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SUMMARY OF 1974 AND 1975 EXPLORATION
OF THE DANA, HALO FRACTIONAL
AND IRMA CLAIMS

N.T.S. 105-K-11

for

CYPRUS ANVIL MINING CORPORATION

by

G. A. Jilson

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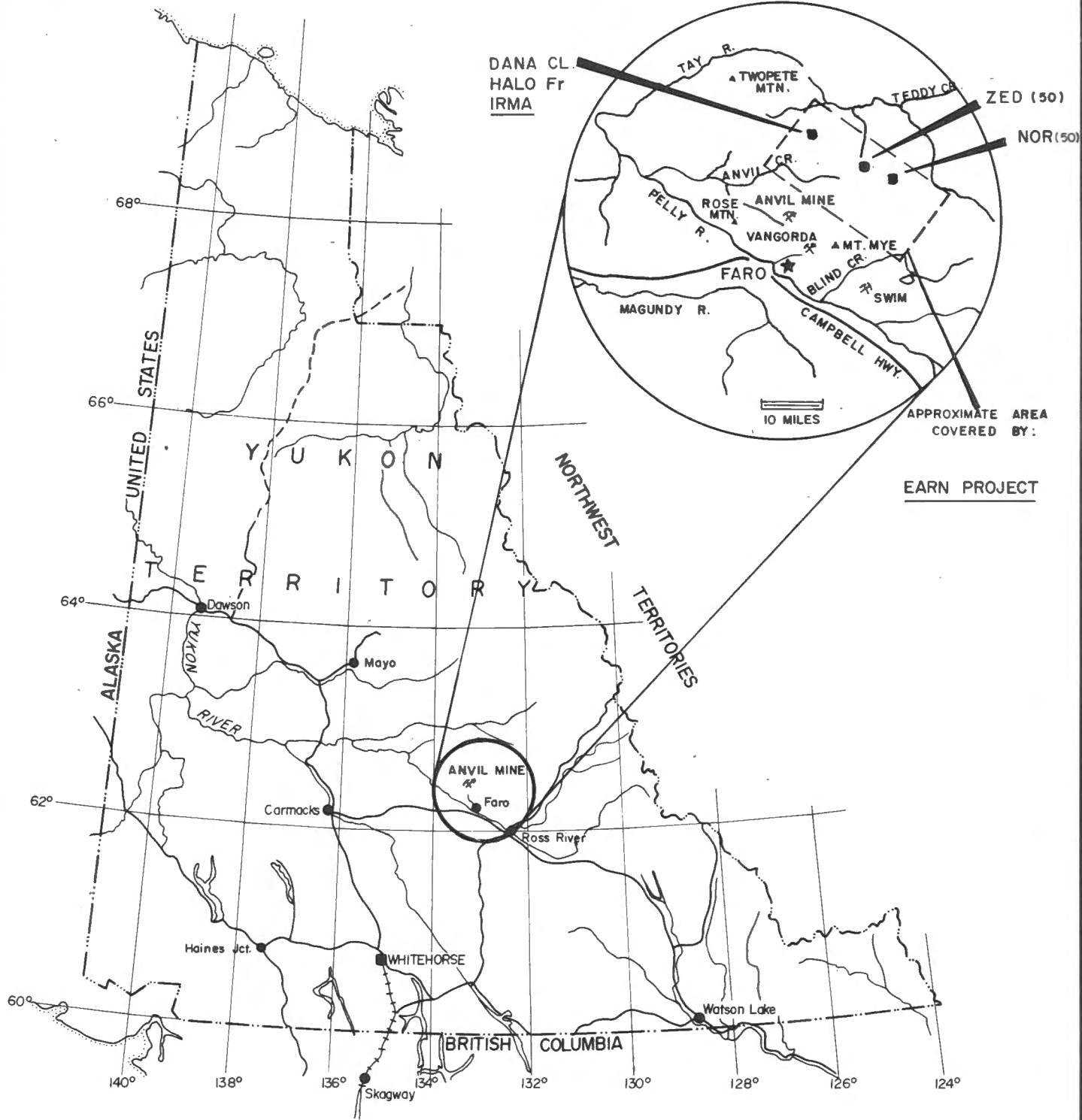
INTRODUCTION

During 1974 and 1975 field seasons, detailed exploration was conducted on the Dana, Halo and Irma claims. Geological, geophysical and geochemical surveys were carried out in 1974, followed by diamond drilling of three holes totalling 1,624 feet. In 1975, three more holes totalling 2,058 feet were drilled and minor geophysical work was done. The drill program was designed to test geochemical and geophysical anomalies, both with and without associated surface showings. Extensive low grade Zn-Cu-Pb-Ag mineralization was intersected in some of the holes in the area of best geophysical and geochemical anomalies. The drilling to date has adequately tested the initial area of interest and no further work is warranted there. Extensions of the mineralized zone into overburden-covered areas are possible and the best of these was staked as the Irma claims. Gravity and magnetic surveys conducted late in the 1975 field season revealed a feature of possible interest. Further geophysical work is recommended on the Irma claims to evaluate these anomalies and drilling in this area may be warranted in the 1976 season.

LOCATION AND ACCESS

The Dana, Halo Fractions and Irma claims are located 15 miles north of the Anvil minesite, central Yukon Territory, on claim sheet 105-K-11. Latitude and longitude of the center of the claim group is $62^{\circ}35'N$, $133^{\circ}18'W$.

Access is by helicopter from Faro 25 miles to the south or by float plane from Ross River, 50 miles southeast, to Caribou Lake which is two miles southwest of the claim group.



CYPRUS ANVIL MINING CORPORATION

EARN PROJECT

PROPERTY LOCATION MAP

YUKON

SCALE : 1" = 100 MILES

Figure: 1

CLAIMS

The property consists of 79 full-sized and 12 fractional claims. The claims are in the Whitehorse Mining District on claim sheet 105-K-11.

