

UNITED STATES DEPARTMENT OF THE INTERIOR
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Peat Resources of the Great Heath,
Washington County, Maine

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This report is preliminary and has not been edited or revised
for conformity with U.S. Geological standards
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ABSTRACT

The major portion of the Great Heath, comprising 3,720 acres in the Cherryfield quadrangle, Washington County, Maine, generally averaging 13 feet in thickness, but with as great an average as 15 feet, contain an estimated 9,784,000 short tons air-dried peat. The peat is chiefly sphagnum moss with some reed-sedge of high quality according to ASTM standards for agricultural and horticultural use.

This same volume of peat may be considered for use as fuel because BTO per pound ranges from 8,600 to 10,500 with low sulfur and high hydrogen contents.

Distribution of trace elements in the Great Heath appear related to peat stratigraphy and movement of ground water within the deposit.

INTRODUCTION

Location and geologic setting

The Great Heath lies in the Cherryfield, Maine quadrangle about 6 miles northeast of Cherryfield village in townships Columbia and T 18. An area of about 4 miles by 4.5 miles were selected for mapping surficial geology, measuring the peat resources and determining trace element content (see Plate 1).

The area of study is a glaciated bedrock terrane drained by the Pleasant River and its tributaries. Slates and quartzites of Cambro-Ordovician age and diorite and gabbro of Devonian age (Gilman, 1967) underlie unconsolidated deposits of Quaternary age. These deposits consisting of sand, silt, and boulders on the uplands south and west of the Pleasant River, were deposited about 12,700 years ago (Stuiver and Borns, 1975). At that time, glacial ice readvanced into the sea in this area. Glacial drift blanketed bedrocks and marine clays, silts, and sands spread on the sea floor in front of the ice. The major portion of the Great Heath and the several smaller, isolated peat areas are raised bogs of moss and other heath plants that developed directly on the marine sediments or on the marsh-plant filled shallow depressions of the sea floor as shown in the profiles on Plate 1. The mostly treeless surfaces of the heaths are well above the streams but have small scattered shallow ponds on their broad summits. All bogs together with the marsh covered alluvial sands and silts adjacent to the streams are of Holocene age.

Method of Study

Field studies consisted of pace and compass traverses for determining extent of deposits. Stratigraphy was examined and samples obtained from cores taken with Macaulay peat augers and Davis peat samplers. 181 peat samples were analyzed in the United States Geological Survey laboratories for percent of ash and moisture as received pH and for trace element content. Proximate and ultimate analyses and the heating value of an additional 74 samples were obtained at the Department of Energy laboratories in Pittsburgh, Pennsylvania.

Estimates of peat resources were based on acre feet of peat where it was 5 or more feet thick and having an ash content not greater than 25 percent, which is in accord with ASTM (1969) standards. The formula for converting acre feet of peat to short tons air-dried peat was developed by E.S. Bastin and C.A. Davis (1900) of the U.S. Geological Survey during their study of peat deposits in Maine to determine extent and value of the State's peat deposits as sources of potential fuel and as raw materials for various other uses. The authors state, "the quantity of peat in a deposit may readily be calculated with enough accuracy for practical purposes, by obtaining its average depth and its area, and assuming that it will yield at least 200 tons of dry machine made fuel per acre for each foot depth." This formula was based on the following figures: "the specific gravity of the dry peat substance was found to be slightly but not much greater than that of water. A cubic foot of water weighs 62.5 pounds. It is probable that a cubic foot of wet peat, as it comes from the bog will weigh somewhat over 65 pounds...many peats as

they come from the bog contain 85 to 90 percent water by weight. In others, the percentages are lower, but for purposes of a conservative estimate, it may be assumed that the vegetable matter constitutes only 10 to 15 percent by weight of the wet peat. On this basis, a cubic foot of wet peat would contain only 10 to 15 percent of 65 pounds or 6.5 to 9.75 pounds of vegetable matter. The water contained in air-dried machine peat will probably average about 25 percent by weight, but a conservative estimate may assume that it constitutes only 20 percent....Forty pounds may be taken as the average weight of air-dried machine peat per cubic foot. Of this 80 percent, or 32 pounds, would be vegetable matter; as each cubic foot of peat as it comes from the bog contains 6.5 to 9.75 pounds of vegetable matter, it would take 5 to 3.2 cubic feet of wet peat to make 1 cubic foot of air-dried machine peat. If we assume 4 cubic feet of wet peat as an average figure, we have the following relations:

40			
Volume of wet peat in bog, in cubic feet	(average weight in pounds of 1 cubic foot of machine peat)	Volume of wet peat in bog, in cubic feet	Number of tons of air-dried ma- chine peat which the bog can pro- duce.
<u>4</u>	<u>2,000</u>	<u>200</u>	
(number of cubic feet of wet peat equal to 1 cubic foot of machine peat)	(pounds in short ton)		

Acknowledgments

The Maine Geological Survey investigated and supported this study with assistance of the Maine Office of Energy Resources, Augusta, Maine. Laboratory supported by the Maine Geological Survey and logistical support of these organizations were greatly appreciated. Appreciation is also extended to Forest E. Walker, Chemist in Charge of the Coal-Analysis Division for the U.S. Department of Energy sample analyses shown on Table 2 from which data for Figure 1 were derived. Samples submitted to the U.S. Geological Survey laboratories were analyzed for date in Tables 1 and 3 by Roosevelt Moore, Stanley Fleming, Joseph L. Harris, Anthony F. Dorrzaph, Jr. and William B. Crandell, to whom appreciation is likewise extended. Finally, the excellent field assistance by Michael K. Mullen and Robert A. Johnston is gratefully acknowledged.

RESOURCES

The three areas of the Great Heath for which peat resources have been estimated include areas A, B and C (see figure 2 and Plate 1 from which the sketch was drawn. Estimated resources shown below this figure total 9,784,000 short tons air-dried peat. Most of the peat is the sphagnum moss type. It contains many stems and fragments of the heath plants associated with the moss rising in domes above the reed-sedge near the base of the stratigraphic sections described for each station in Table 1. Ash content of the moss peat and reed-sedge peat is generally below 5 percent, but that of reed-sedge peat tends to range somewhat higher than moss peat. The pH of most of the peat is between 4 and 5. Samples higher than 5 are mostly reed-sedge. Moisture content as received, that is, as taken from the bog ranges are in the high 80 and low 90 percent bracket.

Proximate and ultimate analyses and heating value were obtained for 74 samples (see Table 2) and data plotted in the scatter diagrams of figure 1. BTU per pound ranges from 8,600 to 10,500, but most reed-sedge samples have heating value above 9,500 BTU per pound. Although all samples have an ash content less than 8 percent on moisture free basis, the reed-sedge peat samples tended to have a somewhat higher ash content than the moss peat samples. Volatile matter on moisture free basis is mostly between 60 and 75 percent with most reed-sedge peat samples less than 70 percent. Fixed carbon for all samples on the moisture free basis ranges from 20 percent to slightly more than 30 percent. Sulfur on the moisture free basis ranges from 0.1 to 0.6 percent with most samples having 0.2 percent. Percent Hydrogen (Table 2) for all samples range from 4.8 to 5.9 percent; percent Nitrogen from 0.6 to 2.0; and percent oxygen from 28.9 to 40.9

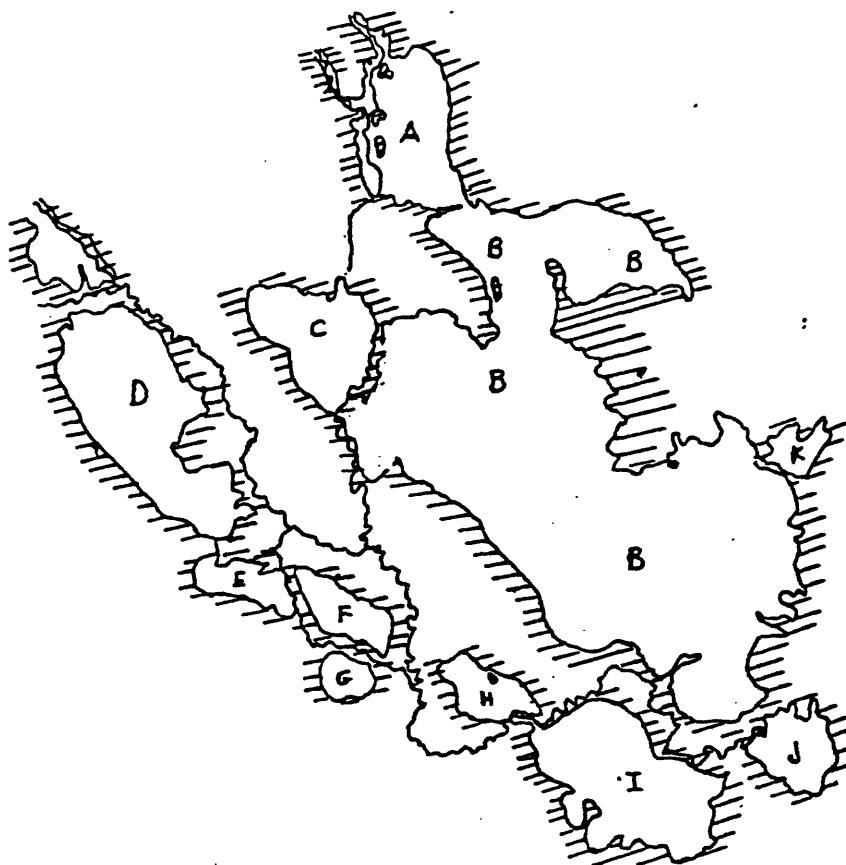


Figure 2. Sketch of peat areas and location of the three for which peat resources have been estimated.

