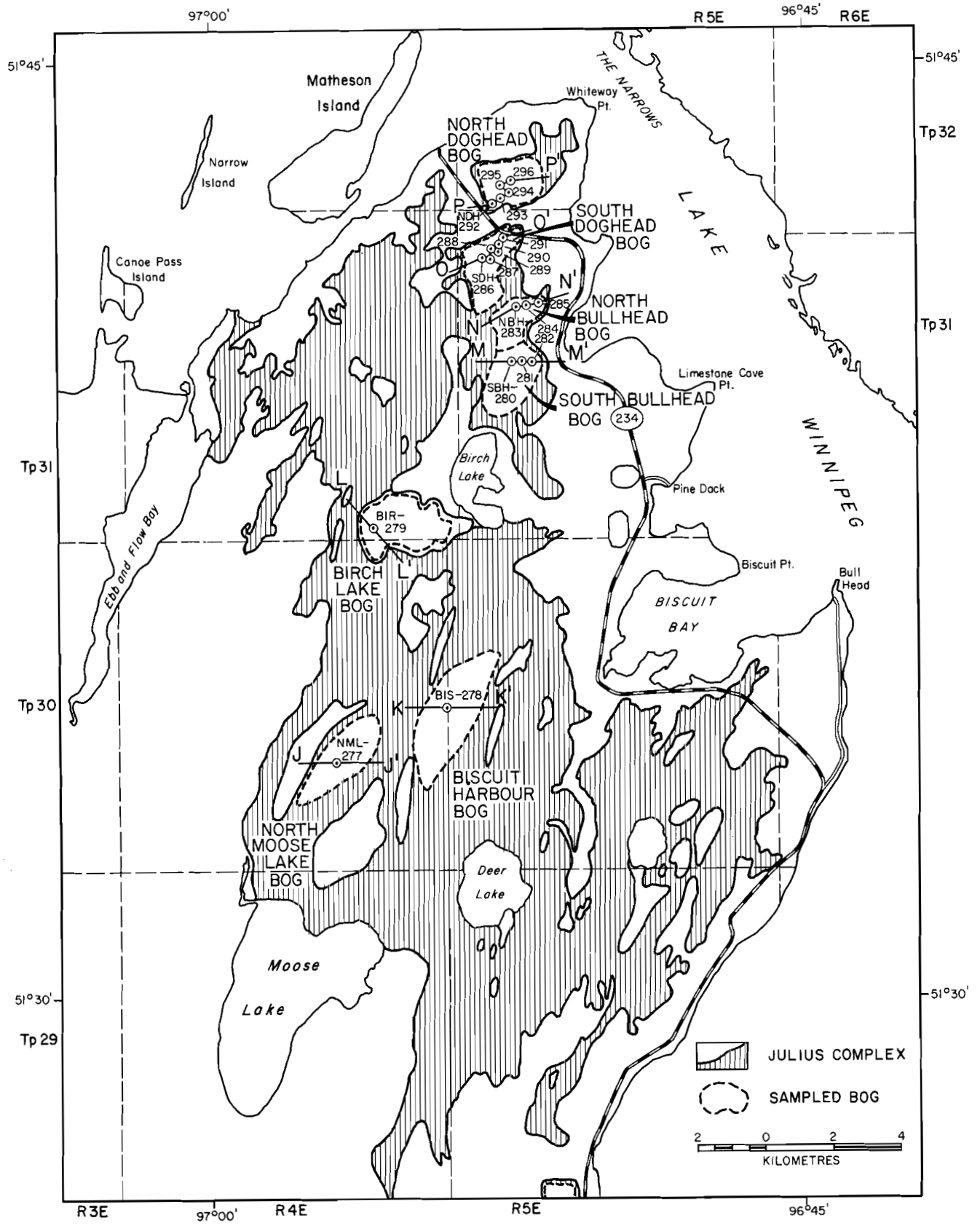


FIGURE 43: Moose Lake, Biscuit Harbour, Birch Lake, Bullhead and Doghead bogs.

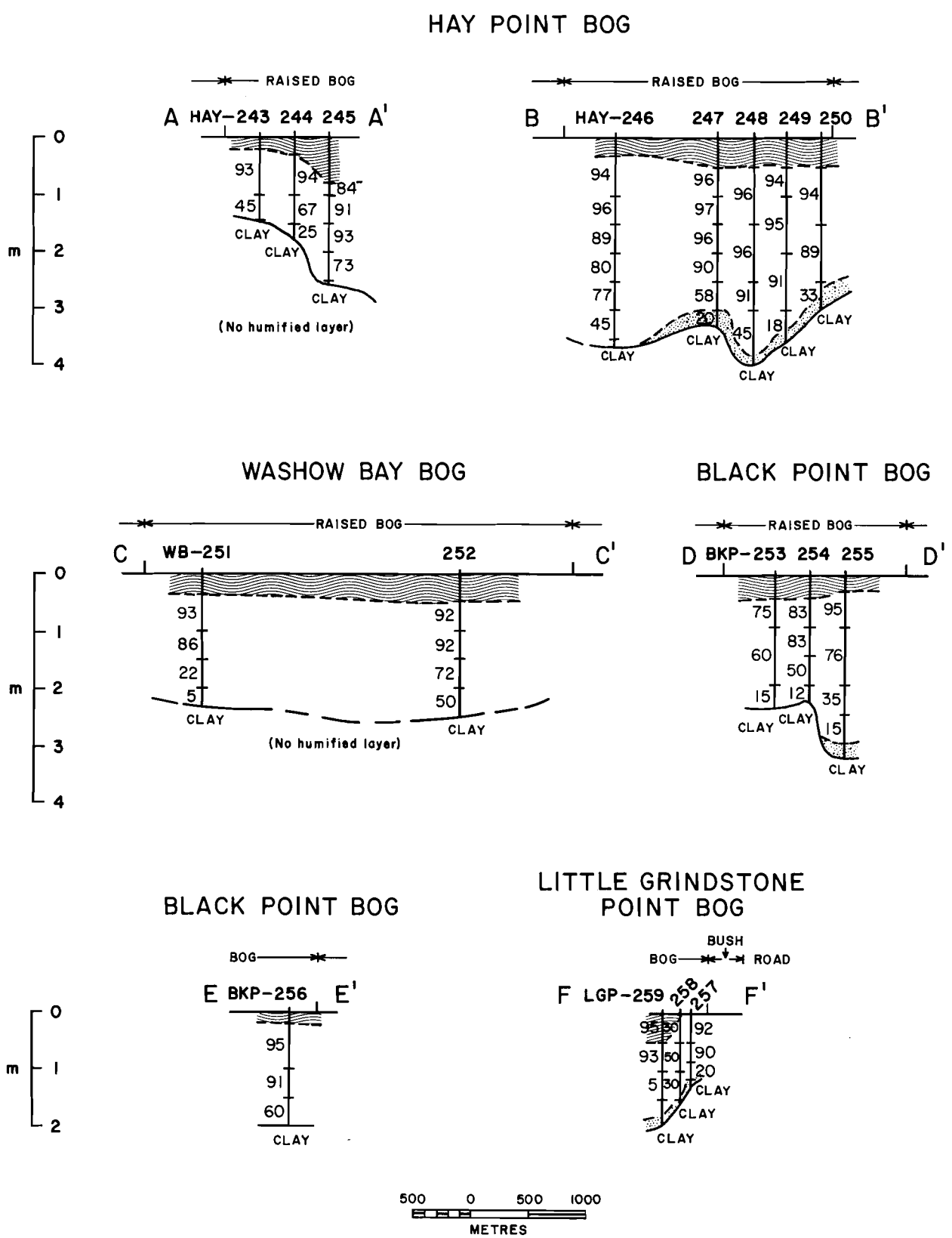


FIGURE 44: Profiles of Hay Point, Washow Bay, Black Point and Little Grindstone Point bogs, showing percentage of Sphagnum.

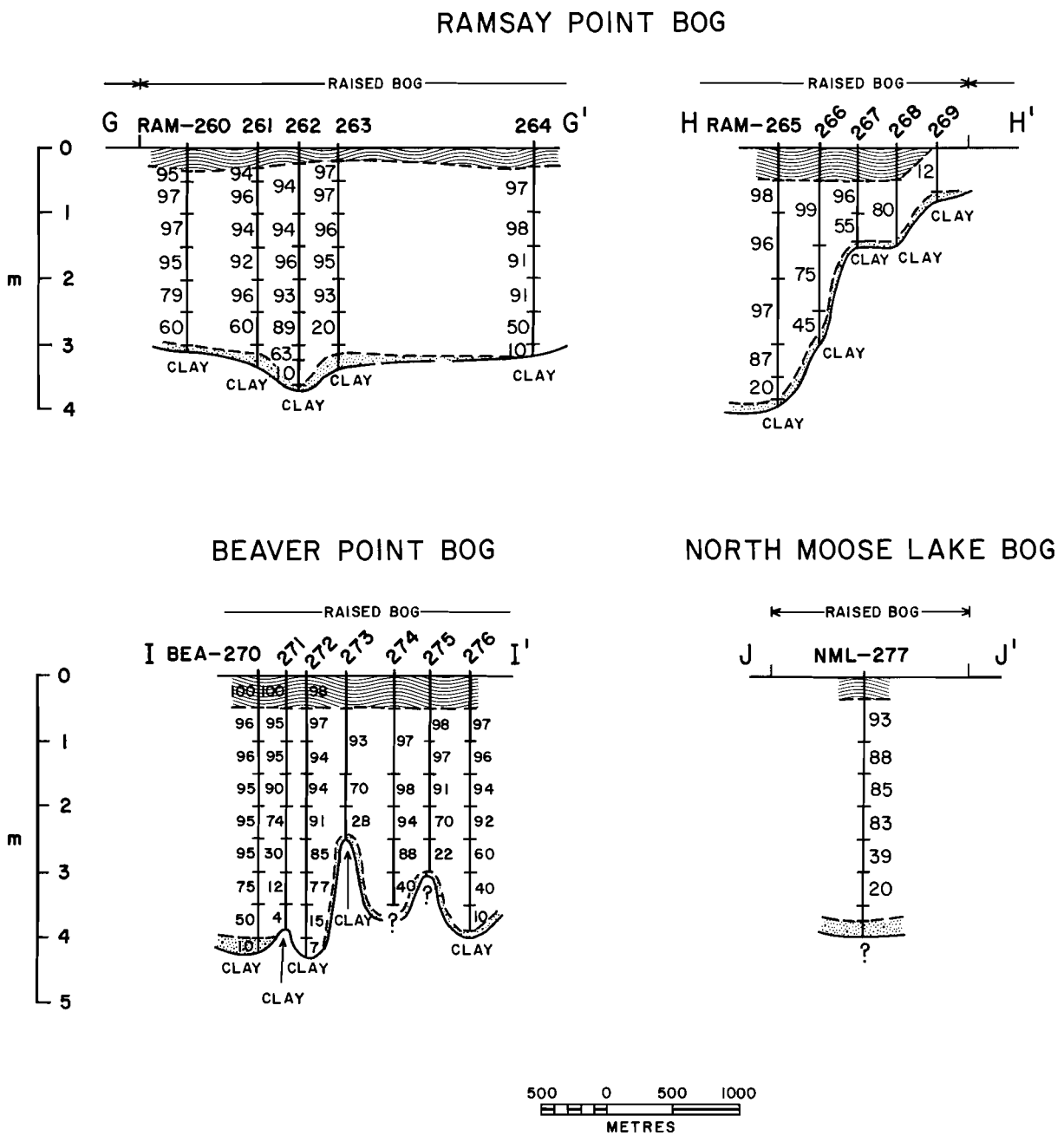


FIGURE 45: Profiles of Ramsay Point, Beaver Point, and North Moose Lake bogs, showing percentage of Sphagnum.

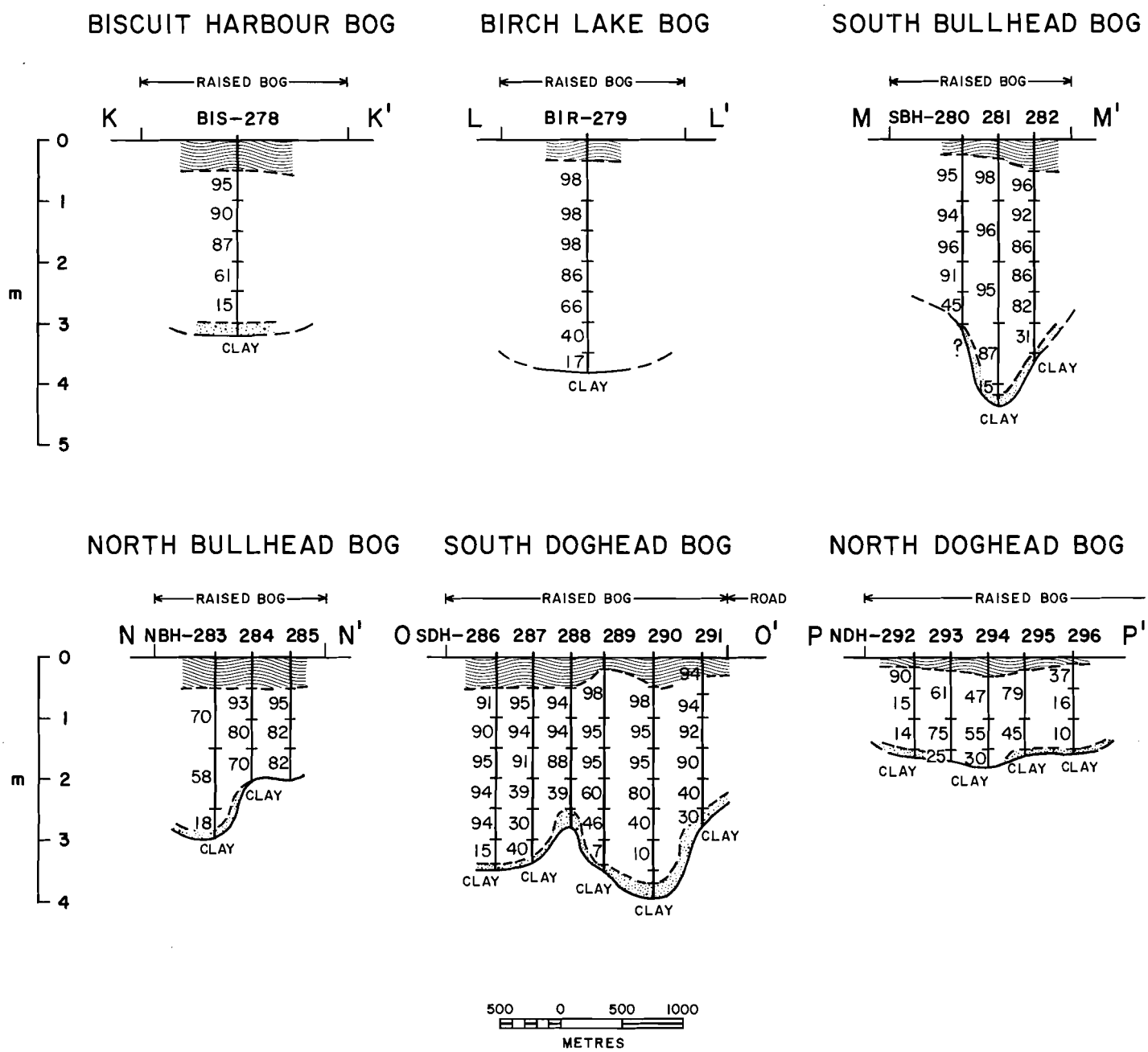


FIGURE 46: Profiles of Biscuit Harbour, Birch Lake, South and North Bullhead, and South and North Doghead bogs, showing percentage of Sphagnum.

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APPENDIX 1. PHYSICAL PROPERTIES AND BOTANICAL COMPOSITION OF PEAT SAMPLES (including nitrogen content and pH of selected samples).

TABLE 6: ANALYTICAL RESULTS FROM PEAT SAMPLES

Bog	Sampling Site	Depth in m	ABSORPTIVE VALUE		Moisture %	Ash %	N (% Dry)	pH	BOTANICAL COMPOSITION				Colour (brown)	Depth to bog bottom in m
			Dry basis	25% moisture					% *Sphagnum*	% Reed, sedge	% Wood	% Unidentifiable, humified		
Middlebro	MID-1	0.5 - 1.5	23.81	17.57	94.4	5.71		5.25	58	30	3	9	lt.	2.4
		1.5 - 2.0	17.91	13.17	93.0	5.55		6.0	43	37	3	17	lt-med.	
		2.0 - 2.4	14.13	10.34	88.9	12.23		5.75	10	15	-	75	dk.	
	MID-2	0.5 - 1.0	25.55	18.91	95.1	6.06	0.86	4.4	93	4	2	1	tan	2.7
		1.0 - 1.5	26.74	19.80	94.5	3.91		4.8	94	4	1	1	tan	
		1.5 - 2.0	21.12	15.59	93.6	5.73	1.34	6.1	79	9	5	7	lt.-med.	
		2.0 - 2.5	17.14	12.62	91.3	7.18		5.8	32	25	3	40	med.dk.	
	MID-3	0.45 - 1.0	21.73	16.12	95.0	8.04		4.5	80	16	4	-	lt.	2.65
		1.0 - 1.5	20.30	15.19	93.7	6.10		4.8	91	5	2	2	lt.	
		1.5 - 2.0	22.54	16.63	94.6	5.44		5.5	83	10	5	2	lt.	
		2.0 - 2.5	14.34	10.57	90.7	8.33		5.6	70	15	1	14	med.	
	MID-4	0.5 - 1.0	23.32	17.28	94.0	10.29		5.1	75	10	5	10	lt.	2.5
		1.0 - 1.5	18.87	13.90	92.5	6.15		5.5	60	25	3	12	lt.-med.	
		1.5 - 2.0	16.89	12.44	92.3	5.91		5.9	30	33	3	34	med.	
		2.0 - 2.5	12.98	9.48	89.2	7.94		5.9	10	30	-	60	dk.	
Whitemouth Lake, South	WLS-5	0.8 - 1.5	15.95	11.73	92.0	6.91		6.0	30	30	10	30	med.	1.95
		1.5 - 1.95	13.07	9.56	89.0	9.49		6.2	5	25	3	67	dk.	
	WLS-6	0.5 - 1.5	12.40	9.06	90.6	8.02		5.9	5	15	10	70	dk.	1.9
		1.5 - 1.9	10.74	7.82	88.1	10.61		6.2	2	18	7	73	dk.	
	WLS-7	0.5 - 1.5	19.94	14.70	92.6	7.39		5.5	70	10	5	15	med.	2.7
		1.5 - 2.0	14.09	10.32	82.0	6.44		5.7	50	20	10	20	med.-lt.	
		2.0 - 2.5	12.20	8.90	89.9	6.81		5.8	20	10	30	40	dk.	
	WLS-8	0.8 - 1.5	15.97	11.71	91.7	8.16		5.7	33	30	10	30	med.	2.45
		1.5 - 2.0	11.83	8.63	90.3	7.93		6.2	15	25	3	67	dk.	
	WLS-9	0.4 - 1.0	16.86	12.02	93.4	8.18		5.3	30	40	5	25	med.-dk.	2.85
		1.0 - 1.5	16.24	11.93	91.0	6.99		5.9	40	35	5	20	med.-dk.	
		1.5 - 2.0	14.33	10.49	90.8	6.28		5.8	10	30	1	59	dk.	
		2.0 - 2.7	-	-	-	-		-	5	17	1	77	black	
	WLS-10	0.5 - 1.0	18.77	13.83	92.8	10.09		5.3	50	20	10	20	med.	1.9
		1.0 - 1.5	12.47	9.10	91.0	8.14		5.5	20	50	1	29	dk.	
		1.5 - 1.9	-	-	-	-		-	3	15	-	82	black	
	WLS-11	0.0 - 1.5	18.62	13.72	93.9	6.91		5.2	50	30	1	19	med.	2.5
		1.5 - 2.0	17.72	13.04	93.1	6.40		5.6	50	20	5	25	med.	
		2.0 - 2.4	13.61	9.96	92.3	7.43		5.8	30	30	5	35	med.-dk.	
	WLS-12	0.4 - 1.0	20.01	14.75	92.8	8.06	1.44	5.7	35	40	15	10	med.	2.5
		1.0 - 1.5	20.50	15.15	94.1	7.84	1.51	5.9	25	28	8	39	med.	
		1.5 - 2.0	18.24	13.41	92.4	8.09		6.2	22	23	13	42	med.	
		2.0 - 2.3	16.93	12.47	92.7	9.36		6.2	22	26	8	44	med.	
Poplar Creek	POP-13	0.2 - 1.0	16.43	12.06	83.9	8.00	1.71	5.7	63	21	4	12	lt.-med.	2.1
		1.0 - 1.5	15.05	11.03	87.4	6.88	1.44	5.6	60	26	2	12	lt.	
		1.5 - 2.0	10.58	7.68	88.5	10.33		5.7	25	30	3	42	med.	
Sprague Lake	SPL-14	0.5 - 1.0	24.25	17.94	94.6	5.41	1.42	4.5	85	10	5	-	tan	4.0
		1.0 - 1.5	26.45	19.59	95.2	4.26	1.03	4.7	90	7	3	-	lt.	
		1.5 - 2.0	17.59	12.94	93.9	5.64		5.6	50	5	40	5	med.-dk.	
		2.0 - 2.5	19.50	14.37	94.6	5.39		5.7	75	20	5	-	med.	
		2.5 - 3.0	23.74	17.56	95.8	7.25		6.0	80	10	3	7	med.-dk.	
		3.0 - 3.5	17.67	13.00	95.4	9.46		5.9	90	2	-	8	dk.	
		3.5 - 4.0	15.85	11.63	92.3	11.49		5.6	25	3	2	70	very dk.	

TABLE 6: ANALYTICAL RESULTS FROM PEAT SAMPLES (Cont'd)

Bog	Sampling Site	Depth in m	ABSORPTIVE VALUE Dry basis	ABSORPTIVE VALUE 25% moisture	Moisture %	Ash %	N (% Dry)	pH	BOTANICAL COMPOSITION % *Sphagnum*	BOTANICAL COMPOSITION % Reed, sedge	BOTANICAL COMPOSITION % Wood	BOTANICAL COMPOSITION % Unidentifiable, humified	Colour (brown)	Depth to bog bottom in m
Northwest Angle	NWA-15	0.3 - 1.0	29.05	21.57	94.0	4.92		4.4	97	3	-	-	tan	2.55
		1.0 - 1.5	25.44	18.83	94.2	5.66		4.85	92	6	1	1	very lt.	
		1.5 - 2.0	19.53	14.39	91.9	5.23		5.8	55	25	2	18	med.	
		2.0 - 2.4	16.32	12.00	91.6	7.17		5.5	45	25	3	27	med.-dk.	
	NWA-16	0.5 - 1.0	19.97	14.73	91.2	6.33		4.7	83	12	1	4	lt.	3.35
		1.0 - 1.5	16.11	11.83	91.7	6.03		5.3	50	25	-	25	lt.-med.	
		1.5 - 2.0	21.13	15.60	92.7	5.77		6.0	60	25	1	14	lt.-med.	
		2.0 - 2.5	17.84	13.11	91.5	6.31		6.3	33	33	1	33	med.	
		2.5 - 2.75	-	-	-	-		-	15	50	3	32	dk.	
		2.75- 3.05	-	-	-	-		-	6	16	3	75	black	
	NWA-17	0.3 - 1.0	23.39	17.29	95.0	5.87		4.3	85	10	5	-	lt.	4.0
		1.0 - 1.5	19.15	14.11	91.7	5.34	1.13	4.6	78	4	4	14	lt.-med.	
		1.5 - 2.0	17.26	12.69	93.0	3.94		4.9	75	10	5	10	lt.-med.	
		2.0 - 2.5	23.66	17.54	93.5	4.69		5.2	75	5	-	20	med.	
		2.5 - 3.0	27.85	20.63	96.4	4.64	1.17	6.2	80	15	5	-	lt.-med.	
		3.0 - 3.5	29.59	21.95	96.5	6.20		6.2	60	3	17	20	med.-lt.	
		3.5 - 4.0	-	-	-	-		-	5	30	-	65	dk.	
	NWA-18	0.0 - 0.5	18.87	13.89	93.4	-		4.7	85	10	1	4	lt.	2.4
		0.5 - 1.0	17.70	13.02	93.3	8.58		5.2	75	15	5	5	lt.-med.	
		1.0 - 1.5	16.91	12.45	92.5	8.77		5.7	40	40	5	15	med.	
		1.5 - 1.7	-	-	-	-		-	9	50	1	40	med.-dk.	
		1.7 - 2.0	-	-	-	-		-	12	30	2	56	med.dk.	
	NWA-19	0.5 - 1.0	12.28	8.95	90.2	8.75		5.8	23	27	17	33	med.-dk.	2.15
		1.0 - 1.5	13.33	9.74	90.3	7.59		6.2	28	20	15	37	med.	
		1.5 - 2.0	12.46	9.10	89.8	8.16		6.0	7	20	2	71	dk.	
	NWA-20	0.5 - 1.0	14.23	10.41	92.1	9.13		6.0	2	47	3	48	med.-dk.	1.9
		1.0 - 1.5	12.82	9.37	90.3	8.07		6.1	2	30	10	58	med.-dk.	
		1.5 - 1.75	-	-	-	-		-	3	35	3	49	dk.	
Caribou Southeast	CSE-21	0.7 - 1.0	21.71	16.03	93.8	8.71		4.5	95	5	-	-	tan	3.7
		1.0 - 2.0	16.06	11.79	93.6	5.55		4.6	87	5	8	-	lt.	
		2.0 - 3.0	18.70	13.80	92.9	6.60		5.6	70	10	10	10	med.	
		3.0 - 3.55	18.63	13.73	92.0	8.00		5.8	25	24	1	50	dk.	
	CSE-22	0.5 - 1.0	20.68	15.26	93.1	3.83		4.0	97	2	1	-	tan	3.8
		1.0 - 2.0	26.81	19.86	94.5	3.81		4.3	97	3	-	-	tan	
		2.0 - 3.0	17.70	13.02	93.6	7.02		5.3	74	24	1	1	med.	
		3.0 - 3.7	17.51	12.89	91.9	9.59		5.7	60	25	-	15	med.	
	CSE-23	0.0 - 1.0	19.31	14.24	93.1	7.20		4.2	96	2	2	-	tan	3.5
		1.0 - 2.0	24.08	17.81	94.0	5.44		4.7	97	3	-	-	tan	
		2.0 - 3.0	15.62	11.47	92.9	7.07		5.7	65	15	10	10	med.	
		3.0 - 3.4	16.92	12.44	91.4	7.82		5.7	30	30	2	38	dk.	
	CSE-24	0.5 - 1.0	17.07	12.56	92.0	11.64		6.2	90	10	-	-	tan	3.0
		1.0 - 2.0	17.91	12.93	91.5	8.28		6.4	70	10	2	18	med.	
		2.0 - 3.0	16.12	11.84	91.4	7.93		6.3	20	20	10	50	very dk.	
	CSE-25	0.5 - 1.0	22.06	16.30	92.5	7.18		5.1	90	5	5	-	tan	3.8
		1.0 - 1.5	19.76	14.57	92.4	6.61		4.9	70	10	10	10	med.	
		1.5 - 2.0	20.17	14.88	94.8	5.68		5.1	60	10	10	20	med.	
		2.0 - 2.5	21.88	16.16	94.9	5.85		5.4	50	10	10	30	med.-dk.	
		2.5 - 3.0	17.72	13.04	93.5	6.34		5.6	40	10	10	40	med.-dk.	
		3.0 - 3.5	16.90	12.43	93.3	7.57		6.0	30	10	10	50	dk.	
	CSE-26	0.6 - 1.0	24.14	17.86	90.7	3.83		4.2	96	2	2	-	tan	4.0
		1.0 - 1.5	25.69	19.02	94.2	5.09		4.9	96	2	2	-	tan	
		1.5 - 2.0	23.07	17.05	95.2	3.91		4.5	96	2	2	-	lt.	
		2.0 - 2.5	18.80	13.85	93.1	4.27		5.1	70	10	10	10	med.	
		2.5 - 3.0	17.90	13.18	92.8	6.45		5.7	50	10	10	30	med.	
		3.0 - 3.6	17.58	12.93	92.3	7.85		5.7	40	10	10	40	dk.	

