

6283

GEOCHEMICAL REPORT

PAR GROUP

(IRK I, II AND III CLAIMS)

Omineca Mining Division

93L/2E

ASARCO INCORPORATED

(Vancouver)

by

D.G. MacIntyre

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT

NO. _____

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GEOCHEMICAL REPORT
PARROTT LAKES PROSPECT
IRK I, II & III CLAIMS
Omineca M.D.

SUMMARY

Geochemical soil sampling on the Parrott Lakes Prospect (IRK Claims) has defined several areas of anomalous Zn, Cu and Ag concentration. There is no outcrop within these areas, although angular fragments of bleached, clay-altered volcanic rock are locally present in the soils. Some of the fragments were assayed and were found to contain anomalous concentrations of Zn (up to 0.35%), and Ag (up to 0.36 Oz/T). This suggests a bedrock source for the metals contained in the soil samples.

LOCATION AND ACCESS

The Parrott Lakes Prospect is located in West Central British Columbia (Figure 1), at Longitude 54°12', Latitude 126°38' (NTS 93L/2E , Omineca Mining Division), approximately 10 miles SSE of the town of Houston. The property consists of a total of 14 claim units (500m x 500m) as 5 separate claims, IRK I-V, covering an area of 350 hectares just north of the northernmost tip of the Parrott Lakes (Figure 1). The terrain in this area is characterized by broad valleys and glacially-rounded ridges with elevations ranging from 2800 to 4200 feet above sea level. The property is readily accessible via 6.4 KM (4 mi.) of well-maintained logging road which

branches off from the all-weather Buck Flats Road at approximately 21.7 KM (13.5 mi.) south of Houston (Figure 1).

HISTORY

The area covered by the IRK claims was first staked in 1969 by Angus McDonald of Orequest Syndicate. Orequest did soil sampling in the area north of the IRK claims in 1969 and 1970. This work defined an area of anomalous zinc values in soils which was subsequently investigated by limited IP and magnetometer surveys. The property has been explored at various times from 1970 to the present. On June 23-25, 1976, Asarco staked the IRK I, II and III claims to cover the area, southeast of the Richard claim, staked in February 1976. Additional claims (IRK IV and V) were staked by Asarco on October 4 and 5, 1976. This report summarizes work done on the IRK I-III claims only.

WORK DONE

Two men spent a total of 12 man-days working on the IRK I, II and III mineral claims. This work was done on August 23, 25, 26, 27, 29 and September 1, 1976.

The following has now been completed:

- (1) Location of 9.2 KM (5.7 mi.) of ribbon line forming a grid covering the claims.
- (2) Determination of Cu, Zn and Ag concentrations for 187 soil, 2 silt, and 1 rock chip sample.
- (3) Preparation of a topographic base map from

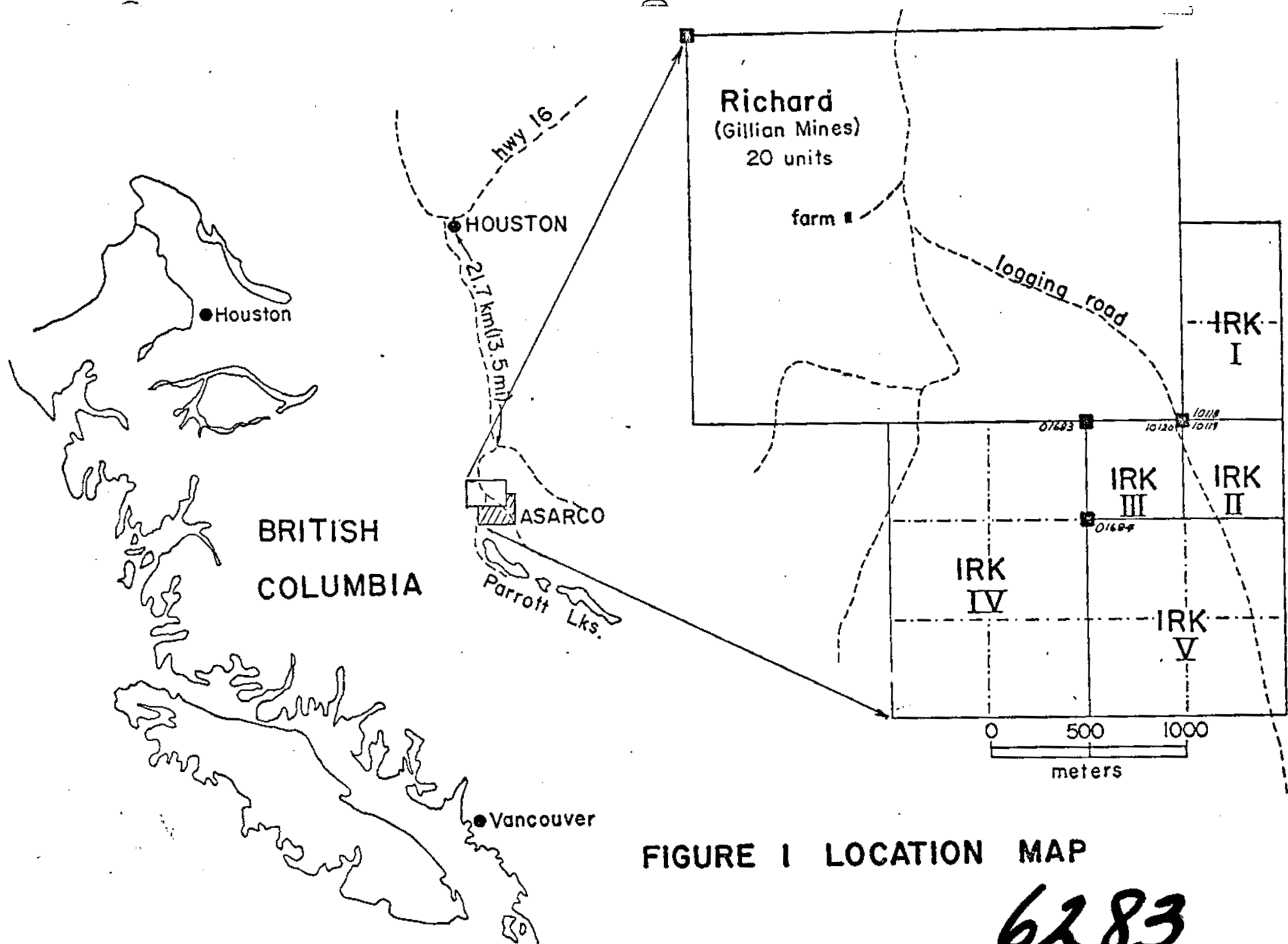


FIGURE I LOCATION MAP

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altimeter readings taken at each soil sample station.

The total cost of the work, including drafting and report preparation, was \$ 1,072.98 Canadian. Costs are itemized in Appendix A.

REGIONAL GEOLOGY

The regional geologic setting of the IRK claims is shown in Figure 2. The oldest rocks in the area are the Tip Top Hill Volcanics of Cretaceous age. These rocks are exposed in uplifted and tilted fault blocks which are bounded by northwest, north-northwest and northeast normal and reverse faults. In the Parrott Lakes area, the Tip Top Hill Volcanics are a complex mixture of vari-colored flows and pyroclastic rocks ranging in composition from andesite to rhyolite.

In the Parrott Lakes area, the Tip Top Hill Volcanics are unconformably overlain by volcanic rocks of Eocene age. On the ridges north of Parrott Lakes, flat-lying trachytic flows predominate, and these have been given the name Goosly Lake Volcanics by Church (1971). Further to the north, the trachytic flows are apparently conformably overlain by aphanitic, amygdaloidal and vesicular andesite and dacite flows of the Buck Creek Volcanics. Minor amounts of basalt, flow breccia and clastic sedimentary rocks also occur within the Buck Creek Volcanic succession.

The only plutonic rocks unroofed in the Parrott Lakes area are four small, steep-sided circular stocks of syenomonzonite and gabbro, and one small stock of quartz monzonite. The quartz-deficient intrusions are Eocene in age and are referred to as the Goosly Lake Intrusions. They are probably the subvolcanic equivalents of the Goosly Lake Volcanics which have a similar age and composition to the intrusive rocks.

PROPERTY GEOLOGY

Outcrop on the IRK claims is restricted to the upper slope of a northwest-trending ridge which cuts across the eastern boundary of the IRK I claim. The lowermost exposures on this ridge appear to be nearly flat-lying beds of light grey, reddish-brown and dark green partly-welded to non-welded lithic lapilli-tuff and crystal lithic tuff with intercalations of volcanic breccia, lahar, conglomerate and minor porphyritic biotite dacite and andesite. Similar rocks underlie the Richard claim (Figure 3). On the IRK I claim, these rocks are conformably overlain by dark green and grey vesicular and amygdaloidal basalt and andesite flows, considered to be part of the Buck Creek Volcanics. These rocks crop out as a capping on the ridge to the east of the IRK claims.

ALTERATION AND MINERALIZATION

The volcanic rocks exposed in the northeast corner of the IRK I claim are usually relatively fresh