Estimated peat resources in the three areas include:

	Acres	Thickness	Average thickness	Tons air-dried Peat
Area A	280	5-21 ft.	15 ft.	840,000
Area B	3,160	5-27 ft.	13 ft.	8,216,000
Area C	280	5-18 ft.	13 ft.	<u>728,000</u>
			TOTAL	9,784,000

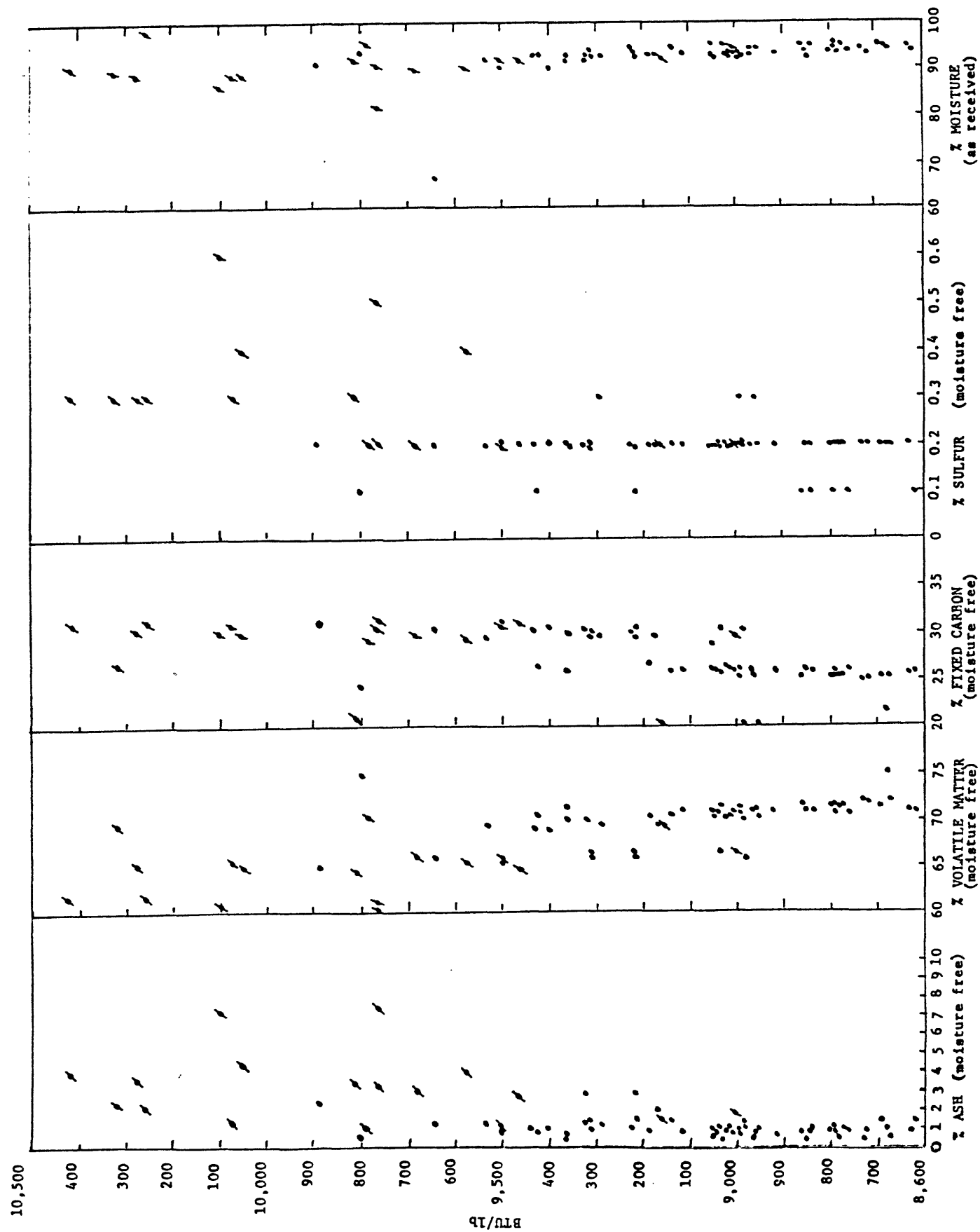


Figure 1.--Scatter diagrams showing BTU relationships in representative samples of sphagnum moss peat (●) and reed-sedge-peat (◆) to their contents of ash, volatile matter, fixed carbon, and sulfur. The percent moisture as received of each sample is also shown.

TRACE ELEMENTS

Trace element determinations were made on the ash fractions of 181 samples shown in Table 1. The data were computed on the whole sample basis and averaged according to station and depth in core (Table 3). The type of peat and depth in core for corresponding sample numbers are shown in Table 1. Concentration of elements are related to stratigraphic horizons and appear to have been influenced by ground water movement within the peat deposits.

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Table 1. Percent ash and pH in 181 samples from the Great Heath, Cherryfield, Maine, arranged according to station and depth in core. Type of peat sampled and percent moisture as received are listed for each sample.

Station number	Sample number USGS 79-	Type of peat	Depth (in feet)	pH	Percent ash (moisture free)	Percent moisture as received
1	800	Reed-sedge	2 1/2-3	4.04	11.0	92.46
2	801	Sphagnum	2 1/2-4	4.20	0.7	92.46
	802	"	6 1/2-8	4.75	1.0	93.42
	803	Reed-sedge	10 1/2-13	5.48	6.6	90.73
	804	Peaty clay	at 13	5.59	75.0	56.92
3	805	Sphagnum	2 1/2-4	4.57	0.2	90.62
	806	"	6 1/2-8	4.80	0.4	91.89
	807	Reed-sedge	10 1/2-12	4.65	1.3	92.60
	808	"	14 1/2-16	5.12	17.5	86.43
	809	Peaty clay	16 1/2	5.09	83.8	53.23
4	810	Sphagnum	2 1/2-4	4.34	1.2	89.73
	811	"	6 1/2-8	4.65	1.0	92.31
	812	Reed-sedge	10 1/2-12	5.15	7.7	88.58
	813	Peaty clay	14	3.85	55.2	76.41
5	814	Sphagnum	2 1/2-4	4.30	0.8	91.12
	815	"	6 1/2-8	4.40	0.9	92.55
	816	"	10 1/2-12	4.29	1.4	89.39
	817	Reed-sedge	12 1/2- 13 1/2	4.27	1.4	91.36
6	818	Sphagnum	2 1/2-4	4.30	0.7	91.78
	819	"	6 1/2-8	4.35	0.6	92.93
	820	"	16 1/2-12	4.55	0.5	93.61
	821	"	14 1/2-16	4.75	1.0	91.97
	822	"	18 1/2-20	4.35	1.3	92.00
	823	"	22 1/2-24	4.37	1.6	92.87
	825	Reed-sedge	27-27 1/2	4.85	9.6	86.02
7	826	Sphagnum	2 1/2-4	4.35	0.7	93.23
	827	"	6 1/2-8	4.30	0.8	92.73
	828	"	10 1/2-12	3.80	1.3	93.75
	829	"	14 1/2-16	4.44	1.3	91.71
	830	"	18 1/2-20	4.25	3.4	88.81
	832	Peaty clay	2 1/2-22	4.49	80.5	60.81
9	833	Sphagnum	2 1/2-4	4.70	1.6	91.45
	834	"	6 1/2-8	5.13	0.6	90.23
	835	"	10 1/2-12	4.90	4.6	94.42
	836	"	14 1/2-16	4.95	1.9	91.75
	837	"	18 1/2-20	5.18	3.3	90.32
	838	Peaty clay	22	5.59	54.6	79.44

Table 1 (cont'd)

Station number	Sample number USGS 79	Type of peat	Depth (in feet)	pH	Percent ash (moisture free)	Percent moisture as received
11	839	Sphagnum	2 1/2-4	4.30	1.2	92.78
	840	"	6 1/2-8	4.60	1.1	93.21
	841	"	10 1/2-12	4.52	1.3	93.52
	842	Reed-sedge	14 1/2-16	4.70	2.5	91.58
	843	"	18 1/2-20	4.90	3.2	90.10
	844	Clayey peat	21	4.20	43.5	76.05
14	845	Sphagnum	2 1/2-4	4.70	1.1	92.09
	846	"	6 1/2-8	3.90	1.0	91.93
	847	"	10 1/2-12	4.02	1.0	93.31
	848	"	14 1/2-16	4.10	1.6	91.44
	849	Reed-sedge	18 1/2-20	4.40	3.6	90.25
	850	"	20 1/2-22	4.64	2.7	91.82
16	851	Sphagnum	2 1/2-4	4.18	1.0	93.45
	852	"	7-8	3.98	1.6	91.24
	853	"	10 1/2-12	4.10	3.2	90.07
	854	Clayey peat	12 1/2-13	5.08	45.1	80.70
17	855	Sphagnum	2 1/2-4	3.82	0.7	90.61
	856	"	6 1/2-8	3.99	2.1	92.21
	857	Reed-sedge	10 1/2-12	4.45	2.5	86.11
	858	"	12-13 1/2	4.70	4.3	86.01
19	859	Sphagnum	2 1/2-4	3.92	0.8	92.10
	860	"	6 1/2-8	3.88	0.9	91.51
	861	"	10 1/2-12	4.00	0.5	94.11
	862	"	14 1/2-16	3.88	1.2	93.56
	863	Reed-sedge	18 1/2-20	4.03	1.8	90.90
	865	"	21 1/2-22	4.28	5.5	88.66
21	866	Sphagnum	2 1/2-4	4.10	0.8	94.47
	867	"	6 1/2-8	4.07	1.0	92.09
	868	"	10 1/2-12	4.15	0.7	94.00
	869	"	14 1/2-16	4.24	1.0	93.12
	870	"	18 1/2-20	4.20	1.4	93.99
	871	"	22 1/2-24	4.25	2.0	91.87
	873	Clayey peat	27-28	4.15	26.9	87.87
23	874	Sphagnum	2 1/2-4	4.28	1.1	93.07
	875	"	6 1/2-8	4.29	1.0	92.92
	876	"	10 1/2-12	4.28	1.0	92.12
	877	"	14 1/2-16	4.40	1.0	94.00
	878	Reed-sedge	18 1/2-20	4.39	2.2	91.82
	879	"	22 1/2-24	4.10	1.6	91.98
26	880	Sphagnum	5	4.46	0.8	93.58
	881	"	9	4.70	1.2	92.36
	882	"	13	4.72	5.6	92.98
	883	Reed-sedge	16	5.01	0.7	98.78

Table 1 (cont'd)

