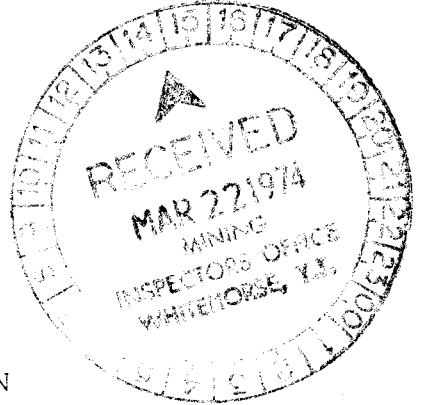
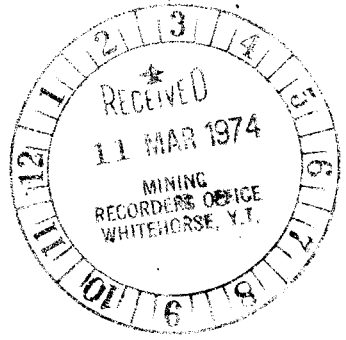


A GEOLOGICAL REPORT ON THE
LISA CLAIMS
WHITEHORSE MINING DISTRICT
YUKON TERRITORY
LATITUDE 62°22'N , LONGITUDE 132°51'N



for

RIDGEMONT MINING CORPORATION

by:

P. F. Lewis, B.Sc.

and

J. G. Simpson, Ph. D., P. Eng.

October 1973

This report has been examined by the
Geological Department and is recom-
mended for publication. The cost of
printing is \$3152.15.

D. B. Craig
Director of
Geology

Considered as a contribution work under
Section 53 (4) Yukon Quartz Mining Act.

[Signature]
Commissioner of Yukon Territory

CONTENTS

	PAGE
INTRODUCTION	1
LOCATION AND ACCESS	1
CLAIMS	1
PREVIOUS WORK	1
PHYSIOGRAPHY AND VEGETATION	3
REGIONAL GEOLOGY	3
DETAILED GEOLOGY	4
Stratigraphy	4
Structure	7
Metamorphism	9
Mineralization	9
CONCLUSIONS	9
RECOMMENDATIONS	10
APPENDICES	
(i) Personnel	
(ii) Statement of Expenses & Invoices	
(iii) References	
FIGURES	
1) Location Map	
MAPS	
L73-1 - Claims	1" = 1,000' in pocket
L73-2 - Geology	1" = 1,000' in pocket

INTRODUCTION

This report deals with a geological survey conducted on the Lisa claims, owned by Ridgemont Mining Corporation. The survey was conducted between August 24th, and September 7th, 1973.

LOCATION AND ACCESS

The Lisa claim block is located 16 miles east of the Anvil Mine, or approx. 18 miles northeast of the town of Faro, within the Whitehorse Mining District on claim sheet 105 K-7. Its latitude is $62^{\circ}22'N$ and longitude, $132^{\circ}50'W$.

The Property is accessible by helicopter from Ross River, or by tracked vehicle from the Robert Campbell Highway via Blind Creek. In addition, there is an airstrip near the Property suitable for light planes.

CLAIMS

The Property consists of 28 full-sized mineral claims duly recorded with the Mining Recorder in Whitehorse. The claims are listed below:-

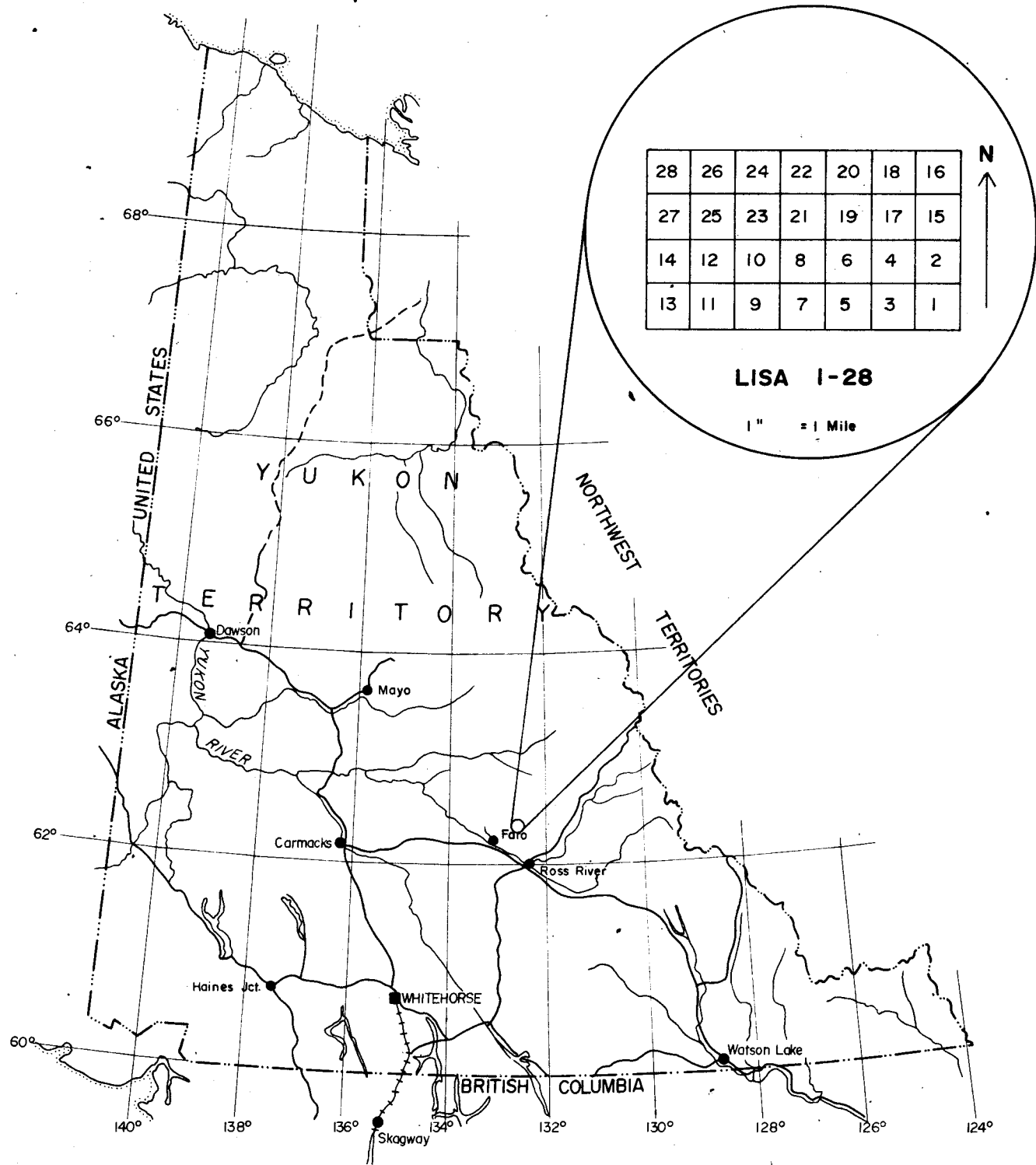
Claim Name	Record Number	Recording Date	Expiry Date
List 1 -28	Y75073-Y75100	March 8, 1973	March 8, 1974

PREVIOUS WORK

The Property was first staked in November 1965 as the ACE group, following an aeromagnetic survey conducted by Dynasty Explorations Ltd. Ground follow-up in 1966 included magnetic and electromagnetic surveys and soil sampling. The initial aeromagnetic anomaly was five miles long and 2000 feet wide and the ground magnetic anomaly was three miles long, 1000 to 3000 feet wide and open at each end. Its trend was east-west, parallel to the lithological trend. Immediately to the north, and only partially coincident, an electromagnetic anomaly of similar dimensions was outlined.

