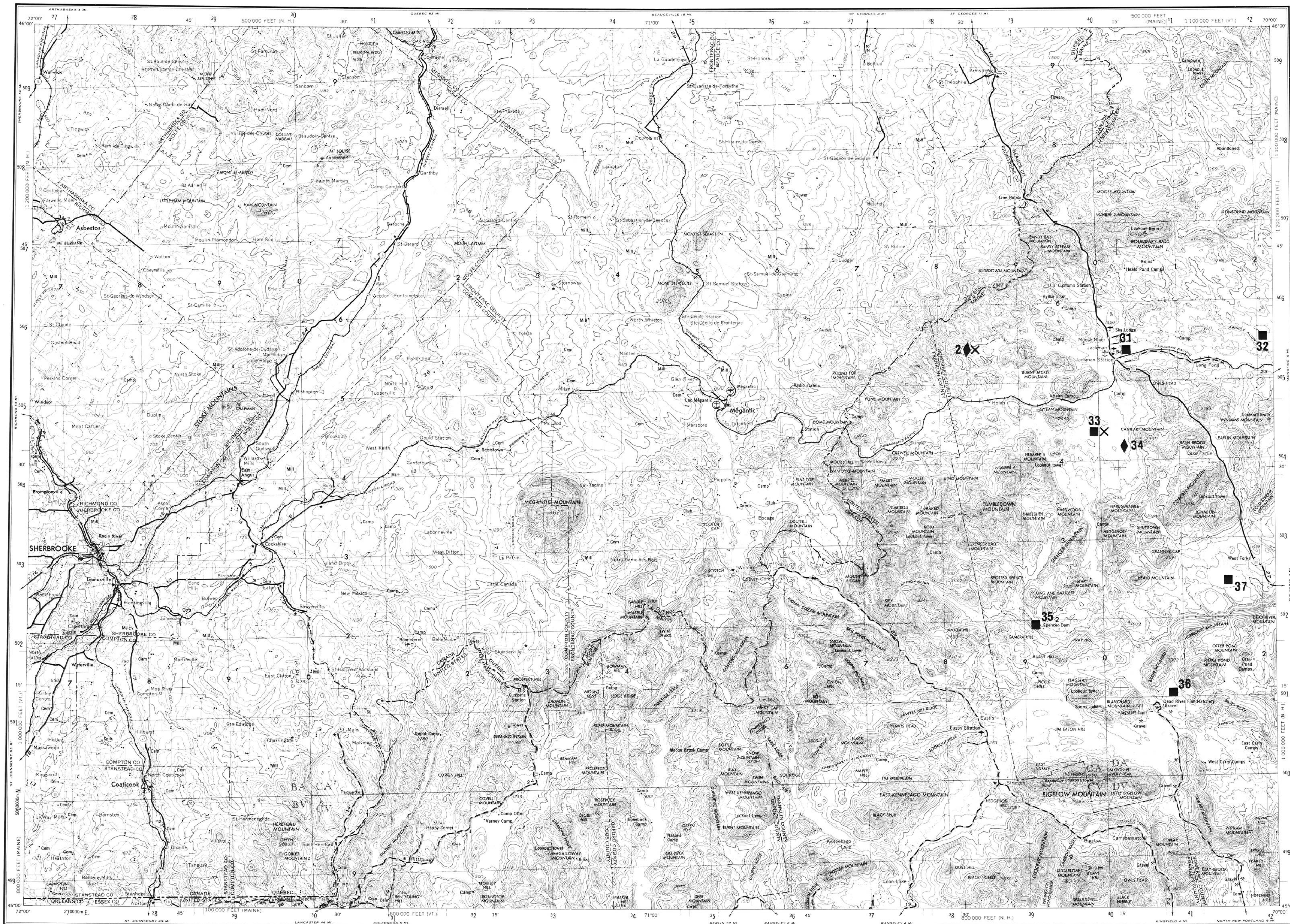


SHERBROOKE



Map Legend for Evaluating Deposits

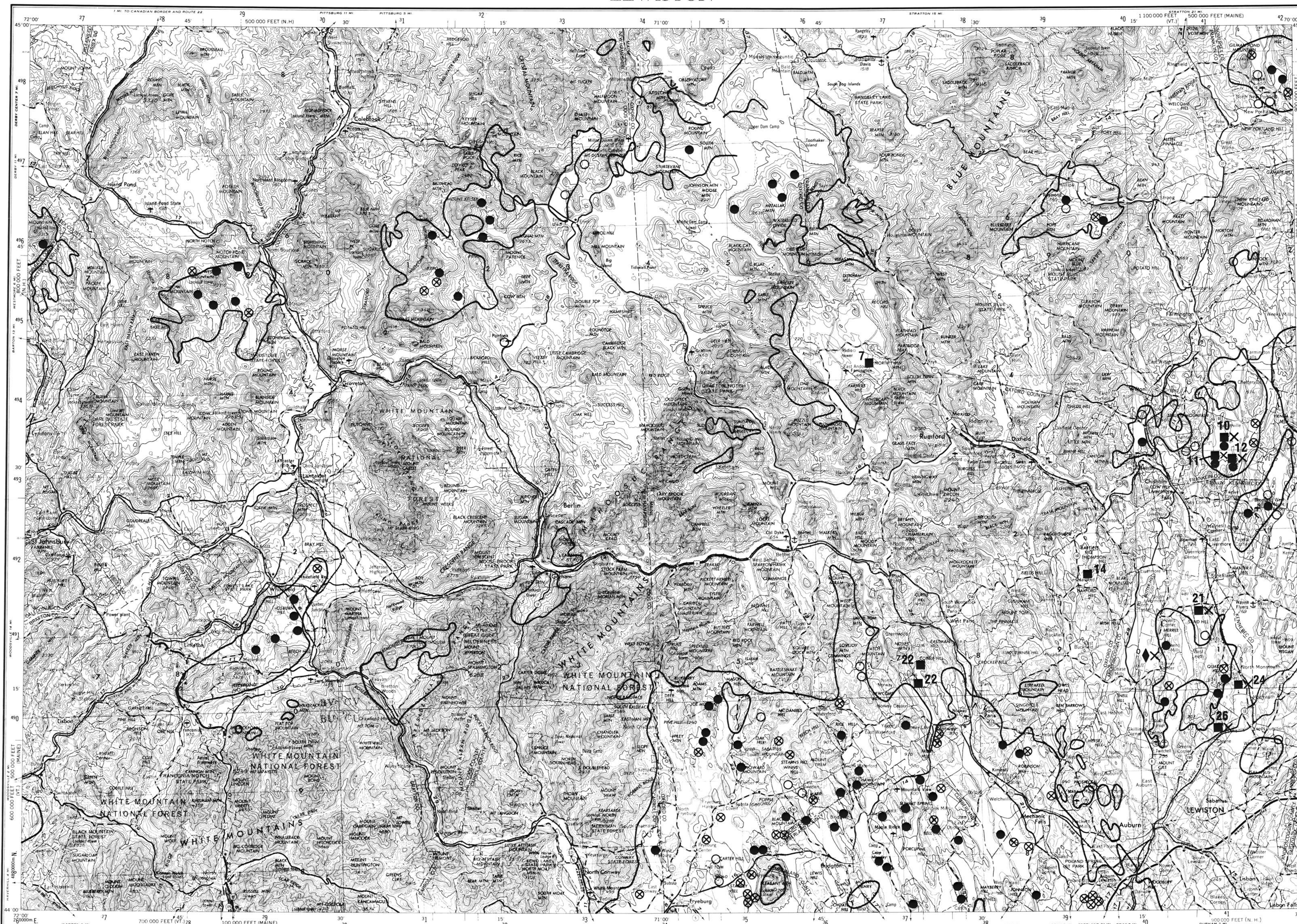
Resource potential for uranium (uranium content at 100 parts per million on whole sample basis)

- Probable
- ⊗ Possible
- Speculative

Resource potential for fuel and agricultural peat (ash content <25% on dry basis; minimum thickness 5 feet; minimum area 80 acres)

- Definite
- X Definite but trace elements may include uranium
- ▣ Probable
- ▣X Probable but trace elements may include uranium
- ◆ Possible
- ◆X Possible but trace elements may include uranium
- Areas of uranium source rock
- 31 Number of deposit measured and sampled

LEWISTON



FACTORS AND CONDITIONS

Source

1. Carboniferous plutonic rocks (C1m, C1m(m))
2. Carboniferous or Devonian two-mica granite (CDim)
3. Devonian and Devonian? plutonic rocks (D1(p), Dim, Dim(x), Dim(s))
4. Highlandcroft plutonic suite (Middle and Upper Ordovician) (Ohim)
5. Oliverian plutonic suite (Middle and Upper Ordovician) (Oo1m)

Migration

1. In bedrock via ground water in zones of fracture. Look for trend of zone relative to types of structural features
2. In surficial deposits adjacent to bedrock via ground water. Look for permeable horizons and their directions of trends in:
 - Alluvium
 - Glacial outwash
 - Glacial till
3. In swamps, marshes, and heaths. Distinguish between areas of relative movement and nonmovement at:
