BIOGEOCHEMISTRY OF SELECTED PLANT MATERIALS, ALASKA

BY

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INTRODUCTION

In 1975 an informal program was initiated to survey the geochemistry of soils and surficial materials of the State of Alaska (Gough and others, 1984; Gough, Severson, and Shacklette, 1988). This effort was prompted by the success of a series of regional (broad-scale) geochemical reports on surficial materials for the conterminous United States which were published by Shacklette and coworkers in the early 1970's (Shacklette and others, 1971a, 1971b, 1973, and 1974). The principal objectives of both the conterminous U.S. and the Alaska studies were to (1) estimate central tendency and typical ranges for chemical element abundance in soils and other surficial materials, and (2) present element concentration maps which display broad patterns that may or may not be interpretable at various geographical scales.

Between 1973 and 1981 the Alaska effort progressed slowly on a non-funded, time-available basis. In 1982 and 1983, however, some funds were made available through the USGS Energy Lands and Alaska Mineral Surveys programs which allowed the field-work phase to be completed.

Through a coordinated protocol, samples of surficial materials were collected by numerous individuals as they visited their study areas throughout the state. Although the major emphasis of the study was the geochemical characterization of surficial materials, plant materials were also collected at a majority of these sites. This report presents the concentration of 32 chemical elements and ash yield in the numerous different plant material types that were collected. The methodology used to collect, store, and prepare the samples was uniform and although collected over a 10-year period, the samples were analyzed at one time in a randomized order. This makes it possible, in future reports, to look for element distribution patterns on a broad regional scale.

ACKNOWLEDGMENTS

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SAMPLE COLLECTION, PREPARATION, AND ANALYSIS

About 40 percent of the samples were collected by the authors, the remaining by volunteers; therefore, a sampling plan was designed that required a minimum of effort for these individuals. Actual sampling sites were selected to represent a "typical" landscape unit (e.g., tundra, boreal forest, riparian forest, etc.) but to avoid areas of known mineralization or anthropogenic contamination. The dominant vascular plant species collected at each site (reported here) was in addition to the surficial material sample also collected (Gough, Severson, and Shacklette, 1988). All samples were to be collected at least 100 m from the nearest road.

In a very few instances woody species were not available and a non-woody (herbaceous) vascular species was collected. For example, some of the unidentified mixed vegetation samples (Table 1) were herbaceous. In areas of Alaska south of the tree limit, *Picea glauca* (white spruce), *P. mariana* (black spruce), *Alnus* (alder) and *Betula* (birch) species, and numerous species of *Salix* (willow) were most commonly collected. North of the tree limit a mixture of species made up the samples and included mostly willows, birches, *Empetrum nigrum* (crowberry), *Ledum decumbens* (Labrador tea), and several herbaceous species that were unidentifiable (labeled as "unspecified", table 1).

In the field, samples always consisted of the stem and leaf material composited from several branches of one plant. The material was placed in paper sacks, rather than plastic bags, to permit partial air drying before being shipped to the Denver Laboratories of the U.S. Geological Survey.

In the laboratory, damp plant material was further dried in a forced-air oven at ambient temperature. Extraneous non-uniform plant material was removed; however, none of the material was washed. In some instances a very small amount of leaf/needle material was present either because of the time of year the sample was collected or because of excessive leaf/needle drop. For these samples all leaf/needle material was removed and only the stems were processed for analysis (see sample description, table 1).

The dried plant material was ground in a Wiley mill (to pass a 1.3 mm screen), and a portion of the material was ashed in a muffle furnace at 500°C. The concentrations of Hg, total S, and Se were determined on the un-ashed dried material as follows: (1) Hg (reduced in solution using stannous chloride), determined by cold-vapor atomic absorption spectrophotometry (Harms, 1976); (2) total sulfur, determined turbidimetrically using the method of Tabatabia and Bremner (1970), and (3) Se, determined by fluorometry (Harms and Ward, 1975). Concentrations of all other chemical elements were measured using a 63 channel direct-reading inductively coupled plasma-optical emission spectrometer (ICP-OES) by the following method: A measured (0.1 g) amount of plant ash was fused (400°C for 10 minutes) with 1 g of potassium hydroxide in a vitreous-carbon crucible. The fusion cake was then dissolved in 25 ml of 30 percent nitric acid to affect a solution-to-sample dilution of 250:1. This solution was then aspirated directly into the ICP-OES.

RESULTS

Figure 2 is a map showing the location and distribution of the sampling sites and field identification numbers for the plant samples collected. For each plant sample, table 1 lists a generalized field identifier, a unique laboratory number, the date the sample was collected, the name and number of the 1:250,000-scale topographic map from which the sample was collected (Fig. 1), and a description of the material submitted for analysis. The following gives the common, scientific, and family names for plants listed in this report (nomenclature follows Hulten, 1968):

Alder, *Alnus crispa* (Ait.) Pursh, *A. incana* (L.) Moench., and *A. crispa* ssp. *sinuata* (Regel) Hult., (Betulaceae).
Black spruce, *Picea mariana* (Mill.) Britt., Sterns, and Pogg., (Pinaceae).
Blueberry, *Vaccinium uliginosum* L., (Ericaceae).
Cassiope, *Cassiope tetragona* (L.) D. Don, (Ericaceae).
Copper-flower, *Cladothamnus pyrolaeflorus* Bong., (Ericaceae).
Crowberry, *Empetrum nigrum* L., (Empetraceae).
Dwarf birch, *Betula nana* L. and *B. glandulosa* Michx., (Betulaceae).
Labrador tea, *Ledum palustre* L., (Ericaceae).
Paper birch, *Betula papyrifera* Marsh., (Betulaceae).
Sitka spruce, *Picea sitchensis* (Bong.) Carr., (Pinaceae).
Western hemlock *Tsuga heterophylla* (Raf.) Sarg., (Pinaceae).
White spruce, *Picea glauca* (Moench.) Voss, (Pinaceae).
Willow, *Salix* sp., (Salicaceae).

Table 2 lists the generalized field identifier, specific laboratory number, north latitude and west longitude (in degrees minutes and seconds), and concentrations of 32 elements and percent ash yield for 278 plant material samples. Chemical element concentration data is not given for elements with 100 percent of the values reported below the lower limit of analytical determination.

The laboratory numbers used in table 2 give the following information: (1) the prefix AC identifies the material as being part of this study; (2) the numbers 001 through 266 are the actual site numbers; (3) the suffix A-E identifies the number of collections at that site; and (4) the last digit, 1 or 2, is used to represent laboratory sample splits for the estimation of laboratory error.

This report gives only the element content, as reported by the analysts, of each sample of plant material. Statistical evaluations of these analyses have not yet been performed. The analyses of the plant material can be used to estimate the concentrations of elements existing in an available form for biogeochemical cycling and soil enrichment at the site.

USE OF THE DATA

This compilation answers the requests of those who wish to have the analytical results for specific plant species or sites. It precedes any interpretive reports using statistical techniques that may follow. Any correspondence between element concentrations in the plant material and in surficial materials from the same site can be determined by comparing these data with those from the soils (Gough and others, 1984). At the very least these data provide a basis for assessing what might be considered "typical" of chemical element concentrations, for a variety of plant species, from throughout Alaska.

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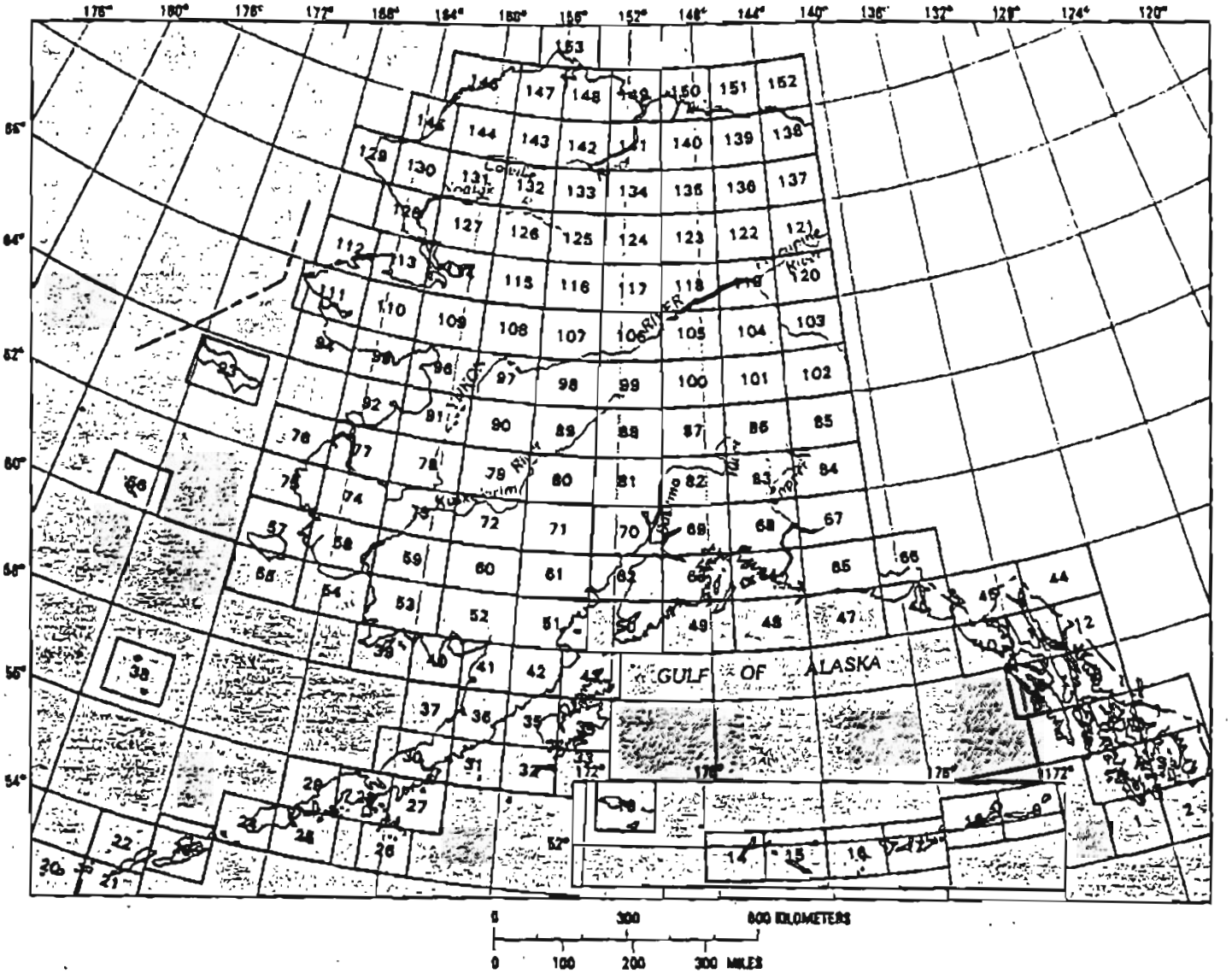

1 Dixon Entrance
2 Prince Rupert
3 Ketchikan
4 Craig
5 Port Alexander
6 Petersburg
7 Bradfield Canal
8 Sumdum
9 Sitka
10 Mt. Fairweather
11 Juneau
12 Taku River
13 Attu
14 Kiska
15 Rat Islands
16 Gareloi Island
17 Adak
18 Atka
19 Seguam
20 Amukta
21 Samalga Island
22 Umnak
23 Unalaska
24 Unimak
25 False Pass
26 Simeonof Island
27 Stepovak Bay
28 Port Moller
29 Cold Bay
30 Chignik
31 Sutwik Island
32 Trinity Islands
33 Kaguyak
34 Kodiak
35 Karluk
36 Ugashik
37 Bristol Bay
38 Pribilof Islands
39 Hagemeister Island
40 Nushagak Bay
41 Naknek
42 Mt. Katmai
43 Afognak
44 Atlin
45 Skagway
46 Yakutat
47 Icy Bay
48 Middleton Island
49 Blying Sound
50 Seldovia
51 Iliamna
52 Dillingham
53 Goodnews
54 Kuskokwim Bay
55 Cape Mendenhall
56 St. Matthew
57 Nunivak Island
58 Baird Inlet
59 Bethel
60 Taylor Mts.
61 Lake Clark
62 Kenai
63 Seward
64 Cordova
65 Bering Glacier
66 Mt. St. Elias
67 McCarthy
68 Valdez
69 Anchorage
70 Tyonek
71 Lime Hills
72 Sleetmute
73 Russian Mission
74 Marshall
75 Hooper Bay
76 Black
77 Kwiguk
78 Holy Cross
79 Iditarod
80 McGrath
81 Talkeetna
82 Talkeetna Mts.
83 Gulkana
84 Nabesna
85 Tanacross
86 Mt. Hayes
87 Healy
88 Mt. McKinley
89 Medfra
90 Ophir
91 Unalakleet
92 St. Michael
93 St. Lawrence
94 Nome
95 Solomon
96 Norton Bay
97 Nulato
98 Ruby
99 Kantishna River
100 Fairbanks
101 Big Delta
102 Eagle
103 Charley River
104 Circle
105 Livengood
106 Tanana
107 Melozitna
108 Kateel River
109 Candle
110 Bendeleben
111 Teller
112 Shishmaref
113 Kotzebue
114 Selawik
115 Shungnak
116 Hughes
117 Bettles
118 Beaver
119 Fort Yukon
120 Black River
121 Coleen
122 Christian
123 Chandalar
124 Wiseman
125 Survey Pass
126 Ambler River
127 Baird Mts.
128 Noatak
129 Point Hope
130 DeLong Mts.
131 Misheguk Mts.
132 Howard Pass
133 Killik River
134 Chandler Lake
135 Philip Smith Mts.
136 Arctic
137 Table Mtn.
138 Demarcation Point
139 Mt. Michelson
140 Sagavanirktok
141 Umiat
142 Ikpikpuk River
143 Lookout Ridge
144 Utukok River
145 Point Lay
146 Wainwright
147 Meade River
148 Teshekpuk
149 Harrison Bay
150 Beechey Point
151 Flaxman Island
152 Barter Island
153 Barrow

From Orth, 1967

Figure 1.--Location of 1:250,000-scale topographic maps, Alaska.

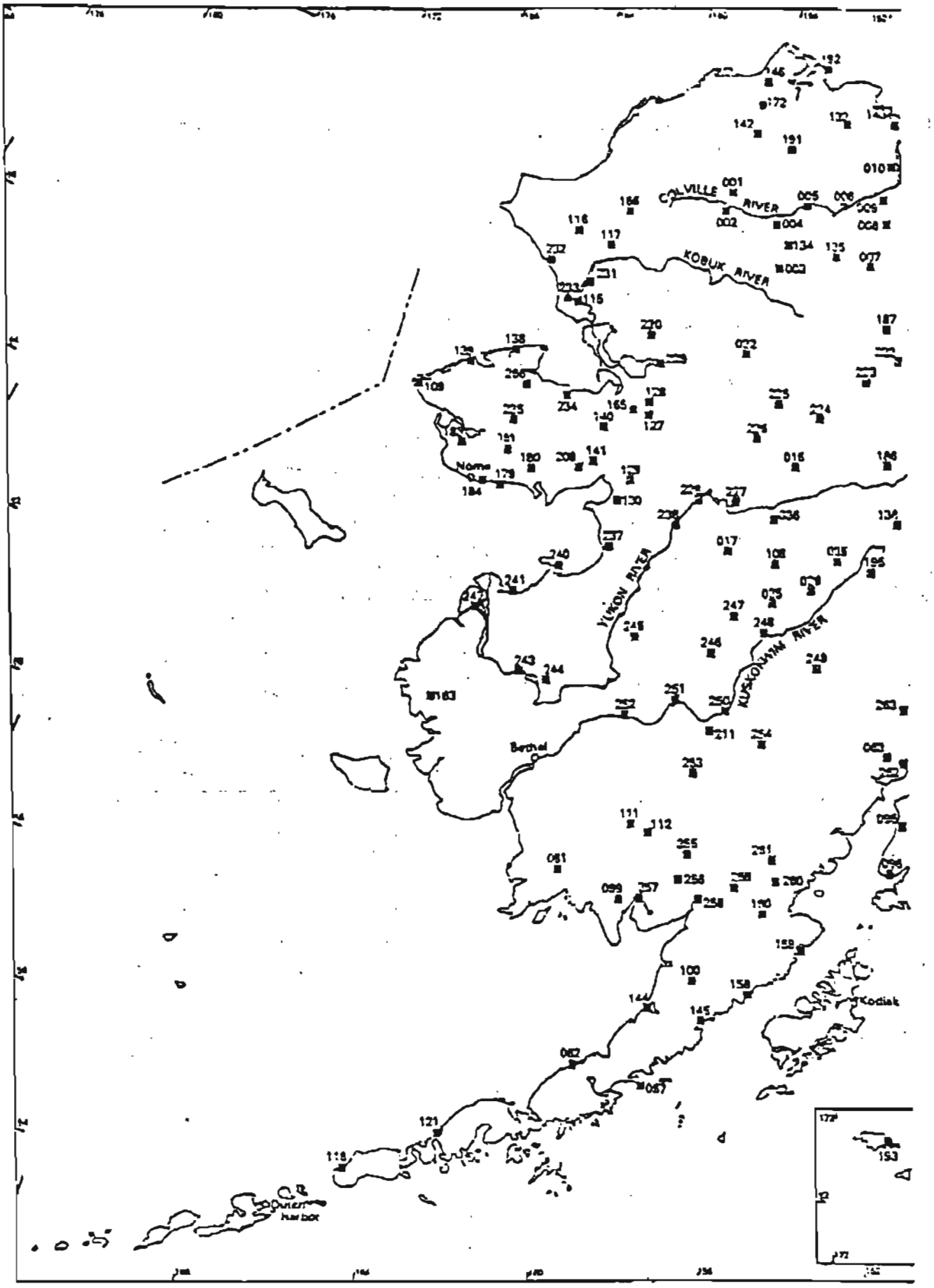

Figure 2.--Sampling sites and sample identification numbers for plant material samples, Alaska.