Station number	Sample number USGS 79	Type of peat	Depth (in feet)	pH	Percent ash (moisture free)	Percent moisture as received
28	884	Sphagnum	5	5.40	1.3	85.86
	885	"	9	4.50	0.6	93.90
	886	"	13	4.84	1.8	93.41
	887	Peaty clay	18 1/2	4.40	48.4	76.05
30	888	Sphagnum	5	4.32	0.1	92.24
	889	"	9	4.35	0.7	94.05
	890	"	13	4.35	0.6	93.65
	891	"	17	4.62	2.0	91.34
	892	Peaty clay	21	4.40	71.6	71.77
	893	"	22	4.10	92.1	35.88
33	894	Reed-sedge	5	4.23	1.1	91.05
	895	"	9	5.38	3.5	91.75
	896	Clayey peat	13	5.75	30.0	80.19
38	897	Sphagnum	5	4.45	0.6	92.70
	898	"	9	5.30	1.8	93.61
	899	Peaty clay	12 1/2	5.75	75.0	65.49
40	900	Sphagnum	5	4.35	0.7	93.70
	901	"	9	4.58	0.1	94.37
	902	"	13	4.50	0.8	94.22
	903	"	17	4.55	1.6	93.99
	904	"	21	4.80	2.9	94.13
	905	Peaty clay	22-23	5.43	70.9	63.22
42	906	Sphagnum	5	4.55	1.1	94.37
	907	"	9	4.75	0.8	94.85
	908	"	13	4.77	1.3	94.22
	909	Reed-sedge	17	5.22	2.5	92.48
	910	Clayey peat	18 1/2	5.40	44.9	91.00
44	911	Sphagnum	2 1/2-4	4.40	0.9	92.46
	912	"	6 1/2-8	4.40	0.8	93.29
	913	"	10 1/2-12	4.78	1.0	93.06
	914	"	14 1/2-16	4.80	1.7	89.79
	915	Reed-sedge	18 1/2-20	4.85	2.2	91.87
	916	Peaty clay	22 1/2-24	5.32	94.0	46.75
48	917	Sphagnum	3 1/2-4	4.58	1.1	91.80
	918	"	6 1/2-8	3.80	1.1	93.11
	919	"	10 1/2-12	4.69	1.3	93.14
	920	Reed-sedge	14 1/2-16	4.88	3.6	92.58
51	921	Sphagnum	2 1/2-4	4.60	0.1	94.89
	922	Humus	6	4.80	3.0	92.11
53	923	Sphagnum	5	4.68	1.1	92.91
	924	"	9	4.83	1.2	94.03
	925	"	13	5.35	2.8	93.35
	296	Peaty clay	16-16 1/2	5.60	72.8	36.50

Table 1 (cont'd)

Station number	Sample number USGS 79	Type of peat	Depth (in feet)	pH	Percent ash (moisture free)	Percent moisture as received
55	927	Sphagnum	5	4.64	1.8	93.30
	928	"	9	4.50	0.8	94.15
	929	Reed-sedge	13	4.62	16.1	85.77
57	930	Sphagnum	5	4.30	0.7	94.80
	931	Humus	9	4.45	25.7	93.52
	932	Sphagnum	13	4.80	1.6	95.13
	933	Reed-sedge	17	5.25	16.1	91.44
60	934	Sphagnum	5	4.35	1.3	93.83
	935	Reed-sedge	9	4.20	1.6	89.21
	936	"	13	4.20	1.4	94.12
	937	Humus	17	4.38	1.5	93.97
62	938	Sphagnum	5	4.28	4.6	90.15
	939	"	9	4.30	1.4	93.29
	940	"	13	4.45	0.2	94.97
	941	"	17	4.48	2.4	93.00
	942	Reed-sedge	21	4.54	3.2	92.02
	943	Peaty clay	21-22	4.92	68.0	67.68
64	944	Sphagnum	5	4.31	1.3	92.97
	945	"	9	4.20	0.9	91.30
	946	"	13	4.30	1.1	94.14
	947	"	21	4.37	1.8	92.04
	948	Reed-sedge	23	4.43	2.2	92.25
	949	"	24	5.17	4.5	
66	950	Sphagnum	5	4.85	0.4	94.88
	951	"	9	4.72	0.8	93.31
	952	"	13	4.30	1.5	94.13
	953	Peaty clay	16	4.80	38.9	80.35
69	954	Sphagnum	5	4.40	0.5	93.17
	955	"	9	4.64	1.4	93.74
	956	Reed-sedge	13	5.10	4.4	88.80
	957	"	17	5.60	1.2	87.82
	958	Contact w/clay	19	5.45	86.0	58.92
70	959	Sphagnum	5	4.40	1.4	94.34
	960	"	9	4.41	0.8	93.85
	961	"	13	4.35	1.0	94.14
	962	Reed-sedge	17	4.50	2.1	91.82
	963	Clayey peat	21	4.65	46.5	82.68
74	964	Sphagnum	5	4.48	0.8	93.36
	965	"	9	4.52	0.9	93.92
	966	"	13	4.75	1.4	93.17
	967	Reed-sedge	17	5.10	2.0	91.25
	968	"	21	5.40	6.8	90.08
	969	Peaty clay	22	5.60	65.2	70.39

Table 1 (cont'd)

Station number	Sample number USGS 79	Type of peat	Depth (in feet)	pH	Percent ash (moisture free)	Percent moisture as received
75	970	Sphagnum	5	4.40	1.4	91.70
	971	"	9	5.15	3.2	92.96
	972	Reed-sedge	13	5.18	14.2	90.50
	973	Peaty clay	16	4.02	89.8	36.36
79	974	Sphagnum	5	4.30	0.5	94.16
	975	"	9	4.32	1.1	93.52
	976	"	13	4.20	1.6	94.76
	977	"	17	4.20	2.2	90.45
	978	Peaty clay	19	3.80	53.3	77.03
81	979	Sphagnum	5	4.25	0.7	93.75
	980	"	9	4.00	0.3	93.23
	981	"	13	4.32	1.2	93.63
	982	Reed-sedge	17	4.40	2.4	93.08
	983	"	21	4.50	2.1	93.63
	984	Peaty clay	23	4.72	55.3	77.78

Table 3.--Trace elements in the Great Heath, Cherryfield, Maine. Parts per million are computed on whole sample basis. (See Table 1 and map for sample location, depth, and type of material analyzed.)

Station number	Sample number USGS 79	Sample											
		Ag	B	Ba	Be	Ce	Co	Cr	Cu	Ga	La	Mn	Mo
1	800	--	7.5	37.4	0.40	13.2	0.40	6.2	4.7	1.0	4.0	12.0	--
2	801	0.01	1.7	2.8	--	--	0.08	0.69	0.67	0.05	0.17	2.3	0.04
	802	0.01	2.9	3.8	--	--	0.14	2.0	0.62	0.06	0.28	22.0	0.03
	803	0.03	15.2	25.1	0.10	--	0.50	3.8	4.3	0.07	2.6	278.1	0.31
	804	--	53.0	353.8	2.5	--	2.7	76.9	--	1.0	29.9	207.6	--
3	805	--	0.36	1.2	--	--	0.05	0.26	0.28	0.02	0.08	3.8	0.01
	806	--	0.38	2.7	--	--	0.08	0.39	0.52	0.03	0.16	18.0	0.02
	807	0.01	1.6	9.4	--	--	0.16	0.69	0.81	0.09	0.43	78.0	0.09
	808	--	8.0	58.9	0.66	--	0.63	9.1	13.9	2.1	10.3	267.8	0.20
	809	--	44.1	36.6	2.5	--	6.9	36.6	22.5	10.0	24.1	358.3	--
4	810	0.01	1.8	2.1	--	--	0.06	0.48	1.4	0.09	0.29	2.8	0.03
	811	--	1.6	5.7	--	--	0.30	0.51	0.94	0.07	0.24	66.0	0.04
	812	0.05	6.4	29.5	0.17	16.3	0.93	4.7	12.4	1.4	6.5	263.6	0.58
	813	--	31.7	211.1	1.6	--	28.9	29.4	25.0	7.2	20.0	222.2	--
5	814	--	1.9	2.9	--	--	0.14	2.2	0.88	0.05	0.14	2.9	0.04
	815	--	1.9	3.5	--	--	0.10	3.2	0.38	0.03	0.23	13.6	0.06
	816	0.01	--	8.4	--	--	0.35	2.0	1.4	0.08	0.53	50.4	0.07
	817	--	3.6	12.0	0.02	--	0.63	1.0	1.8	0.14	1.2	61.6	0.04
6	818	0.01	1.6	2.8	--	--	0.08	0.64	0.77	0.05	0.15	1.8	0.06
	819	--	1.3	2.6	--	--	0.08	0.31	0.44	0.04	0.11	1.7	0.05
	820	0.01	1.1	1.8	--	--	0.07	0.28	0.75	0.03	0.08	1.5	0.06
	821	--	2.0	4.1	--	--	0.10	0.75	0.71	0.06	0.31	5.2	0.05
	822	--	2.2	6.6	--	--	0.10	0.53	0.75	7.07	0.33	49.4	0.06
	823	--	3.5	10.0	--	--	0.22	0.74	2.1	0.09	0.67	60.8	0.12
	825	--	15.4	38.5	0.35	7.1	1.1	6.1	24.0	1.6	5.0	480.8	0.53
7	826	0.10	1.8	2.5	--	--	0.08	0.20	1.1	0.04	0.19	2.0	0.05
	827	--	2.2	4.4	0.01	--	0.07	0.36	0.88	0.04	0.25	3.1	0.03
	828	0.01	4.0	4.7	--	--	0.20	0.44	1.4	0.07	0.16	8.3	0.04
	829	--	3.0	5.7	--	--	0.29	0.33	0.68	0.11	0.52	53.3	0.05
	830	0.01	--	15.7	--	--	1.9	0.29	1.9	0.29	--	197.3	--
	832	--	56.7	325.0	2.4	--	7.1	45.0	12.5	12.5	14.2	308.3	--
9	833	0.01	3.7	11.7	--	--	0.19	0.51	1.4	0.10	0.53	54.4	0.12
	834	--	1.4	4.6	--	--	0.11	0.23	0.72	0.04	0.33	27.6	0.04
	835	0.01	6.5	33.2	--	--	0.45	1.3	4.2	0.25	1.0	287.3	0.16
	836	0.50	3.0	17.5	--	--	0.25	0.76	2.1	0.15	0.82	142.6	0.13
	837	0.20	5.9	20.8	--	--	--	0.40	--	0.12	0.59	363.0	0.40
	838	--	37.8	244.4	1.6	--	1.3	26.7	15.0	6.7	19.4	372.2	--

