GEOLOGICAL AND GEOCHEMICAL REPORT
ON THE
EL AMINO, BRITON, SAMSON AND REGAL CLAIMS
ECSTALL RIVER AREA
SKEENA MINING DIVISION

53° 49', 129° 27'; NTS 103H/13E

FOR

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BY

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July 25, 1988
Vancouver, B.C.

Fieldwork completed between July 1 and July 4, 1988

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SUMMARY

(1) The El Amino, Briton, Samson and Regal Claims are located 74 km southeast of Prince Rupert, B.C. and are centered at 53° 49' latitude and 129° 27' longitude in N.T.S. 103H/13E. Access is currently by helicopter from Prince Rupert.

(2) In 1987, preliminary prospecting discovered a continuous massive sulfide horizon hosted by altered and metamorphosed quartzite and laminated limy siltstone. There are field indications that this zone was known in the early days but no recent work has been recorded.

(3) Assay values of the massive sulfide zone give copper values up to 4.46% Cu and silver values up to 7.73 oz/ton Ag. Gold content of the massive sulfide horizon ~~are~~ is low with the highest assay of 110 ppb Au.

(4) The massive sulfide horizon is exposed along a very steep cliff for at least 30 meters and can be visually traced up the cliff for about another 30 meters.

(5) The host rocks are part of the Paleozoic Alexander Terrane. They are highly deformed. The discovery outcrop of the massive sulfide horizon is tightly folded. The western extension is 40 cm wide whereas the thickness portion at the fold nose is 1.4 meters wide. There appears to be more than one sulfide horizon as evidenced by chalcopyrite dominant float west of the Discovery outcrop.

(6) A total of 46 soil and silt samples were collected during the 1988 work program. The results indicate that the massive sulfide horizon is clearly reflected by highly anomalous copper and zinc values collected along the base-in-slope.

(7) The sulfide horizon should be traced to the north and west by careful prospecting. Detailed geological mapping is warranted to gather stratigraphic and structural information in order to predict the continuation of the sulfide horizon toward the southeast. Other intensely iron-oxide stained zones should be checked in detail.

(8) This future work requires special mountaineering equipment to safely negotiate the steep topography around the massive sulfide horizon.

(9) Assessment credit for one year on all claims is discussed in this report.

INTRODUCTION

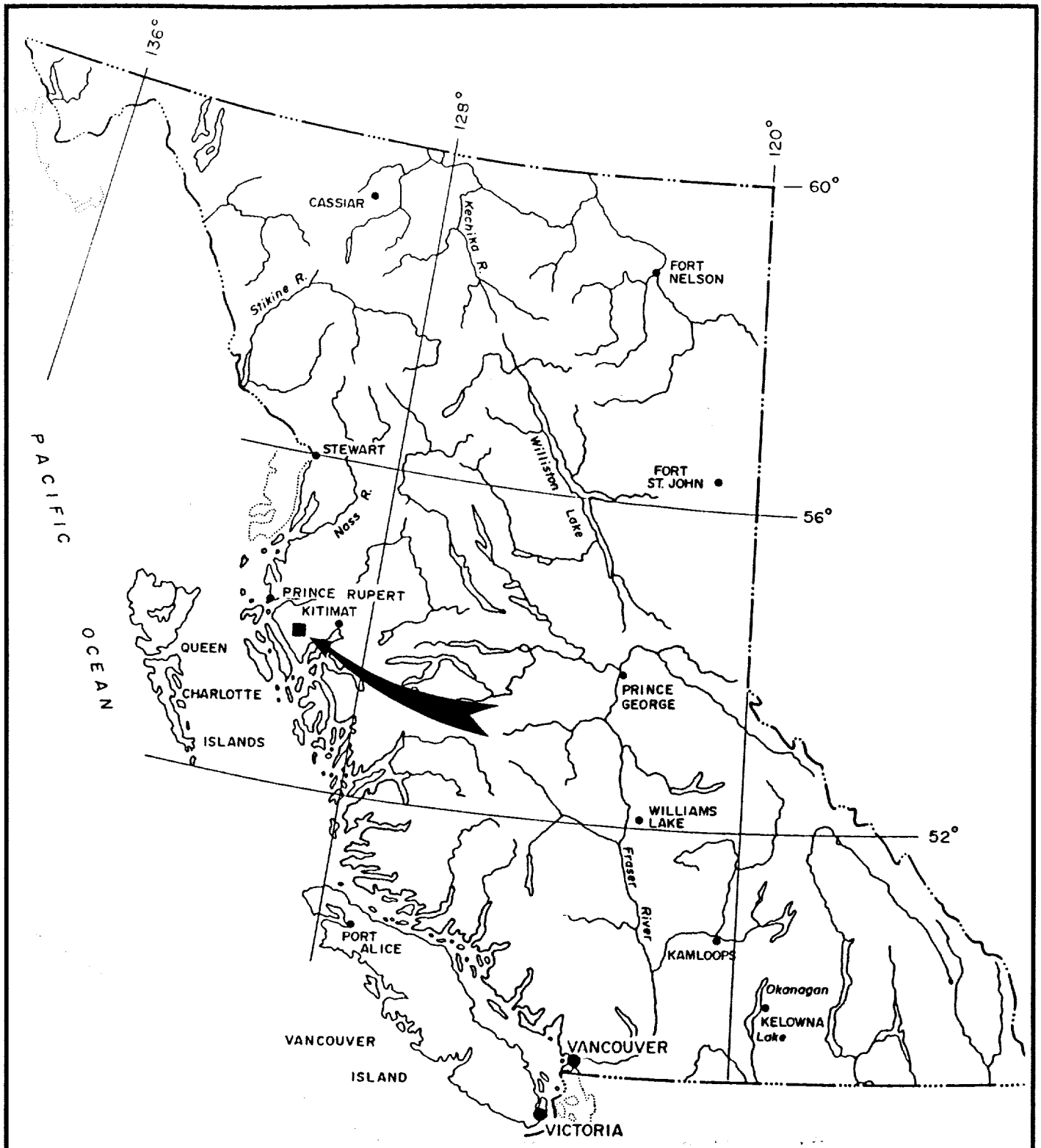
A continuous, structurally complex, stratiform volcanogenic massive-sulfide horizon was located in 1987 on the El Amino, Briton, Samson and Regal claims. The Ecstall River area in the Coast Plutonic Complex has long been known for its important massive sulfide deposits located northeast of the El Amino Group. Falconbridge Limited has been conducting a major exploration program in the general area over the last several years.

In 1979 U.S. Borax initiated a coastal reconnaissance program for molybdenum. This program produced anomalous molybdenum and lead values in stream silts in the Ecstall River area. Also chalcopyrite mineralized float was found in the El Amino Valley. In 1980 the area was staked by U.S. Borax (Bent claims) and a short follow-up on the area produced no interesting molybdenum showings. The 1987 massive sulfide discovery on the El Amino Claim lies further south, up the valley from the area briefly prospected by U.S. Borax.

Exploration activity in the Ecstall area began prior to 1900 when syngenetic, volcanogenic massive sulfide mineralization was discovered on Red Gulch Creek (Figures 1 and 4). Considerable underground development and drilling was done on the property between 1901 and 1958. The main deposits are two tabular bodies containing abundant pyrite. A sample collected by Woodsworth (reported in Roddick, 1970) of the Geological Survey of Canada across 20 feet of the surface outcrop yielded 0.02 oz/ton gold, 0.6 oz/ton silver, 1.8% copper and 3.02% zinc.

LOCATION AND ACCESS

The claims are located around the headwaters of the first tributary of Sparkling Creek, 74 km southeast of Prince Rupert. A hydroelectric generating station which supplies power to the Prince Rupert area is located 22.5 km north of the claims.



BRITISH COLUMBIA

Scale - 1 : 7.5 Million

LEGEND

■ location of EL AMINO Claims

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EL AMINO CLAIMS
Skeena M.D., B.C.

General Location Map

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Scale	see above
Date	July 1988
N.T.S.	103 H/13

Figure 1

Access is presently by helicopter from Prince Rupert. The claims cover two very steep, north trending ridges. The area is entirely above treeline but helicopter landing sites are unusually scarce due to the number of large boulders littering the valley floor.

