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1966

PROPERTY REPORT

on

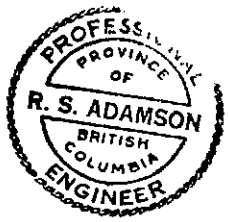
RICH CLAIM GROUP

for

ANVIL MINING CORP. LTD.

by

R.S. Adamson, P. Eng.
Chief of Exploration



RICH CLAIM GROUP

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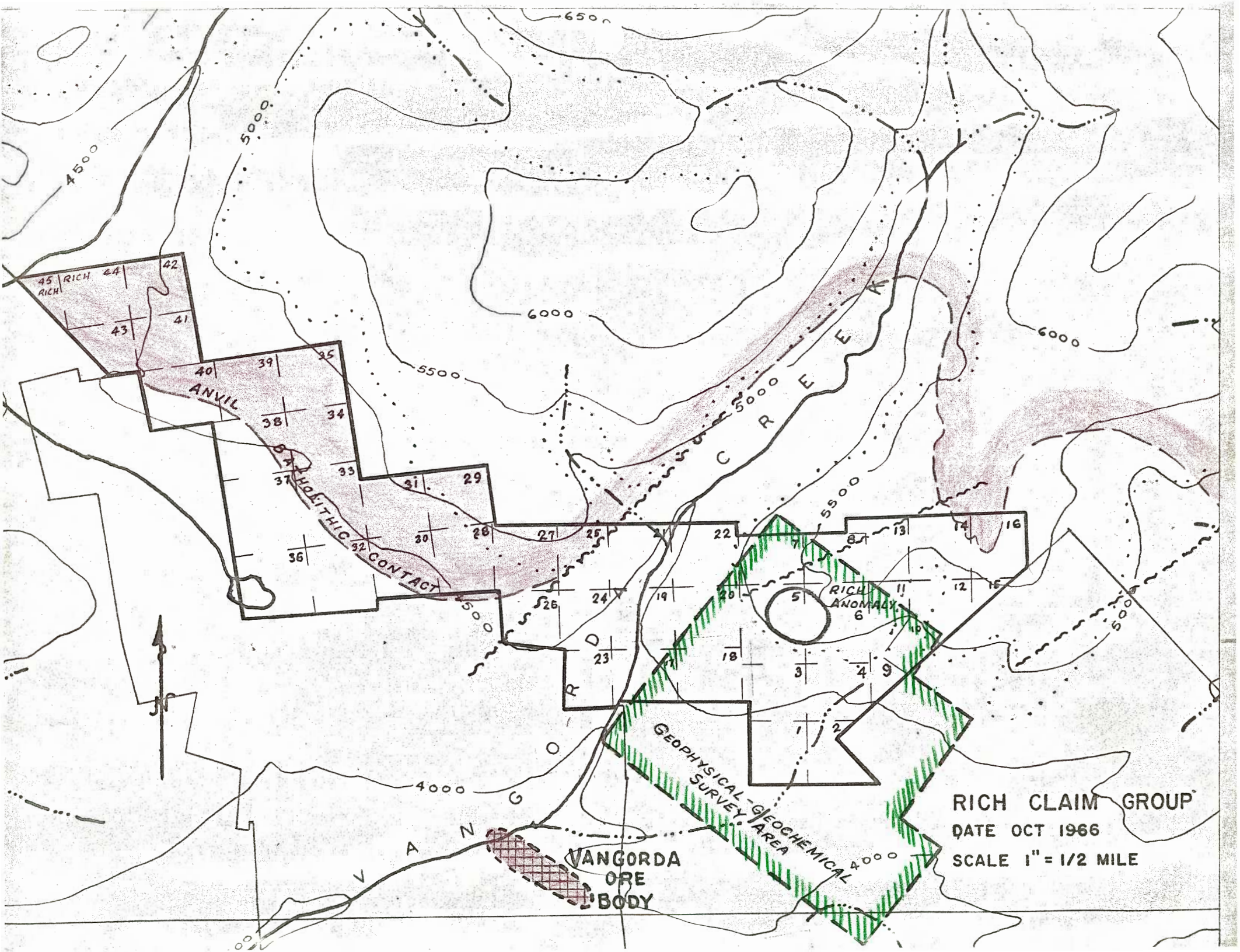
Geochemical Map 1" = 400'

Magnetic Profiles 1" = 400'

Electromagnetic Profiles 1" = 400'


6500
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CREEK
ANVIL
RICH
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4
9
1
2
GOLD
CONTACT
ANOMALY
GEOPHYSICAL-GEOCHEMICAL SURVEY AREA
VANGORDA ORE BODY
VANGORDA
N
RICH CLAIM GROUP
DATE OCT 1966
SCALE 1" = 1/2 MILE

INTRODUCTION

The RICH Group of mineral claims, numbered consecutively from 1 to 45, was staked and subsequently recorded on October 29, 1965 by Dynasty Explorations' personnel.

