

GEOCHEMICAL REPORT ON THE  
SPANISH GROUP OF  
MINERAL CLAIMS

SPANISH #1            RECORD NO. 342  
SPANISH #2            RECORD NO. 343

VICTORIA MINING DIVISION

LAT 48° 32.5' N            LONG 122° 22'W

92c/9w

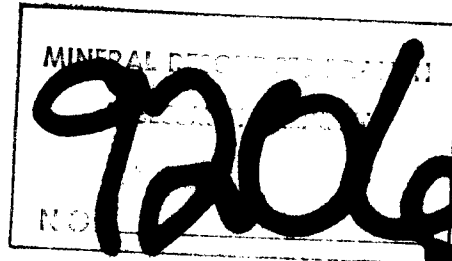
BY: W. A. Howell, B.Sc.  
K. W. Livingstone, M.Sc.

JMT SERVICES CORP.

8827 Hudson Street

Vancouver, B.C.

OWNER OF RECORD: K. W. Livingstone



PART 1 of 2

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## INTRODUCTION

The SPANISH 1 and 2 claims were located as a result of a literature and records search of the southern Vancouver Island area.

Old reports mention gold showings of uncertain location. Regionally, gold has been known since before the turn of the century with values recovered along San Juan, Leech, Loss and Sombrio Rivers in addition to several creeks in the area.

## LOCATION AND ACCESS

The SPANISH claims No. 1 and 2 comprising 12 & 8 units respectively are situated on mapsheet 92C/9 West about 5 km W.S.W. of Snuggery Cove at Port Renfrew B.C. on the southwest coast of Vancouver Island.

Access to the property is from the road to Port Renfrew via Sooke and Jordan River which cuts through the property. Several old overgrown roads provide limited foot access into the property. Access to the central and western portion of the property is more difficult but not onerous. Trails do not exist and vegetation is locally of such density that rapid traversing is not possible.

## CLAIMS

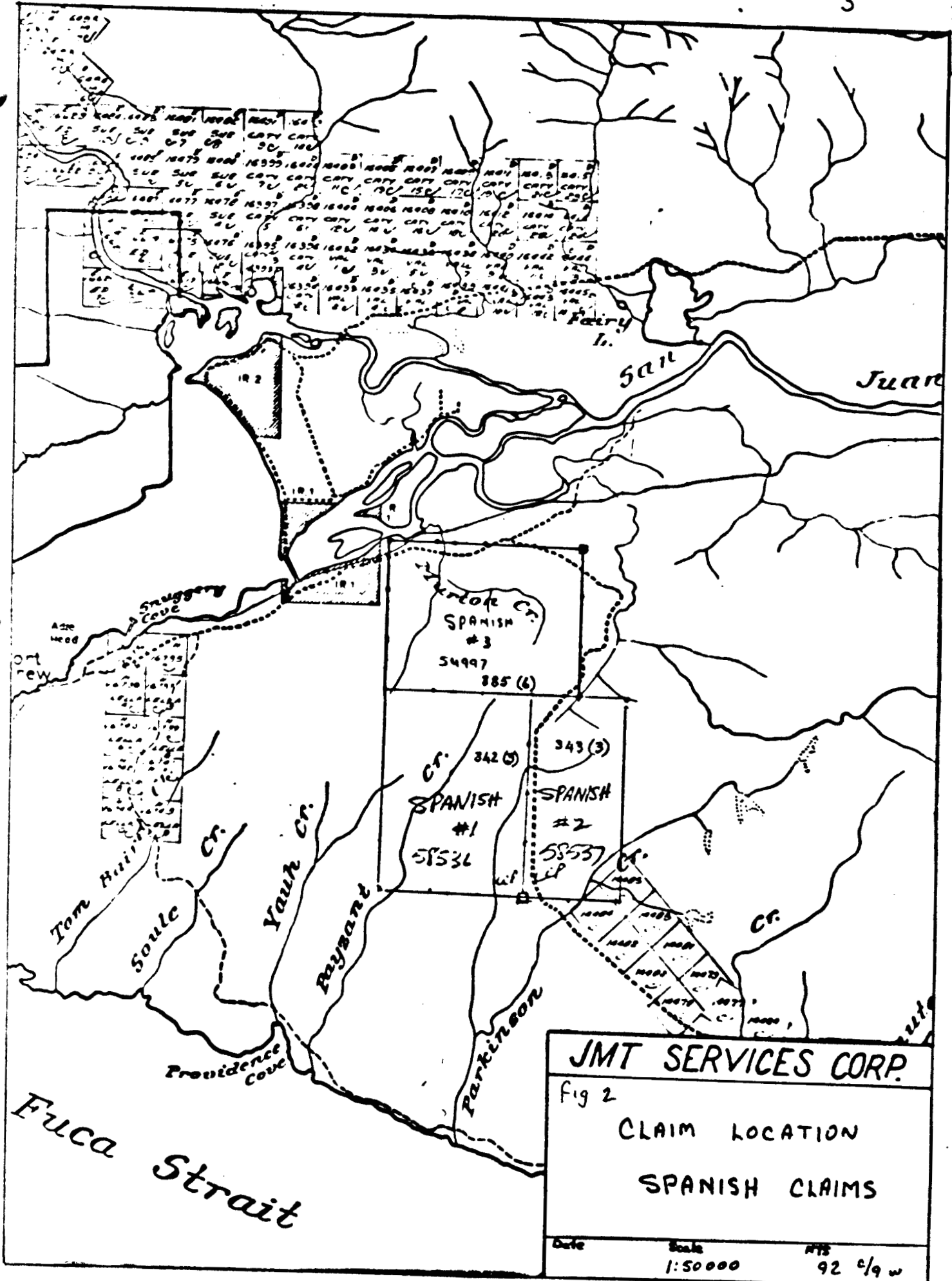
The SPANISH claims are listed as follows:

