81-#959 _#9868

IMPERIAL AND IMP CLAIMS.

Geology, ground magnetic and assay results.

ATLIN MAP SHEET

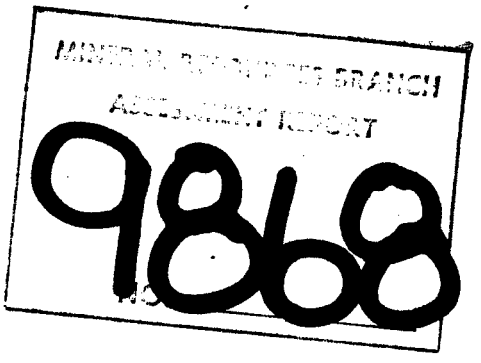
104 N/12 East Half

59° 36.5' N
133° 36.4' W

NTS 6509500 N
578500 E

By

JoAnne Nelson, M.Sc.
and
R. Gregg Smith.



Operator: ANGLO CANADIAN MINING CORPORATION.

Owner: L. Hodgson.

Date: August, 1981.

TABLE OF CONTENTS.

LIST OF FIGURES.

LIST OF TABLES.

APPENDICES.

INTRODUCTION.

The Imperial Group consists of 10 crown-granted claims located on the southern slope of Mt. Munro 6 km N.E. of Atlin, British Columbia. (Fig.1). The claims are presently owned by Lloyd Hodgson. They were staked over a gold-bearing quartz vein first discovered in 1899 and worked from 1900 to 1902 (B.C.Minister of Mines Reports 1900, 1903, 1905). The property has been inactive since then.

The Imp claims were staked in August 1981 by SEMCO for ANGLO CANADIAN MINING CORPORATION.

At the request of R.B.Stokes, President of Anglo Canadian Mining Corporation, SEMCO personnel undertook a combined geological-geochemical-geophysical evaluation of the Imperial Group between July 26 and August 9, 1981. The program had the following objectives:

1. to delineate structures and alteration patterns that affect Au mineralization
2. to analyse both vein and wall rock samples in order to determine the extent of Au on the property
3. to follow alteration zones under cover using a proton magnetometer

Ten square kilometers on and around the claims were mapped at 1:50,000 scale; the claims themselves and the Imp claims adjacent (4 km^2) were mapped at 1:13,636. A total of 2 km were surveyed using a proton magnetometer. Twenty-seven rock samples were analysed for Au and in some cases Ag.

Appreciable amounts of gold on the Imperial claims are restricted to a set of quartz veins which occupy a single well defined zone of shearing and alteration. The zone strikes about 130^{o} and dips $64\text{-}70^{o}$ S.W. The veins average a meter in overall width. Reported ore grades from them range from .13 to 1.29 with an average of about .35 to .5 oz /ton Au. (B.C. Minister of Mines Reports 1900,1903, 1905). Individual samples range from .02 to 1.68 oz/ton. (B.C.Minister of Mines Reports 1900, 1903, 1905).

Vein assays obtained from samples collected in the present study range from .33 to .002 oz/ton Au. A tonnage calculation for the vein based on surface exposure, vertical extent as seen in the adits, and average observed thickness gives a probable 21,000 tons of ore. At .3 oz/ton Au value based on bulk samples reported in the Minister of Mines Reports 1900-05, the total value (at $500/oz)is about $3,000,000. This does not present an economic target. It is not recommended that the property be optioned.

GEOLOGY OF THE IMPERIAL GROUP AND VICINITY.

The claims are underlain by greenstone, gabbro and serpentinite of the Cache Creek Group. (Fig.1a,b). These lithologies are in fault contact with each other. Gabbro, ranging from fine to very coarse grained and pegmatitic, occurs as fault slices within the serpentinite. One exposed contact shows a parallel foliation in the serpentinite; both contact and foliation strike 103° and dip 53° to the north. A northwest-trending fault, which dips steeply SW, separates the serpentinite-gabbro complex from the greenstone. This fault apparently bends to the southwest to produce a "nose"on the northwest corner of the serpentinite body. Most of the curvature of the serpentinite-greenstone contact, however, is due to the interaction of topography and minor "wows" in the fault.

A very coarse grained alaskite body with large pink kspar phenocrysts outcrops on the westernmost end of Munro Mountain and around Como Lake. Arount its margins the greenstone is contact-metamorphosed to hornblende hornfels facies(biotite-hornblend-plagioclase) and cut by a few granitic dikes. The alaskite intrustion may have mobilized the fluids involved in alteration and mineralization on the Imperial claims.

One late andesite dike contains large hornblende and plagioclase phenocrysts.

THE VEIN.

A prominent shear zone, exposed for a strike-length of 800 m, cuts the serpentinite-greenstone contact at a low angle. Although measured strikes of the shear zone vary between 115° and 155°, the most common

LEGEND FOR GEOLOGIC MAPS
IMPERIAL AND IMP CLAIMS.

Qal, Qm. Quaternary alluvium, tin.

Dikes - unknown age.

FhØ Plagioclase - hornblende porphyritic andesite

Cache Creek Group (Upper Paleozoic?)

G Greenstone - very fine grained metabasalt
S Serpentinite
Gb Gabbro - variable grain size; hornblende - plagioclase pegmatite in places.

5S/5G: 50:50 ratio of serpentine to greenstone in moraine or colluvium.

Shear zone/alteration zone.

Outcrop boundary.