The property, located at latitude 62°00' north and longitude 133°10' west, lies largely on the abrupt northeastern wall of the intermontane valley which extends from Blind Creek northwest along the axis of Rose Creek. Elevations on the property range from 4000 to 5500 feet.

The property was staked in order to cover the intervening ground between the claims of Vangorda Mines Limited and the Anvil batholithic contact. Prior airborne magnetic and electromagnetic surveys revealed magnetic electromagnetic anomalies with good coincidence. This, coupled with the favourable regional geological setting, fully justified staking and a subsequent ground followup program.

With the probable exception of reconnaissance geological and geochemical work by Vangorda Mines personnel in the middle 1950's, no formal geophysical, geochemical or geological work was done on the property prior to 1966.

Anvil Mining Corp. Ltd. in 1966, surveyed by transit and chainage and cut 6000 feet of base line on the eastern part of the RICH claims. Picket lines totalling 61,700 feet were run at 400 foot intervals

/2

along the base line. Picket lines were established perpendicularly by transit and line of site chainage. The RICH grid is a portion of a larger grid which extended southwesterly on to the BOB claims and southeasterly over part of the DY claims.

Ground magnetic and electromagnetic surveys, geochemistry, and geological mapping were carried out over the grid as a followup over the airborne anomalies. A gravity survey was undertaken over part of the survey area.

REGIONAL GEOLOGY

The Anvil district is defined as that area embracing the Anvil Range batholith and those rocks subject to its intrusive influences. Topographically, the district is approximately bounded by the Pelly River valley on the southwest, the Tay River on the northwest and northeast, and the Ross River on the southeast.

The Pelly River valley reflects the surface expression of the Tintina Fault lineament, a feature of continental dimensions which extends northwesterly across the entire Yukon and into Alaska. Northeast subsidiary faults knife through the Anvil district, probably as far as a rudely parallel northwestern structure about 25 miles from the Tintina Trench. The parallel structure partially divorces late Paleozoic formations and Mesozoic batholithic rocks from earlier Paleozoic sedimentary formations on the northeast.

The granitic Anvil batholith of Cretaceous age forms the core of the Anvil Range. Intruded by the northwest trending batholith and draped over it in anticlinal fashion are a series of northwest striking, partially metamorphosed volcanic and sedimentary formations.

Compilation of geological data gathered by Dynasty Explorations Ltd., in 1964 and 1965 and regional mapping by Anvil Mining Corp. Ltd. geologists was carried out in late 1966 on the southwestern limb of the anticline between Orchay and Anvil creeks. The correlation and compilation were enhanced by airborne magnetic and electromagnetic surveys undertaken in 1964 and 1965. As a result of the program, five formations have been established within the framework of Canadian Geological Survey mapping. A breakdown and description of the formations is as follows:

TABLE OF FORMATIONS

GSC	Unit 9 a	Lapp Formation		Silty Limestone Quartzite, Quartz Schist Argillite
			minor	Andesite (serpentinized)
GSC	Unit 9 b			Conglomerate
GSC	Unit 8	Rose Formation		Argillites, Phyllites Quartzite, Sericite Schis Andesite (serpentinized)
GSC	Unit 7	Vangorda Formation		Andesite Quartzite, Sericite Schis Graphitic Phyllite & Schi
			minor	Biotitic Phyllite & Schis

Mye Formation		Quartzite, Sericite Schist
		Biotitic Phyllite & Schist
		Graphitic Phyllite & Schist
	Minor	Andesite, Chlorite Schist
	Minor	Limestone
	Minor	Rhyolite

The above formations regionally strike north 60° west and dip 20° to 45° to the southwest; generally the dip increases from the batholith toward the Pelly River. A faulted contact occurs between the Conglomerate and the Vangorda formation northwest of Vangorda Creek but the arbitrary formational contacts otherwise are apparently conformable.

The formations in general exhibit an increasing degree of metamorphism upon approaching the batholith. Foliation in schistose rocks conforms with bedding.

Folding appears to be broad with northwest axes, perhaps monoclinal in character. Some tighter dragfolding probably occurs adjacent to faulted structures.

The Mye formation, which is the oldest, deepest and stratigraphical closest to the Anvil batholith, is in excess of a mile thick. The formation consists largely of, in approximately equal proportions, metamorphosed arenaceous and argillaceous rocks; banded quartzites, quartz and sericite schists, interbedded with phyllites, biotite and graphite schists. Minor limestone horizons, intermediate and acidic volcanic flow and fragmental rocks with related plugs, sills and dykes occur within the formation.

