

GEOCHEMICAL REPORT ON THE
SPANISH GROUP OF
MINERAL CLAIMS

SPANISH #1 RECORD #342
SPANISH #2 RECORD #343

VICTORIA MINING DIVISION

LATITUDE 48°32.5' N LONGITUDE ^{124'}122° 22'W

92 c / 9 w

OWNER K. W. Livingstone
OPERATOR GEO-EX RESOURCES LTD.
CONTRACTOR JMT SERVICES CORP.
WRITTEN BY W. A. HOWELL

June 17, 1983

GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,322

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INTRODUCTION

HISTORY

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. Limited reconnaissance sampling on the claims has shown geochemically anomalous gold values to be present. A total of 64 soil, 5 silt and 20 rock chip samples were collected during the course of the 1983 programme.

LOCATION AND ACCESS

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

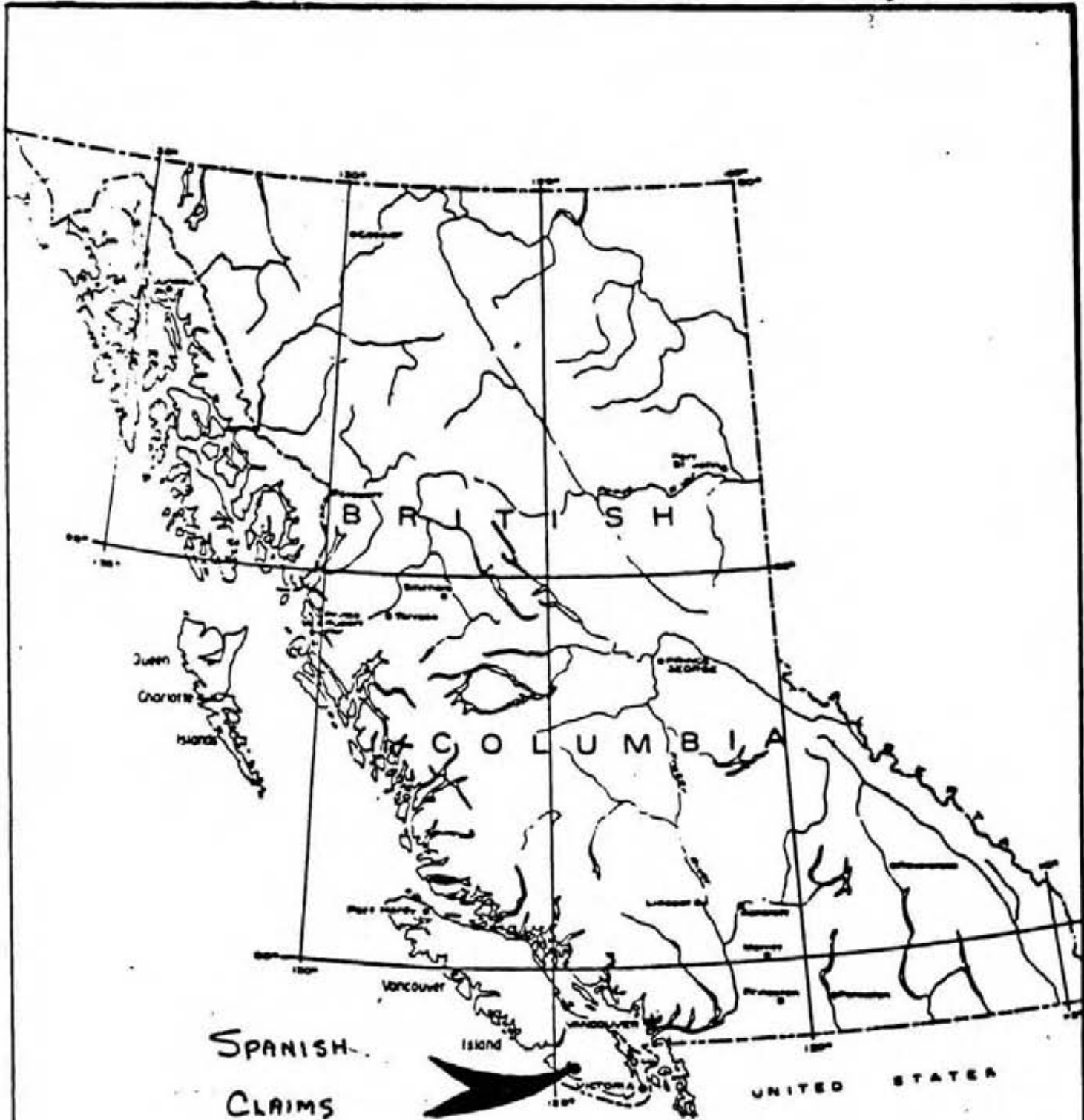
Access to the property is from the road to Port Renfrew via Sooke and Jordan River which cuts through the property. Several old overgrown roads provide limited foot access into the property. Access to the central and western portion of the property is more difficult but not onerous. Trails do not exist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