The Property was transferred to Anvil Mining Corp. Ltd. following the proving of the Faro orebody, and in the summer of 1966 four diamond holes were drilled for a total of 1966 feet. The first hole tested one of the most conductive zones in the E. M. anomaly and intersected graphitic phyllite. The second and fourth holes tested isolated magnetic features within the E. M. anomaly and intersected graphitic phyllite with disseminated pyrrhotite, and traces of galena, sphalerite and chalcopyrite at 400 feet in the latter. The third hole tested the centre of the main magnetic anomaly and found pyrrhotite and phyllite.

The geochemical survey yielded spotty copper soil anomalies, the best of which was located near an 80 gamma aeromagnetic anomaly and near chalcopyrite-bearing float in the creek bed. Ground magnetic and I. P. follow-up of this anomaly were conducted, defining three anomalous I. P. zones, two of which were also good conductors. These two were drilled in 1967, intersecting graphitic phyllites and schists.



RIDGEMONT MINING CORPORATION

LISA CLAIMS

PROPERTY LOCATION MAP

YUKON
SCALE: 1" = 100 MILES

In October 1971, the Property was restaked as the Mag claims by Spartan Explorations in a joint venture with Preussag A.G. Metall. Work in 1971 included geological, ground magnetometer, geochemical and induced polarization surveys, concentrated on an area to the southeast of previous work. Geochemical response was again spotty, and the area was flat magnetically. A strongly anomalous I. P. zone was outlined coincident with chalcopyrite occurrences in schists in the canyon. This zone was apparently not drilled and the property was dropped in 1972.

PHYSIOGRAPHY AND VEGETATION

The Property straddles the creek known as Ace High Creek. At the west end of the claim block this creek meanders in from a broad swampy valley with forested sides. The creek quickly becomes rejuvenated in a canyon which, at the east end of the block, has developed into a V-shaped valley cut 500 feet into the pre-existing plateau. The area covered by the claims is thickly wooded with small spruce. The tree-line is at about 5000 feet, giving way to rugged, grassy hilltops.

REGIONAL GEOLOGY

This area has been mapped by the Geological Survey of Canada on scales of one inch to four miles, (Map 13-1961) and one inch to two miles (Bull. 208, 1972). In the latter report the property is described as underlain by "medium greenish-grey, lustrous, chlorite-muscovite-quartz-phyllite, locally graphitic or calcareous, grading to and including staurolite-garnet-biotite-muscovite-schist, locally with fine-grained foliated amphibolite, thinly laminated biotite-garnet-diopside-quartz-skarn and light grey coarsely crystalline marble of Cambrian? and Ordovician? age". Foliation attitudes in the area vary from northwesterly through east-west to northeasterly with dips of 40°-60° north. To the south the foliation becomes shallower (10°).

To the north the phyllites are said to be unconformably overlain by "Upper Devonian and Mississippian" grey slate, chert greywacke, chert-pebble conglomerate and limestone, and by "Devonian and/or Silurian" light grey, medium bedded, medium-grained ortho-quartzite. The latter is said to be overlain by Middle Devonian medium grey, thin bedded, fetid crinoidal limestone and dolomite, by the "Upper Devonian and Mississippian" rocks, and by "massive green basalt, commonly amygdaloidal, including common pyroclastic and less common pillowed varieties" of "Upper Pennsylvanian and Permian" age, though only the latter unit is shown in contact with the quartzites on the accompanying map. Five miles to the northwest the quartzite is indicated to unconformably overly Upper Ordovician to Lower Silurian graptolitic shales. The volcanic rocks are shown in contact with "Upper Devonian to Mississippian" rocks in three localities, two of which are represented as unconformities. The age of the volcanic rocks is deduced by lithological correlation with supposedly similar volcanics about twenty miles to the west of the property, which overly fusillinid-bearing limestone. Immediately northwest of the present map area, the volcanics are said to unconformably overly the phyllites and the "Upper Devonian and Mississippian" rocks.

In the southwest corner of the mapped area the granitic Anvil Batholith intrudes the schists. The batholith trends northwesterly defining the axis of the Anvil Arch in the host metamorphic rocks. The southwest limb of this arch contains the Faro, Vangorda and Swim deposits. The Blind Creek Fault borders the map area to the southeast and is apparently associated with a deflection of the strike of the metamorphic rocks from northwest to westerly on its northwestern side. A major north-trending fault zone appears to truncate lithological trends on the east side of the map area.

DETAILED GEOLOGY

Stratigraphy

Stratigraphic analysis within the mapped area is greatly hampered by deformation and lack of critical contact outcrops. A more realistic tool is probably structural superposition - the structural succession is as follows:-

	Unit 14:	Granitic intrusive (Anvil Batholith and dykes)
Top:-	Unit 13:	Limy siltstones and greywackes
	Unit 12:	Limestones (Devonian fossils)
	Unit 11:	Impure tuffaceous? cherts
	Unit 10:	Orthoquartzite
	Unit 9:	Fragmental volcanics
	Unit 8:	Pillowed volcanics
	Unit 7:	Metatuffs?
	Unit 3:	Dark grey chlorite? -sericite phyllite
	Unit 2:	Limy phyllites with lenses and bands of:
	6:	Marble and phyllitic marble
	5:	Metavolcanic rocks
	4:	Graphitic phyllite
	Unit 4:	Graphitic phyllite
	Unit 3:	Phyllites & fine schists with lenses and bands of 4 and 2
	Unit 2:	Calcsilicate gneiss and limy phyllite and schist, interlayered with 3 and 1
Bottom	Unit 1:	Coarse schist

Units 1 to 4 form a conformable sequence dipping north and trending approximately east-west, that sub-outcrops over the southern two-thirds of the map area. The sequence has gradational internal contacts and much interfingering of units, and hence mapped boundaries are somewhat stylized. The dominant rock type is a coarse-grained biotite-muscovite schist with variable amounts of garnet and staurolite. Where this rock is especially quartzose it can be described as a quartz-mica gneiss (Unit 1a), often showing lithon structures. Locally the schist has been heavily quartz-veined along an early fabric and subsequent isoclinal folding and re-crystallization of this veined rock have given rise to a bull-quartz-mica-gneiss (Unit 1b).