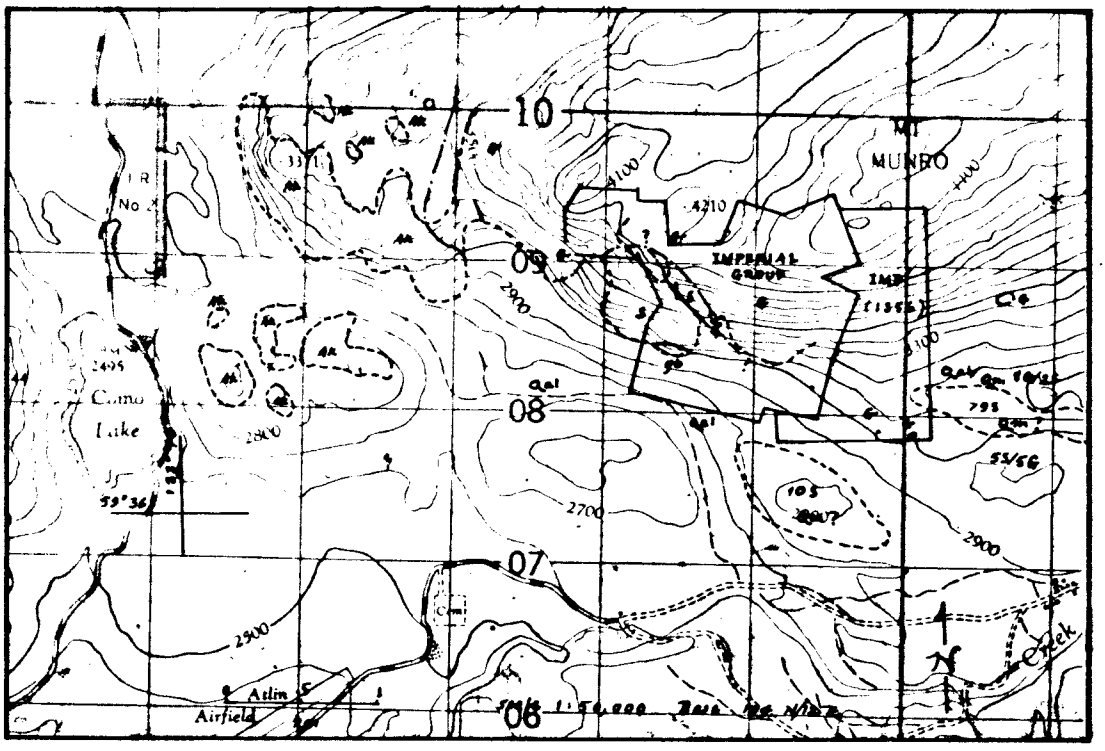


Figure 1a. Geology in the vicinity of the Imperial claims

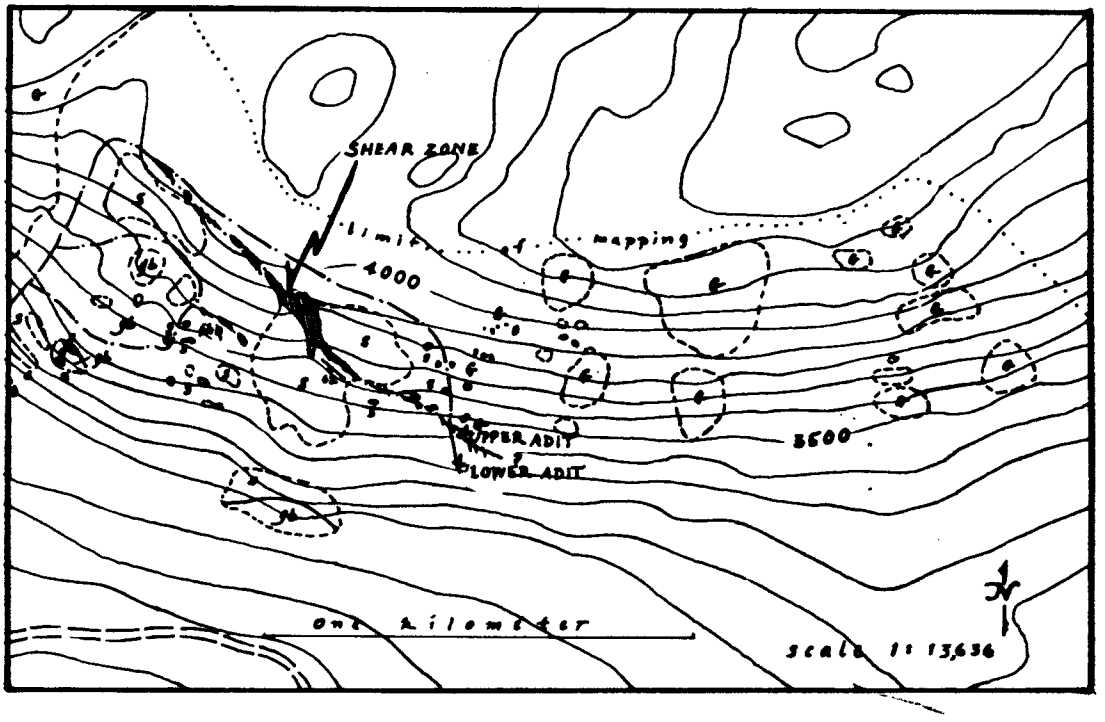


Figure 1b. Geology of the Imperial and Imp claims

base: enlargement of 1:50,000 map above

SEMCO : J. NELSON
SEPT. 1981

and dominant is 125° - 130°. The zone dips between 64° and 70° to the southwest. Slickensides and sense-of-shear determined from deformed fuchsite stringers indicate normal movement (south-western block down). The displacement of contacts by this fault could not be documented due to overburden in critical areas; it is probably slight. A few slices of gabbro and greenstone occur along the fault within serpentinite.