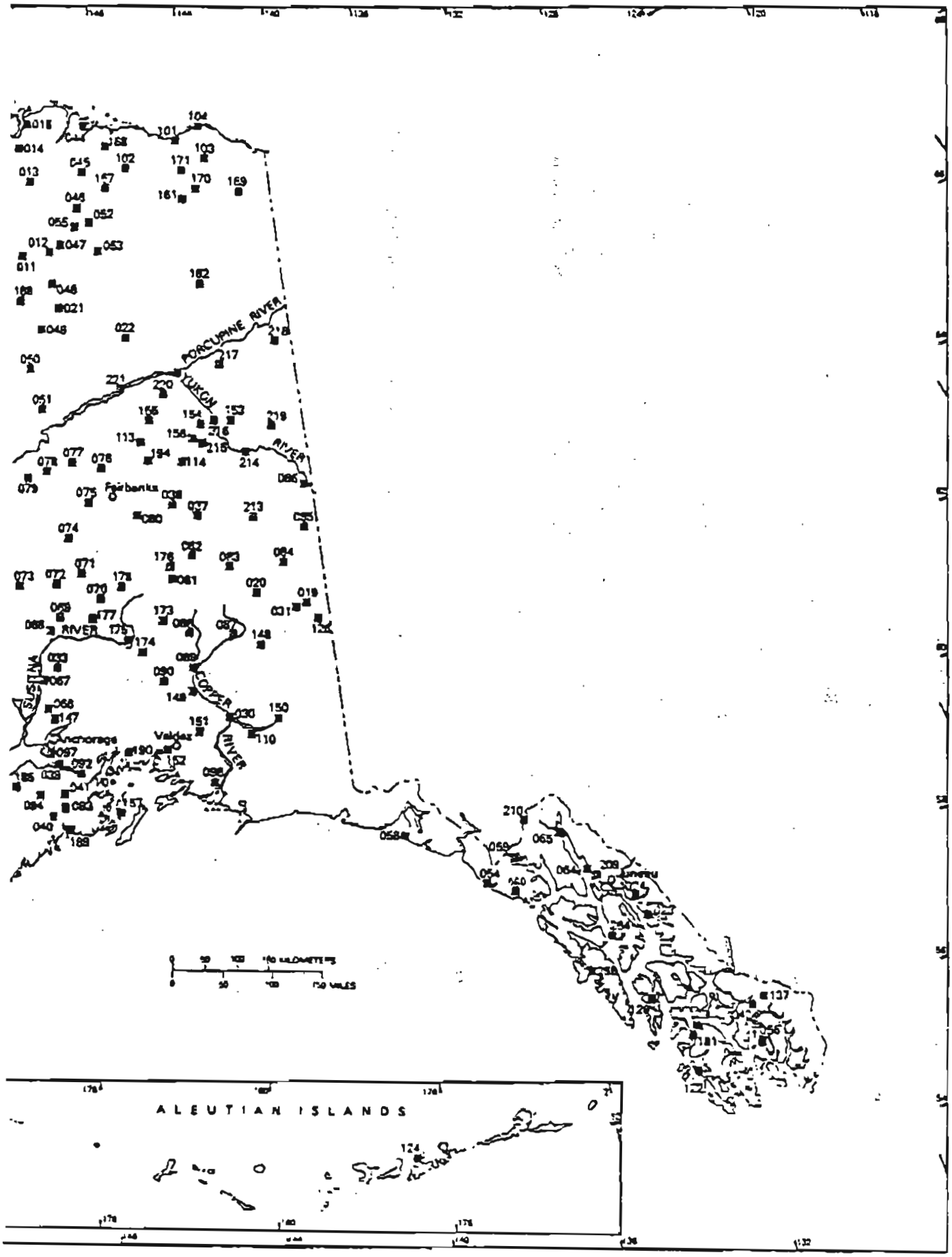
PORCUPINE RIVER
YUKON
RIVER
Fairbanks
RIVER
SUSITNA
COPPER
RIVER
Anchorage
Valdez
Juneau
ALEUTIAN ISLANDS

Table 1.--Sample identification codes, date of collection, map name and number (see fig. 1), and type of plant material in sample

Field ID	Lab. No.	Date Colln.	Map Name	Map No.	Sample Description
ALNUS (Alder)					
ALN-CRI	AC063A1	8/78	Tyonek	70	*Alnus crispa* stems & leaves
ALN-CRI	AC100A1	7/79	Ugashik	36	A. crispa stems
ALN-CRI	AC130A1	Sum./79	Norton Bay	96	A. crispa stems & leaves
ALN-CRI	AC175A1	8/80	Talkeetna Mts.	82	A. crispa stems
ALN-CRI	AC195A1	8/81	Mt. McKinley	88	A. crispa stems & leaves
ALN-CRI	AC229A1	6/82	Selawik	114	A. crispa stems
ALN-CRI	AC240A1	do.	St. Michael	92	do.
ALN-CRI	AC244A1	do.	Marshall	74	do.
ALN-CRI	AC252A1	do.	Russian Mission	73	do.
ALN-CRI	AC257A1	do.	Dillingham	52	do.
ALN-INC	AC025A1	7/75	Medfra	89	A. incana stems
ALN-INC	AC026A1	8/75	do.	89	do.
ALN-INC	AC026A2	do.	do.	89	do.
ALN-INC	AC036A1	do.	Ruby	98	do.
ALN-SIN	AC057A1	6/77	Sutwik Island	31	A. sinuata stems
ALN-SIN	AC068A1	6/79	Talkeetna Mts.	82	do.
ALN-SIN	AC084A1	do.	Tanacross	85	A. sinuata stems & leaves
ALN-SIN	AC087A1	do.	Gulkana	83	do.
ALN-SIN	AC189A1	6/81	Blying Sound	49	do.
BETULA (Birch)					
BET-GLA	AC019B1	8/74	Tanacross	85	Betula glandulosa stems
BET-GLA	AC046B1	7/76	Sngavanirktok	140	do.
BET-GLA	AC047B1	do.	Philip Smith Mts.	135	do.
BET-GLA	AC048A1	do.	Chandalar	123	do.
BET-GLA	AC078A1	6/78	Livengood	105	B. glandulosa stems & leaves
BET-GLA	AC173A1	8/80	Gulkana	83	B. glandulosa stems
BET-GLA	AC174A1	do.	do.	83	do.
BET-GLA	AC180A1	9/80	Soloman	95	B. glandulosa stems & leaves
BET-GLA	AC180A2	do.	do.	95	B. glandulosa stems
BET-GLA	AC266A1	6/82	Bendeleben	110	do.
BET-NAN	AC115A1	8/79	Noatak	128	B. nana stems
BET-NAN	AC116A1	do.	DeLong Mts.	130	do.
BET-NAN	AC117A1	do.	do.	130	do.
BET-NAN	AC140A1	do.	Candle	109	do.
BET-NAN	AC141A1	do.	do.	109	do.
BET-NAN	AC165A1	8/80	do.	109	B. nana stems & leaves
BET-NAN	AC179A1	9/80	Soloman	95	B. nana stems
BET-NAN	AC183A1	10/80	Nome	94	do.
BET-NAN	AC186A1	8/81	Tanana	106	B. nana stems & leaves
BET-PAP	AC017A1	8/74	Nulato	97	B. papyrifera stems
BET-PAP	AC049A1	7/76	Wiseman	124	do.
BET-PAP	AC050A1	do.	Bettles	117	do.
BET-SPP	AC184A1	10/80	Nome	94	B. sp. stems

Table 1.--continued.

Field ID	Lab. No.	Date Colln.	Map Name	Map No.	Sample Description
PICEA (Spruce)					
PIC-GLA	AC021A1	7/75	Chandalar	123	Picea glauca stems & leaves
PIC-GLA	AC022A1	do.	do.	123	do.
PIC-GLA	AC030A1	6/75	Valdez	68	do.
PIC-GLA	AC031A1	7/75	Tanacross	85	do.
PIC-GLA	AC048B1	7/76	Chandalar	123	do.
PIC-GLA	AC049B1	do.	Wiseman	124	do.
PIC-GLA	AC066A1	6/79	Anchorage	69	do.
PIC-GLA	AC069A1	do.	Healy	87	do.
PIC-GLA	AC069A2	do.	do.	87	do.
PIC-GLA	AC070A1	do.	do.	87	do.
PIC-GLA	AC070A2	do.	do.	87	do.
PIC-GLA	AC071A1	do.	do.	87	do.
PIC-GLA	AC071A2	do.	do.	87	do.
PIC-GLA	AC073A1	do.	Mt. McKinley	88	do.
PIC-GLA	AC074A1	6/70	Fairbanks	100	do.
PIC-GLA	AC075A1	do.	do.	100	do.
PIC-GLA	AC077A1	do.	Livengood	105	do.
PIC-GLA	AC077A2	do.	do.	105	do.
PIC-GLA	AC079A1	6/79	Tanana	106	do.
PIC-GLA	AC080A1	do.	Big Delta	101	do.
PIC-GLA	AC080A2	do.	do.	101	do.
PIC-GLA	AC081A1	do.	Mt. Hayes	86	do.
PIC-GLA	AC081A2	do.	do.	86	do.
PIC-GLA	AC083A1	do.	do.	86	do.
PIC-GLA	AC083A2	do.	do.	86	do.
PIC-GLA	AC086A1	do.	Eagle	102	do.
PIC-GLA	AC086A2	do.	do.	102	do.
PIC-GLA	AC089A1	do.	Gulkana	83	do.
PIC-GLA	AC090A1	do.	do.	83	do.
PIC-GLA	AC090A2	do.	do.	83	do.
PIC-GLA	AC091A1	do.	Anchorage	69	do.
PIC-GLA	AC094A1	do.	Kenai	62	do.
PIC-GLA	AC095A1	do.	do.	62	do.
PIC-GLA	AC095A2	do.	do.	62	do.
PIC-GLA	AC097A1	do.	Anchorage	69	do.
PIC-GLA	AC108A1	do.	Hedira	89	do.
PIC-GLA	AC110A1	7/79	McCarthy	67	do.
PIC-GLA	AC110A2	do.	do.	67	do.
PIC-GLA	AC111A1	8/79	Taylor Mtn.	60	do.
PIC-GLA	AC112A1	do.	Dillingham	52	do.
PIC-GLA	AC113A1	do.	Circle	104	do.
PIC-GLA	AC114A1	10/79	do.	104	do.
PIC-GLA	AC126A1	Sum./79	Nebesna	84	do.
PIC-GLA	AC136A1	6/79	Kantishna River	99	do.
PIC-GLA	AC136A2	do.	do.	99	do.
PIC-GLA	AC147A1	8/80	Anchorage	69	do.
PIC-GLA	AC148A1	do.	Nabesna	84	do.
PIC-GLA	AC148A2	do.	do.	84	do.
PIC-GLA	AC149A1	do.	Valdez	68	do.

Table 1.--continued.

Field ID	Lab. No.	Date Colln.	Map Name	Map No.	Sample Description
PIC-GLA	AC150A1	do.	McCarthy	67	Picea glauca stems & leaves
PIC-GLA	AC151A1	do.	Valdez	68	do.
PIC-GLA	AC154A1	7/80	Circle	104	do.
PIC-GLA	AC155A1	do.	do.	104	do.
PIC-GLA	AC185A1	10/80	Kenai	62	do.
PIC-GLA	AC187A1	7/81	Wiseman	124	do.
PIC-GLA	AC188A1	do.	do.	124	do.
PIC-GLA	AC208A1	8/81	Soloman	95	do.
PIC-GLA	AC213A1	6/82	Eagle	102	do.
PIC-GLA	AC214A1	do.	Charley River	103	do.
PIC-GLA	AC215A1	do.	Circle	104	do.
PIC-GLA	AC216A1	do.	do.	104	do.
PIC-GLA	AC217A1	do.	Black River	120	do.
PIC-GLA	AC218A1	do.	do.	120	do.
PIC-GLA	AC218A2	do.	do.	120	do.
PIC-GLA	AC219A1	do.	Charley River	103	do.
PIC-GLA	AC220A1	do.	Fort Yukon	119	do.
PIC-GLA	AC221A1	do.	Beaver	118	do.
PIC-GLA	AC222A1	do.	Bettles	117	do.
PIC-GLA	AC223A1	do.	do.	117	do.
PIC-GLA	AC224A1	do.	Hughes	116	do.
PIC-GLA	AC225A1	do.	do.	116	do.
PIC-GLA	AC226A1	do.	Kateel River	108	do.
PIC-GLA	AC227A1	do.	Nultao	97	do.
PIC-GLA	AC228A1	do.	do.	97	do.
PIC-GLA	AC230A1	do.	Selawik	114	do.
PIC-GLA	AC231A1	do.	Noatak	128	do.
PIC-GLA	AC238A1	do.	Nulato	97	do.
PIC-GLA	AC243A1	do.	Marshall	24	do.
PIC-GLA	AC246A1	do.	Iditarod	79	do.
PIC-GLA	AC248A1	do.	McGrath	80	do.
PIC-GLA	AC249A1	do.	do.	80	do.
PIC-GLA	AC249A2	do.	do.	80	do.
PIC-GLA	AC250A1	do.	Sleetmute	72	do.
PIC-GLA	AC253A1	do.	Taylor Mtns.	60	do.
PIC-GLA	AC254A1	do.	Lime Hills	71	do.
PIC-GLA	AC256A1	do.	Dillingham	52	do.
PIC-GLA	AC258A1	do.	do.	52	do.
PIC-GLA	AC259A1	do.	Iliamna	51	do.
PIC-GLA	AC259A2	do.	do.	51	do.
PIC-GLA	AC260A1	do.	do.	51	do.
PIC-GLA	AC262A1	do.	Tyonek	70	do.
PIC-GLA	AC263A1	do.	Tyonek	70	do.
PIC-MAR	AC016A1	8/74	Meloziton	107	Picea mariana stems & leaves
PIC-MAR	AC016A2	do.	do.	107	do.
PIC-MAR	AC019A1	do.	Tanacross	85	do.
PIC-MAR	AC020A1	do.	do.	85	do.
PIC-MAR	AC020D1	do.	do.	85	do.
PIC-MAR	AC032A1	8/75	Shungnak	115	do.

Table 1.--continued.

Field ID	Lab. No.	Date Colln.	Map Name	Map No.	Sample Description
PIC-MAR	AC035A1	do.	Ruby	98	Picea mariana stems & leaves
PIC-MAR	AC035A2	do.	do.	98	do.
PIC-MAR	AC036A1	do.	do.	98	do.
PIC-MAR	AC039A1	Sum./75	Seward	63	do.
PIC-MAR	AC040A1	do.	do.	63	do.
PIC-MAR	AC041A1	do.	do.	63	do.
PIC-MAR	AC050B1	7/76	Bettles	117	do.
PIC-MAR	AC051B1	do.	do.	117	do.
PIC-MAR	AC067A1	6/79	Talkeetna	82	do.
PIC-MAR	AC073A1	do.	Mt. McKinley	88	do.
PIC-MAR	AC076A1	6/70	Livengood	105	do.
PIC-MAR	AC076A2	do.	do.	105	do.
PIC-MAR	AC082A1	6/79	Mt. Hayes	86	do.
PIC-MAR	AC082A2	do.	do.	86	do.
PIC-MAR	AC085A1	do.	Eagle	102	do.
PIC-MAR	AC088A1	do.	Gulkana	83	do.
PIC-MAR	AC088A2	do.	do.	83	do.
PIC-MAR	AC153A1	7/80	Charley River	103	do.
PIC-MAR	AC153A2	do.	do.	103	do.
PIC-MAR	AC156A1	do.	Circle	104	do.
PIC-MAR	AC194A1	8/81	do.	104	do.
PIC-MAR	AC251A1	6/82	Sleetmute	72	do.
PIC-SIT	AC023B1	7/75	Sundum	8	Picea sitchensis stems & leaves
PIC-SIT	AC024A1	do.	Taku River	12	do.
PIC-SIT	AC024A2	do.	do.	12	do.
PIC-SIT	AC042A1	8/77	Ketchikan	3	do.
PIC-SIT	AC054A1	do.	Mt. Fairweather	10	do.
PIC-SIT	AC058A1	7/77	Yakutat	46	do.
PIC-SIT	AC058A2	do.	do.	46	do.
PIC-SIT	AC059A1	8/77	Mt. Fairweather	10	do.
PIC-SIT	AC093A1	6/79	Seward	63	do.
PIC-SIT	AC096A1	do.	Seldovia	50	do.
PIC-SIT	AC137A1	7/79	Bradfield Canal	7	do.
PIC-SIT	AC152A1	8/80	Valdex	68	do.
PIC-SIT	AC209A1	5/79	Juneau	11	do.
PIC-SIT	AC264A1	6/82	do.	11	do.
PIC-SIT	AC265A1	do.	Sitka	9	do.
SALIX (Willow)					
SAL-ALA	AC052A1	7/76	Philip Smith Mtns.	135	Salix alaxensis stems
SAL-ALA	AC053A1	do.	do.	135	do.
SAL-ALA	AC062A1	7/78	Chignik	30	S. alaxensis stems & leaves
SAL-ALA	AC232A1	6/82	Noatak	128	S. alaxensis stems
SAL-ALA	AC233A1	do.	do.	128	do.
SAL-ALA	AC242A1	do.	Kwiguk	77	do.
SAL-ALA	AC261A1	do.	Iliamna	51	do.
SAL-ARB	AC020E1	8/74	Innacross	85	S. arbusculoides stems
SAL-ARB	AC037A1	Sum./75	Big Delta	101	do.

Table 1.--continued.