Calcsilicate gneiss and limy phyllite (Unit 2) occur as thin bands up to a few feet in thickness interlayered with schist and phyllite. Metamorphic grade in this unit seems to decrease from west to east. Off the map

area to the west, the rocks are true diopside-tremolite-calcite-quartz gneisses, whereas exposures in the Ace High Creek canyon are generally of limy phyllite.

Structurally overlying the limy units are varieties of phyllite (Unit 3). The dominant rock type is a chlorite-sericite quartz phyllite grading to a fine biotite-muscovite-quartz schist. Minor pyrrhotite gives a strong ground and airborne magnetic response. Minor limy horizons occur in this unit. A blocky weathering quartzose phyllite with very regular fabric (Unit 3a) occurs in the structurally lower part of the unit associated with bands of unit 2. Two other varieties of fine schist are found, one as above but with large andalusite porphyroblasts (this unit is much better developed along strike to the west); the other showing inch scale bedding with alternate garnet rich and mica rich beds, and some graded bedding in float samples.

Graphitic phyllite (Unit 4) overlies unit 3 conformably, and has a strong ground and airborne electromagnetic expression, thus being a good regional marker horizon. To the west this expression indicates a narrow but continuous band of graphitic phyllite, but on the property this narrow band widens into a diffuse area of high E. M. response, indicating that graphitic phyllite and/or slate may underly an extensive area of the northern part of the map-area. The interpretation of this narrowing of the unit to the west is that the narrow band represents a remnant of a greater thickness that has been removed by fault movement conformable to the sequence. The remnant graphitic phyllite was a lubricant to this movement which is, in effect, a decollement near the base of the unit. In support of this proposed fault, the units and structural trends in the northwest corner of the map-area strike into and are truncated at the northern boundary of the graphitic unit.

The above northwestern block consists of a possibly conformable sequence dipping, on average, shallowly south to east. The sequence consists of Unit 2b, limy phyllite, with lenses and bands of units 5 and 6, metavolcanic rocks and marble, overlain by a metavolcanic sequence composed of tuffs pillowed andesites, and andesitic to dacitic volcanic breccia and tuff (Units 7, 8, 9 and 7 respectively). The metavolcanic rocks may in turn be conformably overlain by an orthoquartzite, unit 10. Outcrops in this block are sparse, however, and there may be some fault complication of the above picture.

The limy phyllite in this block may not be a stratigraphic correlate of the limy phyllite in the Ace High Creek canyon as the latter lacks greenstone lenses. However, in view of possible movement along the graphitic remnant, the two limy phyllites may be correlatable, and the volcanic addition may be due to the onset of a volcanic facies along strike. The greenstone lenses (Unit 5) in the phyllite are massive to foliated rocks of intermediate composition without relic primary features, which may indicate that the rocks were originally tuffs. The limy lenses and bands (Unit 6) have been thoroughly recrystallized to a grey to brown marble with silicate stringers parallel to the phyllite foliation.

There may be a structural discontinuity between the above phyllite and the overlying volcanic assemblage (Units 7-9 inc.) as is suggested by truncation of units and deformational differences seen outside the map-area. Massive to foliated greenstones (Unit 7), similar to those of unit 5, are thought to be meta-tuffs and may form the base of this pile. Overlying them are weakly foliated to undeformed andesitic (to basaltic andesitic?) pillow lavas (and minor flows?) of Unit 8 which are in turn overlain by foliated andesitic (to dacitic?) fragmental volcanics (Unit 9) which are thought to be pillow breccias. These rocks have pale green, flattened (e.g. 1" x 3" x 3"), angular fragments, sometimes bearing elongate vesicles, in a dark green highly chloritic matrix.

Possibly overlying the above metavolcanics is a light grey granular orthoquartzite. This rock is massive to very weakly bedded, of a very regular grain-size (~ 0.5 mm), and very pure implying either a very mature sedimentary origin or, since some grains have a very fresh appearance, an immature sediment derived from a very pure source. No contact outcrops are seen and the rock bears no lithological similarity to any other rock type in the map area (however, see unit II below) and thus the contact with the metavolcanics may be conformable, unconformable or faulted. Possible bedding measurements may indicate that it conformably overlies the metavolcanics, however, outside the map-area it is seen to be conformably interbedded with a band of graptolitic graphitic metasediments within the metavolcanic piles, although here again faulting may have complicated the picture.

Cherty rocks (Unit II) outcropping in the northeast corner of the map area are described at this point because their highly silicic nature may bear some connection with Unit 10, and some possible silic volcanic admixture may suggest a connection with units 7 to 9. The rocks are poorly bedded sometimes with very thin dark slaty partings; they are dark coloured on fresh surface, possibly graphitic and usually have a distinct sparkle due to fine crystallinity. Whether this is due to a crystalline tuffaceous impurity or to metamorphic recrystallization of the rock is unknown. A horizon of light coloured aplitic textured, highly silicic rock with discontinuous fine banding (Unit IIb) is interpreted to be a welded silicic tuff.

Overlying the orthoquartzite in the northern part of the map-area is a massive grey fossiliferous limestone (Unit I2) which bears two-hole crinoid ossicles diagnostic of the Devonian (G. S. C. Bull. 208, 1972). Contact relationships are again not exposed, but the above apparent Ordovician-Silurian age for the quartzite may suggest at least a disconformity. Structurally above the bioclastic limestone is a buff weathering thin bedded (2-6"), silty limestone or dolomite which may be a correlative of unit 13a below. Overlying this with apparent angular disconformity is a black, graphitic, siltstone-shale sequence (Unit 13b) showing graded (right way up) bedding. The sequence is metamorphosed to an impure quartzite-slate alternation, each graded unit being in the order of 1 to 2 feet thick with the grading outlined by cleavage refraction.

The hills to the east of these exposures show a structurally chaotic pile of buff finely banded or bedded siltstones, in part limy especially to the south.

Cutting the thick pile of schists in the southwest corner of the mapped area is the Anvil Batholith - a medium grained pluton of probable quartz-monzonitic to granodioritic composition. Minor altered dyke material of probably similar parenthood occurs in the schists.

Structure

As stated above, the gross structure of the southern two-thirds of the mapped area is simple;- Units 1 to 4 represent a conformable pile of metasedimentary rocks dipping to the north and intruded in the southwest by a granitic pluton that may or may not have been involved in deformations that affected the host rocks. In detail, however, the structure is extremely complex, with fine scale interbanding and interfingering of units, and a variety of small scale structures indicative of intense and repeated internal, and hence probably regional, deformations.

