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**Analytical results of plant and soil samples collected near
Flat, Iditarod, and Livengood, Alaska in 1984**

By

B. M. Erickson, R. C. Severson, and J. G. Crock

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This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards and stratigraphic nomenclature. Any use of trade names is for descriptive purposes only and does not imply endorsement by the USGS.

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INTRODUCTION

In late August of 1984, we collected samples of native plants and soil profile horizons in three areas of Alaska. Two of the areas are represented by sampling sites near active placer operations (the Golden Horn mine near Flat, and Lillian Creek near Livengood), and the third (near Iditarod) is a site with no known placer gold (fig. 1). An additional soil sample was collected from the active placer operation at Lillian Creek from the area described by the operator as the "pay zone." Two additional plant species were collected from the tailings piles at the abandoned Golden Horn mine at Flat, and samples of moss and horsetail were collected from Lillian Creek, close to site LV-2.

All samples were collected as part of a preliminary reconnaissance-type sampling program to determine if gold is mobile under present-day conditions.

COLLECTION METHODS AND SAMPLE DESCRIPTIONS

Vegetation Samples

Representative plant species (table 1) from each level of the forest canopy were collected as close as possible to the soil-sampling sites. The terminal (18-30 cm) growth of tree and shrub species was collected using stainless-steel clippers. The herbaceous samples (fireweed and horsetail) consisted of the above-ground parts; the mull samples were collected from the living top layer of the soil profiles; and the Reindeermoss samples were composited from the area surrounding the soil-sampling sites.

Of the 13 species collected, only labrador tea occurred at all sites. There is a species difference between the samples of birch trees at Livengood (River Birch), and Iditarod and Flat (Paper Birch). Alder was collected at all sites except FT-2, and reindeermoss at all sites except the background site (ID-3). Dwarf birch, blueberry, willow, and fireweed were not found at the Livengood area. Hemlock was sampled at FT-1 and ID-3, tamarack at FT-2, and white spruce at LV-1 and LV-2. A sample each of horsetail and moss were collected from Lillian Creek (close to LV-2). Horsetail was also collected from the old tailings pile at the Golden Horn mine along with fireweed.

Soil Samples

At the Iditarod and Livengood sampling locations, small pits were dug to a depth of about 1 m; at the Flat sampling locations, the side walls of 2-m-deep exploration trenches were sampled after digging to expose fresh material. At all locations, the various soil horizons were identified and described, and two samples of each horizon were collected in 1 l nitric-acid-washed polypropylene bottles. Three additional samples were collected in the main "pay zone" directly above the weathered bedrock at the active placer operation in Livengood. A large sample from this "pay zone" (sample LV-4) was panned in the field and the recovered gold was saved for additional observations and analyses.

Brief descriptions of the soils collected at the three locations are given in table 2. Acronyms describing the profiles correspond to the locations in figure 1. All soil profiles, except LV-2, contain only an organic-rich surface horizon over parent material and, therefore, show minimal soil development. Profile LV-2, collected from a side slope above Lillian Creek (fig. 1), contains a buried surface horizon. The side slopes at this

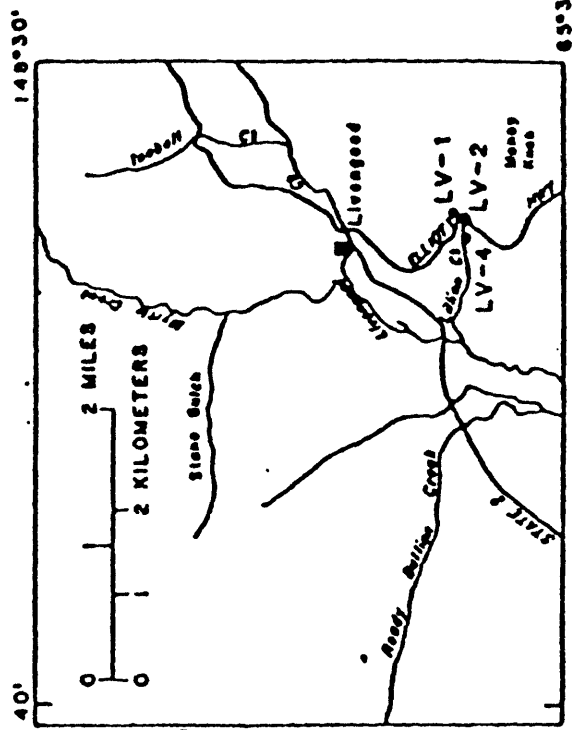
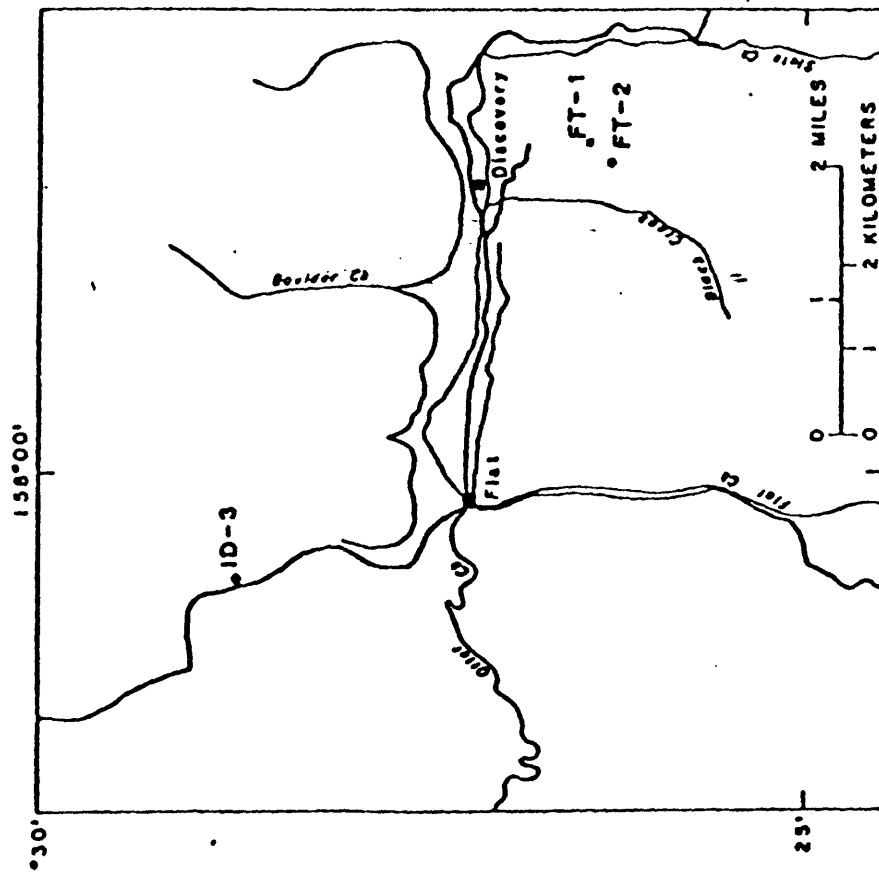


Figure 1. General location map showing the sampling locations at Iditarod, Flat, and Livengood, Alaska.

location consist of a series of buried organic horizons, probably due to solifluction and surface creep. All soil profiles sampled suggest constant oxidizing conditions in the surface horizons, and alternating oxidizing (dry) and reducing (water-saturated) conditions in the C-horizon. The sample from the placer mine (LV-4) has the characteristics of the soil C-horizons.