Field ID	Lab. No.	Date Colln.	Map Name	Map No.	Sample Description
SAL-ARB	AC038A1	do.	Big Delta	101	S. arbusculoides stems
SAL-ARC	AC101A1	7/79	Mt. Michelson	139	S. arctica stems
SAL-ARC	AC102A1	do.	do.	139	do.
SAL-ARC	AC104A1	do.	Barter Island	152	do.
SAL-GLA	AC055A1	6/77	Philip Smith Mtns.	135	S. glauca stems
SAL-GLA	AC060A1	7/75	do.	135	do.
SAL-GLA	AC061A1	do.	Goodnews	53	do.
SAL-GLA	AC103A1	7/79	Demarcation Point	138	do.
SAL-GLA	AC132A1	12/79	Teshekpuk	148	S. glauca stems & leaves
SAL-GLA	AC134A1	do.	Killik River	133	do.
SAL-GLA	AC135A1	do.	do.	133	do.
SAL-GLA	AC167A1	6/80	Sagavanirktok	140	S. glauca stems & leaves
SAL-GLA	AC168A1	do.	do.	140	S. glauca stems
SAL-GLA	AC169A1	7/80	Demarcation Point	138	do.
SAL-GLA	AC171A1	8/80	Mt. Michelson	139	S. glauca stems & leaves
SAL-GLA	AC245A1	6/82	Holy Cross	78	S. glauca stems
SAL-PLA	AC234A1	do.	Bendeleben	110	S. planifolia stems
SAL-PLA	AC235A1	do.	do.	110	do.
SAL-PUL	AC142A1	7/80	Meade River	147	S. pulchra stems
SAL-PUL	AC143A1	6/80	Harrison Bay	149	do.
SAL-PUL	AC144A1	7/80	Ugnshik	36	do.
SAL-PUL	AC145A1	do.	do.	36	S. pulchra stems & leaves
SAL-PUL	AC191A1	7/81	Ikpikpuk River	142	do.
SAL-PUL	AC192A1	do.	Barrow	153	do.
SAL-SPP	AC044A1	7/76	Beechey Point	150	S. sp. stems
SAL-SPP	AC045A1	do.	Sagavanirktok	140	do.
SAL-SPP	AC046A1	do.	do.	140	do.
SAL-SPP	AC047A1	do.	Philip Smith Mtns.	135	do.
SAL-SPP	AC051A1	do.	Bettles	117	do.
SAL-SPP	AC072A1	6/79	Healy	87	do.
SAL-SPP	AC146A1	6/80	Meade River	147	do.
SAL-SPP	AC157A1	7/80	Seward	63	S. sp. stems & leaves
SAL-SPP	AC158A1	do.	Kariuk	35	do.
SAL-SPP	AC161A1	do.	Mt. Michelson	139	do.
SAL-SPP	AC166A1	8/80	Misheguk Mtn.	131	do.
SAL-SPP	AC170A1	7/80	Mt. Michelson	139	S. sp. stems
SAL-SPP	AC182A1	10/80	Christian	122	do.
SAL-SPP	AC237A1	6/82	Unalakleet	91	do.
SAL-SPP	AC241A1	do.	St. Michael	92	S. sp. stems & leaves
SAL-SPP	AC247A1	do.	Ophir	90	S. sp. stems
SAL-SPP	AC255A1	do.	Dillingham	52	do.
TSUGA (Hemlock)					
TSU-HET	AC023A1	7/75	Sundum	8	Tsuga heterophylla stems & leaves
TSU-HET	AC024C1	do.	Taku River	12	do.

Table 1.--continued.

Field ID	Lab. No.	Date Colln.	Map Name	Map No.	Sample Description
TSU-HET	AC056A1	8/77	Ketchikan	3	Tsuga heterophylla stems & leaves
TSU-HET	AC064A1	6/79	Juneau	11	do.
TSU-HET	AC065A1	do.	Skagway	45	do.
TSU-HET	AC065A2	do.	do.	45	do.
TSU-HET	AC092A1	do.	Seward	63	do.
TSU-HET	AC092A2	do.	do.	63	do.
TSU-HET	AC098A1	do.	Cordova	64	do.
TSU-HET	AC122A1	7/79	Craig	4	do.
TSU-HET	AC123A1	10/79	do.	4	do.
TSU-HET	AC181A1	9/80	do.	4	do.
TSU-HET	AC210A1	6/79	Skagway	45	do.
VACCINIUM (Blueberry)					
VAC-ULI	AC033A1	10/75	Talkeetna Mtns.	82	Vaccinium uliginosum stems
VAC-ULI	AC033B1	do.	do.	82	do.
VAC-ULI	AC050C1	7/76	Bettles	117	do.
VAC-ULI	AC109A1	7/79	Teller	111	V. uliginosum stems & leaves
MISC. SPECIES					
CAS-SPP	AC102B1	7/79	Mt. Michelson	139	Cassiope sp. stems & leaves
CAS-TET	AC177A1	8/80	Healy	87	Cassiope tetragona stems & leaves
CLA-PYR	AC190A1	7/81	Anchorage	69	Cladothamnus pyrolaeflorus stems & leaves
ELA-COM	AC176A1	9/80	Mt. Hayes	86	Elaeagnus commutata stems
EMP-NIG	AC118A1	9/79	Unimak	24	Empetrum nigrum stems & leaves
EMP-NIG	AC121A1	10/79	Cold Bay	29	do.
EMP-NIG	AC193A1	5/81	Attu	13	do.
LED-DEC	AC138A1	7/79	Shishmaref	112	Ledum decumbens stems & leaves
LED-DEC	AC139A1	do.	do.	112	do.
LED-DEC	AC165B1	8/80	Candle	109	do.
LED-DEC	AC172A1	do.	Meade River	147	do.
LED-DEC	AC024B1	7/75	Taku River	12	Pseudotsuga menziesii stems & leaves
MIXED VEGETATION					
MIXEDVEG	AC001A1	8/73	Lookout Ridge	143	(unspecified)
MIXEDVEG	AC002A1	do.	Howard Pass	132	(unspecified)
MIXEDVEG	AC003A1	do.	do.	132	(unspecified)
MIXEDVEG	AC004A1	do.	do.	132	(unspecified)
MIXEDVEG	AC005A1	do.	Ikpikpuk River	142	(unspecified)
MIXEDVEG	AC006A1	do.	do.	142	(unspecified)
MIXEDVEG	AC007A1	do.	Chandler Lake	134	(unspecified)
MIXEDVEG	AC008A1	do.	do.	143	(unspecified)
MIXEDVEG	AC009A1	do.	Umiat	141	(unspecified)
MIXEDVEG	AC010A1	do.	do.	141	(unspecified)
MIXEDVEG	AC011A1	do.	Chandler Lake	134	(unspecified)
MIXEDVEG	AC012A1	do.	Philip Smith Mtns.	135	(unspecified)
MIXEDVEG	AC013A1	do.	Umiat	141	(unspecified)
MIXEDVEG	AC014A1	do.	do.	141	(unspecified)
MIXEDVEG	AC015A1	6/73	Harrison Bay	149	(unspecified)
MIXEDVEG	AC124A1	11/79	Adak	17	(unspecified)
MIXEDVEG	AC127A1	Sum./79	Candle	109	(unspecified)

Table 1.--continued.

Field ID	Lab. No.	Date Colln.	Map Name	Map No.	Sample Description
MIXEDVEG	AC128A1	do.	Selawik	114	(unspecified)
MIXEDVEG	AC129A1	do.	Norton Bay	96	(unspecified)
MIXEDVEG	AC159A1	7/80	Afognak	43	(unspecified)
MIXEDVEG	AC160A1	do.	Mt. Katmai	42	(unspecified)
MIXEDVEG	AC178A1	8/80	Healy	87	(unspecified)

Table 2.--Identification, location, and chemical composition of plant material samples, Alaska

[Concentrations are reported on an ash-weight basis, except as noted; %, percent; ppm, parts per million]

Field ID	Lab. No.	Latitude	Longitude	Ash %	Al %	As ppm	Ba ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm[1]	K %	La ppm	Li ppm	Mg %
ALNRUB (Alder)																			
ALN-CRI	AC061A1	61 17 30	151 43 00	2.8	0.21	< 0.05	1900	18.0	0.6	6.5	4	260	0.21	< 8	0.03	16.0	7	< 4	3.4
ALN-CRI	AC100A1	57 56 00	156 50 00	1.7	0.55	< 0.05	1600	16.0	< 0.4	4.0	8	270	0.44	< 8	0.02	20.0	8	< 4	5.4
ALN-CRI	AC130A1	64 33 00	160 45 00	5.5	1.50	< 0.05	1600	20.0	1.0	1.0	22	230	1.30	< 8	0.10	14.0	13	12	2.5
ALN-CRI	AC175A1	62 43 12	147 23 57	2.5	0.11	< 0.05	1600	22.0	< 0.4	4.5	4	290	0.17	< 8	0.02	13.0	6	< 4	3.3
ALN-CRI	AC195A1	61 53 06	152 18 48	6.3	0.22	< 0.05	2300	17.0	< 0.4	3.5	5	95	0.13	< 8	0.05	19.0	6	< 4	4.8
ALN-CRI	AC229A1	66 35 15	159 59 30	2.2	0.18	0.05	1100	16.0	3.5	26.0	8	210	0.21	13	0.02	16.0	7	< 4	3.6
ALN-CRI	AC240A1	63 30 00	162 16 00	2.2	0.39	0.05	250	11.0	1.4	7.0	14	430	0.41	< 8	0.02	20.0	5	< 4	8
ALN-CRI	AC246A1	61 52 30	162 03 00	1.8	0.24	0.05	1100	19.0	8.5	10.0	10	340	0.33	9	0.01	11.0	7	< 4	5
ALN-CRI	AC252A1	61 36 30	159 33 00	2.2	0.26	0.05	2700	20.0	1.4	5.0	7	300	0.35	< 8	0.02	11.0	7	< 4	2.8
ALN-CRI	AC257A1	59 02 15	158 28 00	2.2	2.80	< 0.05	1000	9.4	1.6	18.0	13	210	1.30	24	0.02	11.0	13	6	3.4
ALN-INC	AC025A1	63 23 00	155 26 00	3.0	0.17	< 0.05	600	27.0	1.6	6.5	3	190	0.20	< 8	0.04	9.8	10	< 4	2.2
ALN-INC	AC026A1	63 36 00	154 13 00	3.8	0.07	< 0.05	1300	21.0	1.2	3.0	3	240	0.11	8	0.04	11.0	7	< 4	2.2
ALN-INC	AC026A2	63 36 00	154 13 00	3.8	0.07	0.05	640	20.0	1.8	3.5	3	230	0.10	< 8	0.04	9.8	7	< 4	2.1
ALN-INC	AC036A1	64 35 00	155 34 00	5.1	0.03	< 0.05	1100	36.0	< 0.4	1.2	4	120	0.06	< 8	0.04	3.2	8	< 4	0.9
ALN-SIN	AC057A1	56 21 22	157 51 50	2.2	0.11	< 0.05	340	15.0	< 0.4	1.2	4	310	0.21	< 8	0.03	21.0	6	< 4	5
ALN-SIN	AC068A1	62 52 07	149 50 14	1.7	0.37	< 0.05	560	13.0	0.8	5.5	9	420	0.40	18	0.02	18.0	8	< 4	5.7
ALN-SIN	AC084A1	63 41 15	142 14 14	2.2	1.70	0.10	510	19.0	3.0	15.0	17	340	1.10	26	0.03	8.2	21	6	2.1
ALN-SIN	AC087A1	62 45 07	144 06 44	3.2	0.26	< 0.05	1000	30.0	< 0.4	3.5	3	180	0.14	< 8	0.02	6.0	7	< 4	1.4
ALN-SIN	AC189A1	59 58 22	149 13 35	2.2	0.16	< 0.05	140	11.0	< 0.4	11.0	6	320	0.30	< 8	0.03	25.0	5	< 4	8
BETULA (birch)																			
BET-GLA	AC019B1	63 06 00	141 40 00	1.4	-	-	-	18.0	33.0	20.0	-	-	-	-	-	10.0	-	-	3.6
BET-GLA	AC046B1	69 02 00	148 49 00	1.7	-	< 0.05	-	16.0	37.0	12.0	-	-	-	-	-	15.0	-	-	3.5
BET-GLA	AC047B1	68 30 00	149 30 00	1.8	0.96	0.05	1500	14.0	12.0	10.0	20	160	0.77	11	0.03	14.0	12	10	2.8
BET-GLA	AC048A1	67 56 00	149 48 00	2.3	1.30	< 0.05	650	19.0	9.5	11.0	28	270	1.10	12	0.04	9.4	14	12	2.2
BET-GLA	AC078A1	65 10 30	149 58 30	1.5	1.10	< 0.05	1300	14.0	19.0	17.0	28	320	0.88	13	< 0.01	15.0	14	6	3.5
BET-GLA	AC173A1	62 58 35	146 15 29	1.4	0.64	< 0.05	1400	15.0	10.0	31.0	13	400	0.56	16	0.02	12.0	8	< 4	3.9
BET-GLA	AC174A1	62 32 07	146 56 30	1.5	0.67	< 0.05	1700	18.0	9.0	11.0	14	420	0.56	13	0.02	14.0	33	< 4	5.5
BET-GLA	AC180A1	64 47 00	163 45 00	0.9	-	< 0.05	-	1.4	32.0	33.0	-	-	-	-	< 0.01	15.0	-	-	6
BET-GLA	AC180A2	64 47 00	163 45 00	0.9	-	< 0.05	-	14.0	34.0	31.0	-	-	-	-	0.02	16.0	-	-	5.3
BET-GLA	AC266A1	65 56 43	164 29 07	1.2	-	< 0.05	-	12.0	38.0	5.0	-	-	-	-	< 0.01	13.0	-	-	4.6
BET-NAN	AC115A1	67 15 00	163 16 00	1.4	0.32	< 0.05	1400	18.0	50.0	31.0	8	310	0.29	12	0.02	12.0	7	< 4	5
BET-NAN	AC116A1	68 15 00	163 46 00	1.5	0.99	< 0.05	760	0.2	6.5	12.0	16	350	0.63	< 8	0.03	13.0	9	7	3.5
BET-NAN	AC117A1	68 08 00	162 29 00	1.1	0.35	< 0.05	1600	17.0	15.0	23.0	9	360	0.29	< 8	0.04	14.0	6	5	4.2
BET-NAN	AC140A1	65 34 00	161 36 00	1.2	0.35	< 0.05	530	16.0	15.0	55.0	14	360	0.41	14	0.02	10.0	8	< 4	6.1
BET-NAN	AC141A1	65 03 00	161 45 00	1.3	0.24	< 0.05	550	13.0	25.0	29.0	4	330	0.23	14	0.02	7.0	9	< 4	1.9
BET-NAN	AC165A1	65 52 28	160 41 24	1.4	-	< 0.05	-	11.0	10.0	19.0	-	-	-	-	0.18	17.0	-	-	6.6
BET-NAN	AC179A1	64 27 45	164 58 00	1.2	0.53	< 0.05	1300	17.0	15.0	17.0	8	360	0.60	13	0.02	8.6	12	< 4	5.2
BET-NAN	AC181A1	64 56 00	166 13 00	2.0	1.20	< 0.05	1300	18.0	20.0	16.0	21	310	1.00	19	0.02	7.0	13	9	3.5
BET-NAN	AC186A1	65 26 45	151 53 04	3.2	0.12	< 0.05	770	12.0	7.5	20.0	4	160	0.14	18	0.01	16.0	5	< 4	8
BET-PAP	AC017A1	64 03 04	156 58 06	1.6	0.12	< 0.05	480	17.0	5.0	2.0	7	390	0.19	< 8	0.03	16.0	6	< 4	6.4
BET-PAP	AC049A1	67 16 00	150 12 00	1.6	0.42	< 0.05	390	20.0	20.0	34.0	9	340	0.56	14	0.03	15.0	150	< 4	4.1
BET-PAP	AC050A1	66 41 00	150 37 00	1.1	-	< 0.05	-	14.0	9.5	13.0	-	-	-	-	0.03	15.0	-	-	5.1
BET-SPP	AC184A1	64 28 00	165 15 00	1.8	2.10	0.20	3000	16.0	11.0	19.0	31	250	2.00	9	0.02	8.8	31	12	3.7

[1] Concentration reported on a dry-weight basis.

Table 2.--continued.