<u>NAME</u>	<u>RECORD NO.</u>	<u>UNITS</u>	<u>RECORD DATE</u>
SPANISH #1	342	12	March 13, 1980
SPANISH #2	343	8	March 13, 1980

The claims are recorded in the Victoria Mining Division.



<b>JMT SERVICES CORP.</b>			
Fig 1			
<b>PROPERTY LOCATION MAP</b>			
SCALE			
Mile 136		136 Mile	
Prepared by:	Date:	NTS MAP AREA	DRAWING No.
Drawn by:	Revised:		



**JMT SERVICES CORP.**  
 Fig 2  
 CLAIM LOCATION  
 SPANISH CLAIMS

Date \_\_\_\_\_ Scale 1:50000 RTS 92 c/q w

### TOPOGRAPHY AND VEGETATION

Topographic relief on the property ranges from approximately 500 feet (150 m), in the northwest corner to approximately 1500 feet (450 m) along the eastern margin of the claims. Slopes are generally moderate to gentle with some steep portions and local cliff development occurring in the area of the main road into Port Renfrew.

Vegetation originally included stands of douglas fir, hemlock and cedar but these have, for the most part, been harvested and these areas are now overgrown with immature trees of the same species, mixed with more mature stands of alder and maple. The logged areas are generally confined to valley floors and the northern slopes into the San Juan valley. The upland areas within the claims, where not previously logged, are covered with a mixture of mainly fir, cedar, hemlock, and some cyprus trees. A moderate to thick ground cover of salal, huckleberries and salmon berries is interspersed with a variety of ferns and punctuated in the wetter portion with devil's club.

### REGIONAL GEOLOGY

The regional geology has been compiled and mapped by Dr. J. E. Muller of the Geological Survey of Canada. It is published as open file 463 at a scale of 1:250,000. Dr. Muller shows the area of the SPANISH claims to be underlain by rocks of the Leech River formation. The geology, age and relationship of the Leech River Formation are poorly understood. An age between Jurassic and late Cretaceous is assigned to the formation with probable early Tertiary metamorphism having taken place.

The schistose rocks of the Leech River Formation are "an assemblage of metagreywacke, slaty argillite, and their metamorphic equivalents ranging from phyllite through quartz-biotite schists to paragneiss". Muller further describes the formation as consisting of "...shear folded greywacke and argillite, (whose) metamorphic grade increases from slate and phyllite in the north near San Juan fault to garnetiferous quartz-biotite schist in the south near Leech River fault...". Muller suggests that the Leech River Formation was originally deposited on the late Jurassic to early Cretaceous continental slope and the

adjacent trench.