ANALYTICAL METHODS

Soil and Plant Preparation

The soils were dried under forced air at ambient temperature, classified, and disaggregated. The minus 10-mesh fraction was used for all analytical work. A small split of this material was ground in an agate shatter box to pass 100 mesh and was used for all total analyses.

The vegetation materials were dried at 50°C for 1 week in a forced air oven, ground with a Wiley mill, and split. One set of split samples were ashed at 500°C for inductively coupled plasma-atomic emission spectroscopy and the unashed or raw samples were submitted for neutron activation analysis.

Total Element Content Determinations

Table 3 lists the methods used for total element determination. All analyses were performed at the USGS Analytical Chemistry Laboratories, Denver, CO. Table 4 lists the methods used for the extractable elements.

CODING EXPLANATIONS FOR TABLES 5 and 6

The first character of the sample identification (A) in table 5 indicates the vegetation samples were collected in the State of Alaska, and the second and third characters represent the geographical sampling locations within the state (ID = Iditarod or Flat areas; LV = Livengood area). The fourth character (4) indicates the year of collection, 1984. The fifth character (1, 2, or 3) represents the sampling site within a geographical location. The sixth and seventh characters of the sample identification indicate the plant species collected, as follows:

AL - Alder
BB - Blueberry
DB - Dwarf Birch
ES - Horsetail
FW - Fireweed
LL - Tamarack
LT - Labrador Tea
MH - Mountain Hemlock
RM - Reindeermoss
TB - Tree Birch or Paper Birch
WS - White Spruce
WW - Willow.

Where present, the eighth character (x, or -), indicates a split, and the ninth character (1, or 2) the locality within a sampling site.

The characters following the element symbols indicate units of measurement and analytical methods, respectively:

Units of Measurement

ppm - parts per million
ppb - parts per billion
% - percent

Analytical Methods

n - neutron activation analysis
s - inductively coupled plasma-atomic emission spectroscopy
blank - continuous flow hydride generation-atomic absorption spectroscopy

The following list interprets the symbols used in table 6. The fourth through eighth characters of the sample identification indicate soil horizon according to the U.S. Department of Agriculture (1952) nomenclature. The characters following the element symbol indicate units of measurement-analytical method, respectively:

Units of Measurement

ppm - parts per million
ppb - parts per billion
% - percent
mmhos/cm - milimhos per centimeter

Analytical Methods (Methods p and w represent an extractable fraction of the total element content in the sample; the remaining methods represent the total content.)

c - continuous flow cold vapor-atomic absorption spectroscopy
h - continuous flow hydride generation-atomic absorption spectroscopy
p - 20 gm soil extracted with 100 ml hydrogen peroxide-acetic acid
s - inductively coupled plasma-atomic emission spectroscopy
w - 20 gm soil extracted with 100 ml water

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Table 1. List of vegetation species samples at Flat (FT-), Iditarod (ID-), and Livengood (LV-), Alaska

Species collected	Sites				
	FT-1	FT-2	ID-3	LV-1	LV-2
Forest Mull*	X	X	X	X	X
<u>Cladonium rangifeina</u> (Reindeer moss)	X	X		X	
<u>Equisetum pratense</u> L. (Horsetail**)		X	X		X
<u>Epilobium angustifolium</u> L. subsp. <u>angustifolium</u> (Fireweed**)	X	X	X		
<u>Ledum palustre</u> L. subsp. <u>decumbens</u> (Ait.) Hult. (Labrador tea)	X	X	X	X	X
<u>Betula nana</u> L. subsp. <u>exilis</u> (Sukatusch.) Hult. (Dwarf birch)	X	X	X		
<u>Vaccinium uliginosum</u> L. subsp. <u>alpinum</u> (Bigel.) Hult. (Alpine blueberry)		X	XX		
<u>Alnus incana</u> (L.) Moench (Alder)	X		X	X	X
<u>Salix</u> sp. (Willow)	X	X	X		
<u>Betula occidentalis</u> Hook (Tree birch)	X	X	X		
<u>B. papyrifera</u> Marsh. subsp. <u>humilis</u> (Regel) Hult. (Paper birch)				X	X
<u>Tsuga Mertensiana</u> (Bong.) Sarg. (Mountain hemlock)	X		X		
<u>Picea glauca</u> (Moench) Voss (White spruce)				X	X
<u>Larix laricina</u> (Du Roi) K. Koch (Tamarack)		X			

*Analysis pending.

**Collected also at abandoned Golden Horn mine site near site FT-2.

Table 2. Descriptions of the soil profiles samples at Flat (FT-), Iditarod (ID-), and Livengood (LV-), Alaska

Horizon description	Depth (cm)	-----Matrix color-----		-----Mottles-----			Description
		Wet color	Dry color	Wet Color	Dry color	Abundance	
FT-1							
O1	0-14	-- ¹	--	--	--	--	Root mat
O2	14-24	10YR3/4 ²	10YR5/3	--	--	--	Silt
C1	24-36	2.5Y5/4	2.5Y6/3	10YR5/8	10YR6/8	1%	Silt
C2	36-90+	2.5Y5/4	2.5Y6/4	10YR5/8	10YR6/8	20%	Silt
FT-2							
Living moss mat	0-12			not sampled			
O1	12-15			not sampled			
A1	15-37	10YR3/2	10YR5/3	--	--	--	Silt
C1	37-50	2.5Y4/4	2.5Y6/3	--	--	--	Silt
C2g	50-60	2.5Y5/4	2.5Y6/3	2.5Y5/2 7.5YR4/4	2.5Y7/0 7.5YR5/8	30% 30%	Silt
I1C3	60-80	10YR4/4	10YR6/5	--	--	--	Transition zone
I1C4	80-120+	10Yr5/6	10YR7/6	--	--	--	Weathered monzonite
ID-3							
Fibric peat	0-20			not sampled			
O2	20-23	10YR2/1	10YR3/2	--	--	--	Highly organic
C1	23-43	2.5Y5/2	2/5Y6/2	7.5YR4/4	7.5YR5/6	30%	Silt
C2	43-50	2.5Y3/2	2.5Y5/2	7.5YR4/4	7.5YR5/6	10%	2.5Y3/0 organic stains between varve-like layers
C3	50-70	2.5Y4/2	2.5Y7/2	7.5YR4/4	7.5YR5/6	20%	Silt
LV-1							
O2	0-4	10YR2/2	10YR3/2	--	--	--	Highly organic
C1	4-17	2.5Y5/4	2.5Y6/3	--	--	--	Silt
C2	17-26	2.5Y4/4	2.5Y6/2	--	--	--	Silt
C3	26-55	2.5Y4/3	2.5Y7/2	--	--	--	Silt
I1C4	55-70+	10YR5/5-5/6	10YR4/3	--	--	--	Sand and gravel
LV-2							
O1	0-8			not sampled			
O2	8-11	N2/0	10YR3/2	--	--	--	Highly organic
C1	11-19	10YR3/2	10YR5/1	--	--	--	Silt
A1b	19-24	N2/0	10YR4/2	--	--	--	Highly organic silt
C2	24-33	10YR3/1	10YR5/2	--	--	--	Silt
C3	33-74	10YR3/2	2.5Y5/2	--	--	--	Silt
C4	74-90+	10YR3/3	2.5Y5/3	--	--	--	Silt
LV-4							
Undefined	8+ meters	mottled matrix		2.5Y4/3 5YR4/6	2.5Y5/2 10YR6/6	70% 30%	Silt

¹Not present or determinable.²Munsell color notation.

