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GEOLOGICAL AND GEOCHEMICAL REPORT  
SAMPLING OF DIAMOND DRILL CORES AND SOIL SAMPLING  
ON THE  
TRAIL MINERAL CLAIM  
Babine Lake Area  
Omineca Mining Division  
British Columbia

NTS: 93M/8W  
55°25'N 126°20'W  
OWNER: N.C. CARTER  
AUTHOR: N.C. CARTER, Ph.D. P.Eng.  
DATE: JANUARY 8, 1993

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

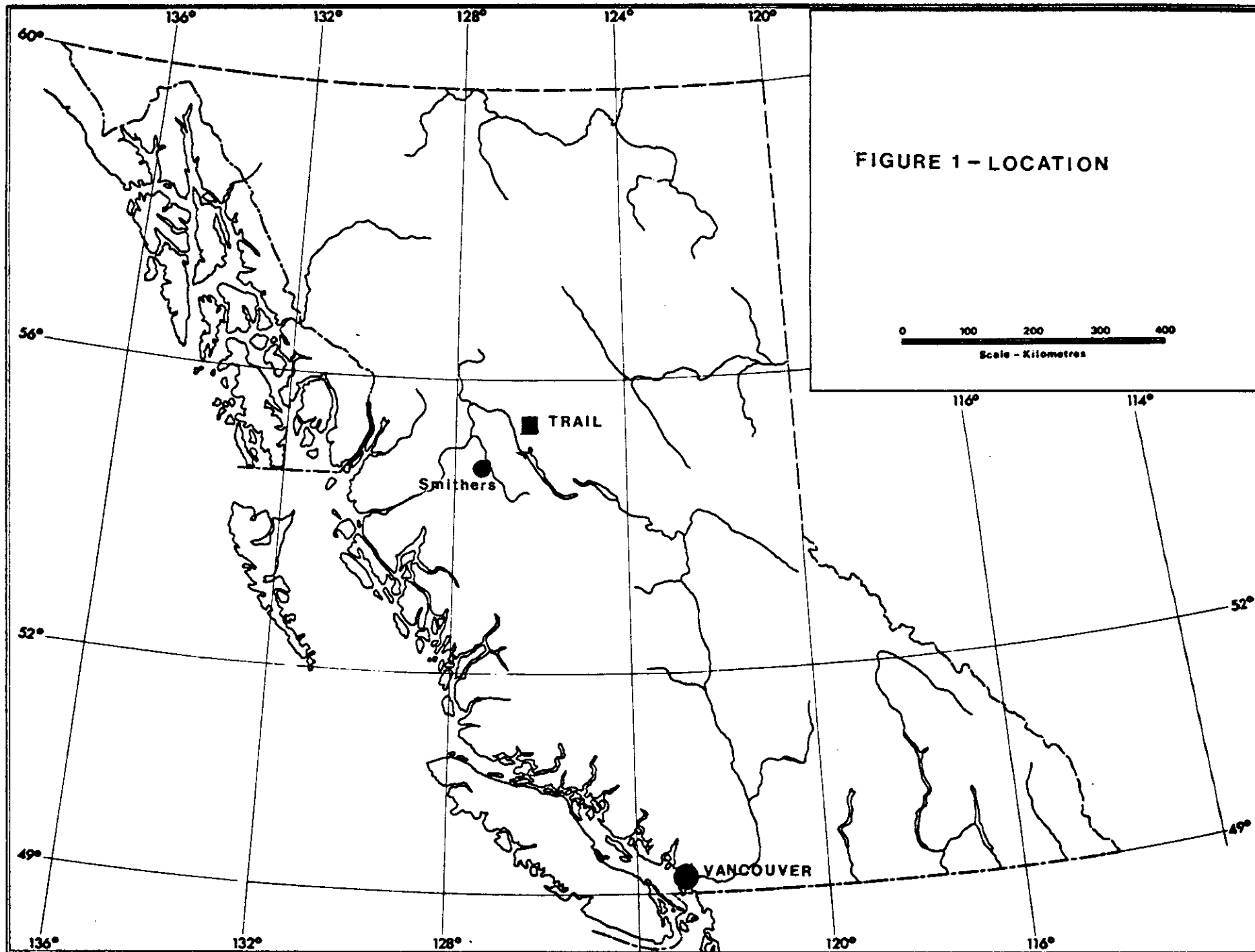
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## INTRODUCTION

### Location and Access

The TRAIL mineral claim, centred on Trail Peak north of Babine Lake, is 90 km northeast of Smithers in west-central British Columbia (Figure 1). The geographic centre of the claim is at latitude 55°25' North and longitude 126°20' West in NTS map-area 93M/8W.

Access is by helicopter from Smithers. The property is 45 km north of Bell Copper mine (Figure 2) and about 10 -20 km from the end of present logging roads which extend to Morrison Lake to the south and into the Nilkitkwa River valley north of the claim. Trail Peak is immediately north of the historic Hudson's Bay trail linking Hazelton with the Omineca gold fields and this route has been used more recently to walk bulldozers into the area from Fort Babine. A recently constructed power line between Fort Babine and Takla Landing also follows this route.

### Mineral Property

The TRAIL property consists of one 4-post mineral claim of 16 units as shown on Figure 3. Details of the mineral claim are as follows:

<u>Claim Name</u>	<u>Units</u>	<u>Record Number</u>	<u>Date of Record</u>
TRAIL	16	240188	October 16, 1988