Table 3.--Continued

Station number	Sample number		Nb	Nd	Ni	Pb	Sc	Sn	Sr	V	Y	Yb	Zn	Zr
	USGS	79												
1	800	1.6	3.1	1.6	2.9	2.5	0.40	17.5	6.7	2.7	0.30	--	20.8	
2	801	0.05	--	0.32	0.69	0.04	0.08	5.2	0.32	0.06	0.05	1.6	0.69	
	802	0.05	--	1.4	0.64	1.1	--	9.1	2.9	0.10	0.02	0.94	0.63	
	803	0.50	--	1.6	2.3	1.1	0.30	45.0	8.3	1.3	0.10	5.8	7.9	
	804	17.6	--	11.6	30.0	15.3	4.0	123.0	63.0	14.6	3.2	--	192.3	
3	805	0.01	--	0.15	0.18	--	--	1.8	0.12	0.03	--	1.3	0.18	
	806	0.01	--	0.20	0.34	0.04	0.03	4.4	0.16	0.06	--	1.9	0.48	
	807	0.12	--	0.40	1.4	0.13	--	23.4	0.52	0.23	--	3.5	1.5	
	808	0.82	13.5	3.9	6.0	2.0	0.89	50.0	12.6	5.8	0.93	3.7	17.8	
	809	10.0	26.6	19.1	18.3	10.0	3.1	150.0	50.0	20.0	3.5	48.3	216.6	
4	810	0.08	--	0.26	1.4	0.09	0.07	6.4	0.36	0.14	0.02	0.90	1.5	
	811	--	--	0.42	0.52	0.05	--	13.0	0.26	0.07	--	2.3	0.77	
	812	0.43	5.7	3.2	3.8	1.9	0.18	21.7	6.7	3.6	0.43	5.9	7.5	
	813	5.6	21.1	47.8	16.7	6.7	0.94	105.6	37.2	15.0	2.4	40.0	111.1	
5	814	0.03	--	0.70	1.7	0.03	0.04	4.8	0.34	0.05	--	2.0	0.50	
	815	--	--	2.7	3.8	0.04	--	8.2	0.21	0.07	0.01	2.3	0.82	
	816	0.15	--	0.73	0.85	0.12	0.06	19.6	0.52	0.21	0.02	4.2	2.1	
	817	0.13	0.87	1.1	1.1	0.18	--	21.0	0.73	0.50	0.02	2.8	1.5	
6	818	0.02	--	0.32	1.1	0.04	0.04	4.8	0.27	0.06	0.01	0.70	0.49	
	819	0.04	--	0.23	0.78	0.03	0.04	4.9	0.29	0.05	--	1.6	0.47	
	820	0.03	--	0.22	0.34	0.02	0.03	3.4	0.21	0.03	--	2.0	0.31	
	821	0.10	--	0.38	0.87	0.09	0.06	7.9	0.49	0.13	0.01	0.29	0.13	
	822	0.06	--	0.30	1.2	0.09	--	16.9	0.40	0.12	--	4.7	1.3	
	823	0.07	--	0.78	11.5	0.14	0.10	24.0	0.62	0.19	0.01	6.2	1.9	
	825	0.45	--	4.0	2.0	1.9	0.44	33.7	6.0	2.4	0.33	52.9	10.6	
7	826	--	--	0.50	0.52	0.04	0.28	6.9	0.28	0.07	0.01	5.5	0.64	
	827	0.09	--	0.27	0.57	0.03	0.05	8.8	0.31	0.05	0.01	3.9	0.49	
	828	0.06	--	0.74	1.1	0.05	0.04	9.4	0.49	0.07	--	7.8	0.83	
	829	0.05	--	0.34	0.51	0.13	--	19.5	0.36	0.18	--	4.0	1.6	
	830	0.23	--	0.99	1.3	0.17	--	40.8	0.44	--	--	7.5	2.1	
	832	10.8	--	18.3	21.7	8.0	4.8	141.7	55.0	10.0	2.9	22.5	150.0	
9	833	0.06	--	0.50	0.78	0.11	0.06	19.2	0.70	0.21	0.01	8.2	1.6	
	834	--	--	0.20	0.35	0.03	0.02	8.4	0.26	0.08	--	3.8	0.38	
	835	--	--	1.2	3.0	0.17	0.10	55.3	1.3	0.25	0.25	26.3	2.4	
	836	--	--	0.59	8.5	0.25	0.32	32.3	0.93	0.30	--	8.4	1.8	
	837	--	--	8.5	0.79	0.16	--	52.8	0.53	--	0.06	--	--	
	838	4.4	--	7.8	12.2	7.2	2.6	150.0	28.9	11.1	2.5	8.9	127.8	

Table 3.--Continued

Station number	Sample number	USGS 79	Ag	B	Ba	Re	Ce	Co	Cr	Cu	Ga	La	Mn	Mo
11	839	0.01	3.4	2.5	--	--	--	11.4	0.46	1.6	0.09	0.23	2.8	0.08
	840	0.01	3.7	5.3	--	--	--	0.17	0.36	1.1	0.07	0.33	4.6	0.07
	841	0.01	4.0	5.6	--	--	--	0.16	0.48	--	0.12	0.41	7.8	0.05
	842	--	7.0	16.3	--	--	--	0.30	0.70	1.9	0.20	1.0	58.0	0.20
	843	0.10	7.7	23.7	0.06	--	--	1.1	--	3.5	0.38	2.5	125.0	0.67
14	844	--	138.0	182.6	2.0	52.1	2.1	30.0	30.0	19.6	5.2	33.9	243.5	--
	845	0.01	2.6	3.4	--	--	--	0.11	0.48	0.83	0.07	0.22	4.8	0.04
	846	0.01	2.4	6.0	--	--	--	0.11	0.36	1.2	0.06	0.29	7.2	0.04
	847	0.05	2.9	3.9	--	--	--	0.11	0.33	1.1	0.05	0.23	14.0	--
	848	--	--	11.0	--	--	--	0.29	0.67	1.1	0.11	0.59	62.4	0.08
16	849	0.20	9.4	18.1	--	--	--	0.97	0.94	1.4	0.31	1.6	220.2	--
	850	0.10	5.4	15.4	0.04	--	--	1.7	0.68	1.5	0.32	1.6	208.1	--
	851	--	2.5	4.4	--	--	--	0.10	0.49	1.1	0.05	0.24	26.0	0.02
	852	0.10	--	4.0	--	--	--	0.18	0.42	2.6	0.12	0.42	30.4	0.06
	853	0.01	7.7	15.7	--	--	--	0.93	0.45	1.3	0.24	1.3	96.2	0.05
17	854	0.05	33.6	204.6	1.4	--	--	5.5	54.4	35.9	10.9	23.6	181.8	--
	855	--	2.0	1.8	--	--	--	0.60	0.27	0.55	0.07	0.16	2.8	0.04
	856	0.01	5.3	6.3	--	--	--	0.10	0.65	1.4	0.14	0.67	90.3	0.06
	857	--	5.0	10.2	--	--	--	0.09	0.45	1.8	0.24	0.83	180.0	0.15
	858	0.02	8.6	15.9	0.09	--	--	0.36	2.1	4.7	0.52	2.7	353.0	0.09
19	859	0.01	2.3	3.1	--	--	--	0.05	0.02	0.96	0.06	0.28	2.2	0.02
	860	--	2.8	2.6	--	--	--	0.08	0.27	0.70	0.07	0.22	3.3	0.03
	861	--	1.4	2.6	--	--	--	0.07	0.18	0.50	0.03	0.19	10.0	0.03
	862	--	2.7	6.5	--	--	--	0.18	0.36	1.2	0.11	0.38	80.4	0.06
	863	0.01	--	15.1	--	--	--	0.54	1.0	4.7	0.20	0.85	218.0	--
21	865	0.02	2.8	42.5	0.77	16.6	--	1.8	--	13.3	0.61	7.7	541.4	0.29
	866	0.01	1.4	4.7	--	--	--	0.10	0.80	0.80	0.04	0.18	2.2	0.04
	867	0.02	2.0	3.5	--	--	--	0.10	0.87	1.1	0.06	0.29	2.2	0.05
	868	0.01	1.3	4.2	--	--	--	0.08	0.84	1.0	0.04	0.20	1.9	0.05
	869	--	1.8	4.0	--	--	--	0.09	0.82	0.72	0.07	0.19	5.4	0.04
23	870	0.01	2.8	9.4	--	--	--	0.14	1.2	3.4	0.10	0.62	61.6	0.06
	871	0.04	3.2	13.4	--	--	--	0.13	3.4	6.0	0.15	0.62	220.0	--
	873	--	19.2	132.4	0.86	12.1	--	7.6	25.7	12.4	5.1	11.9	675.7	--
	874	0.01	1.8	4.0	--	--	--	0.11	1.1	1.2	0.08	0.26	3.4	0.04
	875	0.01	26.0	4.1	--	--	--	0.12	1.2	0.73	0.06	0.16	3.1	0.08
23	876	--	2.8	4.0	--	--	--	0.09	0.74	1.1	0.06	0.24	2.7	--
	877	0.01	2.1	5.0	--	--	--	0.07	0.30	0.72	0.03	0.18	1.2	0.02
	878	0.01	4.6	6.4	--	--	--	0.11	0.95	2.2	0.17	0.06	72.7	0.07
	879	--	3.4	7.8	--	--	--	0.18	1.0	1.0	0.10	0.43	48.0	--