Permanent ice fields cover the southern portion of the claim block and the head of the valley was covered in July by deep slide-snow.

CLAIM STATUS (List of Claims)

The claim group is composed of four Modified Grid System claims, as shown in Table 1 and were registered in the name of Algonquin Minerals Inc. on July 7, 1988 from a Bill of Sale dated April 8, 1988.

TABLE 1

List of Claims

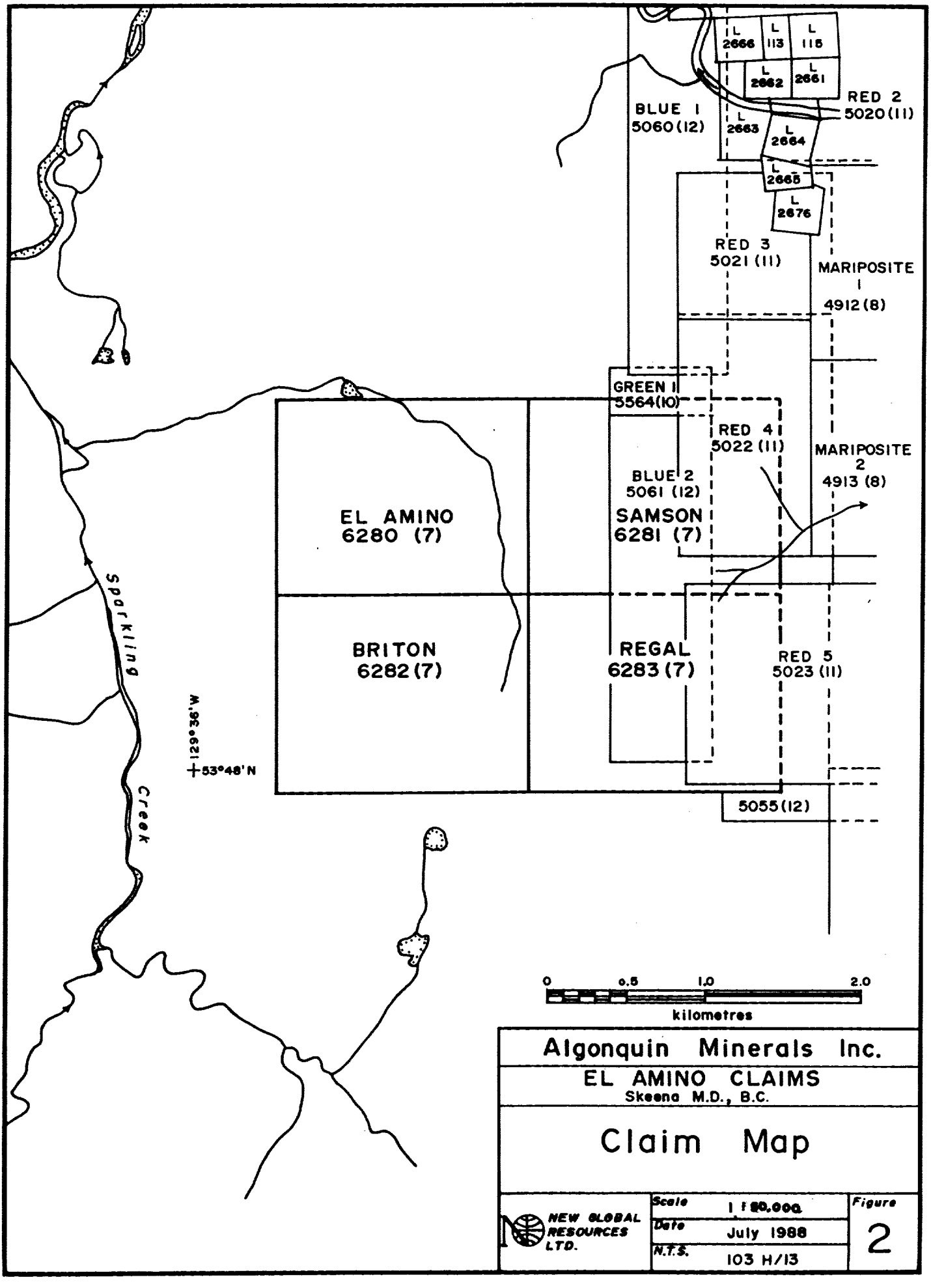
Claim Name	Record Number	Number of Units	Size	Record Date	Expiry Date*
El Amino	6280	20	5W4S	July 13, 1987	July 13, 1989
Briton	6281	20	5W4N	July 13, 1987	July 13, 1989
Samson	6282	20	5E4S	July 13, 1987	July 13, 1989
Regal	6283	20	5E4N	July 13, 1987	July 13, 1989

* With application of assessment credits documented in this report.

FIELD PROCEDURES

The Legal Corner Post of the claims was found near the head of the valley. Prospecting and geological traverses with hip chain were made from the Legal Post along the east and west sides of the valley to prominent topographic features.

Since the upper valley walls are very steep and dangerous, soil sampling was restricted to the lower talus slopes. Soil samples were collected with a grub hoe and spoon from poorly developed "B" horizon at depths ranging between 15 and 30 centimeters. A spoon was necessary to obtain sufficient quantities of sample due


L 2666
L 113
L 115
L 2662
L 2661
RED 2
5020 (11)
BLUE 1
5060 (12)
L 2663
L 2664
L 2665
L 2676
RED 3
5021 (11)
MARIPOSITE
1
4912 (8)
GREEN 1
5564 (10)
RED 4
5022 (11)
MARIPOSITE
2
4913 (8)
BLUE 2
5061 (12)
SAMSON
6281 (7)
EL AMINO
6280 (7)
BRITON
6282 (7)
REGAL
6283 (7)
RED 5
5023 (11)
5055 (12)
Sparkling
Creek
129°36'W
53°48'N
0
0.5
1.0
2.0
kilometres
Algonquin Minerals Inc.
EL AMINO CLAIMS
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Claim Map
NEW GLOBAL RESOURCES LTD.
Scale 1 : 50,000
Date July 1988
N.T.S. 103 H/13
Figure
2

to the blocky "talus" nature of the soils. Each sample was placed in a numbered waterproof Kraft bag and the location marked in the field by numbered flagging. Rock samples were usually taken as continuous chips across a measured interval although some grab samples were collected.