All known, potentially economic, sulphide bodies discovered to date in the Anvil district occur within Mye formation rocks; essentially all on strike within a belt 15 miles long.

Lead-zinc-copper-silver mineralization has a preference for quartzitic horizons in Mye formation rocks. Favourable rocks are metamorphosed sandstone wedges, tongues and lenses as well as possibly quartzitic interbeds in graphitic phyllites and schists. Syngenetic or diagenetic pyrite may have been an important requisite for later economic sulphide replacement. The mineralization, usually massive, may be banded or disseminated but in all three cases is decidedly conformable with the foliation of the host rocks.

PROPERTY GEOLOGY

The eastern half of the RICH property, upon which the airborne target lies, is underlain by favourable MYE formation rocks that form a substantial embayment in the Anvil batholith. The embayment apparently was created by left hand movement along two strong northeast faults about two miles apart. Anvil granite rocks underly most of the western RICH; mineral claims RICH 28 to 45.

Topographically, the primary target area occurs on the abruptly rising wall of the gently rising intermontane valley floor so that surface rocks over the anomalies are very well exposed. The indicated coincident airborne geophysical anomely, ultimately substantiated by ground geophysical surveys, is located a mile and a half northeast of the 10 million ton Vangorda lead-zinc-copper-silver ore body..

Geological mapping over the geophysical survey grid revealed quartzitic biotite schists overlying biotitic quartz schists which dip northerly into the abruptly rising mountain side. Foliation strikes east-west to northwest with principally shallow dips north. The north dips coupled with a regional south dip and local south dips indicate folding complexities in the immediate area of the geophysical target.

The target area is essentially bounded on the north by an east-west lineal gulley and on the south by a northeast trending gulley which possibly reflect subsidiary and sympathetic faulting. In view of the increased metamorphic grade with the development of staurolite and the abrupt steepening of the terrain it is postulated that Anvil batholithic rocks occur at not too great a depth below the geophysical anomalies and in effect could add another confining feature on the east.

The Mye formation sedimentary rocks overlying the area of interest have been invaded by numerous quartz veins, veinlets and stringers which often carry sulphides. The sulphides, principally pyrite with lesser chalcopyrite, contribute a distinctive limonitic staining to the well exposed surface rocks.

GEOPHYSICS

Helicopter borne geophysics carried out over the RICH area, prior to securing the ground, established magnetic and electromagnetic anomalies with good coincidence. The airborne conductor exhibited an in phase - out of phase ratio of 1.4 while the magnetic anomaly was in the order of 100 gammas. The airborne magnetic response in

character and magnitude compares well with that over the Faro No. 1 zone.

Subsequent ground geophysical followup was initiated to pinpoint the airborne anomaly and relate it to geochemistry and geology.

For the electromagnetic survey a CRONE JEM unit (18 volt) was employed, using the horizontal loop method, by Explorations Geophysics (Yukon) Ltd. on behalf of Anvil Mining Corp. Ltd. Two parallel east-west striking flatly dipping conductors were resolved; the lower one has an indicated length of 2500 feet and a width of 200 feet, the upper one is roughly 2000 feet by 400 feet. Dip angles on the upper conductor range from -7° to -20° while those of the lower conductor range from -10° to -15°. In both cases high and low frequencies approximate unity. The width and the eastern strike length of both conductors may not necessarily be fully defined in view of the increasin cap rock thickness as successive electromagnetic readings were taken progressively uphill.

A Sharpe's MF-1 Fluxgate type vertical component magnetometer was used for the ground magnetic survey. The indicated coincidence of the airborne magnetic anomaly with the electromagnetic anomaly was generally substantiated by the followup ground surveys. Using a base datum of 600 gammas, anomalous magnetic readings over and immediately adjacent to the two electromagnetic conductors varied from 200 gammas to 1100 gammas. This compares with a range of 250 to 700 gammas over the Faro No. 1 ore body.

Close geological examination of the well exposed bedrock terrain over the geophysical anomalous area exhibited nothing which would account for either the magnetic response or the conductivity.

A gravity survey was carried out over the gently rising tableland immediately south of the area of interest but the steep abrupt terrain overlying the conductors prevented definition of their gravimetric characteristics.

GEOCHEMISTRY

A geochemical survey was undertaken in conjunction with the geophysical work and the geological mapping. Anomalous geochemical values were largely erratic but in a general sense were confined to the area of geophysical interest. Most of the anomalous samples were located in the gently rising tableland below the steeper valley wall upon which the geophysical anomalies lie. Anomalous copper values are in excess of those of lead and zinc and range generally from 60 to 115 ppm copper. Higher values, (240, 240, 1100) occur but might be considered even more erratic. Lead and zinc values are rarer and also erratic but are usually associated with the higher copper values. The anomalous values range from 40 to 600 ppm for lead and from 200 to 750 for zinc.