Table 3.--Continued

Station number	Sample number		Nb	Nd	Ne	Pb	Sc	Sn	Sr	V	Y	Yb	Zn	Zr
	USGS 79													
11	839	0.06	--	--	0.42	0.83	0.06	0.05	6.2	0.53	0.09	0.01	1.1	1.1
	840	0.05	--	--	0.36	2.1	0.07	0.03	12.1	0.46	0.11	--	3.5	0.90
	841	--	--	--	0.43	0.72	0.20	0.02	11.6	0.65	0.12	0.01	4.4	1.0
	842	0.20	1.5	0.60	0.60	0.70	0.20	--	37.5	0.90	0.30	--	7.0	3.3
	843	0.28	1.8	2.1	1.2	1.2	0.45	--	51.2	2.3	0.90	1.0	7.1	3.5
	844	4.3	47.8	12.6	10.4	10.4	8.7	0.76	117.4	37.4	18.3	3.0	13.0	65.2
14	845	0.06	--	--	0.37	1.1	0.04	0.06	5.4	0.44	--	--	4.7	0.65
	846	0.40	--	--	0.32	0.90	0.50	0.07	11.0	0.43	0.09	--	6.8	0.72
	847	--	--	--	0.33	0.80	0.04	0.07	8.2	0.39	0.07	--	4.3	0.62
	848	0.12	0.60	0.59	1.0	1.0	0.14	0.10	22.4	0.69	0.21	0.01	6.2	1.8
	849	0.22	--	--	1.0	1.0	0.30	--	39.8	1.0	0.58	--	8.7	4.7
	850	0.11	--	--	1.3	1.1	0.23	--	29.7	0.70	0.43	--	6.8	1.8
16	851	0.06	--	--	0.38	1.6	0.05	0.10	8.2	0.43	0.08	--	6.1	0.92
	852	0.11	--	--	0.40	1.9	0.10	0.04	9.1	0.48	0.13	0.01	3.8	2.0
	853	0.21	--	--	0.80	0.90	0.23	--	41.7	0.71	0.38	--	5.1	3.5
	854	2.7	27.7	21.3	13.1	13.1	10.5	1.2	77.2	43.2	9.5	0.94	28.1	26.8
17	855	0.05	--	--	0.26	0.35	0.40	0.40	4.3	0.31	0.07	0.01	0.39	0.59
	856	0.09	--	--	0.40	1.1	0.16	0.05	20.3	0.67	0.25	0.01	4.8	3.1
	857	--	--	--	0.30	0.53	0.23	0.11	19.5	0.06	0.28	0.02	2.5	3.5
	858	0.19	--	--	1.7	1.4	0.52	--	31.5	2.3	1.2	0.06	7.3	5.2
	859	0.10	--	--	0.26	0.46	0.03	0.04	7.9	0.29	0.05	--	0.88	0.60
	860	0.07	--	--	0.32	0.56	0.05	0.06	5.4	0.05	0.08	0.01	2.5	0.84
18	861	0.03	--	--	0.21	0.32	0.42	--	6.0	0.24	0.07	--	2.2	0.60
	862	0.06	--	--	0.31	0.90	0.08	0.05	10.0	0.06	0.11	0.01	5.0	1.3
	863	0.16	--	--	0.95	0.90	0.20	--	27.0	0.68	0.17	--	6.3	3.4
	865	0.40	2.8	2.5	2.1	2.1	0.83	--	41.4	3.6	3.2	0.18	11.6	8.3
	866	0.03	--	--	0.43	0.49	0.04	0.06	6.8	0.32	0.06	0.01	4.0	0.55
	867	0.06	--	--	0.47	0.59	0.08	0.06	8.1	0.47	0.01	0.01	2.1	0.96
21	868	0.03	--	--	0.37	0.39	0.05	0.05	6.1	0.31	0.07	0.01	2.7	0.77
	869	--	--	--	0.38	0.56	0.06	0.05	5.9	0.48	0.09	0.01	3.7	0.95
	870	0.11	--	--	0.76	0.60	0.14	--	18.6	0.67	0.21	0.01	4.6	2.7
	871	0.18	--	--	0.42	0.50	0.11	--	30.0	0.50	0.18	--	6.2	3.0
	873	2.6	--	--	15.4	10.3	4.9	0.84	10.3	22.1	6.2	1.1	32.4	40.5
	874	0.05	--	--	0.76	0.91	0.06	0.07	8.4	0.41	0.08	0.01	2.4	0.89
23	875	0.04	--	--	0.65	0.81	0.04	0.06	8.1	0.47	0.07	0.01	2.5	0.68
	876	0.08	--	--	0.44	0.40	0.05	0.04	6.5	0.48	0.08	0.01	2.9	0.94
	877	--	--	--	0.32	0.56	0.04	0.06	1.4	0.28	0.05	0.01	3.4	0.49
	878	0.08	--	--	0.66	0.70	0.13	0.07	17.2	0.57	0.18	0.01	5.1	2.2
	879	0.06	--	--	0.75	0.85	0.07	--	15.3	0.29	0.11	--	5.6	0.96

Table 3.--Continued

Station number	Sample number USGS 79	Sample											
		Ag	B	Ba	Be	Ce	Co	Cr	Cu	Ga	La	Mn	Mo
26	880	0.01	2.2	3.0	--	--	0.17	4.9	0.88	0.06	0.13	2.6	0.77
	881	0.01	3.4	4.2	--	--	0.14	1.2	1.2	0.06	0.17	5.3	0.16
	882	0.01	11.2	35.4	--	--	0.73	6.7	4.7	0.26	2.0	140.4	1.3
	883	0.01	0.98	2.3	0.04	1.7	1.6	0.41	1.1	0.14	0.91	4.2	0.14
28	884	--	0.70	5.3	0.06	0.59	0.05	0.62	--	0.17	0.67	3.5	0.02
	885	--	1.7	2.2	--	--	0.11	2.2	0.66	0.05	0.09	2.9	0.38
	886	0.20	4.7	6.8	--	--	0.23	3.6	1.8	0.06	0.27	28.8	0.36
	887	--	4.0	7.9	--	--	2.0	4.1	1.3	--	0.40	2.2	0.60
30	888	--	0.17	0.41	--	--	0.03	0.60	0.20	0.01	0.03	0.36	0.09
	889	0.01	1.1	4.1	--	--	0.11	1.8	1.5	0.05	0.20	9.1	0.19
	890	0.01	0.84	2.9	--	--	0.06	0.96	0.57	0.03	0.14	2.9	0.13
	891	--	5.6	10.0	--	--	0.16	1.1	--	0.05	0.62	28.0	0.24
33	892	--	46.4	314.3	2.2	--	4.5	53.6	17.3	12.1	24.3	242.9	--
	893	--	48.2	354.5	2.5	--	8.5	60.0	17.3	13.6	24.5	381.8	--
	894	--	5.5	4.7	--	--	0.22	1.1	0.80	0.07	0.37	29.8	0.15
	895	0.01	8.4	16.8	--	--	0.15	2.2	1.3	0.21	1.3	298.2	0.13
38	896	--	21.2	133.3	0.88	28.5	0.85	33.3	23.0	6.7	18.5	666.7	--
	897	--	1.7	2.3	--	--	0.05	0.72	0.66	0.05	0.14	1.9	0.09
	898	--	5.0	5.6	--	--	0.18	1.0	1.2	0.05	0.25	6.5	0.06
	899	0.19	40.8	32.3	3.4	100.0	8.5	75.3	84.6	18.5	61.5	169.2	--
40	900	--	0.84	2.5	--	--	0.08	1.1	1.8	0.05	0.14	2.7	0.08
	901	--	0.15	0.47	--	--	0.01	0.13	0.15	0.01	0.24	0.45	0.10
	902	0.01	1.9	2.7	--	--	0.09	0.96	0.80	0.05	0.13	4.9	0.06
	903	--	2.2	4.4	--	--	0.19	0.96	1.6	0.07	0.44	62.5	0.05
42	904	0.01	5.2	24.1	--	--	0.90	0.90	0.96	0.14	--	229.0	0.06
	905	--	42.3	278.6	2.8	--	4.3	43.6	8.6	10.7	14.3	221.4	--
	906	0.01	2.0	6.4	--	--	0.10	0.98	0.88	0.04	0.22	3.1	0.13
	907	0.01	1.8	2.0	--	--	0.18	2.2	2.0	0.04	0.10	1.9	0.09
44	908	--	2.2	5.1	--	--	0.10	7.2	2.2	0.02	0.29	9.5	0.05
	909	0.61	7.0	14.3	--	--	0.20	1.9	3.3	0.15	0.80	197.5	0.11
	910	--	33.6	200.0	--	--	2.1	50.0	35.0	10.0	255.0	300.0	--
	911	0.01	2.0	4.2	--	--	0.08	0.43	1.0	0.06	0.14	3.1	0.05
44	912	0.02	1.9	4.1	--	--	0.12	0.69	1.3	0.09	0.19	2.3	0.06
	913	0.02	2.4	2.8	--	--	0.12	0.89	1.2	0.08	0.17	3.8	0.05
	914	0.01	>17.0	5.4	--	--	0.19	0.75	3.6	0.08	0.34	30.6	0.06
	915	--	>22.0	13.4	0.40	3.5	0.59	1.1	5.9	0.20	1.7	79.1	0.68
44	916	--	44.0	336.4	2.9	--	9.1	33.6	12.7	12.7	21.8	0.68	--