Table 3.--Methods used for total element content of plants and soils

[AAS = atomic absorption spectroscopy; ICAP-AES = inductively coupled argon plasma-atomic emission spectroscopy; and NAA = neutron activation analysis]

Element	Method	Reference
As, Sb	Hydride generation-AAS	Crock and Lichte, 1982.
Hg	Cold vapor-AAS	Koirtiyohann and Khalil, 1976.
C, S	Leco standard combustion	Standard manufacturer techniques
Au (soils)	HBr-Br ₂ digestion, AAS	Thompson and others, 1968.
44-element scan	ICP-AES	Crock and others, 1983.
Au (plants)	NAA, raw material	Standard manufacturer techniques

Table 4.--Methods used for extractable element content of soils

[HOAc = hydrogen peroxide-acetic acid]

Element/Parameter	Method	Reference
pH	Soil slurry	Crock and Severson, 1980.
Organic Au	H ₂ O ₂ /HOAc digest-AAS	Severson and others, 1985.
Water-extractable Au	Water extraction	Severson and others, 1985.
Total organic carbon	Wet oxidation	Wershaw, 1982
Specific conductivity	Myron L DS meter	Standard manufacturer technique
Water-solubilized cation and anions	Ion chromatography	Standard manufacturer technique (Dionex, Inc.)

Table 5.-- Analytical results for plant samples collected near Flat, Iditarod, and Livenwood, Alaska.
 (N, not detected; <, detected but below the limit of determination shown; >, determined to be greater than the value shown.)

Sample	Al	%-S	As ppm-S	As ppm	AS ppm-n	AU ppb-n	Ra ppm-S	Pe ppm-S	Ri ppm-n	Ca	%-S	Cd ppm-S
Plant samples collected near Flat, Alaska location-1 (FT-1).												
AID41AL	1.70		1.10	1.10	7.90	880	<2	<2	1.40			10.0
AID41ALX	1.80		--	--	--	1,800	<2	<2	--			19.0
AID41BB	.94		.70	--	--	670	<2	<2	--			17.0
AID41RR	2.20		.90	--	--	790	<2	<2	--			15.0
AID41DB	.43		<.10	.11	.80	1,500	<2	<2	.57			17.0
AID41FW	.72		1.30	1.20	2.20	1,700	<2	<2	2.40			17.0
AID41FWX	.80		1.30	--	--	670	<2	<2	--			18.0
AID41LT	3.60		1.10	1.50	2.40	400	<2	<2	.61			16.0
AID41MH	.38		.50	.13	.40	920	<2	<2	2.60			19.0
AID41MHX	.40		<.10	--	--	940	<2	<2	--			19.0
AID41RM	7.30		2.30	3.00	5.20	930	<2	<2	2.00			3.0
AID41TR	.18		.20	.24	.80	1,500	<2	<2	1.20			20.0
AID41TBX	.19		.20	.38	.80	2,300	<2	<2	1.20			21.0
AID41W	.38		.10	--	--	900	<2	<2	--			15.0
AID41WX	.40		.14	--	--	260	<2	<2	--			17.0
												140
Plant samples collected near Flat, Alaska location-2 (FT-2).												
AID42FS-1	.43		3.70	--	--	870	<2	<2	--			9.1
AID42ESX1	.39		--	--	--	830	<2	<2	--			9.2
AID42ES-2	1.00		7.60	--	--	2,100	<2	<2	--			11.0
AID42ESX2	.61		--	--	--	2,200	<2	<2	--			12.0
AID42EB	.35		.58	.46	.98	850	<2	<2	1.10			16.0
AID42DB	.50		2.70	.79	2.90	1,300	<2	<2	1.30			17.0
AID42DBX	.49		5.80	.52	3.50	1,300	<2	<2	1.40			17.0
AID42FW	3.30		2.20	1.77	7.70	1,000	<2	<2	3.60			15.0
AID42FWX	.18		1.40	1.70	9.30	540	<2	<2	4.33			25.0
AID42FW-2	.17		1.70	--	--	620	<2	<2	--			24.0
AID42LL	1.80		1.10	.93	11.60	750	<2	<2	1.40			15.0
AID42L1X	1.90		--	--	--	240	<2	<2	--			16.0
AID42LT	.68		.20	--	--	340	<2	<2	--			19.0
AID42LTY	.71		.63	.73	10.50	1,000	<2	<2	1.40			20.0
AID42TR	.16		.56	.65	.40	250	<2	<2	1.50			10.0
AID42TRX	.15		1.00	--	--	840	<2	<2	--			20.0
AID42W	.38		.62	--	--	160	<2	<2	--			18.0
AID42WXX	.37		.60	--	--	520	<2	<2	--			18.0
												47
Plant samples collected near Iditarod, Alaska location-3 (ID-3).												
AID43AL	.06		.40	<.30	<2.00	990	<2	<2	153.00			24.0
AID43BB	.35		.33	--	--	460	<2	<2	--			18.0
AID43DB	.20		.40	<.20	<2.00	1,300	<2	<2	176.00			16.0
AID43DBX	.22		--	--	--	1,300	<2	<2	--			17.0
AID43FW	.19		4.00	--	--	1,100	<2	<2	--			24.0
AID43ES	.04		--	<.40	<4.00	520	<2	<2	373.00			13.0
AID43LT	.30		.20	.25	2.70	1,000	<2	<2	30.90			19.0
AID43MH	.27		--	.32	<.80	770	<2	<2	58.00			26.0
AID43MHX	.27		.30	.11	<.80	790	<2	<2	51.00			26.0
AID43TB	.04		.15	<.10	<1.00	930	<2	<2	105.00			21.0
AID43W	.08		.30	--	--	790	<2	<2	--			22.0

Table 5.-- Analytical results for plant samples collected near Flat, Iditarod, and Livengood, Alaska.--Continued