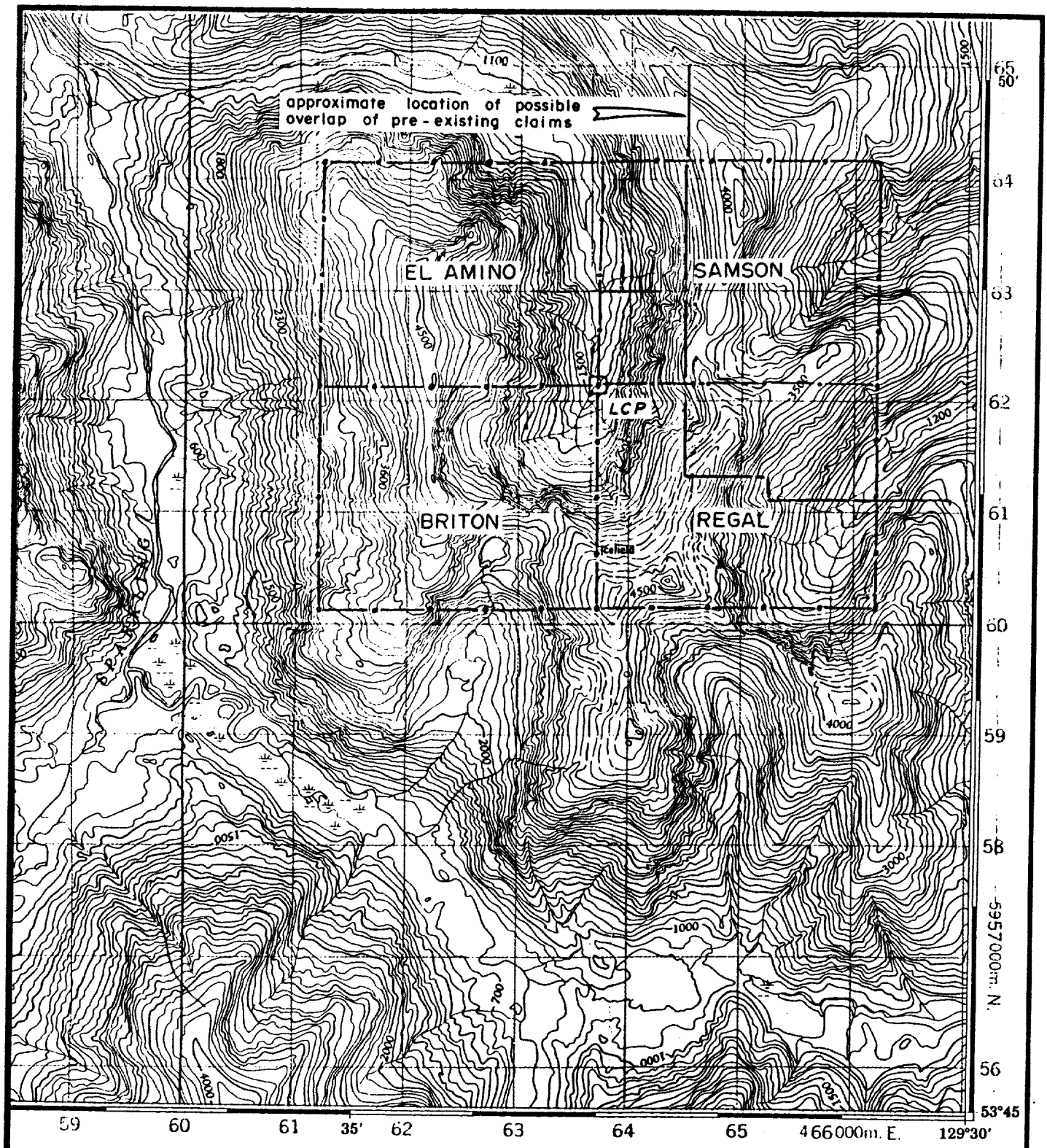
All samples were shipped to Chemex Labs Ltd., 212 Brooksbank Avenue, North Vancouver, B.C. Analytical procedures are outlined in Appendix III.

The compilation map, Figure 6, was photographically enlarged from the 1:50,000 government topographic coverage and then redrafted. The local geology, Figure 5, was compiled in the field from Brunton compass, hip chain and slope adjusted tape traverses.

HISTORY

The main focus of mining exploration in the past has been the Ecstall property on Red Gulch, a minor tributary of the Ecstall River, about 2 miles west of the Johnston Lake (Figure 4). Roddick (1970) describes the property as follows:

> "It is thought to be the oldest property in the map-area, having been discovered some years prior to 1900 when it was purchased by Mr. John Bryden of Victoria who organized the British Columbia Pyrites Company. Economic interest was in the pyrite as a source of sulphur. Considerable tunnelling was done on the property in 1901 and 1902 and a trail shipment was made to Victoria Chemical Works. Interest then waned until 1916 when the property was bonded to Lewisohr Bros. of New York. About 750 feet of diamond drilling was done on the property in early 1917. Granby Consolidated Company, who took an option on the property in the fall of 1917 did further drilling on it in 1918 and 1919. Not encouraged by the results of several thousand feet of drilling, the company relinquished its option in 1920. Three years later Granby took up the option once again, did some exploratory work, then once more dropped the property. In 1937 the property was acquired by Northern Pyrites Limited and after some preliminary drilling that year underground development began in 1938. By 1940 the new workings consisted of 3,500 feet of tunnelling and a 600-foot raise to the surface. The property was idle until 1952 when Northern Pyrites Limited was reorganized as Sulgas Properties Limited. The extensive exploratory program of this company resulted in 1,378 feet of surface drilling, 8,880 feet of underground drilling, geophysical survey of the known deposits



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Topogaphic Map

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Scale	1 : 50000
Date	July 1988
N.T.S.	103 H/13

Figure 3

and a geological reconnaissance of the surrounding territory. The property was acquired by Texas Gulf Sulphur Company who did further geophysical work in 1957 and 1958.

The mineral deposits are massive sulfide replacements of quartz-biotite-chlorite schist, quartz-hornblende-chlorite schist, quartzite grading to quartz-mica schist, minor black argillite and granitoid gneiss, the entire assemblage being part of unit 2a. The main deposits are two tabular bodies known as North Lens and South Lens. On examining some polished sections of the ore, G. Woodsworth reported the pyrite which is by far the most abundant mineral, forms cubic crystals which are closely packed but separated from each other by thin gangue layers. This accounts for the rather friable nature of the ore that causes outcrops of it to rapidly disintegrate."

REGIONAL GEOLOGY

Regional geological features have been compiled by Roddick (1970) as Map 23-1970, and Hutchinson (1982) as Map 12-1966, Figure 4, mainly from field work conducted by the Geological Survey of Canada in 1963 along coastal exposures and in 1965 by very wide spaced landings with a helicopter on interior sites.

The Ecstall River area is located near the central axis of the Coast Plutonic Complex. This forms one of the major geological components of British Columbia, extending from northern Washington through the Coast Mountains into southeast Alaska and Yukon Territory. General descriptions of the Complex have been given by Roddick and Hutchinson (1974) and Woodsworth and Roddick (1977). The following overview is taken mainly from these sources.

Recent interpretations of the western Cordillera (Monger and Irving, 1980) have identified several major terranes which have been accreted to the North American craton by transcurrent faulting and subduction. The Ecstall pendant belongs to the Alexander terrane.

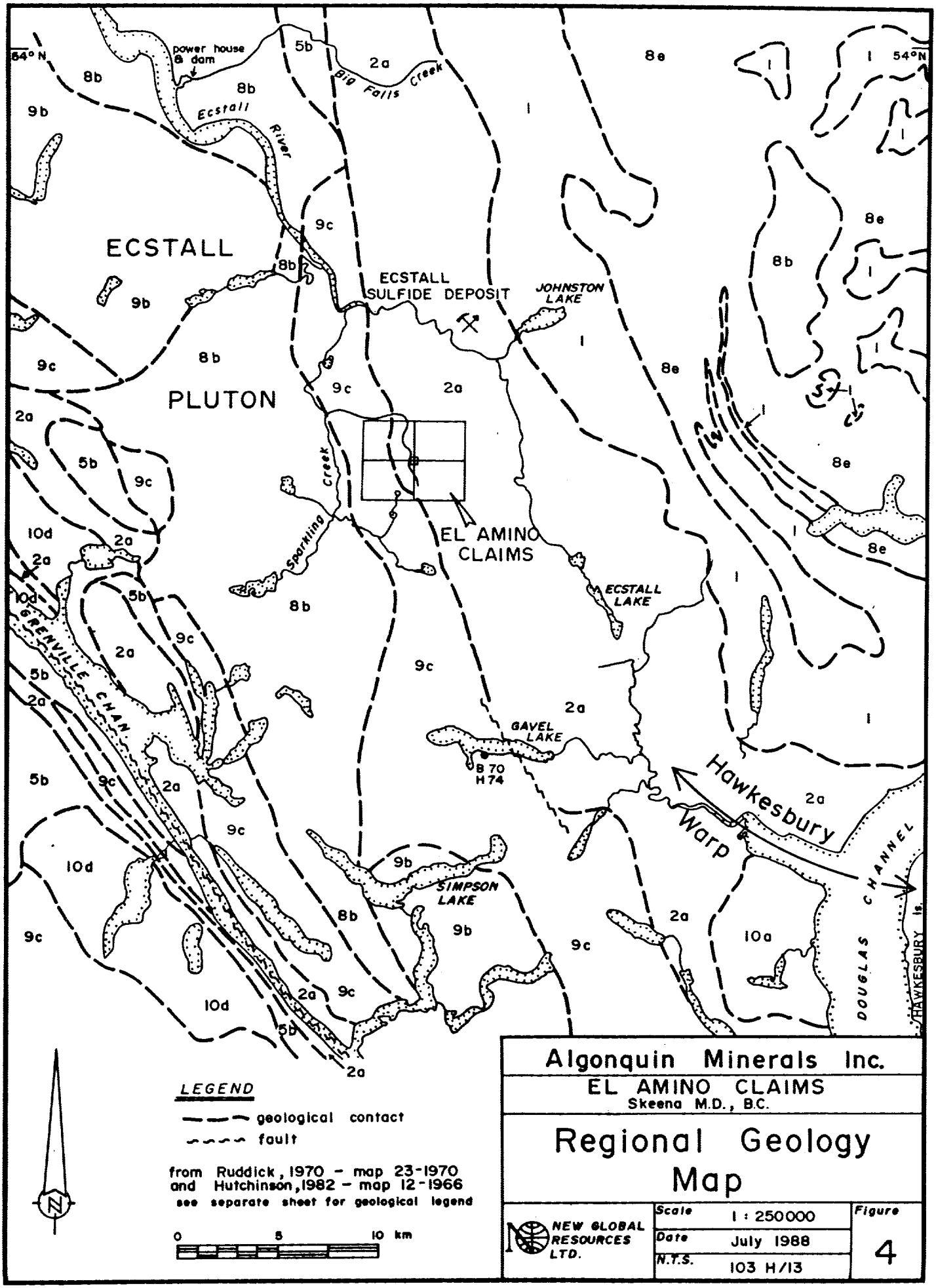
The Alexander terrane in adjacent, less deformed, southeast Alaska is composed of Carboniferous carbonate and clastic sediments unconformably overlain by Upper