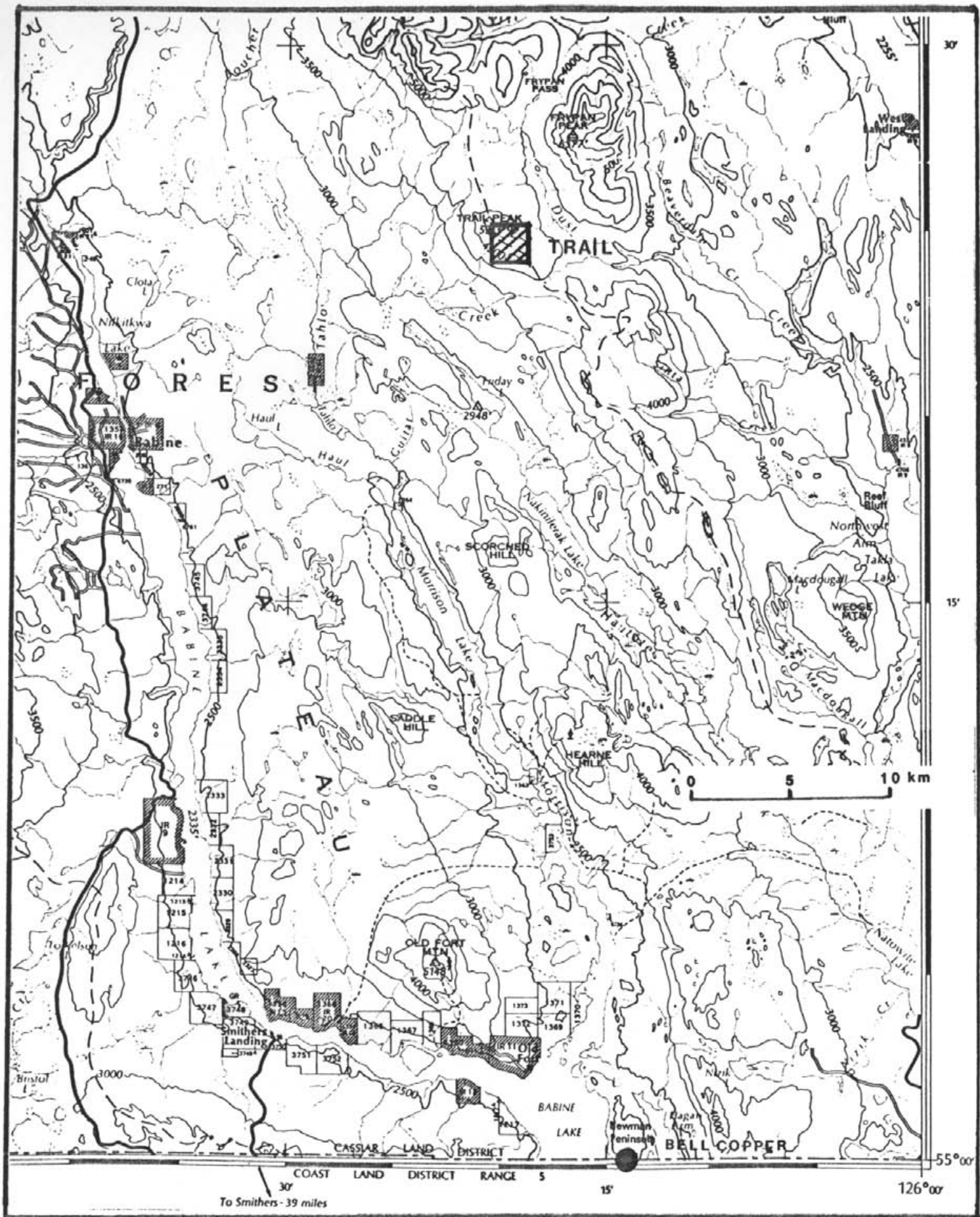


FIGURE 2 - LOCATION - TRAIL CLAIM

## History

Several hand trenches 2 km southeast of Trail Peak expose a polymetallic vein and are evidence of work prior to the investigation of porphyry copper mineralization by Texas Gulf Sulphur Company between 1968 and 1975. Work by this company included geological mapping, geophysical surveys, soil and rock geochemistry, 3600 metres of bulldozer trenching and 1086 metres of diamond drilling in 12 holes. Results of some of this work are contained in Assessment Reports 1672 and 5706.

## Present Status

The TRAIL mineral claim was located by the writer October 16, 1988. Work in 1989 included geological mapping and the collection and analyses of bedrock and drill core samples (Carter, 1990).

This report contains analytical results of 38 drill core samples, 19 soil and 2 rock samples collected by the writer from the property between August 7 and 11, 1992.

Results of a few drill core samples from one of two holes stored on the property were included in a previous report (Carter, 1990). Since that time, the location of core from the initial 10 holes drilled on the property in 1969 was determined and copies of original drill logs, which include

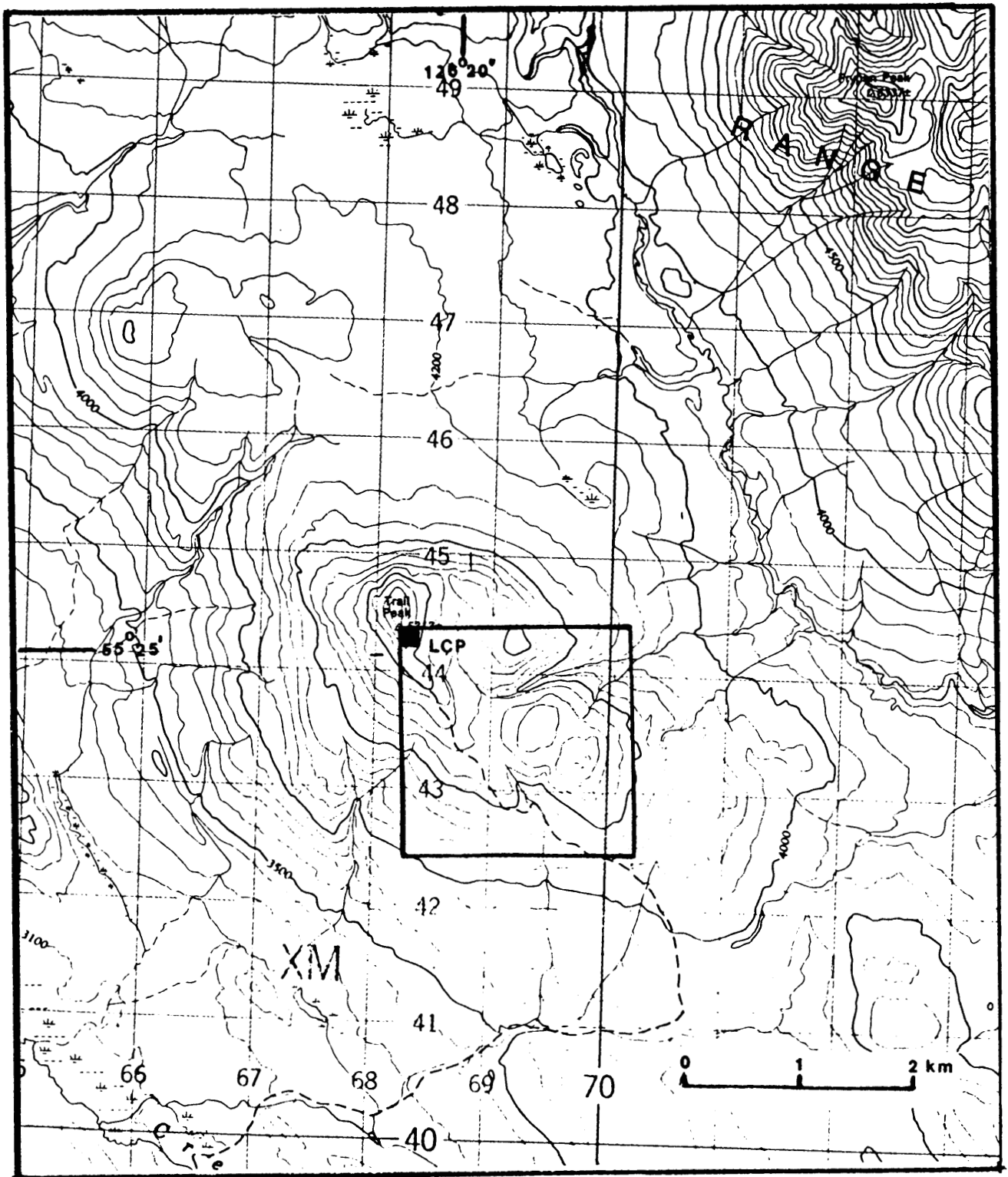


FIGURE 3 - TRAIL MINERAL CLAIM

analytical results for copper, were obtained from Falconbridge Limited. Drill logs for the two holes drilled in 1975 are included in Assessment Report 5706 (DeLancey, 1975) and analytical results were obtained for these as well.