Sample	Ce ppm-s	Co ppm-s	Cr ppm-s	Cu ppm-s	Fe	K	%-s	La ppm-s	La ppm-n	Li ppm-s	Mn ppm-s
Plant samples collected near Flat, Alaska location-1 (FT-1).--Continued											
AID41AL	25	40	16	240	1.10	11.0	15	1.10	5	25,000	
AID41ALX	30	40	16	250	1.10	11.0	19	--	6	24,000	
AID41BB	<8	14	13	330	.60	16.0	6	--	5	53,000	
AID41BB	19	18	23	250	1.40	14.0	12	--	9	50,000	
AID41DB	<8	40	11	520	.42	16.0	<4	.06	<4	43,000	
AID41FW	19	8	17	90	.38	22.0	20	1.30	8	14,000	
AID41FWX	14	8	25	100	.45	22.0	23	--	7	15,000	
AID41LT	42	25	42	310	2.50	12.0	27	.72	15	32,000	
AID41MH	<8	5	5	180	.20	17.0	<4	.04	<4	50,000	
AID41MHX	<8	6	6	210	.23	17.0	<4	--	<4	54,000	
AID41RM	63	15	85	230	3.40	5.6	32	.95	39	5,300	
AID41TB	11	26	8	230	.18	16.0	4	.17	<4	30,000	
AID41TBX	<8	28	7	210	.18	15.0	<4	.17	<4	30,000	
AID41W	45	140	4	130	.12	24.0	41	--	<4	15,000	
AID41WX	38	150	5	130	.12	24.0	41	--	<4	16,000	
Plant samples collected near Flat, Alaska location-2 (FT-2).--Continued											
AID42ES-1	10	8	16	30	.25	14.0	6	--	<4	300	
AID42ESX1	15	9	23	84	.25	12.0	5	--	9	390	
AID42ES-2	<8	14	30	130	.53	7.5	6	--	<4	840	
AID42ESX2	<8	13	19	93	.36	8.8	6	--	<4	830	
AID42B8	<8	11	43	220	.31	17.0	<4	.03	<4	47,000	
AID42DB	<8	11	17	310	.50	16.0	<4	.05	<4	53,000	
AID42DBX	<8	11	16	240	.41	16.0	<4	.04	<4	52,000	
AID42FW	33	28	270	100	2.80	13.0	21	1.90	14	5,400	
AID42FWX	33	5	9	120	.23	17.0	16	1.90	<4	4,000	
AID42FW-2	28	6	8	120	.22	18.0	17	--	<4	4,100	
AID42LL	<8	10	30	180	.88	14.0	<4	.05	6	30,000	
AID42L1X	9	10	37	190	.98	14.0	5	--	7	31,000	
AID42LT	<8	5	15	220	.47	18.0	<4	--	<4	43,000	
AID42LTX	<8	6	17	220	.45	17.0	<4	.05	4	44,000	
AID42TB	<8	7	7	200	.19	13.0	<4	.04	<4	39,000	
AID42TBX	<8	8	7	210	<8	14.0	<4	--	4	38,000	
AID42W	18	65	10	170	.27	21.0	13	--	<4	11,000	
AID42WX	17	65	10	160	.26	21.0	10	--	<4	10,000	
Plant samples collected near Iditarod, Alaska location-3 (ID-3).--Continued											
AID43AL	<8	6	3	180	.12	17.0	<4	<.10	<4	4,600	
AID43BB	<8	4	5	240	.21	16.0	<4	--	<4	47,000	
AID43DB	<8	10	6	230	.23	17.0	<4	<.10	<4	68,000	
AID43DBX	<8	11	5	220	.26	17.0	<4	<4.00	<4	70,000	
AID43FW	<8	4	4	110	.17	16.0	<4	--	<4	2,100	
AID43FS	<8	3	<2	58	.04	9.1	<4	<.20	7	600	
AID43LT	<8	4	6	280	.20	17.0	<4	<.02	<4	61,000	
AID43MH	<8	4	7	100	.20	12.0	<4	<.05	<4	53,000	
AID43MHX	<8	4	5	97	.19	12.0	<4	<.05	<4	51,000	
AID43TB	<8	21	<2	72	.04	11.0	<4	<.06	<4	3,200	
AID43W	<8	13	3	85	.09	16.0	<4	--	<4	8,100	

Table 5.-- Analytical results for plant samples collected near Flat, Iditarod, and Livengood, Alaska.--Continued

Sample	Mg	%-s	Mo ppm-s	Na	%-s	Nb ppm-s	Md ppm-s	Ni ppm-s	P	%-s	Pb ppm-s	Sb	ppm	Sc ppm-s
Plant samples collected near Flat, Alaska location-1 (FT-1).--Continued														
AID41AL	7.5	<4	<4	.12	<8	17	200	6.30	<8	<8	.06	<4	<4	<4
AID41ALX	7.5	<4	<4	.14	<8	15	190	5.20	<8	<8	--	<4	<4	<4
AID41BB	5.6	<4	<4	.14	<8	9	110	7.60	<8	9	.25	<4	<4	<4
AID41PB	5.4	<4	<4	.20	<8	13	93	6.20	<8	17	.27	<4	<4	<4
AID41PB	6.7	<4	<4	.11	<8	8	92	8.20	<8	<8	.04	<4	<4	<4
AID41FW	7.9	<4	<4	.17	<8	9	26	3.00	<8	19	.24	<4	<4	<4
AID41FWX	8.3	4	4	.19	<8	<8	28	3.20	<8	<8	.25	<4	<4	<4
AID41LT	4.0	<4	<4	.23	<8	15	71	4.80	<8	16	.15	7	<4	<4
AID41MH	4.9	<4	<4	.08	<8	<8	55	5.30	<8	<8	.05	<4	<4	<4
AID41MHX	5.1	<4	<4	.08	<8	<8	57	5.70	<8	9	.08	<4	<4	<4
AID41RM	2.6	<4	<4	1.20	<8	25	44	1.20	<8	30	.44	13	<4	<4
AID41TB	6.5	<4	<4	.06	<8	<8	67	8.60	<8	<8	.03	<4	<4	<4
AID41TBX	5.7	<4	<4	.06	<8	<8	67	8.90	<8	<8	.02	<4	<4	<4
AID41WH	4.7	<4	<4	.05	<8	15	160	6.80	<8	<8	<.02	<4	<4	<4
AID41WHX	4.9	<4	<4	.05	<8	35	170	7.10	<8	<8	.12	<4	<4	<4
Plant samples collected near Flat, Alaska location-2 (FT-2).--Continued														
AID42ES-1	3.1	<4	<4	.20	<8	<8	55	.84	<8	<8	.19	<4	<4	<4
AID42FSX1	3.2	<4	<4	.19	<8	<8	58	.85	<8	<8	--	<4	<4	<4
AID42ES-2	3.9	<4	<4	.26	<8	<8	58	1.10	<8	<8	.29	<4	<4	<4
AID42FSX2	3.8	<4	<4	.19	<8	<8	53	1.10	<8	<8	--	<4	<4	<4
AID42RB	6.8	<4	<4	.16	<8	9	160	8.50	<8	8	.11	<4	<4	<4
AID42DR	6.5	<4	<4	.16	<8	<8	98	8.30	<8	8	.05	<4	<4	<4
AID42DBX	6.6	<4	<4	.16	<8	<8	93	8.40	<8	14	.02	<4	<4	<4
AID42FW	7.4	<4	<4	.66	<8	22	210	2.20	<8	<8	.10	11	<4	<4
AID42FWX	4.7	<4	<4	.15	<8	17	75	3.30	<8	<8	.12	<4	<4	<4
AID42FW-2	4.6	<4	<4	.14	<8	15	73	3.20	<8	<8	.23	<4	<4	<4
AID42LL	4.7	<4	<4	.35	<8	<8	87	5.10	<8	12	.12	<4	<4	<4
AID42L1X	4.8	<4	<4	.38	<8	<8	89	5.40	<8	16	--	<4	<4	<4
AID42LT	5.0	<4	<4	.18	<8	11	46	5.40	<8	<8	<.02	<4	<4	<4
AID42LTX	5.2	<4	<4	.20	<8	<8	46	5.60	<8	46	.04	<4	<4	<4
AID42TB	9.1	<4	<4	.15	<8	<8	91	7.40	<8	<8	.07	<4	<4	<4
AID42TBX	9.4	<4	<4	.14	<8	<8	94	7.40	<8	<8	.05	<4	<4	<4
AID42WH	6.0	<4	<4	.15	<8	11	140	5.40	<8	<8	.15	<4	<4	<4
AID42WHX	6.0	<4	<4	.15	<8	17	140	5.40	<8	<8	.16	<4	<4	<4
Plant samples collected near Iditarod, Alaska location-3 (ID-3).--Continued														
AID43ML	6.7	4	4	.05	<8	<8	50	3.30	<8	<8	.04	<4	<4	<4
AID43BR	6.8	<4	<4	.08	<8	<8	36	4.70	<8	<8	<.02	<4	<4	<4
AID43DB	6.5	<4	<4	.09	<8	<8	68	7.30	<8	<8	.02	<4	<4	<4
AID43DBX	6.7	<4	<4	.09	<8	<8	68	7.40	<8	<8	--	<4	<4	<4
AID43FW	7.0	<4	<4	.22	<8	<8	53	3.50	<8	<8	.07	<4	<4	<4
AID43FS	4.2	<4	<4	.11	<8	<8	23	.96	<8	<8	--	<4	<4	<4
AID43LT	5.0	<4	<4	.07	<8	<8	27	5.60	<8	<8	<.02	<4	<4	<4
AID43MH	2.5	<4	<4	.08	<8	<8	25	2.80	<8	<8	--	<4	<4	<4
AID43MHX	2.5	<4	<4	.08	<8	<8	12	2.60	<8	10	<.02	<4	<4	<4
AID43TB	5.3	<4	<4	.03	<8	<8	40	3.80	<8	<8	.02	<4	<4	<4
AID43WH	6.6	9	9	.08	<8	<8	46	4.30	<8	<8	.02	<4	<4	<4