REGIONAL GEOLOGY

LEGEND

10a	Biotite quartz monzonite
10d	Aplitic, garnetiferous quartz monzonite
9c	Hornblende - biotite granodiorite
8b	Hornblende - biotite quartz diorite
8e	Quartz diorite and abundant gneiss
5b	Gneissic diorite - migmatite complex
2a	Hornblende - biotite - plagioclase amphibolite and schist; biotite schist (locally garnetiferous), kyanite - staurolite - almandine mica schist, sericite - epidote schist, sillimanite - quartz - plagioclase gneiss, graphitic schist, quartzite, crystalline limestone conglomerate, lit-par-lit gneiss, agmatite
1	Granitoid gneiss, gneissic quartz diorite, rusty fine grained gneiss and schist, migmatite, minor garnet - sillimanite -biotite schist, crystalline limestone, diopsidic skarn, garnet -staurolite - kyanite schist

from Roddick (1970) Map 23-1970



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Regional Geology Map

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Scale	1 : 250000
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Figure 4

Triassic limestone and Lower and Middle Jurassic felsic to intermediate volcanic rocks.

The Coast Plutonic Complex consists largely of intermediate and basic discrete and coalescing granitoid plutons, bodies of gneiss - migmatite and pendants (septa) of metasediments and volcanics. It is an asymmetric array, with a central gneiss core flanked by diorite and dioritic migmatites, most plentiful in the west, and granodiorite and quartz monzonite, most common in the east. Metamorphic intensity increases from greenschist facies in the eastern part of the belt to amphibolite (locally granulite) facies in the central and east-central parts. Woodsworth and Roddick (1977) suggest that most of the large plutons in the Coast Mountains have been emplaced as diapiric solids, analogous in part to glacier flow or salt domes. Many contacts between plutons and pendants are faults or drag folds formed during formation of the igneous bodies. Some faults have been healed by re-crystallization. The clearest examples of solid movement of plutons are the several tadpole-shaped large intrusions (such as the Ecstall pluton) that have gradational to intricate contacts along their "tails" whereas the "heads" exhibit intrusive relationships. When the rock was more solid, movement could only take place by re-crystallization flowage, giving rise to an internal foliation within the pluton. Commonly the quartz diorite and granodiorite are rarely uniform over broad areas. Zones of migmatite and small, lensoid amphibolitic inclusions are ubiquitous but variable in abundance.

The main intrusive period lasted through most of the Cretaceous from about 120 Ma (million years ago) to 85 Ma, but was followed by two discrete later pulses at 70 $\pm$ 10 Ma, and 50 $\pm$ 5 Ma. The plutonism is widely regarded as evidence of heat generation on collision and suturing of the outboard terranes (Wrangellia and Alexander) on the inboard terranes (Stikinia). Study of the metamorphic hosts, now evident as pendants and inliers, and which may be both intruded and protolith, enables tentative identification from the "ghost" stratigraphy of the terrane of origin. In the central coast mountains, most inliers south of Burke Channel can be assigned a Wrangellian origin. North of Burke Channel and west of Work Channel lineament, inliers and pendants are fairly certainly part of Alexander terrane whereas east of the lineament they appear to be part of Stikinia. The prominent

Central Gneiss Complex may be a highly deformed and metamorphosed amalgam of Stikinia and Alexander terranes unconformably overlain by an overlap assemblage equivalent to the Gravina-Nutzotin rocks of southeast Alaska.

Roddick (1970) reports that contact relationships everywhere indicate the more acid plutonic rock to be younger than any more basic plutonic rock in contact with it, but generally isotopic ages are related to the position of the plutons across the belt. Isotopic ages range from Early Cretaceous in the west to Late Cretaceous near the axis of the crystalline belt to Tertiary on the east side.

The Ecstall Pluton extends about 72 miles, from north of Skeena River south to Hartley Bay near the entrance to Douglas Channel (Figure 4). It consists of a central core of medium to coarse-grained hornblende > biotite quartz diorite surrounded by an outer zone of hornblende-biotite granodiorite. The western part of the El Amino claims are underlain by this granodiorite.

The oldest stratified rocks of the area are the granitoid gneisses, together with associated gneissic plutonic rock and metasediments (Unit 1) which constitute the Central Gneiss Axis or antiformal structure. Along part of the southwest limb of the antiform the gneisses grade into a thick overlying metasedimentary assemblage (Unit 2) that is less granitoid than Unit 1 and characterized by amphibolite and schist. The largest belt of Unit 2 rocks extends from east of the Ecstall River where it is about 11 km wide to Hawkesbury Island where it is about 27 km wide. Although these rocks are locally contorted, the prevailing attitude is a northwest trend with steep easterly dips (Roddick, 1970).

Unit 2a grades downard into Unit 1 east of the Ecstall River and also grades into Unit 1 along strike across Devastation Channel to the south. Most of Unit 2 is within the almandine-amphibolite metamorphic subfacies but to the south of Big Falls Creek greenschist facies rocks are common.