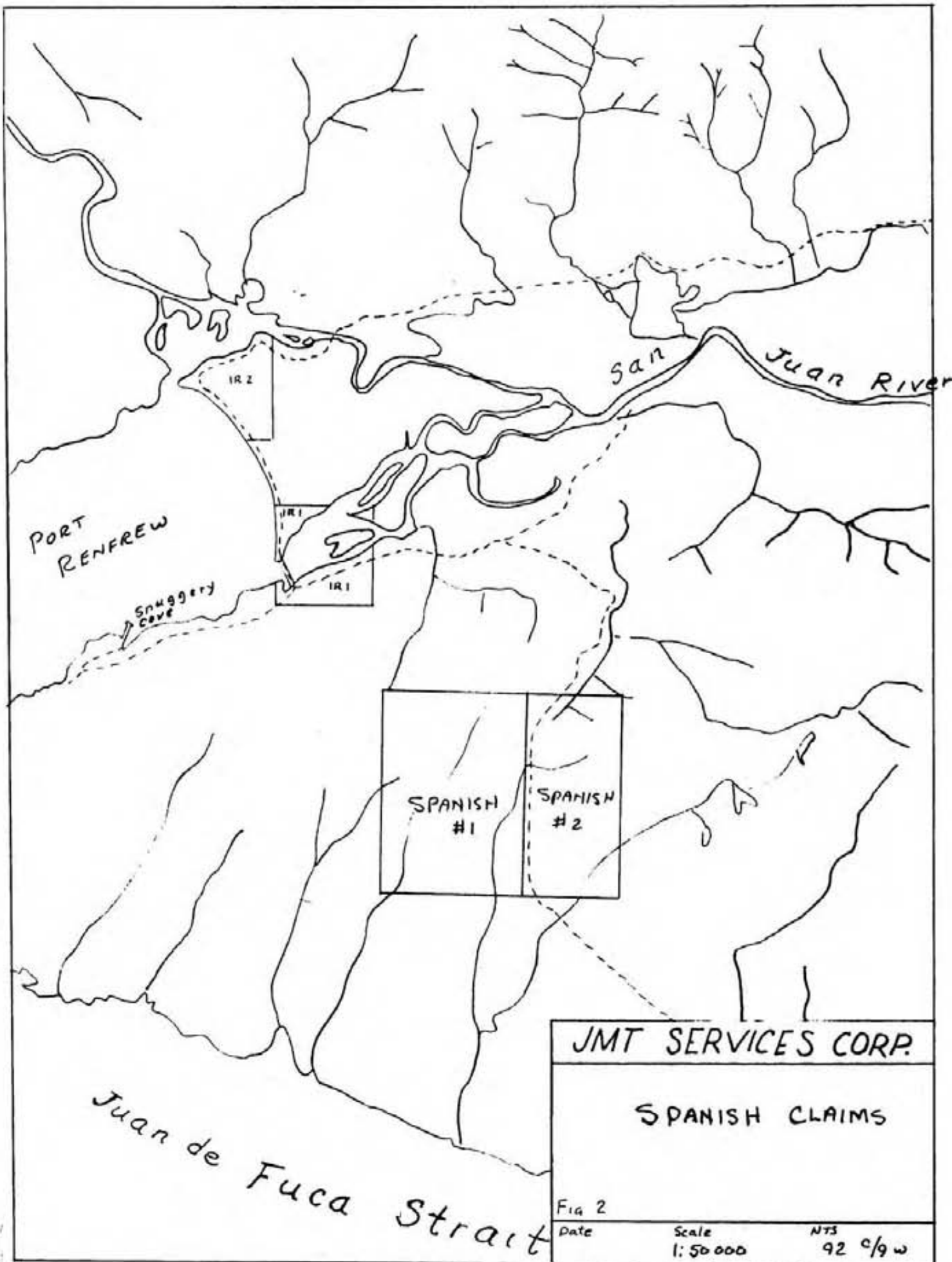
MINERAL CLAIMS

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.





JMT SERVICES CORP.		
SPANISH CLAIMS		
Fig 2	Scale	NTS
Date	1:50000	92 c/w

TOPOGRAPHY AND VEGETATION

Topographic relief on the property ranges from approximately 500 feet (150m), in the northwest corner to approximately 1500 feet (450m) 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 ferns and salal is punctuated in the wetter portions with devil's club.