Core from the 1969 drilling program is stored on the Ascot property (BC Minfile number 93L024) between Mt. McKendrick and Dome Mountain in the southern part of the Babine Range 30 km east of Smithers. This core is stacked at the old Ascot campsite and with the exception of a few of the top boxes is in excellent condition. Core from the two holes drilled in 1975, stored near the respective drill sites on the property, is in variable condition.

Soil samples were collected from an area previously indicated as having anomalous copper values in soils but never followed up during earlier work on the property.

## **GEOLOGY AND MINERALIZATION**

### **Physical Setting**

Trail Peak is an isolated topographic high near the northern margin of the Nechako Plateau. The summit of Trail Peak rises some 600 metres above an area of gentle relief north of Babine Lake. Elevations within the claim area range from 1200 metres above sea level at the southwest corner of



the claim to 1620 metres at the Legal Corner Post at the Trail Peak survey monument (Figure 3).

Much of the northern half of the claim is above tree line of about 1460 metres. Bedrock is well exposed in the vicinity of Trail Peak and other areas above tree line. 23-year old bulldozer trenches in the central and western claim area afford reasonably good bedrock exposure (Figure 4).

### **Regional Geological Setting**

The northern Babine Lake area is within the Intermontane tectonic belt which is underlain principally by Mesozoic and older layered rocks, the most widespread in this area being volcanic and sedimentary rocks of the Jurassic Hazelton Group. These are intruded by plutonic rocks of various ages including lower Jurassic Topley intrusions, Omineca intrusions of early Cretaceous age, late Cretaceous rhyolite and granodiorite porphyries and Babine intrusions of early Tertiary age.

Porphyry copper mineralization in the Babine Lake area is well documented and is associated with three ages of intrusive activity. The most significant are the Eocene Babine intrusions which occur as small stocks and dyke swarms and host more than a dozen known porphyry copper deposits and occurrences including the former Granisle mine (1966 - 1982

production - 52.2 million tonnes grading 0.41% copper) and Bell Copper mine which to the end of 1991 had produced 29.9 million tonnes of copper and 12597 kg of gold from 75.5 million tonnes milled. Some 100 million tonnes of additional reserves of similar grade are estimated to be within and adjacent to the present Bell open pit.

Drill-indicated reserves at the Morrison deposit, 20 km north of Bell Copper, are estimated to be between 40 and 80 million tonnes grading 0.42% copper and 0.34 g/t gold.

Copper-molybdenum mineralization is also known to occur in late phases of the Topley intrusions and in late Cretaceous granodiorite porphyries. Other deposit types in this well mineralized district include narrow veins with base and precious metals values, which commonly occur marginal to known porphyry deposits and disseminated copper mineralization in Hazelton Group volcanic rocks. Deposits with volcanogenic massive sulphide affinities include Topley Richfield 10 km north of Topley, the RED prospect 5 km northeast of the dormant Granisle copper mine and the Fireweed silver-lead-zinc prospect 12 km west of the Bell copper mine.

#### **Property Geology and Mineralization**

The TRAIL claim is underlain principally by dark grey

cherty siltstones which are variably iron-stained due to the presence of finely disseminated pyrite. Volcanic crystalline tuffs are interbedded with the sediments at the base of Trail Peak (Figure 4).

The sedimentary and lesser volcanic sequence, part of the Hazelton Group of mid to late Jurassic age (Richards, 1974), is contained in a northwest-trending synform (Carter, 1970) which has been transected by northwest and east-northeast faults (Figure 4).

Thinly bedded siltstones and mudstones in the southeast claim area are less indurated than the more prevalent cherty siltstone unit and may be part of a younger (Albian Skeena Group?) sequence.

Intruding the layered rocks are small, fault-bounded plugs of medium-grained diorite - granodiorite and dykes and irregular bodies of finer-grained biotite-(hornblende)-feldspar porphyry (Figure 4). Sedimentary rocks marginal to these intrusions have been converted to biotite hornfels.

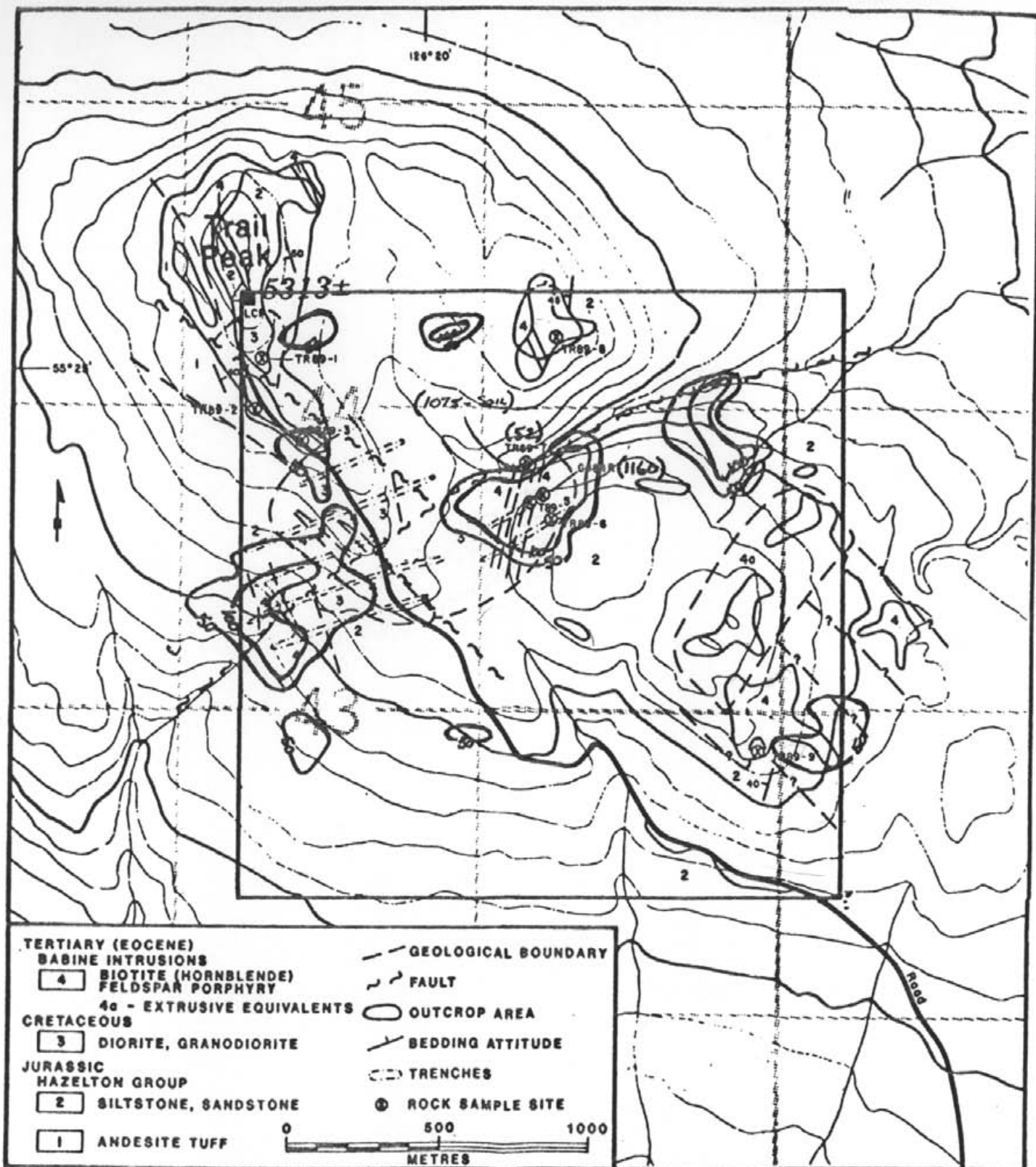
The diorite - granodiorite intrusions are of Cretaceous age (104 Ma - Carter, 1981) and were localized at the intersection of northwest and northeast faults on Trail Peak. These and the sedimentary sequence are intruded by predominantly northwest striking dykes of multiple-phase biotite-(hornblende)-feldspar porphyry of Eocene age (49 Ma -