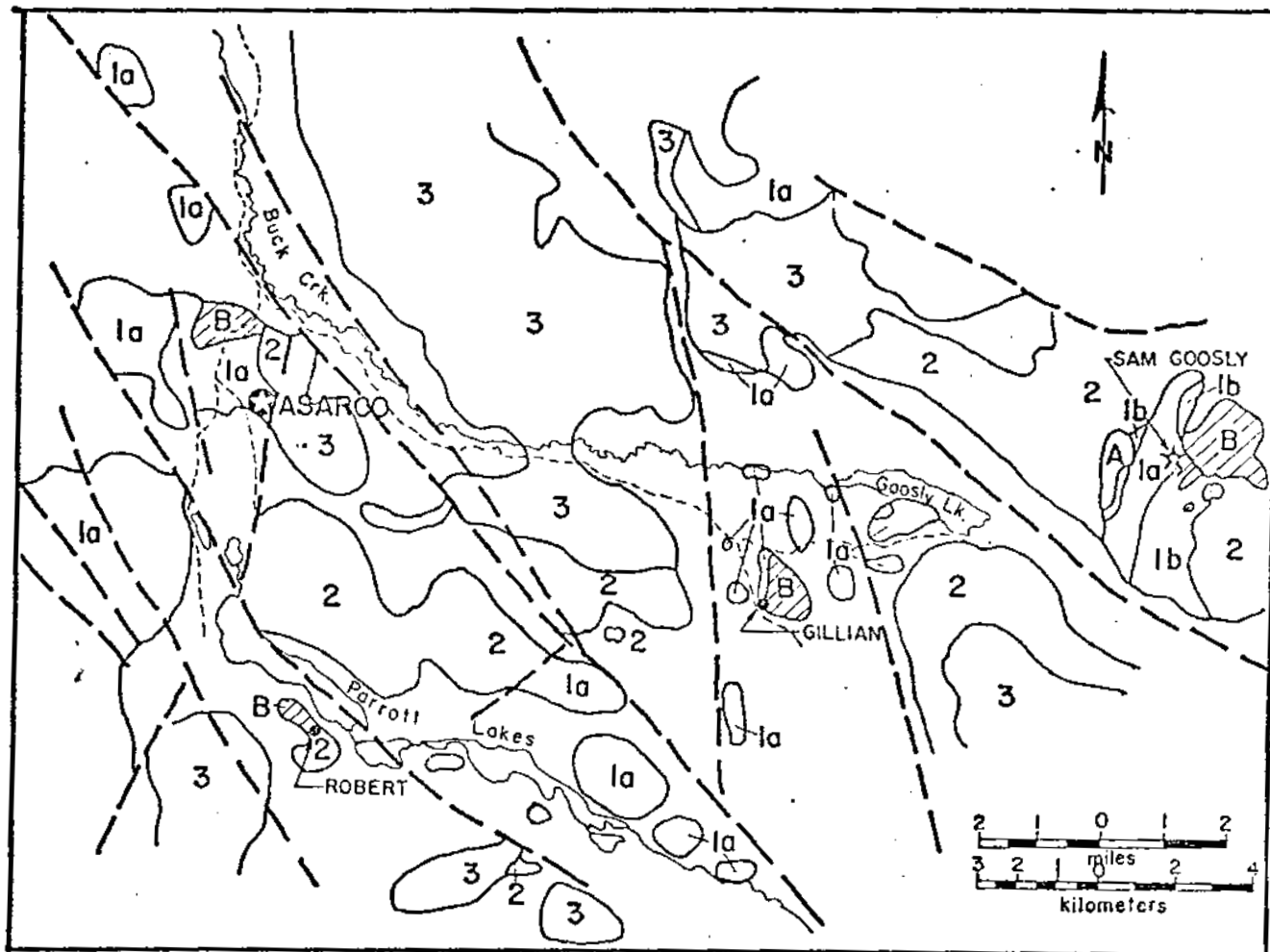


FIGURE 2

REGIONAL GEOLOGIC SETTING
PARROTT LAKES PROSPECT

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QUATERNARY



Alluvium, till, gravel

EOCENE



Buck Creek Volcanics - andesite and dacite flows, minor basalt



Goosly Lake Volcanics - trachytic flows

B

Goosly Lake Intrusions - syenomonzonite, gabbro

A

Nanika Intrusions - quartz monzonite

CRETACEOUS



Tip Top Hill Volcanics - a. andesite to rhyolitic flows and pyroclastic rocks. b. sandstone, shale, conglomerate.



Major Fault



Mineral Prospect

7

and unaltered with celadonite and red hematite alteration occurring locally. No outcrop is present on the rest of the claims, although angular clay-altered volcanic rock fragments have been noted in the soils in several localities. A sample of some of these fragments, collected near sample site S-111, was assayed and contained 1480 ppm zinc, with low Ag and Cu values (Assay No. 16435).

GEOCHEMISTRY

A total of 187 soil, plus 2 silt samples, were collected and analyzed for Cu, Zn and Ag. Results are given in Appendix "B" and plotted on Maps 1, 2 and 3 (in pocket). Analytical procedures are summarized in Appendix "C".

All soil samples were collected from the "B" or "C" soil horizons at depths ranging from 10 to 35 cm. Samples with organic content are listed in Appendix "D". Most soils on the property are moderate to well-drained sandy pebble till. The proportion of talus mixed with till increases as the ridge in the northeast corner of the property is approached.

Much of the soil on both the IRK and Richard claims has a distinctive red to reddish-brown color. This color anomaly is probably due to the weathering of iron-rich beds of crystal lithic lapilli-tuff and tuff which appear to underlie a large part of the area covered by the claims.

Zinc - Using the statistical method of Sinclair

(1974), concentrations of greater than 380 ppm Zn are considered to be anomalous for soils from the IRK claims (Figure 4). On this basis, most of the soil samples from the southwest corner of the IRK I, and all of the IRK III claim, are anomalous (Map 1, in pocket). The remaining samples in these areas, and on the IRK II claim, have positive Zn concentration (128-380 ppm). Although the anomalous areas are irregular in shape (Map 1), there is a tendency towards elongation in a downslope direction, suggesting the possible influence of soil transportation in this direction.

Copper - On the IRK claims, soils containing greater than 34 ppm Cu are considered to be anomalous (Figure 5). Positive, or threshold values, range from 25-34 ppm Cu, and values less than 25 ppm Cu are considered background. A well-defined area of weakly anomalous soil samples, approximately 500 x 200 m, occurs on the IRK III claim. This anomalous area partially overlaps the area of anomalous Zn values. Several smaller anomalies occur on the IRK I and II claims as well, but some of these anomalies appear to be the result of organic contamination and/or, drainage accumulations.

Silver - Based on the probability plot shown in Figure 6, soil samples from the southwest corner of the IRK I claim have positive (1.2-1.6 ppm) and anomalous (> 1.6 ppm) Ag concentrations. (Map 3, in pocket) Values up to 4.0 ppm Ag occur in this area which partially overlaps an area of anomalous Zn and Cu values. Anomalous

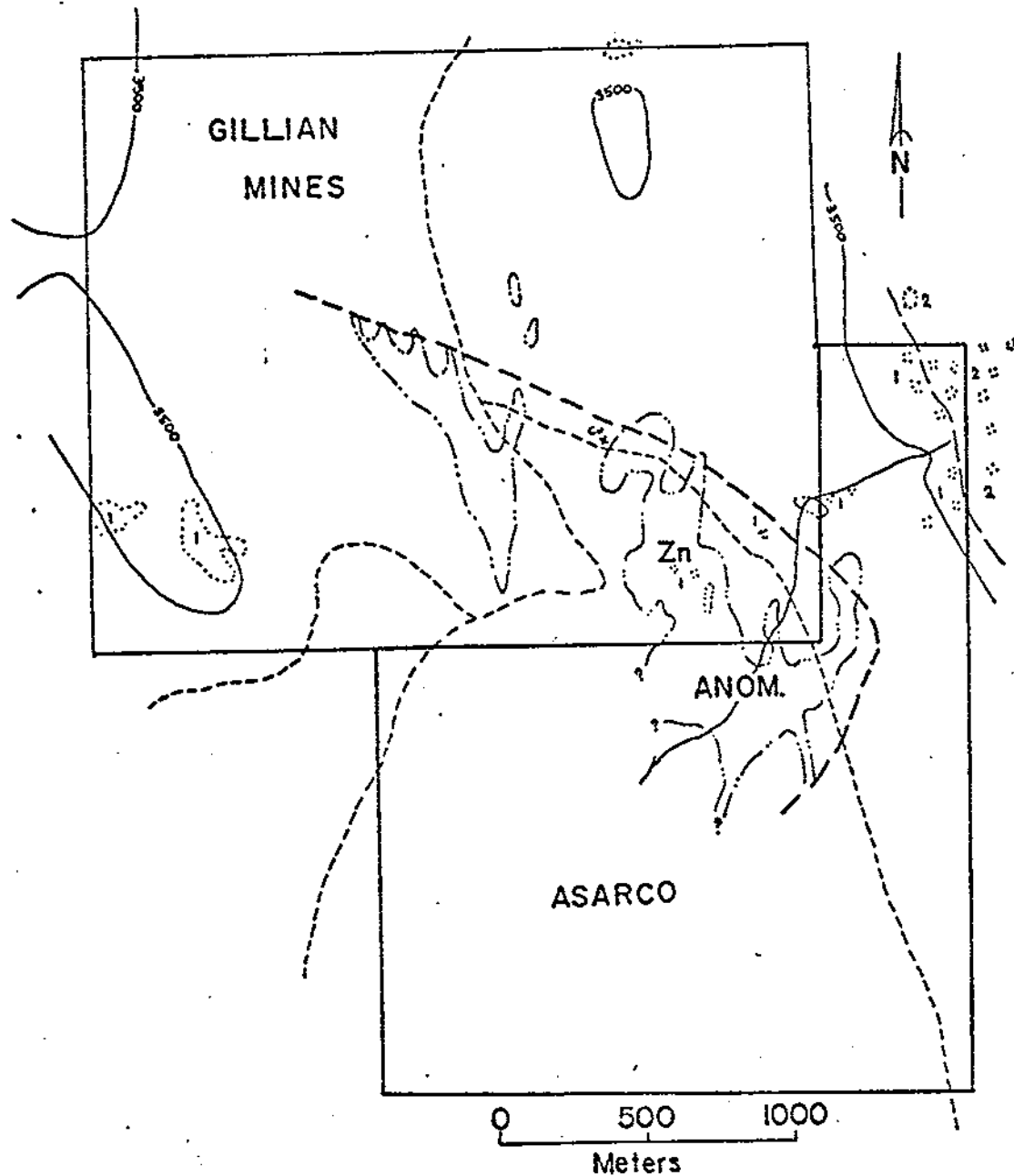


FIGURE 3
PROPERTY GEOLOGY

EOCENE







2

Buck Creek Volcanics - massive amygdaloidal to vesicular basalt, andesite and placite plus related pyroclastic rocks.