Table 3.--Continued

Station number	Sample number		Nb	Nd	Ni	Pb	Sc	Sn	Sr	V	Y	Yb	Zn	Zr
	USGS	79												
26	880	--	--	--	3.0	0.53	0.04	0.05	4.9	0.33	0.04	--	1.9	0.42
	881	--	--	--	0.80	0.49	0.03	0.05	7.3	0.36	0.06	--	2.9	0.48
	882	0.30	--	--	4.3	0.96	0.29	--	78.7	0.79	0.51	--	13.5	2.7
	883	0.07	0.64	0.22	0.46	0.46	0.20	0.06	2.4	0.53	0.39	0.05	0.42	0.52
28	884	0.22	0.91	0.20	0.34	0.34	0.23	0.08	3.6	0.74	0.43	0.08	0.27	3.9
	885	0.03	--	1.9	0.60	0.60	0.03	0.07	3.2	0.22	0.04	--	1.9	0.04
	886	--	--	1.5	0.19	0.19	0.06	--	19.8	0.32	0.08	--	4.9	0.79
	887	--	--	3.5	0.36	0.36	0.10	0.07	20.8	0.62	0.14	0.01	6.8	1.1
30	888	--	--	--	0.48	0.11	0.01	0.01	0.90	0.05	0.01	--	0.62	0.08
	889	0.03	--	--	0.98	1.4	0.05	0.07	6.8	0.36	0.07	0.00	2.9	0.58
	890	--	--	--	0.50	0.28	0.03	--	9.0	0.19	0.05	0.00	2.0	0.46
	891	--	--	--	0.70	0.20	0.17	--	40.0	0.68	0.24	0.01	5.0	2.0
33	892	7.1	32.1	18.6	15.7	15.7	12.1	4.1	121.4	54.3	12.9	2.1	47.9	0.34
	893	6.5	--	25.5	22.7	22.7	12.7	5.1	145.5	57.3	14.5	3.2	55.5	118.2
	894	0.05	--	0.84	1.1	1.1	0.10	0.04	11.0	0.53	0.14	0.01	1.2	1.3
	895	--	1.7	1.2	0.67	0.67	0.28	--	45.6	0.74	0.33	--	5.6	2.9
38	896	1.7	11.8	7.3	9.1	9.1	7.9	0.82	81.9	26.7	8.2	1.5	6.9	30.8
	897	0.03	--	0.44	0.28	0.28	0.04	0.03	4.0	0.29	0.04	--	1.0	0.41
	898	--	--	0.59	0.65	0.65	0.06	--	14.8	0.27	0.07	--	2.5	--
	899	4.9	76.9	40.8	37.7	37.7	16.9	5.8	123.0	65.4	26.9	4.5	23.1	60.0
40	900	0.03	--	0.70	0.55	0.55	0.04	0.08	6.9	0.17	0.50	--	1.5	0.31
	901	0.01	--	0.72	0.05	0.05	0.01	0.01	0.97	0.04	0.01	--	0.43	0.08
	902	0.03	--	0.60	1.5	1.5	0.03	0.05	5.1	0.26	0.04	--	0.04	0.39
	903	0.06	--	0.75	0.45	0.45	0.13	--	13.1	0.50	0.15	--	3.7	1.4
42	904	--	--	1.4	--	--	0.16	--	40.6	0.43	0.08	--	6.4	1.7
	905	5.1	--	13.6	18.6	18.6	10.0	2.8	92.9	52.9	8.1	1.5	--	114.3
	906	0.04	--	0.67	0.87	0.87	0.05	0.10	10.2	0.39	0.09	0.01	3.6	0.84
	907	--	--	2.2	2.0	2.0	0.03	0.08	5.3	0.27	0.03	--	2.0	0.30
44	908	--	--	28.6	2.5	2.5	0.05	--	12.7	0.26	--	0.01	3.9	0.66
	909	--	--	1.1	0.68	0.68	0.17	--	45.0	0.50	0.28	--	5.5	1.9
	910	10.5	36.4	9.1	18.2	18.2	9.5	3.2	100.0	54.5	18.2	4.5	14.5	95.5
	911	0.04	--	0.33	0.59	0.59	0.06	0.05	6.3	0.41	0.08	0.01	3.8	0.68
44	912	0.05	--	0.42	0.64	0.64	0.04	0.06	6.5	0.40	0.07	--	3.4	0.51
	913	--	--	0.61	2.9	2.9	0.04	0.07	6.3	0.40	0.06	--	4.7	0.55
	914	--	--	0.54	0.46	0.46	0.06	--	16.0	0.36	0.11	--	5.1	1.0
	915	0.11	0.84	1.1	0.90	0.90	0.24	--	30.8	1.1	0.70	0.03	4.4	2.0
44	916	16.4	--	17.3	22.7	22.7	9.1	4.5	163.6	43.6	18.2	4.0	411.8	300.0

Table 3.--Continued

Station number	Sample number USGS 79	Sample											
		Ag	B	Ba	Be	Ce	Co	Cr	Cu	Ga	La	Mn	Mo
48	917	0.01	2.0	3.7	--	--	0.12	0.77	1.2	0.10	0.21	3.1	0.07
	918	0.03	2.3	3.6	--	--	0.13	1.4	3.5	0.09	0.18	3.4	0.05
	919	0.03	3.3	5.1	--	--	0.11	1.3	5.2	0.09	1.8	19.5	0.05
	920	0.03	10.5	18.1	0.05	--	0.35	0.90	8.3	0.39	1.4	105.0	0.83
51	921	--	0.08	0.67	--	--	0.02	0.10	0.25	0.01	0.76	2.2	0.03
	922	0.02	6.6	11.1	0.05	--	0.90	4.2	7.5	0.27	2.0	279.3	0.89
53	923	--	1.5	2.9	0.01	--	0.20	1.1	1.2	0.04	0.47	71.5	0.19
	924	0.02	5.4	4.3	--	--	0.11	2.0	4.1	0.09	0.17	6.4	0.12
	925	0.01	7.0	15.1	--	--	0.30	3.4	7.0	0.10	--	78.4	0.40
	926	--	44.6	300.0	2.2	--	5.8	47.0	21.5	17.0	16.2	292.3	--
55	927	--	3.1	7.9	--	--	0.18	5.9	3.6	0.17	0.49	7.6	0.17
	928	--	0.66	5.0	--	--	0.11	1.2	0.88	0.04	0.19	56.8	0.06
	929	0.16	9.7	72.6	0.70	--	2.7	16.1	22.6	5.0	8.2	209.7	1.0
57	930	0.01	1.1	3.5	--	--	0.09	0.69	1.9	0.06	0.20	4.0	0.07
	931	0.13	55.3	128.9	--	--	2.4	34.2	73.7	1.9	7.6	155.3	2.1
	932	--	2.6	7.5	--	--	0.12	1.1	0.90	0.06	0.24	28.8	3.3
	933	--	14.7	54.9	0.51	11.6	2.1	12.7	29.0	2.9	8.4	77.4	0.90
60	934	0.01	2.7	6.6	--	--	0.17	1.6	4.0	0.10	0.31	5.5	0.13
	935	--	4.6	4.2	0.02	--	0.08	2.9	2.2	0.11	0.56	6.9	0.09
	936	--	2.2	7.1	--	--	0.12	0.77	6.7	0.10	0.52	99.4	0.09
	937	0.01	2.6	7.2	--	--	0.07	0.66	5.0	0.17	0.54	141.1	0.06
62	938	--	6.0	14.3	--	--	0.30	8.8	4.6	0.37	1.2	230.4	0.08
	939	0.01	2.8	7.4	--	--	0.21	1.8	2.2	0.12	0.38	6.2	0.08
	940	--	0.50	1.1	--	--	0.02	0.12	0.20	0.01	0.04	4.4	0.01
	941	0.01	3.1	11.3	--	--	0.14	0.79	1.3	0.15	0.87	120.2	0.03
64	942	--	6.7	22.1	--	--	0.48	2.0	4.8	0.26	1.3	169.9	--
	943	--	51.4	321.4	2.2	--	--	37.9	4.9	7.9	20.0	228.6	--
	944	--	3.1	7.0	--	--	0.14	0.88	3.4	0.08	0.42	6.5	0.11
	945	--	1.8	3.8	--	--	0.27	0.99	2.4	0.08	0.47	5.0	0.10
66	946	--	2.8	6.7	0.01	--	0.14	3.0	2.2	0.05	0.36	23.1	0.06
	947	--	3.2	11.7	--	--	0.18	0.90	1.1	0.12	0.56	86.5	0.06
	948	--	5.5	14.1	0.03	--	0.29	3.3	1.5	0.17	1.1	171.8	0.35
	949	0.01	7.2	27.5	0.14	--	1.1	4.5	4.5	0.63	4.5	369.4	0.41
66	950	--	0.64	1.6	--	--	0.04	0.44	0.64	0.03	0.08	1.7	0.03
	951	0.01	1.2	3.0	--	--	0.09	1.4	1.2	0.06	--	0.60	0.06
	952	--	3.0	10.1	--	--	0.62	2.1	6.5	0.12	0.51	92.0	0.17
	953	0.04	27.6	196.0	1.1	--	3.4	44.0	30.0	9.6	14.0	268.0	--

Table 3.--Continued

Station number	Sample number USGS 79	Sample											
		Nb	Nd	Ni	Pb	Sc	Sn	Sr	V	Y	Yb	Zn	Zr
48	917	0.04	--	0.52	0.92	0.06	7.7	7.1	0.45	0.10	0.01	2.4	0.80
	918	0.04	--	0.68	2.8	0.04	0.07	7.3	0.46	0.07	--	3.3	0.63
	919	--	--	1.1	1.1	0.03	--	7.9	0.35	0.05	--	5.2	0.73
	920	0.14	--	0.05	2.0	0.32	--	35.0	0.86	0.61	--	7.6	2.5
51	921	--	0.08	0.07	0.09	0.01	--	1.2	0.05	0.03	--	0.32	0.06
	922	0.22	--	2.8	8.4	0.48	--	24.6	1.9	0.90	0.04	5.7	3.3
53	923	0.04	--	0.73	0.52	0.09	--	7.5	0.41	0.19	0.01	1.5	0.73
	924	--	--	1.1	0.93	0.05	0.05	83.3	0.56	0.05	0.01	3.5	0.58
	925	0.11	--	2.6	2.0	0.10	0.34	30.8	0.34	0.10	--	9.8	0.81
	926	12.3	--	17.7	25.3	7.5	5.5	123.1	49.2	9.2	3.0	45.4	107.7
55	927	0.10	--	3.8	1.7	0.13	0.11	12.3	0.88	0.20	0.01	6.3	1.4
	928	0.04	--	0.74	1.6	0.04	0.02	10.4	0.20	0.06	--	3.6	0.68
	929	1.8	--	7.4	10.5	4.4	0.87	35.5	15.8	3.9	1.0	9.0	16.1
	930	0.02	--	0.43	1.1	0.05	0.04	6.2	0.35	0.07	--	2.6	0.64
57	931	1.4	--	18.9	14.7	1.8	1.6	205.3	12.6	2.6	0.25	110.5	25.3
	932	--	0.05	0.72	1.2	0.07	0.04	22.4	0.27	0.08	--	4.8	0.56
	933	1.2	--	7.7	7.9	3.2	0.44	43.5	13.2	4.8	0.71	8.7	12.3
	934	0.08	--	0.98	1.2	0.06	0.08	9.8	0.74	0.11	0.01	5.9	1.2
60	935	0.35	--	1.6	0.60	0.24	0.09	13.4	0.82	0.34	0.04	2.2	3.5
	936	0.05	--	0.52	2.7	0.09	0.09	18.2	0.42	0.14	--	4.8	1.5
	937	0.05	--	0.27	0.57	0.17	--	11.6	0.54	0.18	0.01	2.6	2.6
	938	0.36	--	0.50	22.1	0.42	0.16	28.1	1.6	0.51	0.04	6.5	7.4
62	939	0.05	--	0.85	4.3	0.06	0.09	12.8	0.66	0.11	--	4.6	0.81
	940	--	--	0.08	0.11	0.01	0.01	3.2	0.09	0.01	--	0.78	0.09
	941	0.12	--	0.55	1.3	0.16	--	28.8	0.64	0.18	--	7.7	2.6
	942	0.11	--	1.9	1.2	0.23	--	0.35	0.67	0.26	--	8.0	2.3
64	943	12.1	23.5	3.4	13.6	7.9	2.6	142.8	37.1	11.4	2.9	--	257.1
	944	0.06	--	0.70	0.68	0.11	0.10	13.0	0.60	0.17	0.01	5.7	1.7
	945	0.03	--	0.79	0.72	0.08	0.03	9.0	0.47	0.15	0.01	1.6	0.62
	946	0.05	--	1.61	0.62	0.10	0.05	14.3	0.50	0.14	0.01	3.6	1.0
66	947	0.14	--	0.47	0.54	0.15	0.06	21.6	0.67	0.20	0.01	6.1	2.3
	948	0.21	--	2.6	0.44	0.17	--	41.9	0.95	0.37	--	5.1	3.3
	949	0.38	1.7	2.7	1.3	0.95	--	38.3	4.1	2.5	0.15	10.8	9.0
	950	0.01	--	0.38	0.56	0.02	0.03	2.8	0.17	0.03	--	1.7	0.26
66	951	0.04	--	0.80	2.2	0.04	0.04	5.2	0.29	0.06	--	3.4	0.48
	952	--	--	1.8	0.51	0.10	--	0.23	0.33	0.14	--	5.9	0.98
	953	4.8	--	9.2	11.2	10.8	3.6	76.0	34.8	7.6	1.6	6.8	44.0