TABLE 6: ANALYTICAL RESULTS FROM PEAT SAMPLES (Cont'd)

Bog	Sampling Site	Depth in m	ABSORPTIVE VALUE		Moisture %	Ash %	N (% Dry)	pH	BOTANICAL COMPOSITION				Colour (brown)	Depth to bog bottom in m
			Dry basis	25% moisture					% *Sphagnum*	% Reed, sedge	% Wood	% Unidentifiable, humified		
Caribou Southeast (Cont.)	CSE-27	0.5 - 1.0	21.16	15.62	93.1	13.10		5.5	80	15	5	-	lt.	4.0
		1.0 - 2.0	18.98	13.98	93.7	4.09		4.5	88	10	2	-	lt.	
		2.0 - 3.0	20.56	15.40	95.4	6.12		5.2	88	10	2	-	lt.-med.	
		3.0 - 3.95	18.37	13.53	93.6	8.42		5.8	70	10	-	20	med.-dk.	
	CSE-28	0.5 - 1.0	26.41	19.56	95.3	6.13		4.3	95	-	5	-	tan	4.0
		1.0 - 2.0	23.16	17.12	95.0	5.63		5.1	95	4	1	-	lt.	
		2.0 - 3.0	20.27	14.95	95.2	5.76		6.0	90	9	1	-	med.	
		3.0 - 3.65	14.12	10.34	91.9	9.74		5.9	40	30	5	25	dk.	
	CSE-29	0.5 - 1.0	Similar to CSE-36		93.5	2.83		4.1	95	3	2	-	tan	3.95
		1.0 - 1.5			94.7	3.58		4.2	95	3	2	-	tan	
		1.5 - 2.0			94.7	3.78		4.5	95	3	2	-	lt.	
		2.0 - 2.5			94.1	4.85		5.0	95	5	-	-	lt.-med.	
		2.5 - 3.0			93.8	4.68		5.3	80	10	5	5	med.	
		3.0 - 3.5			92.8	5.84		5.2	80	10	5	5	med.	
		3.5 - 3.85			-	-		-	20	18	2	60	dk.	
	CSE-30	Depth test only; not sampled.												3.5
	CSE-31	0.0 - 1.0	38.56	28.67	94.4	5.07		4.1	100	-	-	-	tan	3.25
		1.0 - 2.0	21.39	15.79	94.7	5.50		4.9	80	10	-	10	med.	
		2.0 - 3.0	20.13	14.88	93.2	7.15		5.6	60	15	2	23	med.	
		3.0 - 3.25	-	-	-	-		-	9	20	-	71	dk.	
	CSE-32	0.0 - 1.0	20.40	15.05	91.4	6.14		4.0	100	-	-	-	tan	4.9
		1.0 - 2.0	21.17	15.61	91.1	3.75		4.3	95	4	1	-	tan	
		2.0 - 3.0	20.85	15.37	92.9	6.33		5.5	90	5	5	-	lt.	
		3.0 - 4.0	18.26	13.44	93.8	6.15		5.8	75	15	1	9	med.	
	CSE-33	0.5 - 1.0	26.06	19.30	93.4	5.32		4.2	95	5	-	-	tan	4.5
		1.0 - 2.0	22.44	16.58	93.8	4.75		5.0	70	20	5	5	lt.-med.	
		2.0 - 3.0	19.74	14.55	93.6	6.70		5.9	70	20	-	10	med.	
		3.0 - 4.0	18.44	13.58	92.9	7.96		5.9	60	30	-	10	med.-dk.	
		4.0 - 4.3	-	-	-	-		-	5	38	-	57	dk.	
	CSE-34	0.0 - 1.0	24.69	18.27	94.9	6.77		4.3	45	50	5	-	lt.	4.8
		1.0 - 2.0	19.88	14.66	93.8	4.94		4.5	65	20	5	10	med.	
		2.0 - 3.0	26.57	19.67	95.8	5.99		5.5	80	15	1	4	lt.-med.	
		3.0 - 4.0	20.39	15.04	94.9	8.57		6.0	65	15	1	19	med-dk.	
		4.0 - 4.5	20.75	15.32	92.8	8.16		5.7	60	15	5	20	med.-dk.	
	CSE-35	0.5 - 1.0	28.52	21.14	94.8	4.18		4.3	90	4	4	2	tan	5.0+
		1.0 - 1.5	27.67	20.50	94.6	4.78		4.3	90	4	4	2	tan	
		1.5 - 2.0	29.59	21.95	95.0	3.93		4.4	90	4	4	2	lt.	
		2.0 - 2.5	27.51	20.38	94.3	3.90		4.6	90	4	4	2	lt.	
		2.5 - 3.0	24.47	18.10	94.1	4.84		5.2	90	4	4	2	lt.-med.	
		3.0 - 3.5	26.44	19.58	94.7	6.57		5.1	90	4	4	2	lt.-med.	
		3.5 - 4.0	-	-	-	-		-	73	20	2	5	lt.-med.	
		4.0 - 4.5	-	-	-	-		-	70	23	-	7	med.	
		4.5 - 5.0	-	-	-	-		-	70	25	2	3	lt.-med.	
	CSE-36	0.5 - 1.0	22.59	16.69	94.5	5.97		4.1	95	3	2	-	tan.	4.8
		1.0 - 1.5	24.55	18.16	94.9	4.64		4.3	95	3	2	-	lt.-med.	
		1.5 - 2.0	29.37	21.78	94.7	3.05		4.5	95	3	2	-	lt.	
		2.0 - 2.5	23.94	17.70	94.9	4.09		4.7	95	3	2	-	lt.-med.	
		2.5 - 3.0	24.17	17.88	96.0	5.17		5.4	90	5	5	-	lt.-med.	
		3.0 - 3.5	24.96	18.47	95.6	5.08		5.5	80	5	10	5	med.	
		3.5 - 4.0	23.89	17.67	96.1	5.07		5.9	80	5	10	5	med.-dk.	
		4.0 - 4.5	-	-	-	-		-	30	30	2	38	med.-dk.	
	CSE-37	0.0 - 1.0	22.83	16.87	93.7	5.26		4.4	90	10	-	-	tan	3.4
		1.0 - 2.0	20.88	15.41	93.8	6.09		5.2	80	15	1	4	lt.-med.	
		2.0 - 3.0	18.75	13.81	93.4	7.00		5.5	65	20	-	15	med.-dk.	
		3.0 - 3.3	-	-	-	-		-	45	30	-	25	med.-dk.	

TABLE 6: ANALYTICAL RESULTS FROM PEAT SAMPLES (Cont'd)

Bog	Sampling Site	Depth in m	ABSORPTIVE VALUE		Moisture %	Ash %	N (% Dry)	pH	BOTANICAL COMPOSITION				Colour (brown)	Depth to bog bottom in m
			Dry basis	25% moisture					% *Sphagnum*	% Reed, sedge	% Wood	% Unidentifiable, humified		
Caribou Southeast (Cont.)	CSE-38	0.0 - 1.0	31.82	23.62	92.4	6.99		4.5	100	-	-	-	tan	4.4
		1.0 - 2.0	20.00	14.76	95.0	5.87		5.4	90	9	1	-	lt.	
		2.0 - 3.0	21.82	16.12	94.6	6.06		5.7	80	15	-	5	med.	
		3.0 - 4.0	18.89	13.92	93.6	7.03		5.9	60	10	-	30	med-dk.	
	CSE-39	0.0 - 1.0	27.02	20.02	94.8	7.80		4.3	90	10	-	-	tan	5.0+
		1.0 - 2.0	22.96	16.97	95.2	6.23		4.8	90	9	1	-	lt.	
		2.0 - 3.0	23.41	17.31	95.9	4.98		5.8	85	14	1	-	lt.-med.	
		3.0 - 4.0	23.60	17.45	94.6	6.90		5.7	60	15	1	14	med.-lt.	
		4.0 - 4.8	24.22	17.91	93.5	6.87		6.0	60	10	1	29	dk.	
	CSE-40	0.8 - 1.5	25.38	18.79	94.8	5.94		4.5	99	1	-	-	tan	4.8
		1.5 - 2.0	25.51	18.88	94.2	6.42		4.6	90	9	1	-	lt.	
		2.0 - 2.5	23.37	17.28	94.4	6.70		4.9	85	10	1	4	lt.	
		2.5 - 3.0	22.53	16.65	93.1	6.75		5.4	85	10	1	4	med.	
		3.0 - 3.5	29.09	21.57	94.9	6.46		5.8	85	10	2	3	med.	
		3.5 - 4.0	21.80	16.10	94.7	7.28		5.9	85	10	2	3	med.	
		4.0 - 4.5	18.98	13.99	92.6	7.80		6.1	70	20	1	9	med.-dk.	
		4.5 - 4.8	-	-	-	-		-	17	33	-	50	dk.	
	CSE-41	0.7 - 1.5	29.73	22.04	94.6	6.41		5.3	80	15	2	3	very lt.	4.85
		1.5 - 2.5	32.09	23.82	95.2	6.06		6.2	75	17	2	6	lt.	
		2.5 - 3.0	24.36	18.02	95.6	8.80		6.5	45	40	1	14	lt.-med.	
		3.0 - 3.5	21.75	16.06	94.6	9.57		6.7	30	52	2	16	med.	
		3.5 - 4.0	24.72	18.29	89.4	9.14		6.5	20	60	2	18	med.	
		4.0 - 4.5	21.27	15.70	93.2	8.63		6.4	10	60	1	29	dk.	
	CSE-42	0.5 - 1.0	28.02	20.76	94.3	8.82		5.5	95	3	2	-	tan	5.0+
		1.0 - 1.5	27.57	20.43	93.7	5.81		4.7	95	3	2	-	tan	
		1.5 - 2.0	28.34	21.01	94.5	4.03		4.9	94	5	1	-	lt.	
		2.0 - 2.5	35.71	26.53	95.5	5.44		5.5	94	5	1	-	very lt.	
		2.5 - 3.0	25.89	19.17	95.0	7.20		6.3	93	5	1	1	lt.-med.	
		3.0 - 3.5	22.67	16.75	92.3	8.66		5.9	93	5	1	1	lt.-med.	
		3.5 - 4.0	21.37	15.78	93.9	9.13		5.9	75	10	5	10	med.-dk.	
		4.0 - 4.5	20.03	14.77	93.1	9.21		6.0	50	20	5	25	dk.	
		4.5 - 5.0	-	-	-	-		-	18	35	2	45	dk.	
	CSE-43	0.5 - 1.5	26.53	19.65	95.0	-	0.77	4.2	96	3	1	-	tan	5.0+
		1.5 - 2.0	31.30	23.23	95.1	-	0.78	4.4	94	5	1	-	tan	
		2.0 - 2.5	22.79	16.82	93.9	-	0.73	4.5	78	16	2	4	lt.	
		2.5 - 3.0	25.74	19.06	94.1	-		4.9	75	20	1	4	lt.	
		3.0 - 3.5	21.13	15.60	94.4	-	1.42	5.5	65	17	3	15	med.	
		3.5 - 4.0	24.08	17.90	94.7	-	1.59	5.9	58	27	-	15	med.	
		4.0 - 4.5	-	-	-	-	-	-	60	10	-	30	med.	
		4.5 - 5.0	-	-	-	-	-	-	50	10	2	38	med.-dk.	
	CSE-44	0.5 - 1.0	26.21	19.40	95.8	4.51		4.2	96	2	2	-	tan	5.0+
		1.0 - 1.5	25.12	18.59	93.8	5.04		4.2	96	2	2	-	tan	
		1.5 - 2.0	23.88	17.66	94.3	4.44		4.5	95	3	2	-	lt.	
		2.0 - 2.5	22.73	16.80	93.6	4.61		4.7	95	3	2	-	lt.-med.	
		2.5 - 3.0	21.99	16.24	94.0	5.11		4.9	90	5	5	-	lt.-med.	
		3.0 - 3.5	23.63	17.47	94.1	5.60		4.7	95	3	2	-	lt.	
		3.5 - 4.0	24.32	17.99	94.1	5.18		5.6	60	10	10	20	med.	
		4.0 - 4.5	-	-	-	-		-	60	20	2	18	med.-dk.	
		4.5 - 5.0	-	-	-	-		-	23	30	-	47	dk.	
	CSE-45	0.5 - 1.0	17.75	13.06	93.6	5.29		4.4	97	1	2	-	tan	4.65
		1.0 - 1.5	25.84	19.13	93.7	3.85		4.1	100	-	-	-	tan	
		1.5 - 2.0	27.24	20.18	93.8	3.58		4.5	99	1	-	-	tan	
		2.0 - 2.5	24.74	18.30	95.2	3.35		4.6	85	10	5	-	lt.	
		2.5 - 3.0	20.16	14.87	94.2	4.09		5.0	75	20	1	4	lt.	
		3.0 - 3.5	22.10	16.28	93.4	5.48		5.5	70	20	3	7	med.	
		3.5 - 4.0	14.67	10.72	94.7	8.64		5.7	60	25	5	10	med.	
		4.0 - 4.5	-	-	-	-		-	25	65	-	10	med.	
	CSE-46	0.1 - 1.0	30.23	22.42	93.9	4.17		4.2	100	-	-	-	tan	3.5
		1.0 - 1.5	24.66	18.27	87.8	3.07		4.6	90	-	-	10	lt.	
		1.5 - 2.0	28.24	20.93	92.0	4.09		5.3	50	10	20	20	med.-dk.	
		2.0 - 3.0	29.74	22.05	91.6	7.51		6.0	50	10	20	20	med.-dk.	
		3.0 - 3.5	24.01	17.75	90.9	7.58		6.1	20	10	20	50	dk.	

TABLE 6: ANALYTICAL RESULTS FROM PEAT SAMPLES (Cont'd)

Bog	Sampling Site	Depth in m	ABSORPTIVE VALUE		Moisture %	Ash %	N (% Dry)	pH	BOTANICAL COMPOSITION				Colour (brown)	Depth to bog bottom in m
			Dry basis	25% moisture					% *Sphagnum*	% Reed, sedge	% Wood	% Unidentifiable, humified		
Caribou Southeast (Cont.)	CSE-47	0.0 - 1.0	47.15	35.04	93.4	7.18		4.0	100	-	-	-	tan	3.5
		1.0 - 1.5	20.49	15.12	91.4	8.99		5.3	40	10	20	30	med.	
		1.5 - 2.0	20.28	14.96	92.2	8.76		5.5	45	10	15	30	med.	
		2.0 - 3.0	28.50	21.13	93.3	8.55		6.2	50	10	10	30	med.	
Caribou South	CS-48	0.0 - 1.0	36.74	27.30	93.4	5.43		4.6	97	2	-	1	tan	2.5
		1.0 - 2.0	18.99	14.00	92.1	7.02		5.7	30	33	2	35	med.	
		2.0 - 2.5	15.04	11.04	90.6	8.34		5.9	20	25	27	28	dk.	
	CS-49	0.0 - 1.0	38.83	28.82	93.0	7.96		4.3	96	2	1	1	tan	3.4
		1.0 - 2.0	29.05	21.58	93.4	5.47		5.1	92	5	1	2	tan	
		2.0 - 3.2	15.46	11.36	90.2	6.57		6.1	25	10	15	50	dk.	
	CS-50	0.5 - 1.0	27.93	20.70	95.0	5.61		4.6	95	1	4	-	tan	4.0
		1.0 - 1.5	29.65	21.98	95.1	5.05		4.5	90	1	9	-	lt.	
		1.5 - 2.0	23.68	17.51	94.9	5.65		5.2	85	1	14	-	med.	
		2.0 - 2.5	20.42	15.06	92.8	6.71		5.3	80	5	10	5	med.-dk.	
		2.5 - 3.0	14.94	10.96	91.9	7.85		5.5	60	5	10	25	med.-dk.	
		3.0 - 3.5	16.85	12.39	92.0	8.00		5.7	40	10	10	40	dk.	
	CS-51	0.0 - 1.0	35.49	26.37	92.4	5.97		4.4	95	2	2	1	tan	4.65
		1.0 - 2.0	27.21	20.16	93.1	5.36		4.8	88	9	1	2	tan	
		2.0 - 3.0	24.63	18.22	93.2	5.26		5.8	80	15	1	4	lt.	
		3.0 - 4.0	18.23	13.44	91.0	6.63		6.2	15	40	2	43	med.	
		4.0 - 4.5	16.40	12.06	89.5	8.62		5.7	9	40	2	49	dk.	
	CS-52	0.0 - 1.0	39.99	29.74	94.1	3.71		4.5	98	-	1	1	tan	4.5
		1.0 - 2.0	28.68	21.26	94.4	6.11		5.5	86	10	1	3	lt.	
		2.0 - 3.0	19.25	14.19	92.1	6.24		6.3	40	40	4	16	med.	
		3.0 - 4.0	17.85	13.16	90.6	6.72		6.4	38	36	2	24	med.-dk.	
		4.0 - 4.5	10.05	7.28	82.4	48.44		7.0	8	12	4	76	very dk.	
	CS-53	0.0 - 1.0	35.44	26.29	93.5	8.46		4.6	96	3	1	-	tan	4.0
		1.0 - 2.0	21.36	15.68	92.0	7.20		5.7	58	27	2	13	lt.	
		2.0 - 3.0	20.59	15.22	92.3	5.95		6.2	31	57	1	11	med.	
		3.0 - 3.8	19.26	14.17	90.7	7.58		6.2	28	48	1	23	med.-dk.	
	CS-54	0.0 - 1.0	33.82	25.15	93.0	3.36		4.3	95	2	1	2	tan	5.0
		1.0 - 2.0	25.94	19.17	93.8	4.85		4.9	88	7	3	2	tan	
		2.0 - 3.0	17.56	12.90	89.8	5.07		6.1	23	44	6	27	med.	
		3.0 - 4.0	18.01	13.31	92.0	7.25		6.2	20	35	4	41	med.-dk.	
		4.0 - 4.85	20.17	14.88	91.2	8.14		6.1	30	35	2	33	med.-dk.	
	CS-55	0.0 - 1.0	30.96	23.01	92.8	12.74		4.5	93	6	-	1	tan	5.0
		1.0 - 2.0	26.67	19.37	94.5	4.16		4.9	84	12	2	2	tan	
		2.0 - 3.0	22.09	16.29	92.4	4.68		5.8	33	37	2	28	med.	
		3.0 - 4.0	21.32	15.77	92.6	7.27		6.3	25	30	2	43	med.-dk.	
		4.0 - 4.8	20.57	15.20	86.4	4.18		6.5	20	45	-	35	dk.	
	CS-56	0.0 - 1.0	30.69	22.73	94.5	9.77		4.7	91	7	1	1	tan	4.4
		1.0 - 2.0	20.82	15.34	92.5	4.78		5.0	53	35	3	9	lt.	
		2.0 - 3.0	20.06	14.78	92.3	5.72		5.7	22	35	2	41	med.-dk.	
		3.0 - 4.0	22.13	16.32	92.7	8.49		6.4	19	40	4	37	med.-dk.	
	CS-57	0.0 - 1.0	35.32	26.30	93.7	12.65		5.2	92	6	1	1	tan	4.9
		1.0 - 2.0	30.28	22.46	93.2	5.59		5.1	91	7	1	1	tan	
		2.0 - 3.0	22.90	16.93	93.1	5.56		6.0	50	26	4	20	med.	
		3.0 - 4.0	14.72	10.79	88.7	8.09		6.0	7	15	6	72	dk.	
		4.0 - 4.8	16.37	12.03	89.4	10.39		5.7	8	12	5	75	dk.	
	CS-58	0.0 - 1.0	30.43	22.54	90.3	5.25		4.4	94	5	-	1	tan	5.5
		1.0 - 2.0	34.17	25.41	91.5	2.97		4.4	97	2	-	1	tan	
		2.0 - 3.0	29.09	21.59	91.5	2.17		4.5	97	2	-	1	tan	
		3.0 - 3.7	35.48	26.40	92.8	3.23		5.2	95	3	1	1	tan	
		3.7 - 5.0	19.38	14.30	91.1	6.53		5.7	20	45	2	33	med.-dk.	
		5.0 - 5.35	19.40	14.32	89.2	10.26		5.5	17	40	2	41	dk.	

TABLE 6: ANALYTICAL RESULTS FROM PEAT SAMPLES (Cont'd)

Bog	Sampling Site	Depth in m	ABSORPTIVE VALUE		Moisture %	Ash %	N (% Dry)	pH	BOTANICAL COMPOSITION				Colour (brown)	Depth to bog bottom in m
			Dry basis	25% moisture					% *Sphagnum*	% Reed, sedge	% Wood	% Unidentifiable, humified		
Caribou South (Cont.)	CS-59	0.0 - 1.5	30.84	22.92	92.3	4.29		4.3	98	1	-	1	tan	5.4
		1.5 - 2.0	29.60	21.98	93.0	2.32		4.4	96	3	-	1	tan	
		2.0 - 3.0	29.47	21.85	91.8	2.65		4.4	96	2	1	1	tan	
		3.0 - 4.0	28.25	20.94	93.8	3.74		5.0	94	2	2	2	tan	
		4.0 - 5.3	28.18	20.92	93.4	5.60		5.2	85	7	1	7	lt.	
	CS-60	0.0 - 1.0	33.87	25.16	90.5	4.78		4.4	98	1	-	1	tan	5.85
		1.0 - 2.0	30.40	22.51	94.1	2.99		4.5	96	2	1	1	tan	
		2.0 - 3.0	27.31	20.23	92.2	2.80		4.5	94	3	1	2	tan	
		3.0 - 4.0	29.44	21.80	92.9	5.00		5.2	92	4	2	2	tan	
		4.0 - 5.0	20.96	15.47	89.3	6.52		5.9	30	42	-	28	med.	
		5.0 - 5.7	17.20	12.66	87.9	8.76		6.1	12	22	-	67	dk.	
	CS-61	0.7 - 2.0	27.92	20.72	93.3	4.33		4.5	96	2	1	1	tan	5.35
		2.0 - 3.0	29.42	21.82	91.9	2.63		4.5	97	1	1	1	tan	
		3.0 - 4.0	27.05	20.06	93.8	4.03		5.3	86	10	-	4	lt.	
		4.0 - 5.25	22.46	16.57	90.9	6.64		5.9	30	50	2	18	med.	
	CS-62	0.6 - 1.0	29.98	22.27	93.6	4.27		4.5	95	3	1	1	tan	4.7
		1.0 - 2.0	26.30	19.51	93.4	3.94		4.7	98	2	-	-	tan	
		2.0 - 3.0	24.28	17.99	93.4	4.97		5.6	70	9	1	20	lt.	
		3.0 - 4.0	20.25	14.92	92.7	6.24		6.2	30	50	1	19	med.	
		4.0 - 4.7	18.79	13.86	90.5	16.94		6.8	10	55	1	34	dk.	
	CS-63	0.65- 1.0	26.10	19.32	94.2	11.40		6.4	81	12	1	6	lt.	4.65
		1.0 - 2.0	25.84	19.17	93.6	7.89		5.3	85	12	1	2	very lt.	
		2.0 - 3.0	19.03	14.00	92.6	6.71		6.0	35	45	4	16	med.	
		3.0 - 4.0	19.47	14.33	90.1	7.07		5.9	30	50	5	15	med.	
		4.0 - 4.5	19.42	14.32	87.9	8.30		6.1	17	40	2	41	dk.	
	CS-64	0.7 - 2.0	25.49	18.85	91.4	4.44		4.6	89	7	2	2	tan	5.1
		2.0 - 3.0	21.71	16.05	93.2	5.70		5.3	60	30	1	9	lt.	
		3.0 - 4.0	20.79	15.36	92.5	7.21		6.1	20	35	1	44	med.	
		4.0 - 4.8	15.01	10.99	89.9	18.97		6.3	15	15	3	67	dk.	
	CS-65	0.0 - 1.0	27.29	20.22	96.1	2.34		4.2	95	4	1	-	tan	4.2
		1.0 - 2.0	28.11	20.83	97.4	4.49		4.3	90	5	5	-	lt.	
		2.0 - 3.0	21.51	15.88	93.9	5.23		5.3	80	10	9	1	med.	
		3.0 - 4.0	-	-	-	-		-	12	55	2	31	med.-dk.	
		4.0 - 4.2	-	-	-	-		-	37	10	2	51	dk.	
	CS-66	0.5 - 1.0	24.38	18.03	94.5	8.55		4.0	98	2	-	-	tan	5.0+
		1.0 - 1.5	29.00	21.50	94.4	8.49		4.1	98	2	-	-	tan	
		1.5 - 2.0	28.81	21.36	94.4	7.87		4.2	98	2	-	-	tan	
		2.0 - 2.5	28.01	20.80	95.1	5.11		4.2	98	2	-	-	tan	
		2.5 - 3.0	26.21	19.41	95.6	7.97		4.5	85	12	3	-	lt.	
		3.0 - 3.5	25.16	18.57	94.7	8.20		4.6	87	10	3	-	lt.	
		3.5 - 4.0	31.73	23.54	96.4	11.34		5.1	95	5	-	-	lt-.med.	
	CS-67	0.0 - 1.0	26.49	19.62	95.5	6.74		4.0	99	1	-	-	tan	5.85
		1.0 - 2.0	28.40	21.05	94.9	4.69		4.1	99	1	-	-	tan	
		2.0 - 3.0	28.92	21.44	94.4	2.26		4.2	99	1	-	-	tan	
		3.0 - 4.0	27.63	20.47	94.6	4.55		4.5	95	4	1	-	lt.	
		4.0 - 5.0	-	-	-	-		-	71	24	2	3	lt.-med.	
		5.0 - 5.85	-	-	-	-		-	12	40	2	46	dk.	
	CS-68	0.85- 1.5	26.91	19.93	94.8	6.54		4.3	95	5	-	-	tan	5.0+
		1.5 - 2.0	30.24	22.43	94.3	6.39		4.4	95	5	-	-	tan	
		2.0 - 2.5	29.27	21.70	95.8	4.15		4.2	95	5	-	-	tan	
		2.5 - 3.0	27.01	20.01	93.5	4.17		5.2	85	10	5	-	lt.	
		3.0 - 3.5	27.56	20.42	95.2	4.12		5.5	82	10	5	3	lt.-med.	
		3.5 - 4.0	24.32	17.99	95.2	5.18		5.5	75	15	-	10	med.	
	CS-69	0.5 - 2.0	30.83	22.91	92.9	3.29		4.4	99	1	-	-	tan	5.0+
		2.0 - 3.0	30.56	22.67	93.7	2.28		4.6	98	1	1	-	tan	
		3.0 - 4.0	29.47	21.81	93.8	3.93		5.2	95	2	2	1	tan	
		4.0 - 5.0	21.53	15.87	92.2	6.75		5.9	42	40	3	15	med.	