The claims are listed in Table I.

TABLE I

| <u>Claim No.</u> | <u>Grant Nos.</u> | <u>Staking Date</u> | <u>Expiry Date</u> |
|--------------------|-------------------|---------------------|--------------------|
| <u>Dana Claims</u> | | | |
| 1 - 2 | Y67987 - Y67988 | March 8, 1973 | March 8, 1983 |
| 3 - 10 | Y67989 - Y75006 | ↓ | March 8, 1984 |
| 11 - 12 | Y75007 - Y75008 | | March 8, 1983 |
| 17 - 21 | Y75013 - Y75017 | | March 8, 1983 |
| 22 | Y75018 | | March 8, 1984 |
| 23 | Y75019 | | March 8, 1983 |
| 24 | Y75020 | | March 8, 1984 |
| 25 | Y75021 | | March 8, 1983 |
| 26 | Y75022 | | March 8, 1984 |
| 27 - 28 | Y75023 - Y75024 | | March 8, 1983 |
| 38 | Y75034 | | March 8, 1983 |
| 40 | Y75036 | | March 8, 1983 |
| 42 | Y75038 | | March 8, 1983 |
| 44 | Y75040 | | March 8, 1983 |
| 46 | Y75042 | | March 8, 1983 |
| 48 | Y75044 | | March 8, 1983 |

| <u>Claim No.</u> | <u>Grant Nos.</u> | <u>Staking Date</u> | <u>Expiry Date</u> |
|-----------------------|-------------------|---------------------|--------------------|
| <u>Halo Fractions</u> | | | |
| 1 - 3 | Y79648 - Y79650 | July 22, 1974 | Feb. 22, 1983 |
| 4 - 8 | Y79651 - Y79655 | July 22, 1974 | Feb. 22, 1984 |
| 9 | Y79656 | July 22, 1974 | Feb. 22, 1983 |
| 10 | Y79657 | July 22, 1974 | Feb. 22, 1984 |
| 11 - 12 | Y79658 - Y79659 | July 22, 1974 | Feb. 22, 1983 |
| <u>Irma Claims</u> | | | |
| 1 - 5 | YA3250 - YA3254 | Aug. 26, 1975 | Aug. 26, 1977 |
| 6 - 11 | YA3258 - YA3260 | Aug. 26, 1975 | Aug. 26, 1978 |
| 12 - 22 | YA3261 - YA3265 | Aug. 26, 1975 | Aug. 26, 1977 |
| 23 - 24 | YA3272 - YA3273 | Aug. 26, 1975 | Aug. 26, 1978 |
| 25 | YA3274 | Aug. 26, 1975 | Aug. 26, 1977 |
| 26 | YA3275 | Aug. 26, 1975 | Aug. 26, 1978 |
| 27 - 31 | YA3276 - YA3280 | Aug. 26, 1975 | Aug. 26, 1977 |

HISTORY

The Dana claims were staked in February 1972 to cover geochemical anomalies and gossans in an area interpreted to be underlain by acid volcanic rocks hosting stratiform copper-zinc sulphide deposits to the west. The area was previously staked in 1965 as the Ivan claims by Anvil Mining Corporation. Anvil's interest in the area was aroused by a prominent gossan which, when checked by geochemical and airborne geophysical surveys, showed positive results. Anvil conducted geochemical, ground electromagnetic and ground magnetic surveys in 1966 and put down four short drill holes late that year without intersecting significant sulphides (Adamson, 1966).

Yukon Copper, also in 1965, staked the Hal (and numerous other) claims around the Ivan block. Their prospectors discovered two showings on the Hal claims which were tested by geochemical, airborne geophysical surveys and trenching between 1966 and 1971 (Cathro, 1967). Trenching there uncovered two small showings of apparently stratiform Cu-Zn mineralization. Follow-up geophysical work was recommended but not carried out, however, the Hal claims have been kept in good standing until the present time.

Routine geochemical coverage of the Dana claims in 1973 outlined a large and intense Cu-Pb-Zn geochemical anomaly just east of the Hal claim boundary in an area which was not covered by either the early Anvil or Yukon Copper surveys (Jilson and Simpson, 1974; Lewis, 1974). From 1974 on, all work on the claim block has been done by Cyprus Anvil under agreement with Ridgemont.

Work in 1974 and 1975 concentrated on the area of this geochemical anomaly and the original Hal claims showings. The Hal claims were optioned by Cyprus Anvil in early 1974.

The 1974 program showed that the extensions of the Hal showings are probably small and contain minor base metal mineralization and that no further work was warranted (Jilson and Simpson, 1975a). The option on the Hal claims was terminated early in 1975. Since then, Northern Homestake Mines (successor to Yukon Copper) drilled three holes on these showings which tend to confirm the low grade of the unexposed portion of the Hal claims sulphide zone.