The thick pile of schists, Unit 1, show three metamorphic fabrics, designated S_1 , S_2 , and S_4 . These fabrics are correlatable with those described along strike to the west (Lewis and Simpson, 1973). The fabric S_1 is only seen in especially quartzose, gneissose, and/or quartz-veined, schists (Units 1a, 1b and 1 in part) where it is an isoclinally folded micaceous schistosity in between similarly deformed quartzose layers. The fabric S_2 is axial planar to the above isoclines and is again a schistosity in coarse micas. In the bulk of the schists, S_2 is the only fabric and is pervasive, dipping variably to the north. The presence of isolated lithon structures in S_1 show that where pervasive, S_2 has resulted from complete recrystallization of an earlier schistosity. Minor folds in S_2 , rarely seen to be refolding the isoclines in S_1 , have a consistent 'S' symmetry, shallow eastward plunge and southerly dipping axial plane outlined by a non-pervasive, broad crenulation foliation, S_4 . The two generations of folds are thus easily distinguishable by style, symmetry and dip of axial plane. The fold axial plunges and "deformations" responsible for each fold generation are designated F_1 , F_2 , F_4 , and D_1 , D_2 , D_4 respectively.

In addition, the attitudes of S_2 , S_4 , F_2 , and F_4 are modified about an axis plunging shallow ($10-20^\circ$) northeasterly, designated F_5 , as deduced by stereographic analysis of S_2 attitudes. S_2 is folded into a gentle to open synform with a $1/2$ wave length of about five miles. The axis trends parallel to a major fault set in the map area and parallel to the Blind Creek Fault. Hence, the fold and faults may be genetically related. Northerly and northwesterly trending D_4 generation folds, recognized along strike to the west (Lewis & Simpson, 1973), are not well developed in the map area.

The three fabrics S_1 , S_2 and S_4 are recognizable at the head of the Ace High Creek canyon. About 3,000 feet downstream from the head of the canyon proper, S_2 becomes a non-pervasive crenulation foliation, then quickly becomes wider spaced until it is apparently absent. The dominant foliation is the S_1 , which is crenulated in the F_2 direction. About 6,000 feet

down the canyon, bedding designated S_0 is recognizable in the schists. In the following exposures, features such as quartz rodding and lack of bedding suggest that S_2 is the dominant foliation, then as the canyon turns northwesterly beddings-schistosity (S_1) relationships are seen again. Throughout the section the attitude of the dominant foliation is relatively constant. This might suggest that the schistosity in the bedded rocks is really S_2 , that with the 'earlier' schists during D_2 fold generation, and that they were deposited after the formation of S_1 in the 'earlier' schists. Against this it can be noted that S_2 appears to be dying out as the bedded rocks are approached and that crenulations on the S_1 foliation in the bedded rocks are probably of D_2 generation.

Foliations at the contact of Units 3 and 4, and in Unit 4 are probably S_1 but no bedding features were seen. In the phyllites of the northwestern block north of Unit 4, S_2 is a non-pervasive crenulation foliation. S_1 is dominant in greenstones and marbles, and parallels the lithological trends. Both trends are truncated at the contact with Unit 4, S_2 shows some north-south strikes and may also be truncated at the Unit 4 boundary. Hence movement on this proposed fault is definitely post- D_1 structures and probably post- D_2 structures.

No post- D_1 mesoscopic structures were noted in units 5 to 14 inc., in the map area. However, variation in S_1 attitude proves some post- D_1 deformation in Unit 13A. Work outside the map area suggests that all the units were affected by the D_2 stresses. Unit 7 is massive and may be altered intrusive material, Unit 8 shows a crude bedding in the pillows with strain taken up mainly in the incompetent chloritic matrix which tends to be foliated parallel to pillow margins. Unit 9 shows a fairly good foliation with flattening of breccia fragments. Unit 10 is massive, with a dominant joint set that may reflect bedding, whereas in Unit 11 extreme cleavage refraction effects are observed - from normal to bedding in cherty beds, to parallel to bedding in cleavage relationships in outcrop, but variable attitudes from outcrop to outcrop. In general, the gross structure of units north of Unit 4 is unknown, and is probably very fragmented by faulting.

Four classes of faults are recognized:-

- 1) Paralleling S_1 and lithological boundaries in the footwall, e. g. in the northwest where movement between the metavolcanics and the phyllite is postulated.
- 2) Paralleling S_2 and lithological boundaries in the footwall, e. g. in the northwest where movement along the graphitic phyllite is postulated.
- 3) North to northwesterly trending high angle faults, east block up, thought to be associated with D_2 generation folds (ibid, 1973) and parallel S_3 .
- 4) Northeasterly (90°-050°) trending high angle faults, southeast blockup, thought to be associated with D_3 generation folds. These would be the most important set on the LISA property and may control the direction of the Ace High Creek canyon.

Metamorphism

The northern limit of amphibolite facies metamorphism as indicated by staurolite in schists is approximately coincident with the band of limy rocks (Unit 2) traversing the map area. The biotite isograd of the greenschist facies is approximately parallel to the southern boundary of the graphitic phyllite (Unit 4) and runs just to the south of it. All the units to the north have suffered low greenschist facies metamorphism. Approximately halfway between the biotite and staurolite isograds are the garnet isograd and a belt of phyllites containing large andalusite porphyroblasts. In detail, metamorphic changes are complex, with common interbanding of phyllitic and schistose rocks.

Mineralization

Chalcopyrite-pyrrhotite mineralization is reported at four closely spaced localities about 4,000 feet down the Ace High Creek canyon. Host rock types would be dominantly the blocky quartz-rich phyllite, and also the andalusite-bearing fine schist and the pyrrhotite phyllite and fine schist. Limy horizons are associated with these rocks, and a conductive horizon just to the south is probably graphitic phyllite. A zinc occurrence is reported near this horizon. The only other reported mineralization in the area is chalcopyrite-pyrrhotite-bearing float downstream from the above occurrences.

The mineralization reported apparently occurs as blebs and stringers concordant to foliation and hence is probably of similar age and origin to the Faro, Vangorda and Swim mineralization. This mineral occurrence is notable on three counts:-

1) It occurs in or near quartzose phyllites, near a probable graphitic phyllite and in the close association with low metamorphic grade equivalents of the calcsilicate gneiss unit - - a host rock assemblage very similar to that of the Faro orebody.

2) It is the only mineral occurrence, in such rocks, that is also pre-deformation, on the north limb of the Anvil Arch.

3) It is a copper occurrence in such rocks as opposed to the lead-zinc-minor copper occurrences on the south limb of the Arch.

CONCLUSIONS

Mineralization in the area of the LISA claims consists of chalcopyrite-pyrrhotite blebs associated with quartzose phyllite, graphitic phyllite and limy phyllite horizons in a northerly dipping pile of phyllites and schists. The search for extensions of this type of mineralization can be restricted to the southern two-thirds of the map area, in schists and limy phyllite horizons (Unit 2).

Major structural, and possible stratigraphic, breaks to the north of Unit 4 preclude further search for this type of mineralization in Units 5 to 13.

The gross structure of the favourable rock types (Units 1 to 4) is simple, and any enclosed deposit may be expected to be lens-shaped, flatten-

ed parallel to the dominant foliation (S_2), and elongated sub-parallel to the local strike (i. e. parallel to F_2). In detail the structure is complex with four sets of superposed structures - - this could be important with respect to an underground mining situation.