TABLE 6: ANALYTICAL RESULTS FROM PEAT SAMPLES (Cont'd)

Bog	Sampling Site	Depth in m	ABSORPTIVE VALUE: Dry basis	ABSORPTIVE VALUE: 25% moisture	Moisture %	Ash %	N (% Dry)	pH	BOTANICAL COMPOSITION: % *Sphagnum*	BOTANICAL COMPOSITION: % Reed, sedge	BOTANICAL COMPOSITION: % Wood	BOTANICAL COMPOSITION: % Unidentifiable, humified	Colour (brown)	Depth to bog bottom in m
Caribou South (Cont.)	CS-70													
		1.0 - 2.0	25.92	19.19	95.3	1.53		4.4	85	10	5	-	lt.	5.0+
		2.0 - 2.5	26.21	19.40	94.9	3.56		4.3	80	15	5	-	lt.	
		2.5 - 3.5	26.26	19.45	95.8	5.65		4.9	80	15	4	1	med.	
		3.5 - 4.5	19.51	14.38	93.7	8.04		5.5	60	20	10	10	med.-dk.	
		4.5 - 5.0	-	-	-	-		-	13	65	-	22	med. dk.	
	CS-71	0.0 - 1.0	26.11	19.33	94.9	1.95		4.2	95	5	-	-	tan	5.0+
		1.0 - 2.0	30.97	22.98	95.1	1.18		4.3	95	5	-	-	tan	
		2.0 - 3.0	22.77	16.82	93.0	5.95		4.9	94	5	1	-	lt.	
		3.0 - 4.0	25.59	18.94	95.1	5.16		4.9	90	5	4	1	lt.-med.	
		4.0 - 5.0	-	-	-	-		-	25	55	-	20	med.	
	CS-72	0.0 - 1.0	32.30	23.98	95.8	3.26		4.0	100	-	-	-	tan	5.0+
		1.0 - 2.0	30.23	22.42	94.8	2.19		4.1	95	4	1	-	tan	
		2.0 - 3.0	28.74	21.30	94.7	2.75		4.8	90	5	5	-	lt.	
		3.0 - 4.0	28.00	20.75	94.4	5.13		5.2	75	10	10	5	med.	
		4.0 - 5.0	-	-	-	-		-	8	57	-	35	med.	
	CS-73	0.0 - 1.0	26.60	19.70	94.9	4.67		3.9	99	1	-	-	tan	5.0
		1.0 - 2.0	26.46	19.59	94.8	3.53		4.1	98	1	1	-	tan	
		2.0 - 3.0	17.74	13.05	91.5	5.01		5.2	90	5	5	-	lt.-med.	
		3.0 - 4.0	17.95	13.21	92.0	6.29		5.5	85	5	5	5	med.	
		4.0 - 5.0	17.26	12.69	91.6	10.42		5.7	75	5	10	10	med.-dk.	
	CS-74	0.6 - 1.0	27.33	20.25	93.4	7.06		4.3	98	2	-	-	tan	5.0+
		1.0 - 1.5	29.10	21.57	95.2	3.19		4.3	96	4	-	-	tan	
		1.5 - 2.0	28.55	21.16	95.2	3.50		4.3	91	4	5	-	tan	
		2.0 - 2.5	28.50	21.12	92.8	4.09		4.6	95	-	5	-	tan	
		2.5 - 3.0	27.01	20.01	95.6	5.08		4.7	92	4	4	-	lt.	
		3.0 - 3.5	27.38	20.29	95.6	5.03		5.0	85	5	10	-	med.	
		3.5 - 4.0	22.48	16.61	94.2	6.95		5.5	80	10	5	5	med.-dk.	
		4.0 - 4.5	22.42	16.56	93.7	9.40		5.7	75	10	20	-	med.-dk.	
	CS-75	0.6 - 1.0	29.09	21.57	95.7	3.76		4.4	96	4	-	-	tan	4.85
		1.0 - 1.5	24.40	18.05	95.5	4.57		4.4	95	5	-	-	tan	
		1.5 - 2.0	31.34	23.25	90.4	2.63		4.8	90	5	5	-	tan	
		2.0 - 2.5	28.16	20.87	95.7	4.19		4.8	90	5	5	-	tan	
		2.5 - 3.0	29.89	22.17	93.1	5.30		5.4	96	-	4	-	tan	
		3.0 - 3.5	24.84	18.38	93.2	6.42		5.3	87	5	4	4	lt.	
		3.5 - 4.0	20.97	15.48	94.2	7.13		5.4	30	60	-	10	med.	
		4.0 - 4.5	20.96	15.47	93.8	7.89		5.6	20	50	1	29	med.-dk.	
	CS-76	0.0 - 1.0	23.42	17.32	94.6	3.79		4.2	95	5	-	-	tan	5.0
		1.0 - 2.0	22.43	16.58	94.5	4.07		4.2	90	9	1	-	lt.	
		2.0 - 3.0	21.96	16.22	95.2	4.59		5.1	80	9	4	1	lt.-med.	
		3.0 - 4.0	17.78	13.39	92.9	7.11		5.4	75	10	5	10	med.	
		4.0 - 5.0	-	-	-	-		-	22	27	-	51	med.-dk.	
	CS-77	0.4 - 1.0	29.06	21.55	96.6	11.27	} 1.00	4.3	96	4	-	-	tan	5.0+
		1.0 - 1.5	23.15	17.12	95.8	7.74		4.3	84	12	1	3	lt.	
		1.5 - 2.0	25.16	18.62	95.4	7.23		4.5	90	10	-	-	lt.	
		2.0 - 2.5	24.31	17.99	96.0	13.47	} 1.30	5.3	90	9	1	-	lt.	
		2.5 - 3.0	26.76	19.82	95.8	8.81		5.9	94	4	1	-	lt.-med.	
		3.0 - 3.5	23.06	17.05	93.2	10.73	} 2.30	5.9	90	10	-	-	med.	
		3.5 - 4.0	20.08	14.81	93.8	11.00		5.9	75	15	-	10	med.	
		4.0 - 4.5	22.85	16.86	93.7	9.81	2.49	5.7	40	19	1	40	med.-dk.	
	CS-78	0.5 - 1.0	24.58	18.18	95.8	9.80		4.8	99	1	-	-	tan	5.3
		1.0 - 2.0	26.97	19.98	95.3	4.02		4.3	99	1	-	-	tan	
		2.0 - 2.5	26.65	19.73	95.9	4.36		5.2	95	4	-	1	lt.	
		2.5 - 3.5	21.88	16.16	93.4	6.38		5.4	50	30	-	20	med.-dk.	
		3.5 - 4.0	25.06	18.54	94.1	8.29		6.1	50	19	1	30	med.	
		4.0 - 4.75	-	-	-	-		-	10	30	3	57	dk.	
		4.75- 5.15	-	-	-	-		-	12	13	-	75	very dk.	

TABLE 6: ANALYTICAL RESULTS FROM PEAT SAMPLES (Cont'd)

Bog	Sampling Site	Depth in m	ABSORPTIVE VALUE		Moisture %	Ash %	N (% Dry)	pH	BOTANICAL COMPOSITION				Colour (brown)	Depth to bog bottom in m
			Dry basis	25% moisture					% *Sphagnum*	% Reed, sedge	% Wood	% Unidentifiable, humified		
Caribou South (Cont.)	CS-79	1.0 - 2.0	30.95	22.69	96.9	4.60		4.4	95	5	-	-	tan	5.0+
		2.0 - 3.0	24.17	17.87	96.0	7.88		5.3	85	10	5	-	lt.-med.	
		3.0 - 4.0	20.20	14.79	94.6	5.65		5.7	70	19	1	10	med.-dk.	
	CS-80	0.5 - 1.0	28.86	21.39	95.7	3.64		4.6	90	4	3	3	tan	5.0
		1.0 - 1.5	21.44	15.83	96.7	4.73		4.6	60	10	20	10	lt.	
		1.5 - 2.0	28.43	21.01	96.5	5.10		4.75	83	15	2	-	lt.	
		2.0 - 2.5	26.22	19.41	94.9	4.02		5.3	80	10	10	-	lt.-med.	
		2.5 - 3.0	21.38	15.79	94.5	6.17		5.7	75	15	10	-	med.	
		3.0 - 3.5	23.21	17.16	94.7	4.81		5.6	70	20	-	10	med.	
		3.5 - 4.0	24.59	18.19	93.3	6.46		5.2	85	15	-	-	med.	
		4.0 - 4.5	18.45	13.59	94.9	6.63		5.55	70	3	17	10	med.-dk.	
		-												
	CS-81	0.5 - 1.0	37.42	27.82	97.4	7.10		4.5	95	5	-	-	tan	4.75
		1.0 - 2.0	22.55	16.66	95.5	8.14		5.3	70	20	-	10	med.-dk.	
		2.0 - 3.0	21.71	16.03	94.7	6.16		5.7	65	19	1	15	med.-dk.	
		3.0 - 4.0	17.07	12.55	93.9	8.07		6.0	50	25	5	20	dk.	
		4.0 - 4.65	18.05	13.29	93.9	10.00		5.8	45	25	10	20	very dk.	
	CS-82	0.5 - 1.0	24.39	18.04	94.6	5.60		4.3	100	-	-	-	tan	5.0+
		1.0 - 1.5	26.54	19.66	94.1	4.25		4.1	98	-	2	-	tan	
		1.5 - 2.0	22.34	16.51	93.9	4.61		4.2	90	10	-	-	tan	
		2.0 - 2.5	26.02	19.26	95.2	4.40		4.4	90	7	3	-	tan	
		2.5 - 3.0	32.40	24.30	95.4	3.71		5.2	94	5	1	-	lt.	
		3.0 - 3.5	23.32	17.24	-	-		5.8	75	19	1	5	med.	
		3.5 - 4.0	23.35	17.26	-	-		6.0	60	24	1	15	med.	
		4.0 - 4.5	15.33	11.25	-	-		6.0	50	30	3	17	med.-dk.	
		4.5 - 5.0	-	-	-	-		-	25	50	3	22	dk.	
	CS-83	0.0 - 1.0	29.81	22.11	96.1	7.08		4.2	99	1	-	-	tan	6.05
		1.0 - 2.0	28.34	21.01	95.9	5.14		4.3	96	4	-	-	tan	
		2.0 - 3.0	28.66	21.25	96.6	4.32		4.6	90	10	-	-	lt.	
		3.0 - 4.0	28.45	21.09	95.3	13.43		5.5	88	10	1	1	lt.	
		4.0 - 4.85	-	-	93.9	6.82		5.7	20	60	-	20	dk.	
		4.85- 5.8	-	-	-	-		-	10	15	-	75	very dk.	
		5.8 - 6.05	-	-	-	-		-	8	14	-	78	black	
	CS-84	0.0 - 1.0	23.01	17.01	95.7	8.50		4.5	90	10	-	-	tan	5.5
		1.0 - 2.0	22.45	16.59	95.0	5.37		4.8	85	14	1	-	lt.	
		2.0 - 3.0	24.13	17.84	96.0	6.32		5.9	80	18	1	1	med.	
		3.0 - 4.0	19.23	14.18	94.8	6.64		6.0	80	10	5	5	med.	
		4.0 - 5.0	14.72	10.79	94.0	8.85		6.1	15	20	5	60	black	
	CS-85	0.0 - 1.0	22.51	16.63	96.4	5.57		4.1	90	10	-	-	tan	5.55
		1.0 - 2.0	24.88	18.41	94.4	5.28		4.5	90	10	-	-	lt.	
		2.0 - 3.0	17.25	12.70	91.2	5.56		5.3	60	14	1	25	med.-dk.	
		3.0 - 4.0	21.58	15.71	94.5	7.89		5.5	60	14	1	25	med.-dk.	
		4.0 - 4.25	-	-	-	-		5.8	50	30	-	20	med.-dk.	
		4.25- 5.0	-	-	-	-		-	15	30	-	50	dk.	
	CS-86	0.0 - 0.5	25.14	18.60	92.4	8.37		4.9	95	4	1	-	tan	5.3
		0.5 - 1.0	20.69	15.27	93.6	6.45		4.8	90	8	1	1	lt.-med.	
		1.0 - 2.0	21.61	15.96	95.6	5.28		4.8	95	5	-	-	lt.	
		2.0 - 3.0	19.60	14.45	94.4	6.00		5.5	80	10	5	5	med.	
		3.0 - 4.0	20.28	14.96	93.2	5.98		5.9	80	10	1	9	med.-dk.	
		4.0 - 5.0	18.70	13.78	93.9	9.41		5.8	50	10	10	30	dk.	
	CS-87	0.0 - 1.0	25.80	19.10	95.7	5.43		4.5	99	1	-	-	tan	5.2
		1.0 - 2.0	26.79	19.84	95.6	6.04		4.5	90	10	-	-	lt.	
		2.0 - 3.0	20.36	15.02	92.7	5.72		5.2	90	9	1	-	med.	
		3.0 - 4.0	23.17	17.13	94.9	7.01		5.9	70	15	5	10	med.	
		4.0 - 4.65	22.85	15.91	93.6	9.60		5.6	60	20	1	19	dk.	
	CS-88	0.0 - 1.0	22.32	16.49	94.1	1.41		4.4	95	5	-	-	tan	5.3
		1.0 - 2.0	23.12	17.09	96.6	3.57		5.0	90	10	-	-	lt.	
		2.0 - 3.0	22.27	16.45	94.3	6.81		5.2	80	15	-	5	lt.	
		3.0 - 4.0	22.06	16.30	94.0	7.91		5.7	75	15	1	9	med.	
		4.0 - 5.0	16.03	11.77	92.3	10.89		5.7	70	15	-	15	med.-dk.	

TABLE 6: ANALYTICAL RESULTS FROM PEAT SAMPLES (Cont'd)

Bog	Sampling Site	Depth in m	ABSORPTIVE VALUE		Moisture %	Ash %	N (% Dry)	pH	BOTANICAL COMPOSITION				Colour (brown)	Depth to bog bottom in m
			Dry basis	25% moisture					% *Sphagnum*	% Reed, sedge	% Wood	% Unidentifiable, humified		
Caribou Southwest (Cont.)	CSW-89	0.6 - 1.0	27.06	20.04	95.0	4.26		4.3	95	5	-	-	tan	4.1
		1.0 - 1.5	24.51	18.13	95.8	6.18		4.3	96	2	2	-	tan	
		1.5 - 2.0	24.99	18.49	94.7	3.58		4.5	96	2	2	-	tan	
		2.0 - 2.5	23.30	17.22	94.2	4.52		5.1	90	10	-	-	lt.	
		2.5 - 3.0	16.62	12.21	92.7	6.30		5.6	65	10	15	10	med.	
		3.0 - 3.5	15.41	11.31	93.1	7.07		5.7	70	10	10	10	med.	
		3.5 - 3.65	-	-	-	-		-	50	30	3	17	med.-dk.	
		3.65- 4.0	-	-	-	-		-	10	15	-	75	dk.	
	CSW-90	0.25- 1.0	30.34	22.54	91.6	5.27		4.5	98	1	-	1	tan	4.5
		1.0 - 2.0	26.44	19.61	92.6	3.84		4.4	95	3	1	1	tan	
		2.0 - 3.0	27.28	20.18	92.9	4.17		4.8	94	3	2	1	tan	
		3.0 - 4.0	22.05	16.31	91.8	5.89		5.7	65	25	1	14	lt.-med.	
	CSW-91	0.4 - 1.0	23.34	17.26	95.6	8.81		4.5	85	14	1	-	lt.	5.0+
		1.0 - 1.5	21.05	15.53	94.4	5.54		4.7	85	15	-	-	lt.	
		1.5 - 2.0	13.66	10.00	93.1	6.34		5.4	70	15	10	5	med.	
		2.0 - 3.0	21.04	15.53	96.8	6.82		5.4	80	15	4	1	med.	
		3.0 - 3.5	16.49	12.06	92.6	7.02		5.6	65	20	5	10	med.	
		3.5 - 4.0	17.90	13.17	92.3	7.11		5.5	60	20	5	15	med.	
		4.0 - 4.5	17.89	13.17	92.6	5.86		6.0	50	20	5	25	med.-dk.	
		4.5 - 4.8	-	-	-	-		-	7	36	3	54	dk.	
	CSW-92	0.5 - 1.0	26.33	19.50	95.1	4.36		4.2	96	4	-	-	tan	4.85
		1.0 - 1.5	25.02	18.52	94.1	5.80		4.3	96	4	-	-	tan	
		1.5 - 2.0	22.24	16.43	96.0	4.27		4.5	92	4	4	-	lt.	
		2.0 - 2.5	24.38	18.15	94.5	4.03		4.7	85	10	5	-	lt.-med.	
		2.5 - 3.0	21.64	15.98	94.1	4.16		5.3	85	10	5	-	lt.-med.	
		3.0 - 3.5	14.79	10.86	93.7	6.27		5.3	80	10	1	9	med.	
		3.5 - 4.0	23.53	13.49	94.2	7.93		6.0	70	15	1	14	med.-dk.	
		4.0 - 4.6	17.47	12.85	93.3	8.33		5.7	60	20	1	19	dk.	
	CSW-93	0.5 - 1.5	28.06	20.80	96.0	4.49		4.4	96	2	1	1	tan	5.0+
		1.5 - 2.0	23.13	17.10	93.5	3.64		4.5	93	3	2	2	very lt.	
		2.0 - 2.5	23.13	17.10	94.3	3.87		4.5	90	5	3	2	lt.	
		2.5 - 3.0	23.53	17.40	94.4	4.75		4.8	90	5	3	2	lt.	
		3.0 - 3.5	24.43	18.07	94.4	5.85		5.2	78	15	3	4	lt.-med.	
		3.5 - 4.0	14.83	10.87	92.6	6.34		5.4	35	30	3	32	med.	
		4.0 - 4.5	-	-	-	-		-	12	54	3	31	med-dk.	
		4.5 - 5.0	-	-	-	-		-	5	60	-	35	dk.	
	CSW-94	0.5 - 1.0	23.13	17.10	93.3	6.48	0.95	4.7	95	-	5	-	tan	5.2+
		1.0 - 1.5	28.34	21.01	95.6	3.68		4.5	95	-	5	-	lt.	
		1.5 - 2.0	25.11	18.58	93.8	3.59	0.94	4.4	90	-	10	-	lt.	
		2.0 - 2.5	25.69	19.01	94.0	3.36		4.5	90	-	10	-	lt.	
		2.5 - 3.0	22.31	16.48	94.9	3.62		4.7	90	-	10	-	lt.	
		3.0 - 3.5	19.52	14.39	93.6	4.53	1.26	5.6	50	-	30	20	lt.-med.	
		3.5 - 4.5	26.71	19.78	95.1	4.10		5.0	70	-	20	10	lt.	
		4.5 - 5.0	-	-	-	-		-	12	70	3	15	med.-dk.	
		5.0 - 5.2	-	-	-	-		-	3	40	2	55	dk.	
	CSW-95	1.0 - 1.5	20.09	14.82	94.5	6.22		4.4	72	20	4	4	lt.	5.0+
		1.5 - 2.0	27.21	20.16	94.9	5.78		4.9	72	20	2	6	lt.	
		2.0 - 2.5	23.48	17.36	95.1	4.71		5.1	59	24	9	8	lt.-med.	
		2.5 - 3.0	29.62	21.96	95.7	5.47		5.8	70	24	1	5	lt.-med.	
		3.0 - 3.5	17.27	12.71	94.0	7.17		5.5	30*	50	5	15	med.	
		3.5 - 4.0	22.40	16.55	95.3	8.56		5.4	45*	30	5	20	med.-dk.	
		4.0 - 4.5	-	-	-	-		-	17	60	-	23	med.-dk.	
		4.5 - 5.0	-	-	-	-		-	10	60	-	30	dk.	
	CSW-96	0.5 - 1.0	23.59	17.44	93.1	5.51		4.7	85	14	1	-	tan	4.5
		1.0 - 1.5	24.44	18.08	95.4	5.20		4.5	89	10	1	-	tan	
		1.5 - 2.0	25.99	19.24	94.1	4.19		4.6	79	20	1	-	lt.	
		2.0 - 2.5	20.06	14.80	90.7	8.44		5.1	70	19	1	10	med.	
		2.5 - 3.0	22.32	16.49	94.0	5.99		5.3	65	30	2	3	med.	
		3.0 - 3.5	23.52	17.39	95.3	5.75		5.8	70	20	-	10	med.	
		3.5 - 4.0	-	-	-	-		-	40	30	2	28	med.-dk.	
		4.0 - 4.25	-	-	-	-		-	30	35	2	33	dk.	

* Includes other mosses.

TABLE 6: ANALYTICAL RESULTS FROM PEAT SAMPLES (Cont'd)

Bog	Sampling Site	Depth in m	ABSORPTIVE VALUE Dry basis	ABSORPTIVE VALUE 25% moisture	Moisture %	Ash %	N (% Dry)	pH	BOTANICAL COMPOSITION % *Sphagnum*	% Reed, sedge	% Wood	% Unidentifiable, humified	Colour (brown)	Depth to bog bottom in m
Caribou Southwest (Cont.)	CSW-97	0.6 - 1.0	25.78	19.08	95.4	8.01		4.7	95	5	-	-	tan	5.0+
		1.0 - 1.5	24.68	18.26	94.7	6.22		5.0	90	9	1	-	lt.	
		1.5 - 2.0	21.52	15.89	95.0	7.09		5.4	85	10	5	-	lt.-med.	
		2.0 - 2.5	21.67	16.00	95.9	6.37		5.1	75	20	4	1	lt.-med.	
		2.5 - 3.0	23.91	17.68	95.3	7.48		4.9	70	20	5	5	med.	
		3.0 - 3.5	22.87	16.90	94.9	8.81		6.2	74	15	1	10	med.-dk.	
		3.5 - 4.0	20.54	15.16	94.0	11.33		5.7	65	20	1	14	med.-dk.	
		4.0 - 4.5	-	-	—	-		-	62*	24	3	11	med.-dk.	
		4.5 - 5.0	-	-	-	-		-	7	20	3	70	very dk.	
	CSW-98	0.5 - 1.0	30.71	22.79	93.1	6.06		4.6	95	5	-	-	tan	3.73
		1.0 - 1.5	26.15	19.36	93.7	4.60		4.7	95	3	2	-	lt.	
		1.5 - 2.0	27.70	20.53	96.1	4.27		4.8	95	3	2	-	lt.	
		2.0 - 2.5	22.89	16.92	95.0	4.51		4.9	50*	5	5	40	med.	
		2.5 - 3.0	22.86	16.90	95.3	4.51		5.2	50*	5	5	40	med.	
		3.0 - 3.5	-	-	-	-		-	9*	50	-	41	dk.	
	CSW-99	0.55- 1.0	28.64	21.09	95.2	5.69		4.5	100	-	-	-	tan	4.25
		1.0 - 1.5	26.74	19.81	95.4	4.31		4.7	95	3	2	-	lt.	
		1.5 - 2.0	26.56	19.67	95.4	4.36		5.0	90	5	5	-	lt-med.	
		2.0 - 2.5	21.48	15.86	93.7	6.96		5.3	50	5	5	40	med.	
		2.5 - 3.0	18.78	13.83	92.4	6.85		5.5	30*	5	5	60	med.	
		3.0 - 3.5	21.48	15.86	91.8	7.45		5.6	30	5	5	60	med.-dk.	
		3.5 - 4.0	-	-	-	-		-	8	50	2	40	med.-dk.	
		4.0 - 4.25	-	-	-	-		-	5	10	2	83	very dk.	
Caribou West	CW-100	0.5 - 1.0	15.32	11.24	90.6	11.17	} 2.32	5.8	32	33	1	34	med.	3.1
		1.0 - 1.5	15.96	11.73	89.1	7.94		6.2	20	50	-	30	med.	
		1.5 - 2.0	18.27	13.44	89.6	7.85	} 2.56	6.1	22	50	-	28	med.	
		2.0 - 2.5	17.76	13.07	90.9	8.52		6.4	18	47	-	35	med.-dk.	
		2.5 - 3.0	15.47	11.34	88.9	9.08	2.63	6.3	14	36	-	50	dk.	
Caribou Northeast	CNE-101	0.5 - 1.5	28.57	21.14	93.5	4.88		4.5	95	3	1	1	lt.	3.9
		1.5 - 2.5	23.14	17.13	93.9	6.25		5.6	35	40	3	22	med.	
		2.5 - 3.5	23.03	17.02	93.2	8.26		6.1	22	50	1	27	med.	
	CNE-102	0.65- 1.5	26.65	19.77	92.8	8.04		4.9	83	15	-	2	tan	4.2
		1.5 - 2.5	35.48	26.31	94.7	4.10		4.8	81	17	-	1	tan	
		2.5 - 3.5	24.70	18.27	92.0	6.18		5.8	42	40	3	5	lt.	
		3.5 - 4.0	26.71	19.78	91.8	11.53		6.2	20	55	3	22	med.-dk.	
	CNE-103	0.0 - 1.0	36.20	26.86	94.8	10.07		4.7	97	1	1	1	tan	3.3
		1.0 - 2.0	22.61	16.73	90.9	6.02		5.5	70	10	5	15	lt.-med.	
		2.0 - 3.0	17.61	13.21	89.9	5.28		6.1	25	20	3	52	med.-dk.	
	CNE-104	0.7 - 1.5	19.35	14.26	94.0	6.14		4.4	90	10	-	-	tan	3.9
		1.5 - 2.0	19.08	14.06	94.0	4.02		4.5	90	10	-	-	tan	
		2.0 - 2.5	20.32	14.99	92.7	4.53		5.2	85	10	5	-	lt.	
		2.5 - 3.0	17.59	12.94	93.2	5.40		5.6	65	15	10	10	med.	
		3.0 - 3.5	15.55	11.41	91.6	7.31		5.6	40	25	5	30	med.-dk.	
		3.5 - 3.8	-	-	-	-		-	7	35	5	53	dk.	
	CNE-105	0.3 - 1.0	29.90	22.17	89.3	3.43		4.3	94	3	3	-	tan	4.5
		1.0 - 1.5	26.22	19.36	96.1	4.98		4.5	94	3	3	-	tan	
		1.5 - 2.0	25.35	18.76	95.3	2.33		4.5	88	4	4	4	lt.	
		2.0 - 2.5	25.54	18.90	94.1	5.29		4.7	88	4	4	4	lt.	
		2.5 - 3.0	23.99	17.74	95.0	3.77		4.9	80	5	10	5	lt.-med.	
		3.0 - 3.5	22.30	16.47	93.9	7.26		5.25	60	20	10	10	med.	
		3.5 - 4.0	20.18	14.88	93.4	7.21		5.5	30	30	20	20	med-dk.	
	CNE-106	0.5 - 1.0	26.12	19.34	92.9			4.6	95	3	2	-	tan	4.85
		1.0 - 2.0	25.25	18.69	95.6			4.4	95	3	2	-	lt.	
		2.0 - 3.0	22.27	16.46	94.0			4.9	60	5	5	30	med.	
		3.0 - 4.0	22.75	16.81	93.2			5.4	50	5	5	40	med.	
		4.0 - 4.5	-	-	-			-	55	15	-	30	med.	
		4.5 - 4.85	-	-	-			-	7	5	-	88	black	

* Includes other mosses.