GEOLOGY

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 SPANICH 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 continual 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 dykes 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

A small programme was designed to further investigate a source of anomalous gold geochemistry suggested by previous work. Two lines of reconnaissance sampling were completed in addition to two grid lines of soil samples. A total of 64 soil, 5 silt and 20 rock chip samples were collected by 4 geologists. The samples were analysed for arsenic and gold.

Soil samples were collected from the "B" soil horizon or the best approximation available, usually at a depth of 10-24 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 and to avoid

as far as possible silts contaminated from bank soils 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 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 analysed for arsenic and gold by Chemex Labs, 212 Brooksbank Avenue, North Vancouver, B.C.

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.

Arsenic determinations were made using a perchloric/nitric acid digestion followed by a standard atomic absorption hydride finish.

Gold was subjected to a fire assay preconcentration followed by neutron activation analysis.

The results with the appropriate sample numbers are presented in map form on Figure 3, appended to this report.

DISCUSSION

GOLD - Gold values ranged from less than 1 ppb to 289 ppb. The threshold anomalous value for gold has been taken at 10 ppb. Of a total of 89 samples 21 were threshold value or greater. Sample distribution over the property is not complete enough to allow meaningful contouring of the data. To date however most of the anomalous samples have been found in the south and south central portion of the claim block.

This may be a function of sample distribution as data is not yet available from other parts of the property.

ARSENIC - Arsenic values ranged from lows of 1 ppm to highs of >1000 ppm. Threshold anomalous As has been considered as 50 ppm. However, values of 30 ppm have proven important indications of mineralization elsewhere. Distribution of anomalous As is more erratic than for Au, however a clustering of high values appears to occur in the southwestern portion of the claim block, sample distribution is not yet sufficient to enable meaningful contouring of the data.

The gold/arsenic correlation is not a linear function. Experience elsewhere has shown this to be a common phenomenon, with mineral zoning of arsenic on a larger scale than for gold. This is supported by the reconnaissance line of samples R27 to R37 which shows several samples anomalous for As but not responsive for Au.

Sampling conditions are locally variable with the presence of a medium to dark grey, pebble clay till noted in several soil holes. The extent and thickness of this till is not known. It was not observed extensively but would probably form an effective geochemical mask to underlying bedrock where it does occur.

CONCLUSIONS AND RECOMMENDATIONS

The present sampling has confirmed the presence of the original gold anomalous area in the central to south central portion of the Spanish claims. Sample distribution and density does not allow meaningful limits to be put on the size of the anomaly but anomalous gold or gold/arsenic has been detected over a region in excess of 750m in length with the possibility of a similar anomalous width suggested.

Further sampling is required. An initial programme of geochemical sampling and mapping on 5 lines 200m apart with samples collected every 50 meters is recommended. The implementation of this programme would be greatly facilitated by the presence of a cut out base line roughly central to the proposed grid area. Concurrent rock sampling

and geological/prospecting mapping can be carried out.

Such a programme should show much more clearly the distribution of anomalous mineralization. Anomalous areas can then be selected for more detailed coverage and definition of potential drill targets can be considered at that time.

Respectfully submitted

A handwritten signature in black ink, appearing to read "W. A. Howell". The signature is written in a cursive style with a prominent vertical stroke on the right side.

W. A. Howell
Geologist

June 17, 1983

STATEMENT OF COSTS

TIME

M. Carr	Mar 10,11,12	3 days @ \$250	\$ 750.00
W. Howell	Mar 10,11,12	3 days @ \$250	750.00
G. Richards	Mar 10,11,12	3 days @ \$250	750.00
W. Livingstone	Mar 10,11,12,13,14	5 days @ \$250	1,250.00
Truck rental	3 days @ \$60.		180.00

DISBURSEMENTS

Ferry	\$53.10	
Gas	56.54	
Motel	67.18	
Meals & Food	61.01	
Supplies consumed (bags, flagging, etc.)	<u>77.00</u>	
	\$314.83	314.83
K.W.Livingstone, expenses		210.00
Geochem		997.32
Report, writing, typing, reproduction		<u>2,000.00</u>
		<u>7,202.15</u>