Where the shear zone cuts serpentinite, strong alteration has affected the rocks to varying distances around it (two to 10 m). Alteration assemblages include magnesite/ankerite-tremolite, talc-magnesite/ankerite, and quartz-calcite-magnesite/ankerite-fuchsite. These are all typical of silica-carbonate type alteration of serpentinite. Quartz veins occur within the shear zone. The serpentinite outside the zone is also affected by milder alteration by CO_2-rich fluids: magnesite/ankerite porphryoblasts are ubiquitous. Abundant sets of chrysolite and asbestos veinlets lace the serpentinite.

A thick, Au-bearing quartz vein or veins occupy the centre of the shear zone within the greenstone and in the eastern part of the serpentinite. The total exposed length of the quartz vein is 200 m to where it disappears under talus to the east. The thickness of the vein (or set of closely parallel veins) varies from .2 to 2 m. The vein(s) carry values in free gold, along with traces of galena and chalcopyrite. Quartz is white, in some places Fe-stained, and shows coxcomb to massive, coarsely cyrstalline growth.

Two adits dating from the period 1900-1902 intersect and follow the quartz vein system (Fig. 2). The higher adit follows the vein 45 m to the west of its entrance. Several relatively narrow parallel veins are exposed, which pinch and swell along strike. The total thickness of quartz veins plus intervening carbonate-altered to fresh greenstone is about 2 metres. Thirty m from its entrance, the lower adit intersects a single, continuous quartz vein 1-2 m wide. Drifts have followed the vein 10 m to the NW and 30 m to the SE. From a comparison of exposures in the two adits, it can be concluded that at least locally the vein widens and becomes more massive downwards.

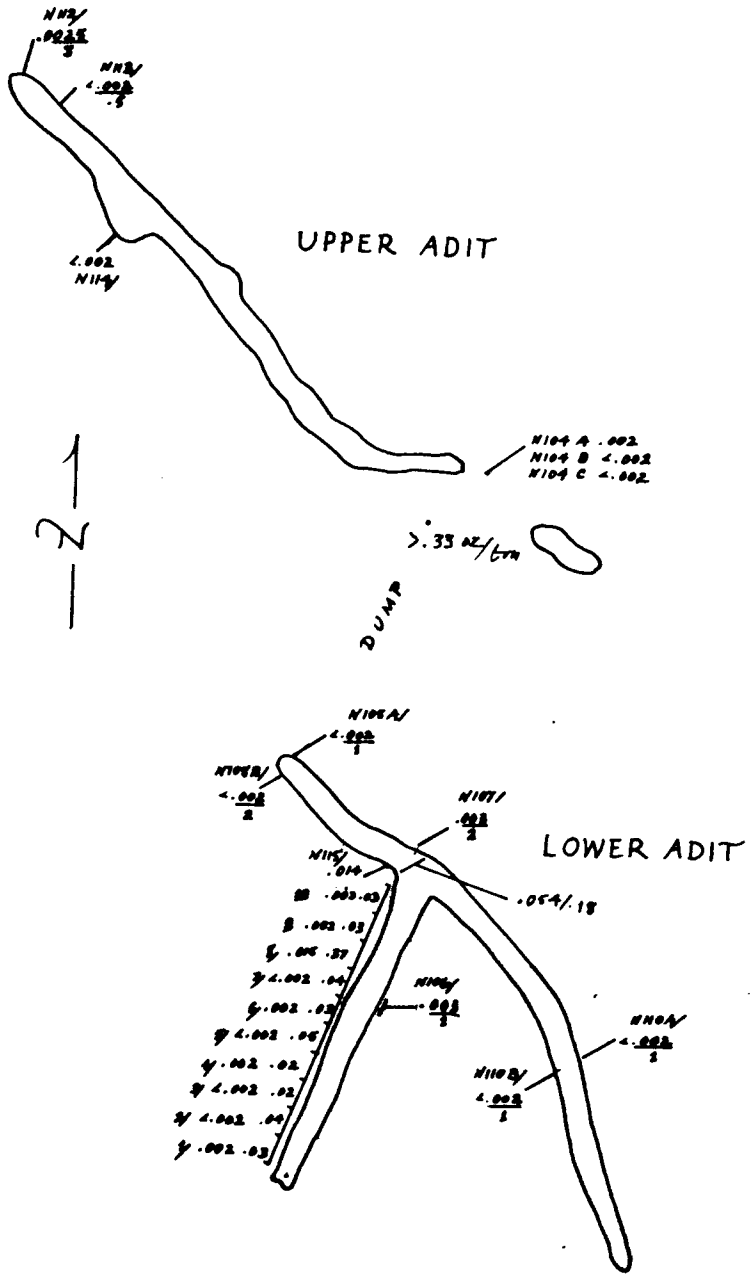


Figure 2. Plan of adits and rock geochemical samples, Imperial claims.