REGIONAL GEOLOGY

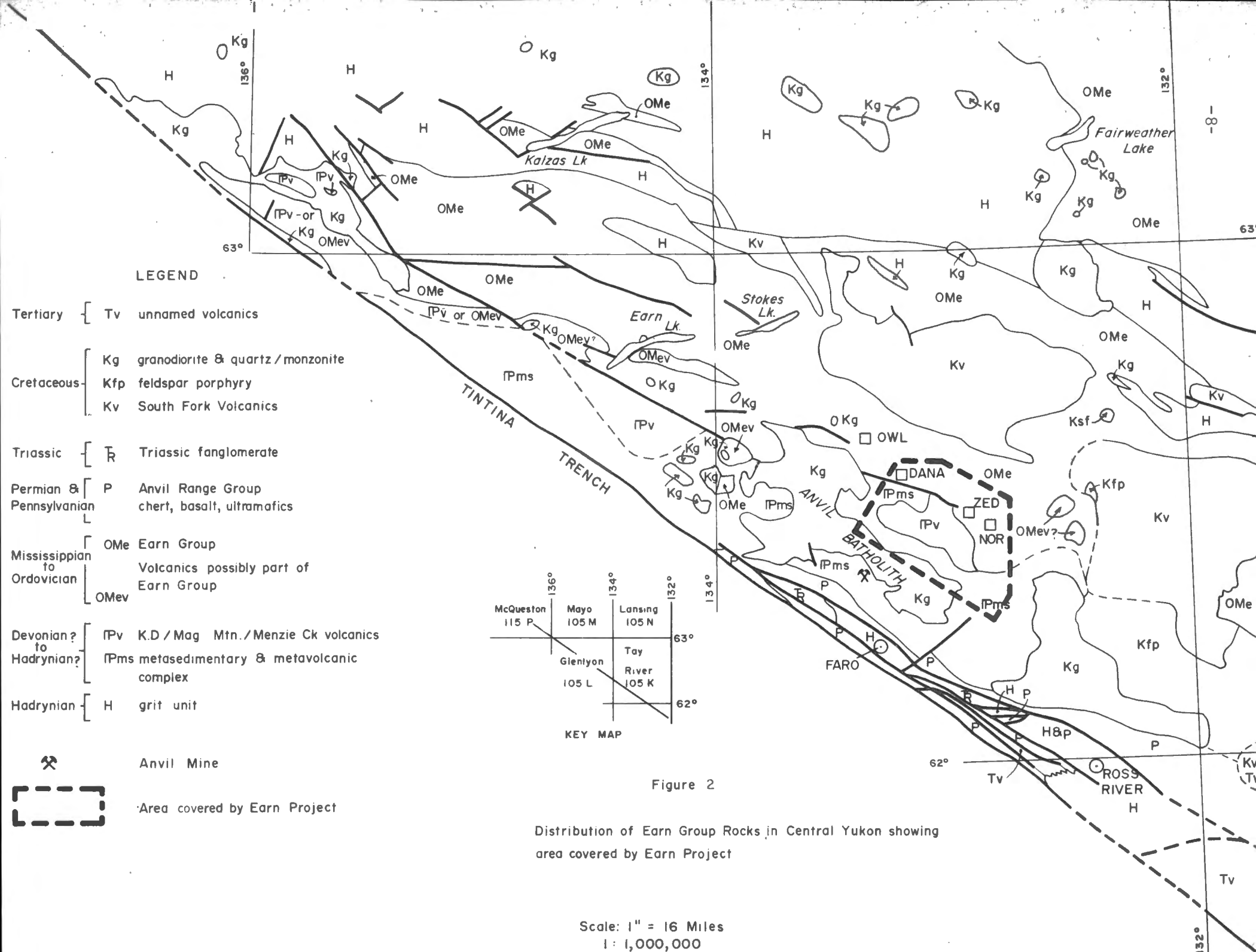
The entire claim block is underlain by rocks correlative with the Earn group established by Campbell (1967) in the adjoining Glenlyon map area. The Earn group there consists of chert, quartzite, argillite and limestone, and distinctive chert pebble conglomerate. In its type area, the Earn group is considered upper Devonian to Mississippian. In Tay River map area, Roddick and Green (1961) established a unit (unit 5) of similar lithology and age and later G.S.C. maps (Tempelman-Kluit (1972), Okulitch et al (1974)) extended the name Earn group to Roddick and Green's unit 5. The relations of the Earn group to other rock sequences of the Anvil Range are poorly known but it is thought to overlie the schist-phyllite unit (i.e. units 2 and 3 of Tempelman-Kluit (1972)), to be overthrust by a thick, lower Paleozoic mafic-intermediate volcanic and sedimentary unit and to be unconformably overlain by Triassic clastics unit 10 of Roddick and Green (1961). Further to the northeast, the Earn group lies directly on late Proterozoic Grit unit with local intervening Road River equivalents and is locally unconformably overlain by lower Cretaceous South Fork Volcanics. The thickness of the Earn group is unknown but is probably several thousands of feet.

Lewis (1974) divided the Earn group into four map units: unit 5, mostly dark colored slate, siliceous slate, argillaceous chert, chert and minor chert pebble conglomerate; unit 6, tuffaceous chert, siliceous tuff and

rhyolite; unit 7, limestone chert, quartzite slate and calcareous slate; and unit 8, chert, slate and minor limestone. The author has recognized basically the same stratigraphic sequence in more localized areas and divides the studied portion of the Earn group into three major divisions: a stratigraphically lower unit of drab, dark colored chert and siliceous clastics, a middle carbonate rich unit and an upper unit characterized by varicolored, particularly purplish brown, chert with sandy limestone near the top of the investigated section. Recognition of this stratigraphic sequence has been critical to a re-evaluation of the sequence and structure at the Dana claims.

The author places less emphasis on the acid volcanoclastic content of the Earn group than Lewis (1974). Nevertheless, distal acid volcanoclastic rocks are probably present and may be significant. Noteworthy in this connection is Bostock's description of Earn group correlative cherts as tuffaceous in Mayo map area to the northwest and, across the Tintina trench, Tempelman Kluit's (1976) recent confirmation of the assignment of a major acid volcanic unit (White, Roddick and Green (1960) unit 6c) in the Pelly Mountains to the middle Mississippian, his earlier suggestion that the Klondike schist may be acid volcanic and volcanoclastic rocks of Mississippian age and the existence of the Mississippian Totalanika schist, a meta-rhyolite sequence in central Alaska. It must be emphasized that major units of unquestionably acid volcanic origin (i.e. rhyolite domes, porphyritic flows, and ignimbrites) have not been identified in the Earn group despite low metamorphic grade.