Table 5.--- Analytical results for plant samples collected near Flat, Iditarod, and Livengood, Alaska.--Continued

Sample	Sr ppm-s	Th ppm-s	Ti	%-s	V	ppm-s	Y	ppm-s	Yb	ppm-s	Zn	ppm-s
Plant samples collected near Flat, Alaska location-1 (FT-1).--Continued												
AID41AL	1,600	<8	.05	15	26	<2	960					
AID41ALX	1,700	<8	.05	16	28	<2	940					
AID41BB	500	12	.03	6	5	<2	6,500					
AID41BB	460	15	.07	24	13	<2	4,100					
AID41OB	760	<8	.02	4	<4	<2	8,100					
AID41FW	1,200	<8	.02	4	13	<2	780					
AID41FWX	1,300	<8	.03	5	13	<2	820					
AID41LT	380	<8	.15	46	27	<2	1,300					
AID41MH	400	12	.01	<4	<4	<2	2,000					
AID41MHX	410	14	.01	<4	<4	<2	2,100					
AID41RM	190	9	.31	110	17	2	520					
AID41TB	1,400	<8	<.01	<4	4	<7	3,000					
AID41TRX	1,500	10	<.01	<4	<4	<2	3,100					
AID41HW	1,900	<8	<.01	<4	44	<2	3,400					
AID41HWX	2,000	12	<.01	<4	46	<2	3,600					
Plant samples collected near Flat, Alaska location-2 (FT-2).--Continued												
AID42ES-1	750	<8	.02	6	7	<2	110					
AID42ESX1	760	<8	.02	8	8	<2	110					
AID42FS-2	1,000	<8	.05	13	7	<2	270					
AID42ESX2	1,100	<8	.03	9	6	<2	270					
AID42BE	390	14	.02	<4	<4	<2	6,200					
AID42DB	450	<8	.03	<4	<4	<2	10,000					
AID42DBX	430	13	.02	<4	<4	<2	9,800					
AID42FW	1,800	<8	.22	78	15	<2	240					
AID42FWX	2,500	<8	<.01	<4	21	<2	200					
AID42FW-2	2,500	<8	<.01	<4	20	<2	190					
AID42LL	500	<8	.05	17	4	<7	1,300					
AID42LX	510	<8	.07	19	<4	<2	1,400					
AID42LT	190	16	.03	<4	<4	<2	1,100					
AID42LTX	200	9	.03	<4	<4	<2	1,100					
AID42TR	670	<8	<.01	<4	<4	<7	5,900					
AID42TDX	700	9	<.01	<4	<4	<7	6,000					
AID42HW	1,800	<8	.01	<4	8	<2	3,300					
AID42HWX	1,800	8	.02	<4	7	<2	3,400					
Plant samples collected near Iditarod, Alaska location-3 (ID-3).--Continued												
AID43AL	1,400	<8	<.01	<4	<4	<7	790					
AID43BB	830	<8	.01	<4	<4	<2	1,800					
AID43DR	600	25	.01	<4	<4	<2	7,500					
AID43DBX	510	19	.02	<4	<4	<2	7,200					
AID43FW	1,400	<8	<.01	<4	<4	<2	270					
AID43FS	790	<8	<.01	<4	<4	<2	280					
AID43LT	300	20	.01	<4	<4	<2	1,100					
AID43MH	450	15	.01	<4	<4	<2	2,400					
AID43HHX	440	13	.01	<4	<4	<2	2,400					
AID43TR	1,200	<8	<.01	<4	<4	<2	3,100					
AID43HW	1,400	<8	<.01	<4	<4	<2	2,300					

Table 5.-- Analytical results for plant samples collected near Flat, Iditarod, and Livengood, Alaska.--Continued