Scale 1:500 100 m

SEMCO : J. NELSON : AUG. 1981

The presence of Au-bearing quartz veins in the adit area but not within the highly altered serpentinite along strike to the northwest may be due to one (or a combination) of the following conditions:

1. Lateral pinching-out of the quartz vein
2. Specificity of Au and sulfides to greenstone, as opposed to serpentinite environment
3. Vertical zonation, with the zone of quartz-carbonate-fuchsite alteration above a zone of mineralized quartz vein. The upper adit is at 3440' (1042 m) elevation; the lowest part of the altered zone without significant quartz veins is at 1060 m.

OTHER VEINS AND ALTERATION ZONES.

Fragments of coxcomb quartz veins 1 - 10 cm wide occur in the greenstone talus in the eastern part of the claims. A NNW-trending zone of carbonate alteration with thin white quartz veins cuts the greenstone between the western edge of the claims and the alaskite body. No zones of alteration and veining comparable to the main zone described above are present.

SUMMARY OF GEOLOGY.

Alteration and mineralization on the Imperial Group claims are structurally controlled by a relatively recent (Cretaceous?) normal fault of small displacement, which trends NW across the property. The alteration is of silica-carbonate type: magnesite/ankerite, quartz, calcite, talc, fuchsite and minor tremolite within serpentinite; and quartz, calcite, ankerite and fuchsite within greenstone. Visible sulfide mineralization is confined to a quartz vein or veins which extend 200 m along the fault zone. Significant gold values are also confined to these veins, as is shown in the next section.

TABLE I ASSAYS REPORTED IN EARLY SOURCES.

Average $20.00/ton (Au at $20/oz)

Mill returns $12.40/ton, partial recovery
B.C.Min.Mines 1903.

$7/ton upper adit, $3/ton lower adit (Au $20/oz)
B.C. Min.Mines 1905.

Au $25.80/ton ($20.00/oz)
Pellew-Harvey, Bryant and Gilman
bulk assay 1902

$10/ton mill-return Nimrod Syndicate, 1900

	Width	Location	Values		
			Gold	Silver	
	Inches		Oz.	Oz.	
1.		Broken quartz from two open-cuts on the surface west of where stope breaks through.	0.90	0.3	)
2.	20	Across E.face,upper tunnel,6 inches quartz,balance oxidized.	0.02	Trace	)
3.	6	Quartz,W.face,upper tunnel	0.06	0.2	)
4.	22	Quartz,10 feet back from W.face.	0.02	Trace	) - Upper Adit
5.	20	Quartz,20 feet back from W.face.	0.02	Trace	)
6.	16	Quartz,at top of W.end of 8 ft.winze.	0.02	0.1	)
7.	10	Quartz,bottom of E.face of winze.	0.04	0.4	)
8.	20	Quartz,33 ft.E.of E.end of winze, half-way to W.end of stope.	1.68	0.4	)
9.	24	Broken-up quartz,20 ft.from E.face, lower tunnel.	Trace	Trace	) Lower
10.	18	Quartz, W.face, lower tunnel.	Trace	Trace	) Adit.

TABLE II ASSAY AND GEOCHEMICAL RESULTS. IMPERIAL CLAIMS.

I. The quartz vein.

Sample No.	Au oz/ton	PPB	
104D (Upper adit dump)	(.33)	10,000	
107 Vein & wall rock	-	125	
110A	-	10	
112 Vein & wall rock	-	80	
115	-	475	
MM1	.002		Located on Fig.3
MM2	.002		Located on Fig.3
Lower adit main vein	.054, Ag .18 oz/ton		

II. Wall rocks and alteration zone samples.

	Sample No.	Au oz/ton	PPB	Ag oz/ton
Lower Adit	1	.002	-	.03
"	2	.002	-	.04
"	3	.002	-	.02
"	4	.002	-	.02
"	5	.002	-	.05
"	6	.002	-	.03
"	7	.002	-	.04
"	8	.015	-	.37
"	9	.002	-	.03
"	10	.003	-	.03
	104A	-	60	-
	104B	-	10	-
	104C	-	5	-
	106 veins & greenstone		125	-
	108A	-	10	-

II - continued

Sample No.	Au oz/ton	PPB	Ag oz/ton
108B	-	5	-
110B	-	10	-
113	-	5	-
114	-	20	-

ASSAY AND GEOCHEMICAL RESULTS.

Early assay results and smelter returns from vein ore on the Imperial Claims were highly variable. Most of the gold assays range from .02 to .06 oz/ton. Two of the 10 samples contained .90 and 1.68 oz Au.ton. This distribution of values points to very erratic high-grade zones, and makes average Au contents difficult to specify. The operators reported mill returns ranging from $3.00 to $12.50 (Au at $20/oz) per ton, based on partial gold extraction. The average mill return from the upper adit was .34 oz/ton; the lower adit .15 oz/ton. The highest assay on a large sample (3,267 lbs), made by Pellew-Harvey, Bryant and Gilman, Vancouver, British Columbia, gave 1.29 oz Au and 1.26 oz. Ag.

In this study, 9 vein and chip samples and 18 chip and grab wall rock samples were submitted for analysis. The results are shown in Table II and on Figure 2.

The general pattern of the vein assays shows scattered high values among numerous very low values: this agrees with sampling results in the early work.

It is difficult, given the erratic distribution of gold in the vein, to derive any average ounces-per-ton figure from small samples with any certainty. The reported average mill returns because they represent large volumes of material, provide a much more accurate estimate. Accordingly they are used in the following calculation.