Field ID	Lab. No.	Latitude	Longitude	Ash %	Al %	As ppm	Ba ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Li ppm	Mg %
PICEA (Spruce)																			
PIC-GLA	AC021A1	67 35 00	149 33 00	3.9	0.98	0.05	500	20.0	< 0.2	1.5	17	68	0.63	< 8	0.03	9.0	11	9	1.5
PIC-GLA	AC022A1	67 07 00	147 05 00	3.3	0.83	< 0.05	3100	18.0	< 0.4	4.0	13	73	0.47	< 8	0.02	15.0	10	9	3.3
PIC-GLA	AC030A1	61 31 03	144 26 09	3.8	1.10	0.05	1800	15.0	1.4	2.5	26	90	0.89	< 8	0.03	12.0	10	5	1.6
PIC-GLA	AC031A1	63 01 06	141 47 48	3.8	0.72	< 0.05	4000	13.0	0.6	1.8	10	54	0.38	< 8	0.03	14.0	7	< 4	1.9
PIC-GLA	AC048B1	67 56 00	149 48 00	4.1	1.40	0.10	1500	19.0	< 0.4	4.5	18	74	1.00	10	0.03	8.8	12	16	1.6
PIC-GLA	AC049B1	67 16 00	150 12 00	2.9	1.90	0.10	730	9.5	4.0	31.0	20	82	1.30	12	0.05	15.0	65	14	2.5
PIC-GLA	AC066A1	61 34 52	149 42 00	3.4	0.52	< 0.05	2800	0.2	< 0.4	3.0	10	73	0.34	< 8	0.02	17.0	7	< 4	1.8
PIC-GLA	AC069A1	63 04 07	149 32 14	2.6	0.43	0.05	720	15.0	0.6	2.0	7	100	0.33	17	0.04	14.0	7	< 4	2.5
PIC-GLA	AC069A2	63 04 07	149 32 14	2.6	-	< 0.05	-	15.0	0.6	3.0	-	-	-	-	0.04	14.0	-	-	2.4
PIC-GLA	AC070A1	63 19 30	148 15 00	3.4	0.71	0.05	1300	15.0	< 0.4	3.5	13	74	0.42	9	0.02	15.0	7	5	2.2
PIC-GLA	AC070A2	63 19 30	148 15 00	3.4	0.72	< 0.05	1200	15.0	0.6	4.0	13	80	0.44	9	0.03	16.0	7	5	2.5
PIC-GLA	AC071A1	63 42 00	148 50 14	3.4	0.61	0.05	1500	15.0	0.8	4.0	11	42	0.37	< 8	0.02	8.6	7	5	1.5
PIC-GLA	AC071A2	63 42 00	148 50 14	3.6	0.65	0.05	4600	17.0	< 0.4	3.5	10	38	0.37	< 8	0.02	9.4	7	< 4	1.6
PIC-GLA	AC073A1	63 30 45	150 53 14	2.6	0.54	0.05	710	19.0	< 0.4	2.5	8	89	0.42	22	0.02	11.0	10	< 4	2.3
PIC-GLA	AC074A1	64 12 45	149 15 00	2.9	0.46	0.15	1600	13.0	1.0	4.0	11	76	0.32	< 8	0.03	18.0	8	5	2.3
PIC-GLA	AC075A1	64 43 07	148 33 44	4.4	0.59	0.15	3800	14.0	0.6	2.0	12	52	0.40	< 8	0.02	10.0	9	< 4	1.9
PIC-GLA	AC077A1	65 18 22	149 06 00	2.6	0.51	0.05	2100	15.0	2.5	4.5	11	86	0.34	13	0.02	16.0	8	< 4	1.5
PIC-GLA	AC077A2	65 18 22	149 06 00	2.7	0.38	< 0.05	1800	15.0	3.0	4.5	7	70	0.14	10	0.02	17.0	7	< 4	2
PIC-GLA	AC079A1	65 04 52	150 38 14	2.7	0.30	< 0.05	680	14.0	3.0	12.0	8	79	0.16	12	0.02	19.0	7	< 4	1.5
PIC-GLA	AC080A1	64 30 45	146 56 14	4.8	1.60	0.20	1200	13.0	< 0.4	4.0	30	47	1.10	< 8	0.04	7.6	14	10	1.7
PIC-GLA	AC080A2	64 30 45	146 56 00	4.9	1.50	0.25	1200	1.5	< 0.4	5.5	34	50	1.00	< 8	0.04	8.6	14	10	2
PIC-GLA	AC081A1	63 34 00	145 53 14	3.3	1.20	0.25	1400	12.0	< 0.4	4.0	21	88	0.79	< 8	0.03	17.0	11	12	2.1
PIC-GLA	AC081A2	63 34 00	145 53 14	3.2	1.30	0.25	1400	11.0	< 0.4	4.0	16	89	0.74	< 8	0.03	19.0	19	12	2
PIC-GLA	AC083A1	63 42 00	144 02 14	3.2	0.26	< 0.05	1600	18.0	0.6	1.0	6	53	0.21	< 8	0.02	13.0	7	< 4	1.9
PIC-GLA	AC083A2	63 42 00	144 02 14	3.2	0.26	< 0.05	1600	19.0	1.0	1.0	6	53	0.21	< 8	0.02	13.0	7	< 4	2
PIC-GLA	AC086A1	64 46 07	141 13 30	4.1	0.14	0.05	720	18.0	< 0.4	6.0	4	110	0.13	13	0.03	16.0	5	< 4	2.4
PIC-GLA	AC086A2	64 46 07	141 13 30	4.2	0.66	0.05	4800	16.0	0.6	5.5	49	36	0.58	9	0.03	6.8	8	4	2.3
PIC-GLA	AC089A1	62 16 30	145 24 00	4.3	0.85	0.05	2400	17.0	< 0.4	3.5	14	57	0.65	< 8	0.01	11.0	9	< 4	2.1
PIC-GLA	AC090A1	62 05 37	146 20 14	5.0	0.75	0.05	2900	20.0	0.6	1.8	18	39	0.61	< 8	0.03	7.4	7	5	1
PIC-GLA	AC090A2	62 05 37	146 20 14	5.1	0.76	0.05	2800	20.0	< 0.4	3.5	15	36	0.64	< 8	0.03	7.2	7	5	1
PIC-GLA	AC091A1	61 48 22	147 45 00	4.2	0.43	< 0.05	2400	18.0	< 0.4	1.6	8	47	0.30	< 8	0.02	12.0	7	< 4	0.95
PIC-GLA	AC094A1	60 28 52	150 08 14	6.3	2.90	0.35	2100	9.2	1.2	12.0	41	49	1.80	14	0.05	5.4	16	20	1.9
PIC-GLA	AC095A1	60 18 45	151 15 00	3.0	1.40	0.05	1200	16.0	< 0.4	5.5	13	81	0.72	15	0.04	11.0	9	7	2.6
PIC-GLA	AC095A2	60 18 45	151 15 00	2.9	1.40	< 0.05	1200	15.0	< 0.4	3.2	15	82	0.69	24	0.03	12.0	9	6	3
PIC-GLA	AC097A1	61 04 52	149 48 00	4.0	1.00	0.05	1300	14.0	< 0.4	3.5	16	63	0.69	< 8	0.05	11.0	8	7	2.4
PIC-GLA	AC108A1	63 55 59	155 25 15	2.9	0.75	< 0.05	2300	15.0	< 0.4	3.0	11	69	0.42	10	0.02	16.0	8	5	2
PIC-GLA	AC110A1	61 14 30	143 48 36	3.5	0.37	< 0.05	2200	15.0	< 0.4	1.6	7	72	0.26	< 8	0.02	13.0	6	< 4	2.4
PIC-GLA	AC110A2	61 14 30	143 48 36	3.6	0.35	< 0.05	2100	18.0	< 0.4	2.5	6	72	0.24	< 8	0.03	12.0	6	< 4	2.4
PIC-GLA	AC111A1	60 03 00	158 58 00	1.8	0.67	< 0.05	370	4.8	< 0.4	1.0	8	160	0.31	< 8	0.05	15.0	4	< 4	3.1
PIC-GLA	AC112A1	59 58 00	158 27 00	2.4	0.32	< 0.05	640	14.0	< 0.4	2.0	4	130	0.15	< 8	0.04	16.0	6	< 4	2.8
PIC-GLA	AC113A1	65 34 00	146 42 00	4.1	0.51	< 0.05	2700	18.0	1.2	3.0	8	72	0.31	< 8	0.02	9.5	8	5	2
PIC-GLA	AC114A1	65 15 00	145 20 00	4.1	0.90	< 0.05	2400	19.0	< 0.4	3.2	19	66	0.60	< 8	0.03	10.0	12	18	1.5
PIC-GLA	AC126A1	62 49 12	141 20 56	2.8	0.66	0.05	2100	19.0	0.6	3.0	10	99	0.42	17	< 0.01	9.8	9	< 4	3.6
PIC-GLA	AC136A1	64 34 30	151 30 30	2.8	0.34	< 0.05	1000	20.0	1.0	1.4	6	42	0.22	9	0.08	10.0	6	< 4	3
PIC-GLA	AC136A2	64 34 30	151 30 30	2.8	0.47	< 0.05	1400	20.0	< 0.4	1.0	8	55	0.40	15	0.09	9.8	9	5	2.6
PIC-GLA	AC147A1	61 43 30	149 54 00	3.6	0.82	< 0.05	2000	15.0	< 0.4	2.5	17	86	0.43	< 8	0.04	17.0	8	6	2.6
PIC-GLA	AC148A1	62 31 30	143 15 00	4.4	0.55	< 0.05	1300	19.0	< 0.4	1.4	11	63	0.40	< 8	0.03	7.5	7	5	1.1

Table 2.--continued.

Field ID	Lab. No.	Latitude	Longitude	Ash %	Al %	As ppm	Ba ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	I	K %	La ppm	Li ppm	Mg %
PIC-GLA	AC148A2	62 31 30	143 15 00	4.4	0.57	< 0.05	1300	19.0	< 0.4	1.6	11	64	0.41	< 8	0.03		7.6	6	5	1.2
PIC-GLA	AC149A1	61 55 30	145 28 00	4.0	0.33	< 0.05	2000	18.0	< 0.4	1.2	10	59	0.25	< 8	0.03		17.0	6	< 4	1.3
PIC-GLA	AC150A1	61 26 15	142 57 00	4.0	0.45	0.05	2500	15.0	< 0.4	1.4	8	80	0.36	< 8	0.03		11.0	8	5	1.2
PIC-GLA	AC151A1	61 20 15	145 21 00	4.6	1.20	0.10	3400	14.0	< 0.4	6.5	15	50	0.68	< 8	0.03		8.8	9	7	1.7
PIC-GLA	AC154A1	65 47 00	144 20 00	3.4	0.29	< 0.05	1600	22.0	0.6	1.0	6	37	0.20	< 8	0.03		10.0	6	6	1.5
PIC-GLA	AC155A1	65 53 00	146 22 00	5.1	4.20	2.90	2600	6.0	1.4	12.0	68	86	2.70	15	0.02		12.0	39	23	2
PIC-GLA	AC185A1	60 36 00	150 51 00	3.8	0.98	0.05	2200	17.0	< 0.4	4.5	13	76	0.62	11	0.05		9.5	9	6	1.8
PIC-GLA	AC187A1	67 21 54	152 00 08	3.4	1.00	0.10	850	19.0	< 0.4	4.0	9	56	0.66	< 8	0.02		8.8	8	8	1.7
PIC-GLA	AC188A1	67 40 48	151 02 10	3.5	0.17	< 0.05	840	16.0	< 0.4	1.0	4	89	0.14	< 8	0.02		16.0	5	6	1.5
PIC-GLA	AC208A1	64 56 00	162 10 42	4.2	0.30	< 0.05	2500	19.0	< 0.4	2.5	< 2	37	0.07	< 8	0.04		8.2	7	< 4	2
PIC-GLA	AC213A1	64 22 30	143 06 00	3.4	0.13	< 0.05	4000	19.0	< 0.4	< 1	2	54	0.10	< 8	0.02		11.0	6	8	1.6
PIC-GLA	AC214A1	65 19 00	143 08 00	3.5	0.17	< 0.05	2100	22.0	< 0.4	1.8	4	49	0.14	15	0.03		8.2	7	11	1.6
PIC-GLA	AC215A1	65 30 00	144 34 00	2.9	0.43	< 0.05	2400	18.0	1.4	3.5	4	59	0.25	13	0.01		14.0	9	7	2.5
PIC-GLA	AC216A1	65 49 00	144 06 00	3.6	2.50	0.25	1900	13.0	0.6	5.5	41	92	1.90	8	0.04		7.8	17	18	1.8
PIC-GLA	AC217A1	66 38 15	143 44 00	3.5	0.23	< 0.05	4300	19.0	< 0.4	< 1	7	50	0.18	< 8	0.02		13.0	6	< 4	2.8
PIC-GLA	AC218A1	66 54 00	141 36 00	2.4	0.08	< 0.05	1600	18.0	1.4	< 1	4	81	0.06	11	0.02		14.0	6	< 4	2.5
PIC-GLA	AC218A2	66 54 00	141 36 00	2.4	0.08	< 0.05	1500	20.0	0.8	< 1	4	71	0.06	12	0.02		15.0	6	< 4	2.5
PIC-GLA	AC219A1	65 39 45	142 06 00	2.6	0.22	< 0.05	1200	21.0	1.2	< 1	4	61	0.11	15	0.03		8.6	7	< 4	3
PIC-GLA	AC220A1	66 15 30	145 50 00	2.8	0.14	< 0.05	2800	17.0	< 0.4	< 1	4	43	0.13	< 8	0.03		16.0	6	6	1.8
PIC-GLA	AC221A1	66 21 45	147 22 00	3.6	0.77	0.05	1100	17.0	< 0.4	1.4	6	29	0.25	< 8	0.02		10.0	6	4	1.5
PIC-GLA	AC222A1	66 54 45	151 34 00	4.0	0.77	0.05	2800	18.0	1.2	6.0	9	46	0.56	20	0.03		8.6	10	10	1.5
PIC-GLA	AC223A1	66 36 00	152 39 00	4.4	0.26	0.25	1500	23.0	< 0.4	< 1	6	46	0.25	< 8	0.03		9.2	8	8	1.1
PIC-GLA	AC224A1	66 02 15	154 15 00	3.6	0.32	< 0.05	1900	22.0	< 0.4	1.2	7	49	0.30	< 8	0.04		9.5	7	5	1.6
PIC-GLA	AC225A1	66 12 45	155 42 00	2.7	0.47	< 0.05	2400	15.0	1.8	14.0	8	92	0.31	19	0.02		13.0	9	4	1.8
PIC-GLA	AC226A1	65 41 37	156 22 15	2.8	1.10	0.10	1800	19.0	1.2	4.0	11	46	0.56	12	0.03		9.8	9	8	3.6
PIC-GLA	AC227A1	64 45 00	156 52 00	3.1	0.46	< 0.05	2000	16.0	< 0.4	1.0	11	44	0.37	< 8	0.03		12.0	7	11	1.5
PIC-GLA	AC228A1	64 43 30	158 06 00	2.6	0.97	< 0.05	660	18.0	1.4	4.0	15	62	0.78	14	0.02		9.8	10	7	2
PIC-GLA	AC230A1	66 58 00	160 27 00	3.2	0.59	0.05	1200	20.0	0.6	3.5	8	68	0.46	9	0.02		11.0	9	6	2
PIC-GLA	AC231A1	67 33 00	162 59 00	3.9	0.91	0.05	3000	16.0	1.0	5.0	19	75	0.76	< 8	0.03		8.2	10	11	1.2
PIC-GLA	AC238A1	64 19 30	158 45 30	2.2	0.64	0.05	2200	14.0	1.4	11.0	12	85	0.45	16	0.02		13.0	9	5	2.2
PIC-GLA	AC243A1	61 56 15	162 54 00	3.9	1.20	0.25	1600	14.0	2.5	12.0	17	100	0.76	11	0.03		11.0	11	7	2
PIC-GLA	AC246A1	62 36 00	157 10 30	2.7	0.14	< 0.05	2700	14.0	1.0	1.6	5	90	0.13	< 8	0.04		18.0	6	< 4	1.9
PIC-GLA	AC248A1	62 57 45	155 37 30	4.0	0.86	0.10	1500	16.0	1.4	1.8	22	54	0.61	< 8	0.03		11.0	10	8	1
PIC-GLA	AC249A1	62 30 00	153 55 30	3.1	0.43	0.05	2600	19.0	< 0.4	3.0	8	88	0.33	< 8	0.03		12.0	7	< 4	2
PIC-GLA	AC249A2	62 30 00	153 55 30	3.1	0.41	0.05	820	17.0	2.2	1.2	9	91	0.30	< 8	0.02		13.0	6	< 4	2
PIC-GLA	AC250A1	61 48 00	156 35 00	2.9	0.20	< 0.05	1300	12.0	1.6	1.2	6	87	0.17	8	-		16.0	7	6	1.8
PIC-GLA	AC253A1	60 52 30	157 22 30	3.6	2.40	0.05	420	8.6	< 0.4	4.0	10	59	1.00	14	0.02		9.6	7	4	2.2
PIC-GLA	AC254A1	61 22 45	155 27 00	2.4	0.67	< 0.05	290	20.0	< 0.4	< 1	5	67	0.39	18	0.04		10.0	8	< 4	1.7
PIC-GLA	AC256A1	59 21 45	157 29 00	3.1	2.50	0.05	980	10.0	< 0.4	3.5	16	71	1.00	< 8	0.04		13.0	8	7	2.2
PIC-GLA	AC258A1	59 06 45	156 52 30	5.3	3.40	0.15	2000	14.0	< 0.4	4.0	12	41	1.30	< 8	0.02		6.4	10	6	1.5
PIC-GLA	AC259A1	59 19 30	155 54 00	3.7	1.80	0.05	1400	11.0	< 0.4	1.4	8	94	0.72	< 8	0.03		8.6	7	4	1.4
PIC-GLA	AC259A2	59 19 30	155 54 00	4.0	1.70	0.05	1400	13.0	< 0.4	2.0	7	89	0.69	8	0.04		9.8	8	< 4	1.4
PIC-GLA	AC260A1	59 26 45	154 46 30	5.3	3.90	< 0.05	1400	5.0	< 0.4	2.5	26	49	1.40	10	0.01		5.6	10	7	2
PIC-GLA	AC262A1	61 12 45	151 33 00	3.2	0.42	< 0.05	520	16.0	< 0.4	2.2	6	140	0.22	< 8	0.03		16.0	6	< 4	2
PIC-GLA	AC263A1	61 57 45	151 13 30	3.0	1.40	0.20	1800	13.0	3.0	5.5	21	110	0.91	9	0.03		14.0	11	11	1.9
PIC-MAR	AC016A1	65 20 02	154 58 01	2.1	0.67	< 0.05	4700	19.0	< 0.4	4.0	50	36	0.58	8	0.03		7.2	8	4	3.7
PIC-MAR	AC016A2	65 20 02	154 58 01	2.0	0.15	< 0.05	2200	15.0	< 0.4	2.0	5	110	0.13	12	0.02		11.0	6	< 4	3.2
PIC-MAR	AC019A1	63 04 00	141 40 00	2.5	-	< 0.05	-	20.0	< 0.4	< 1	-	-	-	-	0.04		10.0	-	-	3

Table 2.--continued.