#### GENERALIZED PROPERTY GEOLOGY

Detailed geology of the SPANISH 1 and 2 claims area has not yet been completed. The rocks however fit very well with Muller's regional description. The phylites and fine schistose rocks commonly exhibit lenticular pods of quartz ranging in size from a few millimeters to several centimeters thick within the foliation of the rocks.

Quartz veins have been locally introduced, as have occasional sills and dikes of felsic intrusive rocks. Total sulphide content is variable within the claim area in addition to variability of specific sulphide content. The interrelationships of these features, their limits and extent are not however understood completely enough at this time to permit any more than a brief acknowledgement of their presence.



## GEOCHEMISTRY

Following acquisition of the property, a series of soil samples silt samples and selected rock chips were collected on widely dispersed lines over the property to assess those local drainage basins contributing anomalous metal content. Samples were collected by geologists or geologically trained personnel, thereby affording maximum geological input at a very early stage of sample collection.

Approximately 40 soil, silt and rock chip samples were collected in this manner and analysed for one or several of gold, arsenic, silver and mercury.

Soil samples were collected from the "B" soil horizon or the best approximation available, usually at a depth of 10-25 cm soil pits were excavated with a hand pick and an appropriate sample collected using a stainless steel scoop or spoon. The sample was placed in a gusseted kraft paper bag and shipped to the assay lab.

Silt samples were collected from active silts, i.e. not dry or stranded silt, care was taken to collect from such locations as to avoid as far as possible silts contaminated from bank soils or road bed or otherwise artificially disturbed material.

The sample was collected from several places if possible, within the stream bed at each sample location. The sample was collected using a stainless steel scoop or spoon and transferred immediately to a gusseted kraft paper sample bag.

Rock chips samples were likewise placed in a kraft paper sample bag.

Field notes were made for each sample. Observations as to colour, granularity, moisture, and general nature of the soil; grain size, stream size and general nature of the stream bed, type of coarse float and any other relevant information about silts; rock type, structure, mineralization, alteration, and general hand specimen description, were appropriately noted for each sample collected.

Samples were shipped to Bondar Clegg and Company Limited, 130 Pemberton Avenue, North Vancouver, B.C. and to Vangeochem Labs Ltd., 1520 Pemberton Avenue, North Vancouver, B.C. for analysis.

Soil and silt samples were dried and sieved, with the -80 mesh fraction retained for analysis.

Rock samples were crushed and pulverized with an appropriate quantity of -80 mesh material retained for analysis.

The analytic procedure used for mercury was solution in controlled aqua regia and determination by closed cell atomic absorption. Results for mercury were reported in parts per billion (ppb). The analytic procedure for silver was extraction by perchloric-nitric acid and finish by standard atomic absorption techniques. A background correction was applied to all silver analyses.

#### GEOCHEMICAL DISCUSSION

##### MERCURY

Samples were analysed for mercury in the hope that it might prove to be a "pathfinder" element for gold.

Regionally, the samples ranged from 10 ppb to 340 ppb. Four samples were greater than 100 ppb, only 1 sample was greater than 300 ppb. The highest mercury value of 340 ppb is associated with an arsenic value greater than 1000 ppb and a gold value of less than 5 ppb. The sample was collected from a piece of rock float in the major creek draining the southwest portion of the SPANISH #2 claim. No particular significance is placed on any of the mercury values. There does not appear to be a correlation between gold and mercury values. Any rigid statistical interpretation based on such a small sample population is potentially deceiving and has not been attempted.

##### SILVER

Thirty-five samples were analysed for silver. The samples all returned values of .2 ppm except one which returned a value of .5 ppm. .2 ppm is approximately the lower detection limit for silver. It is concluded from the exceptionally flat analytical profile that silver is not a significant commodity or pathfinder element on the "SPANISH" property.

## ARSENIC

Arsenic has been shown to often be a "pathfinder" type element for gold. All samples collected on the "SPANISH" property were analysed for arsenic in the hope that such a condition might also prove to be the case.

