

REPORT COVERING
ASSESSMENT WORK
ON SIX OLD ALAMEDA CLAIMS

ON

SWAKUM MTN., NEAR MERRITT
NICOLA MINING DIVISION, B.C.

921/7E

FOR

GERALD D'ANGELO

BY

SHERWIN F. KELLY, P. ENG.

SEPT. 30, 1981

50° 17' N.
120° 42' W

MINERAL REVENUE BRANCH
ASSESSMENT REPORT

9612

ASSESSMENT REPORT ON
SIX OLD ALAMEDA CLAIMS
NEAR MERRITT, B.C.

TABLE OF CONTENTS

INTRODUCTION.....p. 1
LOCATION AND ACCESS.....p. 1
CLAIMS.....p. 2
ASSESSMENT WORK.....p. 3
STATEMENT OF EXPENDITURES.....p. 5
EVALUATION OF RESULTS.....p. 6
CERTIFICATE OF QUALIFICATIONS.....p. 17

MAPS & DOCUMENTS

LOCATION MAP, FIG. 1.....facing p. 2
CLAIM MAP, FIG. 2.....facing p. 3
COPPER SOIL ANOMALY MAP, FIG. 3,
in envelope bound in back
of report.
SILVER-ZINC SOIL ANOMALY MAP,
Fig. 4, in envelope bound
in back of report.
BONDAR-CLEGG ASSAY RETURNS,
bound in back of report.
BONDAR-CLEGG ACCOUNT, bound
in back of report.
STATEMENT OF ACCOUNT FOR THIS REPORT
bound in back of report.

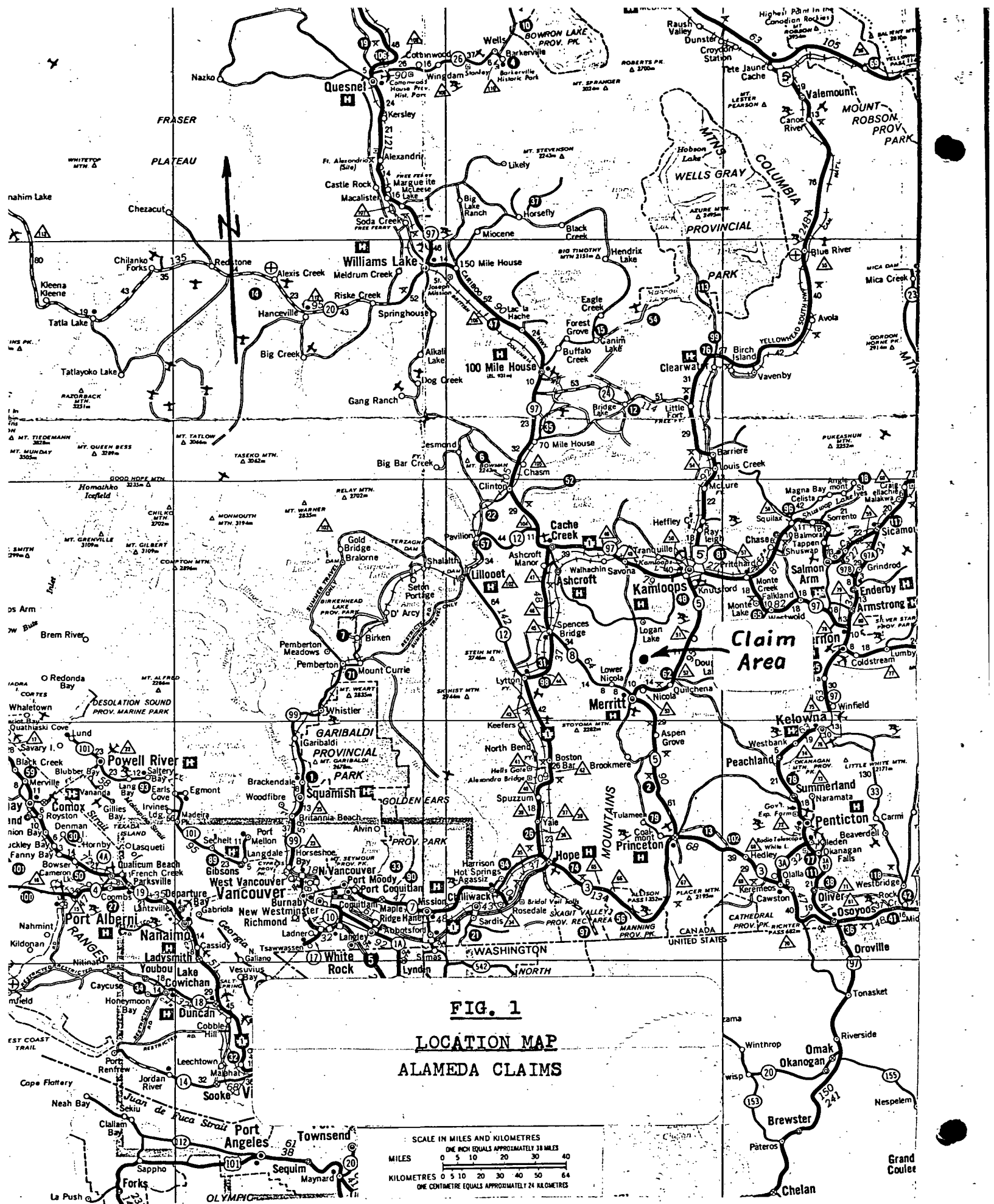
REPORT COVERING
ASSESSMENT WORK
ON SIX OLD ALAMEDA CLAIMS
ON SWAKUM MTN., NEAR MERRITT
NICOLA MINING DIVISION, B.C.
FOR GERALD D'ANGELO
BY
SHERWIN F. KELLY, P. ENG.

INTRODUCTION

In the early years of this century, the summit area of Swakum Mtn., near Merritt, B.C., was well covered by Crown Granted and located claims. Shafts were sunk, adits driven, pits and trenches dug and small shipments of ore were made, containing various proportions of copper, lead, zinc and silver. The northern part of the area, north of the mountain peak, was the site of the principal copper mineralisation, on the Lucky Mike claim, whereas to the south, in the area of the Alameda, Bernice, Thelma and Corona claims, the predominant minerals were of lead, zinc and silver. Neglected for many years, the mineralisation on Swakum Mtn. is once again becoming the objective of exploration, as the prices of the metals involved have appreciated well above their level at the time of the discovery of this mineralised zone.