Carter, 1981) which are typical of the Babine intrusions. A large outcrop area of trachytic-textured hornblende-feldspar porphyry, exhibiting crude columnar jointing in the eastern claim area (Figure 4), is interpreted to be a late phase, extrusive equivalent of the Babine intrusions.

Both the diorite - granodiorite plugs and porphyry dykes are offset by later movements along faults, particularly the east-northeast fault extending through the central part of the claim (Figure 4). Abundant tourmaline occurs in quartz veinlets and in stringers and irregular clots both within and marginal to this fault.

Copper mineralization, mainly as disseminations of chalcopyrite and lesser bornite on fractures and in quartz veinlets within and marginal to biotite-(hornblende)-feldspar porphyries, is exposed in bulldozer trenches in two areas of the property along and south of the aforementioned fault zone (Figure 4). Potassic alteration, in the form of locally abundant secondary biotite, plus some K-feldspar and sericite, is coincident with the copper mineralization and a pyrite halo extends outward some 600 to 1200 metres.

Results of a 1968 soil sampling program carried out by Texas Gulf are shown on Figure 5. 679 samples, collected at 60 - 120 metre intervals, were analyzed for total copper and statistical analysis indicated a background of 35 ppm or



**FIGURE 5 - TRAIL CLAIM -  
 GEOCHEMISTRY**

Soil- ppm Cu  
 (1160) Rock-ppb Au

less, thresholds in the 35 - 50 ppm range with anomalous values of +50 ppm. Three principal areas with anomalous copper values of up to 1300 ppm were outlined adjacent to the east-northeast trending fault (Figure 5). Scattered anomalous values occur north and south of the main anomalies.

Notwithstanding the variations in overburden which is transported glacial drift rather than true soils, "soil" geochemistry appears to be a fairly reliable exploration tool on the TRAIL property in contrast to most other areas in the Babine Lake area. This is no doubt due to the relatively thin overburden cover.

The western and central anomalous areas were investigated in 1969 by bulldozer trenching and limited diamond drilling. Seven of ten inclined holes were drilled to average depths of 60 metres in the western trench area. Three of these holes, drilled within a 200 square metre area near the west end of these trenches and immediately north of the east-northeast fault (Figure 4), intersected copper values ranging from 0.15 to 0.62%. Two inclined holes of 76 metres each, drilled in the eastern trench area (figure 4), intersected low copper values. One inclined hole, near the northern boundary of the present claim (Figure 4) and drilled to test a soil geochemical anomaly, was entirely within relatively unmineralized diorite, indicating that the diorite

intrusions are more widespread than shown on Figure 4.

Two 1975 inclined holes to depths of 344 and 132 metres, were drilled in the western and eastern trench areas respectively (Figure 4).

Rock chip sampling at 300 metre centres, undertaken over most of the property area in 1973, indicated a central copper zone (centred on the two trenched areas) with locally anomalous molybdenum values flanked by higher lead, zinc and silver values, typical of a porphyry environment.

Limited rock sampling of the two trenched areas was carried out in 1988 and 1989 (Carter, 1990) principally to determine if gold values were present within the porphyry system. Twenty samples from the western trench area included values of up to 1350 ppm copper and 155 ppb gold. Better gold values were indicated within and near the eastern trench area. Two rock samples from the northernmost trench returned values of 1910 and 3606 ppm copper and 698 and 1160 ppb gold. A sample from a bedrock exposure in the creek 150 metres north of the trench yielded 1663 ppm copper and 52 ppb gold and soil sample collected between the trench and the creek returned values of 4100 ppm copper and 1075 gold (subsequent re-analysis indicated 2000 ppb gold).

2000 ppb      2000  
1000      1000

## SAMPLING OF DIAMOND DRILL CORES

### Previous Diamond Drilling

Copies of records pertaining to 1969 and 1975 diamond drilling, carried out by Texas Gulf Sulphur Company, are now in the possession of the writer. These include detailed drill logs and assay results for copper. Drill site locations are shown on Figure 4 and hole orientations, casing and hole lengths are as follows:

<u>Drill Hole Number</u>	<u>Azimuth</u>	<u>Dip</u>	<u>Casing(m)</u>	<u>Total Depth(m)</u>
(1969)				
1	043	-60	4.0	61.3
2	225	-60	4.6	61.3
3	045	-60	3.7	61.3
4	045	-60	3.9	61.3
5	225	-60	3.4	61.0
6	045	-60	6.1	61.0
7	045	-60	4.3	14.0
8	270	-60	2.7	76.2
9	000	-60	5.5	76.2
10	270	-60	4.9	76.2
(1975)				
75-11	035	-50	6.1	344.4
75-12	340	-70	1.8	131.7

### 1992 Sampling Program

Re-sampling of previously drilled cores was generally directed to sections of better copper grades as indicated by the original drill logs to both confirm the original grades and to determine gold contents. Care was taken to conform



with initial sample intervals of about 3 metres (10 feet) and the procedure involved the collection of pieces of split core at 15 - 30 cm intervals. Individual samples were placed in plastic sample bags, tagged and submitted to Min-En Laboratories in North Vancouver for determination of 31 major and trace elements by inductively coupled argon plasma (ICP) techniques. Gold was determined by atomic absorption methods.