TABLE 6: ANALYTICAL RESULTS FROM PEAT SAMPLES (Cont'd)

Bog	Sampling Site	Depth in m	ABSORPTIVE VALUE: Dry basis	ABSORPTIVE VALUE: 25% moisture	Moisture %	Ash %	N (% Dry)	pH	BOTANICAL COMPOSITION: % *Sphagnum*	BOTANICAL COMPOSITION: % Reed, sedge	BOTANICAL COMPOSITION: % Wood	BOTANICAL COMPOSITION: % Unidentifiable, humified	Colour (brown)	Depth to bog bottom in m
Caribou Northeast (Cont.)	CNE-107	0.8 - 1.5	29.36	21.77	93.7	4.40		4.6	90	7	1	2	very lt.	4.95
		1.5 - 2.5	21.19	15.64	91.2	4.30		4.8	85	12	1	2	lt.	
		2.5 - 3.5	22.41	16.58	93.0	5.41		5.5	85	6	2	7	lt.-med.	
		3.5 - 4.5	20.00	14.76	91.2	8.26		6.3	55	30	7	8	lt.-med.	
		4.5 - 4.95	19.93	14.67	91.3	11.59		5.5	35	38	2	25	med.	
	CNE-108	0.5 - 1.5	29.03	21.49	93.5	5.05		4.7	95	3	1	1	tan	4.5
		1.5 - 2.5	19.98	14.73	91.6	3.89		4.8	89	7	1	3	tan	
		2.5 - 3.5	19.21	14.14	90.9	5.83		5.7	50	25	2	23	med.	
		3.5 - 4.5	18.91	13.93	89.6	9.25		6.2	10	35	1	54	med.-dk.	
	CNE-109	0.45- 1.0	24.27	17.93	93.8	7.26		4.75	92	5	1	2	tan	2.15
		1.0 - 1.8	21.08	15.55	90.7	5.34		4.8	83	12	2	3	lt.	
		1.8 - 2.15	11.39	8.30	80.3	12.18		5.9	22	5	32	31	med-dk.	
	CNE-110	0.38- 1.0	26.19	18.83	97.6	7.42		4.6	95	3	2	-	tan	4.5
		1.0 - 1.5	22.95	16.96	94.3	7.22		4.6	95	5	-	-	tan	
		1.5 - 2.0	38.64	28.73	96.0	3.40		5.2	95	3	2	-	tan	
		2.0 - 2.5	27.69	20.51	95.3	4.49		5.8	93	5	2	-	lt.-med.	
		2.5 - 3.0	19.91	14.68	93.0	8.21		5.5	80	5	5	10	med.	
		3.0 - 3.5	24.01	17.76	93.3	6.94		5.8	70	5	5	20	med.	
		3.5 - 4.0	23.16	17.12	95.2	6.34		5.8	60	5	5	30	med.	
		4.0 - 4.25	-	-	—	-		-	20	25	5	50	med.-dk.	
		4.25- 4.5	-	-	-	-		-	15	24	4	57	dk.	
	CNE-111	0.0 - 1.0	27.20	20.15	94.7	4.97		5.0	91	8	-	1	tan	2.8
		1.0 - 2.0	15.46	13.50	84.4	6.10		5.6	30	35	12	23	med.	
		2.0 - 2.5	14.68	10.77	87.6	7.11		6.2	20	40	8	32	med.-dk.	
	CNE-112	0.0 - 1.0	27.01	19.98	93.9	8.86		4.5	90	7	2	1	tan	2.8
		1.0 - 2.0	22.33	16.53	92.7	5.92		5.4	60	30	3	7	lt.-med.	
		2.0 - 3.0	15.84	11.64	86.3	7.52		6.0	22	25	25	28	med.	
	CNE-113	0.0 - 1.0	29.16	21.59	91.9	4.38		4.5	95	3	1	1	tan	3.35
		1.0 - 2.0	22.33	16.52	91.7	5.88		5.3	91	4	3	2	tan	
		2.0 - 3.0	14.72	10.79	89.1	7.40		6.2	20	23	15	42	dk.	
	CNE-114	0.5 - 1.0	28.91	21.44	95.9	7.07	0.83	4.5	94	3	3	1	tan	5.0
		1.0 - 1.5	28.20	20.90	95.9	4.86		4.5	92	4	4	-	tan	
		1.5 - 2.0	24.50	18.13	94.4	4.40		4.6	82	4	10	4	med.	
		2.0 - 2.5	22.73	16.80	95.3	5.28	1.10	4.7	60	10	10	20	med.	
		2.5 - 3.0	25.18	18.63	95.0	4.60		5.0	60	10	10	20	med.	
		3.0 - 3.5	20.03	14.78	93.9	5.23	1.98	5.5	50	10	20	20	med.	
		3.5 - 4.0	20.06	14.80	95.4	7.81		-	40	20	20	20	med.-dk.	
		4.0 - 4.5	-	-	-	-		-	35	35	3	27	dk.	
		4.5 - 5.0	-	-	-	-		-	11	16	2	71	black	
	CNE-115	0.0 - 1.0	29.43	21.82	93.5			4.2	95	3	2	-	tan	3.5
		1.0 - 2.0	26.52	19.64	94.1			4.3	95	3	2	-	lt.	
		2.0 - 3.0	25.14	19.91	94.8			5.0	95	3	2	-	lt.-med.	
		3.0 - 3.5	19.81	14.59	92.9			5.7	30	5	10	55	med.	
	CNE-116	0.0 - 1.0	33.74	25.06	91.4	5.35		4.5	97	3	-	-	tan	3.0
		1.0 - 2.0	19.92	14.70	88.7	5.01		5.2	83	12	2	3	lt.	
		2.0 - 3.0	13.67	9.99	87.1	8.99		6.2	15	20	18	47	dk.	
	CNE-117	0.5 - 1.5	34.62	25.72	94.8	9.06		5.8	93	6	-	1	tan	4.95
		1.5 - 2.5	23.88	17.66	93.3	6.53		5.8	35	34	4	27	med.	
		2.5 - 3.5	26.53	19.60	94.2	6.87		6.1	50	30	2	18	lt.-med.	
		3.5 - 4.5	22.34	16.50	92.5	9.13		6.2	24	52	1	23	med.	
		4.5 - 4.95	-	-	-	-		-	10	15	3	72	very dk.	
	CNE-118	0.5 - 1.5	26.84	19.88	91.5			4.5	85	10	5	-	tan	4.85
		1.5 - 2.0	24.72	18.29	94.7			4.7	95	3	2	-	lt.	
		2.0 - 2.5	18.58	13.69	93.3			5.6	75	10	5	10	med.	
		2.5 - 3.0	19.15	14.11	92.3			5.8	75	10	5	10	med.	
		3.0 - 3.5	21.86	16.15	92.3			6.4	50	20	10	20	med.-dk.	
		3.5 - 4.0	15.92	11.69	94.4			6.5	30	20	20	30	med.-dk.	
		4.0 - 4.5	-	-	-			-	18	25	3	54	dk.	
		4.5 - 4.85	-	-	-			-	12	15	2	71	black	

TABLE 6: ANALYTICAL RESULTS FROM PEAT SAMPLES (Cont'd)

Bog	Sampling Site	Depth in m	ABSORPTIVE VALUE		Moisture %	Ash %	N (% Dry)	pH	BOTANICAL COMPOSITION				Colour (brown)	Depth to bog bottom in m
			Dry basis	25% moisture					% *Sphagnum*	% Reed, sedge	% Wood	% Unidentifiable, humified		
Caribou Northeast (Cont.)	CNE-119	0.5 - 1.5	24.23	17.93	95.1	-		4.5	95	3	2	-	tan	4.95
		1.5 - 2.0	22.07	16.30	92.5	-		4.5	91	5	4	-	tan	
		2.0 - 2.5	18.61	13.70	94.4	-		5.4	85	5	5	5	med.	
		2.5 - 3.0	19.31	14.23	94.5	-		5.5	70	5	15	10	med.	
		3.0 - 3.5	20.54	15.16	93.8	-		5.7	60	5	15	20	med.	
		3.5 - 4.0	20.27	14.95	94.3	-		5.7	40	5	15	40	med.	
		4.0 - 4.5	-	-	-	-		-	15	35	3	47	med.-dk.	
	CNE-120	0.5 - 1.5	21.95	16.23	88.7	6.85		4.6	90	5	3	2	very lt.	4.5
		1.5 - 2.5	24.53	18.18	93.2	4.00		4.8	92	4	2	2	tan	
		2.5 - 3.5	27.16	20.12	93.6	5.38		5.3	82	15	1	2	tan	
		3.5 - 4.5	21.70	16.73	92.1	7.01		6.2	30	45	3	22	med.-dk.	
	CNE-121	0.0 - 1.5	25.41	18.84	93.5	4.60		4.7	93	4	2	1	tan	4.5
		1.5 - 2.5	24.25	17.96	91.6	4.12		4.7	91	5	2	2	tan	
		2.5 - 3.5	20.17	14.87	91.7	4.75		5.5	55	27	3	15	med.	
		3.5 - 4.0	19.60	14.47	90.4	7.25		6.0	25	55	1	19	med.-dk.	
		4.0 - 4.5	18.63	13.70	88.4	8.87		5.9	10	65	-	25	dk.	
	CNE-122	0.15- 1.0	25.57	18.90	92.1	12.51		4.6	94	4	-	2	tan	3.5
		1.0 - 2.0	28.09	20.78	92.8	3.57		4.7	97	2	-	1	tan	
		2.0 - 3.0	21.36	15.79	91.7	3.19		5.8	87	6	3	4	lt.	
		3.0 - 3.5	12.70	9.28	86.6 (silt)	24.03		7.3	34	25	3	38	med.-dk.	
	CNE-123	0.0 - 1.0	28.70	21.28	93.0	8.46		4.5	95	3	1	1	tan	1.9
		1.0 - 1.5	20.02	14.78	90.4	7.09		5.3	45	35	3	17	med.	
		1.5 - 1.9	-	-	-	-		-	5	15	3	77	dk.	
	CNE-124	0.15- 0.5	28.04	20.68	95.0	11.05		4.9	81	13	2	4	lt.-med.	0.8
		0.5 - 0.8	-	-	-	-		-	3	5	2	88	black	
	CNE-125	0.5 - 1.0	24.06	17.79	94.1			4.1	95	3	2	-	tan	2.85
		1.0 - 1.5	23.78	17.59	94.7			4.5	95	3	2	-	lt.	
		1.5 - 2.0	22.21	16.41	95.0			5.3	95	3	2	-	lt-med.	
		2.0 - 2.5	14.31	10.48	89.0			5.4	30	5	20	45	dk.	
		2.5 - 2.85	-	-	-			-	40	20	14	26	dk.	
	CNE-126	0.5 - 1.0	23.73	17.58	93.4	6.86		4.9	81	15	3	1	tan	2.0
		1.0 - 1.75	19.48	14.36	90.9	5.89		5.6	30	25	5	40	med.	
		1.75- 2.0	-	-	-	-		-	2	7	3	88	black	
	CNE-127	0.0 - 1.0	30.80	22.85	93.3	5.45		4.3	94	4	1	1	tan	2.35
		1.0 - 2.0	23.19	17.14	91.3	5.31		4.8	79	17	1	3	lt.	
		2.0 - 2.35	-	-	-	-		-	8	30	4	58	med.-dk.	
Caribou Northwest	CNW-128	0.0 - 1.0	27.25	20.19	93.3	5.29	1.17	4.2	100	-	-	-	tan	4.45
		1.0 - 2.0	30.67	22.75	95.7	4.80	1.31	4.5	95	4	1	-	tan	
		2.0 - 3.0	23.73	17.56	94.7	7.11	2.76	5.9	80	14	1	5	lt.-med.	
		3.0 - 4.0	26.37	19.67	95.6	7.58	1.28	5.9	70	20	1	9	med.	
		4.0 - 4.45	-	-	-	-	-	-	10	18	2	70	very dk.	
	CNW-129	0.5 - 1.0	29.42	21.52	94.6	4.82		4.7	93	5	1	1	tan	2.4
		1.0 - 1.5	23.57	17.40	91.4	6.31		5.2	60	23	3	14	lt.-med.	
		1.5 - 2.0	15.64	11.50	89.4	6.91		6.0	8	22	10	60	dk.	
	CNW-130	0.7 - 1.0	23.92	17.69	95.3	4.64		4.7	92	-	8	-	lt.	2.7
		1.0 - 1.5	18.81	13.86	97.8	3.84		5.6	70	10	12	8	lt.-med.	
		1.5 - 2.0	16.79	12.34	91.3	6.45		6.1	60	10	10	20	med.	
		2.0 - 2.5	13.81	10.11	91.6	8.07		6.1	40	10	10	40	med.-dk.	
		2.5 - 2.65	-	-	-	-		-	3	12	2	83	black	

TABLE 6: ANALYTICAL RESULTS FROM PEAT SAMPLES (Cont'd)

Bog	Sampling Site	Depth in m	ABSORPTIVE VALUE		Moisture %	Ash %	N (% Dry)	pH	BOTANICAL COMPOSITION				Colour (brown)	Depth to bog bottom in m
			Dry basis	25% moisture					% *Sphagnum*	% Reed, sedge	% Wood	% Unidentifiable, humified		
Powawassan Southwest	PSW-131	0.5 - 1.0	16.29	11.98	90.9	8.10		5.8	5	25	15	55	med.	3.1
		1.0 - 1.5	15.88	11.65	92.1	7.77		5.8	10	25	5	60	med.	
		1.5 - 2.0	13.50	9.87	91.2	7.60		6.0	5	25	10	60	med.-dk.	
	PSW-132	0.5 - 1.0	33.24	24.68	93.4	5.27		4.6	99	1	-	-	tan	3.9
		1.0 - 1.5	32.94	24.41	93.8	4.50		4.6	98	2	-	-	tan	
		1.5 - 2.0	25.38	18.75	95.1	4.20		4.7	94	3	1	2	tan	
		2.0 - 2.5	21.75	16.11	94.0	4.35		5.3	91	4	2	3	lt.	
		2.5 - 3.0	25.30	18.76	94.6	5.63		5.6	89	7	1	3	lt.	
		3.0 - 3.5	24.19	17.93	94.4	5.05		5.7	84	12	-	4	lt.-med.	
	PSW-133	0.5 - 1.0	33.41	24.20	93.4	13.68		5.5	95	3	2	-	tan	3.35
		1.0 - 1.5	34.55	25.66	95.8	8.56		5.2	92	4	1	3	very lt.	
		1.5 - 2.0	26.29	19.43	92.8	6.39		5.3	82	6	2	10	lt.	
		2.0 - 2.5	17.52	12.89	93.4	6.00		5.7	50	25	10	15	med.	
		2.5 - 3.0	19.37	14.25	94.3	6.13		5.7	35	30	5	30	med.	
	PSW-134	0.75- 1.5	24.87	18.36	92.6	7.08	0.69	4.8	80	12	3	5	lt.	3.4
		1.5 - 2.0	20.15	14.83	91.5	6.44		5.9	33	33	1	33	med.	
		2.0 - 2.5	20.18	14.89	91.0	6.09	1.48	5.9	35	35	3	27	med.	
		2.5 - 3.0	19.90	14.65	91.5	6.89		5.9	38	37	2	23	med.	
		3.0 - 3.4	-	-	-	-		-	15	15	3	68	very dk.	
	PSW-135	0.6 - 1.0	21.56	15.67	94.0	5.83		4.4	84	8	8	-	very lt.	3.8
		1.0 - 1.5	26.71	19.78	94.6	5.64		4.5	84	8	8	-	lt.	
		1.5 - 2.0	26.56	19.67	95.3	1.69		4.6	84	8	8	-	lt.	
		2.0 - 2.5	20.89	15.42	94.4	3.51		5.4	70	10	10	10	lt.-med.	
		2.5 - 3.0	23.27	17.20	96.0	4.04		5.2	70	10	10	10	med.	
		3.0 - 3.5	-	-	-	-		-	30	35	5	30	dk.	
Powawassan Southeast	PSE-136	0.0 - 0.5	22.08	16.31	91.1	5.18	0.58	4.0	100	-	-	-	tan	2.45
		0.5 - 1.0	19.79	14.59	91.8	7.14		4.4	90	3	3	4	lt.	
		1.0 - 1.5	17.14	12.60	92.5	6.07	0.92	5.3	50	20	10	20	med.	
		1.5 - 2.0	15.30	11.23	92.1	7.95		5.9	50	20	10	20	med.	
		2.0 - 2.5	12.37	9.03	89.5	11.61		5.7	40	10	20	30	med.-dk.	
Powawassan Centre	PC-137	0.6 - 1.0	17.09	12.59	91.4	9.17		6.1	15	35	10	40	med.	2.5
		1.0 - 1.5	16.70	12.29	92.1	7.86		5.9	14	35	8	43	med.	
		1.5 - 2.0	18.76	13.84	92.4	6.78		6.2	16	35	5	44	med.	
		2.0 - 2.5	13.21	9.67	91.1	10.95		6.1	5	40	5	50	dk.	
	PC-138	0.0 - 0.5	25.85	19.14	89.5			4.0	84	8	8	-	lt.-med.	2.35
		0.5 - 1.0	20.86	15.22	93.4	6.42	0.80	4.1	82	9	9	-	lt.	
		1.0 - 1.5	23.32	17.24	93.8	5.25		4.2	85	8	7	-	lt.	
		1.5 - 2.0	10.81	7.86	89.2	5.08	0.92	4.7	40	10	30	10	med.-dk.	
		2.0 - 2.5	8.64	6.23	88.3	9.82		4.9	20	8	46	26	dk.	
	PC 139	0.0 - 0.75	32.05	23.73	92.3			4.8	96	4	-	-	tan	2.85
		0.75- 1.5	17.66	13.00	93.2			5.1	50	10	20	20	med.	
		1.5 - 2.0	14.35	10.51	92.8			5.6	40	20	20	20	med.-dk.	
		2.0 - 2.5	14.14	10.30	90.1			5.5	20	30	20	30	dk.(black)	
Powawassan West	PW-140	0.75- 1.5	20.14	14.88	93.5	7.01		4.6	90	6	1	3	lt.	3.85
		1.5 - 2.0	25.84	19.13	93.6	4.52		4.8	90	6	1	3	lt.	
		2.0 - 2.5	22.50	16.60	92.3	4.76		5.6	65	12	4	19	med.	
		2.5 - 3.0	20.90	15.43	92.8	6.28		6.0	50	15	3	32	med.	
		3.0 - 3.5	25.16	18.65	93.7	6.08		5.7	50	17	2	31	med.	
	PW-141	0.7 - 1.45	29.10	21.57	96.1	6.79	0.80	4.4	100	-	-	-	tan	4.1
		1.45- 2.0	23.31	17.23	93.4	3.95		4.7	98	-	2	-	lt.	
		2.0 - 2.5	23.39	17.29	94.5	3.67		5.0	84	13	3	-	lt.-med.	
		2.5 - 3.0	24.18	17.89	94.8	4.17	1.53	5.3	80	15	3	2	med.	
		3.0 - 3.5	22.92	16.94	93.1	5.25		5.4	50	20	10	20	med.-dk.	
		3.5 - 4.0	21.38	15.78	92.9	5.67		5.6	38	20	10	32	black	

TABLE 6: ANALYTICAL RESULTS FROM PEAT SAMPLES (Cont'd)

Bog	Sampling Site	Depth in m	ABSORPTIVE VALUE Dry basis	ABSORPTIVE VALUE 25% moisture	Moisture %	Ash %	N (% Dry)	pH	BOTANICAL COMPOSITION % *Sphagnum*	% Reed, sedge	% Wood	% Unidentifiable, humified	Colour (brown)	Depth to bog bottom in m
Powawassan Northwest	PNW-142	0.25 - 1.0	23.34	17.30	93.5	8.20		5.6	89	6	2	3	lt.	3.9
		1.0 - 1.5	20.76	15.33	93.1	5.79		5.1	40	40	4	16	med.	
		1.5 - 2.0	18.81	13.84	91.5	4.58		5.6	40	45	2	13	med.	
		2.0 - 2.5	18.44	13.56	91.5	5.38		6.0	25	51	4	20	med.	
		2.5 - 3.0	18.57	13.68	91.0	7.13		5.8	15	50	2	33	med-dk.	
		3.0 - 3.8	17.23	12.69	90.1	8.93		5.9	4	53	-	43	dk.	
Powawassan East	PE-143	0.0 - 0.8	29.67	22.00	94.4	7.32		4.2	80	7	13	-	lt.	2.35
		0.8 - 1.3	25.92	19.19	92.5	7.05		5.1	60	15	20	5	med.	
		1.3 - 2.0	17.66	13.00	93.5	5.85		5.6	30	30	20	20	dk.	
		2.0 - 2.3	14.99	10.99	92.7	6.20		5.7	20	20	20	30	dk.	
	PE-144	0.7 - 1.5	23.21	17.16	90.5	3.26	0.87	4.5	90	5	5	-	lt.	3.5
		1.5 - 2.0	22.25	16.44	95.0	5.39		4.6	90	5	5	-	lt.	
		2.0 - 2.5	17.93	13.20	92.9	7.81	1.25	5.5	50	10	30	10	med.-dk.	
		2.5 - 3.0	20.46	15.10	93.9	2.48		5.6	40	10	40	10	dk.	
		3.0 - 3.5	13.83	10.12	89.1	9.17		5.8	20	8	40	32	dk.	
Powawassan Northeast	PNE-145	0.65 - 1.0	17.19	12.64	91.7	8.10		5.1	50	10	20	20	med.	1.9
		1.0 - 1.5	14.66	10.75	90.2	7.84		5.6	10	10	30	50	dk.	
		1.5 - 1.85	12.42	9.07	89.9	6.82		5.4	10	10	30	50	dk.	
St. Labre	STL-146	0.5 - 1.0	17.14	12.61	93.8	6.32		4.4	83	12	5	-	lt.-med.	3.15
		1.0 - 1.5	24.00	17.75	93.6	6.09	1.11	4.6	80	15	5	-	lt.-med.	
		1.5 - 2.0	21.98	16.24	93.9	5.87		5.2	75	20	-	5	med.	
		2.0 - 2.5	15.87	11.65	91.7	6.96		5.3	75	10	10	5	med.-dk.	
		2.5 - 3.0	14.36	10.52	91.8	13.59	1.97	5.3	30	10	10	50	dk.	
	STL-147	0.5 - 1.0	18.79	13.82	93.1	10.18		4.7	92	3	2	3	very lt.	3.0
		1.0 - 1.5	19.98	14.76	92.0	5.93		5.4	84	7	4	5	lt.	
		1.5 - 2.0	14.43	10.56	88.7	7.76		6.2	60	19	6	15	med.	
		2.0 - 2.5	16.74	12.30	88.1	7.79		6.2	25	50	2	23	med.	
		2.5 - 3.0	14.85	10.89	87.9	10.37		5.8	13	29	3	55	dk.	
	STL-148	0.0 - 0.5	29.55	21.94	91.2	7.85		4.4	97	1	2	-	tan	4.2
		0.5 - 1.0	25.01	18.51	94.2	8.11		4.45	92	4	2	2	very lt.	
		1.0 - 1.5	25.76	19.07	94.9	5.53		4.6	90	5	2	3	very lt.	
		1.5 - 2.0	18.81	13.83	93.8	5.01		5.5	60	10	25	5	lt.-med.	
		2.0 - 2.5	19.20	14.14	90.5	6.27		5.9	30	40	7	23	med.	
		2.5 - 3.0	18.67	13.75	92.0	6.96		5.7	12	40	3	45	med.	
		3.0 - 3.5	18.54	13.64	91.0	8.43		5.6	20	30	-	50	med.-dk.	
	STL-149	0.5 - 1.0	25.07	18.53	92.9	5.93		4.4	90	7	1	2	very lt.	3.7
		1.0 - 1.5	28.36	21.05	93.7	6.04		4.55	92	4	2	2	tan	
		1.5 - 2.0	27.73	20.63	94.2	4.52		5.0	84	5	4	4	very lt.	
		2.0 - 2.5	16.12	11.84	91.7	6.48		5.5	36	24	8	32	med.	
		2.5 - 3.0	17.38	12.78	90.6	6.80		5.6	22	35	2	51	med.-dk.	
		3.0 - 3.6	16.04	11.79	90.1	12.61		5.6	13	32	3	52	med.-dk.	
	STL-150	0.5 - 1.0	23.29	17.29	94.7	6.02		4.6	85	10	3	2	very lt.	3.5
		1.0 - 1.5	26.31	19.48	94.5	5.78		4.7	86	9	2	3	lt.	
		1.5 - 2.0	24.88	18.45	94.9	5.57		5.5	65	23	4	8	lt.-med.	
		2.0 - 2.5	21.52	15.89	92.8	5.75		5.8	30	55	-	15	med.	
		2.5 - 3.0	15.65	11.50	92.2	9.23		5.5	15	30	-	55	med.-dk.	
	STL-151	0.5 - 1.5	25.99	19.27	94.3	6.93		5.0	90	7	2	1	very lt.	4.0
		1.5 - 2.0	24.81	18.36	95.0	7.01		5.8	69	20	5	6	lt.-med.	
		2.0 - 2.5	17.47	12.83	91.7	6.44		6.3	25	40	5	30	med.	
		2.5 - 3.0	15.61	11.47	90.3	9.57		5.9	8	50	1	41	med-dk.	
		3.0 - 3.5	16.92	12.42	91.5	9.74		5.6	8	40	-	52	dk.	
	STL-152	0.0 - 0.5	36.21	26.95	91.6	7.23		4.5	98	1	1	-	tan	2.0
		0.5 - 1.0	17.20	12.63	90.9	8.08		5.5	65	12	5	18	lt.-med.	
		1.0 - 1.5	15.75	11.55	88.7	7.81		6.2	40	15	5	40	med.	
		1.5 - 1.9	12.96	9.46	85.8	9.12		6.1	20	20	3	57	dk.	