Field ID	Lab. No.	Latitude	Longitude	Ash %	Al %	As ppm	Ba ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	I	K %	La ppm	Li ppm	Mg %
PIC-MAR	AC020A1	63 17 00	143 14 00	3.1	0.37	< 0.05	2000	22.0	< 0.4	2.0	4	44	0.23	14	0.04		7.8	9	6	1.5
PIC-MAR	AC020D1	63 17 00	143 14 00	3.0	0.22	< 0.05	1900	23.0	< 0.4	< 1	4	49	0.20	14	0.05		27.0	8	21	2.2
PIC-MAR	AC032A1	66 53 04	157 01 09	2.7	1.10	< 0.05	1100	13.0	< 0.4	5.0	51	94	0.89	14	0.03		9.0	20	8	2.8
PIC-MAR	AC035A1	64 01 30	153 25 30	2.3	0.40	< 0.05	1100	20.0	< 0.4	1.4	5	98	0.27	15	0.07		12.0	7	< 4	2.6
PIC-MAR	AC035A2	64 01 30	153 25 30	2.1	0.41	< 0.05	1100	21.0	< 0.4	3.0	6	100	0.27	13	0.06		11.0	7	4	3
PIC-MAR	AC036A1	64 09 22	141 25 30	3.1	2.00	0.30	850	18.0	< 0.4	6.0	24	59	1.50	27	0.03		9.2	16	9	2.1
PIC-MAR	AC039A1	60 55 50	149 33 50	4.6	0.67	< 0.05	1200	13.0	< 0.4	3.0	14	120	0.54	< 8	0.04		13.0	8	9	1.7
PIC-MAR	AC040A1	60 10 03	149 24 10	2.6	0.69	< 0.05	950	8.8	2.0	10.0	14	120	0.62	< 8	0.05		20.0	7	9	2.2
PIC-MAR	AC041A1	60 30 00	149 24 04	3.0	0.79	0.05	950	14.0	0.6	4.5	12	75	0.37	12	0.06		15.0	7	7	2.4
PIC-MAR	AC050B1	66 41 00	150 37 00	4.0	0.86	< 0.05	2400	17.0	0.6	2.5	5	85	0.40	18	0.05		9.6	17	5	2
PIC-MAR	AC051B1	66 05 00	150 09 00	4.1	2.20	0.15	1400	18.0	0.8	4.0	20	50	0.95	8	0.06		8.2	16	17	1.5
PIC-MAR	AC067A1	62 08 37	150 02 14	1.8	0.43	< 0.05	770	12.0	< 0.4	2.0	8	140	0.31	18	0.02		16.0	7	< 4	3.3
PIC-MAR	AC073A1	63 30 45	150 53 14	2.5	0.47	< 0.05	740	20.0	< 0.4	2.5	5	97	0.20	13	0.03		10.0	9	< 4	2.3
PIC-MAR	AC076A1	65 12 45	148 07 30	3.1	2.30	0.15	2300	12.0	0.6	8.0	31	80	1.40	20	0.03		7.8	20	15	2.7
PIC-MAR	AC076A2	65 12 45	148 07 30	3.2	2.50	0.15	2400	17.0	< 0.4	5.5	32	86	1.50	24	0.03		8.2	21	16	5.4
PIC-MAR	AC082A1	63 53 15	145 12 00	4.3	0.68	0.10	1700	21.0	< 0.4	3.0	10	39	0.50	18	0.03		6.4	11	9	1.5
PIC-MAR	AC082A2	63 53 15	145 12 00	4.3	0.70	0.05	1700	21.0	< 0.4	3.0	10	43	0.51	18	0.02		6.4	12	9	1.5
PIC-MAR	AC085A1	64 09 22	141 25 30	3.1	2.00	0.30	870	17.0	1.2	6.0	23	59	1.60	14	0.04		8.4	17	9	2
PIC-MAR	AC088A1	62 46 52	145 27 00	3.0	0.56	< 0.05	2000	20.0	< 0.4	1.6	12	66	0.45	< 8	0.02		12.0	6	< 4	1.5
PIC-MAR	AC088A2	62 46 52	145 27 00	3.1	0.55	< 0.05	2000	17.0	< 0.4	2.0	12	70	0.43	< 8	0.03		11.0	7	< 4	1.5
PIC-MAR	AC153A1	65 48 00	143 32 00	2.2	0.28	< 0.05	680	19.0	0.6	< 1	4	62	0.19	21	0.03		12.0	7	< 4	2.3
PIC-MAR	AC153A2	65 48 00	143 32 00	2.4	0.35	< 0.05	680	19.0	< 0.4	< 1	5	67	0.32	19	0.02		12.0	8	< 4	2.3
PIC-MAR	AC156A1	65 34 30	144 54 00	3.3	0.50	0.05	1700	21.0	1.4	1.2	4	46	0.16	< 8	0.03		9.2	8	4	1.9
PIC-MAR	AC194A1	65 17 30	146 29 00	3.8	1.40	0.05	1700	17.0	0.6	10.0	17	73	0.96	15	0.03		9.2	13	10	2
PIC-MAR	AC251A1	61 53 18	158 07 30	2.5	0.76	0.05	460	16.0	< 0.4	2.0	11	66	0.60	11	0.03		8.6	9	5	2.6
PIC-SIT	AC023B1	57 41 00	133 30 00	2.2	0.12	< 0.05	1100	7.0	8.0	3.0	8	200	0.11	< 8	0.03		29.0	4	< 4	3
PIC-SIT	AC024A1	58 00 00	135 42 00	2.4	0.46	< 0.05	850	6.0	< 0.4	4.0	9	160	0.33	< 8	0.03		25.0	6	8	3
PIC-SIT	AC024A2	58 00 00	133 42 00	2.2	0.47	< 0.05	880	6.0	1.4	5.0	8	160	0.34	< 8	0.03		25.0	7	8	2.8
PIC-SIT	AC042A1	55 59 53	131 26 41	1.9	0.23	< 0.05	890	11.0	1.2	0.8	7	100	0.20	11	0.03		17.0	8	5	2.3
PIC-SIT	AC054A1	58 38 02	137 38 56	2.8	0.13	< 0.05	570	7.8	< 0.4	7.0	8	160	0.15	< 8	0.04		30.0	5	< 4	3
PIC-SIT	AC058A1	59 30 45	139 40 20	2.6	0.59	0.10	990	8.0	1.2	6.0	9	230	0.58	16	0.03		26.0	6	< 4	2.7
PIC-SIT	AC058A2	59 30 45	139 40 20	2.6	0.61	0.10	600	8.0	1.2	8.0	16	240	0.58	17	0.04		25.0	7	4	3.1
PIC-SIT	AC059A1	58 55 34	136 46 43	2.5	0.17	< 0.05	910	12.0	5.0	2.0	6	130	0.18	< 8	0.02		25.0	5	< 4	3.1
PIC-SIT	AC093A1	60 08 15	149 23 14	3.6	3.80	0.25	1500	9.0	< 0.4	13.0	56	110	2.60	13	0.05		11.0	14	26	2.1
PIC-SIT	AC096A1	59 39 00	151 35 14	2.7	1.10	0.05	1000	11.0	< 0.4	6.0	16	98	0.69	9	0.05		19.0	7	6	2.3
PIC-SIT	AC137A1	56 05 00	131 06 00	3.0	0.13	< 0.05	360	5.4	1.0	5.0	6	150	0.10	< 8	0.02		28.0	4	< 4	2.5
PIC-SIT	AC152A1	61 05 37	146 20 37	3.2	2.90	0.20	950	8.6	0.8	8.0	49	130	1.90	16	0.03		16.0	13	18	2
PIC-SIT	AC209A1	58 25 52	134 35 14	1.9	0.25	< 0.05	2300	12.0	6.0	4.5	7	130	0.23	< 8	0.05		22.0	6	< 4	2.3
PIC-SIT	AC264A1	57 30 00	134 34 00	3.2	0.44	< 0.05	680	11.0	0.6	3.0	10	130	0.35	< 8	0.04		22.0	6	< 4	2.6
PIC-SIT	AC265A1	57 03 00	135 21 00	3.8	1.60	< 0.05	970	7.0	0.8	6.0	31	210	1.10	9	0.08		20.0	8	7	3
SALIX (Willow)																				
SAL-ALA	AC052A1	68 49 00	148 21 00	3.8	-	< 0.05	-	12.0	40.0	1.4	-	-	-	-	0.06		24.0	-	-	2.5
SAL-ALA	AC053A1	68 24 00	148 03 00	3.9	-	< 0.05	-	13.0	34.0	5.0	-	-	-	-	0.08		25.0	-	-	2.8
SAL-ALA	AC062A1	56 32 09	159 40 18	4.7	0.16	< 0.05	620	9.6	13.0	6.0	5	140	0.17	< 8	0.07		26.0	4	< 4	5.1
SAL-ALA	AC232A1	67 45 00	164 33 00	1.8	0.35	0.05	620	10.0	100.0	26.0	16	290	0.43	13	0.02		16.0	6	5	7.4
SAL-ALA	AC233A1	67 16 00	163 39 00	3.2	1.80	0.10	560	14.0	33.0	7.0	25	160	1.20	< 8	0.02		11.0	13	10	5.7
SAL-ALA	AC242A1	62 42 00	164 36 00	3.0	1.20	0.40	1300	16.0	60.0	13.0	17	170	0.85	< 8	< 0.01		12.0	11	7	3.9

Table 2.--continued.

Field ID	Lab. No.	Latitude	Longitude	Ash %	Al %	As ppm	Ba ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	I	K %	La ppm	Li ppm	Mg %
SAL-ALA	AC261A1	59 45 00	154 55 30	3.1	0.98	0.05	500	19.0	39.0	21.0	6	330	0.56	< 8	< 0.01	14.0	10	< 6	2.5
SAL-ARB	AC020E1	63 17 00	143 14 00	2.4	0.27	-	1200	19.0	50.0	23.0	6	100	0.26	< 8	0.05	12.0	7	< 6	3.6
SAL-ARB	AC037A1	64 27 32	144 55 20	1.8	-	0.10	-	20.0	85.0	12.0	-	-	-	-	0.05	8.2	-	-	3.9
SAL-ARB	AC038A1	64 38 30	145 45 15	2.2	0.19	< 0.05	1400	20.0	40.0	20.0	6	170	0.26	12	0.06	9.6	8	< 4	3
SAL-ARC	AC101A1	69 56 00	144 40 00	3.2	2.50	0.10	350	15.0	17.0	12.0	38	140	1.60	< 8	0.03	9.6	18	26	2.5
SAL-ARC	AC102A1	69 35 00	146 48 00	2.2	0.27	< 0.05	930	18.0	80.0	10.0	6	190	0.25	< 8	0.03	12.0	8	< 4	3.7
SAL-ARC	AC104A1	70 07 00	143 40 00	2.3	0.40	0.05	650	13.0	26.0	3.0	10	230	0.39	< 8	0.04	19.0	10	5	5.3
SAL-GLA	AC055A1	68 45 25	148 54 30	3.5	0.43	< 0.05	710	26.0	65.0	4.5	8	110	0.34	< 8	< 0.01	7.0	8	5	2
SAL-GLA	AC060A1	68 26 00	149 27 45	3.6	0.25	< 0.05	370	34.0	14.0	4.5	4	92	0.22	< 8	0.06	3.2	7	< 6	0.7
SAL-GLA	AC061A1	59 16 00	160 50 00	2.3	0.29	< 0.05	550	18.0	17.0	34.0	3	160	0.24	< 8	0.16	16.0	11	< 4	5.1
SAL-GLA	AC103A1	69 39 00	143 32 00	2.5	0.19	0.05	640	22.0	240.0	38.0	4	140	0.19	< 8	0.04	15.0	6	< 4	4
SAL-GLA	AC132A1	70 15 00	153 47 00	4.5	1.50	1.70	1000	17.0	29.0	9.0	20	130	1.00	14	0.14	11.0	13	8	4
SAL-GLA	AC134A1	68 28 40	155 48 00	2.0	0.11	< 0.05	460	13.0	120.0	5.0	6	95	0.13	< 8	0.02	22.0	5	< 4	6
SAL-GLA	AC135A1	68 21 50	153 57 30	2.6	0.39	< 0.05	460	13.0	39.0	48.0	12	230	0.35	< 8	0.02	15.0	7	6	3.9
SAL-GLA	AC167A1	69 18 41	147 40 31	4.5	0.08	< 0.05	100	17.0	19.0	3.0	5	97	0.11	< 8	0.02	18.0	6	< 4	4.1
SAL-GLA	AC168A1	69 54 46	147 36 30	3.0	0.75	0.05	420	17.0	36.0	13.0	15	180	0.56	< 8	0.02	11.0	10	8	2.7
SAL-GLA	AC169A1	69 06 46	142 18 10	3.0	0.08	< 0.05	850	11.0	23.0	9.0	5	140	0.10	< 8	0.02	25.0	6	< 4	3.8
SAL-GLA	AC171A1	69 30 05	144 30 59	3.9	0.40	< 0.05	170	9.4	25.0	26.0	8	100	0.28	< 8	0.03	26.0	6	22	6.4
SAL-GLA	AC245A1	62 41 37	159 34 30	2.8	0.05	< 0.05	1100	13.0	220.0	2.0	4	160	0.12	< 8	< 0.01	18.0	6	< 4	3.9
SAL-PLA	AC234A1	65 54 45	163 00 00	2.0	0.12	< 0.05	560	21.0	165.0	17.0	4	310	0.16	10	0.01	12.0	7	< 4	4.3
SAL-PLA	AC235A1	64 42 00	162 04 30	1.7	0.59	< 0.05	2300	17.0	8.0	55.0	9	240	0.67	14	0.03	14.0	9	5	6.2
SAL-PUL	AC142A1	70 02 14	157 28 43	2.1	0.13	< 0.05	1100	23.0	6.4	1.8	6	220	0.21	12	0.02	8.4	6	< 4	4.5
SAL-PUL	AC143A1	70 17 57	151 51 49	2.9	0.45	< 0.05	1600	24.0	85.0	24.0	7	140	0.41	11	0.03	9.2	7	4	3.1
SAL-PUL	AC144A1	57 28 00	157 55 00	3.3	1.60	< 0.05	350	12.0	13.0	11.0	13	170	1.10	9	0.03	14.0	9	5	4.9
SAL-PUL	AC145A1	57 22 00	156 30 00	3.4	0.12	0.05	130	8.2	36.0	21.0	4	230	0.19	< 8	0.08	23.0	5	< 4	5.4
SAL-PUL	AC191A1	69 51 30	155 58 40	3.8	0.12	< 0.05	120	14.0	24.0	9.0	5	110	0.19	9	0.03	18.0	6	8	4
SAL-PUL	AC192A1	71 03 00	154 45 00	3.1	0.28	0.10	380	11.0	10.0	70.0	8	170	0.32	13	0.07	21.0	6	8	6.8
SAL-SPP	AC044A1	70 13 00	148 30 00	5.2	1.40	0.15	630	21.0	8.0	8.5	23	77	1.10	< 8	0.04	4.0	14	13	1.4
SAL-SPP	AC045A1	69 33 00	148 36 00	4.3	1.00	0.10	550	23.0	6.5	6.0	19	96	0.93	< 8	0.05	6.4	12	10	1.1
SAL-SPP	AC046A1	69 02 00	148 49 00	2.6	0.37	< 0.05	1400	19.0	140.0	42.0	9	120	0.35	13	0.03	16.0	8	4	2.6
SAL-SPP	AC047A1	68 30 00	149 30 00	2.6	0.08	0.10	660	14.0	70.0	8.0	3	200	0.14	12	0.03	18.0	9	< 4	3
SAL-SPP	AC051A1	66 05 00	150 09 00	2.5	0.94	< 0.05	750	18.0	29.0	9.0	11	120	0.49	< 8	0.02	14.0	11	8	2.6
SAL-SPP	AC072A1	63 33 00	149 39 00	3.2	1.20	0.10	1600	21.0	95.0	16.0	26	300	0.97	< 8	0.02	8.6	12	7	3.5
SAL-SPP	AC146A1	70 47 00	157 14 00	2.5	0.45	0.05	440	16.0	60.0	2.5	13	270	0.41	20	0.05	12.0	9	4	3.4
SAL-SPP	AC157A1	60 12 35	147 45 22	2.2	0.41	< 0.05	170	14.0	4.0	21.0	10	370	0.35	< 8	0.02	17.0	8	16	5.1
SAL-SPP	AC158A1	57 47 47	155 19 42	6.0	0.78	0.10	890	7.2	9.5	13.0	10	130	0.59	< 8	0.07	20.0	6	7	5
SAL-SPP	AC161A1	69 05 00	144 34 00	7.1	0.75	< 0.05	260	26.0	9.5	3.5	16	83	0.65	< 8	0.03	4.6	11	8	1.5
SAL-SPP	AC166A1	68 39 14	161 58 47	3.8	0.37	< 0.05	290	13.0	20.0	6.0	10	100	0.30	< 8	0.02	20.0	7	31	5
SAL-SPP	AC170A1	69 12 45	144 00 43	2.6	-	< 0.05	-	17.0	75.0	39.0	-	-	-	-	0.01	17.0	-	-	2.8
SAL-SPP	AC182A1	67 50 00	144 10 00	1.4	-	< 0.05	-	25.0	85.0	4.5	-	-	-	-	0.02	9.4	-	-	3
SAL-SPP	AC237A1	63 53 15	160 47 00	2.2	1.30	0.10	720	9.6	7.0	20.0	19	210	0.97	< 8	0.02	15.0	10	13	8
SAL-SPP	AC241A1	63 01 30	163 33 00	2.1	-	0.05	-	17.0	75.0	23.0	-	-	-	-	-	17.0	-	-	5
SAL-SPP	AC247A1	63 07 00	156 34 30	2.4	0.05	< 0.05	610	17.0	19.0	9.0	5	170	0.11	< 8	0.02	19.0	6	< 4	6.2

Table 2.--continued.

