Appendix 1

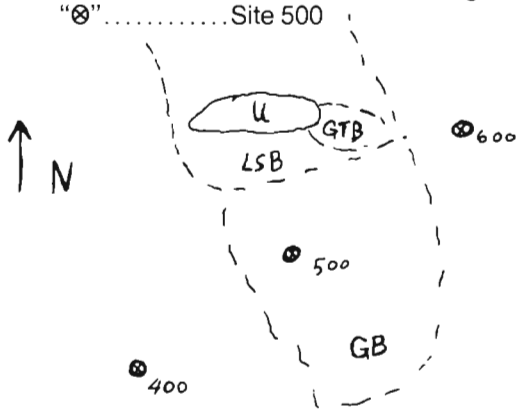
Field Sample Analysis Procedure

Squeeze Technician

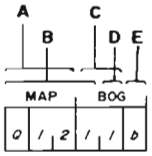
Site Analysis Procedure
(abridged from: Korpijaako & Pheeny 1977 and Modified by Anderson & Broughm 1980)

1. Location Sketch
Sketch position relative to two other survey points if present, or indicate distances relative to islands and changes in bog perimeter. Sketch in changes in surface cover between and around sites.
Example:

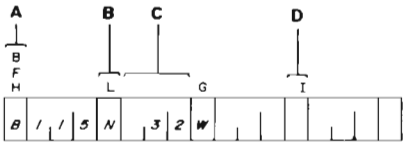
"U".....Mineral Soil/upland
"LSB".....Low Shrub Bog
"GTB".....Graminoid Treed Bog
"⊗".....Site 500



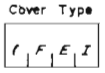
2. Deposit Identification Number
A. Map sheet code Mainland "Q12"
B. Map sheet code Cape Breton "X171"
C. Deposit Number Mainland "0-99"
D. Deposit Number Cape Breton "0-9"
E. Deposit Number sub-letter "a-g"



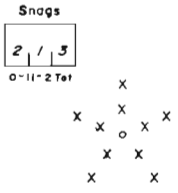
3. Sample Site Identification
A. Base line type
B-primary grid base line
F-secondary grid base line
H-Tertiary grid base line
B. Relative direction of survey line (N, S, E, W)
C. Site position (10's of meters)
D. Type of side line or cross line (L, G, I)



4. Growth Form
Only three growth forms may be entered. These forms must decrease in height from left to right, ending in the right most space. Least abundant forms in each height class are entered first. A bracket is placed in front of minor occurrences. (See Radforth Growth Form key)
Eg. A low shrubby moss cover with
minor occurrences of Sedge



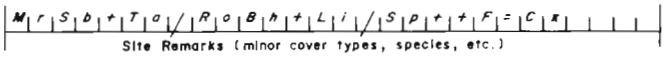
5. Snags
Ten probes are carried out in a five metre radius around the site with a two-metre T-bar. Information gathered is recorded as follows:
Eg. 2 Snag Hit ≤ 1 metre
1 Snag Hit > 1 metre
3 Snag Hit total



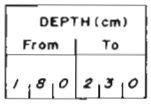
6. Cover Type
Peatland areas are classed according to formation (Bog, Swamp, Fen, Marsh) and type (Graminoid, Sphagnum, shrub rich treed, etc.) (See Key to Peatland Surface Types)
Eg. Graminoid Treed Bog

7. Micro Relief
Description of hummock size via height and width notation in decimeters.
Eg. height approximately 3 decimeters
width approximately 4 decimeters
A flat site is expressed as "10"

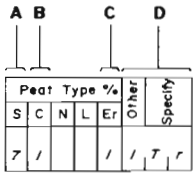
8. Site Remarks
Indicated species associated with Radforth Growth forms previously noted. (See Species Abbreviation List Identification Notes)
Cover classes are separated by slashes and are recorded in the same order as the Radforth Growth forms.
Eg. Growth Form "ADI"
Site remarks "A-species/D-species/I-species + others"
Enter the most dominant species in each class first, Minor species occurrences for a cover class are indicated using a plus sign and entered last.
Eg. Growth Form "ADI"
"A" class red maple, black spruce, plus some Tamarack
"D" class Rhodora, Blueberry-Huckleberry and some Leatherleaf
"I" class is predominantly sphagnum species
plus a lot of "F" class grasses (++ = a lot)



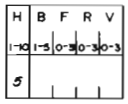
9. Depth of Lense
Recorded in centimeters
Eg. 1.80 meters to
2.30 meters



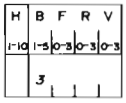
10. Peat Type
Record relative per cent content of peat constituents utilizing recognizable features of original plants (see List of Species Identification Characteristics)
1 = 10%
0 = 100%
Eg. A...70% Sphagnum (S) content
B...10% Carex (C) content
C...10% Eriophorum (ER) content
D...10% other constituent specified as trichophorum (TR)
"N"..shrub content column
"L"..wood content column