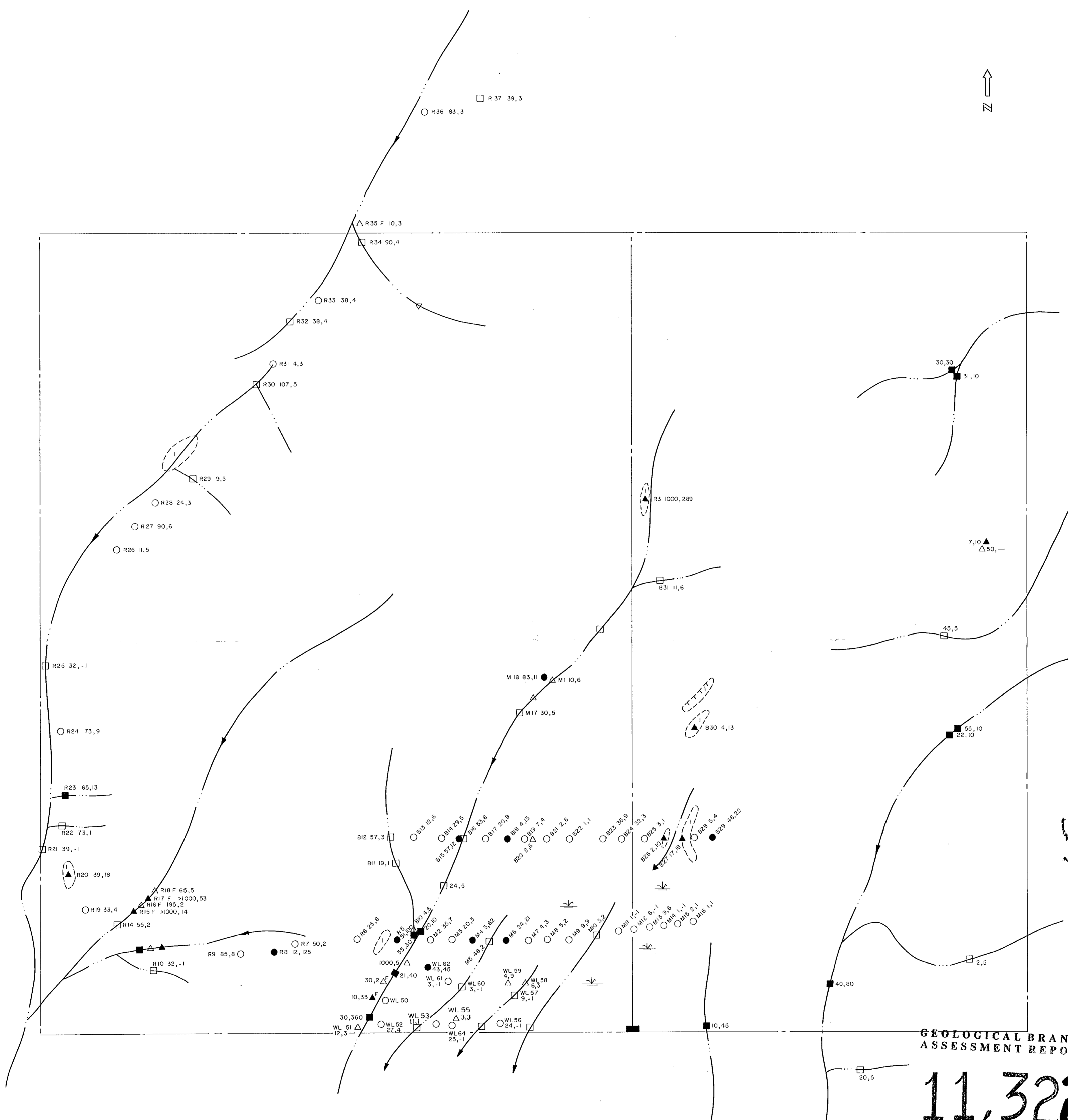
STATEMENT OF QUALIFICATIONS

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.



W. A. Howell, B.Sc.



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LEGEND

- CREEK
- ROCK OUTCROP AREA
- GREY PHYLITIC QTZ. MICA SCHISTS
- TAN FELSITIC DYKES
- SOIL SAMPLE SITE
- SILT SAMPLE SITE
- ROCK CHIP SAMPLE SITE
- 1983 SAMPLE NO. GEOCHEMICAL VALUE - As (ppm), Au (ppb)
- GEOCHEMICAL VALUE FROM PREVIOUS SURVEYS - As (ppm), Au (ppb)
- FLOAT
- SAMPLE VALUE > 9 ppb Au

JMT SERVICES CORP.

SPANISH CLAIMS
N.T.S. 92 C/9
As, Au GEOCHEMISTRY & GEOLOGY

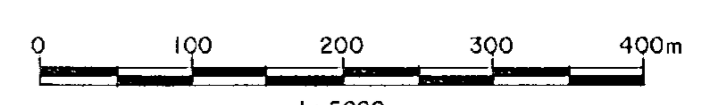


Fig 3