TABLE 6: ANALYTICAL RESULTS FROM PEAT SAMPLES (Cont'd)

Bog	Sampling Site	Depth in m	ABSORPTIVE VALUE: Dry basis	ABSORPTIVE VALUE: 25% moisture	Moisture %	Ash %	N (% Dry)	pH	BOTANICAL COMPOSITION: % *Sphagnum*	BOTANICAL COMPOSITION: % Reed, sedge	BOTANICAL COMPOSITION: % Wood	BOTANICAL COMPOSITION: % Unidentifiable, humified	Colour (brown)	Depth to bog bottom in m
St. Labre (Cont.)	STL-153	0.5 - 1.0	20.62	15.19	92.7	7.17		4.8	88	8	1	3	lt.	2.75
		1.0 - 1.5	22.11	16.31	90.5	7.45		5.5	87	7	1	5	lt.-med.	
		1.5 - 2.0	13.34	9.76	86.4	9.02		6.1	49	13	3	35	med.	
		2.0 - 2.5	12.83	9.37	83.9	9.96		6.2	20	20	5	55	dk.	
Giroux	GIR-154	0.2 - 0.5	24.78	18.34	91.8	5.63		3.2	88	6	3	3	tan	2.85
		0.5 - 1.0	20.67	15.25	94.0	5.29	0.97	3.3	84	10	2	4	lt.	
		1.0 - 1.5	23.25	17.16	93.0	5.07		3.7	82	12	1	5	lt.	
		1.5 - 2.0	19.76	14.55	91.7	4.89		4.3	75	13	1	11	lt.-med.	
		2.0 - 2.5	17.11	12.60	87.9	5.69	2.10	4.9	30	58	-	12	med.	
Boggy River	BR-155	0.15 - 1.0	25.78	19.06	93.0	5.62		4.1	91	5	2	2	lt.	2.75
		1.0 - 1.5	19.67	14.53	91.2	6.75	1.10	5.4	91	4	3	2	lt.	
		1.5 - 2.0	23.21	17.13	92.4	6.80		5.7	81	12	3	4	lt.	
		2.0 - 2.5	13.98	10.98	84.5	12.13	1.06	5.8	30	40	5	25	med.	
Haute	HTE-156	0.35 - 1.0	21.23	15.37	92.8	5.86		3.8	80	12	2	6	lt.	2.5
		1.0 - 1.5	16.66	12.28	90.9	5.62	1.72	4.4	33	44	3	20	med.	
		1.5 - 2.0	18.00	13.29	91.3	6.58		4.8	45	29	1	25	med.	
		2.0 - 2.5	13.71	10.04	87.4		1.60	5.1	20	35	-	45	dk.	
Falcon	FAL-157	0.0 - 0.6	24.64	18.23	91.5	6.24		4.2	100	-	-	-	tan	2.25
		0.6 - 1.0	14.56	10.67	92.0	6.18		4.2	40	5	40	15	med.	
		1.0 - 1.5	10.35	7.51	90.4	7.48		5.5	30	5	35	30	med.-dk.	
		1.5 - 2.0	11.34	8.11	94.5	8.22		5.8	30	5	35	30	dk.	
	FAL-158	0.0 - 0.5	39.09	29.07	95.2	5.99		4.3	100	-	-	-	tan	2.5
		0.5 - 1.0	18.32	13.49	93.7	7.20		5.5	50	10	20	20	med.	
		1.0 - 1.5	15.68	11.51	93.5	7.37		5.7	10	5	5	80	dk.	
		1.5 - 2.0	13.97	10.23	92.3	6.11		5.3	10	5	5	80	dk.	
		2.0 - 2.3	11.28	8.21	90.5	9.72		5.7	10	5	5	80	dk.	
	FAL-159	0.0 - 1.0	27.25	22.61	93.2	5.53		4.2	94	3	3	-	tan	3.77
		1.0 - 1.5	34.01	25.35	93.8	4.01	0.67	4.4	94	3	3	-	lt.	
		1.5 - 2.0	29.13	21.60	93.6	3.02		4.5	92	4	4	-	lt.	
		2.0 - 2.5	22.08	16.31	94.7	3.65	0.83	4.8	90	5	5	-	lt.	
		2.5 - 3.0	18.70	13.77	91.8	4.80		5.5	80	5	5	10	med.	
		3.0 - 3.5	-	-	-	-		-	25	50	4	21	med.-dk.	
		3.5 - 3.77	-	-	-	-		-	17	25	5	53	black	
	FAL-160	0.0 - 0.5	21.37	15.78	93.5	6.65		4.1	83	15	2	-	lt.	3.35
		0.5 - 1.0	21.64	15.94	95.0	4.08		4.4	73	20	5	2	lt.	
		1.0 - 1.5	22.78	16.80	94.2	4.71		4.7	80	15	5	-	lt.	
		1.5 - 2.0	20.41	15.09	93.9	5.17		5.0	70	23	7	-	lt.	
		2.0 - 2.5	17.70	13.03	92.6	5.67		5.5	25	30	5	35	med.	
		2.5 - 3.0	17.74	13.07	90.6	6.92		5.6	25	28	2	40	med.-dk.	
	FAL-161	0.0 - 0.5	22.94	16.96	91.7	6.15		4.6	94	3	2	1	very lt.	2.9
		0.5 - 1.0	20.83	15.37	92.7	6.98		5.3	77	15	3	5	lt.	
		1.0 - 1.5	15.95	11.71	91.7	6.91		6.1	55	20	10	15	lt.	
		1.5 - 2.0	15.44	11.34	90.7	8.09		6.2	40	15	15	30	med.	
		2.0 - 2.5	12.45	9.08	87.9	9.92		6.2	15	15	10	60	med.-dk.	
		2.5 - 2.9	12.27	8.96	88.6	8.71		6.4	12	12	5	71	dk.	
McMunn	MCM-162	0.4 - 1.0	16.69	12.26	84.8	5.63		3.6	74	15	2	9	lt.	1.7
		1.0 - 1.5	11.63	11.12	81.6	7.23	1.46	4.3	12	24	5	63	med.-dk.	
Medika West	MDW-163	0.1 - 0.5	15.45	11.34	90.0	7.52		5.4	1	84	7	8	lt.-med.	1.85
		0.5 - 1.0	10.98	7.98	84.4	8.54		5.2	3	58	4	35	dk.	
		1.0 - 1.5	9.46	6.84	78.9	10.10	1.92	4.95	1	20	5	74	very dk.	

TABLE 6: ANALYTICAL RESULTS FROM PEAT SAMPLES (Cont'd)

Bog	Sampling Site	Depth in m	ABSORPTIVE VALUE Dry basis	ABSORPTIVE VALUE 25% moisture	Moisture %	Ash %	N (% Dry)	pH	BOTANICAL COMPOSITION % *Sphagnum*	BOTANICAL COMPOSITION % Reed, sedge	BOTANICAL COMPOSITION % Wood	BOTANICAL COMPOSITION % Unidentifiable, humified	Colour (brown)	Depth to bog bottom in m
"Elma" Medika	MED-164	0.4 - 1.0	25.15	18.61	87.2	5.25		4.5	96	1	2	1	tan	2.75
		1.0 - 1.5	23.72	17.52	91.7	4.77		5.0	96	1	1	2	tan	
		1.5 - 2.0	18.94	13.92	92.5	9.94		5.6	92	2	1	5	lt.	
		2.0 - 2.5	11.07	8.04	87.0	11.92		6.1	40	3	2	55	med.-dk.	
North Medika Cluster	NMC-165	0.5 - 1.0	18.92	13.94	93.2	7.56		5.8	50	35	5	15	med.	1.4
	NMC-166	0.5 - 1.0	18.79	13.84	91.5	10.25		5.9	72	15	6	7	lt.-med.	1.0
	NMC-167	0.35 - 1.0	13.63	9.98	88.4	7.29		5.7	25	10	10	55	med.	1.47
		1.0 - 1.4	10.48	7.62	85.2	14.68		5.8	12	13	7	68	med.-dk.	
	NMC-168	0.25 - 0.5	18.06	13.30	93.8	6.89		5.5	90	10	-	-	lt.-med.	1.0
		0.5 - 0.95	11.67	8.50	91.0	8.51		5.5	20	10	10	60	dk.	
	NMC-169	0.3 - 0.5						4.2						1.8
		0.5 - 1.0	17.61	12.96	93.1	4.93		4.5	85	10	5	-	lt.	
		1.0 - 1.5	17.46	9.43	87.6	5.98		5.0	40	20	5	35	dk.	
		1.5 - 1.7	12.87	9.40	86.2	7.38		5.8	20	10	10	60	very dk.	
	NMC-170	0.25 - 1.0	13.43	9.83	91.0	7.88		4.5	30	12	5	53	med.	1.5
		1.0 - 1.5	12.31	8.97	81.8	10.00		5.7	30	12	2	56	med.	
	NMC-171	0.5 - 1.0	13.83	10.12	91.8	7.32		4.6	40	25	5	30	med.-dk.	1.95
		1.0 - 1.5	10.98	7.99	88.7	8.69		5.8	24	25	1	50	dk.	
		1.5 - 1.8	-	-	-	-		-	10	8	2	80	black	
	NMC-172	0.25 - 1.0	23.43	17.30	87.6	13.74		5.6	88	7	3	2	lt.	1.6
		1.0 - 1.5	12.49	9.12	85.4	11.15		5.7	70	4	1	25	med.-dk.	
	NMC-173	0.0 - 0.5	26.19	19.40	87.7	5.68		4.4	96	2	1	1	tan	1.9
		0.5 - 1.0	21.92	16.16	92.5	6.40		4.9	80	12	4	4	lt.	
		1.0 - 1.5	16.98	12.47	90.0	6.54		5.2	65	18	5	12	lt.	
		1.5 - 1.9	11.97	8.73	85.8	13.43		5.8	20	10	8	62	med.-dk.	
	NMC-174	0.0 - 0.5	34.96	26.01	89.9	4.64		4.5	100	-	-	-	tan	1.6
		0.5 - 1.0	17.60	12.93	91.3	7.31		5.0	75	10	5	10	lt.	
		1.0 - 1.5	11.27	8.19	87.4	10.69		6.1	16	7	7	70	dk.	
	NMC-175	0.0 - 0.45	17.15	12.61	87.2	14.75	1.01	4.0	95	-	5	-	very lt.	2.2
		0.45 - 1.0	16.89	12.42	93.3	6.80		4.3	90	-	10	-	lt.	
		1.0 - 1.5	16.29	11.97	90.2	5.42	2.26	5.1	70	5	20	5	med.	
		1.5 - 2.0	12.99	9.49	87.8	9.53		5.2	50	5	20	25	med.-dk.	
		2.0 - 2.42	10.59	7.69	89.6 (sandy)	n.d.		5.4	3	16	1 (+5% sand)	75	dk.	
	NMC-176	0.35 - 0.5	17.30	12.73	91.8	9.49		4.1	40	30	10	20	lt.	1.6
		0.5 - 1.0	12.11	8.83	88.2			4.8	20	5	25	50	med.-dk.	
		1.0 - 1.6	7.15	5.15	87.9 (sandy)	12.36		5.3	10	5	15	70	dk.	
	NMC-177	0.2 - 0.5	16.69	12.27	92.4	7.20		4.2	90	5	5	-	lt.	1.6
		0.5 - 1.0	16.92	12.44	92.5	5.82		4.5	80	5	15	-	med.	
		1.0 - 1.5	11.83	8.62	89.0	8.02		5.0	20	-	20	60	dk.	
	NMC-178	0.6 - 1.0	20.08	14.81	93.2	5.05		4.4	90	5	5	-	lt.	2.5
		1.0 - 1.5	14.22	10.41	90.0	5.03		4.6	85	10	4	1	lt.-med.	
		1.5 - 2.0	16.71	12.29	89.7	4.99		5.1	45	20	5	30	med.-dk.	
		2.0 - 2.4	-	-	-	-		-	18	12	5	65	black	
	NMC-179	0.5 - 1.0	19.60	14.45	93.7	6.24		5.0	80	15	5	-	med.	1.85
		1.0 - 1.5	12.35	9.01	90.0	7.49		5.8	60	10	15	15	med.-dk.	
		1.5 - 1.75	-	-	-	-		-	4	5	9	82	black	
	NMC-180	0.5 - 1.0	17.48	12.87	90.4	9.19		4.6	65	8	7	20	lt.	1.9
		1.0 - 1.5	18.98	13.97	89.9	6.38		5.0	73	8	4	15	lt.	
		1.5 - 1.9	-	—	-	-		-	2	13	6	79	black	
	NMC-181	0.5 - 1.0	15.98	11.72	89.4	9.32		5.0	70	7	3	20	med.	1.15
	NMC-182	0.5 - 1.0	22.13	16.37	92.4	9.98		4.8	82	7	1	10	lt.	1.4
		1.0 - 1.4	15.05	11.03	83.4	33.08		5.7	45	10	5	40	lt.-med.	

TABLE 6: ANALYTICAL RESULTS FROM PEAT SAMPLES (Cont'd)

Bog	Sampling Site	Depth in m	ABSORPTIVE VALUE Dry basis	ABSORPTIVE VALUE 25% moisture	Moisture %	Ash %	N (% Dry)	pH	BOTANICAL COMPOSITION % *Sphagnum*	BOTANICAL COMPOSITION % Reed, sedge	BOTANICAL COMPOSITION % Wood	BOTANICAL COMPOSITION % Unidentifiable, humified	Colour (brown)	Depth to bog bottom in m
Southwest Elma	SW-EL-183	0.5 - 1.0	17.76	13.07	90.9	8.33		5.7	87	3	7	3	lt.	2.1
		1.0 - 1.5	18.62	13.70	91.9	7.29		6.2	85	4	7	4	lt.	
		1.5 - 2.0	13.42	9.81	88.5	10.44		6.1	40	10	3	47	med.	
	SW-EL-184	0.4 - 1.0	21.28	15.71	94.9	9.18		4.5	93	5	2	-	very lt.	2.0
		1.0 - 1.5	17.88	13.16	93.4	7.66		5.5	90	9	1	-	lt.	
		1.5 - 2.0	11.43	8.32	88.9	10.62		5.3	4	21	5	70	dk.	
	SW-EL-185	0.0 - 0.5	26.26	19.45	85.4	4.31	0.87	5.3	98	1	1	-	tan	2.35
		0.5 - 1.0	24.99	18.49	93.9	7.02		4.7	95	2	2	1	very lt.	
		1.0 - 1.5	22.53	16.62	93.1	7.16		5.0	92	4	1	3	lt.	
		1.5 - 2.0	19.35	13.53	91.8	7.28		5.8	79	12	3	6	lt.-med.	
		2.0 - 2.35	-	-	-	-		-	17	12	-	71	black	
	SW-EL-186	0.2 - 0.5	25.57	18.93	95.0	4.96		4.2	96	2	2	-	tan	2.0
		0.5 - 1.0	19.84	14.63	93.2	7.93		4.2	95	3	2	-	lt.	
		1.0 - 1.5	15.08	11.05	91.8	5.42		4.9	50	5	20	25	med.	
		1.5 - 2.0	12.40	9.05	87.7	8.36		5.1	20	5	10	65	dk.	
Northeast Elma	NE-EL-187	0.5 - 1.0	18.10	13.30	89.6	9.97		4.5	94	1	2	3	lt.	2.9
		1.0 - 1.5	21.37	15.78	93.4	5.80		4.7	89	2	3	6	lt.	
		1.5 - 2.0	18.33	13.50	89.8	5.41		5.2	77	4	4	15	lt.-med.	
		2.0 — 2.5	16.83	12.37	86.7	6.77		5.9	40	25	3	32	med.	
	NE-EL-188	0.5 - 1.0	16.16	11.87	91.5	8.38		4.6	80	15	5	-	lt.	2.4
		1.0 - 1.5	14.17	10.38	91.5	5.63		4.8	75	13	8	4	med.	
		1.5 - 2.0	12.71	9.28	87.8	6.91		5.5	30	20	20	40	med.-dk.	
		2.0 - 2.3	10.07	7.30	85.4	15.11		5.1	20	20	20	40	dk.	
	NE-EL-189	0.4 - 1.0	27.15	20.11	95.7	4.65	0.71	4.1	95	3	2	-	very lt.	3.3
		1.0 - 1.5	22.09	16.32	92.3	5.14		4.4	92	4	4	-	lt.	
		1.5 - 2.0	20.83	15.37	90.3	7.75	1.17	5.3	82	5	5	8	lt.-med.	
		2.0 - 2.5	14.99	10.99	90.7	7.38		5.9	60	10	10	20	med.-dk.	
		2.5 - 3.0	13.48	9.86	89.3	9.42	2.32	5.8	30	10	10	50	dk.	
	NE-EL-190	0.35 - 1.0	24.57	18.18	95.5	3.47		4.1	80	5	10	5	very lt.	3.5
		1.0 - 1.5	22.97	16.98	94.1	4.66		4.6	80	5	10	5	lt.	
		1.5 - 2.0	17.91	13.18	92.7	6.18		4.9	60	10	10	20	lt.	
		2.0 - 2.5	16.27	11.96	91.8	7.31		5.6	50	10	10	30	med.	
		2.5 - 3.0	19.75	14.56	92.3	6.86		5.4	20	20	10	50	med.	
	NE-EL-191	0.5 - 1.0	23.14	17.11	93.8	4.77		4.4	60	10	30	-	lt.	3.4
		1.0 - 1.5	23.75	17.57	93.8	4.10		4.3	70	10	20	-	lt.	
		1.5 - 2.0	13.37	9.78	88.7	7.01		5.1	40	10	20	30	med.	
		2.0 - 2.5	16.29	11.97	88.5	5.60		4.9	50	38	2	10	lt.-med.	
		2.5 - 3.15	-	-	-	-		-	12	9	1	38	black	
Julius Lake South	JLS-192	0.0 - 1.0	34.67	25.84	94.9	4.11	0.49	3.4	97	2	1	-	tan	3.0
		1.0 - 1.5	30.32	22.45	95.1	5.33		3.8	86	7	4	3	lt.	
		1.5 - 2.0	16.90	12.42	91.7	5.72	2.15	4.7	40	20	15	25	med.	
		2.0 - 2.5	17.35	12.77	90.7	7.19		5.0	17	54	3	26	med.-dk.	
		2.5 - 2.75	-	-	-	-		-	37	32	3	38	dk.	
		2.75 - 3.0	-	-	-	-		-	6	6	1	87	black	
	JLS-193	0.5 - 1.0	27.34	20.30	94.9	5.33		3.9	92	6	1	1	lt.	3.0
		1.0 - 1.5	19.93	14.68	91.5	6.96		4.7	62	23	1	14	med.	
		1.5 - 2.0	15.53	11.24	91.6	6.96		5.0	28	35	2	35	med.-dk.	
		2.0 — 2.8	14.82	10.86	91.1	8.01		5.4	13	50	1	37	dk.	
Julius Lake West	JLW-194	0.2 - 0.5	28.49	21.15	93.5	5.15		4.4	94	3	2	1	tan	2.6
		0.5 - 1.0	22.32	16.46	91.9	4.95		4.9	85	10	-	5	lt.	
		1.0 — 1.5	18.37	13.51	91.2	3.45		5.3	50	30	5	15	med.	
		1.5 - 2.0	20.59	15.21	90.3	6.06		5.8	40	40	3	17	med.	
		2.0 - 2.5	13.07	9.05	86.7	18.63		6.0	25	25	-	50	med.	

TABLE 6: ANALYTICAL RESULTS FROM PEAT SAMPLES (Cont'd)

Bog	Sampling Site	Depth in m	ABSORPTIVE VALUE		Moisture %	Ash %	N (% Dry)	pH	BOTANICAL COMPOSITION				Colour (brown)	Depth to bog bottom in m
			Dry basis	25% moisture					% *Sphagnum*	% Reed, sedge	% Wood	% Unidentifiable, humified		
Julius Lake West (Cont.)	JLW-195	0.5 - 1.0	27.65	20.52	94.5	6.29	1.19	4.15	95	2	3	-	lt.	3.0
		1.0 - 1.5	28.02	20.76	94.4	4.92		4.4	92	4	2	2	lt.	
		1.5 - 2.0	21.24	15.68	92.4	5.77	2.04	4.8	77	20	2	2	lt.-med.	
		2.0 - 2.5	22.29	16.49	91.8	3.16		5.6	63	30	2	5	lt.-med.	
		2.5 - 2.75	-	-	-	-		-	7	12	1	80	black	
	JLW-196	0.5 - 1.0	27.32	20.28	94.8	6.31		4.4	98	-	2	-	tan	2.45
		1.0 - 1.5	24.75	18.34	93.8	7.02		4.4	92	4	2	2	very lt.	
		1.5 - 2.0	24.46	18.09	93.3	6.84		4.7	90	7	2	1	very lt.	
		2.0 - 2.4	17.81	13.09	89.9	5.32		5.1	80	8	2	10	lt.-med.	
Southwest Julius	SWJ-197	0.5 - 1.0	21.32	15.73	92.5	8.69	0.84	4.4	80	8	8	4	lt.-med.	2.45
		1.0 - 1.5	22.89	16.92	93.0	6.65		4.5	90	5	5	-	lt.	
		1.5 - 2.0	21.45	15.84	93.8	6.49	1.68	5.1	80	8	8	4	lt.-med.	
		2.0 - 2.3	16.34	12.00	90.1	8.54		5.2	73	9	9	9	med.-dk.	
	SWJ-198	0.65 - 1.0	22.03	16.25	91.3	5.44		4.4	81	11	6	2	lt.	2.0
		1.0 - 1.5	20.88	15.41	90.9	6.55		5.4	85	10	3	2	lt.	
		1.5 - 1.65	21.26	15.72	92.8	5.71		-	75	18	4	3	lt.	
	SWJ-199	0.5 - 1.0	26.16	19.41	93.6	5.79		5.2	88	7	5	-	lt.	1.55
		1.0 - 1.5	15.13	11.09	90.4(sand)	9.80		6.3	81	10	7	2	lt.	
North Julius	NJ-200	0.25 - 1.0	19.56	14.52	88.2	9.15		4.5	92	6	-	2	very lt.	1.6
		1.0 - 1.5	13.10	9.57	85.4	9.01		5.3	62	10	3	25	med.	
	NJ-201	0.4 - 1.0	29.59	21.94	95.3	6.56		4.8	92	4	2	2	very lt.	2.1
		1.0 - 1.5	15.22	11.16	91.6	8.51		5.9	12	5	17	66	dk.	
		1.5 - 2.0	14.48	10.61	89.9	10.10		6.1	9	10	20	61	dk.	
	NJ-202	0.4 - 1.0	21.04	15.51	92.6	7.56		4.9	89	5	2	4	lt.	1.75
		1.0 - 1.5	20.88	15.39	90.2	10.35		5.5	81	12	3	4	lt.-med.	
	NJ-203	0.0 - 1.0	22.57	16.68	93.2	3.95		5.1	60	32	3	5	lt.-med.	4.0
		1.0 - 2.0	21.72	16.04	93.4	6.82		5.9	30	40	3	25	lt.-med.	
		2.0 - 3.0	18.10	13.39	92.2	9.86		5.9	15*	40	5	40	med.	
		3.0 - 4.0	13.51	9.88	90.3	11.96		6.1	7	24	4	65	med.-dk.	
	NJ-204	0.5 - 1.0	28.11	20.80	94.7	1.04	1.58	4.1	96	1	1	2	tan	4.5
		1.0 - 2.0	27.41	20.31	94.7	4.06	0.57	4.5	94	3	1	2	very lt.	
		2.0 - 3.0	22.18	16.38	93.4	7.10	1.56	5.8	68*	22	-	10	med.	
		3.0 - 4.0	16.81	12.40	90.5	11.90	2.78	6.2	19	30	1	50	med.-dk.	
		4.0 - 4.5	-	-	-	-		-	5	8	3	74	very dk.	
	NJ-205	0.5 - 1.0	22.07	16.30	93.4	4.73		4.4	94	4	2	-	very lt.	4.1
		1.0 - 2.0	22.82	16.87	92.6	4.78		4.7	87	7	2	4	lt.	
		2.0 - 3.0	20.89	15.42	93.2	6.64		5.2	25	45	-	30	med.	
		3.0 - 4.0	12.61	9.21	89.0	11.35		6.4	5	23	2	70	dk.	
	NJ-206	0.5 - 1.0	22.55	16.70	94.0	4.88		4.6	90	7	1	2	tan	4.15
		1.0 - 1.5	22.10	16.35	92.8	4.43		4.8	89	7	1	3	tan	
		1.5 - 2.0	24.34	18.02	92.4	4.93		4.9	87	9	-	4	very lt.	
		2.0 - 2.5	16.71	12.26	91.9	5.79		5.5	22	68	-	10	lt.-med.	
		2.5 - 3.0	18.63	13.70	93.7	7.45		5.8	25*	55	-	20	med.	
		3.0 - 3.5	16.55	12.14	92.0	10.01		6.1	12	45	-	43	med.-dk.	
		3.5 - 4.0	14.30	10.46	88.5	12.61		6.2	5	25	-	70	very dk.	
	NJ-207	0.5 - 1.0	24.23	17.95	94.7	4.15		4.4	90	5	2	3	lt.	4.0
		1.0 - 2.0	19.61	14.48	91.9	4.83		4.9	56*	10	4	30	med..	
		2.0 - 3.0	20.13	14.83	91.8	6.31		5.3	58	10	4	28	lt.-med.	
		3.0 - 4.0	15.49	11.37	90.1	10.13		5.8	25	12	3	60	dk.	
	NJ-208	0.45 - 1.0	27.92	20.70	96.3	4.88		4.6	94	4	1	1	tan	4.1
		1.0 - 1.5	23.41	17.34	94.5	4.43		4.8	81	12	3	4	lt.	
		1.5 - 2.0	19.62	14.44	92.2	4.93		4.9	35	55	3	7	lt.-med.	
		2.0 - 2.5	20.40	15.03	92.9	5.79		5.5	25	51	2	22	med.	
		2.5 - 3.0	19.51	14.40	92.8	7.45		5.8	22	41	2	35	med.-dk.	
		3.0 - 3.5	14.83	10.90	88.4	10.01		6.1	10	30	2	60	dk.	
		3.5 - 3.9	12.69	9.25	87.3	12.61		6.2	5	25	-	70	very dk.	