Table 3.--Continued

Station number	Sample number USGS 79	Sample											
		Ag	B	Ba	Be	Ce	Co	Cr	Cu	Ga	La	Mn	Mo
69	954	--	1.4	2.3	--	--	0.08	1.5	0.55	0.04	0.12	2.3	0.12
	955	--	4.2	7.7	--	--	0.15	1.7	0.98	0.08	0.04	22.4	0.90
	956	--	--	16.3	0.05	--	0.62	2.2	6.2	0.25	2.7	171.8	0.37
	957	--	0.11	4.1	3.4	2.3	0.08	1.2	1.3	0.28	1.2	8.8	--
	958	--	62.7	390.9	--	--	20.9	75.5	41.8	19.1	23.6	490.9	--
70	959	0.01	1.7	3.8	--	--	0.21	5.3	1.7	0.15	0.34	4.5	0.56
	960	--	1.4	3.4	--	--	0.10	2.6	0.88	0.06	0.26	3.4	0.06
	961	--	1.6	4.1	0.03	--	0.10	1.4	1.4	0.05	0.17	49.0	0.06
	962	--	2.1	11.1	1.9	--	1.3	2.9	2.0	0.20	1.3	210.1	0.40
	963	--	19.1	105.7	--	--	4.8	22.9	--	8.6	9.1	409.5	--
74	964	0.01	1.5	3.1	--	--	0.18	1.8	0.80	0.07	0.26	3.8	0.10
	965	0.02	2.2	4.0	--	--	0.13	1.7	1.8	0.08	0.23	2.3	0.09
	966	--	4.5	5.9	--	--	0.12	1.3	1.4	0.06	0.45	23.8	0.14
	967	0.01	5.2	14.2	0.02	--	0.44	1.0	1.8	0.22	1.2	102.0	0.28
	968	--	9.5	27.9	0.29	25.2	1.2	4.4	9.5	0.95	10.9	265.3	0.75
969	--	13.8	104.4	1.0	19.3	2.2	17.8	9.8	4.0	10.7	157.8	--	
75	970	0.01	4.0	6.4	0.02	--	0.21	1.7	1.3	0.07	0.56	33.6	0.09
	971	--	5.1	16.7	--	--	0.45	0.54	--	0.08	--	195.5	0.06
	972	0.03	28.6	70.0	0.50	45.7	2.0	15.7	40.0	3.1	20.0	485.7	4.4
	973	--	54.6	336.4	2.3	--	13.6	52.7	25.5	2.1	21.8	436.4	--
	974	0.01	0.95	2.1	--	--	0.11	1.1	1.3	0.05	0.13	1.7	0.08
79	975	0.01	2.6	4.1	--	--	0.13	1.7	2.2	0.09	0.34	19.8	0.09
	976	0.01	1.6	5.6	--	--	0.10	2.4	--	0.11	0.45	60.8	0.05
	977	0.01	4.9	13.4	--	--	0.29	3.1	2.6	0.33	1.2	85.9	0.35
	978	--	35.6	216.7	--	--	5.6	29.4	--	7.2	14.4	216.7	--
	979	0.01	1.7	2.9	--	--	0.11	1.1	0.70	0.09	0.22	1.5	0.06
81	980	--	0.69	1.2	--	--	0.05	0.46	0.33	0.02	0.05	0.93	0.02
	981	0.01	1.9	4.1	--	--	0.09	1.1	0.88	0.05	0.43	7.0	0.04
	982	--	4.1	13.5	--	--	0.15	1.1	2.0	0.14	0.77	112.9	0.07
	983	--	3.4	15.3	--	--	0.13	0.38	1.9	0.14	0.82	161.8	0.02
	984	--	31.7	222.2	1.6	--	7.2	41.7	15.6	7.8	16.1	338.9	--

Table 3.--Continued

Station number	Sample number		Nb	Nd	Ni	Pb	Sc	Sn	Sr	V	Y	Yb	Zn	Zr
	USGS	79												
69	954	0.04	--	--	0.85	0.60	0.04	0.06	4.1	0.29	0.05	--	1.3	0.42
	955	0.05	0.60	--	2.0	0.76	0.10	0.04	16.8	0.56	0.14	--	3.9	1.1
	956	0.53	--	--	1.6	1.3	0.53	0.24	41.4	1.4	0.84	0.09	4.9	9.7
	957	0.16	0.88	--	0.42	0.56	0.30	0.09	2.8	1.2	0.53	0.11	0.54	1.2
	958	21.8	40.0	42.7	--	32.7	11.8	1.8	163.6	68.2	16.4	3.7	65.5	300.0
70	959	0.07	--	--	3.1	1.5	0.09	0.08	8.1	0.50	0.14	0.02	3.1	0.80
	960	0.03	--	--	7.2	0.88	0.06	0.05	8.8	0.35	0.10	--	3.0	0.73
	961	0.06	--	--	0.90	0.90	0.06	0.05	11.0	0.30	0.08	--	4.4	0.83
	962	0.12	--	--	2.7	0.90	0.18	--	27.3	0.76	0.46	0.01	4.2	2.1
	963	8.1	--	--	7.1	16.7	4.8	3.8	85.7	31.9	16.2	4.4	12.9	95.2
	964	--	--	--	1.3	1.9	0.07	0.09	7.4	0.46	0.09	--	2.3	0.60
	965	0.04	--	--	1.4	1.2	0.06	0.10	7.9	0.44	0.08	--	2.8	0.59
74	966	0.08	--	--	0.70	0.73	0.11	0.09	13.0	0.55	0.18	0.01	5.6	2.0
	967	0.26	--	--	0.66	1.1	0.32	0.14	28.0	1.3	0.46	0.03	5.2	3.6
	968	0.30	10.2	14.9	4.6	2.1	2.2	0.27	34.0	6.3	5.5	0.58	6.6	8.2
	969	4.2	--	--	7.8	8.0	4.4	1.4	48.9	17.3	6.7	1.2	11.0	40.0
	970	0.11	--	--	0.83	1.2	10.1	0.11	19.6	0.71	0.20	0.01	3.6	1.3
	971	0.13	--	--	0.64	--	0.17	0.08	54.5	0.45	0.20	--	8.0	1.9
	972	1.4	14.3	--	7.4	9.1	5.3	1.4	104.3	13.7	7.9	0.71	17.1	15.7
79	973	6.3	--	--	27.3	24.6	10.0	5.6	154.6	51.8	14.6	3.2	61.8	89.1
	974	0.02	--	--	0.80	1.0	0.03	0.03	4.9	0.25	0.03	--	1.4	0.22
	975	0.05	--	--	0.79	1.2	0.09	0.04	9.7	0.45	0.13	0.01	4.5	1.1
	976	0.16	--	--	1.2	1.3	0.11	--	17.6	0.27	0.12	--	4.3	1.4
	977	0.08	--	--	2.2	0.04	0.26	--	22.0	1.0	0.42	--	3.1	2.9
	978	4.2	--	--	13.7	13.7	4.8	2.4	116.7	28.3	8.3	2.4	83.3	88.7
	979	0.05	--	--	0.70	1.1	0.06	0.04	6.3	0.43	0.10	0.01	0.98	0.70
81	980	--	--	--	0.22	0.33	--	0.02	2.3	0.10	0.02	--	1.3	0.16
	981	0.12	--	--	0.61	0.96	0.13	0.07	10.3	0.50	0.22	0.03	3.4	2.0
	982	--	--	--	0.65	2.6	0.19	--	36.1	0.84	0.26	--	7.9	2.4
	983	0.12	0.80	--	0.38	0.61	0.17	--	31.5	0.48	0.25	--	5.7	2.7
	984	3.9	20.0	18.3	13.9	13.9	6.7	3.5	100.0	32.8	10.6	2.0	31.1	94.4

Table 2. Proximate and ultimate analyses and heating value of 74 samples from the Great Heath, Cherryfield, Maine, arranged according to station and depth in core. Type of peat is listed for each sample.