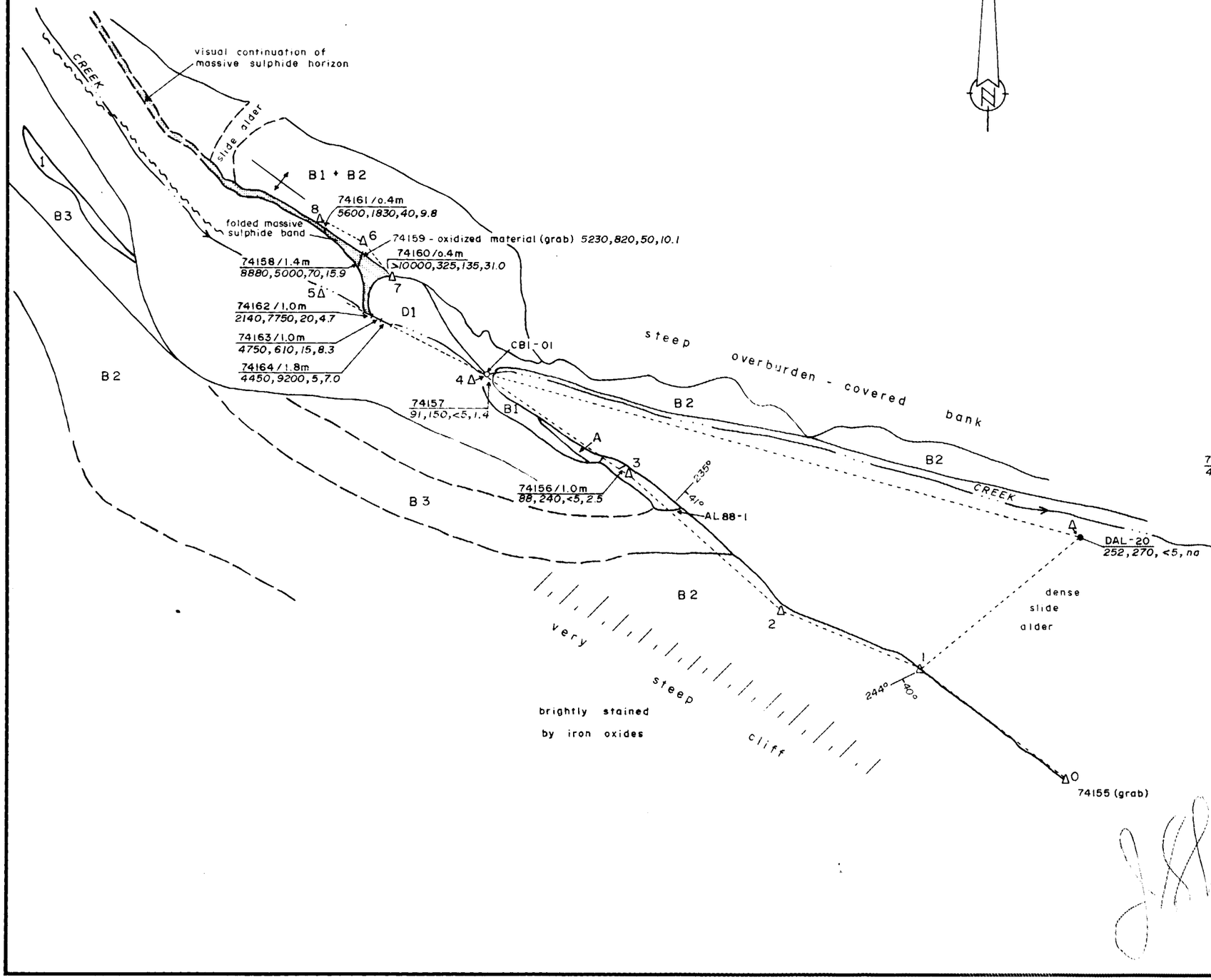
LOCAL GEOLOGY AND MINERALIZATION

The claims are underlain by a sequence of rusty weathering, pyritic schists and metasedimentary rocks in contact with Coast Plutonic Complex granodiorite (Figure 6). Along both sides of the valley are large, discontinuous cliff faces which are intensely stained by red, orange and yellow iron-oxides. The schists and metasedimentary rocks strike between 231° on the east side of the valley to 258° on the west side of the valley. All rocks dip to the east.

On the east side of the Legal Corner Post (LCP) a series of very rusty weathering, coarse grained schists, minor marble interbeds, hornblende - plagioclase migmatite and fine grained biotite phyllite with poikioblastic garnet were observed. Buff-orange weathering quartz-carbonate fault breccia located 250 meters southeast of the LCP assayed 161 ppm Cu and <5 ppb Au. Thinly laminated, phyllitic grey siltstone and quartzite containing uniformly disseminated pyrite is the most common rock type. The metasedimentary rocks are often cut by 8 cm wide equigranular diorite ptygmatic dykes.

Exposures of crudely foliated hornblende granodiorite are found along the south end of the El Amino valley. This rock is characterized by large, elongated hornblende-rich clots up to 0.5 meters long and .15 meters wide.

The massive sulfide horizon, Figure 5, outcrops on "Sulfide Creek" just below very steep cliffs. The sulfide outcrop is clearly folded in a tight antiform. The western extension is 0.40 meters wide whereas the thickest portion at the fold-nose is 1.4 meters wide. Assay values of this massive sulfide zone are as follows:



LEGEND

1	Pegmatite lenses
A	Dark green hornblende porphyry basalt dykes, undeformed
B	Hangingwall sequence B1 - quartzite, blocky weathering B2 - laminated calcaleous siltstone intercalated with quartzite beds B3 - calcareous siltstone
	Massive sulphide horizon : pyrrhotite, chalcopyrite, minor sphalerite and galena. Variable amounts of calcite matrix
D	Footwall sequence D1 - dark grey lineated quartzite
	Geological contact
	Fault
41° / 244°	Strike & Dip
Δ	Compass & Chain survey station
74164 / 1.8m 4450, 9200, 70, 9.6	Rock sample / width in metres Cu(ppm), Zn(ppm), Au(ppb), Ag(ppm)
DAL-20	Soil sample
CBI-01	Sample site from 1987 (Assessment report not available)

0 5 10 20 25
metres

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Local Geology Sulfide Creek Area

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Scale	1 : 500
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Figure 5

TABLE I

Assay Values Massive Sulfide Zone

Sample Number	Description	Sample Interval in metres	Copper in ppm	Lead in ppm	Zinc in ppm	Silver in ppm	Gold in ppb
74158	massive sulfides, pyrrhotite, minor chalcopyrite at fold-nose	1.4	8880	41	5000	15.9	70
74159	oxidized sulfides	grab	5230	1	820	10.1	50
74160	massive sulfides northeast limb	0.4	>10,000 (1.0%)	14	325	31.0	135
74161	massive sulfides west limb	0.4	5600	19	1830	9.8	40
74162	disseminated sulfides southeast limb	1.0	2140	30	7750	4.7	20
74163	disseminated sulfides southeast limb	1.0	4750	11	610	8.3	15
74164	disseminated sulfides southeast limb	1.0	4450	27	9200	7.0	5

The massive sulfide outcrop is characterized by two distinct styles of mineralization:

(1) light greenish-grey granular rock. Gangue non-foliated, medium to coarse crystalline, >50% calcite. Contains abundant pyrrhotite as streaks, heavy disseminations and small massive lenses. Pyrrhotite associated with lenses and streaks of chalcopyrite. Small 2-3 cm knots of biotite commonly rimmed by pyrrhotite and chalcopyrite. This rock is not rusty weathering;

(2) siliceous, finer grained gangue, rough layering of sulfides (pyrrhotite, chalcopyrite and minor sphalerite). Some areas exhibit massive pyrrhotite layers interbedded with convoluted layers containing chalcopyrite "nodules". Slickensides are common.

Chalcopyrite-dominant flat boulders found in abundance west of the massive sulfide outcrop suggest the presence of a second sulfide horizon or a rapid change in sulfide facies along strike. Typical grab specimens of the chalcopyrite-rich sulfide zone assayed (Sample Number 74526) 4.46% copper and 7.73 oz/ton silver. The much higher silver content of this sample tends to confirm a separate sulfide horizon is present above the inaccessible cliffs above the headwaters of the creek.

The hangingwall sequence south of the massive sulfide horizon consists of quartzite beds up to 21 cm thick intercalated with laminated, limy siltstone and calcareous sandstone. Some of the individual calcareous beds are up to 3 cm wide. The thicker quartzite beds are rusty weathering and resistant in contrast to the limy beds which are relatively recessive and not stained by iron oxides. Roughly stratabound pegmatite lenses-veinlets occur throughout the hangingwall sequence. Sericite-muscovite layers are common, especially near the pegmatitic lenses.

The small exposure of footwall rock is composed of buff-weathering, sericitic quartzite. Small folds with crests 0.3 meters to 2 meters apart with up to 60° east-plunging axes appear common in the El Amino area. The fold structure encompassing the massive sulfide horizon has been disrupted by a strong fault trending 058°/52°E which is filled with green gouge and graphite, Figure 5. Field relationships such as lenticular units and boudinage point to the possibility of large scale bedding plane translation and tectonic attenuation of parts of the stratigraphic package. The plastic nature of the massive sulfide horizon could result in tectonic thickening along fold closures (as noted in the discovery outcrop) as well as thinning or pinching out along fold limbs.