* May include other mosses

TABLE 6: ANALYTICAL RESULTS FROM PEAT SAMPLES (Cont'd)

Bog	Sampling Site	Depth in m	ABSORPTIVE VALUE		Moisture %	Ash %	N (% Dry)	pH	BOTANICAL COMPOSITION				Colour (brown)	Depth to bog bottom in m
			Dry basis	25% moisture					% *Sphagnum*	% Reed, sedge	% Wood	% Unidentifiable, humified		
Evergreen	EVE-209	0.0 - 0.5	31.53	23.43	91.4	9.92		4.4	98	1	1	-	tan	3.45
		0.5 - 1.0	28.14	20.86	92.5	4.07		4.3	98	1	1	-	tan	
		1.0 - 1.5	29.02	21.51	91.9	3.64		4.3	97	2	1	-	tan	
		1.5 - 2.0	29.76	22.04	93.3	2.77		4.4	96	3	1	-	tan	
		2.0 - 2.5	21.56	15.90	91.0	2.66		4.5	92	4	2	2	very lt.	
		2.5 - 3.0	18.76	13.52	89.1	3.32		4.6	50	40	1	9	med.	
		3.0 - 3.5	15.74	11.55	87.4	4.97		4.9	12	45	3	40	dk.	
	EVE-210	0.0 - 0.5	29.10	21.54	94.7	4.47		4.15	98	1	1	-	tan	4.45
		0.5 - 1.0	30.99	23.03	94.2	4.49		4.3	99	1	+	-	tan	
		1.0 - 1.5	28.27	20.99	94.0	3.80		4.3	99	1	+	-	very lt.	
		1.5 - 2.0	28.93	21.48	94.0	2.98		4.3	99	1	-	-	very lt.	
		2.0 - 2.5	27.80	20.63	93.8	3.54		4.4	97	2	1	-	very lt.	
		2.5 - 3.0	27.87	20.62	94.2	5.44		4.75	95	3	2	-	very lt.	
		3.0 - 3.5	23.91	17.69	92.6	4.25		5.4	89	7	1	3	lt.-med.	
		3.5 - 4.0	16.59	12.20	88.4	8.45		5.9	22	30	3	45	med.-dk.	
		4.0 - 4.25	-	-	-	-		-	2	7	1	90	black	
	EVE-211	0.5 - 1.0	28.67	21.29	94.4	5.92		4.8	98	1	1	-	tan	1.9
		1.0 - 1.5	19.70	14.51	90.7	7.49		5.6	76	10	2	12	lt.-med.	
		1.5 - 1.9	12.67	9.26	87.7	11.04		6.1	30	20	3	47	med.-dk.	
	EVE-212	0.5 - 1.0	23.30	17.23	94.9	3.61		4.1	97	2	1	-	tan	4.0
		1.0 - 1.5	25.02	18.52	93.9	3.24		4.2	97	2	1	-	tan	
		1.5 - 2.0	28.17	20.88	94.6	2.77		4.2	96	2	2	-	tan	
		2.0 - 2.5	30.54	22.66	94.5	3.06		4.5	96	4	-	-	lt.	
		2.5 - 3.0	28.57	21.18	94.5	4.97		5.2	95	3	2	-	lt.-med.	
		3.0 - 3.5	-	-	-	-		-	83	7	2	8	lt.-med.	
		3.5 - 4.0	-	-	-	-		-	25	15	1	59	dk.	
	EVE-213	0.5 - 1.0	27.64	20.48	95.0	6.22	0.60	4.2	96	2	2	-	tan	4.9
		1.0 - 1.5	24.59	18.20	94.4	4.34		4.2	96	2	2	-	tan	
		1.5 - 2.0	25.49	18.85	94.4	3.80	0.53	4.3	94	3	3	-	tan	
		2.0 - 2.5	30.54	22.66	94.1	4.76		4.3	94	3	3	-	very lt.	
		2.5 - 3.0	23.07	17.05	94.6	6.01	1.20	4.5	92	4	4	-	lt.	
		3.0 - 3.5	25.76	19.07	95.7	5.00		4.9	86	7	7	-	lt.-med.	
		3.5 - 4.0	20.73	15.30	86.5	6.25		5.3	80	10	5	5	med.	
		4.0 - 4.5	-	-	-	-		-	14	11	-	75	dk.	
		4.5 - 4.9	-	-	-	-		-	6	5	-	89	black	
	EVE-214	0.0 - 1.0	34.03	25.28	91.9	4.67		3.9	98	-	2	-	tan	4.5
		1.0 - 2.0	26.11	19.36	92.9	4.44		4.4	95	2	2	1	tan	
		2.0 - 3.0	22.78	16.85	92.6	4.65		4.9	90	4	3	3	lt.	
		3.0 - 4.0	20.20	14.92	92.0	5.54		5.6	63	24	3	10	med.	
	EVE-215	0.0 - 0.5	32.17	23.84	93.3	10.60		4.3	99	-	1	-	tan	4.45
		0.5 - 1.0	35.72	26.54	95.6	-		4.55	99	-	1	-	tan	
		1.0 - 1.5	28.32	21.03	95.4	3.69		4.45	98	1	1	-	very lt.	
		1.5 - 2.0	25.75	19.03	93.6	4.47		4.6	96	2	2	-	very lt.	
		2.0 - 2.5	29.61	21.96	95.4	1.82		4.7	98	1	1	-	very lt.	
		2.5 - 3.5	27.83	20.58	93.6	4.80		5.5	90	5	-	5	very lt.	
		3.5 - 4.0	-	-	-	-		-	35	45	3	17	med.	
		4.0 - 4.45	-	-	-	-		-	5	12	1	82	black	
	EVE-216	0.5 - 1.0	18.03	13.27	94.5	8.33		4.6	99	1	-	-	tan	4.0
		1.0 - 1.5	24.52	18.14	94.0	4.52		4.1	99	1	-	-	tan	
		1.5 - 2.0	24.89	18.42	94.4	3.37		4.3	98	2	-	-	tan	
		2.0 - 2.5	23.93	17.70	92.6	5.05		5.3	98	2	-	-	very lt.	
		2.5 - 3.0	21.53	15.89	95.0	5.99		5.5	95	5	-	-	very lt.	
		3.0 - 3.5	-	-	-	-		-	48	28	2	22	med.	
		3.5 - 4.0	-	-	-	-		-	22	19	2	57	dk.	
	EVE-217	0.5 - 1.0	31.01	23.05	93.4	3.89		4.4	98	1	1	-	tan	3.3
		1.0 - 1.5	30.95	22.96	90.0	4.67		4.7	97	2	1	-	tan	
		1.5 - 2.0	21.14	15.61	90.9	5.69		5.6	91	4	3	2	lt.	
		2.0 - 2.5	24.70	18.24	92.0	6.64		6.3	91	5	2	2	lt.	
		2.5 - 3.0	23.95	17.74	91.8	8.11		6.2	87	7	2	4	lt.-med.	
		3.0 - 3.3	-	-	-	-		-	12	17	1	70	very dk.	

TABLE 6: ANALYTICAL RESULTS FROM PEAT SAMPLES (Cont'd)

Bog	Sampling Site	Depth in m	ABSORPTIVE VALUE: Dry basis	ABSORPTIVE VALUE: 25% moisture	Moisture %	Ash %	N (% Dry)	pH	BOTANICAL COMPOSITION: % *Sphagnum*	BOTANICAL COMPOSITION: % Reed, sedge	BOTANICAL COMPOSITION: % Wood	BOTANICAL COMPOSITION: % Unidentifiable, humified	Colour (brown)	De to bo bottor in m
Evergreen (Cont.)	EVE-218	0.5 - 1.0	22.00	16.28	93.5	6.02		5.0	91	6	1	2	very lt.	2.0
		1.0 - 1.5	17.51	12.88	90.2	6.71		6.0	45	20	6	29	med.-dk.	
		1.5 - 2.0	12.76	9.33	89.4	16.65		6.1	30	30	10	30	dk.	
Northwest Evergreen	NWE-219	0.5 - 1.0	23.09	17.04	92.0	5.69		4.3	85	10	2	3	lt.	2.5
		1.0 - 1.5	17.80	13.08	91.8	3.73		4.6	58	20	7	15	lt.-med.	
		1.5 - 2.0	16.70	12.27	90.0	4.85		5.2	30	20	10	40	med.	
		2.0 - 2.5	16.21	11.91	86.6	4.71		5.6	25	30	5	40	med.	
	NWE-220	0.5 - 1.0	21.22	15.67	92.7	3.27		4.0	95	3	2	-	lt.	2.75
		1.0 - 1.5	24.22	17.92	92.8	3.73		4.4	95	3	2	-	lt.	
		1.5 - 2.0	18.35	13.51	90.7	5.17		5.0	60	5	5	30	med.	
		2.0 - 2.5	17.44	12.83	90.7	5.23		5.6	40	5	5	50	dk.	
		2.5 - 2.75	-	-	-	-		-	8	12	1	79	very dk.	
	NWE-221	0.5 - 1.0	28.14	20.86	95.1	3.36	2.15	4.0	95	3	2	-	very lt.	3.75
		1.0 - 1.5	22.25	16.45	92.4	2.86		4.1	95	2	3	-	very lt.	
		1.5 - 2.0	20.82	15.37	92.0	2.90	0.55	4.2	92	5	3	-	lt.	
		2.0 - 2.5	30.04	22.24	95.0	2.88		4.5	87	10	3	-	lt.	
		2.5 - 3.0	24.89	18.42	93.4	3.39	2.12	5.4	65	22	3	10	med.	
		3.0 - 3.5	23.95	17.71	93.2	3.64		5.7	25	55	5	15	med.	
		3.5 - 3.75	-	-	-	-		-	1	7	1	91	black	
Radar	RAD-222	0.5 - 1.0	10.46	7.60	85.2	12.00		6.6	3	40	20	37	med.-dk.	1.75
		1.0 - 1.5	9.56	6.91	83.4	11.74		6.7	3	30	10	57	dk.	
	RAD-223	0.5 - 1.0	10.33	7.50	89.8	9.31	2.17	6.0	5	15	25	55	dk.	2.0
		1.0 - 1.5	10.21	7.40	88.4	10.04		6.1	3	12	15	70	dk.	
		1.5 - 2.0	14.56	10.67	89.5	8.78		6.2	5	15	3	72	dk.	
	RAD-224	0.5 - 1.0	9.81	7.11	86.0	11.82		6.7	3	30	17	50	dk.	1.85
		1.0 - 1.5	12.68	9.25	84.1	12.26		6.6	10	45	3	42	med.-dk.	
Mooswa Lake	MWL-225	0.4 - 1.0	15.93	11.69	92.5	13.43	1.35	5.5	75	10	5	10	lt.	2.0
		1.0 - 1.5	22.05	16.29	91.9	10.18		5.6	85	5	5	5	lt.-med.	
		1.5 - 2.0	9.62	6.97	86.5	12.27		5.7	17	3	10	70	dk.	
	MWL-226	0.0 - 0.5	17.76	13.07	91.0	14.82		6.0	75	15	-	10	lt.-med.	1.2
		0.5 - 1.0	17.90	13.19	92.1	12.46		5.9	60	15	2	23	lt.-med.	
		1.0 - 1.2	-	-	-	-		-	50	15	2	23	med.	
	MWL-227	0.2 - 0.5	22.62	16.74	88.8	17.59		6.3	75	17	-	8	lt.	1.35
		0.5 - 1.0	19.13	14.11	87.5	11.93		6.2	70	12	2	16	lt.	
		1.0 - 1.2	15.47	11.35	84.3	13.48		6.5	40	15	5	40	med.	
	MWL-228	0.3 - 0.7	16.48	12.10	88.3	11.66		6.3	60	25	3	12	lt.-med.	1.4
		0.7 - 1.4	18.48	13.61	89.0	12.65		6.0	40	27	3	30	med.	
North Pinawa	NPW-229	0.5 - 1.0	13.12	9.59	92.3	6.27		5.9	60	10	25	5	med.-dk.	2.0
		1.0 - 1.5	12.16	8.87	91.5	5.98		5.8	55	15	15	15	med.-dk.	
		1.5 - 2.0	14.80	10.85	91.4	6.41		6.0	50	10	10	30	dk.	
	NPW-230	0.3 - 1.0	14.35	10.50	90.0	6.09	1.94	5.7	35	45	7	13	med.	2.0
		1.0 - 1.5	14.60	10.69	88.5	5.81		5.7	17	35	7	41	med.	
		1.5 - 1.9	15.09	11.07	88.1	7.51		5.9	7	25	4	64	med.-dk.	
	NPW-231	0.6 - 1.2	12.56	9.17	81.2(silty)	27.46		7.2	25	40	15	20	med.	1.4
Wendigo	WEN-232	0.5 - 1.0	20.79	15.32	91.7	6.21		6.1	81	12	2	5	lt.	1.7
		1.0 - 1.5	13.12	9.58	87.3	4.48		6.1	25	25	2	48	med.-dk.	
	WEN-233	0.5 - 1.0	20.85	15.38	93.8	4.71	2.83		80	12	4	4	lt.	2.7
		1.0 - 1.5	20.64	15.25	92.3	5.16			68	12	2	18	lt.-med.	
		1.5 - 2.0	18.05	13.29	92.1	4.43	2.17		54	20	6	20	med.	
		2.0 - 2.5	14.69	10.78	90.2	5.89			15	25	6	54	med.-dk.	

TABLE 6: ANALYTICAL RESULTS FROM PEAT SAMPLES (Cont'd)

Bog	Sampling Site	Depth in m	ABSORPTIVE VALUE		Moisture %	Ash %	N (% Dry)	pH	BOTANICAL COMPOSITION				Colour (brown)	Depth to bog bottom in m
			Dry basis	25% moisture					% *Sphagnum*	% Reed, sedge	% Wood	% Unidentifiable, humified		
Lee River	LEE-234	0.5 - 1.0	15.13	11.09	87.5	8.59		5.1	65	13	12	10	lt.-med.	2.4
		1.0 - 1.5	12.18	8.89	86.2	8.74		6.0	25	25	15	35	med.	
		1.5 - 2.0	11.28	8.20	83.4	8.71		6.0	20	20	15	45	med.	
	LEE-235	0.5 - 1.0	23.36	17.31	92.2	7.68	1.17	5.1	90	4	4	2	very lt.	2.2
		1.0 - 1.5	12.83	9.37	87.9	7.43		5.8	35	8	2	55	med.	
		1.5 - 2.0	14.30	10.46	86.8	7.25		6.2	35	13	2	50	med.	
Pointe du Bois	PDB-236	0.5 - 1.0	23.62	17.49	90.6	6.82		4.2	97	2	1	-	lt.	6.0
		1.0 - 1.5	21.68	15.99	91.6	4.93		4.3	96	4	-	-	lt.	(water)
		1.5 - 2.0	24.31	18.88	93.3	4.06		4.4	95	4	-	1	lt.	
		2.0 - 2.5	22.91	16.93	93.7	4.34		4.5	92	5	2	1	lt.	
		2.5 - 3.0	22.05	16.31	93.1	4.17		4.7	83	7	7	3	lt.	
		3.0 - 3.5	22.36	16.52	94.1	5.76		5.3	70	26	2	2	lt.	
	PDB-237	0.5 - 1.0	18.89	13.90	90.3	4.50	1.35	4.7	84	10	1	5	lt.	6.0+
		1.0 - 1.5	22.63	16.70	91.8	3.85		4.8	87	10	-	3	lt.	(water)
		1.5 - 2.0	26.38	19.50	92.4	3.81	1.09	4.8	91	6	1	2	lt.	
		2.0 - 2.5	26.18	19.35	93.3	3.81		5.1	92	5	3	-	lt.	
		2.5 - 3.0	29.12	21.55	94.7	3.56)	1.95	5.4	91	6	1	2	lt.	
		3.0 - 3.5	34.77	25.83	94.1	8.24		5.6	81	12	2	5	lt.	
St. George	STG-238	0.45 - 1.0	20.93	15.42	91.9	6.91		6.0	60	32	1	7	med.	2.1
		1.0 - 1.5	14.15	10.37	89.5	6.26		6.0	20	37	3	40	med.-dk.	
		1.5 - 2.0	17.36	12.76	89.7	6.14		5.9	10	55	2	33	med.-dk.	
	STG-239	0.3 - 1.0	23.88	17.69	91.9	5.30		5.4	83	14	3	2	lt.	2.0
		1.0 - 1.5	15.77	11.58	90.1	5.43		5.8	40	30	2	28	med.	
		1.5 - 2.0	15.90	11.69	87.4	6.06		6.0	20	30	1	49	med.-dk.	
	STG-240	0.5 - 1.0	29.80	22.02	95.6	2.35	0.92	4.1	95	3	1	1	very lt.	3.1
		1.0 - 1.5	26.03	19.31	94.9	2.58		4.1	92	5	2	1	very lt.	
		1.5 - 2.0	25.52	18.89	94.8	3.41	1.37	4.5	94	4	1	1	very lt.	
		2.0 - 2.5	22.45	16.55	94.8	3.52		5.2	70	25	3	2	lt.	
		2.5 - 3.0	22.33	16.53	93.2	5.30		5.6	53	38	5	4	med.	
Pine Falls	PF-241	0.3 - 1.0	17.79	13.09	91.2	7.51		6.0	5	70	10	15	med.	2.5
		1.0 - 1.5	15.61	11.44	88.0	6.79		6.0	1	69	5	25	med.-dk.	
		1.5 - 2.0	14.03	10.26	86.8	6.39		6.0	3	80	2	15	med.-dk.	
		2.0 - 2.5	16.06	11.79	85.8	8.48		6.1	2	40	2	56	dk.	
	PF-242	0.4 - 1.0	18.10	13.35	91.8	11.38	3.82	6.0	30	40	5	20	lt.	2.7
		1.0 - 1.5	15.78	11.58	90.9	6.00		5.9	15	40	5	40	lt.-med.	
		1.5 - 2.0	14.37	10.52	88.8	6.73	1.47	6.0	5	30	5	60	med.-dk.	
		2.0 - 2.5	18.19	13.38	87.3	6.71		6.1	-	45	-	55	med.-dk.	
Hay Point	HAY-243	0.2 - 1.0	27.21	20.13	93.8	6.19		5.6	93	3	2	2	tan	1.45
		1.0 - 1.45	13.13	9.60	87.4	9.27		5.8	45	5	15	35	med.-dk.	
	HAY-244	0.3 - 1.0	27.94	20.71	93.8	7.77		4.8	94	4	1	1	tan	1.75
		1.0 - 1.5	14.60	10.69	92.1	8.26		5.3	67	8	18	7	med.	
		1.5 - 1.75	-	-	-	-		-	25	25	2	48	dk.	
	HAY-245	0.8 - 1.0	21.48	15.86	93.8	3.38		4.3	84	4	8	2	lt.	2.6
		1.0 - 1.5	23.49	17.40	94.8	4.26		5.1	91	3	3	3	very lt.	
		1.5 - 2.0	27.19	20.18	94.4	5.97		5.5	93	3	2	2	tan	
		2.0 - 2.5	19.15	14.13	92.8	6.25		5.8	73	7	12	8	lt.	
	HAY-246	0.3 - 1.0	25.04	18.57	95.0	4.46		4.0	94	3	2	1	very lt.	3.7
		1.0 - 1.5	30.40	22.49	96.2	2.14		4.2	96	2	1	1	tan	
		1.5 - 2.0	22.91	16.90	94.3	3.68		4.4	89	3	6	2	very lt.	
		2.0 - 2.5	23.02	17.05	95.0	3.87		4.9	80	7	8	5	lt.-med.	
		2.5 - 3.0	21.30	15.76	93.9	4.03		5.4	77	5	13	5	med.	
		3.0 - 3.5	-	-	-	-		-	45	30	1	24	dk.	

TABLE 6: ANALYTICAL RESULTS FROM PEAT SAMPLES (Cont'd)

Bog	Sampling Site	Depth in m	ABSORPTIVE VALUE: Dry basis	ABSORPTIVE VALUE: 25% moisture	Moisture %	Ash %	N (% Dry)	pH	BOTANICAL COMPOSITION: % *Sphagnum*	BOTANICAL COMPOSITION: % Reed, sedge	BOTANICAL COMPOSITION: % Wood	BOTANICAL COMPOSITION: % Unidentifiable, humified	Colour (brown)	Depth to bog bottom in m
Hay Point (Cont.)	HAY-247	0.5 - 1.0	28.34	21.05	95.1	1.69	0.58	4.3	96	1	2	1	tan	3.25
		1.0 - 1.5	28.81	21.36	94.6	2.77		4.5	97	1	1	1	tan	
		1.5 - 2.0	30.02	22.95	96.2	3.15	0.94	4.7	96	2	1	1	tan	
		2.0 - 2.5	28.43	21.07	95.7	6.01		5.2	90	5	3	2	lt.	
		2.5 - 3.0	20.22	14.94	93.8	5.22		5.5	58	17	5	20	med.	
		3.0 - 3.25	-	-	-	-		-	20	25	3	52	dk.	
	HAY-248	0.5 - 1.5	28.70	21.24	94.1	5.40		4.1	96	2	1	1	tan	4.0
		1.5 - 2.5	29.55	21.88	94.5	4.21		4.4	96	2	1	1	tan	
		2.5 - 3.0	29.97	22.27	92.9	4.39		5.2	91	4	2	3	tan	
		3.0 - 4.0	20.17	14.86	92.1	8.61		5.3	45	15	3	37	med.-dk.	
	HAY-249	0.5 - 1.0	28.86	21.43	94.4	3.18		4.05	94	3	2	1	tan	3.5
		1.0 - 2.0	27.05	20.01	94.4	2.80		4.2	95	2	1	2	tan	
		2.0 - 3.0	27.44	20.33	91.4	3.17		4.3	91	3	3	3	tan	
		3.0 - 3.5	16.80	12.34	89.3	12.47		5.4	18	25	2	55	dk.	
	HAY-250	0.5 - 1.5	25.40	18.77	93.2	4.27		4.2	94	2	3	1	tan	3.0
		1.5 - 2.5	25.32	18.74	92.9	4.81		4.9	89	4	4	3	lt.	
		2.5 - 3.0	18.81	13.85	90.3	6.86		5.5	33	33	1	33	med.	
Washow Bay	WB-251	0.35 - 1.0	21.42	18.81	94.3	2.91	0.49	4.1	93	4	2	1	tan	2.3
		1.0 - 1.5	25.25	18.65	95.2	4.67	1.79	4.6	86	4	6	4	lt.	
		1.5 - 2.0	15.13	11.10	91.1	7.23		5.4	22	20	7	51	dk.	
		2.0 - 2.3	-	-	-	-		-	5	15	1	79	black	
	WB-252	0.5 - 1.0	26.75	23.38	95.0	11.95		4.5	92	6	2	-	tan	2.5
		1.0 - 1.5	29.32	21.68	95.4	8.30		4.6	92	6	2	-	tan	
		1.5 - 2.0	27.97	20.68	94.6	6.47		5.2	72	17	3	8	lt.	
		2.0 - 2.5	22.91	16.96	93.9	6.51		5.5	50	28	3	19	med.	
Black Point	BKP-253	0.5 - 1.0	25.70	19.06	94.0	6.28		4.9	75	15	4	6	lt.	2.45
		1.0 - 2.0	25.22	18.66	94.0	5.07		5.5	60	20	4	16	lt.	
		2.0 - 2.45	16.10	11.81	88.5	14.62		5.6	15	25	4	56	dk.	
	BKP-254	0.5 - 1.0	32.77	24.40	95.4	6.04		4.8	83	15	1	1	lt.	2.3
		1.0 - 1.5	29.08	21.50	94.5	4.71		5.0	83	13	1	3	lt.	
		1.5 - 2.0	25.04	18.57	94.0	5.71		5.7	50	25	2	23	med.	
		2.0 - 2.3	-	-	-	-		-	12	22	2	66	dk.	
	BKP-255	0.35 - 1.0	27.10	20.08	93.8	4.08	1.04	4.8	95	4	-	1	tan	3.3
		1.0 - 2.0	26.16	19.37	94.3	4.56	1.11	5.1	76	17	2	5	lt.	
		2.0 - 2.5	21.55	15.93	92.1	5.50	2.54	5.8	35	30	-	35	med.	
		2.5 - 3.0	15.43	11.34	88.4	10.61		5.2	15	20	-	65	dk.	
	BKP-256	0.2 - 1.0	29.73	22.00	94.9	8.27		5.1	95	3	2	-	lt.	2.0
		1.0 - 1.5	23.92	17.70	96.0	7.67		5.1	91	2	5	2	lt.	
		1.5 - 2.0	15.37	11.29	90.3	8.90		5.4	60	15	7	18	lt.-med.	
Little Grindstone Point	LGP-257	0.0 - 0.5	22.39	16.54	94.8	5.16		4.2	92	4	4	-	lt.	1.25
		0.5 - 0.85	17.80	13.10	94.4	5.58		5.0	90	5	5	-	lt.-med.	
		0.85 - 1.15	9.67	7.00	89.4	7.83		5.3	20	10	20	50	dk.	
	LGP-258	0.0 - 0.5	14.23	10.42	92.9	8.01		4.2	30	10	30	30	med.-dk.	1.6
		0.5 - 1.0	14.75	10.81	93.9	6.16		4.3	50	10	20	20	lt.-med.	
		1.0 - 1.5	10.38	7.54	91.9	6.73		5.1	30	10	20	40	med.-dk.	
	LGP-259	0.0 - 0.5	29.60	21.99	94.4	8.50	0.79	4.4	95	2	2	1	tan	1.95
		0.5 - 1.0	26.61	19.66	94.8	4.42		4.9	93	4	1	2	tan	
		1.0 - 1.5	11.39	8.28	94.4	3.42	3.34	5.8	5	7	8	80	dk.	
		1.5 - 1.95	-	-	85.1	8.42		-	-	-	-	-	-	