Metamorphic grade of the favourable rock types is equivalent to that of the Faro deposit host rocks, and hence sulphide grain size would be such that no milling or metallurgical problems would be encountered.

Previous known work in the area has not fully covered the favourable rock types. Dynasty-Anvil work, 1965 to 1967, concentrated on the airborne electromagnetic and magnetic anomalies resulting from the graphitic and pyrrhotite phyllite units (Units 3 and 4). Whilst these anomalies are due to rock formations rather than economic sulphide concentrations, and are traceable as geophysical anomalies along strike for about twenty miles, their especially high intensity to the north of chalcopyrite showings may be an indirect indication of a more favourable ore-forming environment in this area of the strike length. The Spartan work in 1971 covered part of the favourable unit (Unit 2) and outlined a geophysical anomaly in the region of the mineralized occurrence. However, this anomaly apparently was not drilled.

From this survey the immediate area of interest can be said to lie between grid (Universal Kilometer Mercator Grid as on maps 1 and 2) latitudes 150N and 135N and longitudes 080E and 120E, an area about 5,000 feet by 12,000 feet. This area overlaps the east end of the Anvil grid to the north by less than 1,000 feet, and includes most of the Spartan grid (total area approx. 3,000 feet by 8,000 feet).

RECOMMENDATIONS

In view of the fragmented nature of previous coverage of the area of interest outlined above, the author recommends complete re-coverage of the area by geochemical, magnetometer and electromagnetic (Turam) surveys, coupled with diamond drill follow-up of anomalous zones including that outlined by Spartan's work.

The estimated cost of such a program on a 5,000 by 12,000 foot grid would be \$50,000 including

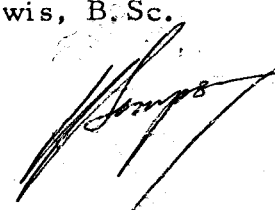
Linecutting	- 30 miles at 400' spacing	\$3,000
Geochemistry		3,000
Turam	- 16 miles at 800' spacing	4,000
Drilling	- 2,000 feet at \$15/ft	30,000
Camp costs, wages, miscellaneous		<u>10,000</u>
		\$50,000

Respectfully submitted,



P. F. Lewis, B.Sc.

October 1973



APPENDIX I

Personnel

PERSONNEL

J. G. Simpson, Ph. D., P. Eng	Supervisor		720 Anderson Crescent North Vancouver, B.C.
P. F. Lewis, B. Sc.	Geologist		#802-1686 W. 12th, Vancouver, B.C.
M. Ryan	Assistant/cook	c/o	Cyprus Exploration Corp. Ltd 1101- 510 W. Hastings St. Vancouver 2, B.C.
P. Renouf	Assistant	c/o	" "
C. L. Cory	Draftsman	c/o	" "

APPENDIX II

Statement of Expenses and Invoices

STATEMENT OF EXPENSES AND INVOICES

Salaries

J. G. Simpson		
1 day @ \$100/day		\$ 100.00
P. F. Lewis		
15 days @ \$50.00/day		\$ 750.00
M. Ryan		
7 days @ \$25.00/day		\$ 175.00
P. Renouf		
8 days @ \$30.00/day		\$ 240.00

Camp Costs

31 man-days @ \$12.00		\$ 372.00
-----------------------	--	-----------

Air Travel

2 Return tickets, Whitehorse-Vancouver		\$ 332.00
1 Ticket, Whitehorse - Faro		\$ 53.15

Helicopter Charter

Territorial Airways		
6 hrs @ \$135/hr		\$ 810.00
120 gallons fuel @ \$1.00		\$ 120.00

Report Preparation


P. F. Lewis		
2 days @ \$50.00/day		\$ 100.00

Drafting

C. L. Cor...		
20 hr @ \$5.00/hr		\$ 100.00

TOTAL \$3,152.15

I certify that the above costs were incurred on the Lisa claims between the dates shown.


J. G. Simpson.



ROSS RIVER
YUKON
CANADA

terr-air
(TERRITORIAL AIRWAYS)

PHONE: 969-0040 FAX: 994-2789
TELEX: TERR-AIR ROSS

FIXED AND ROTARY
WING AIRCRAFT

CHARGE TO:

405/3129

PROJECT: _____ CHARTER TICKET ~~NO~~ 1220

AIRCRAFT Cessna DATE Aug 20 78

NAME [Signature]

ADDRESS Regiment 405

FLIGHT/PASSENGER DETAILS	HOURS	MINS.	FUEL
<u>[Signature]</u>	7	6	
<u>move a fuel tank</u>			<u>[Signature]</u>
LISA 1.0 HR			
TOTAL HRS <u>7.6</u> @ <u>135.00</u> PER HR.	1026	00	
EXTRA CHARGES			
TOTAL CHARGES	1026.00		

[Signature]

Charterer's Authorization

[Signature]

Pilot's Signature



ROSS RIVER
YUKON
CANADA

terr-air
(TERRITORIAL AIRWAYS)

PHONE: 969-0040 FAX: 994-2789
TELEX: TERR-AIR ROSS

FIXED AND ROTARY
WING AIRCRAFT

CHARGE TO:
405 | 3129

PROJECT: _____ CHARTER TICKET: 1228
AIRCRAFT: OT7 DATE: July 2 73
NAME: [scribble]
ADDRESS: Ridgenant 405

FLIGHT/PASSENGER DETAILS	HOURS	MINS.	FUEL
<u>Alouette Lewis fly camp</u>	<u>8</u>	<u>15</u>	<u>[Signature]</u>
<u>Langley's mobile unit</u>			
<u>Alouette Lewis fly camp</u>			
<u>West Hill (old camp)</u>			
<u>West Hill (new camp)</u>			
<u>LISA 2.0 HR.</u>			
TOTAL HRS <u>8.5 @ 135.00 PER HR.</u>	<u>1147.</u>	<u>30</u>	
EXTRA CHARGES			
TOTAL CHARGES	<u>1147.50</u>		

[Signature]
Charterer's Authorization

[Signature]
Pilot's Signature



ROSS RIVER
YUKON
CANADA

FIXED AND ROTARY
WING AIRCRAFT

terr-air
(TERRITORIAL AIRWAYS)

PHONE: 969-0040 FARO 994-2789
TELEX: TERR-AIR ROSS

458/3129

PROJECT: _____ CHARTER TICKET No 1286
AIRCRAFT CF-UPR DATE SEPT. 7/73
NAME KANGAROO EXP.
ADDRESS VANCO. B.C.