A. Vein dimensions.

Strike length: from trench at 1+ 30 m W on grid (the vein exposure furthest west of the adits) to the eastern end of the lower adit 45 m E of 0+00W	=	175 m
Probable depth extent of vein: as exposed over the interval between upper and lower adits 40 m x 2	=	80 m
Average approximate width of vein, which varies from 10 cm to 2 m	=	.5 m

B. Tonnage in vein.

175 m x 80 m x .5 m	=	7000 m^3
7000 m^3 x 2.7 tonnes/m^3	=	18,900 tonnes
18,900 tonnes ÷ .9072	=	20,833 English tons.

C. Total value of Au in vein:

Volume	20,833 tons
	X
average Au contents of .3 (?) oz/ton	.3 oz/ton
	X
typical 1981 gold price	$500/oz.
	$3,124,950

This presents a subeconomic target. The lack of gold mineralization (Table 2) in the wall-rocks and in samples of altered serpentinite along strike to the NW preclude the possibility of a more extensive low grade mineralization on the property.

MAGNETOMETER SURVEY.

The purpose of this study was to follow the alteration zone beneath the overburden using vertical magnetic field profiles. The alteration zone is exposed to the northwest of the adits. (Fig. 1) It was hoped that this method could be used to trace the zone between the exposure and the adits, and east of the adits where it enters Quaternary cover.

A base line was set up between the adits and the large outcropping of carbonate alteration. Sample lines were added with separations of either 25 m or 50 metres (Fig.3). Stations on the lines were 25 metres apart, except on some lines where, close to the base line, separations of 5 metres were used.

The magnetometer used was a Scintrex Fluxgate MF2 instrument. It measures the relative vertical component of the magnetic field. The accuracy varies with the scale used:

± 10 gammas on the 1000 gamma scale

± 25 gammas on the 3000 gamma scale

± 100 gammas on the 10,000 gamma scale.

The diurnal variation of the earth's magnetic field was accounted for by frequent tie-ins in the grid.
As each line was complted, random stations were remeasured. The base line station was always noted at the end of each sample line. A line required less than 45 minutes to complete.

In this survey magnetic profiles along the sample lines were used rather than a magnetic anomaly map. The magnetic profiles were chosen because only a particular linear feature is being distinguished. Also differences between sample profiles were great enough to make an anomaly map less informative.

RESULTS: The western lines, MA, MB, 2+10W, and 1+60W, display a pronounced magnetic low over the baseline (Fig.3) This is probably due to leaching of iron in the alteration zone, and its incorporation in non-magnetic carbonate minerals, eg. $Fe_3O_4 + 3\ CO_2 \longrightarrow 3FeCO_3 + \frac{1}{2}O_2$
magnetite siderite

The 1+10W line is not like this, and actually displays a magnetic high near the baseline. This feature is difficult to explain. It could be due to strongly magnetic material in the overburden.

The easterly lines,0+60W, 35W, 10W, 15E, 65E, 1+15E, and 1+65E, display a relatively flat magnetic profile with a slight increase toward the 1+00S stations. This pattern does not distiguish the alteration zone.

The MC line was run in an attempt to see if the differences between greenstone and serpentinite could explain the differences between the westerly lines and the easterly lines. Unfortunately, differences between these two rock types is less than internal variation in the greenstone and the serpentinite.

The differences between the westerly lines and easterly lines have several possible explanations. It could be that the leaching of iron has occured to a greater extent in the westerly lines. The degree of alteration in the serpentinite to the west could be greater than in the greenstone. The alteration zone may have more continuity with depth toward the west.

RESULTS AND CONCLUSIONS:

The alteration zone resolves best magnetically where it is exposed with serpentinite.
The westerly lines display a pronounced low over the alteration zone.
The easterly lines are relatively fait over the alteration zone.
The difference between the westerly lines and easterly lines could be caused by differences in leaching of iron, degree of alteration and continuity of alteration with depth.

P. Nelson

K. Hugg Smith

APPENDIX I

Certificate of Assay.

To: _____

PAGE No. 1

REPORT NO. 1097

DATE: August 21, 1981

713 - 744 West Hastings Street
Vancouver, B. C. V6C 1A2

BONDAR-CLEGG & COMPANY LTD.

AUG 25 1981

CERTIFICATE OF ASSAY

Samples submitted: August 11, 1981
Results completed: August 21, 1981

PROJECT: NONE GIVEN

-15-

I hereby certify that the following are the results of assays made by us upon the herein described rock sample

MARKED	GOLD		SILVER		Cu	Pb						
	Ounces per Ton	Grams per Metric Ton	Ounces per Ton	Grams per Metric Ton	Percent	Percent	Percent	Percent	Percent	Percent	Percent	
LOWER ADIT - 0-3	0.002		0.03		-	-						
3-6	<0.002		0.04		-	-						
6-9	<0.002		0.02		-	-						
9-12	0.002		0.02		-	-						
12-15	<0.002		0.05		-	-						
15-18	0.002		0.03		-	-						
18-21	<0.002		0.04		-	-						
21-24	0.015		0.37		-	-						
24-27	<0.002		0.03		-	-						
27-30	0.003		0.03		-	-						
LOWER ADIT MAIN VEIN	0.054		0.18		<0.01	0.08						
MM - 1	<0.002		-		-	-						
2	<0.002		-		-	-						
7	<0.002		-		-	-						
8	<0.002		-		-	-						
N - 141	<0.002		-		-	-						
142	<0.002		-		-	-						
142A	<0.002		-		-	-						
143	<0.002		-		-	-						
John, Grace 1) 148	<0.002		-		-	-						
claims 2) 149	<0.002		-		-	-						

cc Elin Beal

NOTE:
Rejects retained three weeks
Pulps retained three months
unless otherwise arranged.