Strata of the Earn group, where studied by the author, are thrown into northeasterly verging, close to tight overturned folds probably related to important northeasterly directed thrusts as suggested by local reversals of



LEGEND

- Tertiary { Tv unnamed volcanics
- Cretaceous { Kg granodiorite & quartz / monzonite
Kfp feldspar porphyry
Kv South Fork Volcanics
- Triassic { R Triassic fanglomerate
- Permian & Pennsylvanian { P Anvil Range Group
chert, basalt, ultramafics
- Mississippian to Ordovician { OMe Earn Group
Volcanics possibly part of
Earn Group
OMev
- Devonian? to Hadrynian? { IPv K.D / Mag Mtn. / Menzie Ck volcanics
IPms metasedimentary & metavolcanic
complex
- Hadrynian { H grit unit

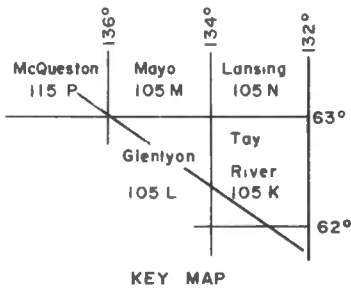


Figure 2

Distribution of Earn Group Rocks in Central Yukon showing area covered by Earn Project

Scale: 1" = 16 Miles
1: 1,000,000

-  Anvil Mine
-  Area covered by Earn Project

stratigraphic sequence. Late variably oriented normal faults appear to be important locally.

Lewis' study added no new data to the age of the Earn group but he noted the possibility of inclusion of rocks older than upper Devonian, particularly Road River Formation equivalents.

DANA CLAIMS WEST OF IVAN CREEK AND HALO FRACTIONAL CLAIMS

Geology

Lithology

Unit 1

Unit 1 is a distinctive unit of dark colored, fine-grained, highly siliceous rocks. Dominant lithologies are dark grey to black chert, argillaceous chert and mixed cherty and calc-silicate rocks. Much of the unit is massive but fine banding is found in many localities, especially on the weathered surface. The calc-silicate rocks appear to be at the top of the unit and consist of irregular lenses of sucrose quartz + diopside [†] calcite in a dark colored cherty matrix. The calc-silicates appear to be derived from a rock transitional into the overlying unit 2. Some of the cherts in this unit may have a tuffaceous component. One to a few percent finely disseminated pyrite is common in rocks of this unit but apparently nowhere is sufficiently concentrated to create a significant I.P. effect.

Unit 1 is considered the stratigraphically lowest unit because of relationships best displayed elsewhere in the Anvil Range. The upper contact appears conformable and gradational here but, because of considerable regional variations of rock type underlying unit 2 throughout the Anvil Range, an unconformity is possible. The top of unit 1

appears to correlate with horizons rich in coarse clastic material and particularly the chert pebble conglomerate considered characteristic of the Earn group, but those facies are not developed on the claim block (with the possible exception of grits in unit 1a). Lower Mississippian fauna from the overlying unit suggest an upper Devonian or lower Mississippian age for unit 1 but older rocks may be included. The calc-silicate rocks of unit 1 are similar to a large area of higher grade metamorphic rocks exposed immediately south of the Dana claims (unit 2 of Lewis, 1974) which are, in turn, similar to the calc-silicate units of the core of the Anvil Range (part of unit 2 of Tempelman Kluit, 1972).

Unit 1a

Unit 1a is an important unit of black chert, siliceous argillite, argillite and siltstone with minor limestone, grit, and sheared graphitic rocks. The principal exposure is in Ivan Creek Canyon and a good section is encountered in DDH 466-75-6. In the canyon outcrop and DDH 466-75-6, thin pyrite [±] pyrrhotite beds and disseminations were noted but only slight traces of sphalerite accompany the iron sulphide. The stratigraphic relations of this unit are uncertain but on basis of general lithology and structural position is equated with part of unit 1. The rocks of unit 1a appear to correspond with Lewis' (1974) unit 5 which he considered a facies equivalent of his unit 6 (unit 1 of this paper) which is in accord with the author's interpretation.

The importance of unit 1a derives from its distinctive geophysical response due to high conductivity and magnetic susceptibility, making it a useful marker horizon in overburden-covered areas.

Unit 1b

Unit 1b rocks are an alteration assemblage consisting of rocks of the top of unit 1 coarsely recrystallized and bleached. Assemblages appear to be quartz, calcite, colorless tremolite or possibly wollastonite and minor diopside and idocrase. The alteration appears to be unrelated to mineralization and may be related to the Anvil Batholith which crops out two miles to the southeast.

Unit 2

Unit 2 consists of grey argillaceous and silty limestone, argillaceous chert and siliceous argillite. Dark colored, randomly oriented tremolite needles are widespread in the limestones. These rocks are particularly well-exposed in a large trenched area at the top of the hill at 85N on L8E.

The limestones of unit 2 have yielded two fossil localities on the claim block. The specimens from both localities were poorly preserved; one was a crinoid ossicle, the other a fragment of a brachiopod(?) valve. Unit 2 is correlated with rocks bearing lower Mississippian fauna elsewhere in the district (Tempelman Kluit, 1972) and with the Kalsas formation of Campbell (1967). The top of the unit is not exposed and the thickness is unknown; only about 100 - 200 feet of strata are represented on the above-mentioned hill.

DDH 466-74-1 may have penetrated the top of unit 2 where silty limestone abruptly underlies altered cherty rocks but the contact there may be a low angle fault.