Field ID	Lab. No.	Latitude	Longitude	Ash %	Al %	As ppm	Ba ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	I	K %	La ppm	Li ppm	Mg %
SAL-SPP	AC255A1	59 43 30	157 18 00	2.0	0.62	0.05	1600	17.0	86.0	65.0	6	430	0.36	< 8	0.02		15.0	10	6	6.8
TSUGA (Hemlock)																				
TSU-HET	AC023A1	57 41 00	133 30 00	1.9	1.30	< 0.05	88	10.0	7.0	2.0	7	120	0.26	< 8	0.04		24.0	5	4	3.7
TSU-HET	AC024C1	58 00 00	133 42 00	1.8	2.10	< 0.05	500	12.0	4.0	7.0	10	230	0.66	16	0.09		18.0	10	< 4	2.7
TSU-HET	AC056A1	55 26 57	131 27 26	2.4	2.00	< 0.05	55	9.0	5.0	2.5	13	130	0.26	14	0.03		25.0	5	< 4	3
TSU-HET	AC064A1	58 32 15	134 49 30	2.5	1.70	< 0.05	120	15.0	1.4	5.0	23	110	0.51	< 8	0.12		11.0	7	< 4	3.5
TSU-HET	AC065A1	59 09 22	135 21 44	3.0	3.60	0.20	280	7.8	2.0	9.0	60	140	2.80	24	0.04		14.0	12	10	2.9
TSU-HET	AC065A2	59 09 22	135 21 44	2.9	2.90	0.25	230	6.6	2.0	8.5	38	120	2.30	15	0.03		11.0	10	8	2.8
TSU-HET	AC092A1	60 47 37	148 54 44	2.0	3.90	< 0.05	150	10.0	1.4	5.0	16	150	0.56	15	0.04		20.0	7	7	4.5
TSU-HET	AC092A2	60 47 37	148 54 44	2.0	4.10	< 0.05	140	11.0	3.0	5.0	11	140	0.56	14	0.05		20.0	7	7	4.2
TSU-HET	AC098A1	60 35 30	145 37 00	2.1	2.80	0.30	150	12.0	1.6	4.0	16	160	0.92	14	0.07		16.0	8	5	3
TSU-HET	AC122A1	55 17 00	133 14 00	2.2	-	0.65	-	13.0	1.8	1.8	-	-	-	-	0.20		14.0	-	-	3.6
TSU-HET	AC123A1	55 55 00	132 59 00	2.0	2.00	< 0.05	96	11.0	3.0	5.5	15	220	0.68	11	0.04		16.0	7	< 4	3.6
TSU-HET	AC181A1	55 56 00	133 08 00	2.2	1.70	0.20	44	0.1	5.5	3.0	12	190	0.45	14	0.04		17.0	7	< 4	4.5
TSU-HET	AC210A1	59 26 37	136 17 14	2.0	1.80	0.25	98	1.0	0.1	5.0	24	120	0.50	< 8	< 0.01		18.0	7	< 4	3.5
VACCINIUM (Blueberry)																				
VAC-ULI	AC033A1	62 20 00	149 38 00	1.1	-	0.10	-	9.4	9.0	3.0	-	-	-	-	0.03		15.0	-	-	3.4
VAC-ULI	AC033D1	62 20 00	149 38 00	1.2	1.10	< 0.05	770	9.2	19.0	3.0	13	430	0.60	11	0.10		16.0	8	< 4	3.1
VAC-ULI	AC050C1	66 41 00	150 37 00	1.0	-	-	-	9.6	11.0	3.0	-	-	-	-	-		15.0	-	-	3.7
VAC-ULI	AC109A1	65 36 00	168 06 00	1.0	-	-	-	11.0	80.0	15.0	-	-	-	-	0.02		15.0	-	-	3.9
MISC. SPECIES																				
CAS-SPP	AC102B1	69 35 00	146 48 00	3.6	3.00	0.05	1100	11.0	6.0	15.0	44	140	2.10	11	0.07		3.5	22	20	2.3
CAS-TET	AC177A1	63 29 15	147 33 01	2.3	1.50	< 0.05	2000	17.0	1.2	6.0	16	200	0.82	11	0.04		12.0	9	4	3.3
CLA-PYR	AC190A1	61 05 22	147 28 14	2.3	1.30	< 0.05	1400	13.0	1.4	7.0	5	330	0.31	12	0.03		20.0	6	< 4	5.4
ELA-COM	AC176A1	63 44 44	145 56 13	2.3	1.20	0.05	200	6.0	3.5	8.0	32	310	1.10	< 8	0.02		23.0	15	7	4
EMP-NIG	AC118A1	54 29 06	164 52 34	7.9	7.50	0.45	790	4.0	< 0.4	4.5	10	89	6.50	20	0.10		< 1	18	12	1.8
EMP-NIG	AC121A1	55 15 00	162 47 00	10.4	7.50	0.15	680	5.0	4.5	4.0	22	70	5.30	21	0.10		1.6	15	13	2
EMP-NIG	AC193A1	52 48 30	173 09 00	2.2	1.10	0.20	420	17.0	1.6	3.0	7	240	0.85	10	0.03		15.0	8	< 4	4.8
LED-DEC	AC024B1	58 00 00	133 42 00	2.2	0.35	< 0.05	1300	12.0	< 0.4	6.0	5	130	0.25	< 8	0.08		22.0	7	< 4	2
LED-DEC	AC130A1	66 24 00	165 07 00	2.1	0.59	< 0.05	630	13.0	0.8	3.0	11	230	0.43	< 8	0.03		13.0	8	5	4.1
LED-DEC	AC139A1	66 05 00	166 36 00	1.9	0.45	< 0.05	760	12.0	1.8	2.5	8	250	0.35	< 8	0.03		12.0	9	5	4.3
LED-DEC	AC165B1	65 52 28	160 41 24	1.8	0.40	< 0.05	650	15.0	0.6	4.2	5	230	0.31	18	0.17		13.0	8	< 4	4.8
LED-DEC	AC172A1	70 27 00	157 22 00	2.4	0.90	1.10	1100	11.0	< 0.4	5.0	15	150	1.90	19	0.04		12.0	10	7	3.1
MIXED VEGETATION																				
MIXEDVEG	AC001A1	69 09 00	158 40 00	3.4	-	1.80	-	8.4	12.0	26.0	-	-	-	-	0.17		16.0	-	-	4.6
MIXEDVEG	AC002A1	68 52 00	158 20 00	3.9	4.10	1.00	1200	7.2	4.0	18.0	70	130	3.20	17	0.17		10.0	19	22	4
MIXEDVEG	AC003A1	68 08 00	156 05 00	6.6	1.40	3.10	620	9.0	3.0	5.0	20	81	2.20	16	0.17		11.0	13	12	3.3
MIXEDVEG	AC004A1	68 45 00	156 20 00	4.2	0.82	1.40	1700	9.4	10.0	23.0	12	150	6.20	14	0.15		9.6	9	7	2.7
MIXEDVEG	AC005A1	69 04 00	155 12 00	2.7	1.60	0.55	560	10.0	5.5	23.0	18	160	0.94	18	0.11		16.0	9	8	3.2
MIXEDVEG	AC006A1	69 06 00	153 45 00	4.5	1.10	2.30	400	10.0	3.0	16.0	18	88	11.00	13	0.16		14.0	9	9	3.7
MIXEDVEG	AC007A1	68 15 00	152 40 00	7.5	4.70	0.30	830	22.0	3.0	29.0	63	78	3.80	19	0.15		7.2	24	32	2.3
MIXEDVEG	AC008A1	68 52 00	152 07 00	2.4	-	1.70	-	9.0	8.5	36.0	-	-	-	-	0.10		19.0	-	-	[illegible]
MIXEDVEG	AC009A1	69 13 00	152 15 00	6.0	0.86	0.45	830	20.0	4.0	2.5	16	75	0.56	< 8	0.09		12.0	9	7	2.5
MIXEDVEG	AC010A1	69 42 00	151 57 00	5.4	2.60	0.40	1100	9.0	3.5	20.0	33	61	2.00	12	0.20		5.0	18	14	2
MIXEDVEG	AC011A1	68 20 00	151 00 00	8.6	0.84	0.10	540	26.0	4.0	2.5	14	40	0.60	< 8	0.21		2.8	9	7	1.5

Table 2.--continued.

Field ID	Lab. No.	Latitude	Longitude	Ash %	Al %	As ppm	Ba ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	I	K %	La ppm	Li ppm	Mg %
MIXEDVEG	AC012A1	68 24 00	149 55 00	7.8	3.60	0.35	770	10.0	1.8	14.0	47	88	2.50	16	0.20		4.8	23	24	2.9
MIXEDVEG	AC013A1	69 25 00	150 45 00	4.0	1.20	0.10	800	20.0	3.0	6.0	18	53	1.00	< 8	0.14		6.0	12	9	2.9
MIXEDVEG	AC014A1	69 54 00	151 15 00	5.5	1.60	1.30	1100	15.0	1.2	5.0	22	74	1.40	< 8	0.16		7.8	13	10	3
MIXEDVEG	AC015A1	70 15 00	150 54 00	20.9	3.10	< 0.05	1800	9.6	0.8	11.0	41	40	2.10	8	0.07		3.0	21	26	3.3
MIXEDVEG	AC124A1	51 56 00	176 39 00	3.2	5.80	0.05	620	4.2	3.5	6.5	30	120	3.40	20	0.19		4.2	15	12	3.3
MIXEDVEG	AC127A1	65 50 00	160 37 00	1.9	0.38	< 0.05	2300	15.0	19.0	14.0	7	180	0.32	15	0.03		13.0	8	< 4	3.9
MIXEDVEG	AC128A1	66 01 00	160 10 00	1.4	-	-	-	12.0	7.5	5.5	-	-	-	-	0.03		16.0	-	-	4.4
MIXEDVEG	AC129A1	64 52 00	160 25 00	9.8	3.40	0.40	430	12.0	2.0	7.0	39	38	1.90	< 8	0.12		10.0	17	21	2.5
MIXEDVEG	AC159A1	58 29 00	153 58 00	4.3	-	< 0.05	-	11.0	2.0	13.0	-	-	-	-	-		23.0	-	-	5
MIXEDVEG	AC160A1	58 59 00	155 06 00	4.2	0.31	-	1000	11.0	8.0	13.0	6	170	0.29	< 8	-		20.0	7	< 4	5.6
MIXEDVEG	AC178A1	63 29 15	147 33 01	6.4	0.05	< 0.05	580	11.0	1.2	1.4	3	82	0.08	< 8	0.02		19.0	5	37	2.5

Table 2.--continued.

Field ID	Lab. No.	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	S (% Tot.)	Sc ppm	Se ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	U ppm	V ppm	Y ppm	Zn ppm
ALNUS (Alder)																		
ALN-CRI	AC063A1	7000	1.5	0.[illegible]	160	2.0	25	0.035	7	0.01	< 20	2500	< 8	200	< 0.05	< 4	< 4	3200
ALN-CRI	AC100A1	2500	0.5	1.40	24	5.0	24	0.050	7	0.02	< 20	2300	< 8	300	0.09	7	< 4	1500
ALN-CRI	AC130A1	6400	2.5	0.09	39	1.5	10	0.090	6	0.03	< 20	710	< 8	700	0.08	28	4	1300
ALN-CRI	AC175A1	10000	10.0	0.02	34	3.6	3	0.040	6	< 0.01	< 20	1900	< 8	< 100	0.05	< 4	< 4	1650
ALN-CRI	AC195A1	3300	30.0	0.01	130	2.5	5	0.050	< 4	0.15	< 20	1200	< 8	< 100	0.07	< 4	< 4	250
ALN-CRI	AC229A1	28000	35.0	0.01	76	4.4	17	0.045	< 4	0.01	< 20	790	8	< 100	0.07	< 4	< 4	2050
ALN-CRI	AC240A1	6100	16.0	1.30	76	5.2	18	0.050	5	0.02	< 20	1300	< 8	400	0.07	7	< 4	1650
ALN-CRI	AC244A1	19000	45.0	0.31	100	4.7	34	0.055	6	0.01	< 20	1900	< 8	100	0.06	< 4	< 4	4300
ALN-CRI	AC252A1	3900	4.0	0.06	83	3.6	19	0.035	5	< 0.01	< 20	1600	< 8	200	0.05	< 4	< 4	2100
ALN-CRI	AC257A1	30000	3.5	0.29	15	3.5	225	0.040	8	0.01	< 20	1200	9	1400	0.14	29	10	3700
ALN-INC	AC025A1	9400	3.5	0.06	110	2.8	10	0.050	5	0.01	< 20	1500	< 8	< 100	< 0.05	< 4	< 4	750
ALN-INC	AC026A1	13000	6.0	0.02	79	3.5	11	0.060	< 4	< 0.01	< 20	1200	< 8	< 100	< 0.05	< 4	< 4	1600
ALN-INC	AC026A2	10000	2.0	0.02	79	-	8	0.060	< 4	0.01	< 20	1200	< 8	< 100	< 0.05	< 4	< 4	1600
ALN-INC	AC036A1	2900	4.5	0.12	13	1.2	< 5	0.040	< 4	0.02	< 20	740	< 8	< 100	< 0.05	< 4	< 4	740
ALN-SIN	AC057A1	6000	1.5	1.90	36	4.8	16	0.045	6	0.04	< 20	2200	< 8	< 100	0.10	< 4	< 4	1700
ALN-SIN	AC068A1	38000	5.0	0.07	34	5.1	80	0.055	6	< 0.01	< 20	2000	10	200	0.07	< 4	< 4	4200
ALN-SIN	AC084A1	42000	350.0	0.13	44	2.3	60	0.050	9	< 0.01	< 20	2300	19	900	3.00	21	8	2350
ALN-SIN	AC087A1	778	35.0	0.04	29	1.4	17	0.030	< 4	< 0.01	< 20	1100	< 8	200	< 0.05	< 4	< 4	1100
ALN-SIN	AC189A1	3100	1.0	0.46	33	7.0	5	0.040	< 4	0.02	< 20	370	< 8	< 100	< 0.05	< 4	< 4	1100
BETULA (Birch)																		
BET-GLA	AC019B1	-	-	0.06	-	4.2	23	0.020	-	< 0.01	-	-	-	-	-	-	-	17000
BET-GLA	AC046B1	-	16.0	0.08	-	3.5	37	0.040	-	0.02	-	-	-	-	0.12	-	-	11500
BET-GLA	AC047B1	16000	0.5	0.07	72	4.0	85	0.035	< 4	< 0.01	< 20	560	< 8	500	0.45	19	5	9200
BET-GLA	AC048A1	16000	-	0.08	170	2.1	40	0.030	4	0.01	< 20	380	< 8	600	0.25	26	8	6600
BET-GLA	AC078A1	18000	0.5	0.10	120	4.2	43	0.040	5	0.03	< 20	820	< 8	700	0.25	23	8	8800
BET-GLA	AC173A1	25000	1.0	0.08	100	5.0	18	0.040	4	0.01	< 20	790	9	400	0.06	8	< 4	12500
BET-GLA	AC174A1	19000	2.0	0.07	65	4.8	16	0.050	< 4	0.01	< 20	640	< 8	500	0.09	11	< 4	9800
BET-GLA	AC180A1	-	2.5	0.30	-	6.1	32	0.030	-	0.03	-	-	-	-	0.25	-	-	10500
BET-GLA	AC180A2	-	2.5	0.28	-	5.7	24	0.030	-	0.03	-	-	-	-	0.30	-	-	10200
BET-GLA	AC266A1	-	-	0.07	-	4.3	24	0.040	-	0.04	-	-	-	-	-	-	-	9800
BET-NAN	AC115A1	34000	8.0	0.09	70	3.7	12	0.040	< 4	0.02	< 20	300	9	200	0.10	< 4	< 4	18000
BET-NAN	AC116A1	5400	2.5	0.12	180	4.2	26	0.040	4	0.01	< 20	730	< 8	500	0.06	19	< 4	17000
BET-NAN	AC117A1	7000	1.5	0.10	120	3.9	30	0.040	< 4	0.01	< 20	490	< 8	200	0.10	6	< 4	12200
BET-NAN	AC140A1	31000	4.0	0.15	55	3.8	21	0.035	6	0.03	< 20	1600	9	200	-	4	< 4	11000
BET-NAN	AC141A1	50000	0.5	0.40	88	1.9	29	0.030	< 4	0.02	< 20	1100	17	< 100	-	< 4	6	9800
BET-NAN	AC165A1	-	-	0.19	-	5.6	16	0.030	-	0.02	-	-	-	-	-	-	-	9800
BET-NAN	AC179A1	21000	1.0	0.87	31	2.9	50	0.035	6	0.03	< 20	1900	< 8	300	0.18	7	4	11000
BET-NAN	AC181A1	28000	1.0	0.23	76	2.1	55	0.065	6	0.05	< 20	1300	12	600	0.06	19	6	8200
BET-NAN	AC186A1	53000	3.0	0.02	89	5.7	6	0.030	< 4	0.01	< 20	340	14	< 100	0.07	< 4	< 4	5000
BET-PAP	AC017A1	7400	1.5	0.12	110	6.2	36	0.045	< 4	0.10	< 20	960	< 8	< 100	< 0.05	< 4	< 4	5100
BET-PAP	AC049A1	24000	-	0.04	400	4.8	43	0.040	< 4	0.04	30	880	< 8	200	-	6	32	5200
BET-PAP	AC050A1	-	-	0.09	-	4.6	0.5	0.030	-	0.04	-	-	-	-	-	-	-	9000
BET-SPP	AC184A1	6800	1.5	0.42	51	2.8	90	0.030	8	0.04	< 20	940	< 8	900	0.40	36	20	11000

Table 2.--continued.