LOCATION AND ACCESS

The six Old Alameda claims, Alameda nos. 2 to 7 (also spelled Alameada) herein reported upon, contain the peak of Swakum Mtn. They are found in the SW $\frac{1}{4}$ of the SE $\frac{1}{4}$ of the Mamit Lake sheet, at the scale of 1:50,000, of



the N.T.S. series, map 92 I/7. The co-ordinates are 120° 42' west longitude and 50° 17' north latitude. The general location map, Fig. 1, faces this page.

The claim group may be reached by driving (4x4 vehicle) 3.7km northeasterly from Merritt on the No. 5 Highway, where a gravel road turns off to the left (west). At about 21.5km from the Highway, a left turn is made off this logging road onto the old dirt road to Swakum Mtn. The southern boundary of the Alameda claims lies about 5km to the north along this road; the peak of Swakum Mtn. is about another kilometer north. Various logging roads provide access to the surrounding terrain. The summit area is generally of rolling topography, close to the tree line. The peak at elevation 5,666 ft. (1,730m) lies about 21km in a straight line NNE of Merritt.

CLAIMS

The six reverted Crown Grants, Old Alameda nos. 2 to 7, were acquired on August 25, 1980, by Mr. Gerald D'Angelo of Kamloops, by paying the requisite fees. Old Alameda #2 is Lot No. 4508; Old Alameda #3 is Lot No. 4505; Old Alameda #4 is Lot No. 4504; Old Alameda #5 is Lot No. 4503; Old Alameda #6 is Lot No. 4501; and Old Alameda #7 is Lot No. 4891.

The Record Nos. are:- 932(8) for Lot #4508, Old Alameda #2; 933(8) for Lot #4505, Old Alameda #3; 934(8) for Lot #4504, Old Alameda #4; 935(8) for Lot #4503, Old Alameda #5; 936(8) for Lot #4501, Old Alameda #6; 937(8)

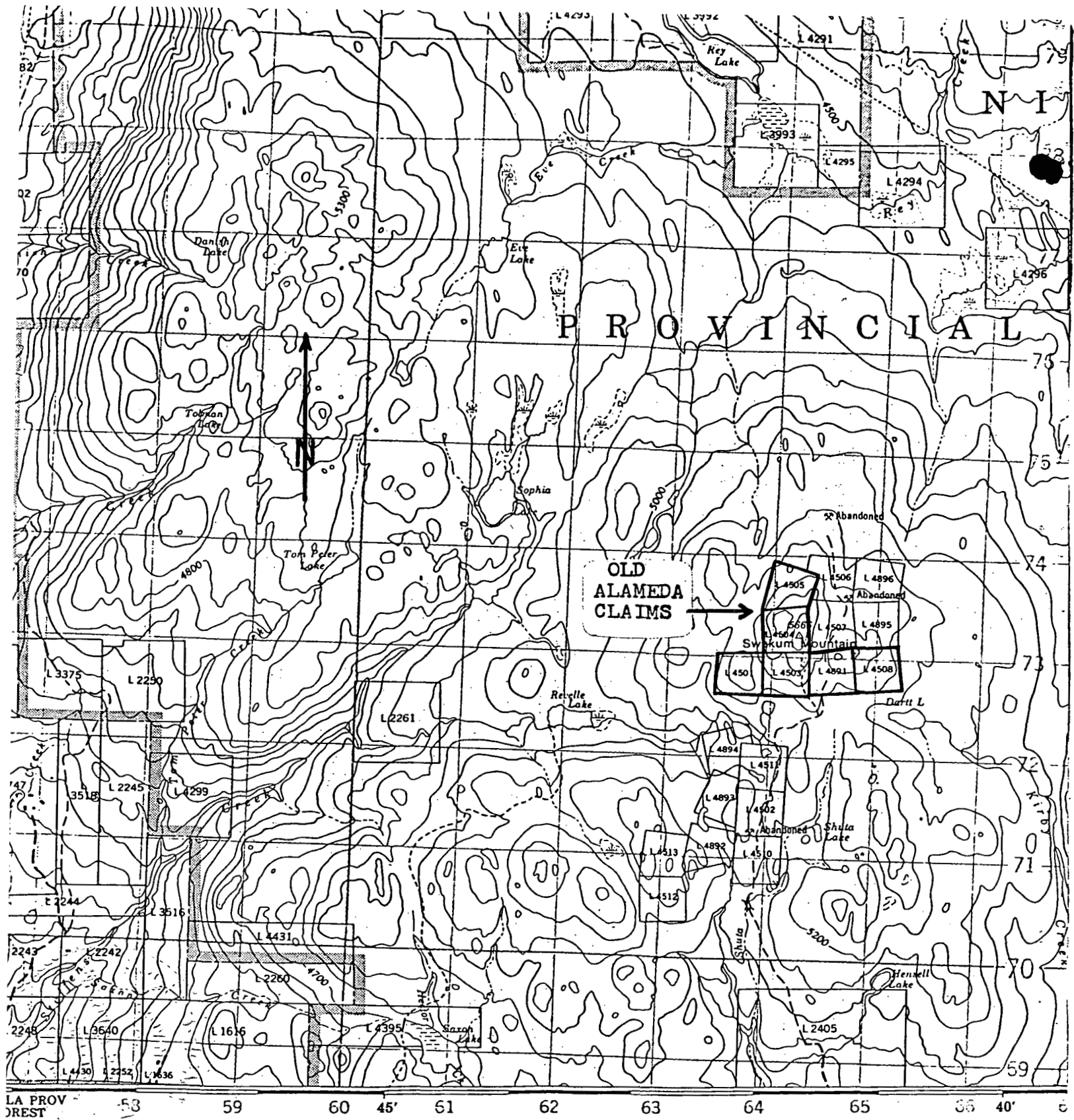


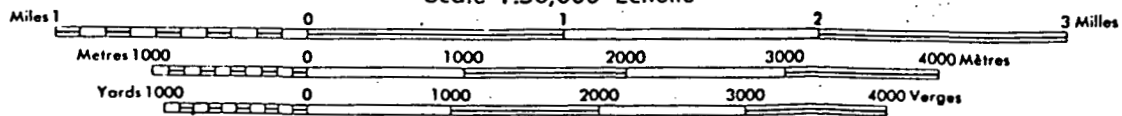
FIG. 2

MAMIT LAKE
 KAMLOOPS DIVISION OF YALE LAND DISTRICT
 BRITISH COLUMBIA

CLAIM MAP

**OLD ALAMEDA CLAIMS
 NOS. 2 TO 7**

Scale 1:50,000 Échelle



CONTOUR INTERVAL 100 FEET
 Elevations in Feet above Mean Sea Level
 North American Datum 1927
 Transverse Mercator Projection

for Lot #4891, Old Alameda #7. The claim map, Fig. 2, faces this page.