CRETACEOUS

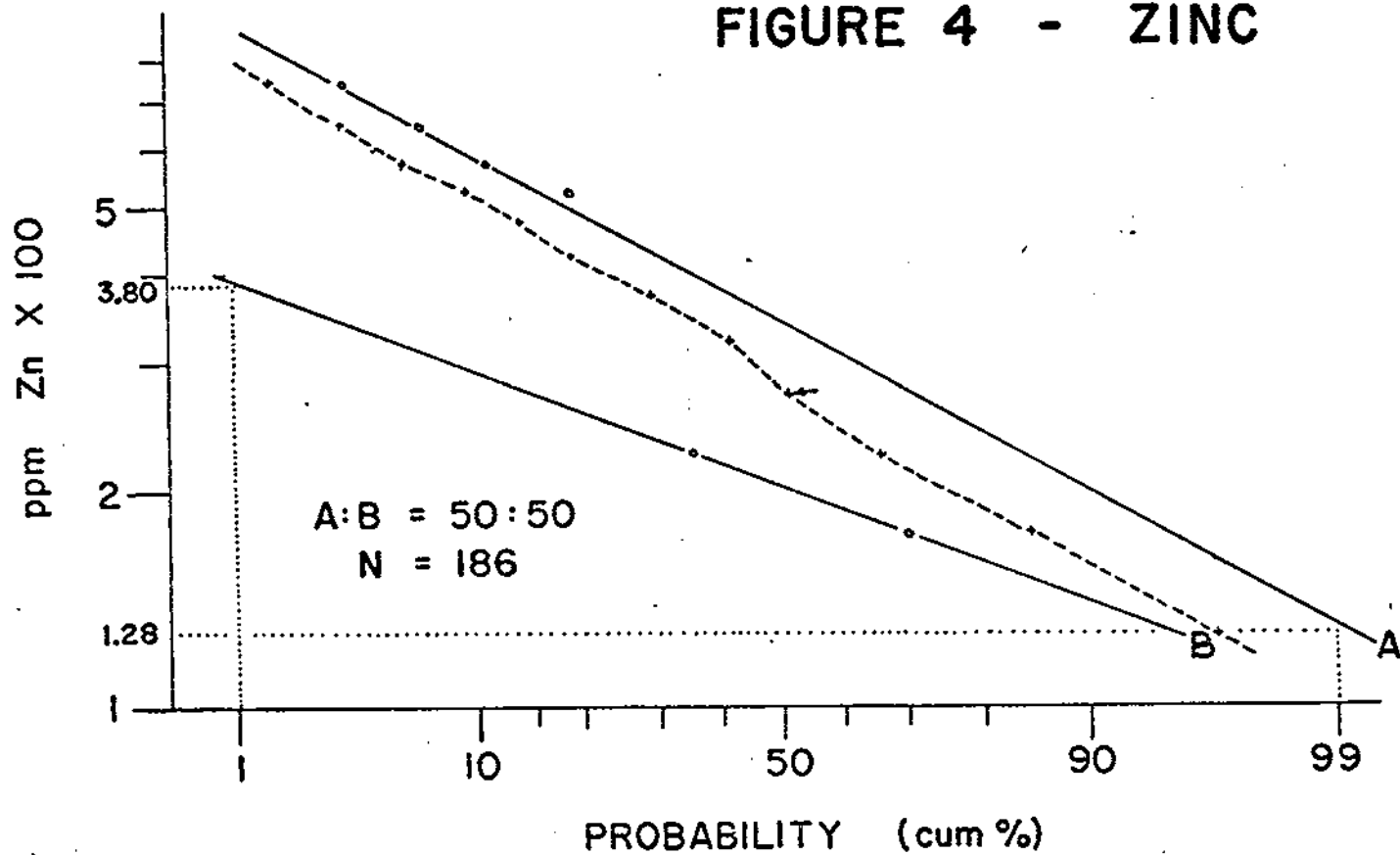
1

Tip Top Hill Volcanics - mainly red to dark grey crystal lithic-tuff lapilli-tuff, volcanic breccia and lahar.

-  -topographic contour
-  -outcrop
-  -access road
-  -limit of Zn anomaly
-  -claim boundary
-  -projected surface trace of possible mineralized zone.

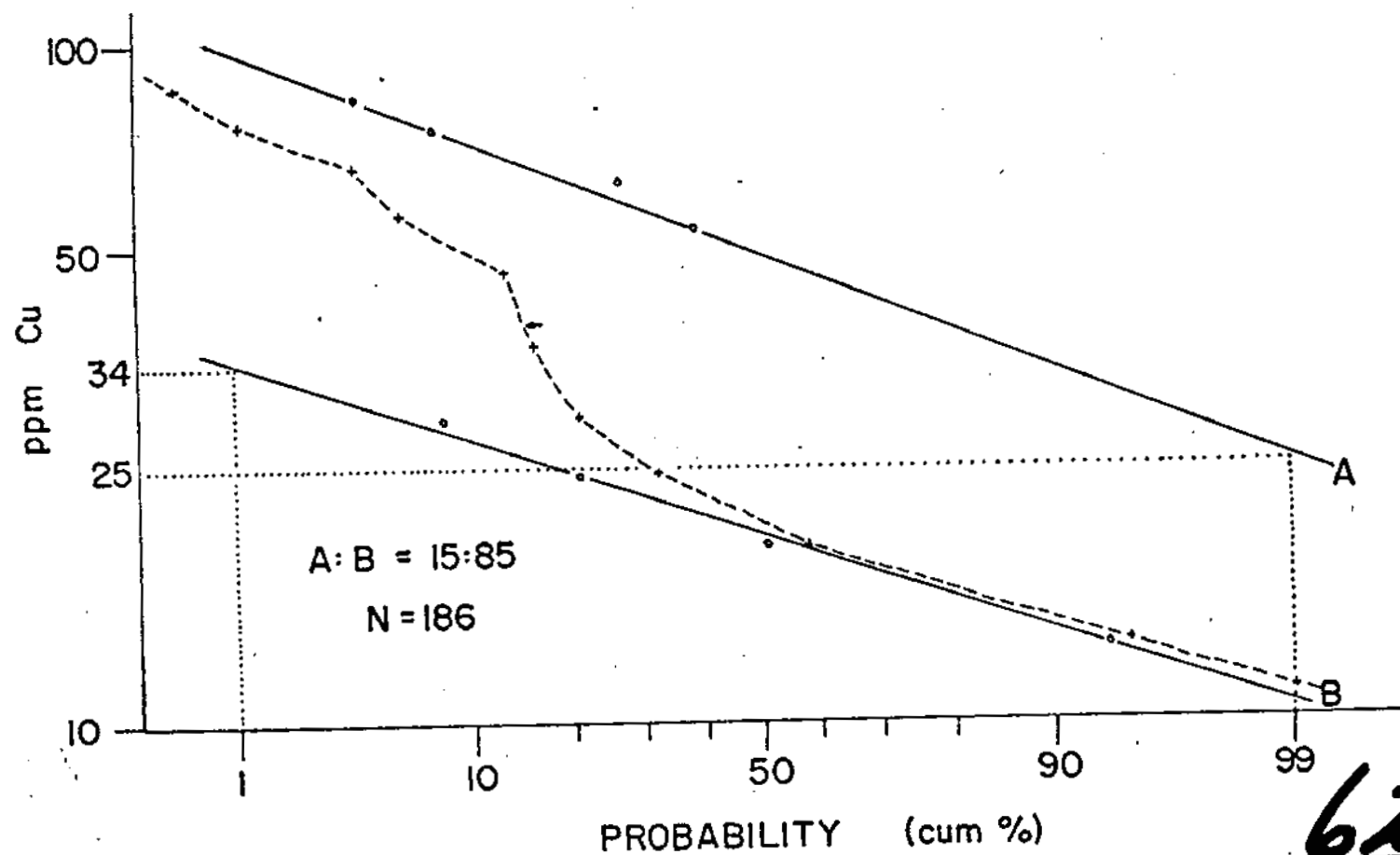
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FIGURE 4 - ZINC



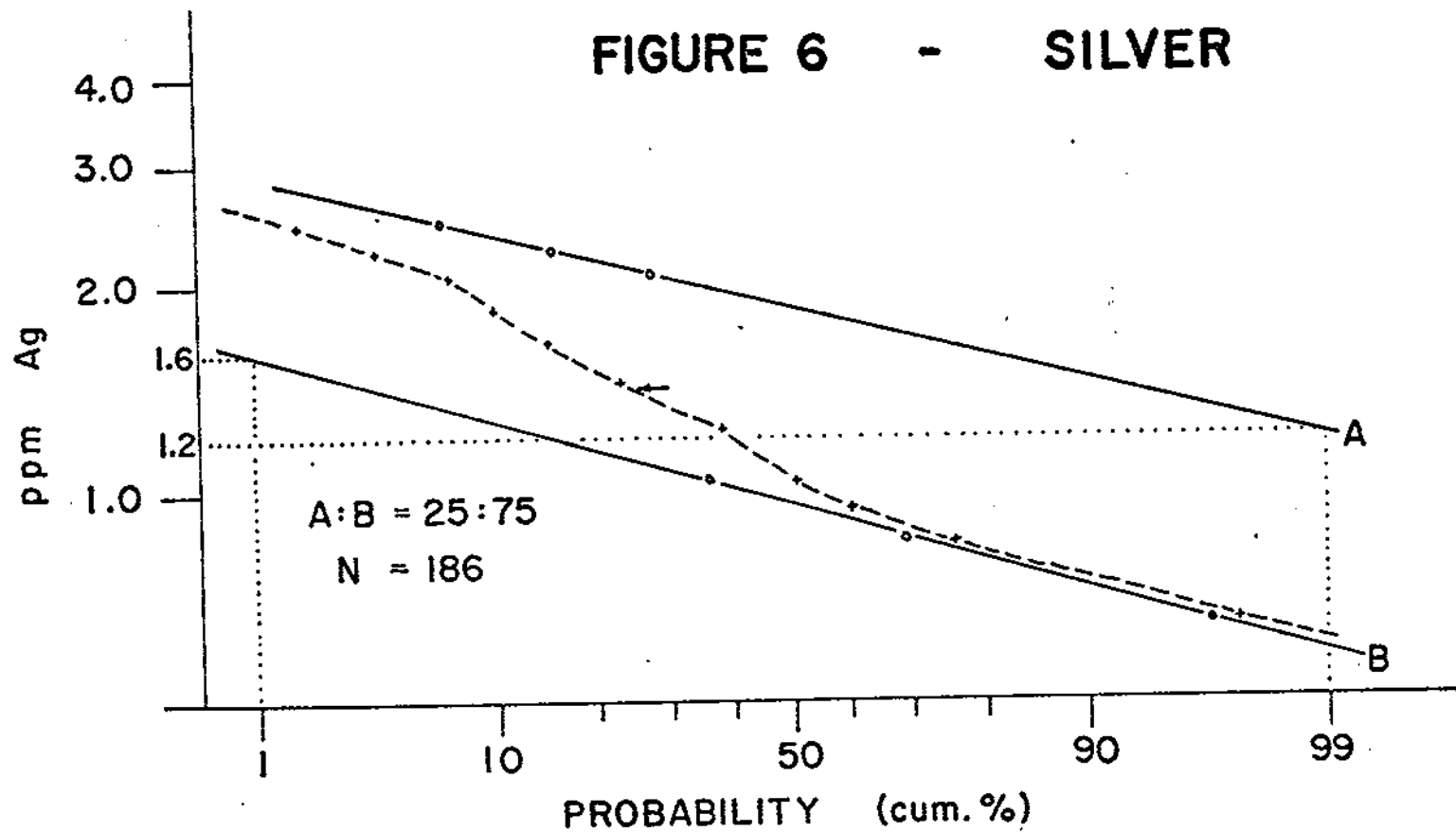
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FIGURE 5 - COPPER



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FIGURE 6 - SILVER



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Ag concentration also occurs in soils along the western boundary of the IRK III claim and as isolated anomalies on lines 2 + 00S and 4 + 00S (Map 3). The anomalies apparently occur within a larger, more continuous area of positive Ag concentrations in soils.