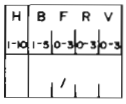
11. Humification
The degree of humification is divided into ten parts (1-10) (Refer to modified von Post Humification Scale, Appendix III and Table 2.1.
Eg. Humification 5
Humification of this lense is equal to 5 on von Post scale



12. Moisture Regime
The moisture regime of each peat sample was estimated by utilizing a scale of 1-5 and the symbol 'B',
B_1 Dry peat (Air dry)
B_2 Low moisture content
B_3 Moderate moisture content (normal)
B_4 High moisture content
B_5 Very high moisture content (mainly water)



13. Fine Fibre
The fine fibre content was estimated and expressed by utilizing a scale of 0-3 and the symbol 'F'. The fibres are, in this case, mainly derived from *Eriophorum*. If any other fine fibres are recorded, they should be identified in the peat formula.
F_0 Nil
F_1 Low content
F_2 Moderate content
F_3 High content



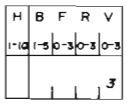
14. Coarse Fibre

The coarse fibres are also estimated by using a scale of 0-3 and the symbol "R" in the manner tabulated above. In this case, mainly rootlets are recorded. Often the rootlets of *Carex* or Ferns are referred to and also identified in the formula as such.

15. Woody Remnants

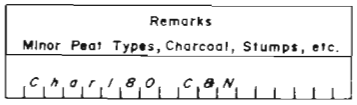
The presence of woody remnants in the peat may be a serious problem, especially when peat is harvested for peat moss production. For this purpose a scale of 0-3 and the symbol 'V' are used.

V_0 Nil
V_1 Low content
V_2 Moderate Content
V_3 High Content



16. Profile Remarks

Other pertinent information is added to the end of the formula, using suitable symbols and abbreviations. Thus layers of charcoal indicating old fires, seeds, and other recognizable plant remnants, may be noted.
Eg. Some charcoal at 180, sedges and shrubs.



17. Bottom Sediments

The last items to be recorded are the possible layers of detritus, ooze, gyttja, and finally the type of bottom soil.

Eg. Rock bottom	Rock	RO
	Gravel	GR
	Sand	SA
	Silt	SI
	Clay	CL
	Till	TI

Summary

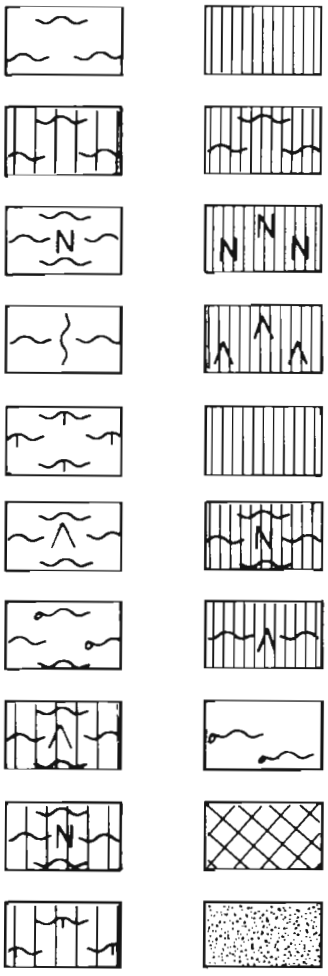
When all the information about the site has been recorded, a set of peat formulae for the site will have been created. The formulas may resemble the following:

X1246a ——— Cape Breton deposit X124-6a
B115N032W ——— Sample site 1150 meters north and 320 meters west from the origin "B00N"

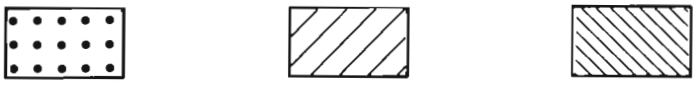
0-30$C_2S_8H_3B_3R_2$ (Char 10)... first lense from surface to 30 cm in depth is 80% Shpagnum and 20% sedge with a humification of 3. The lense has a normal wetness of 3 with notable occurrences of course fibres (*Trichophorum* rootlets). An occurrence of charcoal has been noted at 10cm in depth.

LEGEND OF PROFILE SYMBOLS

Peat Types



Peat Humification



Radforth Cover Types

A	*Tall trees (< 4.5m)*	F	*Sedges grasses (< 0.5m)*
B	*Low trees (1.5 - 4.5m)*	G	*Herbs (< 0.5m)*
C	*Grasses (0.5 - 1.5m)*	H	*Lichens*
D	*Tall shrubs (0.5 - 1.5m)*	I	*Mosses*
E	*Low shrubs (< 0.5m)*	P	*Disturbed*

Jeglum Cover Types

e.g. GB, STB, LSB, (Refer. "Tri-Level Peatland classification system")