Registered Assayer, Province of British Columbia

BONDAR-CLEGG & COMPANY LTD
130 PEMBERTON AVE., NORTH VANCOUVER, B.C. V7P 2R5 PHONE: (604) 985-0681 TELEX: 04-35266

Geochemical Lab Report

REPORT: 121-2154 PAGE

SAMPLE NUMBER	ELEMENT UNITS	W PPM	Au PPB	Sn PPM	NOTES
N78	RX		ND		
N82		3	5	ND	
N85		3	ND	ND	
N86			10		
N87		4	ND	ND	
N91		4	ND	ND	
N92			ND		
N95			ND		
N104A			60		
N104B			10		
N104C			ND		
N104D			>10000		
N106			125		
N107			125		Imperial
N108A			10		
N108B			ND		
N110A			10		
N110B			10		
N112			80		
N113			ND		
N114			20		
N115			475		
ROX			30		

APPENDIX II

Magnetometer survey

corrected data.

APPENDIX II.

IMPERIAL CLAIMS. MAGNETOMETER SURVEY.

CORRECTED DATA

Station	Reading (gammas)	Station	Reading (gammas)	Station	Reading (gammas)
MA-0+00	1390	MB-0+00	620	1+10W-0+75N	590
MA-0+25	1180	MB-0+25	640	1+10W-0+50N	550
MA-0+50	1270	MB-0+50	640	1+10W-0+25N	1170
MA-0+75	940	MB-0+75	630	1+10W-0+10N	1380
MA-1+00	820	MB-1+00	580	1+10W-0+05N	2010
MA-1+25	240	MB-1+25	2820	1+10W-0+00	1310
MA-1+50	1490	MB-1+50	3420	1+10W-0+05S	1080
MA-1+75	2020	MB-1+75	0	1+10W-0+10S	900
MA-2+00	1930	2+10W-0+00	0	1+10W-0+25S	760
MA-2+25	1180	2+10W-0+25S	410	1+10W-0+50S	800
MA-2+50	1160	2+10W-0+50S	820		
MA-2+75	1010			0+60W-1+00N	730
MA-3+00	850	1+60W-0+50N	1240	0+60W-0+75N	640
MA-3+25	1270	1+60W-0+25N	1460	0+60W-0+50N	930
MA-3+50	1870	1+60W-0+10N	1060	0+60W-0+25N	820
MA-3+75	1690	1+60W-0+05N	-210	0+60W-0+10N	390
MA-4+00	1570	1+60W-0+00	-250	0+60W-0+05N	440
MA-4+25	1270	1+60W-0+05S	100	0+60W-0+00	460
MA-4+50	1130	1+60W-0+10S	160	0+60W-0+05S	640
MA-4+75	920	1+60W-0+25S	710	0+60W-0+10S	580
MA-5+00	690	1+60W-0+50S	1220	0+60W-0+25S	630
MA-5+25	1130			0+60W-0+50S	910
MA-5+50	270	1+10W-2+25N	610	0+60W-0+75S	2390
MA-5+75	40	1+10W-2+00N	710	0+60W-1+00S	1490
MA-6+00	620	1+10W-1+75N	720		
MA-6+25	0	1+10W-1+50N	680		
MA-6+50	480	1+10W-1+25N	650		
		1+10W-1+00N	250		
35W-1+00N	530	15E-1+00N	680	1+65E-1+00N	590
35W-0+75N	550	15E-0+75N	640	1+65E-0+75N	540
35W-0+50N	580	15E-0+50N	680	1+65E-0+50N	550
35W-0+25N	750	15E-0+25N	680	1+65E-0+25N	640