CONCLUSIONS

Strongly anomalous concentrations of Zn, and weak to moderately anomalous concentrations of Cu and Ag, occur in soils on the IRK claims. No mineralized outcrops occur within the anomalous areas. However, anomalous concentrations of Zn do occur in oxidized, clay-altered volcanic float. The metals contained in the soils are probably derived from weathering of these fragments.

D. G. MacIntyre

D.G. MacIntyre,
Geologist.

DGMacI:sm

APPENDIX "A"

BREAKDOWN

of

1976 EXPLORATION EXPENDITURES

PARROTT LAKES PROSPECT

REFERENCES

- Church, B.N., 1970: Geology of the Owen Lake, Parrott Lakes and Goosly Lake Area; B.C. Dept. of Mines and Pet. Res., GEM, 1970, pp. 119-125.
- Sinclair, A.J., 1974: Selection of Threshold Values in Geochemical Data using Probability Graphs; J. Geochem. Expl., V.3, pp. 129-149.

APPENDIX "B"

1976 ANALYTICAL RESULTS

BREAKDOWN OF EXPENDITURES - 1976

Parrott Lakes Prospect - IRK I, II and III Claims

2 men for 6 days - August 23, 25, 26, 27, 29, Sept 1/76

Gas (660 miles - 55 gal @ \$0.97/gal)		\$	53.35
Motel (@ \$171.20/mo)			28.53
Meals (@ \$8.16 per man-day)			97.96
Analytical - Chemex			590.86
Min-en			262.48
Wages	D.G. MacIntyre		300.00
	J. Sheen		169.80
Drafting & report prep.	4 days @ \$50/day		200.00
			<hr/>
	T O T A L		<u>\$ 1,702.98</u>



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TO: American Smelting & Refining Co.
504 - 535 Thurlow Street
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CERTIFICATE NO. 38357
INVOICE NO: 18020
RECEIVED Aug. 26/76
ANALYSED Aug. 31/76

SKEENA ARCH PROJECT
CC: D. MacIntyre

ATTN:

SAMPLE NO. :	PPM Copper	PPM Zinc	PPM Silver
--------------	---------------	-------------	---------------

IMS 1	20	225	<0.5
2	12	248	<0.5
3	16	194	<0.5
4	20	317	<0.5
5	18	317	<0.5
6	16	225	<0.5
7	46	305	1.0
8	24	218	<0.5
9	21	700	<0.5
10	14	392	<0.5
11	24	344	<0.5
12	14	305	<0.5
13	13	194	<0.5
14	13	189	<0.5
15	16	248	<0.5
16	14	120	<0.5
17	12	174	<0.5
76IMS 18	14	164	<0.5
STD.	100	200	



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 cc: D. MacIntyre

CERTIFICATE NO. 30058
 INVOICE NO. 18020
 RECEIVED Aug. 20/76
 ANALYSED Aug. 31/76

ATTN:

SAMPLE NO. :	PPM Copper	PPM Zinc	PPM Silver
761'S 19	44	344	<0.5
I.L 20	24	295	<0.5
I'S 21	16	525	<0.5
22	21	392	<0.5
23	14	375	<0.5
24	14	240	<0.5
25	22	371	<0.5
26	20	600	<0.5
27	110	160	<0.5
28	38	450	<0.5
29	34	160	<0.5
30	12	112	<0.5
31	13	131	<0.5
32	14	466	<0.5
33	12	550	<0.5
34	63	360	<0.5
35	13	406	<0.5
761'S 36	14	233	<0.5



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ANALYSED Sept. 2/76

ATTN: skeena Arch Project

SAMPLE NO. :	PPM Copper	PPM Zinc	PPM Silver
76 IMS 37	16	233	<0.5
38	6	140	<0.5
39	14	211	<0.5
40	24	400	<0.5
41	14	164	<0.5
42	10	108	<0.5
43	20	155	<0.5
44	24	295	0.5
45	12	733	0.5
46	16	550	<0.5
47	16	420	<0.5
48	28	240	<0.5
49	31	194	<0.5
50	7	152	<0.5
51	6	131	<0.5
52	14	225	<0.5
53	13	115	<0.5
54	20	135	<0.5
55	24	265	<0.5
56	16	160	<0.5
57	12	169	<0.5
58	14	206	<0.5
59	16	174	<0.5
60	24	240	<0.5
61	16	218	<0.5
62	16	248	<0.5
63	16	184	<0.5
64	22	211	<0.5
65	18	120	<0.5
66	13	75	<0.5
67	14	95	<0.5
68	14	108	<0.5
69	12	108	<0.5
70	16	200	<0.5
71	8	144	<0.5
72	14	127	<0.5
73	16	140	<0.5
74	13	108	<0.5
75	28	112	<0.5
76 IMS76	20	108	<0.5
STD.	104	200	



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ATTN: SKEENA ARCH PROJECT

SAMPLE NO. :	PPM Copper	PPM Zinc	PPM Silver
76 IMS 77	13	89	<0.5
78	13	164	<0.5
79	13	86	<0.5
76 IMS 80	12	127	<0.5
76 IML 81	13	127	<0.5
76 IMS 82	18	500	<0.5
83	14	148	<0.5
84	13	77	<0.5
85	12	206	<0.5
86	18	265	<0.5
87	14	135	<0.5
88	20	392	<0.5
89	14	466	<0.5
90	14	295	<0.5
91	12	500	<0.5
92	24	406	<0.5
93	12	200	<0.5
94	12	189	<0.5
95	14	450	<0.5
96	10	189	<0.5
97	16	275	<0.5
98	13	164	<0.5
99	18	295	<0.5
100	12	392	<0.5
101	18	766	1.0
102	13	164	<0.5
103	12	206	<0.5
104	14	344	<0.5
105	13	265	<0.5
106	13	400	<0.5
107	12	295	<0.5
108	14	240	<0.5
109	8	700	<0.5
110	13	375	<0.5
111	13	600	<0.5
112	20	550	<0.5
113	30	1000	<0.5
114	28	1000	<0.5
115	14	500	<0.5
76 IMS 116	20	375	<0.5
STD.	100	200	



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 504 - 535 Thurlow Street
 Vancouver, B.C.

ATTN: SKEENA ARCH PROJECT

SAMPLE NO. :	PPM Copper	PPM Zinc	PPM Silver
76 IMS 117	12	375	<0.5
118	14	600	<0.5
119	24	434	<0.5
120	18	800	<0.5
121	20	285	<0.5
122	14	925	<0.5
123	30	392	<0.5
124	18	179	<0.5
125	14	305	<0.5
126	12	295	<0.5
127	8	152	<0.5
128	12	160	<0.5
129	12	164	<0.5
130	30	317	<0.5
131	21	218	<0.5
132	22	200	<0.5
133	48	225	<0.5
134	66	525	1.5
135	48	420	1.5
136	44	525	0.5
137	50	378	1.5
138	48	392	1.0
139	14	500	<0.5
140	21	1000	<0.5
141	18	344	<0.5
142	24	400	<0.5
76 IMS 143	16	375	<0.5

STD. 100 400



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CERTIFICATE NO. 38487
INVOICE NO. 18183
RECEIVED Sept. 4/76
ANALYSED Sept. 7/76

ATTN: c.c. D. MacIntyre Skeena Arch

SAMPLE NO. :	PPM Zinc	PPM Silver
.76 IMS 144	420	1.2
145	75	<0.5
146	152	<0.5
147	640	<0.5
148	344	1.2
149	200	0.5
150	169	0.5
151	317	0.8
152	155	0.8
153	392	0.5
154	169	<0.5
155	265	0.8
156	275	0.5
157	330	0.8
158	450	0.8
159	330	0.8
160	317	0.5
161	480	1.2
162	480	0.8
163	225	0.5
164	285	<0.5
165	275	0.5
166	600	1.2
167	164	<0.5
168	233	<0.5
169	285	<0.5
170	392	<0.5
171	255	<0.5
172	164	<0.5
173	285	1.0
174	135	0.5
175	344	<0.5
176	340	<0.5
177	330	0.8
178	318	<0.5
179	400	0.5
180	317	<0.5
181	330	0.5
182	248	0.5
76 IMS 183	240	<0.5
STD.	194	



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Vancouver, B.C.

SEP 17 1976

INVOICE NO. 18249

RECEIVED

ANALYSED Sept. 15/76

ATTN:

SAMPLE NO. :	PPM Copper
76 IMS 144	56
145	8
146	36
147	28
148	62
149	21
150	18
151	46
152	16
153	18
154	18
155	58
156	18
157	44
158	36
159	44
160	20
161	44
162	28
163	48
164	18
165	48
166	63
167	12
168	10
169	13
170	24
171	28
172	22
173	54
174	13
175	13
176	13
177	18
178	16
179	38
180	18
181	18
182	24
6 IMS 183	12
Std.	106



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ASSOCIATION

CERTIFIED BY: *[Signature]*

PROJECT No. _____

MIN - EN Laboratories Ltd.

DATE: Oct 1,

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2

1976.

PHONE (604) 980-5814

ATTENTION:

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb			
6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
81	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
76IMS1		2.0		1.90			1.7								
2		1.6		2.45			2.4								
3		1.7		2.05			1.2								
4		2.0		3.10			1.3								
5		1.6		2.95			1.1								
6		1.9		2.60			4.0								
7		4.8		3.05			2.3								
8		2.3		2.10			1.2								
9		2.0		6.80			1.6								
10		1.5		4.25			1.4								
11		2.4		3.40			1.3								
12		1.8		3.00			1.4								
13		1.6		1.89			1.2								
14		1.4		1.66			1.0								
15		1.8		2.35			1.1								
16		2.6		1.16			1.1								
17		1.6		1.57			1.3								
18		1.8		1.58			1.2								
19		4.9		3.45			2.4								
20		2.6		2.90			1.7								
21		2.0		5.75			1.4								
22		2.4		4.50			2.0								
23		1.9		3.50			1.4								
24		1.8		2.35			1.4								
25		2.4		3.80			1.7								
26		2.2		6.10			1.4								
27		1.2		1.40			2.1								
28		4.1		4.70			1.9								
29		3.4		1.37			1.2								
76IMS30		1.5		1.93			0.9								

CERTIFIED BY

Joseph Oliver

COMPAN:

Asarco Exploration.

GEOCHEMICAL ANALYSIS DATA SHEET

R.E.G.

No. 2941

PROJECT No.: _____

MIN - EN Laboratories Ltd.