Unit 3

Unit 3 is the main host to mineralization on the claim block and is broadly divisible into three main sub-units which are not easily mappable and are not strictly stratigraphic units. Unit 3 is a combination of units that can be broken out elsewhere in the Anvil Range but the relationships are confusing here because of superimposed alteration and structural complexity.

Unit 3a is a distinctive assemblage of chert characterized by hard, dense, purplish brown chert and silty chert. Unit 3a was originally considered a thin, distinctive marker horizon (Jilson and Simpson, 1975a) but, due to re-examination of outcrops in the claim area and mapping elsewhere in the Earn Group rocks, it is now realized that these rocks are part of a thick unit of bedded, varicolored, locally radiolarian chert that overlies unit 2 equivalents and corresponds to part of Lewis' unit 8 and to unit D on the Nor claims (Jilson and Simpson, 1975b). On the claim group, this unit (and the overlying carbonate/quartzite/chert unit noted elsewhere) are highly altered and bleached and to the point where they are barely recognizable. The brownish cherts of unit 3a can be seen to grade laterally into bleached chert of rocks of unit 3c, especially in the vicinity of the northern trenches of the Hal claims. In DDH 466-75-4 on the western limit of the Dana mineralized zone, remnants of brownish chert are recognizable near the bottom of the hole.

Unit 3b is almost completely altered on the property and is not readily apparent without exposure to the more normal sequence developed elsewhere in the district. The unit must have originally consisted of

interbedded chert, quartzite, sandy limestone and limy or dolomitic quartzite. The protolith has not been completely investigated by this writer but its base is map unit E on the Nor claims (Jilson and Simpson, 1975b) which is a unit of limestone and sandy limestone; it has also been mapped at "Area A" halfway between Dana and Nor (Jilson, 1976) where exactly the same sequence as at Nor is seen but at Area A it is overturned. Outcrops considered by the writer to correlate with unit 3b protoliths are included in Lewis' (1974) unit 9 but not all of unit 9 is necessarily equivalent to unit 3b.

Rocks of unit 3b are best seen in the upper part of DDH 466-75-5 where they consist of white limy quartzite, sandy limestone and greenish calc-silicate altered limy (or dolomitic?) quartzite in beds a few inches to a few feet thick, interbedded with greater amounts off-white to light grey bleached cherty rocks. In holes 466-74-1 and 2, the same sequence is encountered but there the calcareous quartzite beds are completely altered to greenish calc-silicate bearing assemblages which host mineralization.

Unit 3c is a grab bag unit for altered rocks that probably should be assigned to either 3a or 3b but cannot yet be satisfactorily subdivided. This corresponds to the writer's previous unit B on the claims (Jilson and Simpson, 1975a).

The dominant siliceous rocks of 3c are light grey to off-white, fine to very fine grained, massive to weakly banded and hard. They generally weather rusty and do not crop out well, with the exception of a few cliff outcrops on the north facing slopes and in Ivan Creek. These rocks commonly contain minor amounts of very fine disseminated sulphide

which locally is pyrrhotite but may be pyrite or arsenopyrite elsewhere. Locally, particularly near the top of the section west of the Halo Fault, the cherty rocks contain thin beds of pyrrhotite with traces of chalcopyrite; rarely the pyrrhotite beds are graded.

As mapped, unit 3c does not contain much carbonate, mainly because substantial carbonate content qualifies an outcrop for inclusion in unit 3b. Nonetheless, there are carbonate bearing horizons in 3c, particularly in the northern-most Hal claims trenches. The stratigraphic affiliation of these beds is unknown; they are similar to rocks of 3b east of the Halo fault but appear to be lower in the section. It is tempting to suggest that they might be the top of unit 2 in an advanced stage of alteration.

The siliceous rocks of unit 3 contain a fine discontinuous, light-dark color lamination most clearly expressed by slight relief weathering on the unbroken surface. The lamination is parallel to compositional banding in most cases and only in rare and equivocal instances can it be seen to cut bedding on the claim block. This lamination is developed in cherty rocks throughout the Earn group in the Anvil Range and appears to be widespread in cherts throughout the Selwyn Basin (Roberts, personal communication, 1976).

The siliceous nature of the rocks and the lamination, vaguely reminiscent of the eutaxitic textures of welded tuffs, lead Lewis (1974) to suggest that these rocks were tuffaceous cherts and that they were accompanied by rhyolites and banded siliceous tuffs, which together comprised a substantial part of the Earn group. The writer has

investigated some of the localities described by Lewis (1974) and found the banded siliceous tuffs in some cases to be fine grained, thin bedded, relief weathering dolomitic and limy quartzites and possibly chert siltstones and the rhyolites to be quartzite and bleached chert. There are, however, on the Zed claims and in a few other areas, subordinate rocks that may be coarse volcanoclastics.* The fact that nowhere are phenocrysts developed in Earn group rocks suggests that rhyolites and welded tuffs are not present in the pile and that only very distal tuffaceous rocks could be present.

The origin of the lamination is unclear but the available evidence suggests that it is a pervasive metamorphic foliation and not a strictly primary feature as is discussed in more detail below.

In summary, unit 3 appears to be originally a dominantly sedimentary unit now greatly affected by alteration. Original rock types were varicolored chert, silty and argillaceous chert, siltstone, quartzite, limy and dolomitic quartzite, sandy limestone and minor pure limestone with the possibility of very distal tuffaceous chert grading into the silty cherts.

Structure

Folding

The grid area is cut by several prominent faults which divide the area into five convenient domains for discussion of fold structures. Within the fault blocks, relatively simple fold structures can be defined but the relationships from block to block are obscure.

* Since preparation of this report, petrographic examination of the most likely coarse volcanoclastic rock on the Zed claims shows it to be without doubt a slightly altered intrusive porphyry.