ASSESSMENT WORK

A geochemical soil survey was conducted on the Old Alameda claims #2 to #7, in satisfaction of assessment requirements. The lay-out of the grid and the collecting of the samples are not included in the work requirements as, due to an error in placing the expiry date of the prior ownership (the writer's) the field work was carried out subsequent to the forfeiture date and prior to the date of acquisition by G. D'Angelo. The chemical determination of the samples collected, however, was carried out by Bondar-Clegg and Co. Ltd., between Aug. 25, the date on which G. D'Angelo acquired the group, and Aug. 28, 1980. The Laboratory Report from Bondar-Clegg, showing the results of the testing of samples, is bound in back of this report.

Although the work of laying out and sampling the grid lines is not included in the expenses submitted herewith, a brief description of that work is needed in order to clarify the inter-relationships of the readings and their locations in the ground pattern of the claims.

This group of six old Crown Grants has the shape of an inverted T, with the 3-claim stem extending N-S

and the cross-bar at its S end, lying E-W, one claim left (W) of the stem and two claims to the right (E) of it. Two maps of the claims, showing the soil readings, are in an envelope bound in back of this report.

A N-S Base Line, 1200m long, was run a short distance (one hundred to two hundred metres) west of the east N-S boundary of the stem of the inverted T. From this, 12 E-W grid lines were turned off at 100m intervals. In the stem of the T, they extended from 100 to 200 east of the B.L. and from 200 to 300m west of it. In the area of the cross-bar at the south, the grid lines extended 750m west of the B.L. and from 600 to 950m east of it. Stations were established at 50m intervals along these grid lines and soil samples were gathered at those stations, plus samples at 50m intervals along the N-S Base Line, for a reported total of 216 samples.

The samples were dug from the B horizon, 10 to 30 cm in depth, packed in standard kraft paper soil bags and shipped to Bondar-Clegg & Company Ltd., in North Vancouver for the determination of copper, zinc and silver content. The procedure was the standard one

of atomic absorption technique on hot acid extraction from the -80-mesh fraction.

The "Geochemical Lab Report" from Bondar-Clegg, dated Aug. 28, 1980, gives the soil content of copper, zinc and silver in parts per million (ppm). Photocopies of that return are bound in back of this present report. Since returns from other properties in this vicinity (Old Corona and Old Complex claims, previously reported on) are also entered on that report, the figures referring to the Old Alameda claims are indicated by a check mark. The values thus indicated are the ones which have been entered at the appropriate locations on the claim and grid maps, Figs. 3 and 4 in an envelope bound in back of this report, as previously noted.

STATEMENT OF EXPENDITURES

The invoice from Bondar-Clegg covers the testing of samples from the Old Alameda, the Old Complex and the Old Corona claims and indicates that the total charge per sample is \$3.65. The sum chargeable for the work herein reported is therefor:-

216 samples @ \$3.65 each.....	\$ 788.40
Cost of this report.....	800.00
Total costs	<u>\$1,588.40</u>

Of this sum, it is requested that \$1,200 be applied as two years' assessment requirements to each of the Old Alameda claims, namely Old Alameda nos. 2 to 7, Record Nos. 932(8) to 937(8). The balance of \$388.40 is requested as a credit to apply on subsequent assessment submissions.

On the form for "Statement of Exploration and Development", submitted August 21, 1981, the cost figure for the assays was inadvertently given for 215 samples, \$784.75 and the remaining credit as \$384.75. The correct figures are for 216 samples.

EVALUATION OF THE RESULTS

Inspection of the soil values shown on Fig. 4, readily indicates that the background value for silver content is 0.2 ppm (parts per million). Threshold value is therefor 0.4 ppm and anomalous values are those of 0.6 ppm and higher.

For copper, the calculated values are: background 30 ppm; threshold, 60 ppm; anomalous, 90 ppm and over. The calculated values for zinc are: background, 50 ppm; threshold, 100 ppm; anomalous, 150 ppm and higher. Several anomalous centres for each of the metals, are evident on the soil value maps, Figs. 3 and 4.

The copper map, Fig. 3, shows several areas of interesting copper values, anomalous and sub-anomalous. The most impressive is in the north, on Old Alamedas

#3 and #4. Still open to the north, it starts with the two westernmost stations on Line 0, 150m and 200m west of the Base Line (B.L.). The two readings to the south, on Line 1, are the highest of the area, over 4 and 6 times background. Weaker anomalies mark the crossing of Line 2 at 100m west of the B.L., of Line 3 at 150m west of the B.L. and of Line 4 at 50m west of the B.L. The only anomalous reading on Line 5 is farther west, at 250m west of the B.L. (with nearby threshold values). A higher value of 4 times background occurs on Line 6 at 100m west of the B.L., also with nearby threshold values. The anomalies appear to have died out on Line 7.

The results here seem to imply a N-S zone of copper mineralization at least 600m long and open to the north, lying between 50m and 250m west of the B.L. The stronger copper values are in the north, on Old Alameda No. 3. The values recorded in this area, being on a reconnaissance spacing, preclude making any attempt to decide whether they indicate one, irregularly mineralized zone, or two or more parallel zones, possibly en echelon. Detail work is imperative here, in order to outline more precisely the mineralized band and determine the distribution of the values.

East of the B.L., there are some sub-anomalous to threshold readings that also suggest another N-S trend. These are evident 50 and 150m east of the B.L. on Lines 0 and 1 and 50 and 100m east of the B.L. on Lines 5 and 6. This vague trend is picked up again to the south, on Old Alameda No. 7, as will be discussed later.

The pattern of silver and zinc anomalies on Old Alamedas 3 and 4 is similar to that just described for copper. The silver and zinc values are shown on Fig. 4. Within the following outline are included anomalous, sub-anomalous and threshold readings for both silver and zinc.