OCT 18 1976

DATE: Oct 12, 1976

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2
PHONE (604) 980-5814

ATTENTION:

Sample Number	6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
	Ma	Cu	Pb	Zn	Ni	Co	Ag	Fe	Hg	As	Mn	Au				
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb				
	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
76IMS.31								06								
32								08								
33								08								
34								14								
35								10								
36								07								
37								12								
38								08								
39								09								
40								13								
41								08								
42								07								
43								10								
44								21								
45								20								
46								10								
47								13								
48								14								
49								13								
50								09								
51								08								
52								08								
53								06								
54								07								
55								13								
56								06								
57								06								
58								08								
59								06								
76IMS 60								14								

CERTIFIED BY *D. Hill*

GEOCHEMICAL ANALYSIS DATA SHEET

PROJECT No.: _____

MIN - EN Laboratories Ltd.

DATE Oct. 12

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2
PHONE (604) 980-5814

1976

ATTENTION:

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb	70	75	80
61	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
761 MS 61							0.9								
62							1.1								
63							1.2								
64							0.8								
65							0.8								
66							0.7								
67							0.5								
68							0.7								
69							0.6								
70							0.8								
71							0.6								
72							0.6								
73							1.1								
74							0.7								
75							0.8								
76							0.8								
77							0.6								
78							0.7								
79							0.8								
80							0.6								
81							0.6								
82							1.1								
83							0.6								
84							0.6								
85							0.9								
86							1.0								
87							0.9								
88							0.9								
89							1.0								
761 MS 90							0.8								

CERTIFIED BY *[Signature]*

PROJECT No.: _____

MIN - EN Laboratories Ltd.

DATE: Oct 12.
1976

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2
PHONE (604) 980-5814

ATTENTION:

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb	70	75	80	
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
761MS91								09								
92								11								
93								09								
94								07								
95								12								
96								06								
97								08								
98								06								
99								07								
100								09								
101								14								
102								06								
103								06								
104								05								
105								07								
106								07								
107								09								
108								07								
109								08								
110								06								
111								07								
112								12								
113								23								
114								21								
115								10								
116								09								
117								08								
118								09								
119								12								
761MS120								14								

CERTIFIED BY *[Signature]*

COMPAN

sarco Exploration.

GEOCHEMICAL ANALYSIS DATA SHEET

No. 2941

PROJECT No.: _____

MIN - EN Laboratories Ltd.

DATE: Oct 12

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2

1976

PHONE (604) 980-5814

ATTENTION:

Sample No.	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb				
6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
76MS 1.21							1.4									
22							1.2									
23							1.3									
24							0.8									
25							1.4									
26							1.1									
27							1.2									
28							1.6									
29							1.9									
130							0.9									
31							1.7									
32							1.6									
33							1.0									
34							0.8									
35							1.3									
36							2.4									
37							0.9									
38							1.1									
39							0.8									
140							1.2									
41							1.2									
42							0.9									
43							1.4									
44							0.8									
45							0.8									
46							0.9									
47							1.3									
48							0.2									
49							1.0									
76MS 150							0.9									

CERTIFIED BY *J. P. Clark*

COMPA. arco Exploration.

GEOCHEMICAL ANALYSIS DATA SHEET

2941

PROJECT No.: _____

MIN - EN Laboratories Ltd.

DATE: Oct 12.

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2
PHONE (604) 980-5814

1976

ATTENTION:

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb	70	75	80	
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
76 DS 151							0.9									
52							0.6									
53							1.1									
54							0.8									
55							0.7									
56							1.0									
57							0.6									
58							0.5									
59							0.6									
160							1.2									
61							0.8									
62							0.7									
63							1.3									
64							2.2									
65							1.8									
66							1.6									
67							1.9									
68							1.5									
69							0.9									
170							1.6									
71							1.1									
72							1.1									
73							2.2									
74							1.4									
75							0.5									
76							1.1									
77							1.2									
78							1.9									
79							0.8									
76 DS 180							0.7									

CERTIFIED BY *Gregory C. Jones*

APPENDIX "C"

ANALYTICAL PROCEDURES

LAB PROCEDURES FOR HANDLING AND PREPARATION OF ROCK
GEOCHEMICAL MATERIAL.

1. Samples are sorted numerically and recorded on rock geochem lab sheets.
2. Samples are dried, then crushed through a jaw type crusher.
3. Secondary crushing to -1/8 inch is completed by passing sample through a gyro crusher.
4. Approximately 100 gms of crushed sample is split from reject for pulverizing and dried @ 80°C.
5. Sample is pulverized using a "Rocklabs" ring grinder.
6. Pulverized sample is retained in a suitably marked and numbered container.
7. Digestion and analytical technique for rock geochem materials is identical to that used for soils and silts.

LAB PROCEDURES FOR HANDLING, PREPARATION AND ANALYSES OF

GEOCHEMICAL MATERIALS.

Sample Preparation:

1. Samples are sorted numerically or in grid sequence and recorded on lab work sheets.
2. Soil and silt materials are air dried at 80°C. Drying time 12 - 16 hours.
3. Screen samples and retain all -80 mesh material. Other material of varying mesh size will be retained on request.
4. -80 mesh fraction is stored in powder seal coin envelopes for analyses and also for later dry storage. Geochem materials are retained for up to five years in Chemex storage facilities.

Sample Digestion, Chemical Preparation and Analyses.

1. For analyses of Cu, Mo, Pb, Zn, Co, Ni, Cd, Ag - a 0.5 gm sample of -80 mesh material is weighed into 22x175 mm test tubes. Detection limits 1 ppm or less.
2. Add 3 mls 70% HClO₄ and 2 mls conc. HNO₃ to sample. Slowly heat to 203°C. Digestion time 2-3 hours.
3. Add demineralized water to 25 ml volume, mix thoroughly, settle and analyse samples by standard atomic absorption procedures.
4. Gold (ppb) is analysed using a 5 gm sample of -80 mesh material. Sample is weighed into a crucible and ashed for 1 hour at 550°C. Residue is digested in aqua regia to dryness and dissolved in 25% HCl. Gold Bromide is extracted into MIBK and analysed by A.A. Procedures.
5. Uranium (ppm) is analysed fluorometrically. A 0.50 gm sample is digested in 4 M nitric to dryness. Digestion is repeated. A small portion of solution is transferred to a platinum dish and evaporated to dryness. Flux is added and sample is fused at 650°C. Fluorescence is determined using a Turner III Fluorometer.
6. Tungsten (ppm) is analysed colourimetrically using the dithol procedure. A 0.50 gm sample is mixed with pyrosulphate flux and fused in a closed furnace. Fused material is leached with HCl solution and a portion of sample is transferred to another test tube for complexation with zinc dithol reagent. Colour development is determined on a spectrophotometer.
7. Arsenic (ppm) is analysed colourimetrically by collecting arsine in pyridine and silver diethyldithiocarbamate reagent. Color intensity is determined using a flow through cell on a Spectronic 700 Spectrophotometer.

APPENDIX "D"

SAMPLES CONTAINING SIGNIFICANT
ORGANIC MATERIAL

SOIL SAMPLES CONTAINING ORGANIC MATERIAL

		<u>Drainage</u>	<u>Cu</u>	<u>Zn</u>	<u>Ag</u>
76 IMS	18	G	B	P	P
	19	G	A	P	A
	27	M	A	P	A
	28	M	A	A	A
	52	G	B	P	B
	114	M	P	A	A
	133	M	A	P	B
	134	M	A	A	B
	146	M	A	P	B
	161	M	A	A	B
	165	M	A	P	A
	166	M	A	A	P
	173	M	A	P	A
	185	M	A	A	A