TABLE 6: ANALYTICAL RESULTS FROM PEAT SAMPLES (Cont'd)

Bog	Sampling Site	Depth in m	ABSORPTIVE VALUE		Moisture %	Ash %	N (% Dry)	pH	BOTANICAL COMPOSITION				Colour (brown)	Depth to bog bottom in m
			Dry basis	25% moisture					% *Sphagnum*	% Reed, sedge	% Wood	% Unidentifiable, humified		
Ramsay Point	RAM-260	0.35 - 0.5	20.69	15.27	94.7	7.54		4.1	95	2	2	1	very lt.	3.1
		0.5 - 1.0	27.15	20.11					97	1	1	1	tan	
		1.0 - 1.5	26.60	19.70	95.5	3.58		4.5	97	1	1	1	tan	
		1.5 - 2.0	26.96	19.93	95.1	3.15		5.3	95	2	1	1	very lt.	
		2.0 - 2.5	21.76	16.07	92.5	3.14		4.9	79	10	4	7	med.	
		2.5 - 3.0	-	-	-	-		-	60	20	-	20	med.	
	RAM-261	0.3 - 0.5	20.60	15.20	93.3	11.39		4.3	94	3	2	1	lt.	3.3
		0.5 - 1.0	21.79	16.09	94.9	6.89		4.4	96	2	1	1	very lt.	
		1.0 - 1.5	24.49	18.12	93.9	8.41		4.4	94	1	3	2	very lt.	
		1.5 - 2.0	26.69	19.77	95.8	5.02		5.3	92	3	3	2	lt.	
		2.0 - 2.5	26.11	19.33	95.4	5.63		5.4	96	2	1	1	tan	
		2.5 - 3.0	19.44	14.33	93.9	6.36		5.8	60	13	4	23	med.	
	RAM-262	0.25 - 0.5	19.65	14.43	93.0	4.65	0.73	4.4	94	3	2	1	very lt.	3.75
		0.5 - 1.0			94.1	2.31								
		1.0 - 1.5	18.28	13.46	94.3	2.32		4.1	94	3	2	1	very lt.	
		1.5 - 2.0	21.62	15.97	93.9	0.66		4.4	96	1	2	1	tan	
		2.0 - 2.5	23.28	17.21	94.2	2.54		4.5	93	3	3	1	very lt.	
		2.5 - 3.0	22.35	16.51	92.4	5.23	1.37	5.0	89	8	2	1	lt.	
		3.0 - 3.25	-	-	-	-		-	63	25	2	10	med.	
		3.25 - 3.6	-	-	-	-		-	10	20	2	68	dk.	
	RAM-263	0.2 - 0.5	26.53	19.65	94.5	3.76		4.0	97	1	1	1	tan	3.35
		0.5 - 1.0	27.86	20.65	95.3	2.43		4.4	97	1	1	1	tan	
		1.0 - 1.5	28.24	20.93	95.6	1.77		4.6	96	2	1	1	tan	
		1.5 - 2.0	25.88	19.16	93.5	2.40		5.1	95	3	2	1	tan	
		2.0 - 2.5	23.88	17.66	94.4	1.04		5.9	93	2	4	1	lt.	
		2.5 - 3.0	20.44	15.08	93.4	4.10		6.1	20	45	2	33	med.	
	RAM-264	0.3 - 1.0	26.50	19.66	94.8	0.81		4.1	97	1	1	1	tan	3.15
		1.0 - 1.5	29.80	22.06	94.9	2.25		4.2	98	1	1	-	tan	
		1.5 - 2.0	24.37	17.99	95.0	2.83		4.7	91	1	7	1	lt.	
		2.0 - 2.5	25.13	18.56	94.7	3.13		5.2	91	2	4	3	lt.	
		2.5 - 3.0	-	-	-	-		-	50	30	10	10	lt.-med.	
		3.0 - 3.15	-	-	-	-		-	10	17	3	70	dk.	
	RAM-265	0.5 - 1.0	34.26	25.38	93.7	4.32		4.7	98	1	1	-	tan	3.95
		1.0 - 2.0	29.37	21.73	94.0	3.28		4.9	96	2	1	1	tan	
		2.0 - 3.0	28.58	21.22	91.7	3.47		5.2	97	2	-	1	tan	
		3.0 - 3.5	23.03	17.05	91.9	4.61		5.8	87	7	1	7	lt.	
		3.5 - 3.95	-	-	-	-		-	20	25	-	55	dk.	
	RAM-266	0.5 - 1.5	31.68	23.46	95.1	3.70		4.6	99	1	-	-	tan	3.0
		1.5 - 2.5	23.05	17.07	94.2	4.28		5.5	75	13	1	11	lt.-med.	
		2.5 - 3.0	19.06	14.05	92.7	10.48		5.7	45	22	1	32	med.-dk.	
	RAM-267	0.5 - 1.0	29.62	22.02	96.0	3.87		4.6	96	2	1	1	tan	1.5
		1.0 - 1.5	24.75	18.27	93.8	9.21		5.0	55	12	2	31	lt.	
	RAM-268	0.5 - 1.5	15.96	11.73	93.8	7.74		4.9	80	12	2	6	tan	1.5
	RAM-269	0.0 - 0.8	humified	n.d.	n.d.	n.d.		n.d.	12	22	1	65	dk.	0.8
Peaver Point	PEA-270	0.0 - 0.5	19.72	14.54	94.9	0.42		4.0	100	-	-	-	tan	4.25
		0.5 - 1.0	19.53	14.39	91.9	0.71		4.1	96	-	4	-	tan	
		1.0 - 1.5	17.19	12.64	95.0	1.41		4.2	96	-	4	-	tan	
		1.5 - 2.0	15.99	11.74	90.3	0.93		4.4	95	1	4	-	tan	
		2.0 - 2.5	15.93	11.70	82.8	3.12		4.9	95	1	4	-	lt.	
		2.5 - 3.0	14.32	10.49	92.0	5.17		5.4	95	1	4	-	lt.-med.	
		3.0 - 3.5	13.64	9.98	93.0	5.15		5.4	75	5	20	-	med.	
		3.5 - 4.0	17.68	13.01	83.1	6.49		5.6	50	10	20	20	med.-dk.	
		4.0 - 4.25	12.11	8.83	89.0	11.97		5.7	10	10	10	70	dk.	

TABLE 6: ANALYTICAL RESULTS FROM PEAT SAMPLES (Cont'd)

Bog	Sampling Site	Depth in m	ABSORPTIVE VALUE		Moisture %	Ash %	N (% Dry)	pH	BOTANICAL COMPOSITION				Colour (brown)	Depth to bog bottom in m
			Dry basis	25% moisture					% *Sphagnum*	% Reed, sedge	% Wood	% Unidentifiable, humified		
Beaver Point (Cont.)	BEA-271	0.0 - 0.5	24.16	17.87	94.0	3.51		4.0	100	-	-	-	tan	3.9
		0.5 - 1.0	24.66	18.24	94.8	3.17		4.3	95	-	5	-	tan	
		1.0 - 1.5	24.93	18.45	94.2	2.40		4.5	95	-	5	-	very lt.	
		1.5 - 2.0	25.72	19.04	95.1	2.97		4.9	90	5	5	-	lt.-med.	
		2.0 - 2.5	15.80	11.60	85.2	3.98		5.3	74	14	3	9	med.	
		2.5 - 3.0	15.93	11.69	91.7	6.04		5.5	30	5	40	25	med.-dk.	
		3.0 - 3.5	15.64	11.47	89.6	6.72		5.6	12	23	2	63	dk.	
		3.5 - 3.9	14.47	10.60	90.3	8.68		5.4	4	26	-	70	dk.	
	BEA-272	0.0 - 0.5	42.80	31.85	94.7	6.40		4.0	98	2	-	-	tan	4.3
		0.5 - 1.0	29.02	21.52	95.3	3.02		4.2	97	2	1	-	tan	
		1.0 - 1.5	24.50	18.13	95.2	2.55		4.3	94	3	2	1	tan	
		1.5 - 2.0	24.72	18.29	92.8	2.30		4.3	94	3	1	2	tan	
		2.0 - 2.5	28.25	20.94	94.5	2.43		4.5	91	4	2	3	very lt.	
		2.5 - 2.9	20.26	14.95	94.9	2.68		4.8	85	8	2	5	lt.	
		2.9 - 3.3	14.44	10.58	92.6	4.73		5.1	77	12	3	8	med.	
		3.3 - 4.0	15.60	11.45	91.2	6.31		5.2	15	20	-	65	dk.	
		4.0 - 4.3	13.99	10.24	90.5	8.35		5.4	7	13	-	80	dk.	
	BEA-273	0.5 - 1.5	30.59	22.75	95.7	1.60		4.4	93	3	3	1	lt.	2.5
		1.5 - 2.0	24.01	17.72	94.7	2.81		5.5	70	18	7	5	med.	
		2.0 - 2.5	16.29	11.97	91.9	3.55		6.3	28	10	38	24	med.-dk.	
	BEA-274	0.5 - 1.5	34.10	25.26	95.7	1.01		4.3	97	1	1	1	tan	3.5
		1.5 - 2.0	33.12	24.84	95.5	0.92		4.7	98	1	1	-	tan	
		2.0 - 2.5	28.49	21.07	94.7	2.56		5.0	94	3	2	1	tan	
		2.5 - 3.0	27.12	20.04	95.2	3.30		5.4	88	4	6	2	lt.	
		3.0 - 3.5	-	-	-	-		-	40	30	8	22	med.-dk.	
	BEA-275	0.5 - 1.0	34.85	25.94	95.6	3.60		4.3	98	1	-	1	tan	3.0
		1.0 - 1.5	33.14	24.61	94.3	3.51		4.4	97	1	1	1	tan	
		1.5 - 2.0	30.47	22.61	95.6	2.82		5.1	91	6	2	1	lt.	
		2.0 - 2.5	23.18	17.13	94.3	2.93		5.6	70	9	17	4	lt.-med.	
		2.5 - 3.0		-	-	-		-	22	35	10	33	dk.	
	BEA-276	0.5 - 1.0	34.26	25.52	96.2	2.56	0.59	4.5	97	2	1	-	tan	4.0
		1.0 - 1.5	33.43	24.88	96.4	2.88		4.6	96	1	2	1	tan	
		1.5 - 2.0	32.88	24.46	95.6	1.63	0.60	4.7	94	3	2	1	tan	
		2.0 - 2.5	28.78	21.34	95.0	2.92		4.9	92	3	3	2	lt.	
		2.5 - 3.0	20.16	14.85	93.4	2.80	1.73	5.5	60	10	20	10	lt.-med.	
		3.0 - 3.5	18.97	13.98	92.7	3.97		5.8	40	15	30	15	med.	
		3.5 - 4.0	-	-	-	-		-	10	25	2	67	dk.	
North of Moose Lake	NML-277	0.35 - 1.0	34.03	25.20	96.3	2.34	0.88	4.4	93	6	1	-	tan	4.0
		1.0 - 1.5	21.65	16.03	95.6	1.96		4.4	88	8	3	1	tan	
		1.5 - 2.0	26.75	19.87	96.5	1.78	1.39	4.8	85	12	2	1	very lt.	
		2.0 - 2.5	28.28	20.96	96.0	2.68		5.1	83	12	3	2	lt.	
		2.5 - 3.0	25.27	18.71	94.8	3.49	2.81	5.7	39	53	3	5	lt.-med.	
		3.0 - 3.5	20.41	15.03	94.7	5.49		5.7	20	40	1	39	med.	
Biscuit Harbour	BIS-278	0.5 - 1.0	25.39	18.79	95.5	4.92	1.25	4.2	95	4	1	-	tan	3.2
		1.0 - 1.5	24.82	18.41	94.9	1.87		4.4	90	6	3	1	tan	
		1.5 - 2.0	25.15	18.57	94.9	2.78	1.37	4.75	87	8	3	2	very lt.	
		2.0 - 2.5	24.74	18.30	95.6	3.24		5.4	61	18	6	15	med.	
		2.5 - 3.0	17.89	13.19	93.3	4.74		5.5	15	40	8	37	med.-dk.	
Birch Lake	BIR-279	0.35 - 1.0	27.94	20.70	95.3	4.08	0.69	4.3	98	1	1	-	tan	3.85
		1.0 - 1.5	32.58	24.13	95.8	1.60		4.4	98	1	1	-	tan	
		1.5 - 2.0	34.36	25.58	96.7	2.43	0.85	4.6	98	1	1	-	tan	
		2.0 - 2.5	24.74	18.35	95.9	2.97		5.1	86	7	5	2	lt.	
		2.5 - 3.0	22.95	16.96	93.9	3.32	1.45	5.5	66	18	5	11	med.	
		3.0 - 3.5	-	-	-	-		-	40	27	3	30	med.-dk.	
		3.5 - 3.8	-	-	-	-		-	17	18	-	65	dk.	

TABLE 6: ANALYTICAL RESULTS FROM PEAT SAMPLES (Cont'd)

Bog	Sampling Site	Depth in m	ABSORPTIVE VALUE		Moisture %	Ash %	N (% Dry)	pH	BOTANICAL COMPOSITION				Colour (brown)	Depth to bog bottom in m
			Dry basis	25% moisture					% *Sphagnum*	% Reed, sedge	% Wood	% Unidentifiable, humified		
South Bullhead	SBH-280	0.25 - 1.0	25.97	19.23	95.1	4.40	1.07	4.3	95	1	2	2	tan	3.0+
		1.0 - 1.5	27.27	20.20	95.0	2.63	0.88	4.3	94	1	2	3	tan	
		1.5 - 2.0	29.07	21.55	94.8	2.89		4.4	96	1	1	2	tan	
		2.0 - 2.5	25.83	19.12	94.8	2.51	0.83	4.7	91	3	3	3	very lt.	
		2.5 - 3.0	18.92	13.96	92.1	4.20		5.2	45	25	12	18	med.	
	SBH-281	0.3 - 1.0	33.93	25.15	94.8	3.31		4.3	98	1	1	-	tan	4.4
		1.0 - 2.0	29.03	21.52	95.2	2.68		4.7	96	1	1	2	tan	
		2.0 - 3.0	30.72	22.83	94.6	4.00		5.5	95	2	1	2	tan	
		3.0 - 4.0	23.59	17.42	93.4	6.28		6.1	87	6	2	5	lt.	
		4.0 - 4.2	-	-	-	-		-	15	12	-	73	dk.	
	SBH-282	0.5 - 1.0	32.84	24.38	96.0	2.30		4.4	96	3	-	1	tan	3.65
		1.0 - 1.5	23.23	17.14	94.2	3.03		4.8	92	5	1	2	tan	
		1.5 - 2.0	21.84	16.16	94.0	5.23		5.3	86	8	3	3	lt.	
		2.0 - 2.5			95.5	4.80		5.7						
		2.5 - 3.0	28.89	21.36	96.3	5.13		5.8	82	12	4	2	lt.	
		3.0 - 3.5	22.19	16.36	94.6	6.76		5.9	31	53	5	11	med.	
North Bullhead	NBH-283	0.5 - 1.5	21.79	16.07	93.0	6.44	0.77	6.2	70	13	7	10	lt.-med.	3.0
		1.5 - 2.5	17.54	12.92	92.6	6.81	0.86	6.3	58	15	7	20	med.	
		2.5 - 3.0	15.14	11.09	88.4	8.40		6.1	18	25	6	51	dk.	
	NBH-284	0.5 - 1.0	32.64	24.23	96.1	2.43		4.9	93	4	1	2	tan	2.0
		1.0 - 1.5	24.43	18.04	95.0	4.61		5.4	80	12	3	5	lt.	
		1.5 - 2.0	20.62	15.21	93.7	5.30		5.7	70	13	5	12	med.	
	NBH-285	0.5 - 1.0	34.10	25.26	95.0	4.29		4.7	95	3	-	2	very lt.	2.0
		1.0 - 1.5	26.39	19.55	94.6	4.53		5.0	82	9	6	3	lt.	
		1.5 - 2.0	23.17	17.16	93.7	5.67		4.9	82	10	5	3	lt.	
South Doghead	SDH-286	0.5 - 1.0	21.07	15.55	94.3	3.86	0.55	4.3	91	2	4	3	tan	3.5
		1.0 - 1.5	24.61	18.21	94.0	2.78		4.2	90	2	4	4	very lt.	
		1.5 - 2.0	28.10	20.83	95.0	1.67	0.58	4.4	95	1	2	2	tan	
		2.0 - 2.5	25.54	18.91	92.5	2.66		4.6	94	1	2	3	tan	
		2.5 - 3.0	26.39	19.54	93.0	4.13	1.66	5.5	94	3	1	2	tan	
		3.0 - 3.5	-	-	-	-		-	15	35	5	45	med.-dk.	
	SDH-287	0.5 - 1.0	29.43	21.82	95.4	2.01		4.2	95	1	3	1	tan	3.4
		1.0 - 1.5	32.63	24.23	96.2	1.47		4.5	94	2	2	2	tan	
		1.5 - 2.0	25.25	18.69	94.3	1.64		4.8	91	2	4	3	very lt.	
		2.0 - 2.5	19.37	14.20	94.6	9.01		5.4	39	3	25	33	med.	
		2.5 - 3.0	17.43	12.82	89.4	6.52		5.6	30	20	20	30	med.	
		3.0 - 3.4	-	-	-	-		-	40	35	7	18	med.-dk.	
	SDH-288	0.5 - 1.0	26.62	19.72	96.5	1.61		4.5	94	2	2	2	very lt.	2.8
		1.0 - 1.5	23.59	17.45	93.7	2.50		4.6	94	1	3	2	very lt.	
		1.5 - 2.0	23.36	17.28	94.8	1.86		5.3	88	2	6	4	lt.-med.	
		2.0 - 2.5	14.07	10.30	92.4	5.21		5.4	39	3	24	34	med.	
	SDH-289	0.2 - 1.0	32.07	23.81	95.3	2.97		4.2	98	1	-	1	tan	3.5
		1.0 - 1.5	28.75	21.31	94.7	2.79		4.2	95	2	2	1	very lt.	
		1.5 - 2.0	32.02	23.76	95.0	2.45		4.4	95	2	2	1	tan	
		2.0 - 2.5	20.77	15.32	93.2	3.03		4.9	60	13	10	17	med.	
		2.5 - 3.0	17.72	13.04	90.3	4.22		5.1	46	17	12	25	med.	
		3.0 — 3.5	-	-	-	-		-	7	21	1	71	dk.	
	SDH-290	0.5 - 1.0	26.05	19.29	93.7	2.25		4.1	98	-	2	-	tan	4.0
		1.0 - 1.5	23.98	17.73	93.2	3.91		4.1	95	2	2	1	very lt.	
		1.5 - 2.0	24.95	18.46	95.9	2.25		4.5	95	2	2	1	very lt.	
		2.0 - 2.5	22.94	16.96	93.9	1.80		4.7	80	9	3	8	lt.	
		2.5 - 3.0	18.20	13.40	93.1	3.94		5.2	40	25	7	28	med.	
		3.0 - 3.5	20.77	15.33	92.2	4.44		5.4	10	55	2	33	med.-dk.	
	SDH-291	0.0 - 0.6	18.20	13.26	92.8	-		3.9	94	3	3	-	tan	2.8
		0.6 - 1.0	19.13	14.09	92.6	6.22		4.0	94	3	3	-	tan	
		1.0 - 1.5	23.86	17.65	94.5	3.43		4.2	92	4	4	-	very lt.	
		1.5 - 2.0	22.64	16.73	94.3	3.65		4.6	90	5	5	-	lt.	
		2.0 - 2.5	16.18	11.88	91.5	5.49		5.1	40	10	10	40	med.	
		2.5 - 2.8	14.60	10.70	91.3	10.03		5.6	30	10	10	50	med.-dk.	

TABLE 6: ANALYTICAL RESULTS FROM PEAT SAMPLES (Cont'd)

Bog	Sampling Site	Depth in m	ABSORPTIVE VALUE		Moisture %	Ash %	N (% Dry)	pH	BOTANICAL COMPOSITION				Colour (brown)	Depth to bog bottom in m
			Dry basis	25% moisture					% *Sphagnum*	% Reed, sedge	% Wood	% Unidentifiable, humified		
North Doghead	NDH-292	0.15 - 0.5	31.77	23.54	92.2	11.97		6.0	90	3	3	4	lt.	1.65
		0.5 - 1.0	14.14	10.34	87.2	12.37		6.0	15	30	20	35	med.	
		1.0 - 1.5	11.89	8.67	83.2	9.14		6.2	14	22	14	50	dk.	
	NDH-293	0.2 - 1.0	18.78	13.83	91.1	13.10		6.3	61	12	7	20	lt.-med.	1.70
		1.0 - 1.5	21.72	16.02	90.1	9.00		6.2	75	6	4	15	lt.-med.	
		1.5 - 1.7	-	-	-	-		-	25	35	5	35	med.-dk.	
	NDH-294	0.3 - 1.0	15.40	11.31	90.2	9.38		6.1	47	8	10	35	med.-dk.	1.8
		1.0 - 1.5	18.07	13.30	89.9	8.65		6.2	55	7	8	35	med.-dk.	
		1.5 - 1.7	-	-	-	-		-	30	35	5	30	med.-dk.	
	NDH-295	0.2 - 1.0	23.78	17.59	92.2	9.34		6.3	79	7	7	7	lt.	1.6
		1.0 - 1.5	11.89	8.66	86.1	8.49		6.2	45	20	10	25	med.-dk.	
	NDH-296	0.1 - 0.5	15.13	11.09	92.4	10.26	2.32	6.4	37	3	17	43	med.	1.6
		0.5 - 1.0	11.47	8.35	88.2	8.09	0.89	6.2	16	9	20	55	med.-dk.	
		1.0 - 1.5	13.91	10.19	87.9	8.57		6.3	10	20	15	55	dk.	

APPENDIX 2. BOTANICAL ASSEMBLAGES AT BOG SAMPLING SITES.

In Table 7, a quantitative assessment of each plant, based on percentage of surface cover, is listed. The cover and abundance classes are based on the Braun-Blanquet system, as noted in Heinselman (1970, p. 241). The classes are:

5. covering more than 75% of area
4. any number of individuals, covering more than 50 to 75% of area
3. any number of individuals, covering 25 to 50% of area
2. very numerous, or covering at least 5% of area
1. plentiful, but of small cover value
X. sparsely present, cover very small.

The assigned class is based on field notes made at each site. Where the cover percentage is uncertain from either field notes, or from colour photographs taken at each site, the class is listed as:

P. present, % cover not recorded.

The common names of the plants are listed in Table 8, along with their botanical nomenclature.

TABLE 7 BOTANICAL ASSEMBLAGES AT SAMPLING SITES IN BOGS

	Picea mariana	*Pinus banksiana*	*Larix laricina*	*Betula glandulosa*	*Ledum groenlandicum*	*Chamaedaphne calyculata*	*Kalmia polifolia*	*Andromeda glaucophylla*	*Oxycoccus quadripetalus*	*Vaccinium vitis-idaea*	*Sarracenia purpurea*	*Smilacina trifolia*	*Iris versicolor*	*Carex spp.*	*Eriophorum spp.*	*Equisetum arvense*	*Typha latifolia*	*Cladonia spp.*	*Sphagnum spp.*
Middlebro																			
MID-1	3					3	3					1			X				5
MID-2	4				5	2				1								X	5
MID-3	4				3	3	3		1	1		1			X				5
MID-4	3				2	3	2	2	1	1		1							5
Whitemouth Lake South																			
WLS-5	4				5	2			1			X							5
WLS-6			1	2			1	5							X				5
WLS-7	3					3			1		X	1							5
WLS-8	X		1	2				X						3	P				5
WLS-9	X		2	1		3	2	2						1					5
WLS-10	4		1		1	4	1	X	1			2			X				5
WLS-11	3				1	3	2		1		X	3			P				5
WLS-12	3		1		1	2	2		1			1		X	X				5
Poplar Creek																			
POP-13	3				3	2			X	X		3							5
Sprague Lake																			
SPL-14	3		X		1	1	1	3[1]			X	X		X	1				5
Northwest Angle																			
NWA-15	3				2	3	2		P	P					X				5
NWA-16	1		1				2	1	P	P		X			2				5
NWA-17	X		X		2	5	X	X	X			X							5
NWA-18	3				3	3	2		P	P					X				5
NWA-19[2]	3		X	X	X		X	X[1]	X		X	X	X	P	X	X		X	4
NWA-20[3]	X		X	1				4[1]		X	X			P			X		4

[1]includes *Andromeda polifolia*

[2]also: *Menyanthes trifoliata*, assorted bryophytes, and other grasses.

[3]also: grasses.