Complete analytical results are contained in Appendix I and are summarized as follows:

**Table 1 - Sample Results**

<u>Sample Number</u>	<u>Hole Number</u>	<u>Interval(m)</u>	<u>Cu(ppm)</u>	<u>Au(ppb)</u>
60501	11-75	161.8-164.9	1081	43
60502	"	173.1-176.2	753	53
60503	"	182.3-185.3	1343	82
60504	"	201.8-204.8	1191	62
60505	"	234.4-237.4	1379	72
60506	"	337.7-340.8	511	23
60507	"	15.2-18.3	1620	119
60508	"	100.9-103.9	1881	90
60509	"	150.3-153.3	1562	66
60510	"	283.5-286.5	2143	118
60511	"	249.9-253.0	1863	78
60512	12-75	32.3-35.4	275	23
60513	"	39.6-42.7	736	88
60514	"	54.9-57.9	681	78
60515	9	67.1-74.7	256	36
60516	1	4.0-9.1	509	23
60517	2	4.6-6.4	3954	272
60518	"	6.4-10.7	1284	86
60519	"	10.7-15.2	1640	82
60520	"	36.6-39.6	1971	91
60521	"	42.7-47.2	1522	74
60522	"	47.2-51.8	1513	55

<u>Sample Number</u>	<u>Hole Number</u>	<u>Interval(m)</u>	<u>Cu(ppm)</u>	<u>Au(ppb)</u>
60523	3	3.7-6.1	3709	173
60524	"	6.1-9.1	4054	170
60525	"	9.1-12.2	3703	170
60526	"	12.2-15.2	7067	333
60527	"	15.2-18.3	3752	188
60528	"	18.3-21.3	2261	119
60529	"	21.3-24.4	1615	111
60530	"	24.4-27.4	2554	180
(3.7 - 27.4m - 0.36% Cu, 0.181 g/t Au)				
(3.7 - 18.3m - 0.45% Cu, 0.207 g/t Au)				
60531	4	21.3-27.4	5046	241
60532	"	27.4-33.5	4113	233
60533	"	33.5-39.6	2220	122
60534	"	39.6-45.7	3276	122
60535	"	45.7-51.8	4044	179
(21.3 - 51.8m - 0.37% Cu, 0.179 g/t Au)				
60536	7	5.2-13.7	37	22
60537	8	27.4-30.5	775	76
60538	6	19.8-24.4	118	28

### Discussion of Results

As indicated in Table 1, better copper (and gold) values were obtained from holes drilled in the western trench area (Figure 4), specifically holes 2,3,4 and 11-75. Best values were contained in holes 3 and 4 and particularly noteworthy is the consistency and coincidence of both copper and gold values within the sampled sections.

Hole 2, intersected a typical Babine biotite-feldspar porphyry with some disseminated magnetite and abundant

secondary biotite. Intervening short sections of hornfelsed siltstones were also encountered.

The 27 metre section from which samples were collected from hole 3 consists mainly of a fine-grained, crowded, medium grey biotite-feldspar porphyry which features secondary biotite flooding. Pyrite (up to 10%) and chalcopyrite occur on fractures and as fine disseminations throughout this section. Beyond the sampled section and to the end of the hole, the principal rock type is a uniform leucocratic fresh biotite-feldspar porphyry with little fracturing and only minor disseminated pyrite. This phase is typical of later, weakly mineralized porphyry phases noted at other properties in the district including the Granisle deposit.

Better grades in hole 4, represented by the 30 metre sampled section, include an upper 6 metres of bleached siltstone with numerous pyrite stringers and some chalcopyrite. This is followed by medium grey biotite-feldspar porphyry cut by quartz veinlets containing finely disseminated chalcopyrite, bornite and pyrite. Relatively massive, late phase leucocratic biotite-feldspar porphyry occurs above and below the sampled section.

Hole 11-75, drilled between 1969 holes 3 and 4 (Figure 4), returned copper grades ranging from 0.10 - 0.21% and some

0.10 g/t gold values. This hole was noted to contain numerous late phase, weakly mineralized porphyry phases.

Hole 6, drilled at the eastern edge of the main or western trench area (Figure 4), intersected variably altered diorite with only a few porphyry dykes but locally intense tourmaline flooding as evidenced by enhanced boron values and 90 ppm arsenic. Hole 7, 200 metres south of hole 6 (Figure 4), was abandoned at 14 metres in a fault zone featuring near massive tourmaline with up to 15% pyrite. One core sample yielded 55 ppm arsenic and 42 ppm boron.

Five core samples from three holes drilled in the eastern trench area (Figure 4) returned low copper values and did not provide additional information concerning some of the better gold grades contained in rock samples from this area.

## SOIL AND ROCK GEOCHEMISTRY

### 1992 Sampling Program

19 soil samples were collected from two east-west flagged line (L0 and L1+50S) in the northeastern property area (Figure 4) where previous work by Texas Gulf had indicated a northerly trending, 400 x 250 metre area with anomalous copper in soils values in excess of 50 ppm. Three areas of anomalous soil geochemistry were originally

identified (Figure 5), two of which as noted previously, were partially tested by bulldozer trenching and diamond drilling. The 1992 sampling program was directed to relocating the easternmost anomaly which was not followed up during earlier work on the property.

Samples were collected at 50 metre intervals along two 450 metre east-west lines 150 metres apart. Samples were collected at depths of between 15 and 15 cm, placed in kraft paper bags and submitted to Min-En Laboratories for determination of 31 major and trace elements by induced coupled argon plasma (ICP) techniques. Gold values were determined by atomic absorption. Analytical results are included in Appendix I and plotted on Figure 6.

### **Discussion of Results**

Results indicate a northwesterly trending zone of unknown dimensions containing +100 ppm copper in soils and flanked on the east and west by +10 ppb gold values (Figure 6). Elevated zinc values are present in samples collected in the eastern part of the sampled lines (Appendix I). Anomalous arsenic, antimony and molybdenum values in sample L0 200E is probably a reflection of significant organic content in this sample.