Like the copper-anomalous zone, the silver-zinc one, also open to the north, starts on Line 0 between 100m and 200m west of the B.L. and extends south across Line 1 between 50m and 150m west of the B.L. and thence across Line 2 at 100m west of the B.L. The highest zinc values, up to 12 times background are in this area, but the anomalous silver values are sparse and unspectacular (up to $4\frac{1}{2}$ times background). On Line 3 the silver and zinc showings are weak, merely threshold values or lower. A threshold silver value occurs at the point 150m west of the B.L. where the copper map shows a copper anomaly. On Line 4, 50m west of the

B.L., marked by a lone copper anomaly, there is a sub-anomalous zinc reading and a silver anomaly of 12 times background. Line 5 carries only one copper anomaly but two strong and one barely sub-anomalous zinc values plus 4 silver anomalies between 3 and 10 times background. Line 6, with a copper anomaly 100m west of the B.L. carries, at the same location, a near-threshold zinc reading and a near-anomaly 50m west, but a silver anomaly of $3\frac{1}{2}$ times background. Line 7 devoid of copper anomalies, shows four zinc anomalies between 100m and 250m west of the B.L. and a silver anomaly $5\frac{1}{2}$ times background at 150m west of the B.L.

Immediately south, traversing Old Alameda #5 across Lines 8 to 11 west of the B.L., there are strong zinc threshold readings between 150m and 300m west of the B.L. on Lines 8 and 9, with an anomalous zinc and high threshold silver at 250m west of the B.L. on Line 9; there is a moderately strong threshold copper value here. On Line 11, 200m west of the B.L., there is a silver anomaly $4\frac{1}{2}$ times background, associated with a zinc threshold reading and a copper one of nearly anomalous value.

The evidence implies a mineralised zone extending N-S for 1,100m from Line 0 to Line 11, open still to the

north and the south, lying between 50m and 250m west of the B.L. It is clearly zoned, with copper strongest in the north, on Old Alameda #3. Zinc is also stronger in the north but extends farther south onto Old Alameda #4. Sporadic high readings in each metal do occur, however, in the south. Silver, on the other hand, is weak in the north but increases to the south, on Old Alamedas #4 and #5.

The few threshold and anomalous readings east of the B.L., reflect, albeit faintly, much the same pattern. On Line 1, 100m east of the B.L., there is an anomalous zinc reading of nearly five times background and one of silver $3\frac{1}{2}$ times background. The copper at this point is below threshold. On Lines 5 and 6, 50m and 100m east of the B.L., where threshold copper values were reported, there are also threshold silver and zinc values. Immediately south, on Line 7, 100m east of the B.L., a strong zinc anomaly nearly four times background occurs with a threshold silver value. At the same location on the next line, Line 8, a copper threshold value, a zinc anomaly nearly four times background and a silver anomaly 13 times background, were recorded. The same trend continues south, across Lines 9, 10 and 11, between 50m and 150m east of the B.L., with silver anomalies prominent. This zone lies along the boundary between

Old Alameda #5 on the west and Old Alameda #7 on the east. It is not as well-defined as the zone west of the B.L. and more investigation in this area is required to determine the significance of the indications thus far recorded.

To the east, 300m from the B.L. on Line 11, at the south border of Old Alameda #7, there is a silver anomaly 9 times background coinciding with a copper one of 5 times background and just 50m west, a near-anomaly in zinc. There is some slight evidence for the continuation north of this zone (which is open to the south) because in the same range of 200m to 300m east of the B.L., there are anomalous and threshold zinc and threshold copper and silver values variously distributed on Lines 9 and 8. This zone merits detail work and investigation to the north and the south.

Farther east, on Old Alameda #2 (the final claim in the eastern branch of the cross-bar of the inverted T) there is a northerly-striking zone of readings. It is 650m to 700m east of the B.L. with a zinc anomaly and a silver one 4 times background, on Line 8. On Line 9, in the same range of stations, there are, a copper anomaly and a near-anomaly, a zinc anomaly and a silver one of $7\frac{1}{2}$ times background. Aligning the silver anomalies, this zone shows a NNE strike. Its

continuation SSW may be indicated by high zinc threshold and below-threshold silver readings at 550m east of the B.L. on Line 11. These are at the south end of the border between Old Alamedas 7 and 2. This series of readings is open to the north and probably to the south, and deserves further investigation.

To the east of the above trend, there lies a single group of anomalous readings on the southernmost line of the eastern portion of Old Alameda #2, Line 10 (Line 11 does not extend this far east). On Line 10, 800m east of the B.L., there is a copper anomaly of 4 times background, a sub-threshold reading in zinc, but a silver anomaly of 7 times background. There is no indication on the lines to the north, of any continuation of this anomaly in that direction. It is, however, open to the south and should be followed up. At the east end of Line 8, 900m east of the B.L., there is another isolated indication; a zinc anomaly of 6 time background, is accompanied by a silver one of 3 time background. It is open to the north, as there are no lines of observation north of Line 8, in this area. Further investigation of this indication is also needed. There is a slight possibility of a connection between these two isolated readings, as they lie on a NNE trend, parallel to the

one just previously described on this claim, but no sign of such continuity is found on the intermediate line, Line 9.

West of the B.L., on Old Alameda 6, the only claim to form the west branch of the cross-bar on the inverted T, there is an impressive curve of anomalies. On Line 8, 350m west of the B.L., there is a copper anomaly $4\frac{1}{2}$ times background, a near-threshhold zinc value and a silver anomaly 4 times background. On Line 9, the anomalies move 50m west; the copper weakens to threshhold, but the zinc goes to $6\frac{1}{2}$ times background and the silver to 80 times background. Directly south, 400m to 450m west of the B.L. on Line 10, the copper is below threshhold, the zinc is threshhold and anomalous and the silver is anomalous, 3 times and 20 times background. On Line 11, near the south border of the claims, the anomalies occur 50m back to the east. They lie 350m and 400m west of the B.L., at the border between Old Alamedas #5 and #6 and due south of their locations on Line 8. There is a near-anomalous copper value coinciding with an anomalous zinc reading and a silver anomaly of 10 times background. Another silver anomaly of 6 times background coincides with a zinc reading of high threshhold value. It should be noted that the high silver anomalies, from 10 to 80 times background,

are on a N-S strike 50m west of the border between Old Alamedas #5 and #6, crossing Lines 9, 10 & 11, 400m west of the B.L. This zone is still open to the north and south and richly merits further study.