GEOCHEMISTRY

A total of 47 soil, 1 silt and 20 rock samples were collected on the property during the 1988 program. Since the number of samples do not make up an adequate population to calculate a statistical model, the limits on anomalous values are taken from previous work on nearby claims (Delancey and Newell, 1973) as follows:

TABLE 3
Geochemical Threshold Values

Elements	Anomalous Threshold
Copper	> 35 ppm Cu
Zinc	> 45 ppm Zn
Gold	> 15 ppb Au
Silver	> 1.0 ppm Ag
Lead	> 50 ppm Pb

In general, the copper values in soil (Figure 6) are slightly to highly anomalous. The highest copper values are found within the sulfide creek drainage and immediately to the north. Values range from 231 ppm Cu up to 600 ppm Cu. Soil samples taken to the south and farther north range from 35 ppm Cu to around 120 ppm Cu. Zinc content in soils follows a similar pattern as copper. Highest zinc value is 570 ppm Zn.

Gold values are uniformly low with the highest value being 15 ppb Au in soil. Lead values give a similar pattern as gold. The highest lead assay is 32 ppb with most other samples returning less than 15 ppm Pb.

The massive sulfide horizon is clearly outlined by anomalous copper and zinc values downslope from the outcrop. Reconnaissance-type soil sampling along the base-in-slope should be extended to the north of Sulfide Creek and wide-spaced samples taken along the east side of the valley.

CONCLUSIONS AND RECOMMENDATIONS

An important, contineous, massive (pyrrhotite-chalcopyrite) sulfide horizon was discovered on the El Amino claims in 1987. The discovery sulfide outcrop is folded and varies between 0.4 and 1.4 meters in thickness. It can be traced for 30 meters to the west where it can be visually followed for at least another 30 meters up a very steep cliff face.

Assay values from channel samples across the sulfide outcrop are up to 1.0% copper, 9,200 ppm zinc, 31.0 ppm silver, 41 ppm lead and 135 ppb gold.

The abundance and character of massive chalcopyrite-dominant float from an apparent source west of the known massive sulfide outcrop suggests the existance of a second and separate sulfide horizon. Assays of typical specimens of the chalcopyrite-rich float gave 4.46% copper and 7.73 oz/ton silver.

The stratigraphic sequence which includes the sulfide horizon is composed of distinctive interbedded quartzite and calcareous siltstone. Faulting and tight folding characterize the general area.

The sulfide horizon should be traced to the north and west by careful prospecting. Due to the steepness of the topography, special mountaineering techniques, such as ropes, will be required. Other prominent iron-oxide stained areas should be investigated.

Detailed geological mapping is needed to gather sufficient stratigraphic and structural data in order to predict the southeast continuation of the sulfide horizon.

If new massive sulfide showings are found as a result of this proposed work, special attention should be given to the precious metal content. The expected gold-silver phase of most exhalative massive sulfide systems tends to be relatively localized.

Soil sampling along the base-in-slope has proved an effective tool in outlining the known sulfide outcrop. Additional reconnaissance soil lines to the north of Sulfide Creek and along the east side of the valley is recommended.

Estimated costs for a first phase follow-up program is as follows:

Phase I - Prospecting, geological mapping, limited soil sampling, 21 day program, 4 man crew

Wages and benefits	$21,000.00
Transportation (Helicopter)	5,915.00
Camp costs	1,260.00
Food	800.00
Supplies	508.00
Freight	300.00
Analytical 250 soils at $12.75 100 rocks at $16.25	4,812.50
Travel (Mobilization)	1,600.00
Consulting	2,000.00
Drafting	950.00
Report preparation	1,500.00
Sub-total	40,637.50
Contingency (approximately 15%)	6,000.00
GRAND TOTAL	$46,637.50
OR APPROXIMATELY	$47,000.00

Phase II - Trenching and diamond drilling contingent on the results of Phase I.

Respectfully submitted,

J. Shearer

July 25, 1988

J.T. Shearer, M.Sc., FGAC

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APPENDIX I

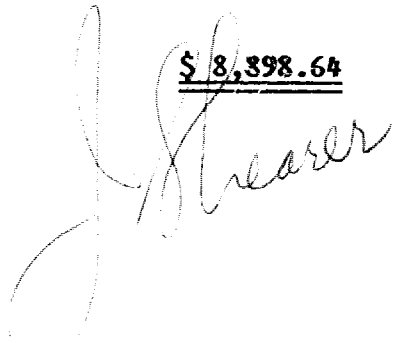
STATEMENT OF COSTS

EL AMINO GROUP
OWNED BY ALGONQUIN MINERALS INC.

Date of Work: July, 1988

STATEMENT OF COSTS
EL AMINO CLAIM GROUP, ECSTALL RIVER AREA
ALGONQUIN MINERALS INC.

Wages and Benefits	
J.T. Shearer, M.Sc., 4 days at $300 per day	$ 1,200.00
W.B. Lennan, B.Sc., 4 days at $300 per day	1,200.00
D. LeClair, Soil Sampler, 2 days at $150 per day	300.00
A.C. Freeze, Office Manager, 1 day at $300 per day	300.00
Sub-total	3,000.00
Transportation	
Jet Flight, B.C. Air, Vancouver-Prince Rupert return, $140.40 x 2	280.00
Helicopter, Vancouver Island Helicopters, 4.2 hrs at $591.50	2,484.00
Freight samples	85.00
Taxi, Prince Rupert to Seal Cove	65.00
Airport ferry	32.00
Accommodation and Meals	
Hotel and meals, 2 persons, 3 nights, plus lunches	450.79
Supplies, topographic and claim maps	32.00
Analytical (Chemex Labs Ltd.)	
20 rock samples for Au, Ag, Cu, Pb, An at $16.25	325.00
45 soil samples for Au, Cu, Pb, Zn at $12.75	573.75
Report Preparation	900.00
Drafting	300.00
Word Processing	250.00
Reproduction	120.00
TOTAL	$ 8,398.64



APPENDIX II

STATEMENT OF QUALIFICATIONS

J.T. SHEARER, M.Sc., F.G.A.C.

EL AMINO GROUP

JULY 1988

STATEMENT OF QUALIFICATIONS

I, Johan T. Shearer of the City of Port Coquitlam, in the Province of British Columbia, do hereby certify:

1. I graduated in Honours Geology (B. Sc. 1973) from the University of British Columbia and the University of London, Imperial College, (M. Sc. 1977).

2. I have practised my profession as an Exploration Geologist continuously since graduation and have been employed by such mining companies as McIntyre Mines Ltd., J.C. Stephen Explorations Ltd., Carolin Mines Ltd. and TRM Engineering Ltd. I am presently employed by New Global Resources Ltd.

3. I am a fellow of the Geological Association of Canada. I am also a member of the Canadian Institute of Mining and Metallurgy, the Geological Society of London and the Mineralogical Association of Canada.

4. I have prospected and supervised the geochemical sampling on the El Amino, Briton, Samson and Regal claims in July 1988. This report is an interpretation of the results.

5. I have no interest in the securities or properties of Algonquin Minerals Inc. or affiliated companies nor do I expect to receive any in the future.

6. I consent to Algonquin Minerals Inc. using this report for fund raising purposes.

Dated at Vancouver, British Columbia

J.T. Shearer, M. Sc., F.G.A.C.
July 25, 1988

APPENDIX III

ANALYTICAL PROCEDURES
AND
ASSAY CERTIFICATES

EL AMINO GROUP

Chemex Labs Ltd.
212 Brooksbank Avenue
North Vancouver, B.C.
Phone: 984-0221

Lloyd Twaites, Chief Assayer

SAMPLE PREPARATION PROCEDURES

Chemex Code	Procedure
	SOIL OR SEDIMENT:
201	Dry, sieve through -80 mesh screen
	ROCK:
205	Dry, crush in two stages, subsample and ring
	ROCK OR CORE:
207	Dry, crush entire sample in two stages using jaw and cone crushers, subsample and pulverize using rotary grinder. Screen sample to -140 mesh; examine screen for metallics. If gold assays are requested, metallics are analyzed separately. If metallics are not present the + 140 mesh fraction is hand pulverized and homogenized with the original sample. As a final step all samples are homogenized prior to analysis.
214	No sample prep done. Samples received as pulp

PRECIOUS METAL ANALYSIS

ORE-GRADE ANALYSIS

If metric units (g/tonne) are preferred, use the codes in parentheses.