The two soil sample lines are immediately north of an

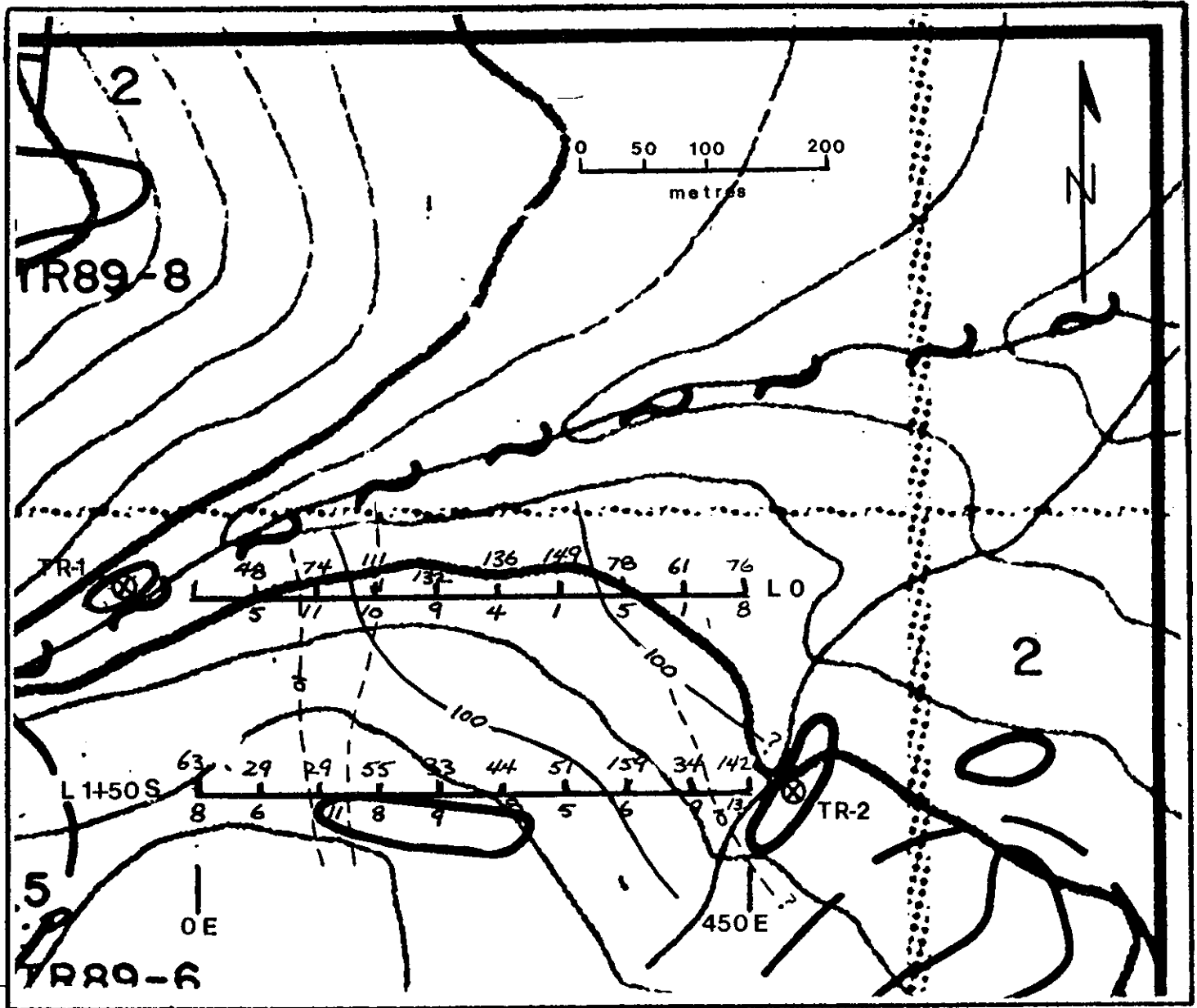


FIGURE 6 - SOIL GEOCHEMISTRY

/// Cu(ppm)  
 / Au(ppb)

area underlain by extrusive equivalents of Babine biotite-feldspar porphyry intrusions. These extrusive equivalents, like those exposed on Newman Peninsula between the Granisle and Bell Copper deposits, are at the very top of of the intrusive system and may be masking a mineralized body immediately below. A 10 cm wide quartz vein containing 547.3 ppm silver and 3.1% zinc occurs in sediments marginal to the southern limits of these extrusive equivalents (Figure 4 - sample TR89-9).

Two rock samples (TR-1 and -2 - Figure 6) collected east and west of the soil sample lines contain low copper, lead and zinc values and trace gold (Appendix I).

#### CONCLUSIONS AND RECOMMENDATIONS

Work to date on the Trail Peak property indicates the presence of porphyry copper mineralization in a geological setting typical of the Babine Lake district. Principal host rocks are crowded biotite-feldspar porphyries of Eocene age which range in composition from quartz diorite to granodiorite. Multiple intrusion is evident and secondary biotite is widespread within a central potassic alteration zone which grades outward to a quartz-sericite-pyrite (phyllic) zone best developed in the sediments underlying Trail Peak. Extrusive equivalents of the porphyry, similar to

those observed nearby the Granisle and Bell Copper deposits, are exposed in the eastern claim area. A 10 cm wide quartz vein, immediately south of the exposed extrusive equivalent and near the periphery of the alteration zone, contains polymetallic mineralization and is similar to peripheral veins at Granisle and Bell Copper.

1992 soil sampling and re-sampling of previous diamond drill core indicate that the Trail Peak porphyry system is gold-bearing. Gold values obtained from core samples are consistent and coincident with better copper grades and the tenor is better than recovered gold grades from Bell Copper.

The extent of copper-gold mineralization in the western trench area is imperfectly known and there may be potential for additional size both east and west. One of the best untested targets on the property is the copper(gold) soil anomaly flanking an area of porphyry extrusive equivalent in the eastern claim area. Soil sampling should be extended to determine the limits of this zone and a program of rock sampling should be undertaken within and adjacent to the area underlain by extrusive equivalents of the porphyry.



## COST STATEMENT

Wages

N.C. Carter - August 7-11,1992	
- 3 days @ \$450/day	\$1,350.00

Transportation

Victoria - Smithers (return)	\$333.56
Helicopter - Smithers - TRAIL claim	\$1,367.46
Vehicle rental	<u>\$200.00</u>
	\$1,901.02

Accomodation, Meals

August 7 - 11,1992 - 3.5 days	\$247.88
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Analytical Costs

19 soil samples @ \$16.85	\$320.20
38 core samples, 2 rocks @ \$19.53	<u>\$781.10</u>
	\$1,101.30

Report Preparation

N.C. Carter - 1.5 days @ \$450/day	\$675.00
Word processing, duplication, map copies	<u>\$100.00</u>
	\$775.00

<b>TOTAL EXPENDITURES</b>	<b>\$5,375.20</b>
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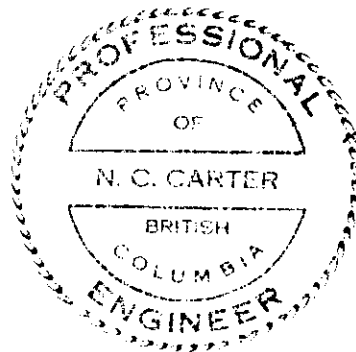
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**AUTHOR'S QUALIFICATIONS**

I, NICHOLAS C. CARTER, of 1410 Wende Road, Victoria, British Columbia, do hereby certify that:

1. I am a Consulting Geologist, registered with the Association of Professional Engineers and Geoscientists of British Columbia since 1966.
2. I am a graduate of the University of New Brunswick with B.Sc.(1960), Michigan Technological University with M.S.(1962) and the University of British Columbia with Ph.D.(1974).
3. I have practised my profession in eastern and western Canada and in parts of the United States for more than 25 years.
4. Sampling of diamond drill cores and collection of soil samples as described in the foregoing report were carried out by the undersigned between August 7 and 11,1992.



*N.C. Carter*  
N.C. Carter, Ph.D. P.Eng.