The reconnaissance to date has indicated probable silver, zinc and copper mineralisation of considerable interest. A major zone, at least 1,100m long with a N-S strike, extends the length of the central stem of the claim group. At the eastern border of this stem, there is weak indication of a possible, parallel zone. In the E-W cross-bar of claims at the south end of the central, N-S stem, there is indication to the east of one or possibly two, NNE striking zones of silver, zinc and copper on Old Alameda #2. To the west, Old Alameda #6 carries the strongest silver indication, along with not-so-strong zinc and weak copper. There appears to be a zoning in these mineralisation signals. Copper is strongest in the north and weakens towards the south. Zinc shows a similar pattern, but weakens further south than the copper. Silver, on the other hand, is weak in the north and strengthens towards the south, exhibiting some spectacular soil values in the southern portion of the claim group.

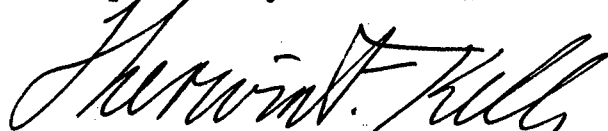
This sequence, proceeding from north to south, of copper through zinc to silver, reflects the zonal sequence of deposition from hydrothermal solutions; the copper minerals tend to deposit at higher temperatures than the zinc minerals and silver compounds come out of solution at lower temperatures than do those of zinc. These zones of deposition do overlap, however. It nevertheless appears that the area of copper deposition is probably nearer the source of the hydrothermal mineral solutions than is the area of strong silver deposition.

In connection with this zonal sequence, it is of considerable interest that the "Mamit Lake" aeromagnetic map 521G, 1968, shows a powerful magnetic high about a mile in diameter, centered some 3/4 mile NW of the peak of Swakum Mtn. and close to the western border of Old Alameda #3, Lot 4505. The concentric contours of this high include that claim.

This magnetic high strongly suggests that it is due to an underlying stock or plug of intrusive, igneous rock which is not exposed at the surface. Presumably, it is of dioritic or granodioritic composition, as are the Guichon batholithic intrusive to the west and the Central Nicola batholith (also copper bearing) to the east. Some part of such a

stock could well be the source of mineralising solutions responsible for the copper-zinc-silver-lead deposits to the south of it and for the copper-tungsten skarn deposits of the old Lucky Mike workings a short distance to the north. This possibility underlines the advisability of continuing the exploration and intensifying the attack, with closer, detail work, in this area.

Respectfully submitted



Sherwin F. Kelly, P. Eng.
Geophysicist & Geologist

Box 277
Merritt, B.C.
VOK 2B0
September 30, 1981

CERTIFICATE OF QUALIFICATIONS

I, Sherwin F. Kelly, P. Eng., residing in Merritt, B.C., certify that:-

(1) I am a registered Professional Engineer in the Province of British Columbia.

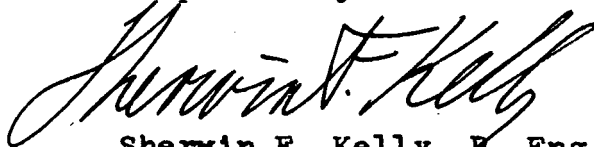
(2) I received the degree of Bachelor of Science in Mining Engineering from the University of Kansas in 1917. I pursued graduate studies at the University of Kansas, University of Toronto, and the Université de Paris (the Sorbonne) and Ecole des Mines in Paris. I received my instruction in geophysics from Prof. Conrad Schlumberger of the Ecole des Mines.

(3) I have practised as a geophysicist and geologist in Europe, North Africa, North, Central and South America and the Caribbean, since 1920. My work has principally been as a consultant since 1936.

(4) I am the suthor of the accompanying "Report Covering Assessment Work on Six Old Alameda Claims on Swakum Mtn. Near Merritt, Nicola Mining Division, B.C.", dated September 30, 1981.

(5) Gerald D'Angelo of Kamloops, B.C., is the owner of the claims.

Respectfully submitted



Sherwin F. Kelly, P. Eng.
Geophysicist & Geologist

P. O. Box 277
Merritt, B.C.
VOK 2B0
Sept. 30, 1981



BONDAR-CLEGG & COMPANY LTD.

130 PEMBERTON AVE., NORTH VANCOUVER, B.C.

PHONE: 985-0681

TELEX: 04-352667

Geochemical Lab Report

Fraction _____

Report No. 20 - 1858

Method ✓ Old Alameda values

From Mr. Sherwin F. Kelley

Method Used _____

Date August 28 19 80

SAMPLE NO.	Cu ppm	Zn ppm	Ag ppm	Au ppb	SAMPLE NO.	Cu ppm	Zn ppm	Ag ppm	Au ppb
3L 0+00SA ✓	20	54	0.2		L0+00 2+50E	22	59	0.2	
0+50SA ✓	32	61	0.2		3+00E	60	70	0.2	
1+00SA ✓	29	54	0.2		3+50E	21	66	0.2	
1+50SA ✓	38	56	0.2		4+00E	23	53	0.2	
2+00SA ✓	33	94	0.2		4+50E	27	43	0.2	
2+50SA ✓	26	68	0.2		5+00E	20	48	0.2	
3+00SA ✓	44	131	0.2		0+00W	23	52	0.2	
3+50SA ✓	50	148	0.2		0+50W	20	46	0.2	
4+00SA ✓	41	64	0.2		1+00W	27	52	0.2	
4+50SA ✓	86	61	0.2		1+50W	33	43	0.2	
5+00SA ✓	49	54	0.2		2+00W	37	46	0.2	
5+50SA ✓	39	63	0.2		2+50W	30	42	0.2	
6+00SA ✓	39	61	0.2		3+00W	19	58	0.2	
6+50SA ✓	35	66	0.2		L0-S ✓ 0+50EA	81	9	0.2	
7+00SA ✓	31	66	0.2		✓ 1+00EA	26	49	0.2	
7+50SA ✓	28	93	0.2		✓ 1+50EA	40	134	0.2	
8+00SA ✓	24	138	0.2		✓ 2+00EA	27	115	0.2	
8+50SA ✓	41	153	0.4		✓ 0+50WA	16	35	0.2	
9+00SA ✓	41	84	0.2		✓ 1+00WA	51	260	0.2	
9+50SA ✓	39	94	0.2		✓ 1+50WA	64	151	0.2	
10+00SA ✓	32	84	0.2		✓ 2+00WA	104	600	0.3	
10+50SA ✓	40	108	0.3		L1-S ✓ 0+50EA	27	71	0.2	
11+00SA ✓	56	103	0.2		✓ 1+00EA	52	245	0.7	
11+50SA ✓	28	70	0.2		✓ 1+50EA	62	82	0.2	
12+00SA ✓	39	98	0.2		✓ 0+50WA	51	410	0.2	
L0+00 0+00E	36	68	0.2		✓ 1+00WA	45	530	0.5	
0+50E	31	63	0.2		✓ 1+50WA	141	460	0.4	
1+00E	51	72	0.2		✓ 2+00WA	181	59	0.2	
1+50E	37	82	0.2		✓ 2+50WA	26	51	0.2	
2+00E	29	56	0.2		L1+50N 0+00E	76	580	7.5	