FLIGHT/PASSENGER DETAILS	HOURS	MINS.	FUEL
A.M. - :15 } Faro to Camp			Mix
:10 } Dishes OK		:50	
:10 } //			
:15 } Camp to Faro			Mix
P.M. :15 } //			
:10 } //			
:10 } OK // 1:00			
:10 } // 1:50			
:15 } // 01 1.8			
TOTAL HRS 1.8 • 135 PER HR			
EXTRA CHARGES		243.00	
TOTAL CHARGES		175.50	

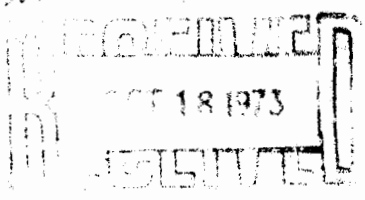
NB OK for 1.5 hrs
[Signature]
Charterer's Authorization

[Signature]
Pilot's Signature

Accepted
[Signature]

LISA ~ 0.5 HR

Returned by Taker (see later)



APPENDIX III

References

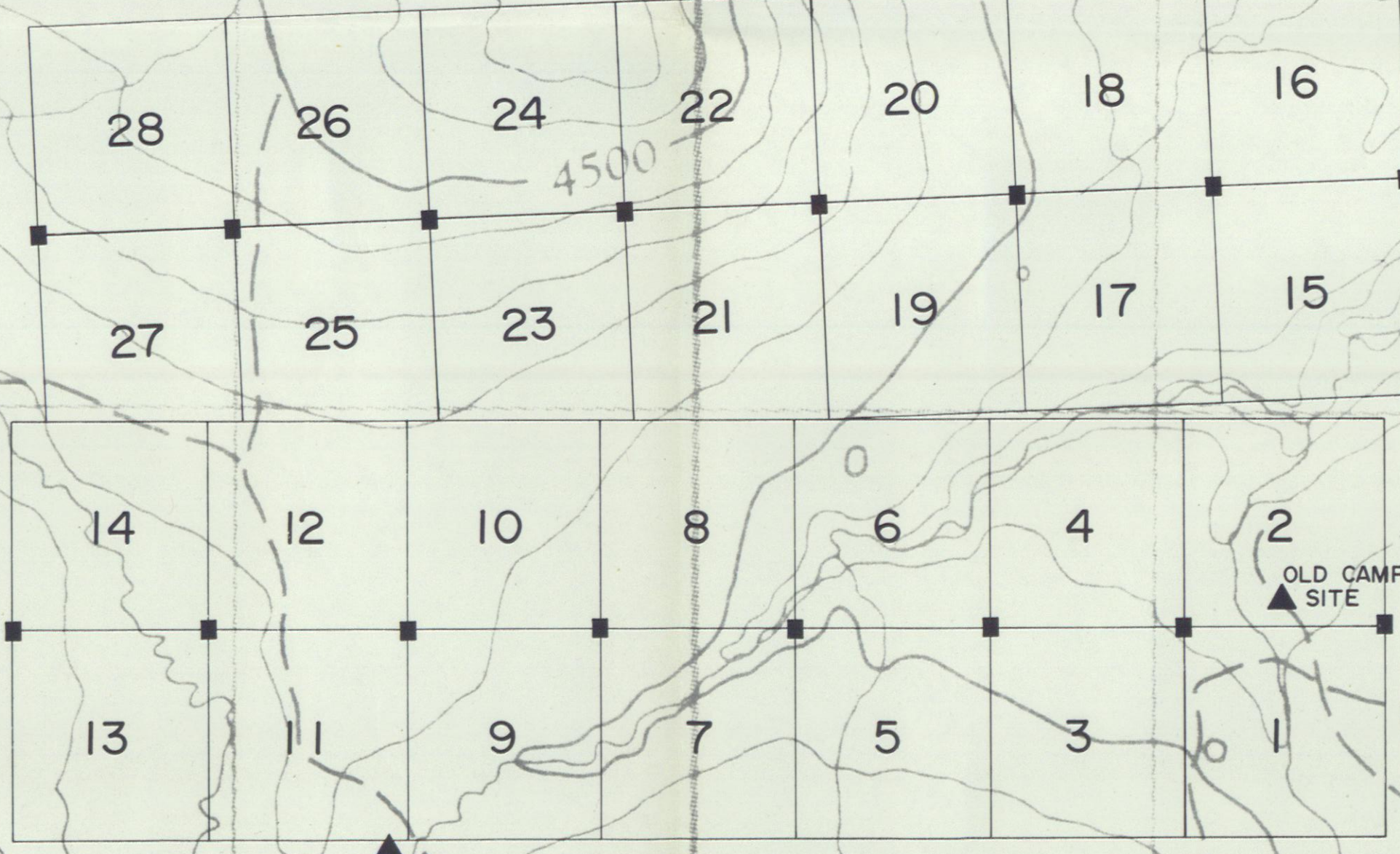
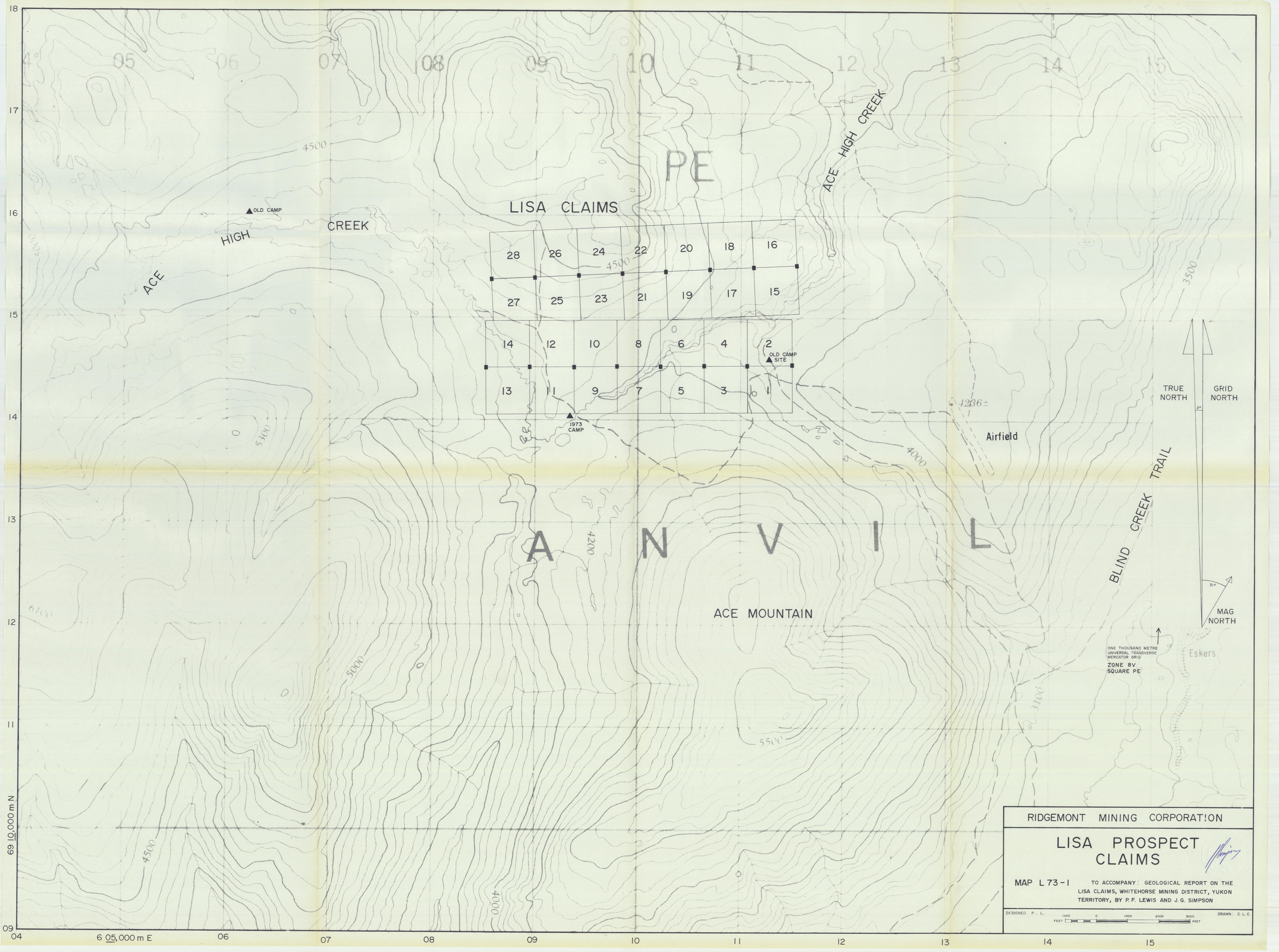
REFERENCES