 - Surface
 - Beneath surface:
 - A. Determine stratigraphy of organic deposit
 - B. Determine the three dimensional configuration of organic deposit
 - C. Determine contact at bottom and sides of organic deposit relative to bedrock and/or the mineral surficial deposit

Deposition

Uranium is precipitated and concentrated in wet situations favorable to growth and preservation of plants. I believe plants growing in ponds, swamps, and marshes are more favorable to capturing uranium than plants growing in heaths. The geomorphic development of the present wet situation, e.g. swamp, marsh, and heath must be determined to locate layers of organic deposits accumulated in the different environments represented in the stratigraphy of each marsh, swamp, or heath.

- A. Heaths - In the stratigraphy look for sequences, possibly interrupted, of the following environments: pond, marsh, and swamp
- B. Marshes - In the stratigraphy look for sequences, possibly interrupted, of the following environments: pond, marsh, swamp, heath, and pond
- C. Swamps - In the stratigraphy look for sequences, possibly interrupted, of the following environments: pond, marsh, swamp, heath, pond, and marsh

PEAT RESOURCES AND
PRELIMINARY EVALUATION OF URANIUM RESOURCES IN
HOLOCENE ORGANIC DEPOSITS AS OF 1984,
LEWISTON AND SHERBROOKE 1° x 2° SHEETS, NORTHERN NEW ENGLAND

By
Cornelia C. Cameron
1984