The local analytic response for arsenic ranged from less than 2 ppm to greater than 1000 ppm. Excluding values of less than 2 ppm and the highest of greater than 1000 ppm, the samples give an arithmetical mean of 34 ppm and a standard deviation of 34 ppm. With such a small sample population, rigid application of statistical "rules" can lead to erroneous interpretation. In this case, experience would indicate that any sample greater than 50 ppm is likely anomalous and threshold is between 35 and 50 ppm.

Perusal of the values tends to confirm that indeed the vast majority, (84%), of arsenic values are less than 50 ppm.

It is therefore concluded that 50 ppm is a realistic anomalous threshold for arsenic in this instance.

## GOLD

Gold values ranged from none detected to values of 360 ppb. Past experience by the authors has led to the belief that values greater than 10 ppb in soils or silts may be of significance and that the erratic natural patterns of gold occurrences preclude the rigid application of statistical analytic methods for that element.

When plotted, there is a distinctive clustering of gold values in the basin draining the southwest side of the property. Clearly, the drainage and height of land across the north side of the SPANISH #1 and #2 claims is the obvious source area for the values currently derived.

Arsenic values tend to reflect the gold values on the plotted plan. In the northeast portion of the claims (north side of SPANISH #2) a single anomalous gold value is reflected by several anomalous arsenic values.

CONCLUSIONS & RECOMMENDATIONS

Anomalous gold and arsenic values exist in silts and rock float collected on widely spaced reconnaissance sampling over the SPANISH #1 and #2 claims. More sampling of available drainages combined with soil sampling and prospecting/geological mapping of the property is warranted to determine the source areas of the values encountered to date. Particular attention should be paid to the height of land and the drainage source area along the northern portion of the SPANISH #1 claim.

APPENDIX I

STATEMENT OF COSTS

LABOUR

W. A. Howell	- Feb 9,10,11, Apr 11, 1981	4 days @ \$175	\$ 700.00
G. Lauzon	- Feb 9,10,11,12/80	4 days @ \$100	400.00
K.W.Livingstone	- Mar 13, May 13/80	2 days @ \$175	350.00
Geochemical analyses			575.96
Air photos			51.48
Truck rental			280.00
Drafting & reproduction			40.28
Expenses - (K.W.L.)			235.20
Report			<u>750.00</u>
			<u>\$3,382.92</u>
	PAC withdrawal (K.W.L.)		<u>617.08</u>
	Total amount to be applied to claims		<u>\$4,000.00</u>

**STATEMENT OF QUALIFICATIONS**

I, **WILLIAM A. HOWELL**, do hereby certify that:

1. I am a professional geologist working in British Columbia and residing at 10611 Ainsworth Crescent, Richmond, B.C. V7A 3V5
2. I am a graduate of the University of British Columbia, Bachelor of Science (Geology) 1971
3. I have been employed in the mineral exploration industry since 1967 and have practiced my profession as a geologist since 1971.
4. I am a member of the Geological Association of Canada.
5. This report is based on my personal knowledge of the district and the mapping and sampling done on the property.