Sample	Al	K-s	As ppm-s	As ppm	As ppm-n	Au ppb-n	Ba ppm-s	Be ppm-s	Br ppm-n	Ca	%-s	Cd ppm-s
Plant samples collected near Livengood, Alaska location-1 (LV-1).												
ALV41AL	.92		130	5.00	5.90	13.80	580	<2	2.20	20.0		<4
ALV41ALX	.90		120	5.10	5.10	13.00	620	<2	2.10	20.0		<4
ALV41LT	1.30		270	7.50	8.98	61.40	420	<2	.58	18.0		<4
ALV41RM	8.00		2,300	510.00	396.00	32.00	1,400	2	2.80	1.4		<4
ALV41RMX	7.90		2,300	530.00	399.00	37.00	1,400	3	3.10	1.3		<4
ALV41TBX	1.30		330	12.00	11.60	48.80	1,000	<2	1.20	18.0		15
ALV41WS	.60		150	6.10	--	--	2,400	<2	--	21.0		<4
ALV41WSX	.63		160	6.30	--	--	2,400	<2	--	22.0		<4
Plant samples collected near Livengood, Alaska location-2 (LV-2).												
ALV42AL	.93		150	5.70	6.60	48.90	970	<2	1.10	14.0		<4
ALV42ES	.73		1,100	230.00	274.00	31.40	320	<2	23.00	9.1		5
ALV42FSX	.85		1,200	--	--	--	340	<2	--	9.2		5
ALV42LT	1.80		290	9.70	11.20	106.00	750	<2	.59	14.0		<4
ALV42LTX	2.00		310	10.00	--	--	820	<2	--	15.0		<4
ALV42TB	.80		130	3.60	4.40	37.70	870	<2	.58	11.0		7
ALV42WS	3.10		800	40.00	--	--	1,900	<2	--	13.0		<4
ALV42WSX	3.20		820	39.00	--	--	1,900	<2	--	13.0		<4

Table 5.-- Analytical results for plant samples collected near Flat, Iditarod, and Livengood, Alaska.--Continued

Sample	Ce ppm-s	Co ppm-s	Cr ppm-s	Cu ppm-s	Fe	K	%-s	La ppm-s	La ppm-n	Li ppm-s	Mn ppm-s
Plant samples collected near Livengood, Alaska location-1 (LV-1).--Continued											
ALV41AL	8	11	17	170	1.10	15.0	<4	.27	<4	<4	14,000
ALV41ALX	<8	11	19	180	1.10	15.0	<4	.25	<4	<4	14,000
ALV41LT	<8	10	37	240	.96	14.0	6	.25	8	8	21,000
ALV41RM	58	31	220	91	6.00	2.6	33	7.40	45	45	1,000
ALV41RMX	64	31	240	80	5.90	2.8	37	7.50	45	45	900
ALV41TBX	17	26	39	180	1.30	12.0	6	.37	8	8	17,000
ALV41WS	<8	7	17	100	.50	12.0	<4	--	6	6	11,000
ALV41WSX	<8	8	22	100	.55	12.0	<4	--	5	5	12,000
Plant samples collected near Livengood, Alaska location-2 (LV-2).--Continued											
ALV42AL	<8	10	24	250	.81	14.0	4	.24	4	4	9,800
ALV42ES	15	9	19	74	1.20	10.0	7	2.80	6	6	270
ALV42FSX	17	7	22	82	1.30	9.9	8	--	7	7	280
ALV42LT	16	9	57	210	1.30	14.0	9	.41	10	10	7,000
ALV42LTX	15	11	55	210	1.40	14.0	9	--	11	11	6,200
ALV42TB	<8	9	24	300	.77	14.0	<4	.14	5	5	16,000
ALV42WS	26	20	99	98	2.80	10.0	16	--	22	22	9,100
ALV42WSX	29	18	81	100	2.80	10.0	16	--	19	19	9,200

Table 5.-- Analytical results for plant samples collected near Flat, Iditarod, and Livengood, Alaska.--Continued

Sample	Mg	%-s	Mo ppm-s	Na	%-s	Nb ppm-s	Nd ppm-s	Ni ppm-s	P	%-s	Pb ppm-s	Sb	ppm	Sc ppm-s
Plant samples collected near Livengood, Alaska location-1 (LV-1).--Continued														
ALV41AL	6.3		19	.07	<R	<R	<R	240	3.80		R		.47	<4
ALV41ALX	6.4		21	.08	<R	<R	<R	240	3.90		<R		.48	<4
ALV41LT	5.9		9	.14	<R	10	100	100	4.80		11		.40	<4
ALV41RM	2.1		7	.75	<R	31	31	200	.38		45		19.00	19
ALV41RMX	2.0		7	.73	<R	31	31	190	.37		44		18.30	19
ALV41TBX	8.2		<4	.11	<R	<R	16	160	5.00		17		1.10	<4
ALV41WS	2.5		<4	.06	<R	10	10	48	3.70		8		.52	<4
ALV41WSX	2.7		<4	.06	<R	<R	<R	51	4.00		10		.50	<4
Plant samples collected near Livengood, Alaska location-2 (LV-2).--Continued														
ALV42AL	14.0		<4	.10	11	<R	<R	290	3.10		10		.57	<4
ALV42ES	5.3		<4	.10	<R	10	56	56	.66		<R		1.70	<4
ALV42ESX	5.3		<4	.11	<R	15	58	58	.66		<R		--	<4
ALV42LT	8.1		<4	.21	<R	8	81	81	4.70		11		.95	4
ALV42LTX	8.4		<4	.23	<R	<R	83	83	4.70		15		.96	4
ALV42TB	17.0		<4	.08	<R	<R	270	270	4.50		11		.42	<4
ALV42WS	4.7		<4	.25	<R	9	170	170	2.60		31		2.80	R
ALV42WSX	4.8		<4	.26	<R	16	170	170	2.70		30		2.80	R

Table 5.-- Analytical results for plant samples collected near Flat, Iditarod, and Livengood, Alaska.--Continued

Sample	Sr ppm-s	Th ppm-s	Ti %s	V ppm-s	Y ppm-s	Yb ppm-s	Zn ppm-s
Plant samples collected near Livengood, Alaska location-1 (LV-1).--Continued							
ALV41AL	1,700	<8	.03	15	<4	<2	1,200
ALV41ALX	1,700	<8	.03	15	<4	<2	1,200
ALV41LT	440	<8	.04	32	<4	<2	820
ALV41RM	250	14	.44	270	19	3	440
ALV41RMX	240	<8	.39	260	19	2	430
ALV41TBX	1,400	<8	.08	40	6	<2	4,600
ALV41WS	970	<8	.03	15	<4	<2	1,400
ALV41WSX	1,000	<8	.03	16	<4	<2	1,400
Plant samples collected near Livengood, Alaska location-2 (LV-2).--Continued							
ALV42AL	780	<8	.05	23	<4	<2	1,000
ALV42FS	610	<8	.03	58	12	<2	420
ALV42ESX	520	<8	.04	68	13	<2	430
ALV42LT	420	<8	.09	47	4	<2	1,300
ALV42LTX	430	<8	.08	47	5	<2	1,300
ALV42TB	590	<8	.04	19	<4	<2	6,200
ALV42WS	800	<8	.14	95	8	<2	1,100
ALV42WSX	830	<8	.15	96	9	<2	1,100

Table 6.-- Analytical results for soil samples collected near Flat, Iditarod, and Livengood, Alaska.
 [N, not detected; <, detected but below the limit of determination shown; >, determined to be greater than the value shown.]