1. East of the Halo Fault South of Dana Fault

Strata in this fault block are thrown into northerly overturned folds with axes plunging easterly and axial planes dipping southerly. The folds are illustrated on section A-B. The effect of the northern syncline is clearly shown on the geophysical and geochemical maps (see Map 7) where the mineralized zone wraps around its hinge. The southern anticline is less clear but bedding attitudes and occurrence of Pb-Zn mineralization in Ivan Creek suggests its presence. The upper contact of unit 2 here may be a low angle fault with possible thrust displacement. Bedding facing directions are unknown but Cu stringer zone below bedded Zn-Cu mineralization suggests the shallow southerly dipping limb of the synform is upright.

2. North of Dana Fault

Strata of unit 1a here appears to be part of the steep northerly dipping limb and hinge zone of a northerly overturned fold cut off by the Dana fault.

3. West of Halo Fault, North of Hal Fault

Structure here is uncertain but appears to be mainly the shallow southerly dipping limb of a fold similar to those east of the Halo fault. Bedding dips in the southwest part of the area are steeper, suggesting proximity to a faulted off synclinal hinge zone.

4. West of Halo Fault, South of Hal Fault

Strata of units 1 and 2 here appear to be folded into an open synform trending easterly which may be the trough of a much larger

northerly inclined fold. Rocks of unit 2 here have a generally southerly dipping, slaty cleavage.

5. West of Camp Lake Fault

Outcrops west of the grid show that this area is probably part of a shallow easterly dipping homocline, possibly the upper limb of a northerly inclined, relatively open fold.

Faulting

The north-northwesterly trending Halo and Camp Lake faults are prominent topographic linears and show some effect on the geophysical maps. The central segment of the Halo fault is definite as very different rocks are juxtaposed across it. The conflicting sense of down dropping indicated on the Halo fault may indicate rotational movement or may be caused by displacement on the Hal fault. The Halo fault probably extends a considerable distance to the north, based on geophysical evidence.

The west-northwesterly trending Hal and Dana faults appear to pre-date the Halo fault and have opposite senses of down dropping defining a central graben.

The Hal fault is required to explain the conflicting structural and stratigraphic data. Previously units 1 and 2 were thought to overlie unit 3, but regional work shows this not to be the case, thus a fault down dropped to the north. Another interpretation of the Hal fault would be as a southerly dipping reverse fault but a zone of fracturing in the trench at L12W suggests it is a vertical feature. The Hal fault probably extends east of the Halo fault but its trace is unknown there.

The Dana fault must be down dropped to the south if unit 1a is part of unit 1 but this interpretation is uncertain. The trace of the fault shows clearly on the geophysical maps where the fault bounds a highly magnetic and conductive graphitic and pyrrhotitic horizon within unit 1a. The Dana fault appears to be offset by the Halo fault. The apparent strike of the Dana fault is closely approximated by trend of fold axes and vertical shear zones in Ivan Creek Canyon. A graphitic shear zone in DDH 466-75-6 appears to dip southerly about 60° , suggesting a reverse fault related to folding and possibly that the Dana fault also has reverse movement. The obvious problem here is the correlation of unit 1a since reverse movement suggests it should be younger than unit 3. The stratigraphy of the upper units of the Earn group is unknown to the writer but it is likely that lithologies similar to 1a could be present, based on brief aerial reconnaissance north of the Nor claims.

The northeast trending faults are based mainly on topographic lineaments. The Ivan Creek fault zone appears to be reflected on the 1966 Anvil EM map of the Ivan claims as a major truncation of conductor trends. The fault zone is probably a wide complex belt rather than a single fracture and appears to have left lateral strike slip displacement but there is little clear cut evidence bearing on the sense and amount of displacement. The small fault near the baseline in Ivan Creek is rather uncertain but is put in to accommodate abrupt changes in bedding attitude that might be explained equally well by folding, as this area is near the hinge of a northerly overturned anticline.

Development of Cleavage

Axial plane slaty cleavage is developed only in rocks of unit 2 west of the Halo fault where it strikes just south of east and dips steeply

to shallowly south. Similarly oriented cleavage is also developed in rocks of unit 1 west of the Camp Lake fault off the grid and on the main block of the Dana claims across Ivan Creek where it has been described in detail by Lewis (1974).

In most cases, an axial plane foliation is not developed in rocks of unit 3; there is, however, an alignment of micas parallel to the fine discontinuous lamination noted previously. In thin section, this foliation appears to be a typical pervasive metamorphic foliation defined by aligned, fine muscovite flakes which "wrap around" larger silt grains in the usual manner. On the claim block, there are no known folds related to this foliation. In all but one case where mesoscopic folds are found, they clearly deform the foliation. In the sole exception, there are several folds in one hand specimen and all but one clearly fold the foliation; the exception is a highly attenuated fold where the foliation appears to be sheared out parallel to the axial plane of the fold.

On the Nor claims (Jilson and Simpson, 1975b), a similar lamination forms in impure cherts at a high angle to bedding defined by the usual inch scale parting common in bedded cherts. These outcrops are in the hinge region of a large, overturned fold in contrast to the situation on the Dana claims where the observed folds are on the limbs of smaller overturned folds.

In rare cases on the Dana claims, a second weak axial plane foliation can be noted in hand specimens and more commonly a subtle second foliation can be seen in thin sections. This second foliation appears to be approximately axial planar to the only known fold episode in the

grid area.

The geometric relations indicate an early foliation parallel to compositional banding, in turn cut by a later non-pervasive axial plane foliation. In argillaceous rocks of unit 2, the only foliation known (a slaty cleavage) is axial planar to the large folds and cogenetic with the second foliation in siliceous rocks. It seems most unlikely that siliceous rocks overlying argillaceous rocks could develop a pervasive metamorphic foliation while the argillaceous rocks develop none, thus the early foliation in siliceous rocks must have developed parallel to bedding during the metamorphic episode that formed slaty cleavage in unit 2 and was later folded during the same metamorphic-deformational episode.