- G - Good
- A - Anomalous
- M - Moderate
- P - Positive
- B - Background

STATEMENT OF QUALIFICATIONS

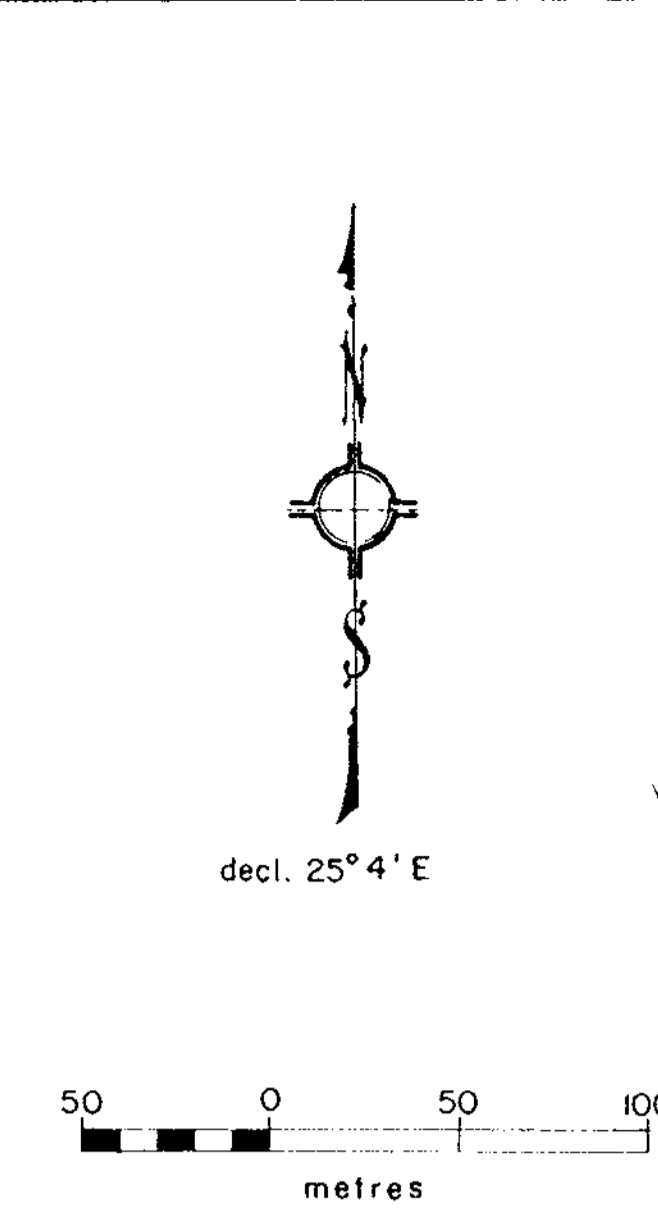
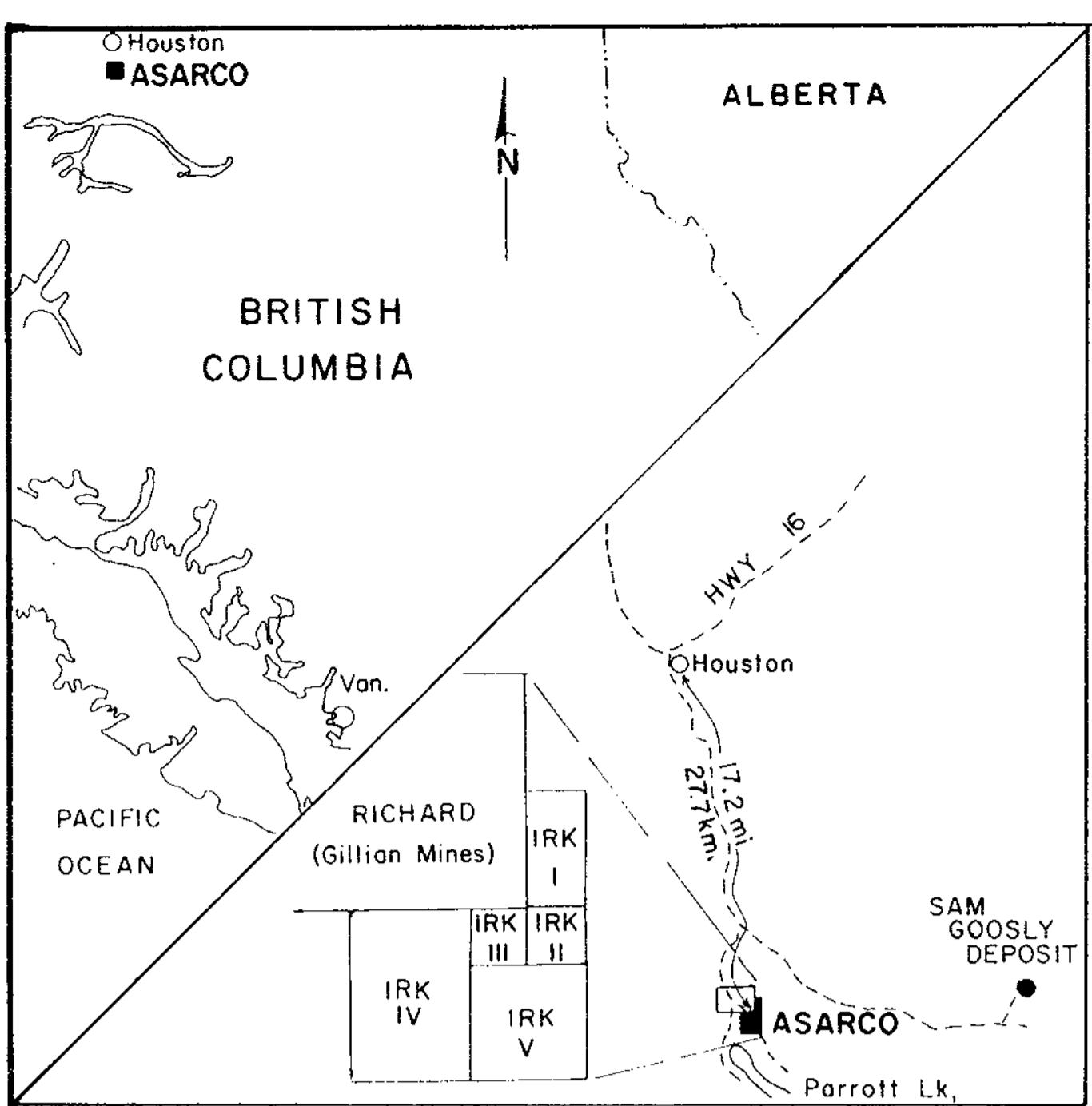
I, Donald G. MacIntyre, of 6020 Kalamalka Crescent,
Richmond, B.C., certify that:

- (1) I am a graduate of the University of British Columbia with a Bachelor of Science degree in Honors Geology, 1971.
- (2) I am a graduate of the University of Western Ontario with Master of Science (1974) and PhD (1977) degrees in Economic Geology.
- (3) I have ten years field experience in mineral exploration in British Columbia and the Yukon Territory.
- (4) The information contained in this report was compiled by myself and that the geochemical program described was under my direct supervision.

D MacIntyre

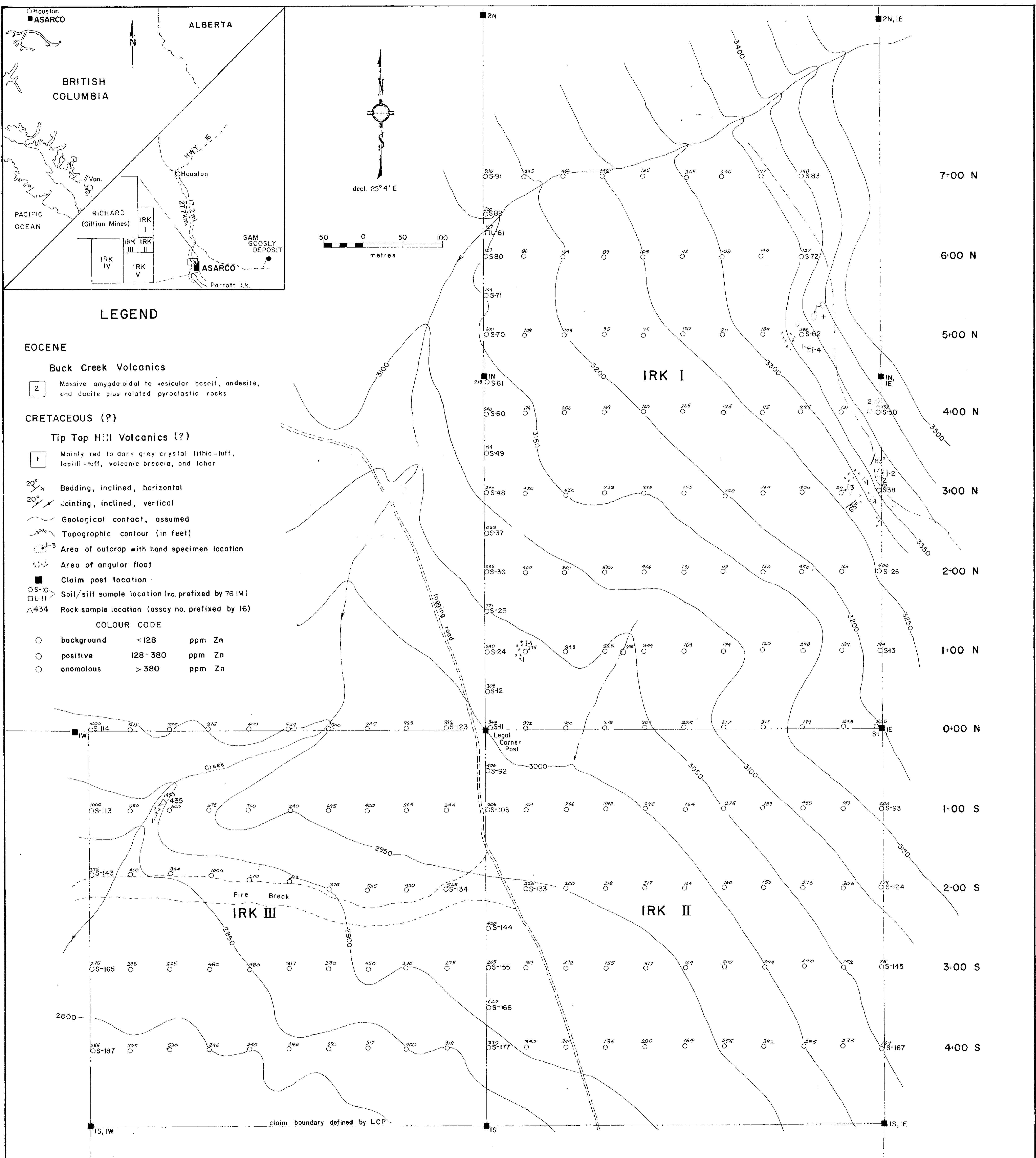
D.G. MacIntyre, PhD.,
Geologist,
Asarco Exploration Company
of Canada Limited.