G. S. C. Publications

- Map 13-1961 - Tay River, Y. T.
by J. A. Roddick and L. H. Green
- Bulletin 208 - Geology and Origin of the Faro, Vangorda
and Swim Concordant Zinc-Lead Deposits,
Central Y. T.
by D. J. Tempelman-Kluit, 1972

Filed Assessment Reports:-

- P. F. Lewis and J. G. Simpson, 1973 -
A Geological Report on the Zan, and portions
of the Taf and MX claims, Whitehorse M.D.,
Y. T.



RIDGEMONT MINING CORPORATION

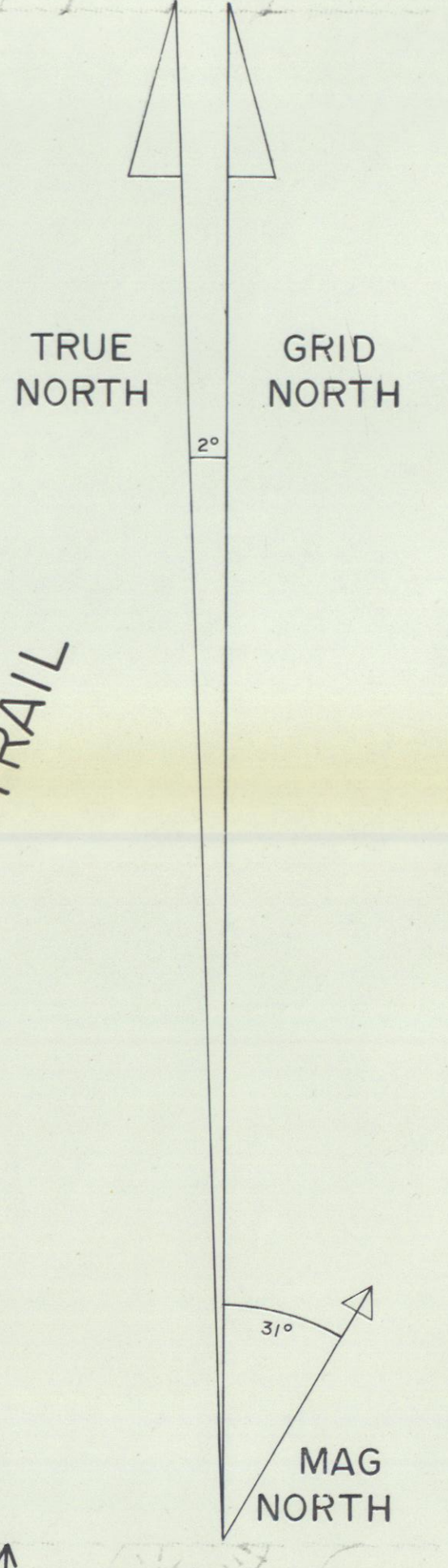
LISA PROSPECT CLAIMS

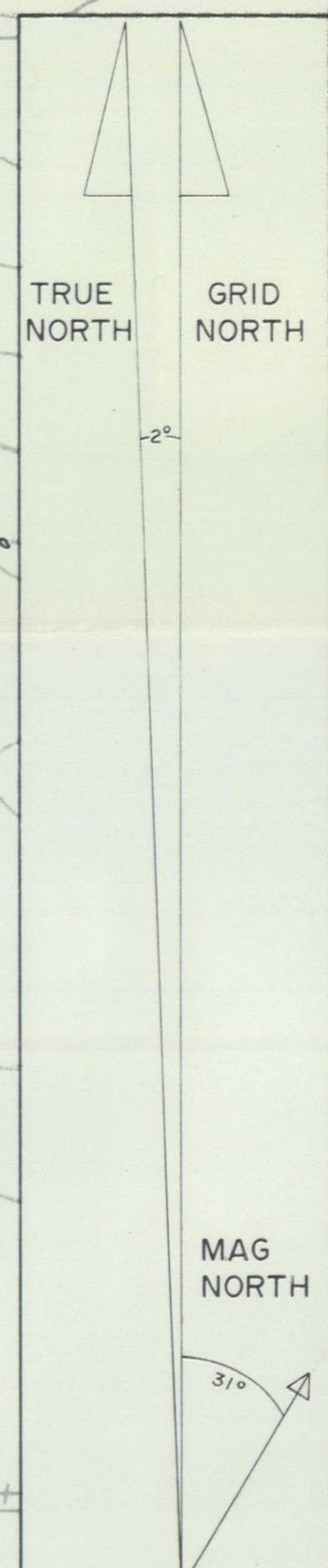
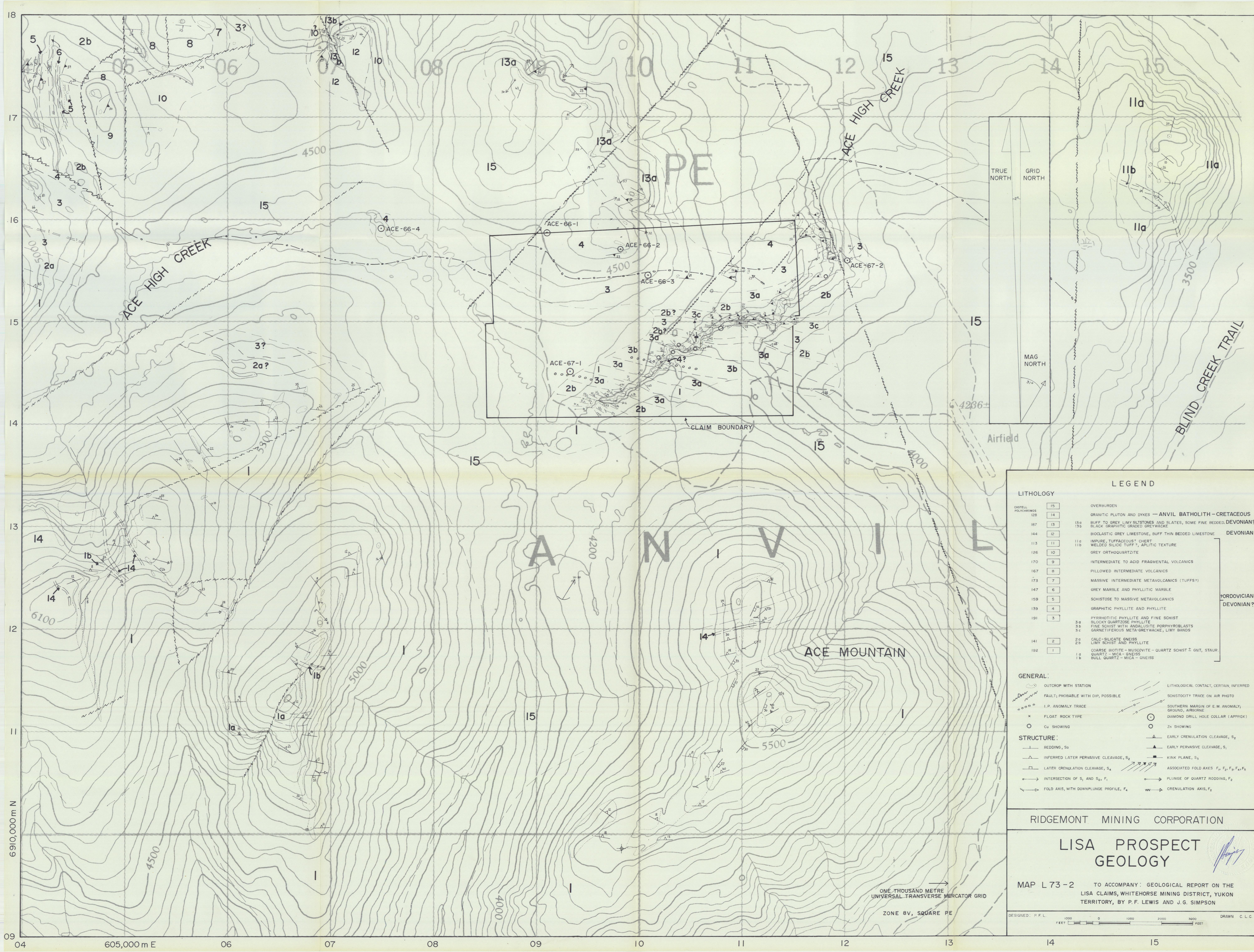
MAP L 73-1 TO ACCOMPANY: GEOLOGICAL REPORT ON THE LISA CLAIMS, WHITEHORSE MINING DISTRICT, YUKON TERRITORY, BY P. F. LEWIS AND J. G. SIMPSON

DESIGNED: P. L. DRAWN: C. L. C.

ONE THOUSAND METRE UNIVERSAL TRANSVERSE MERCATOR GRID ZONE 8V SQUARE PE

1000 0 1000 2000 3000 FEET





LITHOLOGY		LEGEND	
15	CASTELL POLYCHROMOS	15	OVERBURDEN
14	128	14	GRANITIC PLUTON AND DYKES — ANVIL BATHOLITH — CRETACEOUS
13	187	13a	BUFF TO GREY LIMY SILTSTONES AND SLATES, SOME FINE BEDDED, DEVONIAN?
12	144	13b	BLACK GRAPHITIC GRADED GREYWACKE
11	113	11a	BIOLASTIC GREY LIMESTONE, BUFF THIN BEDDED LIMESTONE
10	126	11b	MARBLE, TUFFACEOUS? CHERT
9	170	10	WELDED SILIC TUFF?, APLITIC TEXTURE
8	167	9	GREY ORTHOQUARTZITE
7	173	8	INTERMEDIATE TO ACID FRAGMENTAL VOLCANICS
6	147	7	PILLOWED INTERMEDIATE VOLCANICS
5	159	6	MASSIVE INTERMEDIATE METAVOLCANICS (TUFFS?)
4	139	5	GREY MARBLE AND PHYLLITIC MARBLE