It is suggested, with some reservations, that the foliation in question developed mimetic to clay minerals and sericite, possibly in part detrital, aligned along the bedding. This happened only in the competent siliceous rocks possibly because this was the "easiest" path during the early stages of deformation. Later in the deformation episode, the mimetic foliation became folded and an incipient axial plane foliation developed possibly because increased temperature or directed stress overcame imposed constraints to crystallization of micas along the bedding plane. In argillaceous rocks, the greater ease of recrystallization at an angle to bedding rules out development of mimetic foliation and only an axial plane foliation can develop in response to directed stress. Relationships on the Nor claims could be explained by either non-development of mimetic foliation due to more intense recrystallization under different P-T conditions or more complete development of the "second" axial plane foliation obliterating the mimetic foliation.

Jointing

Well-developed, vertical joint sets trending $030 - 045^{\circ}$ and 125° approximately parallel the Ivan Creek and Hal faults respectively. A subordinate, shallow dipping to flat joint set is weakly developed. The three sets are approximately orthogonal and their orientation with respect to fold axial directions defined by Lewis (1974) over a larger area than the grid suggests they may be related to stress relaxation after folding. Parallelism of faults and joints suggests likewise that faulting may have developed during relaxation.

Joints are commonly marked by bleached selvages and silica or carbonate veining and in the vicinity of the remobilized sulphide zone are mineralized with pyrite, pyrrhotite, galena, sphalerite, chalcopyrite or arsenopyrite.

Mineralization

The main mass of mineralization on the claim block lies between the Halo fault and Ivan Creek. Two main types of mineralization are known there:

1. stratiform zinc-copper sulphides underlain by a copper stringer zone, and
2. remobilized zinc-copper-lead sulphides.

West of the Halo fault, minor, apparently stratiform copper-zinc sulphides and remobilized sulphides are exposed in trenches on the Hal claims.

All outcrops in the main zone east of the Halo fault are of the remobilized zone outlined by hachures on the geologic map. The sulphides are coarse grained, black sphalerite, galena, coarse blebs of

chalcopyrite and massive to coarse euhedral arsenopyrite with variable amounts of pyrrhotite and pyrite. The sulphides occur thinly coated on fractures, in veins a few inches thick and as small irregular massive bodies at fracture intersections and replacing (?) host rocks. Minor occurrences of possible bedded sphalerite + pyrrhotite are found in outcrop near 117N on line 36E. Drill holes 466-74-1 and 2 encountered the same zone and display the characteristics of this mineralization more clearly. As can be seen on the graphic logs for those holes, the assay values are erratic but long overall low grade intersections are obtained (see Table II). The erratic assay results are caused by highgrade replacement mineralization in granular calc-silicates (altered limy quartzites) from a few inches to a few feet thick, alternating with greater amounts of bleached cherty rocks which contain disseminated pyrrhotite and sparse fracture bound base metal sulphides.

The stratiform sulphide zone was encountered in holes 466-74-3 and 466-75-4 and 5 but good outcrops of it are rare. The sulphides are concentrated in layers generally with a cherty quartzite host and consist of even to layered disseminations of fine grained brown sphalerite and fine pyrrhotite with minor chalcopyrite and practically no galena. The lighter color and fine, even grain size of the sphalerite contrast sharply with the coarse irregular blebs of blackjack in holes 466-74-1 and 2 and clearly have a different origin. The sulphide zone in holes 3 and 4 is a compact zone with higher average grade and more clearly defined boundaries than that of the remobilized zone and with upgrading on the order of two or three times would be an interesting target if not exactly a viable ore deposit. Where the bedded sulphides are cut by fractures, the sulphides appear to be leached out along the fracture

TABLE II

Selected Averages of Assay Results

| | | | <u>% Cu</u> | <u>% Pb</u> | <u>% Zn</u> | <u>Oz./Ton Ag</u> |
|------------------------|---------|--------|-------------|-------------|-------------|-------------------|
| <u>D.D.H. 466-74-1</u> | | | | | | |
| 32 | - 110 | 78' | 0.18 | 0.16 | 1.03 | 0.36 |
| 32 | - 140 | 108' | 0.16 | 0.21 | 0.92 | 0.26 |
| 210 | - 400 | 190' | 0.10 | 0.21 | 0.79 | 0.59 |
| 450 | - 590 | 140' | 0.11 | 0.16 | 0.43 | 0.53 |
| 210 | - 290 | 80' | 0.13 | 0.38 | 0.84 | 1.07 |
| 210 | - 590 | 380' | 0.09 | 0.18 | 0.56 | 0.49 |
| 32 | - 590 | 558' | 0.10 | 0.16 | 0.57 | 0.40 |
| <u>D.D.H. 466-74-2</u> | | | | | | |
| 8 | - 609 | 601' | 0.12 | 0.20 | 0.81 | 0.50 |
| 8 | - 294 | 286' | 0.11 | 0.34 | 1.12 | 0.67 |
| 368 | - 609 | 241' | 0.16 | 0.08 | 0.65 | 0.42 |
| 432 | - 609 | 177' | 0.21 | 0.08 | 0.74 | 0.50 |
| 463 | - 609 | 146' | 0.24 | 0.09 | 0.74 | 0.54 |
| 94 | - 294 | 200' | 0.11 | 0.28 | 1.16 | 0.38 |
| 8 | - 66 | 58' | 0.14 | 0.64 | 1.48 | 1.93 |
| 8 | - 18 | 10' | 0.52 | 2.07 | 4.40 | 7.20 |
| 94 | - 103.5 | 9.5' | 0.31 | 2.60 | 2.24 | 2.10 |
| 133 | - 140 | 7' | 0.73 | 0.26 | 4.56 | 1.10 |
| 283 | - 288 | 5' | 0.15 | 2.60 | 2.72 | 2.00 |
| 592 | - 597 | 5' | 1.72 | 0.16 | 4.68 | 3.10 |
| 592 | - 609 | 17' | 0.98 | 0.15 | 1.98 | 1.83 |
| <u>D.D.H. 466-74-3</u> | | | | | | |
| 150 | - 196 | 46' | 0.08 | 0.01 | 1.76 | Tr. |
| 183.5 | - 196 | 12.5' | 0.12 | 0.01 | 3.65 | Tr. |
| <u>D.D.H. 466-75-4</u> | | | | | | |
| 140.5 | - 201 | 60.5' | 0.07 | 0.02 | 1.97 | - |
| 182.25 | - 201 | 18.75' | 0.14 | 0.02 | 3.78 | - |
| 174.75 | - 201 | 26.25' | 0.13 | 0.02 | 3.52 | - |
| 140.5 | - 178.5 | 38' | 0.04 | 0.01 | 1.24 | - |
| <u>D.D.H. 466-75-5</u> | | | | | | |
| 627 | - 634 | 17' | 0.05 | 0.05 | 1.31 | 0.20 |
| 681 | - 706 | 25' | 0.05 | 0.02 | 1.02 | 0.20 |
| 627 | - 706 | 79' | 0.04 | 0.03 | 0.82 | 0.20 |