Victoria, B.C.  
January 8, 1993

**APPENDIX I**  
**Sample Analyses**

COMP: N.C. CARTER  
 PROJ:  
 ATTN: N.C. CARTER

**MIN-EN LABS — ICP REPORT**  
 705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2  
 (604)980-5814 OR (604)988-4524

FILE NO: 2S-0240-RJ1+2  
 DATE: 92/08/18  
 \* ROCKS \* (ACT:F31)

SAMPLE NUMBER	AG PPM	AL %	AS PPM	B PPM	BA PPM	BE PPM	BI PPM	CA %	CD PPM	CO PPM	CU PPM	FE %	K %	LI PPM	MG %	MN PPM	MO PPM	NA %	NI PPM	P PPM	PB PPM	SB PPM	SR PPM	TH PPM	TI PPM	V PPM	ZN PPM	GA PPM	SN PPM	W PPM	CR PPM	AU-FIRE PPB
TR-92-1	.1	1.69	1	11	62	.1	6	.75	.1	10	442	4.00	.12	44	1.44	752	1	.07	6	1270	9	1	15	1	1242	73.1	626	1	1	6	102	18
TR-92-2	.1	1.74	1	9	163	.2	8	1.29	2.4	10	85	3.50	.10	20	.95	1653	17	.14	20	830	60	1	25	1	1379	177.3	727	1	1	9	140	14
60501	.1	2.43	1	13	1746	.1	16	.85	.1	19	1081	4.06	1.53	15	2.37	275	13	.17	27	1300	1	1	181	1	3486	130.0	35	1	1	8	150	43
60502	.2	2.13	1	11	1297	.1	16	.89	.1	18	753	4.07	1.33	13	1.95	251	14	.17	21	1220	1	1	143	3	3180	113.3	38	1	1	14	293	53
60503	.2	2.08	1	10	1232	.1	14	.82	.1	16	1343	3.52	1.27	14	1.96	219	23	.12	19	1090	1	1	172	4	2910	120.5	39	1	1	8	155	82
60504	.1	2.29	1	11	817	.1	14	1.18	.1	18	1191	4.01	1.14	12	2.17	319	12	.20	18	1170	1	1	198	2	3023	130.2	38	1	4	11	232	62
60505	1.1	.38	11	1	180	.3	3	.41	.1	7	1379	1.01	.16	3	.16	84	19	.07	5	140	11	1	29	5	182	13.6	28	3	1	7	160	72
60506	.3	1.76	1	8	821	.1	14	.94	.1	16	511	3.52	1.10	11	1.73	282	5	.10	16	1180	1	1	98	5	2677	95.5	35	1	1	11	223	23
60507	.2	2.27	1	11	836	.1	13	1.06	.1	18	1620	3.50	1.16	17	1.83	286	17	.08	21	1030	1	1	15	3	2371	105.7	45	1	1	6	98	119
60508	.5	1.01	1	5	296	.2	9	.79	.1	14	1881	2.56	.46	6	.66	186	31	.11	8	530	5	1	12	2	1327	67.4	32	1	1	12	269	90
60509	.8	2.08	1	11	1124	.1	14	.84	.1	25	1562	4.13	1.33	21	1.89	187	19	.13	27	1090	1	1	193	2	2556	106.5	30	1	1	10	198	66
60510	.8	2.09	1	11	940	.1	18	.70	.1	21	2143	4.62	1.52	15	2.19	250	12	.19	21	1250	1	1	37	1	3541	133.8	34	1	2	15	315	118
60511	.6	2.26	1	11	1136	.1	18	.74	.1	20	1863	4.20	1.55	15	2.30	235	12	.13	24	1170	1	1	148	2	3534	132.0	34	1	1	9	191	78
60512	.1	1.73	1	9	417	.1	17	1.25	.1	18	275	3.88	.55	18	1.64	530	33	.25	20	1520	1	1	87	4	3314	113.4	78	1	1	13	277	23
60513	1.3	.59	1	2	40	.1	14	1.59	.1	6	736	1.29	.06	4	.32	322	37	.10	2	1830	6	1	99	5	2545	66.9	60	1	2	5	87	88
60514	.5	.92	1	4	257	.1	13	1.14	.1	12	681	2.72	.30	7	.71	316	33	.23	15	1560	7	1	76	5	2586	86.5	66	1	1	11	220	78
60515	1.0	.47	1	3	43	.1	11	1.47	.1	7	256	1.77	.08	5	.26	397	10	.12	3	1490	13	1	20	4	2219	48.7	56	1	1	7	147	36
60516	.1	2.51	1	14	719	.3	8	1.47	.1	18	509	3.55	1.10	11	1.80	247	17	.08	26	1310	1	1	22	4	1427	84.1	31	1	1	11	243	23
60517	.8	1.94	1	10	672	.1	13	.67	.1	23	3954	4.00	1.15	18	1.68	252	27	.08	23	980	1	1	16	2	2532	107.3	45	1	1	7	110	272
60518	.2	2.13	1	11	789	.1	14	.97	.1	19	1284	3.61	1.32	21	1.95	293	37	.10	25	1060	1	1	18	3	2735	108.4	44	1	1	10	205	86
60519	.3	2.10	1	11	515	.1	13	.88	.1	20	1640	3.27	1.26	21	2.05	255	39	.10	25	1010	1	1	14	4	2523	107.5	47	1	1	8	167	82
60520	.5	1.60	1	9	522	.1	10	.90	.1	15	1971	3.33	.82	17	1.23	244	41	.08	10	720	5	1	13	3	1660	82.9	52	1	1	10	202	91
60521	.1	1.39	1	7	312	.1	8	1.13	.1	15	1522	3.23	.58	12	.94	235	32	.07	10	570	7	1	12	2	1286	80.5	44	1	1	6	106	74
60522	.1	1.88	1	11	456	.2	8	1.02	.1	17	1513	3.94	.69	14	1.01	279	29	.09	7	740	3	1	12	2	1270	95.4	47	1	1	11	227	55
60523	.7	2.16	1	14	818	.1	8	.95	.1	21	3709	5.51	1.06	11	1.54	305	9	.05	20	1060	1	1	28	3	1755	92.3	38	1	1	8	147	173
60524	.1	2.80	1	20	573	.1	8	.71	.1	27	4054	8.30	1.39	15	1.78	374	11	.05	11	1310	1	1	19	1	2059	113.6	53	1	1	7	136	170
60525	.2	2.28	1	16	522	.1	11	.52	.1	26	3703	7.51	1.27	14	1.67	368	14	.06	14	1150	1	1	14	1	2736	123.3	53	1	1	9	171	170
60526	.6	2.62	1	20	451	.1	4	.52	.1	31	7067	9.58	1.24	17	1.63	370	12	.06	7	1060	1	1	15	1	2162	124.7	56	1	1	9	173	333
60527	.4	2.51	1	15	594	.1	9	.63	.1	21	3752	4.97	1.20	13	1.80	298	16	.05	16	1140	1	1	22	3	2105	102.0	45	1	1	8	158	188
60528	.5	2.05	1	13	496	.1	8	1.08	.1	22	2261	4.27	.97	10	1.39	284	13	.05	15	1030	1	1	21	4	1518	79.2	39	1	1	7	147	119
60529	.1	2.53	1	14	732	.1	14	.97	.1	18	1615	3.98	1.23	11	2.12	297	5	.06	25	1210	1	1	29	4	2557	109.4	39	1	1	8	166	111
60530	.8	1.97	1	11	692	.1	15	.96	.1	18	2554	3.92	1.21	10	1.86	332	1	.08	18	1320	1	1	27	4	2896	113.0	48	1	2	9	165	180
60531	1.2	1.28	1	8	365	.1	6	.87	.1	24	5046	4.36	.62	10	1.06	181	13	.08	11	510	4	1	12	2	1485	91.0	30	1	1	10	202	241
60532	1.3	2.22	1	12	1074	.1	13	1.33	.1	17	4113	3.88	1.17	14	1.95	231	9	.07	23	1050	1	1	36	4	2596	110.6	30	1	1	9	172	233
60533	.5	2.05	1	12	680	.1	9	1.53	.1	15	2220	3.19	.84	12	1.61	216	11	.06	21	1040	1	1	43	5	1689	90.8	30	1	1	9	172	122
60534	1.3	1.74	1	9	559	.1	8	1.18	.1	13	3276	2.85	.69	10	1.50	177	5	.06	18	750	2	1	24	5	1560	84.8	29	1	1	9	170	122
60535	1.6	1.64	1	9	619	.1	9	1.14	.1	14	4044	3.47	.80	10	1.52	200	13	.07	19	1000	1	1	23	5	1797	90.4	29	1	1	11	225	179
60536	.3	.23	55	42	1051	.1	1	.03	.1	5	37	2.18	.14	1	.04	26	6	.02	1	160	5	1	7	2	30	3.6	6	1	1	9	223	22
60537	.5	.79	1	4	136	.1	10	1.14	.1	7	775	1.72	.22	8	.59	312	5	.13	11	1940	11	1	178	5	1670	72.6	60	1	1	7	120	76
60538	.1	1.26	90	25	206	.1	9	1.03	.1	18	118	4.88	.32	9	1.43	534	1	.09	15	1930	1	1	18	3	1165	57.6	51	1	1	9	196	28