Sample	As ppm-h	As ppm-s	Al	%-s	Au ppm	Au ppb-w	Au ppm-p	Ra ppm-s	Re ppm-s	Total % Organic C	mm
Soil samples collected near Flat, Alaska location-1 (FT-1).											
FT101	21.0	20	2.5	<.05	1	<.02	.02	320	<1	35.10	24r
FT102	41.0	40	4.7	<.05	7	<.02	.02	540	<1	20.60	530
FT1C1	120.0	90	7.3	.05	3	<.02	.02	860	2	1.69	40
FT1C2	190.0	160	7.8	.10	21	.10	.10	1,100	2	.44	24
Soil samples collected near Flat, Alaska location-2 (FT-2).											
FT2A1	42.0	40	5.8	<.05	<1	<.02	.02	650	1	8.51	70
FT2C1	63.0	50	6.6	<.05	<1	.02	.02	720	1	3.11	30
FT2C2G	70.0	70	7.1	<.05	1	.02	.02	790	1	3.28	30
FT2IIC3	380.0	330	7.6	.16	29	.16	.16	1,400	3	.21	30
FT2IIC4	640.0	590	8.9	.88	750	.78	.78	1,400	4	.05	22
Soil samples collected near Iditarod, Alaska location-3 (ID-3).											
ID302	8.0	<10	2.1	<.05	5	.02	.02	300	<1	35.00	440
ID3C1	14.0	<10	6.6	<.05	<1	<.02	.02	850	1	4.33	100
ID3C2	13.0	<10	6.8	<.05	<1	<.02	.02	880	1	5.07	120
ID3C3	22.0	20	6.4	<.05	<1	<.02	.02	870	1	1.03	60
Soil samples collected near Livengood, Alaska location-1 (LV-1).											
LV102	340.0	330	5.0	<.05	6	.02	.02	1,000	2	18.30	465
LV1C1	750.0	620	7.0	.07	3	.04	.04	1,000	2	1.65	70
LV1C2	810.0	660	7.0	.09	2	.06	.06	1,200	3	1.10	60
LV1C3	3,430.0	3,200	6.7	.24	2	.05	.05	1,700	5	.54	40
LV1IIC4	6,100.0	6,000	8.7	.37	15	.02	.02	1,900	6	.51	40
Soil samples collected near Livengood, Alaska location-2 (LV-2).											
LV202	330.0	320	3.7	.06	4	.05	.05	580	<1	22.40	450
LV2C1	430.0	410	5.7	.56	14	.06	.06	790	1	9.11	260
LV2A1B	210.0	560	5.5	.45	14	.04	.04	790	1	11.80	200
LV2C2	1,100.0	1,000	7.0	.54	18	.05	.05	1,000	2	2.29	70
LV2C3	850.0	720	6.6	.18	14	.07	.07	960	2	1.74	50
LV2C4	600.0	530	6.1	.13	8	.04	.04	880	1	2.09	60
Sample collected from the 'pay zone' of a placer mine near Livengood, Alaska location-4 (LV-4).											
LV4	2,100.0	2,100	7.3	1.20	200	.02	.02	2,200	3	.47	35

Table 6.-- Analytical results for soil samples collected near Flat, Iditarod, and Livegood, Alaska.--Continued

Sample	Ca ppm-w	Ca %s	Cd ppm-s	Ce ppm-s	Cl ppm-w	Co ppm-s	Cr ppm-s	Cu ppm-s	Fe %s	3a ppm-s
Soil samples collected near Flat, Alaska location-1 (FT-1).--Continued										
FT101	12	.42	<2	22	6.00	4	31	11	1.4	4
FT102	32	.59	<2	40	3.80	6	50	15	2.5	11
FT1C1	2	.77	<2	76	1.50	15	120	31	4.1	16
FT1C2	2	.70	<2	81	12.00	21	140	41	4.4	18
Soil samples collected near Flat, Alaska location-2 (FT-2).--Continued										
FT2A1	4	.81	<2	49	1.00	5	63	12	2.9	15
FT2C1	2	.75	<2	59	.73	10	100	21	4.0	16
FT2C2S	2	.78	<2	64	.85	11	110	24	4.6	16
FT2IIC3	2	2.30	<2	69	.30	59	580	110	6.5	17
FT2IIC4	4	.87	<2	74	.51	21	180	190	3.8	19
Soil samples collected near Iditarod, Alaska location-3 (ID-3).--Continued										
ID302	77	1.00	<2	26	6.00	16	32	10	1.4	5
ID3C1	29	.87	<2	59	6.50	15	120	16	3.8	15
ID3C2	27	.84	<2	61	.51	18	130	20	3.8	15
ID3C3	10	.73	<2	66	.58	23	140	29	4.2	15
Soil samples collected near Livegood, Alaska location-1 (LV-1).--Continued										
LV102	85	.85	<2	65	6.20	10	89	42	2.2	15
LV1C1	13	.90	<2	75	1.10	11	110	22	3.8	17
LV1C2	7	.85	<2	95	1.30	12	120	28	3.8	18
LV1C3	7	.56	4	150	1.20	10	130	37	4.8	25
LV1IIC4	8	.19	4	75	.55	28	350	140	6.0	18
Soil samples collected near Livegood, Alaska location-2 (LV-2).--Continued										
LV202	67	1.00	<2	33	4.40	20	200	23	2.4	9
LV2C1	61	1.10	<2	46	5.40	25	260	29	3.5	13
LV2A1H	48	1.10	<2	48	5.20	28	300	36	3.8	13
LV2C2	17	.55	<2	68	1.50	37	430	36	4.9	17
LV2C3	15	.66	<2	72	2.80	38	440	30	4.5	17
LV2C4	15	.65	<2	57	2.50	37	460	31	4.5	15
Sample collected from the 'pay zone' of a placer mine near Livegood, Alaska location-4 (LV-4).--Continued										
LV4	44	.51	2	110	.49	21	200	57	5.0	18

Table 6.-- Analytical results for soil samples collected near Flat, Iditarof, and Livengood, Alaska.--Continued