				Proximate analysis				Ultimate analysis							Heating value BTU/lb
Station number	DOE sample number	Type of peat	Depth (feet)	Moisture as received (%)	Moisture free		Ash (%)	Hydrogen (%)	Carbon (%)	Nitrogen (%)	Sulfur (%)	Oxygen (%)			
					Volatile matter (%)	Fixed carbon (%)									
2	K97665	Sphagnum	2 1/2-4	92.7	-	-	0.8	5.3	53.4	0.8	0.2	39.5	8848		
	K97633	Reed-sedge	10 1/2-12	89.7	63.2	32.3	4.5	5.4	59.2	1.5	0.3	29.0	10255		
4	K97634	Sphagnum	6 1/2-8	92.4	69.3	29.3	1.4	5.6	56.2	0.9	0.2	35.7	9532		
	K97635	Reed-sedge	10 1/2-12	87.0	61.6	30.6	7.8	5.5	57.7	2.0	0.6	26.5	10111		
6	K97636	Sphagnum	6 1/2-8	93.3	72.7	26.3	1.0	5.3	53.8	0.7	0.3	38.9	8992		
	K97637	Sphagnum	14 1/2-16	93.2	71.0	27.7	1.3	5.5	54.6	0.7	0.2	37.8	9015		
	K97638	Reed-sedge	26-27	90.6	66.3	29.0	4.7	5.6	56.1	1.5	0.4	31.8	9575		
7	K97639	Sphagnum	10 1/2-12	94.4	74.9	24.3	0.8	5.6	52.9	0.6	0.1	40.0	9803		
	K97640	Sphagnum	18 1/2-20	92.3	65.9	31.2	2.9	5.4	56.5	0.9	0.2	34.1	9325		
	K97641	Reed-sedge	20 1/2-	90.3	67.1	29.7	3.2	5.6	58.0	1.4	0.2	31.6	9682		
			21 1/2												
9	K97642	Sphagnum	6 1/2-8	92.8	68.9	29.7	1.4	5.5	56.1	1.1	0.3	35.6	9292		
	K97643	Sphagnum	14 1/2-16	88.9	67.2	31.3	1.5	5.5	57.7	1.1	0.2	34.0	9646		
11	K97644	Sphagnum	2 1/2-4	92.8	72.0	27.1	0.9	5.5	54.5	0.7	0.2	38.2	8967		
	K97645	Sphagnum	10 1/2-12	93.3	70.3	28.4	1.3	5.3	54.7	0.6	0.2	38.1	8985		
	K97646	Reed-sedge	18 1/2-20	91.8	64.2	32.3	3.5	5.5	57.5	1.4	0.3	31.8	9811		
14	K97647	Sphagnum	6 1/2-8	93.3	69.0	30.2	0.8	5.2	56.6	0.8	0.2	36.5	9364		
	K97548	Sphagnum	14 1/2-16	90.2	67.9	30.9	1.2	5.6	57.8	1.1	0.2	34.1	9399		
16	K97650	Sphagnum	10 1/2-12	91.2	65.1	32.4	2.5	5.4	58.8	1.0	0.2	32.1	9887		
17	K97651	Sphagnum	2 1/2-4	90.4	67.7	31.5	0.8	5.6	56.7	0.8	0.2	35.9	9502		
	K97652	Reed-sedge	10 1/2-12	89.5	65.5	30.8	3.7	4.8	60.4	1.1	0.2	29.8	10275		

Table 2 (cont'd)

				Proximate analysis				Ultimate analysis						Heating value BTU/lb
Station number	DOE sample number	Type of peat	Depth (feet)	Moisture as received (%)	Moisture free		Ash (%)	Hydrogen (%)	Carbon (%)	Nitrogen (%)	Sulfur (%)	Oxygen (%)		
					Volatile matter (%)	Fixed carbon (%)								
48	K97679	Sphagnum	2 1/2-4	92.8	73.6	26.4	0.6	5.5	52.5	0.7	0.2	40.4	8794	
	K97680	Sphagnum	10 1/2-12	93.4	72.0	27.2	0.8	5.5	53.2	0.6	0.2	39.7	9115	
57	K97685	Sphagnum	5	93.9	72.6	26.7	0.7	5.4	53.1	0.8	0.3	39.8	8964	
	K97686	Sphagnum	13	95.0	69.5	29.1	1.4	5.3	54.2	0.7	0.2	38.3	9053	
60	K97687	Sphagnum	5	94.7	71.2	27.7	1.1	5.3	54.1	1.1	0.2	38.0	9051	
	K97688	Reed-seed	9	89.6	66.2	32.2	1.6	5.0	59.3	1.1	0.2	32.7	10072	
	K97689	Reed-seed	13	95.0	70.6	28.2	1.2	-	-	0.5	0.2	-	8787	
62	K97690	Sphagnum	5	93.8	73.8	25.6	0.6	5.3	52.5	0.5	0.2	40.7	8676	
	K97691	Sphagnum	13	95.1	67.8	31.0	1.2	5.3	54.6	0.6	0.2	38.1	9035	
64	K97692	Sphagnum	5	93.4	70.7	28.4	0.9	5.7	53.8	0.8	0.2	38.5	9018	
	K97693	Reed-seed	13	94.5	68.3	29.8	1.9	5.4	54.3	0.7	0.2	37.6	9000	
66	K97694	Sphagnum	5	92.9	71.4	27.8	0.8	5.8	54.9	1.1	0.1	37.2	9426	
69	K97695	Sphagnum	5	94.6	73.7	25.4	0.9	5.3	53.3	0.7	0.1	39.7	8862	
	K97696	Reed-seed	13	90.6	63.7	32.3	4.0	5.2	60.5	1.3	0.2	28.8	10417	
70	K97697	Sphagnum	5	94.2	72.1	26.5	1.4	5.5	51.8	0.6	0.1	40.5	8620	
	K97698	Sphagnum	13	94.6	71.6	27.3	1.1	5.3	53.5	0.6	0.1	39.3	8838	
74	K97699	Sphagnum	5	93.7	71.6	27.4	1.0	5.6	52.6	0.8	0.2	39.8	8760	
	K97700	Sphagnum	13	93.9	68.3	30.4	1.3	-	-	0.8	0.2	-	9221	
	K97701	Reed-seed	21	92.4	61.8	31.5	6.7	5.5	56.3	2.2	0.4	28.9	9796	
75	K97702	Sphagnum	5	92.3	67.5	31.1	1.4	5.3	51.1	0.7	0.2	37.3	9686	
	K97703	Reed-seed	13	90.8	61.3	31.2	7.5	5.3	56.6	1.8	0.5	28.3	9765	
79	K97704	Sphagnum	5	94.5	72.6	26.5	0.9	5.3	52.8	0.6	0.2	40.2	8634	
	K97705	Sphagnum	13	93.6	71.4	27.0	1.6	-	-	0.7	0.2	-	9140	
81	K97706	Sphagnum	5	93.4	71.7	27.4	0.9	5.4	54.1	0.7	0.2	38.8	8991	
	K97707	Sphagnum	13	93.5	68.8	29.0	2.2	5.6	54.6	0.8	0.2	36.7	9167	

Table 2 (cont'd)

				Proximate analysis				Ultimate analysis							Heating value BTU/lb
Station number	DOE sample number	Type of peat	Depth (feet)	Moisture as received (%)	Moisture free			Hydrogen (%)	Carbon (%)	Nitrogen (%)	Sulfur (%)	Oxygen (%)			
					Volatile matter (%)	Fixed carbon (%)	Ash (%)								
													Moisture free		
19	K97653	Sphagnum	6 1/2-8	93.0	73.0	26.5	0.5	5.5	54.4	0.6	0.2	38.7	9029		
	K97654	Sphagnum	14 1/2-16	93.0	68.1	30.4	1.5	5.3	56.7	0.7	0.2	35.7	9309		
	K97655	Reed-sedge	20 1/2-21	90.1	69.1	28.4	2.5	5.9	59.0	1.4	0.2	30.9	10319		
21	K97656	Sphagnum	2 1/2-4	93.4	73.3	25.8	0.9	5.5	53.5	1.0	0.2	38.9	8798		
	K97657	Sphagnum	10 1/2-12	93.8	72.3	27.1	0.6	5.4	53.8	0.6	0.2	39.4	8850		
	K97658	Sphagnum	18 1/2-20	92.9	-	-	1.4	-	-	-	0.2	-	9323		
	K97659	Reed-sedge	26 1/2-27	89.5	65.6	29.9	4.5	5.7	57.9	1.6	0.4	29.9	10046		
23	K97660	Sphagnum	6 1/2-8	92.9	70.9	28.4	0.7	5.2	54.6	0.8	0.2	38.5	9053		
	K97661	Sphagnum	14 1/2-16	92.8	68.3	30.6	1.1	5.3	56.4	0.9	0.2	36.2	9434		
	K97662	Reed-sedge	22 1/2-24	93.2	69.4	28.9	1.7	-	-	0.8	0.2	-	9160		
26	K97663	Sphagnum	5	94.8	73.0	26.2	0.8	5.3	52.8	0.9	0.1	40.0	8795		
28	K97664	Sphagnum	9	95.2	72.7	26.3	1.0	5.4	52.7	0.6	0.2	40.1	8774		
30	K97666	Sphagnum	5	91.9	72.6	26.8	0.6	5.7	55.2	1.0	0.2	37.3	9363		
	K97667	Sphagnum	13	93.9	70.7	28.1	1.2	5.4	54.3	0.6	0.2	38.4	8951		
33	K97668	Reed-sedge	9	82.0	63.3	33.0	3.7	5.2	57.6	1.1	0.2	32.2	9761		
38	K97669	Sphagnum	5	92.4	71.9	27.2	0.9	5.5	54.5	0.9	0.2	38.1	9037		
40	K97670	Sphagnum	5	94.2	74.1	25.4	0.5	5.4	52.6	0.7	0.2	40.5	8733		
	K97671	Sphagnum	13	93.2	69.6	29.1	1.3	5.5	55.5	0.9	0.2	36.6	9312		
	K97672	Sphagnum	21	94.5	67.2	29.8	3.0	-	-	0.8	0.2	-	9215		
42	K97673	Sphagnum	5	94.4	71.8	27.3	0.9	5.3	53.6	0.7	0.2	39.2	8790		
	K97674	Sphagnum	13	94.9	72.6	26.0	1.4	5.1	53.4	0.6	0.2	39.1	8695		
44	K97675	Sphagnum	2 1/2-4	92.8	73.6	25.7	0.7	5.3	52.1	0.7	0.2	40.9	8723		
	K97676	Sphagnum	10 1/2-12	93.0	72.4	26.9	0.7	5.3	54.1	0.8	0.2	38.9	9008		
	K97677	Reed-sedge	14 1/2-16	92.0	66.9	31.7	1.4	5.4	56.8	0.9	0.2	35.3	9505		
	K97678	Reed-sedge	18 1/2-20	92.2	65.0	32.1	2.9	5.4	57.2	1.2	0.2	33.1	9465		