**William A. Howell**

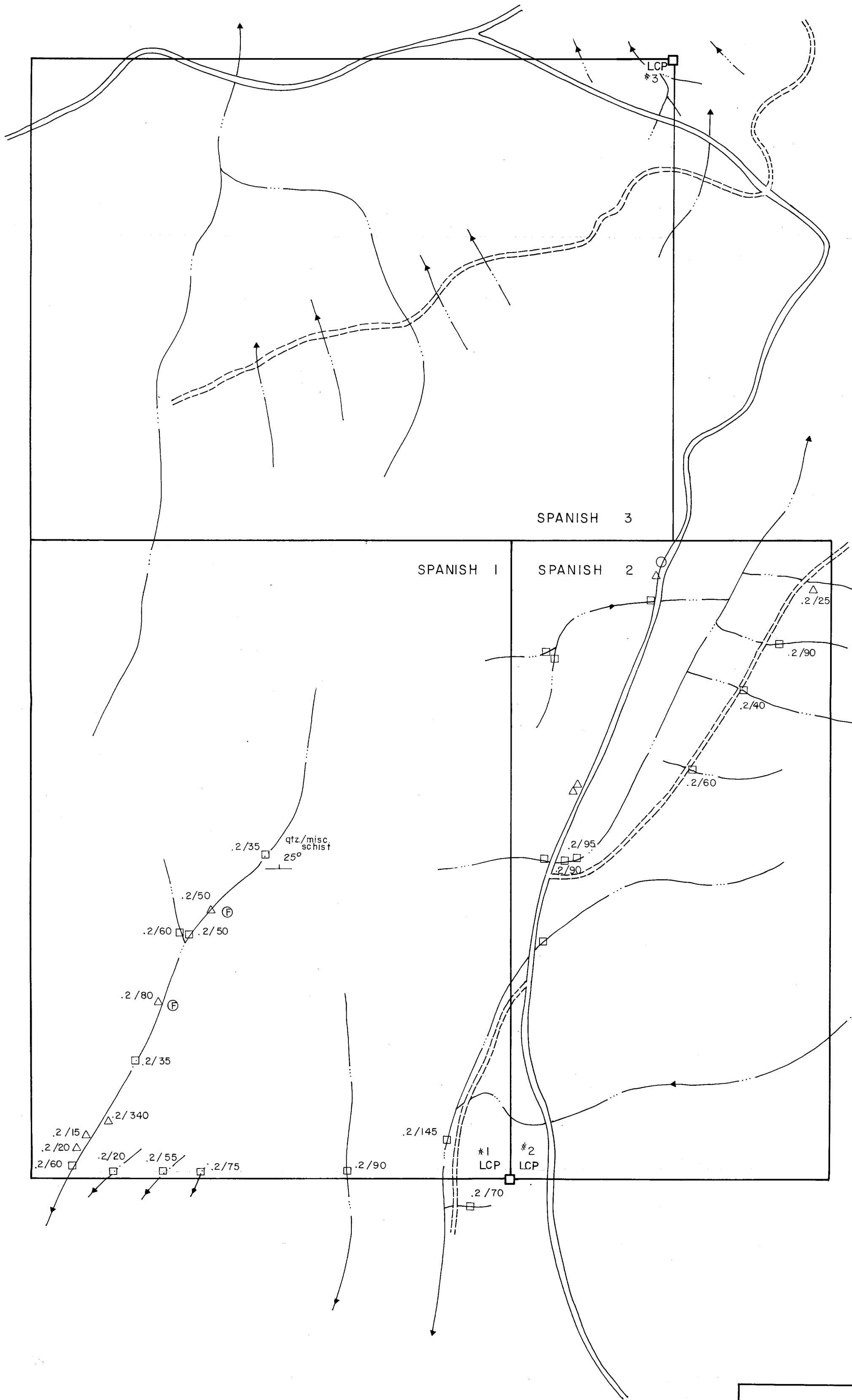
STATEMENT OF QUALIFICATIONS

I, K. WAYNE LIVINGSTONE of Vancouver, British Columbia do hereby certify that,

1. I am a Professional Geologist, working in British Columbia and residing at 6775 West Blvd. Vancouver, B.C.
2. I am a graduate of CARLETON UNIVERSITY, Ottawa, Ontario with BSc honours geology 1966.
3. I am a graduate of the UNIVERSITY OF BRITISH COLUMBIA with MSc geology 1968.
4. I have practiced my profession as a mining exploration geologist since 1965.
5. I am a Member of the Geological Association of Canada.
6. I am a Member of the CIMM.
7. This report is based on personal knowledge of the geology and mineral potential of the claim area.

  
.....  
K. WAYNE LIVINGSTONE, MSc.





- LEGEND
- Silt sample
  - △ Rock sample
  - Soil sample
  - 2/90 Ag / Hg ppm / ppm
  - ⊕ Float
  - \*\* Ag background corrected

MINERAL RESOURCES BRANCH  
**9206**  
 NO.