Field ID	Lab. No.	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	S (% Tot.)	Sc ppm	Se ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	U ppm	V ppm	Y ppm	Zn ppm
PICEA (Spruce)																		
PIC-GLA	AC021A1	2600	2.5	0.08	7	1.3	8	0.030	5	0.01	< 20	1000	< 8	500	0.25	19	< 4	1800
PIC-GLA	AC022A1	2500	1.0	0.03	86	3.2	6	0.040	7	0.01	< 20	1800	< 8	500	0.35	12	< 4	1400
PIC-GLA	AC030A1	410	2.0	0.14	10	2.4	5	0.040	6	0.01	< 20	920	< 8	900	0.10	25	< 4	1200
PIC-GLA	AC031A1	7700	-	0.09	9	2.6	11	0.050	5	< 0.01	< 20	1300	< 8	400	-	8	< 4	700
PIC-GLA	AC048A1	9100	1.0	0.05	17	1.2	29	0.045	6	< 0.01	20	1200	< 8	600	0.20	24	< 4	920
PIC-GLA	AC049A1	21000	0.5	0.03	260	2.8	48	0.050	5	0.03	< 20	600	< 8	500	0.35	26	58	2700
PIC-GLA	AC066A1	4800	1.0	0.07	12	3.5	70	0.050	< 4	0.01	< 20	970	< 8	300	< 0.05	8	< 4	1300
PIC-GLA	AC069A1	33000	0.5	0.05	19	2.4	55	0.050	< 4	0.01	< 20	920	9	200	0.05	< 4	< 4	1500
PIC-GLA	AC069A2	-	1.0	0.04	-	2.3	60	0.050	-	< 0.01	-	-	-	-	0.08	-	-	1400
PIC-GLA	AC070A1	11000	1.0	0.01	20	1.9	8	0.040	< 4	< 0.01	< 20	850	< 8	400	0.10	11	< 4	2050
PIC-GLA	AC070A2	10000	2.5	0.07	23	2.9	13	0.040	< 4	0.02	< 20	810	< 8	400	0.10	12	< 4	2400
PIC-GLA	AC071A1	7400	0.5	0.03	15	1.8	110	0.050	4	< 0.01	< 20	990	< 8	300	0.07	10	< 4	1250
PIC-GLA	AC071A2	6200	1.0	0.03	15	1.8	110	0.035	4	0.01	< 20	1000	< 8	300	0.07	7	< 4	1150
PIC-GLA	AC073A1	51000	1.0	0.04	36	2.9	16	0.045	< 4	< 0.01	< 20	240	14	300	0.08	< 4	< 4	2400
PIC-GLA	AC074A1	8500	1.0	0.06	96	3.2	28	0.045	< 4	0.01	< 20	770	< 8	200	0.10	7	< 4	980
PIC-GLA	AC075A1	5700	1.0	0.05	23	2.1	225	0.030	5	0.01	< 20	1200	< 8	300	0.09	8	< 4	1150
PIC-GLA	AC077A1	40000	7.0	0.02	45	4.5	13	0.050	< 4	< 0.01	< 20	570	10	200	0.05	4	< 4	1300
PIC-GLA	AC077A2	15000	6.5	0.04	41	5.0	13	0.045	< 4	< 0.01	< 20	470	< 8	< 100	0.07	< 4	< 4	1350
PIC-GLA	AC079A1	16000	2.0	0.03	22	3.5	8	0.060	< 4	0.02	< 20	430	< 8	< 100	0.09	< 4	< 4	2000
PIC-GLA	AC080A1	2900	1.0	0.06	17	2.2	38	0.035	6	0.02	< 20	640	< 8	900	0.30	29	< 4	1100
PIC-GLA	AC080A2	3000	1.0	0.05	17	2.2	35	0.040	6	0.01	< 20	610	< 8	900	0.30	30	< 4	1300
PIC-GLA	AC081A1	6400	2.5	0.08	33	2.6	30	0.040	< 4	< 0.01	< 20	480	< 8	600	0.20	18	< 4	1150
PIC-GLA	AC081A2	3900	0.5	0.09	34	2.8	27	0.050	< 4	< 0.01	< 20	490	< 8	600	0.25	13	< 4	1100
PIC-GLA	AC083A1	2700	0.5	0.02	10	2.4	28	0.035	< 4	< 0.01	< 20	930	< 8	200	< 0.05	< 4	< 4	1600
PIC-GLA	AC083A2	2600	1.0	0.01	10	2.4	35	0.030	< 4	< 0.01	< 20	950	< 8	200	< 0.05	4	< 4	1700
PIC-GLA	AC086A1	26000	1.0	0.04	14	1.6	24	0.025	< 4	< 0.01	< 20	740	< 8	< 100	0.06	< 4	< 4	920
PIC-GLA	AC086A2	11000	0.5	0.04	61	2.0	23	0.025	5	0.01	< 20	1300	< 8	400	0.06	11	< 4	900
PIC-GLA	AC089A1	2500	1.0	0.08	15	2.2	23	0.040	6	0.01	< 20	1200	< 8	700	0.05	20	< 4	1050
PIC-GLA	AC090A1	2200	0.5	0.06	8	1.0	33	0.040	8	0.01	< 20	2000	< 8	500	0.05	20	< 4	1600
PIC-GLA	AC090A2	2300	1.0	0.07	9	1.0	21	0.030	8	< 0.01	< 20	2100	< 8	600	< 0.05	18	< 4	1500
PIC-GLA	AC091A1	3300	1.0	0.04	7	2.3	95	0.050	< 4	< 0.01	< 20	980	< 8	300	0.06	8	< 4	1000
PIC-GLA	AC094A1	11000	1.0	0.14	36	1.6	46	0.045	9	0.02	< 20	920	< 8	1900	0.09	52	9	450
PIC-GLA	AC095A1	21000	1.0	0.26	14	2.3	165	0.050	5	0.01	< 20	910	8	700	0.10	19	5	1100
PIC-GLA	AC095A2	21000	2.0	0.25	14	2.8	165	0.045	5	0.02	< 20	860	10	700	0.08	20	5	1200
PIC-GLA	AC097A1	5100	1.0	0.42	20	2.5	210	0.040	5	0.02	< 20	910	< 8	600	0.06	18	< 4	750
PIC-GLA	AC100A1	15000	0.5	0.07	27	2.6	11	0.045	< 4	< 0.01	< 20	780	< 8	400	0.08	10	< 4	1000
PIC-GLA	AC110A1	6100	0.5	0.04	19	3.0	5	0.050	< 4	< 0.01	< 20	850	< 8	200	< 0.05	6	< 4	1450
PIC-GLA	AC110A2	6600	1.0	0.04	18	2.8	< 5	0.045	< 4	< 0.01	< 20	840	< 8	200	0.06	5	< 4	1500
PIC-GLA	AC111A1	10000	1.0	0.35	66	4.3	8	0.040	< 4	0.02	< 20	360	< 8	200	< 0.05	5	< 4	1050
PIC-GLA	AC112A1	14000	1.0	0.26	17	4.5	9	0.040	< 4	0.02	< 20	620	< 8	< 100	< 0.05	< 4	< 4	1300
PIC-GLA	AC113A1	7100	0.5	0.05	30	2.1	10	0.040	5	0.01	< 20	1400	< 8	300	0.10	6	< 4	1700
PIC-GLA	AC114A1	1500	1.0	0.05	13	1.4	< 5	0.050	6	< 0.01	< 20	1600	< 8	600	0.40	15	< 4	1200
PIC-GLA	AC126A1	32000	4.5	0.05	57	3.0	9	0.030	< 4	0.01	< 20	780	8	400	0.06	7	< 4	1600
PIC-GLA	AC136A1	12000	0.5	0.06	5	2.1	9	0.045	< 4	0.02	< 20	640	< 8	200	0.07	5	< 4	2300
PIC-GLA	AC136A2	22000	1.0	0.06	5	2.4	< 5	0.040	< 4	0.01	< 20	900	< 8	300	0.07	7	< 4	2100
PIC-GLA	AC147A1	3700	1.0	0.08	46	3.8	18	0.050	< 4	0.01	< 20	880	< 8	500	0.07	9	< 4	1450
PIC-GLA	AC148A1	4700	1.0	0.05	9	2.1	< 5	0.030	4	< 0.01	< 20	940	< 8	400	0.06	11	< 4	1650

Table 2.--continued.

Field ID	Lab. No.	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	S (% tot.)	Sc ppm	Se ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	U ppm	V ppm	Y ppm	Zn ppm
PIC-GLA	AC148A2	3400	0.5	0.05	49	1.4	< 5	0.040	6	< 0.01	< 20	950	< 8	400	< 0.05	12	< 4	1750
PIC-GLA	AC149A1	2100	14.0	0.04	8	2.9	< 5	0.045	5	0.01	< 20	1300	< 8	300	< 0.05	7	< 4	1000
PIC-GLA	AC150A1	3200	1.5	0.05	16	2.9	< 5	0.065	7	< 0.01	< 20	2200	< 8	400	0.05	9	< 4	1200
PIC-GLA	AC151A1	5800	1.5	0.05	35	2.2	44	0.035	5	0.01	< 20	1100	< 8	600	0.05	18	< 4	400
PIC-GLA	AC154A1	6300	1.0	0.02	12	1.8	< 5	0.030	< 4	0.02	< 20	680	< 8	100	0.07	< 4	< 4	1000
PIC-GLA	AC155A1	4200	1.5	0.12	86	1.7	32	0.055	12	0.03	< 20	880	12	1700	1.20	69	18	1600
PIC-GLA	AC185A1	12000	0.5	0.30	27	2.4	30	0.035	5	0.02	< 20	1100	< 8	500	0.07	15	< 4	1400
PIC-GLA	AC187A1	1400	3.0	0.05	6	1.4	7	0.040	7	< 0.01	< 20	1900	< 8	400	0.14	24	< 4	1900
PIC-GLA	AC188A1	860	18.0	0.01	16	2.9	< 5	0.045	13	0.03	< 20	4500	< 8	< 100	0.05	< 4	< 4	4600
PIC-GLA	AC208A1	12000	1.0	0.11	9	1.9	< 5	0.040	5	0.02	< 20	1700	< 8	< 100	0.06	< 4	< 4	1900
PIC-GLA	AC213A1	6400	1.0	0.01	24	1.9	8	0.040	< 4	< 0.01	< 20	1300	< 8	< 100	< 0.05	< 4	< 4	1900
PIC-GLA	AC214A1	15000	1.0	0.02	13	1.6	< 5	0.045	8	< 0.01	< 20	2800	< 8	< 100	0.05	< 4	< 4	2400
PIC-GLA	AC215A1	39000	2.5	0.04	27	3.4	< 5	0.035	< 4	< 0.01	< 20	590	11	200	0.40	< 4	< 4	1700
PIC-GLA	AC216A1	3100	6.0	0.14	23	2.9	42	0.040	7	0.02	< 20	500	< 8	1300	0.35	58	7	1600
PIC-GLA	AC217A1	2700	1.5	0.02	5	3.2	8	0.040	4	0.01	< 20	1300	< 8	100	0.06	< 4	< 4	1900
PIC-GLA	AC218A1	18000	2.5	0.01	< 4	3.5	7	0.050	< 4	0.01	< 20	350	< 8	< 100	0.05	< 4	< 4	3100
PIC-GLA	AC218A2	20000	3.0	0.02	54	3.5	8	0.050	< 4	< 0.01	< 20	340	< 8	< 100	0.05	< 4	< 4	3200
PIC-GLA	AC219A1	27000	9.0	0.05	23	1.8	17	0.045	< 4	< 0.01	< 20	440	< 8	< 100	0.07	< 4	< 4	1650
PIC-GLA	AC220A1	3600	3.0	0.02	11	3.1	< 5	0.020	< 4	< 0.01	< 20	960	< 8	< 100	< 0.05	< 4	< 4	2000
PIC-GLA	AC221A1	1400	2.8	0.03	< 4	2.3	10	0.030	< 4	0.02	< 20	390	< 8	200	0.10	6	< 4	1900
PIC-GLA	AC222A1	35000	1.0	0.04	22	2.4	37	0.040	< 4	0.01	< 20	470	11	300	0.08	8	< 4	1450
PIC-GLA	AC223A1	5300	1.0	0.12	5	1.2	11	0.040	5	< 0.01	< 20	1500	< 8	100	0.05	5	< 4	2350
PIC-GLA	AC224A1	2200	1.0	0.03	< 4	1.3	14	0.055	7	< 0.01	< 20	2100	< 8	200	0.06	6	< 4	2350
PIC-GLA	AC225A1	70000	1.0	0.03	33	3.1	6	0.040	< 4	< 0.01	< 20	630	22	100	0.25	< 4	< 4	1500
PIC-GLA	AC226A1	16000	1.0	0.05	23	3.4	22	0.040	< 4	0.01	< 20	530	< 8	400	0.12	14	< 4	1850
PIC-GLA	AC227A1	1700	1.0	0.09	8	1.5	18	0.030	< 4	0.01	< 20	510	< 8	300	0.05	9	< 4	1700
PIC-GLA	AC228A1	40000	1.5	0.07	18	3.1	27	0.035	< 4	< 0.01	< 20	310	10	500	0.09	14	< 4	1500
PIC-GLA	AC230A1	19000	1.5	0.04	12	1.7	22	0.045	< 4	0.01	< 20	430	< 8	300	0.07	8	< 4	2000
PIC-GLA	AC231A1	5700	1.0	0.08	17	1.3	18	0.045	< 4	0.01	< 20	270	< 8	500	0.12	20	< 4	1800
PIC-GLA	AC238A1	32000	4.0	0.06	29	3.4	18	0.050	< 4	< 0.01	< 20	450	12	300	0.06	7	< 4	1550
PIC-GLA	AC243A1	12000	1.5	0.63	26	2.5	30	0.045	5	0.02	< 20	750	< 8	700	0.14	22	< 4	1100
PIC-GLA	AC246A1	7600	1.0	0.04	80	3.4	< 5	0.040	< 4	< 0.01	< 20	920	< 8	< 100	< 0.05	< 4	< 4	1050
PIC-GLA	AC248A1	650	1.0	0.06	10	2.2	68	0.035	5	0.03	< 20	960	< 8	500	0.12	18	< 4	2200
PIC-GLA	AC249A1	3000	1.0	0.03	15	3.2	5	0.050	5	< 0.01	30	1300	< 8	200	0.10	7	< 4	1800
PIC-GLA	AC249A2	2500	1.5	0.03	16	3.0	10	0.050	4	< 0.01	< 20	1200	< 8	200	0.20	8	< 4	1700
PIC-GLA	AC250A1	12000	0.5	0.04	18	4.0	12	0.050	< 4	0.01	< 20	580	< 8	100	< 0.05	< 4	< 4	1750
PIC-GLA	AC253A1	20000	0.5	0.28	39	2.8	< 5	0.055	4	< 0.01	< 20	200	< 8	1200	0.07	28	4	1200
PIC-GLA	AC254A1	58000	0.5	0.08	< 4	2.4	11	0.050	< 4	< 0.01	< 20	410	17	400	0.14	< 4	< 4	1850
PIC-GLA	AC256A1	4300	0.5	0.42	20	2.8	31	0.045	6	0.02	< 20	820	< 8	1500	0.09	33	5	1100
PIC-GLA	AC258A1	2000	1.5	0.20	9	1.3	20	0.065	7	0.02	< 20	1100	< 8	1600	0.07	36	5	1100
PIC-GLA	AC259A1	5200	1.0	0.45	7	3.0	12	0.055	6	0.02	< 20	1500	< 8	800	0.07	19	< 4	1050
PIC-GLA	AC259A2	5900	1.0	0.40	8	2.8	9	0.060	6	0.02	< 20	1400	< 8	700	0.06	18	< 4	1250
PIC-GLA	AC260A1	1400	0.5	0.61	10	1.8	13	0.050	7	0.04	< 20	640	< 8	1600	0.09	43	6	38
PIC-GLA	AC262A1	8200	0.5	0.29	55	3.2	10	0.060	5	0.03	< 20	1600	< 8	200	0.09	4	< 4	2200
PIC-GLA	AC263A1	7900	2.0	0.13	48	3.0	17	0.045	5	0.02	< 20	800	< 8	700	0.40	23	4	1250
PIC-MAR	AC016A1	12000	1.0	0.03	60	3.8	10	0.040	5	< 0.01	< 20	1300	< 8	400	< 0.05	11	< 4	2050
PIC-MAR	AC016A2	21000	1.0	0.03	17	3.5	11	0.045	< 4	< 0.01	< 20	750	< 8	< 100	< 0.05	< 4	< 4	1750
PIC-MAR	AC019A1	-	1.0	0.04	-	2.1	11	0.040	-	0.01	-	-	-	-	0.25	-	-	2450

Table 2.--continued.

Field ID	Lab. No.	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	S (% Tot.)	Sc ppm	Se ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	U ppm	V ppm	Y ppm	Zn ppm
PIC-MAR	AC020A1	21000	0.5	0.05	10	1.3	12	0.030	< 4	< 0.01	< 20	1000	8	200	0.14	< 4	< 4	1300
PIC-MAR	AC020D1	23000	1.0	0.03	8	1.7	5	0.040	4	< 0.01	< 20	1300	< 8	200	0.12	< 4	< 4	1350
PIC-MAR	AC032A1	54000	-	0.06	64	2.1	10	0.040	< 4	< 0.01	< 20	250	22	600	-	14	6	2000
PIC-MAR	AC035A1	29000	1.5	0.06	46	2.3	12	0.050	< 4	0.01	< 20	430	9	200	0.12	< 4	< 4	2400
PIC-MAR	AC035A2	27000	2.0	0.07	49	2.5	13	0.045	< 4	< 0.01	< 20	430	8	200	0.07	< 4	< 4	2700
PIC-MAR	AC036A1	47000	1.0	0.15	15	1.6	38	0.045	6	< 0.01	< 20	290	19	1200	0.30	31	8	2550
PIC-MAR	AC039A1	6500	1.0	0.17	13	1.9	65	0.040	8	0.02	< 20	2400	< 8	400	0.05	13	< 4	1000
PIC-MAR	AC040A1	9600	-	0.52	86	3.0	250	0.040	6	0.02	< 20	1500	< 8	400	-	13	< 4	900
PIC-MAR	AC041A1	24000	0.5	0.16	22	3.1	25	0.040	< 4	0.01	< 20	899	8	200	0.05	7	< 4	1200
PIC-MAR	AC050D1	54000	1.0	0.04	7	3.4	16	0.040	5	< 0.01	< 20	1400	18	300	0.25	5	4	1700
PIC-MAR	AC051B1	5900	1.0	0.03	15	1.5	45	0.055	5	0.01	< 20	840	< 8	700	0.50	24	< 4	2100
PIC-MAR	AC067A1	50000	0.5	0.06	38	4.7	60	0.040	< 4	0.02	< 20	580	18	200	0.06	< 4	< 4	1700
PIC-MAR	AC073A1	26000	1.0	0.04	38	3.0	15	0.040	< 4	< 0.01	< 20	250	8	100	0.08	< 4	< 4	2250
PIC-MAR	AC076A1	29000	2.0	0.06	58	1.4	39	0.035	6	0.01	< 20	660	14	1200	0.25	26	6	1200
PIC-MAR	AC076A2	34000	2.5	0.06	65	1.4	46	0.050	6	0.01	< 20	710	15	1200	0.40	28	6	1450
PIC-MAR	AC082A1	32000	1.0	0.03	12	1.5	95	0.020	4	< 0.01	< 20	770	8	400	0.09	7	< 4	1350
PIC-MAR	AC082A2	32000	0.5	0.04	13	1.6	100	0.020	< 4	< 0.01	< 20	780	9	400	0.09	7	< 4	1350
PIC-MAR	AC085A1	48000	1.5	0.13	14	1.5	47	0.050	6	0.01	< 20	290	14	1100	0.35	31	8	2600
PIC-MAR	AC088A1	4800	1.0	0.06	9	1.7	95	0.040	7	< 0.01	< 20	1900	< 8	400	< 0.05	12	< 4	3000
PIC-MAR	AC088A2	4700	1.5	0.06	10	1.7	90	0.045	7	0.01	< 20	1800	< 8	400	0.05	13	< 4	2900
PIC-MAR	AC153A1	43000	3.0	0.04	5	2.7	15	0.035	< 4	< 0.01	< 20	250	13	100	0.06	< 4	< 4	2850
PIC-MAR	AC153A2	64000	3.0	0.03	5	2.7	12	0.040	< 4	< 0.01	< 20	250	18	200	< 0.05	< 4	< 4	2700
PIC-MAR	AC156A1	7600	1.0	0.05	12	2.3	23	0.030	< 4	0.01	< 20	570	< 8	100	0.08	< 4	< 4	1600
PIC-MAR	AC194A1	39000	1.0	0.05	48	2.5	13	0.050	5	0.01	< 20	540	12	800	0.18	19	4	1500
PIC-MAR	AC251A1	55000	1.0	0.10	9	2.7	34	0.050	< 4	0.02	< 20	240	20	400	0.09	6	5	1700
PIC-SIT	AC023B1	11000	1.0	0.27	22	5.6	28	0.055	4	0.01	< 20	1400	< 8	< 100	0.05	< 4	< 4	1500
PIC-SIT	AC024A1	7500	2.5	3.40	21	5.8	9	0.055	< 4	< 0.01	< 20	760	< 8	200	0.30	6	< 4	1200
PIC-SIT	AC024A2	6800	3.0	4.00	20	5.6	10	0.045	< 4	< 0.01	< 20	780	< 8	200	0.35	6	< 4	1100
PIC-SIT	AC042A1	34000	0.5	0.54	< 4	4.5	43	0.055	4	0.02	< 20	1300	10	100	0.05	< 4	< 4	1100
PIC-SIT	AC054A1	7300	1.5	0.68	42	6.0	16	0.060	< 4	0.01	< 20	550	< 8	< 100	< 0.05	< 4	< 4	800
PIC-SIT	AC058A1	28000	30.0	0.46	51	3.9	43	0.060	< 4	0.03	< 20	520	9	400	0.09	9	< 4	850
PIC-SIT	AC058A2	29000	30.0	0.47	62	4.4	40	0.045	< 4	0.03	< 20	510	< 8	400	0.18	10	< 4	1200
PIC-SIT	AC059A1	5100	0.5	0.11	32	5.2	7	0.050	5	0.01	< 20	1600	< 8	200	< 0.05	< 4	< 4	900
PIC-SIT	AC093A1	8000	0.5	0.54	36	1.8	185	0.045	10	0.03	< 20	600	< 8	2500	0.14	79	11	900
PIC-SIT	AC096A1	15000	1.0	0.65	15	3.4	115	0.050	4	0.03	< 20	730	< 8	600	0.08	16	< 4	920
PIC-SIT	AC137A1	5700	13.0	0.07	35	6.4	< 5	0.080	< 4	< 0.01	< 20	1300	< 8	< 100	< 0.05	< 4	< 4	800
PIC-SIT	AC152A1	18000	1.0	0.34	51	2.6	99	0.070	8	0.02	< 20	540	< 8	1900	0.08	71	9	1500
PIC-SIT	AC209A1	6800	2.5	0.14	48	3.9	48	0.040	< 4	0.03	< 20	740	< 8	200	0.06	< 4	< 4	1150
PIC-SIT	AC264A1	6100	1.0	0.96	58	4.5	13	0.070	< 4	0.02	< 20	680	< 8	300	0.05	8	< 4	700
PIC-SIT	AC265A1	7700	1.0	0.37	95	5.0	250	0.075	6	0.04	< 20	540	< 8	1200	0.20	48	5	1350
SALIX (Willow)																		
SAL-ALA	AC052A1	-	-	0.28	-	4.4	6	0.120	-	0.64	-	-	-	-	-	-	-	6800
SAL-ALA	AC053A1	-	-	0.08	-	4.2	12	0.110	-	0.04	-	-	-	-	< 0.05	-	-	3600
SAL-ALA	AC062A1	800	1.0	0.58	11	4.0	< 5	0.045	< 4	0.04	< 20	920	< 8	100	0.05	< 4	< 4	3750
SAL-ALA	AC232A1	20000	-	2.20	84	6.6	60	0.040	6	0.01	< 20	1900	< 8	200	0.25	6	< 4	13000
SAL-ALA	AC233A1	1100	0.5	0.50	26	2.4	8	0.060	5	0.02	< 20	150	< 8	700	0.12	33	5	3500
SAL-ALA	AC242A1	2300	3.0	1.30	46	3.5	32	0.060	5	0.03	< 20	920	< 8	800	0.14	23	< 4	9400

Table 2.--continued.