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 20 - 1858

Page No. 2

SAMPLE NO.	Cu ppm	Zn ppm	Ag ppm	Au ppb	SAMPLE NO.	Cu ppm	Zn ppm	Ag ppm	Au ppb
L1+50N 0+50E	31	70	0.2		L3+00N 0+50E	56	110	0.2	
1+00E	31	76	0.2		1+00E	19	46	0.2	
1+50E	29	63	0.2		1+50E	41	88	0.2	
2+00E	36	78	0.2		2+00E	22	59	0.2	
2+50E	32	59	0.2		2+50E	21	53	0.2	
3+00E	29	44	0.2		3+00E	33	77	0.2	
3+50E	28	77	0.2		3+50E	19	51	0.2	
4+00E	32	44	0.2		4+00E	26	58	0.2	
4+50E	36	75	0.2		4+50E	43	54	0.2	
5+00E	21	60	0.2		5+00E	29	55	0.2	
L1+50S 0+00E	48	62	0.2		L3+00S 0+00E	43	41	0.2	
1+50E	27	63	0.2		0+50E	50	60	0.2	
2+00E	25	55	0.2		1+00E	33	53	0.2	
2+50E	29	104	0.2		1+50E	54	79	0.2	
3+00E	21	41	0.2		2+00E	30	60	0.2	
3+50E	24	74	0.2		2+50E	35	66	0.2	
4+00E	34	68	0.2		3+00E	35	61	0.2	
5+00E	30	52	0.2		3+50E	34	101	0.2	
L1+50S 0+00W	22	44	0.2		4+00E	96	77	0.7	
0+50W	28	50	0.2		4+50E	29	68	0.2	
1+00W	26	47	0.2		5+00E	28	86	0.2	
1+50W	24	47	0.2		L3-S ✓ 0+50EA	39	86	0.2	
2+00W	33	46	0.2		✓ 1+00EA	51	85	0.2	
2+50W	31	57	0.2		L3+00S 0+00W	27	57	0.2	
3+00W	25	52	0.2		0+50W	25	55	0.2	
L2-S ✓ 0+50E	23	111	0.2		1+00W	41	61	0.2	
✓ 1+00E	48	72	0.2		1+50W	27	61	0.2	
✓ 1+50E	38	76	0.2		2+00W	28	58	0.2	
✓ 0+50WA	46	90	0.2		2+50W	23	51	0.2	
✓ 1+00WA	96	590	0.9		3+00W	32	75	0.2	
✓ 1+50WA	41	73	0.2		L3-S ✓ 0+50EA	86	74	0.3	
✓ 2+00WA	34	72	0.2		✓ 1+00EA	65	89	0.3	
✓ 2+50WA	41	71	0.2		✓ 1+50EA	101	82	0.4	
✓ 3+00WA	41	63	0.2		✓ 2+00EA	49	59	0.2	
L3+00N 0+00E	77	77	0.2		✓ 2+50EA	59	64	0.2	

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 20 - 1858

Page No. 3

SAMPLE NO.	Cu ppm	Zn ppm	Ag ppm	Au ppb	SAMPLE NO.	Cu ppm	Zn ppm	Ag ppm	Au ppb
L3-S ✓ 3+00EA	47	79	0.2		L6-S ✓ 0+50EA	63	78	0.2	
L4-S ✓ 0+50EA	41	55	0.2		✓ 1+00EA	85	109	0.5	
✓ 1+00EA	40	76	0.2		L6+00S 0+00W	55	62	0.5	
✓ 0+50WA	91	143	2.4		0+50W	17	57	0.2	
✓ 1+00WA	44	92	0.2		1+00W	23	57	0.2	
✓ 1+50WA	42	84	0.2		1+50W	28	64	0.2	
✓ 2+00WA	53	113	0.4		2+00W	26	56	0.4	
✓ 2+50WA	36	41	0.2		2+50W	26	63	0.2	
✓ 3+00WA	50	64	0.2		3+00W	4	8	0.2	
L4+50S 0+00E	26	55	0.2		L6-S ✓ 0+50WA	53	76	0.2	
0+50E	32	53	0.2		✓ 1+00WA	126	79	0.7	
1+00E	44	49	0.2		✓ 1+50WA	62	135	0.2	
1+50E	25	60	0.2		✓ 2+00WA	49	110	0.2	
2+00E	24	58	0.2		✓ 2+50WA	60	109	0.2	
2+50E	26	63	1.7		✓ 3+00WA	53	119	0.2	
3+00E	178	113	0.2		L7-S ✓ 0+50EA	32	102	0.3	
3+50E	24	57	0.2		✓ 1+00EA	58	196	0.4	
4+00E	37	65	0.2		✓ 0+50WA	38	99	0.2	
4+50E	22	52	0.2		✓ 1+00WA	33	156	0.2	
5+00E	25	74	0.2		✓ 1+50WA	33	246	1.1	
0+00W	50	70	0.2		✓ 2+00WA	47	274	0.4	
0+50W	33	58	0.2		✓ 2+50WA	42	152	0.3	
1+00W	26	50	0.2		✓ 3+00WA	40	130	0.3	
1+50W	25	50	0.2		L7+50S 0+00W	33	54	0.2	
2+00W	33	60	0.2		0+50W	19	35	0.2	
2+50W	33	54	0.2		1+00W	23	45	0.2	
3+00W	28	58	0.2		2+00W	20	46	0.2	
L5-S ✓ 0+50E	60	105	0.2		2+50W	18	38	0.2	
✓ 1+00E	59	100	0.3		3+00W	24	38	0.2	
✓ 0+50W	55	64	0.2		L8-S ✓ 0+50E	48	105	0.2	
✓ 1+00W	45	410	0.6		✓ 1+00E	71	189	2.6	
✓ 1+50W	71	372	2.0		✓ 1+50E	54	93	0.2	
✓ 2+00W	40	101	0.3		✓ 2+00E	75	149	0.2	
✓ 2+50W	92	149	0.6		✓ 2+50E	63	143	0.2	
✓ 3+00W	70	87	0.7		✓ 3+00E	47	107	0.2	