**PART  
 1 of 2**

*W.P. Powell*

JMT SERVICES CORP

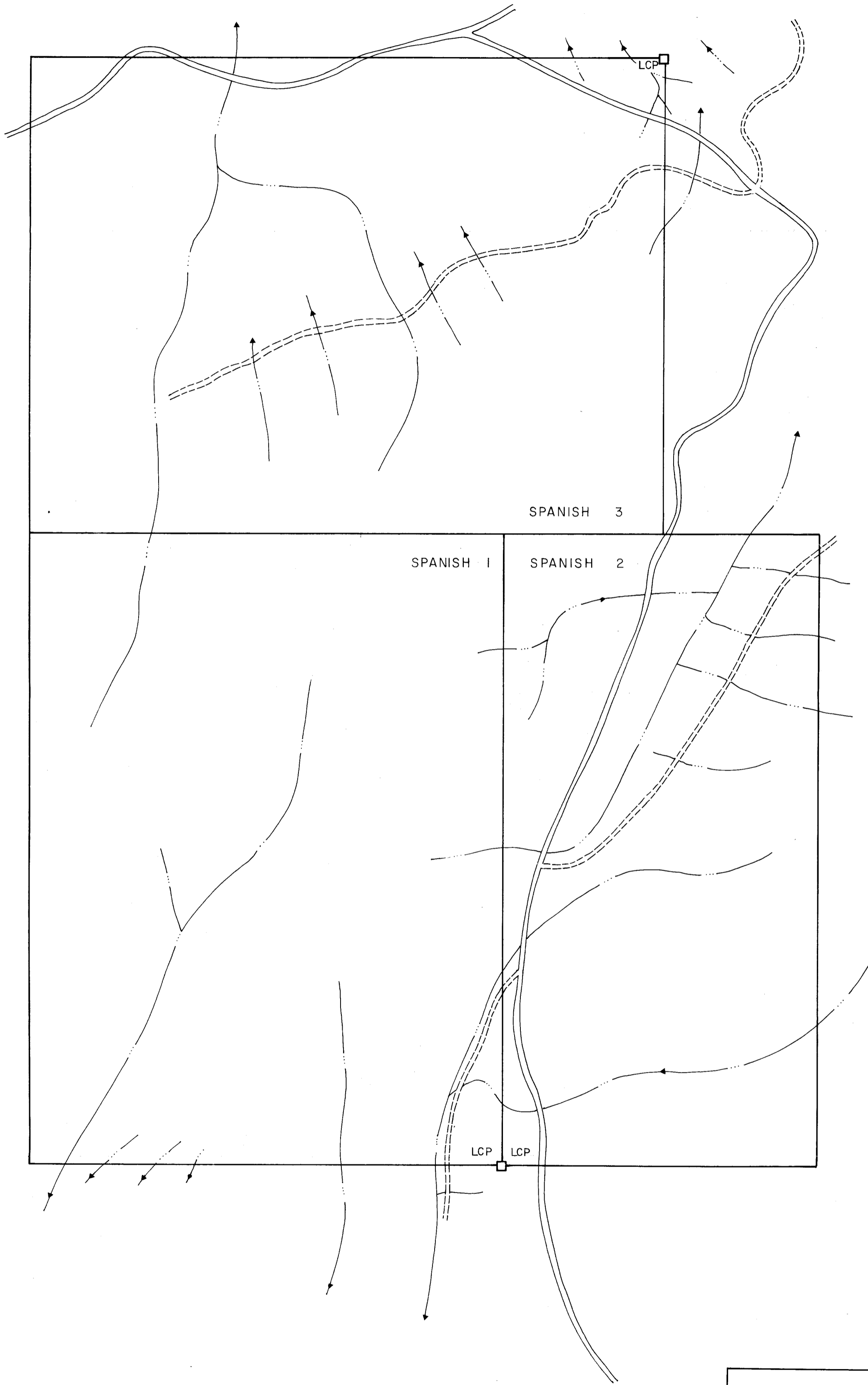
**SPANISH CLAIMS**

NTS 92 C/9  
 1 : 10 000

0 100 200 300 400 500  
 METERS

SILVER & MERCURY GEOCHEMISTRY  
 ON SPANISH #1 & #2 CLAIMS

FIG. 5



MINERAL RIGHTS CLAIM  
 NO. 9206  
 PART  
 1 of 2

J M T SERVICES CORP.