13 May/77



LEGEND

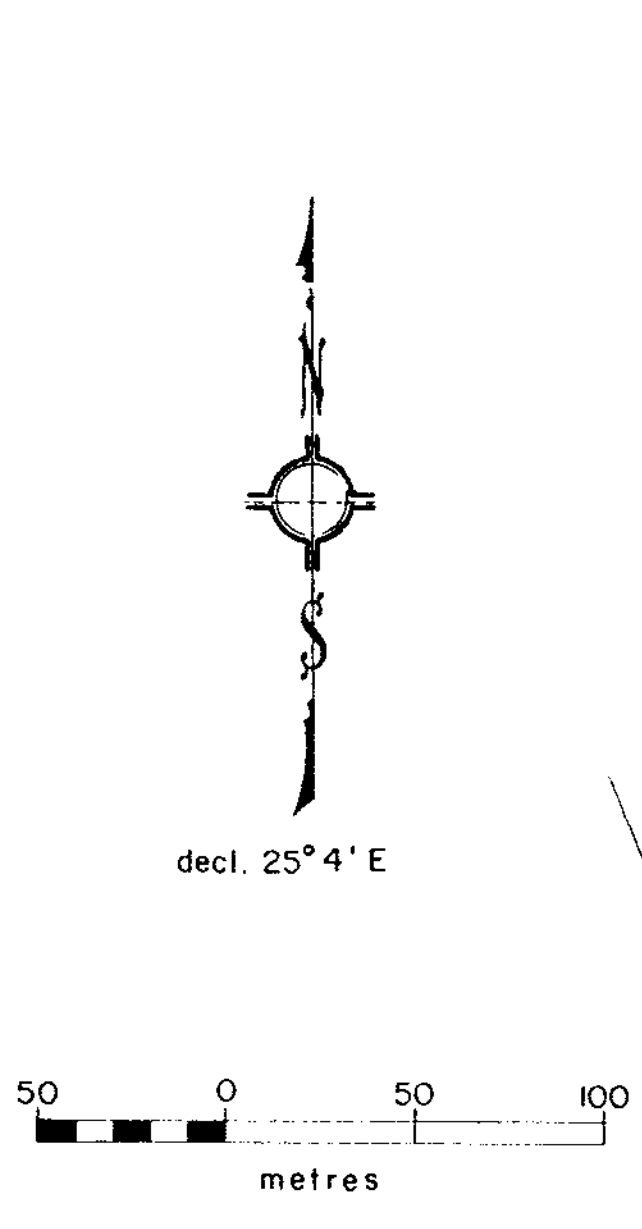
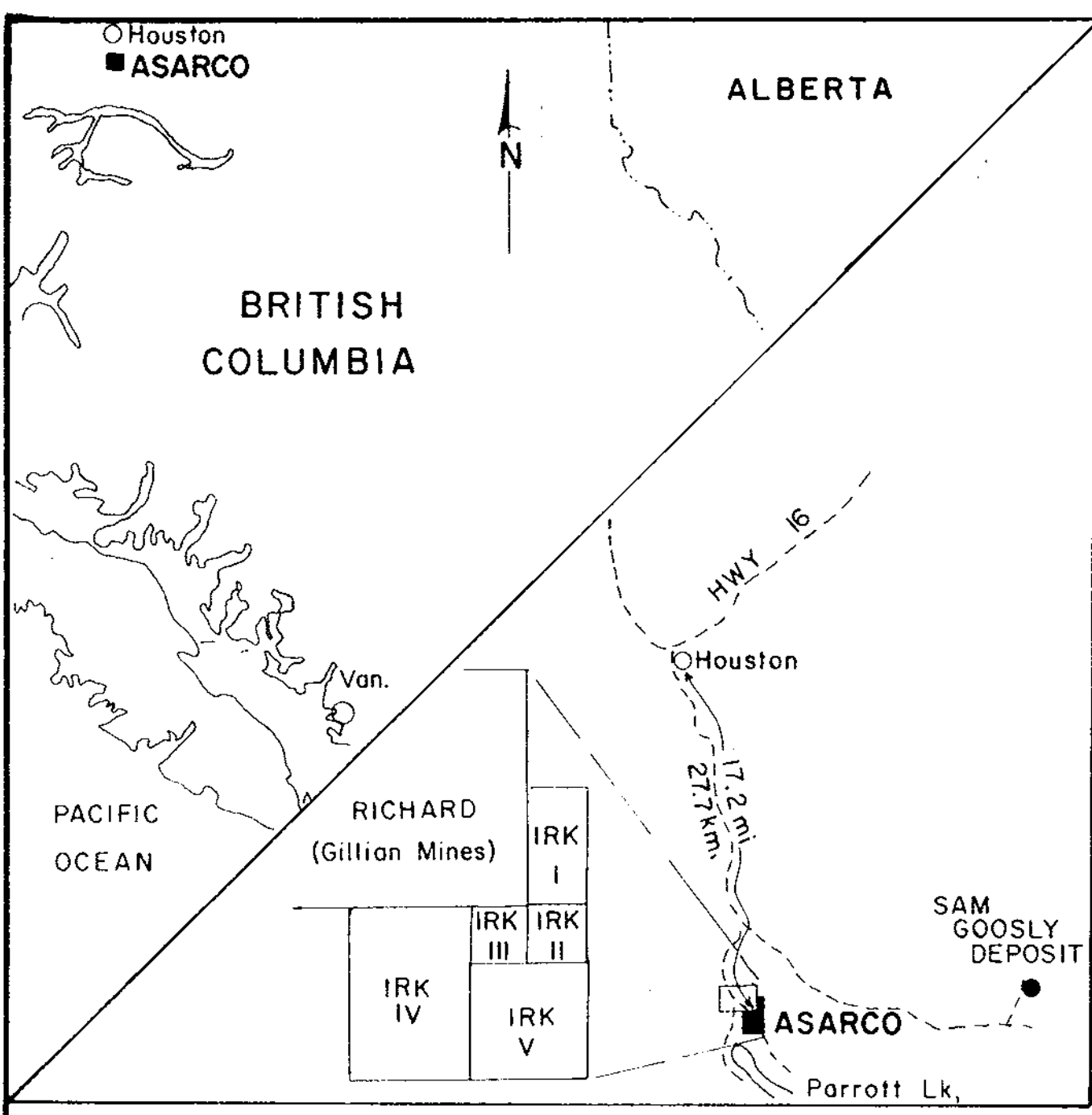
- EOCENE**
- Buck Creek Volcanics**
- 2 Massive amygdaloidal to vesicular basalt, andesite, and dacite plus related pyroclastic rocks
- CRETACEOUS (?)**
- Tip Top Hill Volcanics (?)**
- 1 Mainly red to dark grey crystal lithic-tuff, lapilli-tuff, volcanic breccia, and lahar
- 20° Bedding, inclined, horizontal
 20° Jointing, inclined, vertical
- Geological contact, assumed
 Topographic contour (in feet)
- 1-3 Area of outcrop with hand specimen location
 Area of angular float
 Claim post location
 OS-10 Soil/silt sample location (no. prefixed by 76 IM)
 L-11 Rock sample location (assay no. prefixed by 16)
- COLOUR CODE**
- | | | |
|--------------|-----------|--------|
| ○ background | < 128 | ppm Zn |
| ○ positive | 128 - 380 | ppm Zn |
| ○ anomalous | > 380 | ppm Zn |