BONDAR-CLEGG & COMPANY LTD:

Geochemical Lab Report

Report No. 20 - 1858

Page No. 4

SAMPLE NO.	Cu ppm	Zn ppm	Ag ppm	Au ppb	SAMPLE NO.	Cu ppm	Zn ppm	Ag ppm	Au ppb
L8-S ✓ 3+50E	38	309	0.3		L9-S ✓ 4+50E	38	98	0.2	
✓ 4+00E	42	201	0.3		✓ 5+00E	59	91	0.2	
✓ 4+50E	75	67	0.2		✓ 5+50E	39	155	0.2	
✓ 5+00E	36	112	0.4		✓ 6+00E	40	86	0.2	
✓ 5+50E	43	119	0.2		✓ 6+50E	87	216	1.5	
✓ 6+00E	28	72	0.2		✓ 7+00E	93	97	0.4	
✓ 6+50E	26	178	0.2		✓ 7+50E	23	66	0.2	
✓ 7+00E	35	100	0.8		✓ 8+00E	18	57	0.2	
✓ 7+50E	24	54	0.2		✓ 8+50E	24	55	0.2	
✓ 8+00E	33	56	0.2		✓ 9+00E	42	55	0.2	
✓ 8+50E	49	79	0.2		✓ 0+50WA	36	104	0.4	
✓ 9+00E	20	320	0.6		✓ 1+00WA	71	75	0.2	
✓ 0+50W	31	99	0.2		✓ 1+50WA	67	148	2.0	
✓ 1+00W	35	50	0.3		✓ 2+00WA	72	128	0.4	
✓ 1+50W	27	79	0.2		✓ 2+50WA	68	177	0.5	
✓ 2+00W	45	139	0.2		✓ 3+00WA	46	68	0.2	
✓ 2+50W	35	149	0.2		✓ 3+50WA	43	75	0.2	
✓ 3+00W	46	131	0.2		✓ 4+00WA	76	339	16.	
✓ 3+50W	137	91	0.8		✓ 4+50WA	51	156	0.6	
✓ 4+00W	39	208	0.2		✓ 5+00WA	51	92	0.5	
✓ 4+50W	31	64	0.2		✓ 5+50WA	35	60	0.2	
✓ 5+00W	25	63	0.2		✓ 6+50WA	51	78	0.2	
✓ 5+50W	33	69	0.2		✓ 7+00WA	47	73	0.2	
✓ 6+00W	46	74	0.3		✓ 7+50WA	46	76	0.3	
✓ 6+50W	38	45	0.2		L10-S ✓ 0+50EA	70	92	0.8	
✓ 7+00W	44	50	0.2		✓ 1+00EA	90	89	0.2	
✓ 7+50W	39	57	0.2		✓ 1+50EA	41	82	0.2	
L9-S ✓ 0+50E	57	109	0.2		✓ 2+00EA	22	49	0.2	
✓ 1+00E	67	118	0.4		✓ 2+50EA	30	92	0.3	
✓ 1+50E	114	74	0.9		✓ 3+00EA	32	83	0.3	
✓ 2+00E	40	76	0.2		✓ 3+50EA	18	66	0.2	
✓ 2+50E	78	272	0.4		✓ 4+00EA	33	86	0.2	
✓ 3+00E	58	114	0.5		✓ 4+50EA	20	106	0.2	
✓ 3+50E	15	49	0.2		✓ 5+00EA	28	75	0.2	
✓ 4+00E	29	118	0.2		✓ 5+50EA	25	65	0.2	

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 20 - 1858

Page No. 5

SAMPLE NO.	Cu ppm	Zn ppm	Ag ppm	Au ppb	SAMPLE NO.	Cu ppm	Zn ppm	Ag ppm	Au ppb
L10-S ✓ 6+00EA	19	124	0.6		L11-S ✓ 0+50WA	17	46	0.2	
✓ 6+50EA	30	76	0.2		✓ 1+00WA	32	55	0.2	
✓ 7+00EA	73	58	0.4		✓ 1+50WA	41	102	0.3	
✓ 7+50EA	15	47	0.2		✓ 2+00WA	81	112	0.9	
✓ 8+00EA	126	84	1.4		✓ 2+50WA	39	83	0.2	
✓ 8+50EA	27	56	0.2		✓ 3+00WA	33	53	0.3	
✓ 9+00EA	32	65	0.2		✓ 3+50WA	44	130	1.2	
✓ 9+50EA	39	65	0.2		✓ 4+00WA	84	168	2.0	
✓ 0+50WA	45	108	0.2		✓ 4+50WA	47	74	0.2	
✓ 1+00WA	32	101	0.2		✓ 5+00WA	22	56	0.2	
✓ 1+50WA	46	84	0.2		✓ 5+50WA	26	71	0.3	
✓ 2+00WA	47	113	0.3		✓ 6+00WA	31	52	0.2	
✓ 2+50WA	33	74	0.3		✓ 6+50WA	24	52	0.2	
✓ 3+00WA	54	75	0.2		✓ 7+00WA	29	55	0.3	
✓ 3+50WA	37	64	0.3		✓ 7+50WA	32	57	0.2	
✓ 4+00WA	39	171	4.0						
✓ 4+50WA	58	125	0.6						
✓ 5+00WA	49	81	0.2		Au to follow				
✓ 5+50WA	31	78	0.2						
✓ 6+00WA	26	54	0.2						
✓ 6+50WA	31	56	0.2						
✓ 7+00WA	55	76	0.2						
✓ 7+50WA	61	46	0.2						
L11-S ✓ 0+50EA	36	93	0.2						
✓ 1+00EA	12	16	0.2						
✓ 1+50EA	80	22	0.7						
✓ 2+00EA	38	68	0.2						
✓ 2+50EA	31	148	0.5						
✓ 3+00EA	158	80	1.8						
✓ 3+50EA	27	98	0.2						
✓ 4+00EA	16	84	0.2						
✓ 4+50EA	14	60	0.2						
✓ 5+00EA	47	55	0.3						
✓ 5+50EA	19	137	0.3						
✓ 6+00EA	27	75	0.2						



BONDAR-CLEGG & COMPANY LTD.