Chemex Code	Element(s)	Method	Detection Limit
398 (399)	Gold	Fire Assay, A.A. finish	0.002 oz/t

TRACE LEVEL ANALYSIS

Maximum value reported for all elements is 10,000 ppb.

Chemex Code	Element(s)	Sample Weight	Method	Detection Limit
100	Gold	10 grams	Fire Assay, A.A. finish	5 ppb

New combination: Gold, Platinum and Palladium
Chemex procedure code 1015

Fire assay of a 20 gram sample, followed by analysis using ICP - atomic fluorescence spectroscopy. (AFS)

Gold	2 ppb
Platinum	5 ppb
Palladium	2 ppb

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: NEW GLOBAL RESOURCES

548 BEATTY ST.
VANCOUVER, BC
V6B 2L3

A8818846

Comments:

CERTIFICATE A8818846

NEW GLOBAL RESOURCES
PROJECT : EL AMINO
P.O.# : NONE

Samples submitted to our lab in Vancouver, BC.
This report was printed on 25-JUL-88.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
214	2	Received sample as pulp

* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
383	1	Ag oz/T	FA-GRAVIMETRIC	0.01	20.00
301	2	Cu %: HClO4-HNO3 digestion	AAS	0.01	100.0

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BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

To : NEW GLOBAL RESOURCES

548 BEATTY ST.
VANCOUVER, BC
V6B 2L3

Project : EL AMINO
Comments:

Page No. : 1
Tot. Pages: 1
Date : 25-JUL-88
Invoice # : I-8818846
P.O. # : NONE

CERTIFICATE OF ANALYSIS A8818846

SAMPLE DESCRIPTION	PREP CODE		Ag FA oz/T	Cu %
74160	214	--	-----	1.00
74526	214	--	7.73	4.46

ALL ASSAY DETERMINATIONS ARE PERFORMED OR SUPERVISED BY B.C. CERTIFIED ASSAYERS

CERTIFICATION : B. Stewart

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To: NEW GLOBAL RESOURCES

548 BEATTY ST.
VANCOUVER, BC
V6B 2L3

A8818356

Comments:

CERTIFICATE A8818356

NEW GLOBAL RESOURCES
PROJECT : EL AMINO
P.O # : NONE

Samples submitted to our lab in Vancouver, BC.
This report was printed on 14-JUL-88.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	48	Dry, sieve -80 mesh; soil, sed.

* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
100	48	Au ppb: Fuse 10 g sample	FA-AAS	5	10000
2	48	Cu ppm: HNO3-aqua regia digest	AAS	1	10000
4	48	Pb ppm: HNO3-aqua regia digest	AAS-BKGD CORR	1	10000
5	48	Zn ppm: HNO3-aqua regia digest	AAS	1	10000
6	1	Ag ppm: HNO3-aqua regia digest	AAS-BKGD CORR	0.2	200

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Analytical Chemists * Geochemists * Registered Assayers

212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

To: NEW GLOBAL RESOURCES

548 BEATTY ST.
VANCOUVER, BC
V6B 2L3

A8818355

Comments:

CERTIFICATE A8818355

NEW GLOBAL RESOURCES
PROJECT : EL AMINO
P.O.# : NONE

Samples submitted to our lab in Vancouver, BC.
This report was printed on 12-JUL-88.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
205	20	Rock Geochem: Crush,split,ring

* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
100	20	Au ppb: Fuse 10 g sample	FA-AAS	5	10000
2	20	Cu ppm: HNO3-aqua regia digest	AAS	1	10000
4	20	Pb ppm: HNO3-aqua regia digest	AAS-BKGD CORR	1	10000
5	20	Zn ppm: HNO3-aqua regia digest	AAS	1	10000
6	20	Ag ppm: HNO3-aqua regia digest	AAS-BKGD CORR	0.2	200

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

To : NEW GLOBAL RESOURCES

548 BEATTY ST.
VANCOUVER, BC
V6B 2L3

Project : EL AMINO
Comments:

Page No. : 1
Tot. Pages: 1
Date : 25-JUL-88
Invoice # : I-8818846
P.O. # : NONE

CERTIFICATE OF ANALYSIS A8818846

SAMPLE DESCRIPTION	PREP CODE		Ag FA oz/T	Cu %
74160	214	--	-----	1.00
74526	214	--	7.73	4.46

ALL ASSAY DETERMINATIONS ARE PERFORMED OR SUPERVISED BY B.C. CERTIFIED ASSAYERS

CERTIFICATION : B. Swaite

Chemex Labs Ltd.

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BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

To : NEW GLOBAL RESOURCES

548 BEATTY ST.
VANCOUVER, BC
V6B 2L3

Project : EL AMINO
Comments:

Date : 12-JUL-88
Invoice # : I-8818355
P.O. # : NONE

CERTIFICATE OF ANALYSIS A8818355

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	Cu ppm	Pb ppm	Zn ppm	Ag ppm Aqua R
74151	205	--	< 5	104	1	93	0.2
74152	205	--	< 5	96	1	85	0.2
74153	205	--	< 5	54	1	40	0.2
74154	205	--	< 5	73	2	100	0.7
74155	205	--	< 5	59	2	89	1.0
74156	205	--	< 5	88	2	240	2.5
74157	205	--	< 5	91	3	150	1.4
74158	205	--	70	8880	41	5000	15.9
74159	205	--	50	5230	1	820	10.1
74160	205	--	135	>10000	14	325	31.0
74161	205	--	40	5600	19	1830	9.8
74162	205	--	20	2140	30	7750	4.7
74163	205	--	15	4750	11	610	8.3
74164	205	--	5	4450	27	9200	7.0
74521	205	--	< 5	161	6	345	1.1
74522	205	--	< 5	91	1	133	0.6
74523	205	--	< 5	73	1	86	1.3
74524	205	--	< 5	239	1	26	0.9
74525	205	--	40	6240	16	375	19.6
74526	205	--	110	>10000	31	2200	>100.0

CERTIFICATION : Hart Bichler

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To : NEW GLOBAL RESOURCES

548 BEATTY ST.
VANCOUVER, BC
V6B 2L3

Project : EL AMINO
Comments:

Date : 14-JUL-88
Invoice # : I-8818356
P.O. # : NONE

CERTIFICATE OF ANALYSIS A8818356

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	Cu ppm	Pb ppm	Zn ppm	Ag ppm Aqua R
BAL 01	201	---	< 5	71	2	74	-----
BAL 02	201	---	< 5	71	1	50	-----
BAL 03	201	---	< 5	61	1	58	-----
BAL 04	201	---	< 5	146	1	102	-----
BAL 05	201	---	< 5	77	1	57	-----
DAL 01	201	---	< 5	75	1	77	-----
DAL 02	201	---	< 5	112	1	59	-----
DAL 03	201	---	< 5	55	1	53	-----
DAL 04	201	---	< 5	75	1	80	-----
DAL 05	201	---	< 5	41	1	45	-----
DAL 06	201	---	< 5	54	2	77	-----
DAL 07	201	---	< 5	351	13	430	-----
DAL 08	201	---	10	287	32	570	-----
DAL 09	201	---	10	281	17	405	-----
DAL 10	201	---	< 5	234	14	265	-----
DAL 11	201	---	< 5	256	13	350	-----
DAL 12	201	---	< 5	56	5	125	-----
DAL 13	201	---	< 5	125	14	470	-----
DAL 14	201	---	< 5	118	6	53	-----
DAL 15	201	---	< 5	98	5	237	-----
DAL 16	201	---	10	100	12	165	-----
DAL 17	201	---	15	94	6	210	-----
DAL 18	201	---	5	208	5	385	-----
DAL 19	201	---	< 5	328	12	540	-----
DAL 20	201	---	< 5	252	12	270	-----
DAL 21	201	---	< 5	231	13	340	-----
DAL 22	201	---	< 5	600	11	88	-----
DAL 23	201	---	5	332	6	64	-----
DAL 24	201	---	< 5	177	7	78	-----
DAL 25	201	---	< 5	497	2	28	-----
DAL 26	201	---	< 5	120	4	38	-----
DAL 27	201	---	< 5	232	6	46	-----
DAL 28	201	---	< 5	370	24	56	-----
DAL 29	201	---	< 5	175	12	162	-----
DAL 30	201	---	< 5	124	21	186	-----
DAL 31	201	---	< 5	65	9	120	-----
DAL 32	201	---	< 5	116	9	66	-----
DAL 33	201	---	15	41	4	56	-----
DAL 34	201	---	< 5	58	9	58	-----
DAL 35	201	---	< 5	35	8	58	-----