6283 M-1

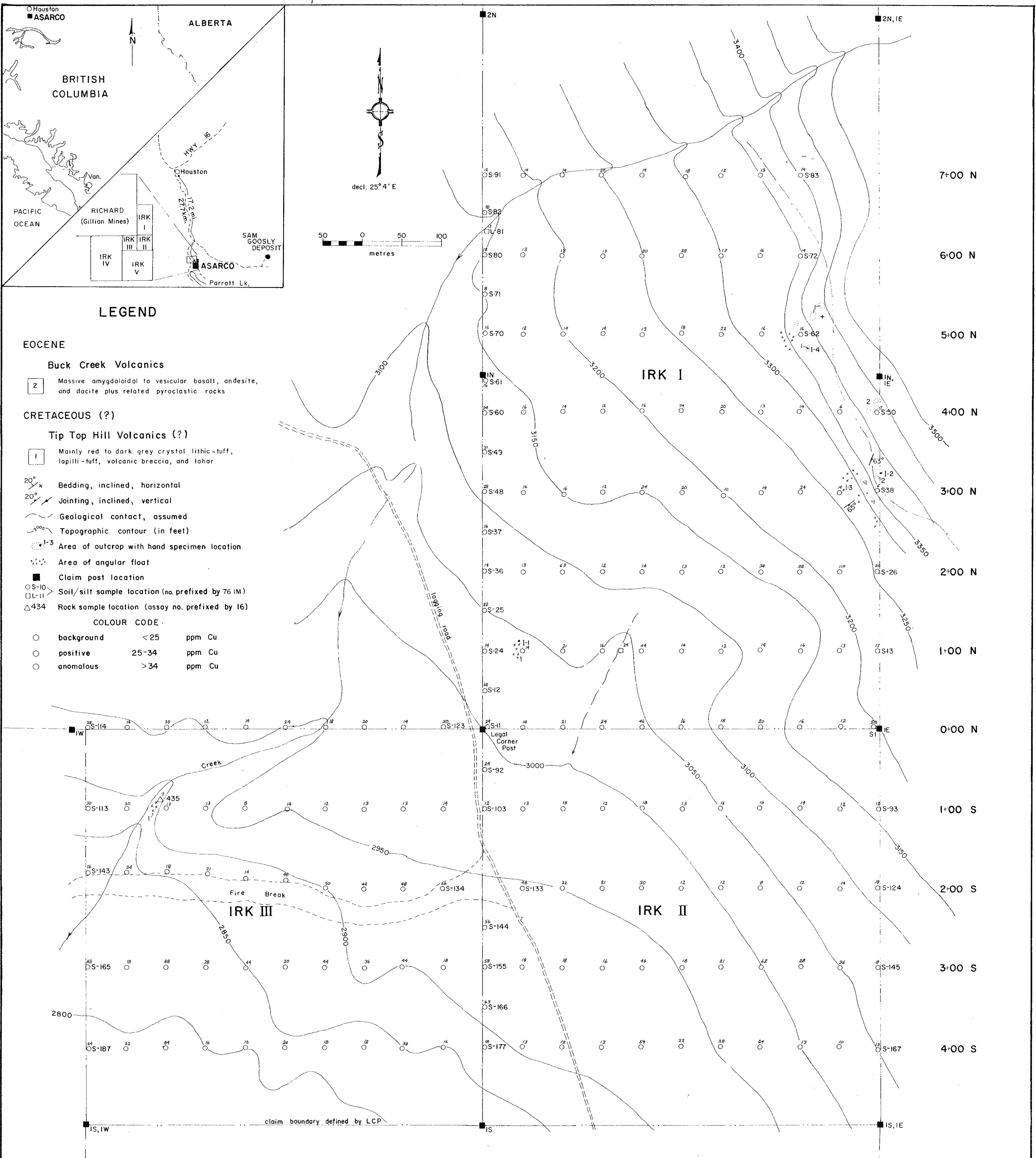
*J. Marchant
Nov 10, 1976*

MAP 1		ASARCO	
PARROTT LKS. PROSPECT			
ZINC GEOCHEMISTRY			
1cm=20m	D.G.M.	NOV. 1976	93L/2E



LEGEND

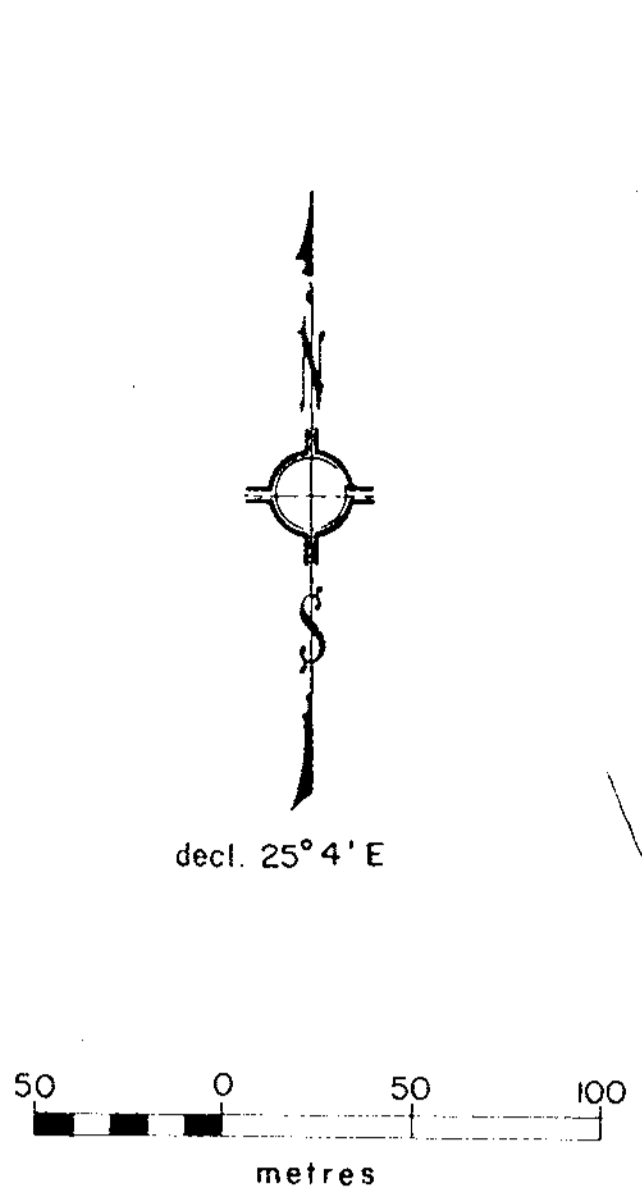
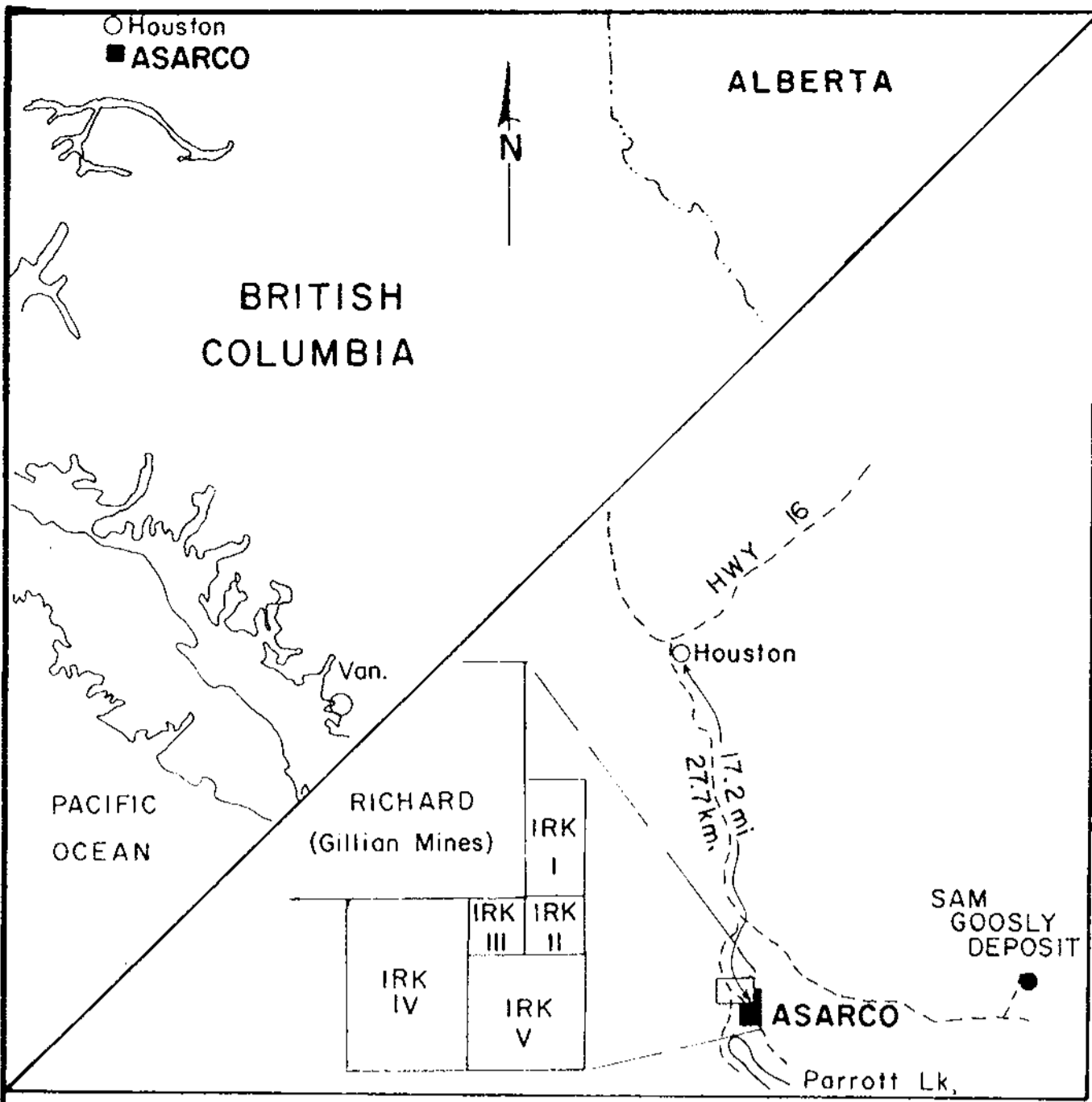
- EOCENE**
- Buck Creek Volcanics**
- 2 Massive amygdaloidal to vesicular basalt, andesite, and dacite plus related pyroclastic rocks
- CRETACEOUS (?)**
- Tip Top Hill Volcanics (?)**
- 1 Mainly red to dark grey crystal lithic-tuff, lapilli-tuff, volcanic breccia, and lahar
- 20° Bedding, inclined, horizontal
- 20° Jointing, inclined, vertical
- Geological contact, assumed
- Topographic contour (in feet)
- 1-3 Area of outcrop with hand specimen location
- Area of angular float
- Claim post location
- OS-10 Soil/silt sample location (no. prefixed by 76 IM)
- DL-11 Rock sample location (assay no. prefixed by 16)
- △434 Rock sample location (assay no. prefixed by 16)
- COLOUR CODE**
- | | | |
|--------------|-------|--------|
| ○ background | < 25 | ppm Cu |
| ○ positive | 25-34 | ppm Cu |
| ○ anomalous | > 34 | ppm Cu |



6283 M-2

MAP 2		ASARCO	
PARROTT LKS. PROSPECT			
COPPER GEOCHEMISTRY			
1cm=20m	D.G.M.	NOV. 1976	93 L/2E

15th Nov 1976



LEGEND

EOCENE

Buck Creek Volcanics

- 2 Massive amygdaloidal to vesicular basalt, andesite, and dacite plus related pyroclastic rocks

CRETACEOUS (?)

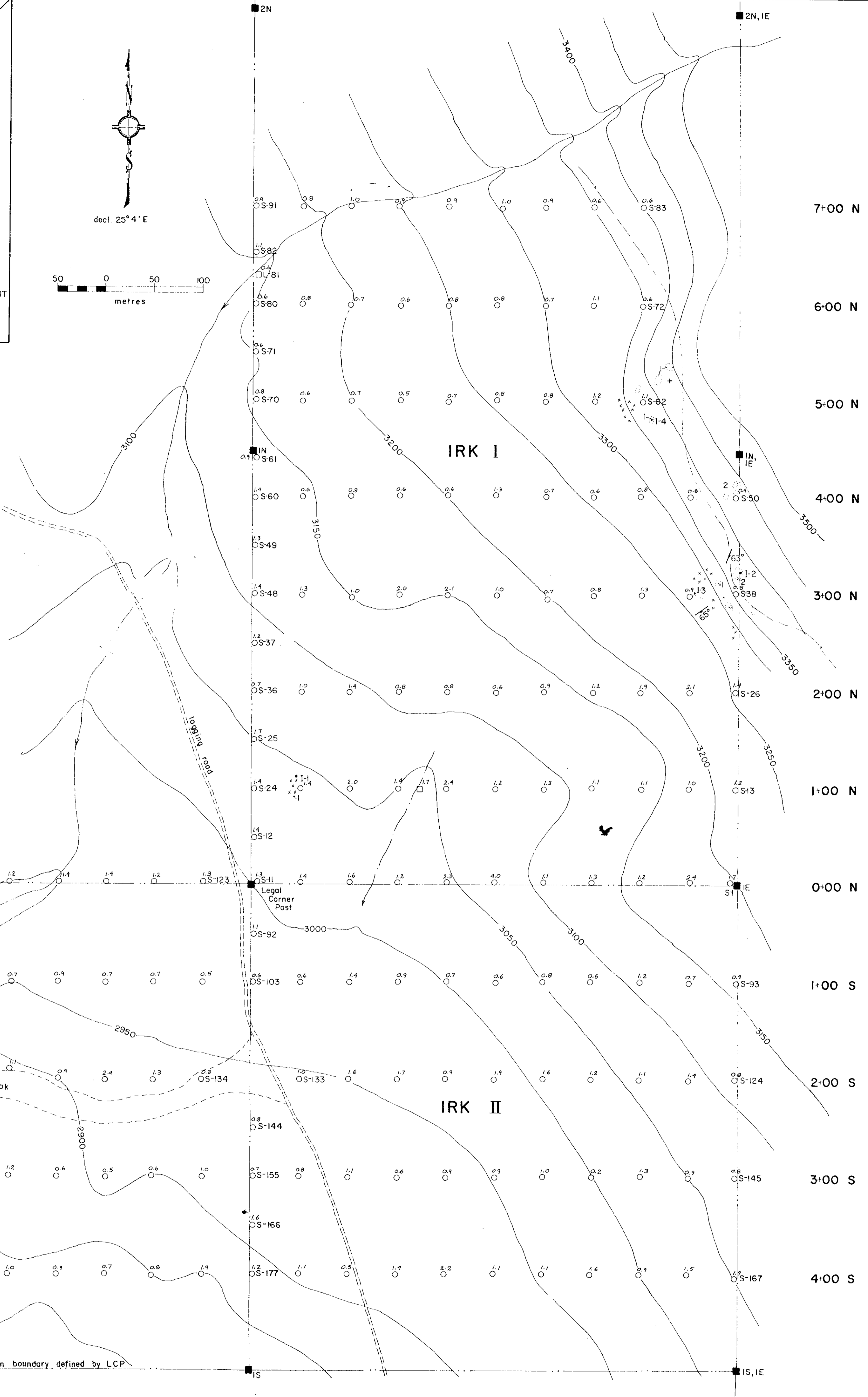
Tip Top Hill Volcanics (?)

- 1 Mainly red to dark grey crystal lithic-tuff, lapilli-tuff, volcanic breccia, and lahar

- 20° Bedding, inclined, horizontal
- 20° Jointing, inclined, vertical
- Geological contact, assumed
- Topographic contour (in feet)
- 1-3 Area of outcrop with hand specimen location
- Area of angular float
- Claim post location
- OS-10 Soil/silt sample location (no. prefixed by 76 IM)
- L-11 Rock sample location (assay no. prefixed by 16)

COLOUR CODE

- background < 1.2 ppm Ag
- positive 1.2 - 1.6 ppm Ag
- anomalous > 1.6 ppm Ag



5:00 W

4:00 W

3:00 W

2:00 W

1:00 W

Base Line

1:00 E

2:00 E

3:00 E

4:00 E

7:00 N

6:00 N

5:00 N

4:00 N

3:00 N

2:00 N

1:00 N

0:00 N

1:00 S

2:00 S

3:00 S

4:00 S

MAP 3

PARROTT LKS. PROSPECT

SILVER GEOCHEMISTRY

1cm=20m D.G.M. NOV. 1976 93 L/E

6283 M-3

D. Macdonald
Nov. 10, 1976