764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110 TELEX: 053-4455

Mr. Sherwin F. Kelly
General Delivery
Marritt, B.C. V0K 2B0

D 4255
INVOICE: **D 4255**
DATE: **September 2, 198**
REPORT NO: **20 - 1858**
PROJECT:

W.O. No. D 5691

320	Copper, Zinc, Silver	Analyses	@ \$ 3.15	\$ 1008.00
320	Sample Preparations		@ \$ 0.50	<u>160.00</u>
				<u>\$ 1168.00</u>

SHERWIN F. KELLY

P. Eng.

Geophysicist and Geologist

BOX 277 - MERRITT, B.C. - V0K 2B0

CANADA

PHONE 378-5513

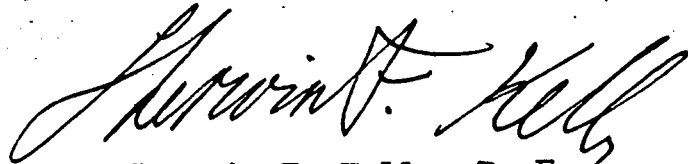
Sept. 30, 1981

In account with

Mr. Gerald D'Angelo
2246 Sifton Ave.
Kamloops, B.C., V1S 1A5

for professional
services in connection with the Old Alameda claims nos.
2 to 7, on Swakum Mtn., in September, 1981.

To review, collation and interpretation
of data from geochemical soil survey
for copper, silver and zinc on the
Old Alameda claims #2-#7 on Swakum Mtn.
and preparing the report thereon dated
Sept. 30, 1981 and filing same with the
Mining Recorder's office in Merritt,.....\$800.00



Sherwin F. Kelly, P. Eng.

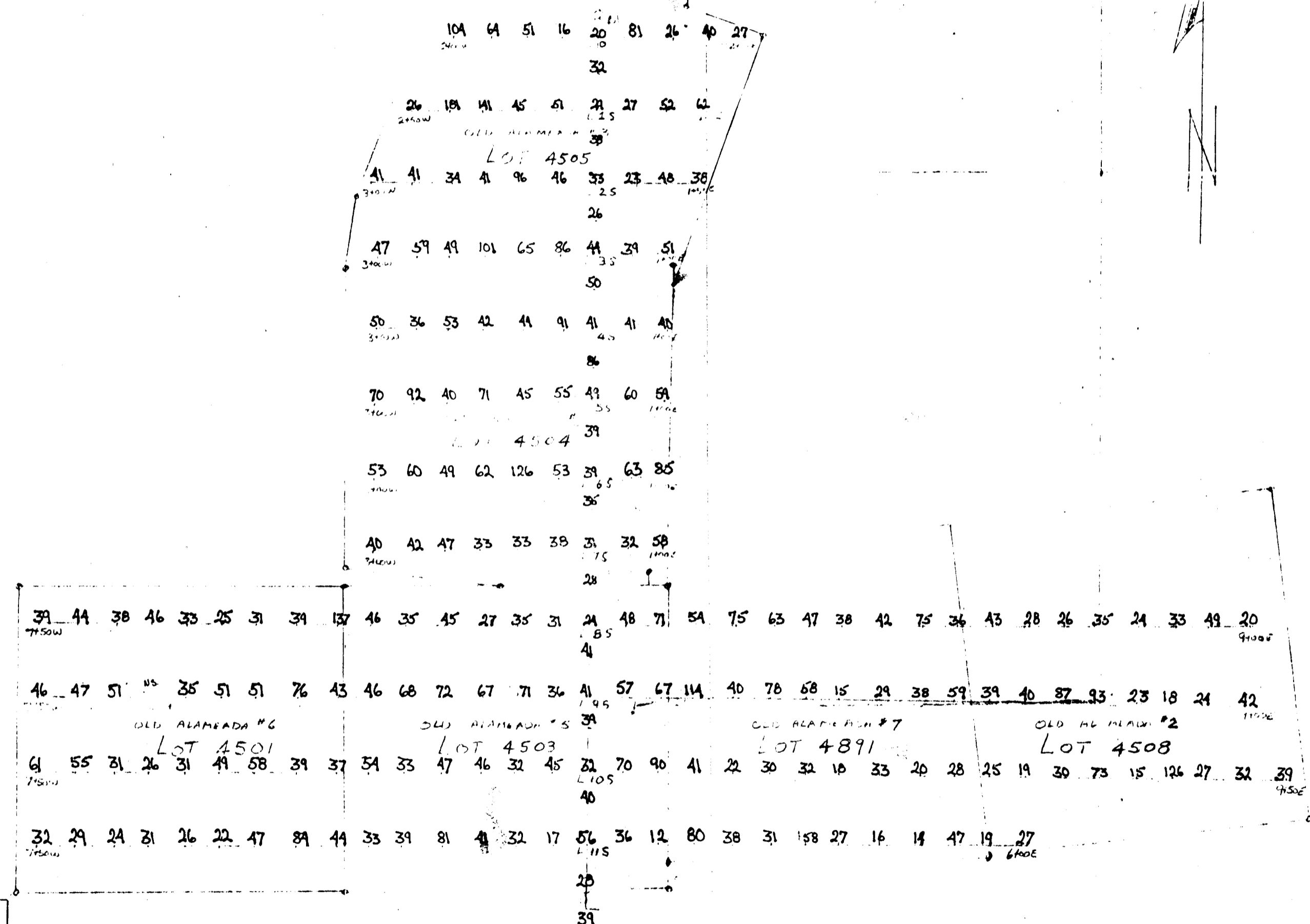


FIG. 3
 OLD ALAMEDA CLAIMS 2 TO 7
 COPPER SOIL ANOMALIES
 SCALE
 Approximately 1:5,000

9612
 NO.

To accompany report by -
 Sherwin F. Kelly, P. Eng.
 to G. D'Angelo, dated Sept. 30, 1981

Significant Values
 Background--- 30 ppm
 Threshold--- 60 ppm
 Anomalous---- 90 ppm and above

Alameda
 SCALE IN METERS
 ppm Copper
 216 SOIL SAMPLES
 10.75 KILOMETER OF GRID.

MAPP 92 I/7W
 Additions by
 RDA + SPK
 Aug 18/80 M. M. ...