Visible sulphides, principally pyrite and chalcopyrite, in quartz veinlets over the prime target area could have contributed these metallic ions to the soil on the tableland beneath.

CONCLUSIONS

Ground geophysical followup over a good coincident airborne magneti

and electromagnetic anomaly resulted in the resolution of two good electromagnetic conductors with fair magnetic coincidence. The magnetics, although partially erratic with respect to the conductors, may well reflect associated magnetite or pyrrhotite with lead-zinc-copper-silver mineralization. Studies of the Faro No. 1 orebody reveal that magnetic mineralization does not occur uniformly throughout the orebody. Anomalous magnetic readings over the centre of gravity of the orebody are in the order of 150 gammas. The best anomalous magnetic readings over the northwest end of the orebody where it approaches the subsurface and where it contains the most magnetite range from 250 to 700 gammas. Anomalous magnetic readings over and adjacent to the RICH conductors range from 200 to 1100 gammas with better electromagnetic definition and coincidence than Faro.

Geochemical soil sampling over and around the blind conductors revealed erratic anomalous copper-lead-zinc values in the general vicinity. In the case of the Faro mineral deposits, anomalous geochemical values were found only where the ore bodies or satellitic mineralized bodies suboutcropped. In view of the blind nature of the RICH conductors, lack of a firm, well defined geochemical anomaly does not decrease the possibility of the conductors being massive sulphides.

Predicated on regional and property geological mapping and study of the depositional characteristics related to the Faro ore body, the following features indicate the conductors are in a favourable geologica setting;

a) Well situated with respect to the Anvil batholith, lying within an embayment of Mye formation rocks

b) Favourable structural environment; strong northeast faulting and east-west faulting, and indicated folding of the host rocks.

c) Host rocks highly siliceous with quartz content increasing with depth.

d) Quartz veining with sulphides and limonitic staining of overlying rocks suggest the possibility of sulphide leakage from body beneath.

e) Proximity to a known sulphide body; only a mile and a half from Vangorda ore body.

In summary, the RICH conductors are well situated geologically both from a regional and property standpoint, have close associated magnetic coincidence, and some erratically associated geochemistry. On this basis diamond drilling of the conductors is fully justified.

RECOMMENDATIONS

Two vertical diamond drill holes are recommended; the initial one at station 1000 north on line 56 west to cut the upper conductor, the second one at station 1100 north on line 44 west to cut the lower conductor. Subject to results of the first two diamond drill holes and availability of a drill setup a third vertical hole may be spotted at station 1600 north on line 48 west.

Because of the steep terrain, ideal drill sites may not be available and drills must be set up on topographic benches.

Such benches exist at the sites of the two initial recommended holes. Should a mineralized intersection be cut during the preliminary drill program, further drilling may have to be done by fanning holes from established drill setups.

As soon as snow conditions permit, a location line survey with the necessary fraction staking is recommended for the RICH claims 1 to 27 and the western most DY claims.

Respectfully submitted,

R. S. Adamson

R.S. Adamson, B.A. Sc., P. Eng.
Chief of Exploration for
Anvil Mining Corporation Ltd.

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RICH 11
RICH 9
RICH 8
RICH 6
RICH 4
RICH 7
RICH 5
RICH 3
RICH 2
RICH 19
RICH 17
RICH 1
RICH 24
RICH 23
DY 98
DY 100
DY 96
DY 94
DY 95
DY 93
DY 70
DY 68
BOB 22
BOB 12
BOB 21
BOB 20
BOB 11
BOB 10
BOB 19
BOB 18
BOB 9
BOB 8
BOB 17
BOB 15
BOB 16
ZONE A
ZONE B
ZONE C
ZONE D
UPPER CONDUCTOR
LOWER CONDUCTOR

LEGEND

O, SAMPLE LOCATION
⊕, CLAIM POST
1/2/3, SAMPLE ANALYSIS, Cu/Pb/Zn
TND, TAKEN NOT ANALYSED
SILT, SILT SAMPLE

ANVIL MINING CORP.
FARO
RICH - DY GEOCHEMISTRY
SCALE: 1" = 400'
SAMPLES TAKEN: 739
SAMPLES ANALYSED: 652
SAMPLED BY: BEAUMONT, RAAFLAUB, SPROGIS.
DATE SAMPLED: JULY 3-12, JULY 18
DRAWN BY: P.L.B.

YUKON GEOLOGICAL SURVEY

This reference scale bar has been added to the original plan. If the scale of the same has been altered, it is not to be used as a reference for the original size.