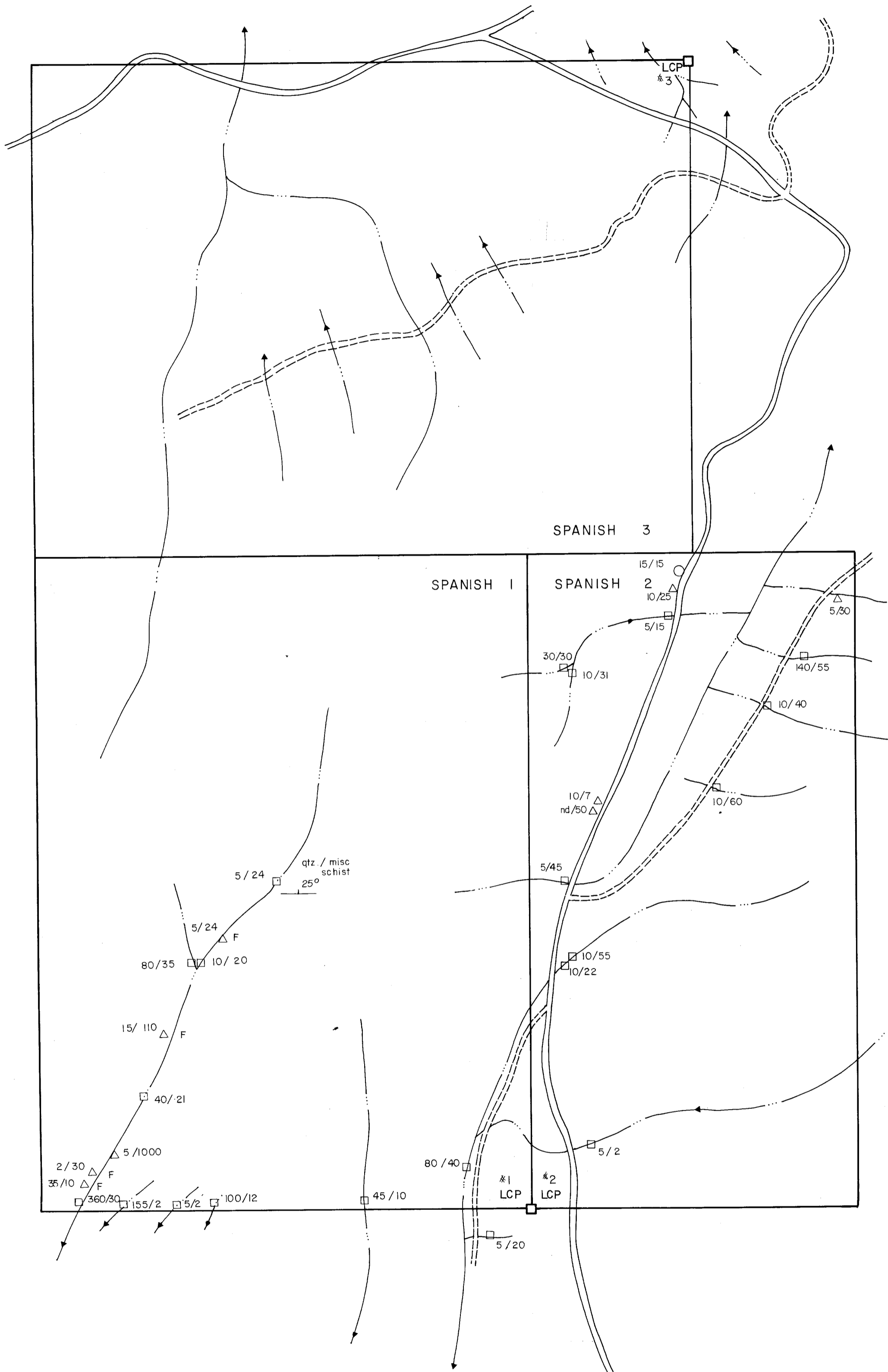
SPANISH CLAIMS

NTS 92 C / 9

0 100 200 300 400 500  
 METERS

FIG. 3

*W.P. Howell*



- LEGEND
- Silt sample
  - △ Rock sample
  - Soil sample
  - Au / As  
ppb / ppm
  - ⊕ Float

MINERAL RESOURCE CLAIM  
 9206  
 NO.  
 PART  
 1 of 2

*WA Powell*

JMT SERVICES CORP.

SPANISH CLAIMS

NTS 92 C/9

1:10 000

0 100 200 300 400 500  
METERS

GOLD & ARSENIC GEOCHEMISTRY  
 ON SPANISH #1 & #2 CLAIMS

FIG. 4