3	191	4	SCHISTOSE TO MASSIVE METAVOLCANICS
2	141	3	GRAPHITIC PHYLLITE AND PHYLLITE
1	192	3a	PHYRROTIC PHYLLITE AND FINE SCHIST
		3b	BLOCKY QUARTZOSE PHYLLITE
		3c	FINE SCHIST WITH ANDALUSITE PORPHYROBLASTS
		2a	GARNET FERROUS META-GREYWACKE, LIMY BANDS
		2b	CALC-SILICATE GNEISS
		2c	LIMY SCHIST AND PHYLLITE
		1a	COARSE BIOTITE — MUSCOVITE — QUARTZ SCHIST ± GNT, STAIR
		1b	QUARTZ — MICR — GNEISS
		1c	BULL QUARTZ — MICR — GNEISS

GENERAL:		STRUCTURE:	
○	OUTCROP WITH STATION	—	HEDDING, S ₀
—	FAULT; PROBABLE WITH DIP, POSSIBLE	—	INFERRED LATER PERVASIVE CLEAVAGE, S ₂
○	I.P. ANOMALY TRACE	—	LATER CRENULATION CLEAVAGE, S ₄
x	FLOAT ROCK TYPE	—	INTERSECTION OF S ₁ AND S ₀ , F ₁
○	Cu SHOWING	—	FOLD AXIS, WITH DOWNPLUNGE PROFILE, F ₄
○	Zn SHOWING	—	EARLY CRENULATION CLEAVAGE, S ₂
—	LITHOLOGICAL CONTACT, CERTAIN, INFERRED	—	EARLY PERVASIVE CLEAVAGE, S ₁
—	SCHISTOCITY TRACE ON AIR PHOTO	—	KINK PLANE, S ₃
—	SOUTHERN MARGIN OF E.M. ANOMALY; GROUND, AIRBORNE	—	ASSOCIATED FOLD AXES F ₁ , F ₂ , F ₃ , F ₄ , F ₅
—	DIAMOND DRILL HOLE COLLAR (APPROX)	—	PLUNGE OF QUARTZ RODDING, F ₂
		—	CRENULATION AXIS, F ₂

RIDGEMONT MINING CORPORATION

LISA PROSPECT GEOLOGY

MAP L 73-2 TO ACCOMPANY: GEOLOGICAL REPORT ON THE LISA CLAIMS, WHITEHORSE MINING DISTRICT, YUKON TERRITORY, BY P.F. LEWIS AND J.G. SIMPSON

DESIGNED: P.F.L. DRAWN: C.L.C.

ONE THOUSAND METRE UNIVERSAL TRANSVERSE MERCATOR GRID
ZONE 8V, SQUARE PE

0 1000 2000 3000 FEET