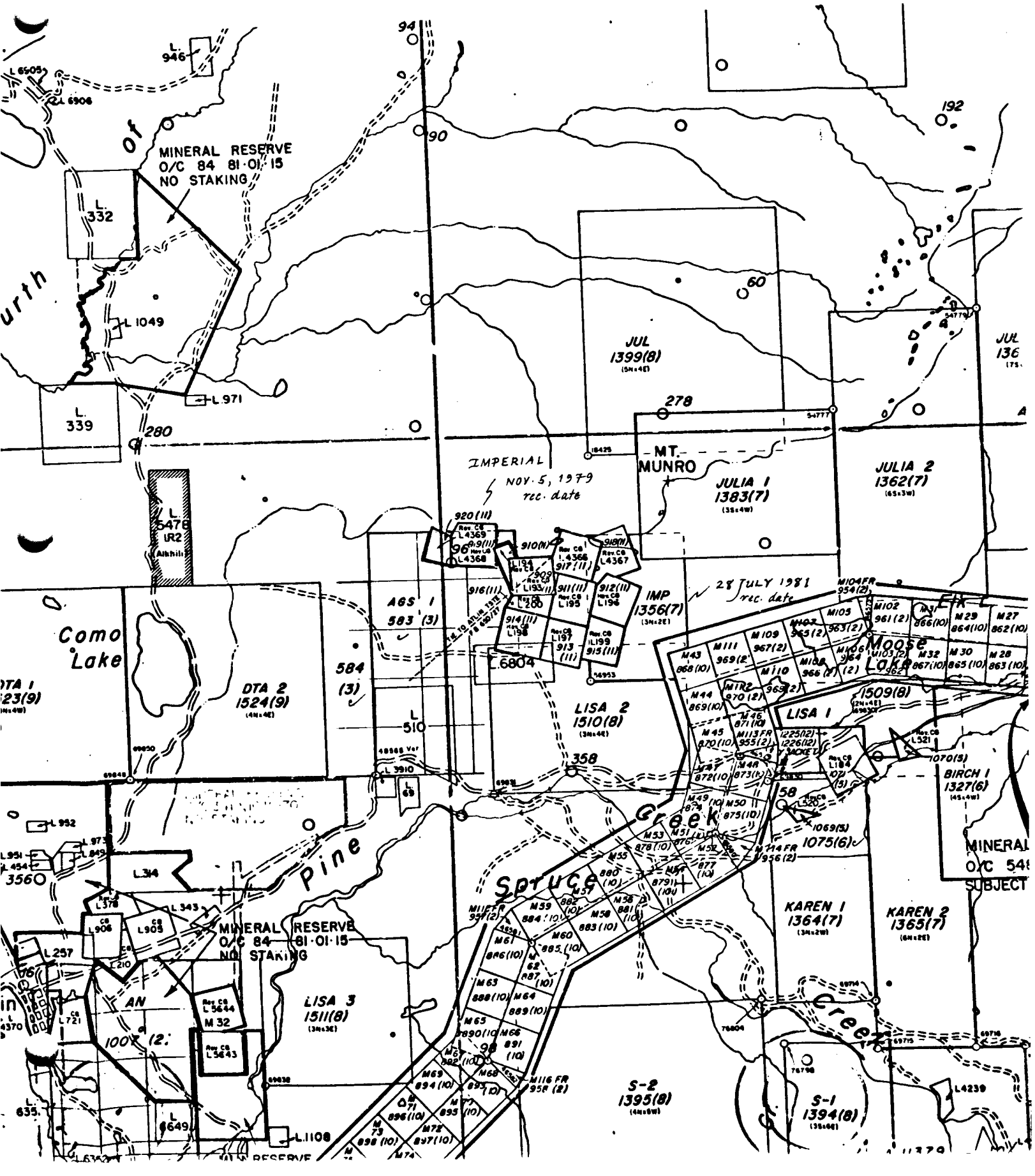
APPENDIX II - continued

Station	Reading (gammas)	Station	Reading (gammas)	Station	Reading (gammas)
35W-0+00	670	15E-0+00	700	1+65E-0+00N	640
35W-0+25S	730	15E-0+25S	860	1+65E-0+25S	700
35W-0+50S	940	15E-0+50S	990	1+65E-0+50S	760
35W-0+75S	870	15E-0+75S	960	1+65E-0+75S	870
35W-0+00S	940	15E-0+00S	1470	1+65E-1+00S	950
10W-1+00N	600	65E-1+00N	690	MC-2+42	3420
10W-0+75N	670	65E-0+75N	640	MC-2+25	1230
10W-0+50N	640	65E-0+50N	630	MC-2+00	950
10W-0+25N	630	65E-0+25N	660	MC-1+75	400
10W-0+10N	670	65E-0+00	610	MC-1+50	430
10W-0+05N	640	65E-0+25S	770	MC-1+25	320
10W-0+00	680	65E-0+50S	820	MC-1+00	580
10W-0+05S	640	65E-0+75S	910	MC-0+75	560
10W-0+10S	690	65E-0+00S	1080	MC-0+50	600
10W-0+25S	710			MC-0+25	600
10W-0+50S	950	1+15E-1+00N	580	MC-0+00	600
10W-0+75S	750	1+15E-0+75N	590		
10W-1+00S	1540	1+15E-0+50N	580		
		1+15E-0+25N	600		
		1+15E-0+00	630		
		1+15E-0+25S	750		
		1+15E-0+50S	830		
		1+15E-0+75S	880		
		1+15E-0+00S	1040		

APPENDIX III

Claim Map.

APPENDIX III.



APPENDIX IV

Cost Statement.

COST STATEMENT.

J. Nelson, Geologist.	13 days @ $250 .00	$ 3,250.00
G. Smith, assistant.	13 days @ 84.00	1,092.00
G. Grant, assistant.	13 days @ 75.60	982.80
W. Jackson, helper.	13 days @ 58.80	764.40
(July 25 - Aug.10,1981)		$ 6,089.20
Camp costs (cook & food)-$21/man-day		273.00
Rental, Scintrex MF-2 Scintillometer @ $75/week		150.00
Truck transportation, rental		978.00
gas		261.00
Geochemical analyses and assays		
14 geochem Au @ $5.25		73.50
10 assay Au @ $8.00		80.00
11 assay Au-Ag @ $11.00		121.00
1 assay Cu @ $6.00		6.00
1 assay Pb @ $6.00		6.00
Report writing		
J. Nelson-5 days @ $250		1,250.00
Secretarial		200.00
	Total -	$9,487.20

APPENDIX V

Authors' qualifications.

CERTIFICATE.

I JoAnne Nelson, do hereby certify:

That I am a geologist residing at
4027 West 18th Avenue, Vancouver,
British Columbia, V6B 2T2.

That I hold a B.Sc in geology from
the University of Washington (1973) and
and M.Sc in geology from the University
of British Columbia. (1976).

That I have no financial interest, either
direct or indirect, in the subject property
and that I do not expect to obtain any such
interest.

J. Nelson

JoAnne Nelson,
Geologist.