COMP: N.C. CARTER  
 PROJ:  
 ATTN: N.C. CARTER

**MIN-EN LABS — ICP REPORT**  
 705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2  
 (604)980-5814 OR (604)988-4524

FILE NO: 2S-0240-SJ1  
 DATE: 92/08/18  
 \* SOIL \* (ACT:F31)

SAMPLE NUMBER	AG PPM	AL %	AS PPM	B PPM	BA PPM	BE PPM	BI PPM	CA %	CD PPM	CO PPM	CU PPM	FE %	K %	LI PPM	MG %	MN PPM	MO PPM	NA %	NI PPM	P PPM	PB PPM	SB PPM	SR PPM	TH PPM	TI PPM	V PPM	ZN PPM	GA PPM	SN PPM	W PPM	CR PPM	AU-FIRE PPB
LO 50E	.1	2.13	1	14	186	.1	8	.30	.1	14	48	4.41	.05	12	.62	954	1	.01	5	980	15	1	12	1	1074	133.0	112	1	1	3	19	5
LO 100E	.1	2.70	1	18	214	.1	7	.21	.1	19	74	5.90	.08	24	.61	2344	2	.01	2	1050	27	1	27	1	760	139.1	178	1	1	3	18	11
LO 150E	2.9	2.29	1	14	125	.1	5	.12	.1	9	111	5.76	.05	5	.20	327	4	.02	1	1030	9	1	10	1	577	99.0	47	1	1	2	15	10
LO 200E	.1	1.70	241	11	133	.1	5	.10	.1	7	132	4.91	.05	3	.15	308	10	.01	1	1060	91	8	11	1	625	124.3	98	1	1	2	9	9
LO 250E	.1	2.96	1	19	229	.1	8	.49	.1	17	136	5.47	.09	22	.87	2658	1	.01	14	740	21	1	26	1	1125	146.6	1129	1	1	4	29	4
LO 300E	.1	2.28	1	14	176	.2	6	.38	.1	12	149	4.82	.06	16	.42	723	1	.01	4	1130	17	1	24	1	879	128.2	401	1	1	3	22	1
LO 350E	.1	2.90	1	18	329	.3	8	.58	.1	15	78	4.13	.09	38	.90	1053	1	.02	17	800	11	1	30	1	1014	113.1	800	1	4	3	27	5
LO 400E	.1	2.78	1	17	330	.2	7	.48	.1	14	61	4.75	.08	22	.65	692	1	.04	7	1150	13	1	26	1	872	127.4	563	1	1	3	24	1
L1+50S 0	.1	3.44	1	20	191	.1	10	.27	.1	15	63	4.74	.07	20	1.08	499	1	.02	12	800	11	1	18	1	1317	112.7	146	1	1	3	37	8
L1+50S 50E	.1	1.82	1	11	150	.1	8	.23	.1	9	29	3.63	.06	7	.40	476	1	.01	1	690	12	1	11	1	920	104.8	64	1	1	3	22	6
L1+50S 100E	.1	1.84	1	11	151	.1	8	.18	.1	9	29	4.03	.05	5	.28	455	1	.02	1	930	8	1	10	1	1075	128.1	64	1	1	3	22	11
L1+50S 150E	.1	3.07	1	19	168	.1	7	.22	.1	12	55	5.21	.08	17	.86	698	1	.02	8	980	6	1	10	1	794	129.3	140	1	1	4	44	8
L1+50S 200E	.1	2.09	1	14	125	.1	12	.22	.1	13	33	5.57	.06	10	.49	496	1	.02	1	1030	8	1	13	1	1843	176.1	97	1	1	4	24	9
L1+50S 250E	.1	2.32	1	15	188	.1	10	.29	.1	14	44	5.30	.06	14	.77	796	1	.01	2	1080	17	1	12	1	1600	151.0	193	1	1	4	35	8
L1+50S 300E	.1	2.04	1	13	147	.1	6	.29	.1	12	51	4.47	.06	9	.57	883	1	.01	4	890	23	1	14	1	1040	130.9	142	1	1	3	29	5
L1+50S 350E	.1	2.86	1	18	181	.8	8	.53	.1	20	159	5.37	.08	28	1.22	1960	2	.02	19	1120	14	1	28	1	1125	139.3	727	1	1	4	43	6
L1+50S 400E	.1	1.84	1	12	151	.1	9	.24	.1	13	34	5.70	.05	9	.44	691	1	.01	1	1220	10	1	13	1	1321	154.2	153	1	1	3	21	9
LO 450E	.1	2.90	1	18	431	.1	7	.54	.1	15	76	4.55	.10	19	.68	1269	1	.01	9	960	12	1	30	1	785	128.7	277	1	1	3	27	8
L1+50S 450E	.1	3.33	1	20	153	.2	10	.24	.1	18	142	4.86	.07	22	.74	796	1	.01	9	620	55	1	12	1	1341	116.7	618	1	1	3	27	13