CERTIFICATION : Ian Bichler

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PHONE (604) 984-0221

To : NEW GLOBAL RESOURCES

548 BEATTY ST.
VANCOUVER, BC
V6B 2L3

Project : EL AMINO
Comments:

Date : 14-JUL-88
Invoice # : I-8818356
P.O. # : NONE

CERTIFICATE OF ANALYSIS A8818356

SAMPLE DESCRIPTION	PREP CODE		Au ppb FA+AA	Cu ppm	Pb ppm	Zn ppm	Ag ppm Aqua R
DAL 36	201	--	< 5	76	8	70	-----
DAL 37	201	--	< 5	76	10	71	-----
DAL 38	201	--	< 5	89	10	65	-----
DAL 39	201	--	< 5	50	6	65	-----
DAL 40	201	--	< 5	147	10	200	-----
DAL 41	201	--	< 5	141	10	175	-----
DAL 42	201	--	< 5	52	7	46	-----
ELJS-SILT-01	201	--	20	640	20	590	3.7

CERTIFICATION : Bert Bichler

APPENDIX IV

LIST OF PERSONNEL AND DATES WORKED

EL AMINO GROUP

JULY 1988

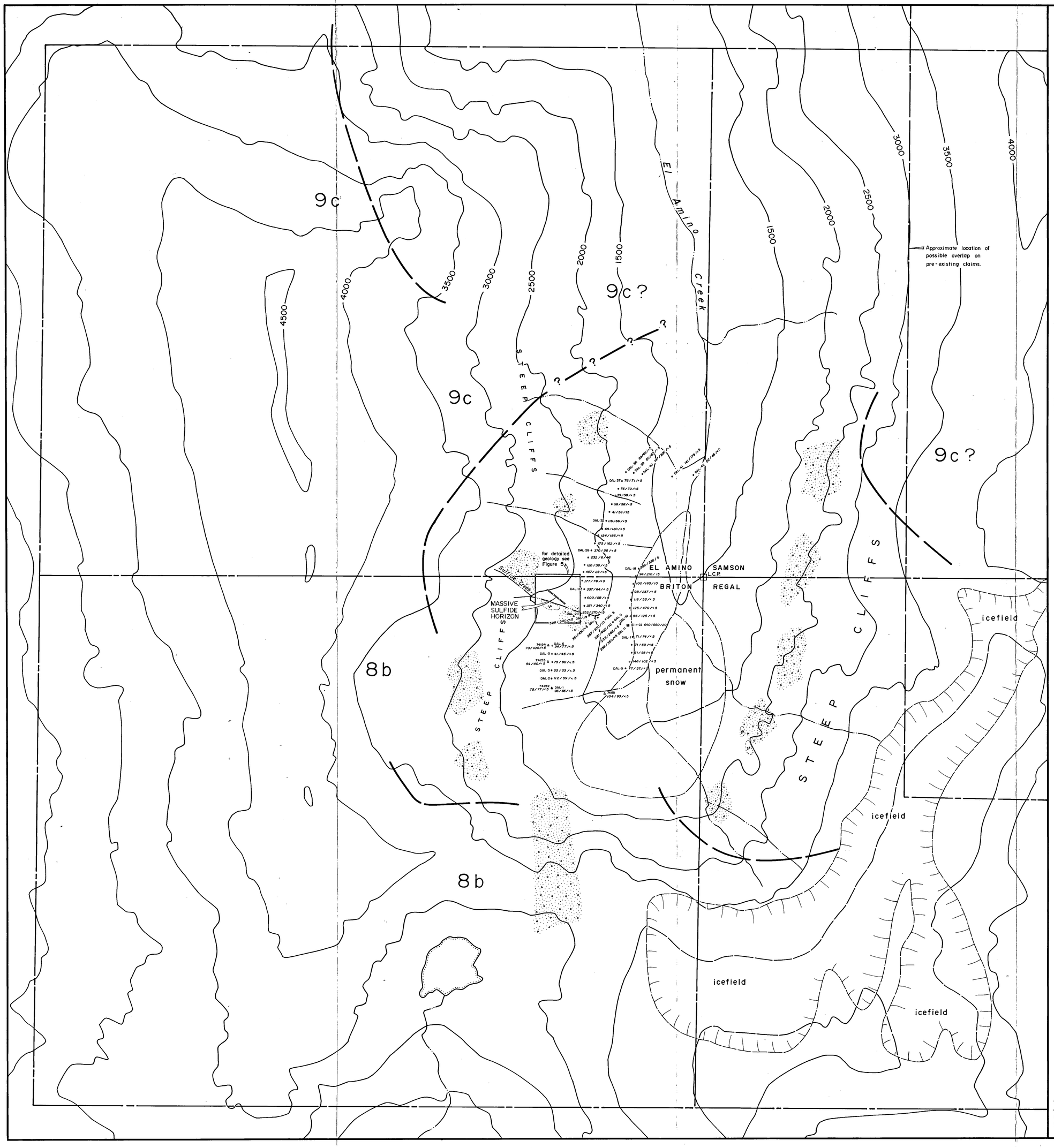
APPENDIX IV

LIST OF PERSONNEL AND DATES WORKED

Name	Position	Address	Days Worked
J.T. Shearer	Geologist M.Sc.	3832 St. Thomas Street Port Coquitlam, B.C.	July 1, 2, 3, 4, 1988
W.B. Lennan	Geologist B.Sc. 1973	876 Lynwood Street Port Coquitlam, B.C.	July 1, 2, 3, 4, 1988
D. LeClair	Soil Sampler	813 - 6th Avenue W. Prince Rupert, B.C.	July 2, 3, 1988

Mr. Lennan graduated from the University of British Columbia in 1973 with a B.Sc. in Geology. He has worked continuously in Mineral Exploration since that time.

Mr. LeClair has worked in Mineral Exploration for the writer on Banks Island in 1985 and 1986.



North

Magnetic Declination 25° 30'

LEGEND

GEOLOGY

COAST PLUTONIC COMPLEX

- 10 — Pegmatite
- 9c — Hornblende biotite GRANODIORITE
- 8b — Hornblende biotite DIORITE

ECSTALL PENDANT (Metasedimentary Rocks)

- 2a — Quartz - Feldspar Schist ± muscovite ± biotite ± garnet
- 2b — Metasiltstone
- SULFIDE CREEK SECTION
  - 2c — Limy Quartzite, Quartzite, Limy Siltstone Hanging wall sequence
  - 2d — Massive Sulfide Horizon pyrrhotite, chalcopyrite, minor sphalerite, galena
  - 2e — Blocky Quartzite

SYMBOLS

- Areas of intense iron oxide staining ("gossans")
- Geological contact (observed, assumed)
- △ ROCK SAMPLE
- ∘ SILT SAMPLE
- □ SOIL SAMPLE
- 94 / 210 / 15 — ASSAY RESULTS presented as COPPER (ppm), ZINC (ppm), GOLD (ppm)

0 50 100 200 300 400 500 Metres

GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,682

J. Shearer

To accompany a geological and geochemical report on the El Amino, Briton, Samson, and Regal Claims by J.T. Shearer dated July 20, 1988.

ALGONQUIN MINERALS INC.

EL AMINO CLAIMS
ECSTALL RIVER AREA

GEOLOGICAL and GEOCHEMICAL COMPILATION MAP

NEW GLOBAL RESOURCES LTD.

Scale: 1 : 5,000
Date: July 1988
N.T.S. 103 - H / 13 E

Figure 6