JAN/cmp

C E R T I F I C A T E.

I, Richard Gregg Smith, do hereby certify:

That I am a 3rd year Honours Geophysics student at the University of British Columbia, Vancouver, Canada, residing at 456 W.19th Avenue, Vancouver, British Columbia.

I have no direct or indirect interest in the property herein reported on.

I have authored the section on Magnetometer results "Imperial and Imp Claims - Geology, ground magnetic and assay results." The section is based on the data I collected under the supervision of JoAnne Nelson.

This section may be used in a statement of material facts or a prospectus related to the raising of funds.

R. Gregg Smith

Richard Gregg Smith,
Student, Geophysics.

RGS/cmp

N

MM2

MM1

BASE LINE

2+10W

1+60W

1+10W

0+60W

0+35W

0+10W

0+15E

0+65E

1+15E

1+65E

UPPER ADIT

1230

-270

+3030

+830

+3400

+900

+1000

+500

+1500

+600

+600

+1100

+600

+1100

+500

+1000

+500

Adjoins Fig 3a

IMPERIAL CLAIMS	MAGNETIC PROFILES
HORIZONTAL DISTANCE SCALE — 25m	
VERTICAL MAGNETIC FIELD STRENGTH (gammas) — 1000	
R. GREGG SMITH FOR SEMCO	AUG 1981

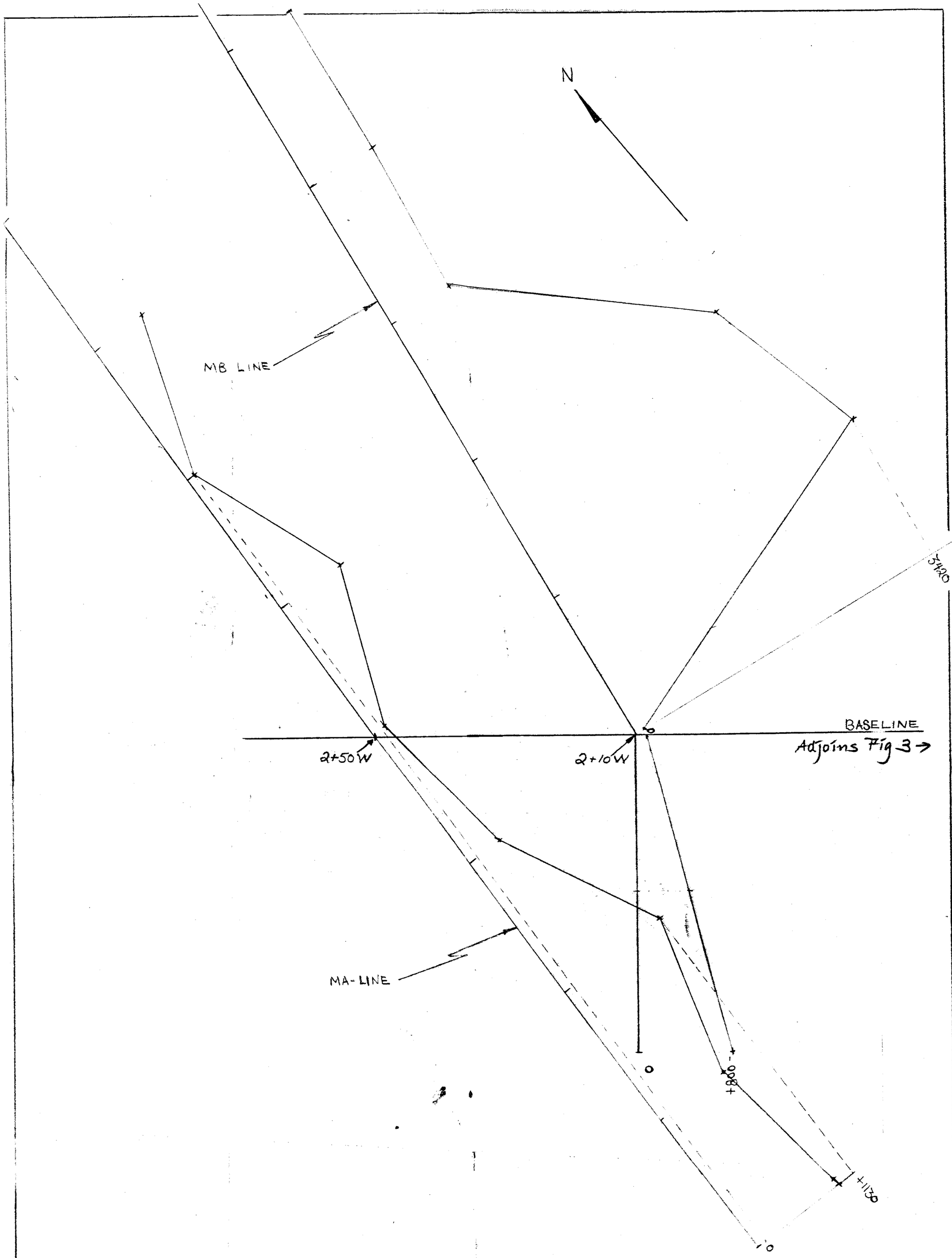


FIGURE 3A
MAGNETIC PROFILES
(WESTERN EXTENSION)
IMPERIAL CLAIMS
R. GREGG SMITH : SEMCO
AUG. 1981

25 m ← → HORIZONTAL DISTANCE

1000 gammas ← → VERTICAL MAGNETIC FIELD STRENGTH