TABLE 7 BOTANICAL ASSEMBLAGES AT SAMPLING SITES IN BOGS (Cont'd)

	Picea mariana	*Pinus banksiana*	*Larix laricina*	*Betula glandulosa*	*Ledum groenlandicum*	*Chamaedaphne calyculata*	*Kalmia polifolia*	*Andromeda glaucophylla*	*Oxycoccus quadripetalus*	*Vaccinium vitis-idaea*	*Sarracenia purpurea*	*Smilacina trifolia*	*Carex spp.*	*Eriophorum spp.*	*Cladonia spp.*	*Sphagnum spp.*
Caribou southeast																
CSE-21	3				X	5	2	2	2	3		2				5
CSE-22	3		X		2	3	2	2	3	2		3				5
CSE-23	3				2	5	2		2	3		2			X	5
CSE-24	4				2	3	2		2	2				1		5
CSE-25	X				1	2	2		1		X		3	2		5
CSE-26	2				2	3			P	P				X		5
CSE-27	3		X		1	4	2		3	1				2		5
CSE-28	4				2	4	2		1							5
CSE-29	4				3	2	2		1	1		X			X	5
CSE-30	X						1	1			X		2	1		5
CSE-31	3				2	2	3	2	3	3	X	3	X	2		5
CSE-32	2		X		1	4	2		3	3	X			2	X	5
CSE-33	3		X		1	3	2	1	4	2	1			2		5
CSE-34	2		2			4	1		3		X		4	1		4
CSE-35	4		X		3	2	2		P	P				X	X	5
CSE-36	X		X			1	2	1	P		X		3	1		4
CSE-37	3		2		2	2	2	2	4	2		2		X		5
CSE-38	3		X			2	2		3		1		5			4
CSE-39			2		2	2	2	2	3		1		5			4
CSE-40	3				1	3	3		P	P			X	1		5
CSE-41	X		X				1	1	P	P	X		5			4
CSE-42	5				3	3	1		P							5
CSE-43	3				2	5	X		P	P		X				5
CSE-44	X				X	X	1	1	P	P	X		3	2		5
CSE-45	4				2		2		P	P		1		X		5
CSE-46	(not recorded)															
CSE-47	(not recorded)															

TABLE 7 BOTANICAL ASSEMBLAGES AT SAMPLING SITES IN BOGS (Cont'd)

	Picea mariana	*Pinus banksiana*	*Larix laricina*	*Betula glandulosa*	*Ledum groenlandicum*	*Chamaedaphne calyculata*	*Kalmia polifolia*	*Andromeda glaucophylla*	*Oxycoccus quadripetalus*	*Vaccinium vitis-idaea*	*Sarracenia purpurea*	*Smilacina trifolia*	*Iris versicolor*	*Carex spp.*	*Eriophorum spp.*	*Cladonia spp.*	*Sphagnum spp.*
Caribou south																	
CS-48	X				1	1	1		P					4	2		5
CS-49	4				2	3	3		P						1		5
CS-50	X		X			1	1		P		X			5	X		4
CS-51	3				X	4			X	1	1				2		5
CS-52	X				2	2	1							3	2		5
CS-53	X		X			3	X		P		1			2	3		5
CS-54	X				X		X		P				X	2	4		5
CS-55	X		X			2	1		X					3	2		5
CS-56	3				1	2	2		P			2		2	2		5
CS-57	2		X		2	3	2		4		2				3		5
CS-58	3		X		1	2	4	1	3	2					2	X	5
CS-59	4		X		3	3	2		3	3					2		5
CS-60	4				2	4	2		2	2		1			X		5
CS-61	4				3	3	3		3	3					2	2	5
CS-62	1		X			3	3		4	3	1			3	2		5
CS-63	2		X				2		2		X			3	3		5
CS-64	3		X		2	3	2	2	4		2	3	X	2	2		5
CS-65	3				1	2	2								3		5
CS-66	3		X		3	3	1		P	P					1	1	5
CS-67	3				2	4	1		P						1		5
CS-68					P		P		P	P				3	P		5
CS-69	3		X		2	2	2								X		5
CS-70	2					2								2	4		5
CS-71	3				2		3		P						2		5
CS-72	3		X		2	2	1								3		5
CS-73	3				1	4			P					X	2		5

TABLE 7 BOTANICAL ASSEMBLAGES AT SAMPLING SITES IN BOGS (Cont'd)

	Picea mariana	*Pinus banksiana*	*Larix laricina*	*Betula glandulosa*	*Ledum groenlandicum*	*Chamaedaphne calyculata*	*Kalmia polifolia*	*Andromeda glaucophylla*	*Oxycoccus quadripetalus*	*Vaccinium vitis-idaea*	*Sarracenia purpurea*	*Smilacina trifolia*	*Carex spp.*	*Eriophorum spp.*	*Cladonia spp.*	*Sphagnum spp.*
CS-74	3		1		2	3	1		P	P	X			X	X	5
CS-75	X				1	3	1		P	P				2		5
CS-76	2				1	2		2	P		X			3		5
CS-77			X		2				P		X			X		5
CS-78	1		X		2	2	2	2	3		X	2		1		5
CS-79	2				2				P					4		5
CS-80	X				P	P	P		P	P		P				5
CS-81	2		2		2	3	2	2	3		2		3	4		5
CS-82	3		X			3	1		P	P		X		2		5
CS-83	4				2	3	3		2	2				2		5
CS-84	2		2			3	2	2	3		2		2	4		5
CS-85	2		2		—	2	2	2	4		2		3	3		4
CS-86	3		2		2	3	2		3		2		2	2		5
CS-87	3		3			3	2		4		2		3	3		5
CS-88	3		2		2	4	2		3				2	4		5
Caribou south-west																
CSW-89	2		1		2	3	3		P		X			X	X	5
CSW-90	4				3	3			1	1						5
CSW-91	X		X		2		2		P	P	X			X		5
CSW-92	4				3	3	3		P	P	X	1		X		5
CSW-93	3		X		3	3			P	P		1			X	5
CSW-94	5				3	3				P						5
CSW-95	2					1	1			1	X		4	2		5
CSW-96	X				2	2	2		P	P	X		4			5
CSW-97	X		X			2	2		P		X		4			5
CSW-98	X		2			1	1		P	P	X		4			5
CSW-99	4				1	2	2	2	P		X					5

TABLE 7 BOTANICAL ASSEMBLAGES AT SAMPLING SITES IN BOGS (Cont'd)

	Picea mariana	*Pinus banksiana*	*Larix laricina*	*Betula glandulosa*	*Ledum groenlandicum*	*Chamaedaphne calyculata*	*Kalmia polifolia*	*Andromeda glaucophylla*	*Oxycoccus quadripetalus*	*Vaccinium vitis-idaea*	*Sarracenia purpurea*	*Smilacina trifolia*	*Carex spp.*	*Eriophorum spp.*	*Cladonia spp.*	*Sphagnum spp.*
Caribou west																
CW-100	3		X		2	4		2	X	X		3		X		5
Caribou northeast																
CNE-101	2		X		3	3	3		P			P				5
CNE-102	2				3	3	3		P	P		P		X	X	5
CNE-103	2					3	3		P		X	P		X		5
CNE-104	2				3	2	2		P	P		2		X		5
CNE-105	4				3		1		P	P						5[1]
CNE-106	2				2	3	2		4			2		3		5
CNE-107	X					P			P	P			4	2		5
CNE-108	3		X		2	2	2		P	P		2				5
CNE-109	X		X		2	2	2			P		P				5
CNE-110			X			2	1		P				4	X		5
CNE-111	3				3	2	2							2		5
CNE-112	4				2	3	1							2		5
CNE-113	5				4								1	X		3
CNE-114	5				3	3			P	P				X		4
CNE-115	5				3	3	2		P	P		P				4
CNE-116	3				1	2	2							2		5
CNE-117	X		X			2	1	1	P		X		3	2		5
CNE-118	X				1		1		P				2	4		5
CNE-119	3					2	2		P				1	3		5
CNE-120	3				1		2	1	P				2	2		5
CNE-121	3				1	3	2		P		X		2	2		5
CNE-122	5				2	5	1							X	X	5
CNE-123	3		X		1	3	3		P				1	2		5
CNE-124						2	1					2	5[2]	2		5

[1]Also "feathermoss"
[2]Also grasses

TABLE 7 BOTANICAL ASSEMBLAGES AT SAMPLING SITES IN BOGS (Cont'd)

	Picea mariana	*Pinus banksiana*	*Larix laricina*	*Betula glandulosa*	*Ledum groenlandicum*	*Chamaedaphne calyculata*	*Kalmia polifolia*	*Andromeda glaucophylla*	*Oxycoccus quadripetalus*	*Vaccinium vitis-idaea*	*Sarracenia purpurea*	*Smilacina trifolia*	*Carex spp.*	*Eriophorum spp.*	*Typha latifolia*	*Cladonia spp.*	*Sphagnum spp.*
CNE-125	5				5	1			P			P					5
CNE-126	3				2	4	2		P		X		1	1			5
CNE-127	4				3	2	3					2					5
Caribou northwest																	
CNW-128	2					1		1	X		X		2	2			5
CNW-129	3		X		5	1											5
CNW-130	3				3		2		P					2			5
Powawassan southwest																	
PSW-131	2		X		3		3		P			2		X			5
PSW-132	4				2	2	1	1	P								5
PSW-133	X		X				X		X		2			3			5
PSW-134	X		X			X	X		X		X		4	2			5
PSW-135	5					3	2		X					X			5
Powawassan southeast																	
PSE-136	2		X		4	1	3					X					5
Powawassan centre																	
PC-137	2			X			2					X		4			5
PC-138	4				5												5
PC-139	X					5	2							X			5
Powawassan west																	
PW-140	X					1	2				X		4	3	X		5
PW-141	5				3	3	2	2						X			5
Powawassan northwest																	
PNW-142	3				3	3	2		1	1	X	2		2			5

TABLE 7 BOTANICAL ASSEMBLAGES AT SAMPLING SITES IN BOGS (Cont'd)

	Picea mariana	*Pinus banksiana*	*Larix laricina*	*Populus*	*Betula glandulosa*	*Ledum groenlandicum*	*Chamaedaphne calyculata*	*Kalmia polifolia*	*Andromeda glaucophylla*	*Oxycoccus quadripetalus*	*Vaccinium vitis-idaea*	*Vaccinium angustifolium*	*Sarracenia purpurea*	*Smilacina trifolia*	*Cypripedium candidum*	*Carex spp.*	*Eriophorum spp.*	*Cladonia spp.*	*Sphagnum spp.*
Powawassan east																			
PE-143	X		X			3	1			P				X		5	2		4
PE-144	4					3	3	1								2	X	X	5
Powawassan northeast																			
PNE-145	2		X			2	2	2								4	3		5
St. Labre																			
STL-146	2		X				3	2	2	P	P			X			X	X	5
STL-147	3					3	1	3		P	P			1					5
STL-148	3					3	2	3		P	P			2					5
STL-149	4					4					3								5
STL-150	2						2	1	1		P					3	2		5
STL-151	5		X				3	3		P			X			2[1]	2		5
STL-152	3		1			3	3	2	2		P			P					5
STL-153	2					X	4	1		P	P				X		X		5
Giroux																			
GIR-154	3[2]			2		5				X	X	2					X		5[2]
Boggy River																			
BOG-155	5					3	4			X	X			X					5
Haute																			
HTE-156	2					2	5	1	1	1				2					5
Falcon																			
FAL-157	3		X		X	4	2	1		X	X		X						5
FAL-158	2		X				5	2		X	X			1			2		5
FAL-159	3					3	3										X		5
FAL-160	3					3	1	3		X			X	X		X	X		5
FAL-161	4					3	1	3						X		3			5

[1]Also reeds
[2]Burn

TABLE 7 BOTANICAL ASSEMBLAGES AT SAMPLING SITES IN BOGS (Cont'd)

	Picea mariana	*Pinus banksiana*	*Larix laricina*	*Betula glandulosa*	*Ledum groenlandicum*	*Chamaedaphne calyculata*	*Kalmia polifolia*	*Andromeda glaucophylla*	*Oxycoccus quadripetalus*	*Vaccinium vitis-idaea*	*Rubus spp.*	*Sarracenia purpurea*	*Smilacina trifolia*	*Carex spp.*	*Eriophorum spp.*	*Equisetum arvense*	*Cladonia spp.*	*Sphagnum spp.*
McMunn																		
MCM-162	X		2		3	4	2		X	X			1		X			5
Medika west																		
MDW-163			2	2										5		X		0
Medika																		
MED-164	1		X	X	4				P						X		X	5
North Medika cluster																		
NMC-165	3		2	X	P		P	P	P	P					X			5
NMC-166	4			X	4					P							X	5
NMC-167				4	2	5										X		5
NMC-168	2		X	2	2	3	2	1	P									5
NMC-169	2		X		2	3	3		P	P			P		1			5
NMC-170	2		X		3	3	2		P	P					X		X	5
NMC-171	4				5	2	2		P	P			P					5
NMC-172	4				5	2	2		P	P			P					5
NMC-173	X	X	X[1]			3	2	3	2	2			3					5
NMC-174	X		X		4	2	2		P	P			P		1			5
NMC-175	2	X			3	2	2											5[2]
NMC-176	2	X	X	X	3	2	2								X			5[2]
NMC-177	2		X		3	2	3								X		X	5
NMC-178						3	2	3	2	3			3		X			5
NMC-179	4				3		2		P	P							X	5
NMC-180	X	X			3	3												5
NMC-181	3	2		P	3						X				X			5
NMC-182	2	X		P	4				P	P	X				X			5

[1]Some standing dead *Larix*
[2]Other moss species also

TABLE 7 BOTANICAL ASSEMBLAGES AT SAMPLING SITES IN BOGS (Cont'd)

	Picea mariana	*Pinus banksiana*	*Larix laricina*	*Betula glandulosa*	*Ledum groenlandicum*	*Chamaedaphne calyculata*	*Kalmia polifolia*	*Andromeda glaucophylla*	*Oxycoccus quadripetalus*	*Vaccinium vitis-idaea*	*Rubus chamaemorus*	*Sarracenia purpurea*	*Smilacina trifolia*	*Carex spp.*	*Eriophorum spp.*	*Cladonia spp.*	*Sphagnum spp.*
Southwest Elma																	
SW-EL-183	1	X	X		3		3		P				P		X	X	5
SW-EL-184	3		X		4	2	2		P	P			P			1	5
SW-EL-185	2	X	X		3	1	3		P	P			P		X		5
SW-EL-186	3	X	2		3	1	3		P	P			P		X	X	5
Northeast Elma																	
NE-EL-187	2		X		3	3	3		P				P				5
NE-EL-188	2				3	2	1		P				P		X	X	5
NE-EL-189	2				3	1	1		P				P		X	X	5
NE-EL-190	4				4	3			P				P			X	5
NE-EL-191	5		X		3	3	3		P				P				5
Julius Lake south																	
JLS-192	X		X		2	4									2		5
JLS-193	X		X		2	4									2		5
Julius Lake west																	
JLW-194	5		X		4	2			2				2		X		5
JLW-195	4		X			3	3		2				X			X	5
JLW-196	2		1		3		3		P								5
Southwest Julius																	
SWJ-197	3				3	3	2		P	P							5
SWJ-198	3				2	1	3				X		X				5
SWJ-199	2				2	4			P	P	X		P		X		5
North Julius																	
NJ-200	5				3					2			1			2	5
NJ-201	5				3	3			2	2			2			1	5
NJ-202	4				3	3				3			1				5
NJ-203	3				2	2	1						2		3		5

TABLE 7 BOTANICAL ASSEMBLAGES AT SAMPLING SITES IN BOGS (Cont'd)

	Picea mariana	*Pinus banksiana*	*Larix laricina*	*Betula glandulosa*	*Ledum groenlandicum*	*Chamaedaphne calyculata*	*Kalmia polifolia*	*Andromeda glaucophylla*	*Oxycoccus quadripetalus*	*Vaccinium vitis-idaea*	*Rubus spp.*	*Sarracenia purpurea*	*Smilacina trifolia*	*Mitella nuda*	*Menyanthes trifoliata*	*Carex spp.*	*Eriophorum spp.*	*Cladonia spp.*	*Sphagnum spp.*
NJ-204	4				5					1							X		5[1]
NJ-205	3				1	4	1	1	1	1			1						5
NJ-206	2		X		2	5	1		1	1			2				1		5
NJ-207	3		X		1	4											X		5
NJ-208	4				3	3	1		X	X			1				X		5
Evergreen																			
EVE-209	surface vegetation removed																		5
EVE-210	surface vegetation removed																		5
EVE-211	4				3	3			P										5
EVE-212	surface vegetation removed																		5
EVE-213	3				5	1													5
EVE-214	3				5	1													5
EVE-215	3				5	1													5
EVE-216	4				5	1			P	P									5
EVE-217	4				4				P	P								X	5
EVE-218	5				3	3			P				2						5
Northwest Evergreen																			
NWE-219	5				3	3			P				P				X		5
NWE-220	4				5	2													5
NWE-221	4				3														5
Radar																			
RAD-222	4			2	2						X		P	X		3			3
RAD-223			3	4	1			1			X	X	P		X				5
RAD-224	3		1	3	1			1	X				X			2	X		?

[1]Other mosses included

TABLE 7 BOTANICAL ASSEMBLAGES AT SAMPLING SITES IN BOGS (Cont'd)

	Picea mariana	*Pinus banksiana*	*Larix laricina*	*Betula glandulosa*	*Ledum groenlandicum*	*Chamaedaphne calyculata*	*Kalmia polifolia*	*Andromeda glaucophylla*	*Oxycoccus quadripetalus*	*Vaccinium vitis-idaea*	*Aster spp.*	*Ribes spp.*	*Sarracenia purpurea*	*Rubus spp.*	*Smilacina trifolia*	*Caltha palustris*	*Carex spp.*	*Eriophorum spp.*	*Typha latifolia*	*Equisetum spp.*	*Cladonia spp.*	*Sphagnum spp.*
Mooswa Lake																						
MWL-225	5				4					X			X		X	1	X					5
MWL-226	2				X					X												5[1]
MWL-227	2									X												5[1]
MWL-228	2				1					X												5
North Pinawa																						
NPW-229			2	2[4]	3				P								X					5
NPW-230	2			3[4]	2		2		P				X		2	X	2[2]			X		4
NPW-231	2			3	2		2	1	P				X		2	X	2[2]			X		4
Wendigo																						
WEN-232	3				2	4			X	X					X		X				X	5
WEN-233	3				3	2	1	2	X	X					X							5
Lee River																						
LEE-234	X	2[3]	X		3	1	1		X	X								X			X	5
LEE-235	2		X		2	4	1		X	X					X							5
Pointe du Bois																						
PDB-236	3	X	X		1	5	X		X									X				5
PDB-237	3	X			3	3	2	1	X						P							5
St. George																						
STG-238	3		2		2	3	2	3	2						1			1				5
STG-239	4				3	3	1		2						2			1				5
STG-240	4				5	1	1		1	2											2	5
Pine Falls																						
PF-241			2	3[4]				3				X					2		1			4
PF-242	2		3	3	3	3		1	3		X		3	3				2		3[5]		P

[1]Other mosses
[2]Other species also
[3]Scattered *Populus deltoides*
[4]Includes *Alnus rugosa*
[5]Includes ferns

TABLE 7 BOTANICAL ASSEMBLAGES AT SAMPLING SITES IN BOGS (Cont'd)

	Picea mariana	*Pinus banksiana*	*Larix laricina*	*Betula glandulosa*	*Ledum groenlandicum*	*Chamaedaphne calyculata*	*Kalmia polifolia*	*Andromeda glaucophylla*	*Oxycoccus quadripetalus*	*Vaccinium vitis-idaea*	*Rubus (cloudberry)*	*Sarracenia purpurea*	*Smilacina trifolia*	*Drosera rotundifolia*	*Carex spp.*	*Eriophorum spp.*	*Cladonia spp.*	*Sphagnum spp.*
Hay Point																		
HAY-243	4		2		1	1	1			2	1							5
HAY-244	4		1		4	2	2		2	2	2							5
HAY-245	4		X		2	2			3	2								5
HAY-246	3				1	3			3	1		X					X	5
HAY-247	X					3		1	P				X			X		5
HAY-248	4				1	2	1		P		X					X		5
HAY-249	5				2		1		P		X						X	5
HAY-250	5				2	2			P	P	X					X		5
Washow Bay																		
WB-251	3				3	3			2	2			2	2		2		5
WB-252	3				2	3		1	2	1	X					X	X	5
Black Point																		
BKP-253	3				3	3	2		2				3			1		5
BKP-254	3					2	2		2	2	X				2	2		5
BKP-255	3					2	3	2	2				3	1		2		5
BKP-256	3		X		2	3	3	1	3	2				X				5
Little Grindstone Point																		
LGP-257	3				3	3												5
LGP-258	5				5		2											5
LGP-259	4				5		2											5
Ramsay Point																		
RAM-260	4				3	2	2		1	1								5
RAM-261	3		X		3	3	2		2	3						X	3	5
RAM-262	2				4	2	2		P	P							X	5
RAM-263	X				3	3	2		P	P				X			X	5
RAM-264	2				2	3	1		3	1	X			X		1	X	5

TABLE 7 BOTANICAL ASSEMBLAGES AT SAMPLING SITES IN BOGS (Cont'd)

	Picea mariana	*Pinus banksiana*	*Larix laricina*	*Betula glandulosa*	*Ledum groenlandicum*	*Chamaedaphne calyculata*	*Kalmia polifolia*	*Andromeda glaucophylla*	*Oxycoccus quadripetalus*	*Vaccinium vitis-idaea*	*Ribes spp.*	*Rubus (cloudberry)*	*Sarracenia purpurea*	*Smilacina trifolia*	*Drosera rotundifolia*	*Carex spp.*	*Eriophorum spp.*	*Cladonia spp.*	*Sphagnum spp.*
RAM-265	X				3	3		1	P			2			X				5
RAM-266	4				3	3								P	X		X		5
RAM-267	3				3	1								P		3	2		5
RAM-268	3				3	1								P		4	1		5
RAM-269	2				1	1										5			5
Beaver Point																			
BEA-270	5				2		1												5
BEA-271	5				4		3												5
BEA-272	3				3	3	2										X		5
BEA-273	5				4												X		5
BEA-274	5				2	3	1		P	P		X			X		X	X	5
BEA-275	5				2	4						X	X				X		5
BEA-276	5				2	3	1		P	P		X			X		X	X	5
North of Moose Lake																			
NML-277	4				2	4			3		3				X		1		5
Biscuit Harbour																			
BIS-278	X		2			2			2	2		X	X		X		X		5
Birch Lake																			
BIR-279	2				2	2	2	2	3	2	X		2		X			1	5
South Bullhead																			
SBH-280	3				2	3	3		2	2							2		5
SBH-281	2				2	3	3	2		2		2	X				2		5
SBH-282	3				5	2	2		2	3		1	1						5
North Bullhead																			
NBH-283	4		X			4		1						X					5
NBH-284	3				2	3	2		P								X		5
NBH-285	4				3	3			P	P									5

TABLE 7 BOTANICAL ASSEMBLAGES AT SAMPLING SITES IN BOGS (Cont'd)

	Picea mariana	*Pinus banksiana*	*Larix laricina*	*Salix spp.*	*Betula glandulosa*	*Ledum groenlandicum*	*Chamaedaphne calyculata*	*Kalmia polifolia*	*Andromeda glaucophylla*	*Oxycoccus quadripetalus*	*Vaccinium vitis-idaea*	*Rubus*	*Sarracenia purpurea*	*Smilacina trifolia*	*Drosera rotundifolia*	*Iris versicolor*	*Carex spp.*	*Eriophorum spp.*	*Equisetum*	*Cladonia spp.*	*Sphagnum spp.*
South Doghead																					
SDH-286	4					4	1	2										X			5
SDH-287	3					3	4	1		P			X					X			5
SDH-288	4					4	1	2										X			5
SDH-289	4					4	2			P		1								X	5
SDH-290	5					5	1			P			X								5
SDH-291	2					3	2	3			P		X								5
North Doghead																					
NDH-292	3					2		2	2	P	2	2	1	2	X		3			2	5
NDH-293	3					2			2	P	2			2	2		4		2		5
NDH-294	3		2	2	3[1]	2			3		2[2]	X		2		X			2		5
NDH-295	3		2		2	2			4	P	2[2]			2			2		2		5
NDH-296	3		2	2	2	2	2		3				X	2			4		1		5

[1]Includes alder
[2]Includes *Vaccinium myrtilloides* (blueberry)

TABLE 8 BOTANICAL AND COMMON NAMES OF PLANTS IN THE SAMPLED BOGS

Tree		
	Larix laricina	Tamarack
	Picea mariana	Black spruce
	Pinus banksiana	Jack pine
	Populus	Poplar
	Populus balsamifera	Balsam poplar
	Populus deltoides	Cottonwood
Shrub		
	Alnus rugosa	Alder
	Amelanchier alniblia	Serviceberry
	Andromeda glaucopohylla	Bog rosemary
	Betula glandulosa	Swamp birch (dwarf)
	Chamaedaphne calyculata	Leather-leaf
	Kalmia polifolia	Bog laurel
	Ledum groenlandicum	Labrador tea
	Oxycoccus quadripetalus	Small cranberry
	Ribes spp.	Currant
	Rubus spp.	Cloudberry
	Salix spp.	Willow
	Vaccinium angustifolium	Blueberry
	Vaccinium myrtilloides	Sourtop blueberry
	Vaccinium vitis-idaea	Rock cranberry
Forb		
	Aster spp.	Aster
	Caltha palustris	Marsh marigold
	Cypripedium spp.	Lady slipper
	Drosera rotundifolia	Sundew
	Iris versicolor	Blue iris
	Menyanthes trifoliata	Buckbean
	Mitella nuda	Bishop's cap
	Sarracenia purpurea	Pitcher plant
	Smilacina trifolia	Threeleaf *smilacina* (false Solomon Seal)
Grass/Sedge		
	Carex spp.	Sedge
	Eriophorum spp.	Bog cotton
	Typha latifolia	Cattail
Horsetail		
	Equisetum spp.	Horsetail
Moss		
	Hypnum	*Hypnum* moss
	Polytrichum spp.	Hair-cap moss
	*Sphagnum spp.**	*Sphagnum* moss
Lichen		
	Cladonia spp.	Reindeer moss

**Sphagnum* mosses: Numerous varieties have been reported from Manitoba bogs. In southern Manitoba, the most common are *Sphagnum fuscum* in hummocks, and *Sphagnum magellanicum* in shallow hollows; others identified include *Sphagnum recurvum* and *Sphagnum rubellum*. In addition, other moss species were noted in some densely treed areas.