Field ID	Lab. No.	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	S (% Tot.)	Sc ppm	Se ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	U ppm	V ppm	Y ppm	Zn ppm
SAL-ALA	AC261A1	970	0.5	0.40	27	2.8	40	0.050	8	0.02	< 20	2300	< 8	500	0.06	11	< 4	4200
SAL-ARB	AC020E1	2300	-	0.44	6	2.8	6	0.050	< 4	0.01	< 20	370	< 8	200	-	< 4	< 4	1500
SAL-ARB	AC037A1	-	1.5	0.09	-	2.8	8	0.020	-	< 0.01	-	-	-	-	0.06	-	-	8000
SAL-ARB	AC038A1	14000	1.0	0.09	34	2.0	17	0.050	5	< 0.01	< 20	1600	< 8	100	2.00	< 4	< 4	800
SAL-ARC	AC101A1	690	2.0	0.30	51	2.5	20	0.045	7	0.02	< 20	540	< 8	1400	0.65	54	7	4400
SAL-ARC	AC102A1	1600	0.5	0.10	48	2.2	13	0.045	< 4	0.02	< 20	690	< 8	200	0.06	5	< 4	8200
SAL-ARC	AC104A1	1600	2.5	2.20	22	4.8	21	0.060	5	< 0.01	< 20	1500	< 8	100	0.14	8	< 4	12000
SAL-GLA	AC055A1	5400	1.0	0.05	24	1.0	14	0.050	< 4	0.01	< 20	520	< 8	300	0.10	9	< 4	8000
SAL-GLA	AC060A1	1900	1.5	0.02	10	0.4	12	0.040	< 4	0.01	< 20	340	< 8	200	0.09	5	< 4	840
SAL-GLA	AC061A1	6400	2.0	0.34	13	2.5	14	0.035	7	0.03	< 20	2400	< 8	200	0.10	< 4	< 4	3000
SAL-GLA	AC103A1	4300	1.0	0.14	140	3.1	26	0.040	< 4	0.03	< 20	980	< 8	< 100	0.06	< 4	< 4	6000
SAL-GLA	AC132A1	21000	1.5	0.19	50	2.8	31	0.080	6	0.05	< 20	450	< 8	700	-	23	5	1300
SAL-GLA	AC134A1	1800	6.0	0.06	76	5.1	< 5	0.040	< 4	0.25	< 20	110	< 8	< 100	0.10	< 4	< 4	6200
SAL-GLA	AC135A1	1800	1.5	0.05	48	3.9	10	0.050	< 4	< 0.01	< 20	340	< 8	300	0.09	8	< 4	5400
SAL-GLA	AC167A1	1800	2.5	0.05	52	4.4	8	0.090	< 4	0.01	< 20	320	< 8	< 100	< 0.05	< 4	< 4	4000
SAL-GLA	AC168A1	2900	1.0	0.68	39	2.2	11	0.040	< 4	0.03	< 20	550	< 8	400	0.20	15	< 4	8500
SAL-GLA	AC169A1	4400	0.5	0.04	140	4.4	< 5	0.060	< 4	0.02	< 20	870	< 8	< 100	< 0.05	< 4	< 4	5600
SAL-GLA	AC171A1	5800	0.5	0.05	260	5.2	4	0.085	< 4	0.01	< 20	260	< 8	200	0.05	6	< 4	2500
SAL-GLA	AC245A1	1000	1.0	0.11	79	4.1	8	0.090	< 4	0.15	< 20	690	< 8	< 100	-	< 4	< 4	6000
SAL-PLA	AC234A1	20000	2.0	0.32	69	3.4	< 5	0.050	< 4	0.01	< 20	740	< 8	< 100	< 0.05	< 4	< 4	9000
SAL-PLA	AC235A1	24000	3.0	1.20	79	2.8	18	0.045	5	0.02	< 20	1200	< 8	200	0.10	8	< 4	13200
SAL-PUL	AC142A1	16000	4.0	0.24	17	1.9	18	0.045	< 4	< 0.01	< 20	600	< 8	< 100	0.05	< 4	< 4	2200
SAL-PUL	AC143A1	18000	2.0	0.55	30	1.4	6	0.040	< 4	0.01	< 20	680	< 8	300	0.08	6	< 4	14000
SAL-PUL	AC144A1	5800	1.0	1.50	20	5.0	5	0.065	6	0.02	< 20	960	< 8	1000	0.07	28	5	6600
SAL-PUL	AC145A1	13000	-	2.50	56	5.0	10	0.120	< 4	0.04	< 20	890	< 8	100	-	< 4	< 4	6000
SAL-PUL	AC191A1	19000	25.0	0.20	34	4.0	< 5	0.890	< 4	< 0.01	< 20	200	< 8	< 100	< 0.05	< 4	< 4	3400
SAL-PUL	AC192A1	19000	6.5	0.72	12	4.9	6	0.030	< 4	0.03	< 20	890	< 8	200	0.08	< 4	< 4	9500
SAL-SPP	AC044A1	3700	3.0	0.16	23	1.1	12	0.040	5	0.02	< 20	730	< 8	700	1.40	30	5	4700
SAL-SPP	AC045A1	5500	2.5	0.06	20	0.8	24	0.045	4	0.02	40	620	< 8	500	0.65	23	4	7600
SAL-SPP	AC046A1	20000	35.0	0.06	39	2.7	22	0.055	< 4	< 0.01	30	650	< 8	200	0.16	6	< 4	12200
SAL-SPP	AC047A1	20000	1.5	0.05	36	3.2	40	0.050	5	< 0.01	< 20	1600	< 8	< 100	0.30	< 4	< 4	10200
SAL-SPP	AC051A1	3300	1.0	0.05	23	2.2	17	0.045	< 4	0.31	< 20	680	< 8	400	0.25	11	< 4	3900
SAL-SPP	AC072A1	2400	1.0	0.13	140	2.2	28	0.050	6	0.02	< 20	1100	< 8	900	0.12	23	5	10000
SAL-SPP	AC146A1	56000	2.5	0.34	81	3.2	12	0.055	< 4	0.01	< 20	670	17	300	0.05	< 4	< 4	14000
SAL-SPP	AC157A1	7700	4.0	0.36	140	4.5	36	0.065	< 4	0.02	< 20	1100	< 8	200	0.15	5	< 4	1800
SAL-SPP	AC158A1	1300	1.0	2.50	83	5.2	16	0.160	5	0.03	< 20	1000	< 8	400	0.08	14	< 4	2400
SAL-SPP	AC161A1	740	-	0.03	23	0.9	5	0.055	< 4	0.03	< 20	530	< 8	400	-	16	< 4	2600
SAL-SPP	AC166A1	880	3.0	0.15	36	2.1	12	0.200	< 4	0.20	< 20	500	< 8	300	0.05	10	< 4	2100
SAL-SPP	AC170A1	-	-	0.02	-	3.9	29	0.060	-	< 0.01	-	-	-	-	-	-	-	7600
SAL-SPP	AC182A1	-	3.0	0.02	-	2.5	7	0.030	-	0.02	-	-	-	-	0.10	-	-	11200
SAL-SPP	AC237A1	4500	1.0	2.60	19	4.2	44	0.045	8	0.01	< 20	1900	< 8	900	0.14	19	< 4	8000
SAL-SPP	AC241A1	-	3.0	0.52	-	5.0	23	0.070	-	0.01	-	-	-	-	0.50	-	-	12000
SAL-SPP	AC247A1	4800	2.5	0.07	17	5.4	< 5	0.050	< 4	0.07	< 20	1300	< 8	< 100	< 0.05	< 4	< 4	6300

Table 2.--continued.

Field ID	Lab. No.	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	S (% Tot.)	Sc ppm	Se ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	U ppm	V ppm	Y ppm	Zn ppm
BAL-SPP	AC255A1	8700	7.0	0.92	17	3.6	43	0.045	8	0.07	< 20	2700	< 8	200	0.05	5	< 4	3800
TSUGA (Hemlock)																		
TSU-HET	AC023A1	8000	2.5	1.20	15	5.6	60	0.035	< 4	0.05	< 20	140	< 8	200	0.25	< 4	< 4	700
TSU-HET	AC024C1	31000	2.0	0.89	34	4.3	25	0.050	< 4	0.04	< 20	240	12	600	0.55	11	4	1150
TSU-HET	AC056A1	24000	0.5	0.40	22	5.8	65	0.040	< 4	0.03	< 20	230	9	200	0.06	< 4	< 4	550
TSU-HET	AC064A1	79000	1.0	0.68	17	5.6	180	0.055	< 4	0.05	< 20	98	23	300	0.10	5	4	600
TSU-HET	AC065A1	19000	2.0	1.10	25	3.9	360	0.040	12	0.01	< 20	210	< 8	2900	0.30	85	10	540
TSU-HET	AC065A2	14000	2.0	1.60	21	3.6	360	0.045	10	0.02	< 20	170	< 8	2100	0.25	70	8	450
TSU-HET	AC092A1	24000	1.0	0.13	41	4.2	75	0.055	< 4	0.03	< 20	120	< 8	500	0.12	13	< 4	1100
TSU-HET	AC092A2	22000	1.0	0.11	35	4.1	55	0.050	< 4	0.03	< 20	120	< 8	500	0.08	11	< 4	1000
TSU-HET	AC098A1	29000	1.0	0.41	23	4.0	70	0.050	5	0.02	< 20	220	< 8	1000	0.14	28	4	720
TSU-HET	AC122A1	-	-	0.76	-	2.1	47	0.045	-	0.06	-	-	-	-	-	-	-	600
TSU-HET	AC123A1	19000	1.0	0.54	21	3.0	44	0.040	< 4	0.02	< 20	730	< 8	500	0.10	16	< 4	800
TSU-HET	AC181A1	33000	1.0	0.41	15	3.7	24	0.040	< 4	0.02	< 20	110	8	400	0.12	8	< 4	560
TSU-HET	AC210A1	79000	2.5	0.07	34	5.8	38	0.045	< 4	0.01	< 20	80	23	300	0.15	4	5	500
VACCINIUM (Blueberr																		
VAC-ULI	AC033A1	-	-	0.19	-	4.9	47	0.045	-	< 0.01	-	-	-	-	-	-	-	5000
VAC-ULI	AC033D1	67000	-	0.16	85	4.8	75	0.040	4	< 0.01	< 20	1000	21	300	-	< 4	5	6400
VAC-ULI	AC050C1	-	-	0.10	-	4.6	34	0.030	-	0.01	-	-	-	-	-	-	-	3200
VAC-ULI	AC109A1	-	-	0.66	-	4.2	36	0.040	-	0.03	-	-	-	-	-	-	-	7400
MISC. SPECIES																		
CAS-SPP	AC102B1	3800	0.5	0.09	42	1.5	31	0.045	7	0.04	< 20	410	< 8	1600	0.35	59	11	1100
CAS-TEI	AC177A1	18000	2.5	0.08	36	3.0	35	0.050	5	0.01	< 20	550	< 8	800	0.10	23	4	1000
CLA-PYR	AC190A1	21000	0.5	2.80	45	2.2	45	0.050	< 4	0.08	< 20	380	< 8	200	0.05	5	< 4	1800
ELA-COM	AC176A1	1600	3.0	0.08	170	3.5	17	0.070	5	0.02	< 20	500	< 8	900	0.20	25	4	700
EMP-NIG	AC118A1	2900	0.5	0.87	5	0.7	21	0.050	26	0.02	< 20	560	< 8	7200	0.20	190	29	300
EMP-NIG	AC121A1	6300	1.5	0.58	11	5.0	23	0.040	20	0.20	< 20	490	< 8	5300	0.20	180	17	260
EMP-NIG	AC193A1	11000	2.0	0.75	26	3.0	75	0.055	6	0.10	< 20	1200	< 8	600	0.14	30	< 4	660
LED-DEC	AC026B1	12000	2.0	0.50	87	4.3	10	0.040	< 4	0.03	< 20	520	< 8	200	0.25	< 4	< 4	860
LED-DEC	AC138A1	74000	1.0	0.20	18	3.7	11	0.060	< 4	0.02	< 20	390	22	300	0.05	< 4	4	1200
LED-DEC	AC139A1	72000	-	0.17	6	3.6	13	0.045	< 4	0.02	< 20	380	22	100	0.05	< 4	4	1200
LED-DEC	AC165B1	48000	18.0	0.07	19	3.5	22	0.045	< 4	0.02	< 20	400	16	200	0.06	< 4	< 4	1450
LED-DEC	AC172A1	53000	-	0.19	21	2.7	9	0.045	< 4	0.03	< 20	120	18	500	0.10	14	6	1100
MIXED VEGETATION																		
MIXEDVEG	AC001A1	-	35.0	0.50	-	2.9	21	0.060	-	0.08	-	-	-	-	0.18	-	-	3100
MIXEDVEG	AC002A1	11000	15.0	0.32	120	2.1	12	0.060	13	0.10	< 20	230	< 8	2200	0.20	89	16	1200
MIXEDVEG	AC003A1	22000	14.0	0.44	110	2.4	10	0.090	4	0.07	< 20	300	8	600	0.14	27	13	8200
MIXEDVEG	AC004A1	25000	30.0	0.42	100	1.5	14	0.065	< 4	0.07	< 20	420	10	300	0.10	16	7	3000
MIXEDVEG	AC005A1	31000	30.0	0.38	97	3.2	25	0.055	< 4	0.05	< 20	180	11	400	0.10	16	5	1850
MIXEDVEG	AC006A1	17000	40.0	0.52	85	1.8	18	0.035	< 4	0.20	< 20	350	8	500	0.08	24	5	1200
MIXEDVEG	AC007A1	14000	1.0	0.23	72	1.3	18	0.070	10	0.04	< 20	180	9	2600	0.25	84	12	1250
MIXEDVEG	AC008A1	-	-	0.56	-	3.3	29	0.055	-	0.05	-	-	-	-	0.14	-	-	1800
MIXEDVEG	AC009A1	2300	0.5	0.11	21	1.6	10	0.095	< 4	0.05	< 20	410	< 8	400	0.10	16	< 4	750
MIXEDVEG	AC010A1	10000	2.5	0.18	34	1.2	15	0.060	6	0.10	< 20	230	< 8	1300	0.30	46	8	820
MIXEDVEG	AC011A1	1800	3.0	0.07	10	0.5	12	0.060	< 4	0.05	< 20	380	< 8	500	0.70	17	< 4	1300

Table 2.--continued.

Field ID	Lab. No.	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	S (% Tot.)	Sc ppm	Se ppm	Sn ppm	Sr ppm	Th ppm	Ti ppm	U ppm	V ppm	Y ppm	Zn ppm
MIXEDVEG	AC012A1	15000	6.5	0.14	35	1.5	19	0.075	8	0.09	< 20	220	10	1800	0.20	62	10	880
MIXEDVEG	AC013A1	4600	100.0	0.26	14	1.4	15	0.025	< 4	0.06	< 20	490	< 8	600	0.25	24	< 4	800
MIXEDVEG	AC014A1	8000	16.0	0.35	26	1.7	11	0.050	5	0.10	< 20	290	< 8	700	0.35	27	10	1000
MIXEDVEG	AC015A1	1400	2.0	0.19	36	0.6	8	0.080	7	0.01	< 20	310	< 8	1600	0.25	58	11	300
MIXEDVEG	AC124A1	11000	5.0	1.80	20	0.8	65	0.035	14	0.10	< 20	870	< 8	2900	0.35	110	11	600
MIXEDVEG	AC127A1	58000	0.5	0.17	37	3.3	25	0.035	< 4	0.02	< 20	340	18	100	0.08	< 4	< 4	6000
MIXEDVEG	AC128A1	-	-	1.30	-	3.7	29	0.040	-	0.03	-	-	-	-	-	-	-	4700
MIXEDVEG	AC129A1	790	2.5	0.17	18	0.9	14	0.120	8	0.01	< 20	520	< 8	1800	0.20	52	9	900
MIXEDVEG	AC159A1	-	6.0	1.20	-	5.1	8	0.110	-	0.06	-	-	-	-	0.45	-	-	1300
MIXEDVEG	AC160A1	7600	-	0.18	28	4.6	20	0.140	< 4	0.01	< 20	900	< 8	200	-	< 4	< 4	1700
MIXEDVEG	AC178A1	6100	25.0	0.02	28	1.8	< 5	0.140	< 4	0.40	< 20	390	< 8	< 100	< 0.05	< 4	< 4	440