Sample	Hg ppm-c	K	%-s	La ppm-s	Li ppm-s	Mg %-s	Mg ppm-w	Mn ppm-w	Pb ppm-s	Na ppm-w
Soil samples collected near Flat, Alaska location-1 (FT-1).--Continued										
FT101	.21	.57	10	9	.25	5	2.4	340	<2	13
FT102	.17	1.00	19	18	.48	17	4.0	310	<2	24
FT101	.10	1.60	1	34	.98	1	.2	410	<2	5
FT102	.14	1.70	37	38	1.06	1	.1	680	<2	10
Soil samples collected near Flat, Alaska location-2 (FT-2).--Continued										
FT2A1	.45	1.40	23	23	.54	2	.1	480	<2	11
FT2C1	.18	1.40	28	30	.87	1	.1	310	<2	5
FT2C2G	.11	1.50	30	31	.92	1	<.1	320	<2	6
FT2IIC3	.08	1.60	35	35	5.30	1	.2	1,400	<2	6
FT2IIC4	.16	3.50	36	25	2.50	2	.4	740	<2	7
Soil samples collected near Iditarof, Alaska location-3 (ID-3).--Continued										
ID302	.10	.45	10	11	.33	20	7.2	840	<2	11
ID3C1	.10	1.30	27	35	.85	8	.5	510	<2	8
ID3C2	.10	1.40	28	36	.85	8	.8	580	<2	8
ID3C3	.06	1.40	31	35	.92	3	.3	500	<2	4
Soil samples collected near Livengood, Alaska location-1 (LV-1).--Continued										
LV102	.15	1.20	30	19	.60	42	19.0	980	<2	12
LV1C1	.04	1.60	37	36	.91	5	.5	380	<2	9
LV1C2	.12	1.80	45	36	.91	2	.2	410	<2	5
LV1C3	.14	2.00	68	40	.81	3	.1	330	7	10
LV1IIC4	.54	2.50	32	100	.73	3	.1	270	7	7
Soil samples collected near Livengood, Alaska location-2 (LV-2).--Continued										
LV202	.31	.95	15	19	1.80	148	4.9	870	<2	8
LV2C1	.38	1.30	22	31	2.10	111	1.7	930	<2	14
LV2A1R	.42	1.40	23	32	2.00	93	.8	1,200	<2	9
LV2C2	.38	2.10	30	43	2.10	33	.2	1,700	<2	7
LV2C3	.46	1.80	31	38	2.50	31	.2	1,600	<2	7
LV2C4	.44	1.60	27	35	3.20	31	.2	1,000	<2	9
Sample collected from the 'pay zone' of a placer mine near Livengood, Alaska location-4 (LV-4).--Continued										
LV4	1.20	2.90	53	37	.70	17	.1	500	4	5

Table 6.-- Analytical results for soil samples collected near Flat, Iditarod, and Livengood, Alaska.--Continued

Sample	Na	K-s	Nb	ppm-s	Nd	ppm-s	Ni	ppm-s	P	K-s	Pb	ppm-s	Ph	Total	SZ	Sb	ppb-h	SC	ppm-s
Soil samples collected near Flat, Alaska location-1 (FT-1).--Continued																			
FT101	.47	<4	10	11	.12	5	3.52	.08	39.0	5									
FT102	.92	18	19	.12	12	3.95	.06	3.3	8										
FT101	1.20	4	33	.07	43	4.43	.01	9.5	15										
FT102	1.10	5	36	.08	55	4.87	<.01	15.0	17										
Soil samples collected near Flat, Alaska location-2 (FT-2).--Continued																			
FT2A1	1.60	5	23	.08	19	4.38	.01	1.9	10										
FT2C1	1.10	<4	26	.08	33	4.56	.01	2.4	11										
FT2C2	1.10	6	27	.09	34	4.56	.01	3.1	14										
FT2IIC3	1.20	8	36	.14	300	4.47	<.01	23.0	15										
FT2IIC4	2.70	13	33	.18	110	4.76	<.01	55.0	22										
Soil samples collected near Iditarod, Alaska location-3 (ID-3).--Continued																			
ID302	.30	<4	12	.10	16	4.36	.12	20.0	5										
ID3C1	1.10	5	26	.06	48	4.99	.02	4.3	10										
ID3C2	1.10	5	26	.07	51	4.97	.02	4.4	12										
ID3C3	1.00	6	30	.05	64	4.93	<.01	18.0	13										
Soil samples collected near Livengood, Alaska location-1 (LV-1).--Continued																			
LV102	.73	7	29	.12	58	4.24	.05	120.0	15										
LV1C1	1.10	7	33	.04	37	4.49	.02	11.0	15										
LV1C2	1.10	7	38	.04	40	4.73	.03	13.0	22										
LV1C3	1.20	26	60	.06	46	4.89	.13	120.0	22										
LV1IIC4	.08	6	36	.09	290	5.30	.02	280.0	18										
Soil samples collected near Livengood, Alaska location-2 (LV-2).--Continued																			
LV202	.59	<4	15	.09	180	4.62	.08	73.0	8										
LV2C1	.97	6	18	.08	210	5.26	.04	100.0	12										
LV2A1B	.74	<4	23	.10	240	5.35	.06	110.0	12										
LV2C2	.58	5	27	.08	260	6.14	.02	250.0	13										
LV2C3	.89	<4	32	.07	290	6.20	.01	210.0	11										
LV2C4	.89	4	28	.05	330	5.92	<.01	140.0	11										
Sample collected from the 'pay zone' of a placer mine near Livengood, Alaska location-4 (LV-4).--Continued																			
LV4	.78	7	45	.10	130	6.76	.02	220.0	37										

Table 6.-- Analytical results for soil samples collected near Flat, Iditarod, and Livengood, Alaska.--Continued

Sample	SO4 ppm-w	Sp.Cond mmhos/cm	Sr ppm-s	Th ppm-s	Ti %-s	V ppm-s	Y ppm-s	Yb ppm-s	Zn ppm-s
Soil samples collected near Flat, Alaska location-1 (FT-1).--Continued									
FT101	15.0	189	54	<4	.16	39	5	<1	46
FT102	10.0	172	91	5	.30	70	11	1	47
FT1C1	2.4	29	130	9	.43	150	1A	2	81
FT1C2	3.6	22	130	9	.44	150	23	2	92
Soil samples collected near Flat, Alaska location-2 (FT-2).--Continued									
FT2A1	3.0	40	120	6	.36	71	19	2	52
FT2C1	1.1	32	120	10	.40	120	11	1	70
FT2C2G	1.3	25	130	8	.43	130	13	1	69
FT2IIC3	2.2	27	260	8	.47	160	24	2	120
FT2IIC4	3.3	24	250	25	.34	100	22	2	63
Soil samples collected near Iditarod, Alaska location-3 (ID-3).--Continued									
ID302	12.0	167	9A	<4	.13	36	8	<1	31
ID3C1	2.4	53	130	7	.44	130	15	2	74
ID3C2	2.5	55	130	7	.44	130	17	2	79
ID3C3	1.9	36	120	7	.43	130	1A	2	81
Soil samples collected near Livengood, Alaska location-1 (LV-1).--Continued									
LV102	11.0	170	150	8	.30	100	16	2	100
LV1C1	3.1	32	170	9	.39	130	18	2	82
LV1C2	6.0	34	170	10	.36	130	21	2	87
LV1C3	2.6	25	210	23	.33	110	34	4	100
LV1IIC4	2.9	34	130	10	.30	340	23	3	500
Soil samples collected near Livengood, Alaska location-2 (LV-2).--Continued									
LV202	8.3	212	130	<4	.19	85	9	1	73
LV2C1	7.2	150	160	<4	.31	130	15	2	100
LV2A1R	6.9	128	150	7	.27	130	16	2	120
LV2C2	3.8	52	150	8	.31	180	12	1	150
LV2C3	3.2	52	160	10	.31	160	14	2	130
LV2C4	3.7	53	140	8	.30	160	15	2	120
Sample collected from the 'pay zone' of a placer mine near Livengood, Alaska location-4 (LV-4).--Continued									
LV4	8.8	58	290	16	.34	210	21	2	330