with at least part precipitated as a veinlet along the fracture itself - such a process was probably instrumental in formation of the remobilized zone.

One of the most interesting aspects of DDH 466-75-4 was the stringer zone underlying the bedded sulphide zone. The stringers consist of thin pyrrhotite [±] chalcopyrite veinlets locally with chloritic selvages. The veinlets generally dip steeply and cut layering approximately perpendicularly but their orientation is highly variable. Rocks overlying the bedded zone show a very distinct decrease in overall fracturing and definite strong decrease in the number of sulphide veinlets.

The "remobilized zone" and "bedded zone" can be clearly distinguished on the geochemical maps due to the lesser Pb and Cu response over the bedded zone. The bedded zone shows up clearly on the magnetic and IP surveys and response appears to decrease counter-clockwise around the nose of the syncline east of Halo fault. The geochemical response also decreases counter-clockwise. This is thought to be caused by rapid facies change of bedded mineralization from Cu-Pb-Zn-Ag-Fe in "remobilized zone" to Zn-Cu-Fe to Cu-Fe as the bedded zone wraps around the fold hinge. Total amount of sulphide also decreases in that direction and, as indicated by DDH 466-75-5, also down dip.

The showings west of the Halo fault on the Hal claims are described elsewhere (Jilson and Simpson, 1975a; Cathro, 1967). They are small massive to disseminated sulphide masses composed mainly of pyrrhotite with minor chalcopyrite and sphalerite. The main mass of the sulphides appears to be bedded but fracture bound and replacement features are widespread. In addition, small skarn showings with chalcopyrite, pyrrhotite and traces of scheelite are found.

The mineralization is thought to be roughly coeval with the host rocks. It would appear that the "bedded zone" formed by submarine exhalation over a fumarole in a large sedimentary basin where alternating silty and/or tuffaceous chert, quartzite and limy quartzite were being deposited. The generally high input of clastic material and lack of strong reducing conditions (?) apparently precluded deposition of concentrated sulphides and caused rapid facies variations in the bedded zone. The remobilized zone may represent a combination of originally bedded sulphides reworked by the feeder system (assumed to be strictly represented by the stringer sulphides) and epigenetic fracture bound and replacement mineralization deposited by the feeder system in rocks laid down before initiation of hydrothermal activity. The sulphide deposits on the Hal claims west of the Halo fault may be somewhat distal accumulations of sulphide in very small paleotopographic sub-basins while the minor bedded pyrrhotite occurrences in unit 3 are distal deposits formed without the benefit of topographic conditions conducive to pooling of "sulphide exhalations". The amount of base metal sulphide contained in this deposit is impressive when one ignores its dispersed nature. The "remobilized zone" above contains on the order of 30 million tons of rock which averages just under 1% combined Pb+Zn, 0.1% Cu and 0.5 oz./ton Ag. The total system is probably at least twice as large. If the model proposed is correct and had the exhalative system been superimposed on more attractive depositional conditions, then an important sulphide deposit could develop.

The tectonic setting of the deposit is thought to be an ensialic marginal ocean basin (the Selwyn Basin) behind an active plutonic arc now

represented in the Yukon - Tanana upland of Alaska and Yukon. The stratigraphic position of the Tom deposit described by Brock (1976) above a horizon of chert pebble conglomerate is interesting as in Glenlyon map area the main mass of chert pebble conglomerate is overlain by the Kalsas Formation (Campbell, 1967) which is equivalent to map unit 2, thus the Dana mineralization and the Tom mineralization are at approximately equivalent stratigraphic levels. On the Nor claims, a similar, though less impressive, system appears to have operated below unit 2 equivalents.

Geochemistry

Methods and Procedures

At the onset of the survey, it was planned to collect the B horizon but in practice this proved to be difficult because of thick organic material and/or volcanic ash, and shallow permafrost. On the steep north slope, it commonly proved impossible to get an adequate sample.

Due to this problem, every line was walked and at least twice and generally three times in order to remove the moss and start the underlying material to thaw, thus getting the hole as deep as possible and hopefully reaching the B horizon. In many cases, a B horizon sample was obtained, but often the lowest level reached was still in the A horizon. The samples were dug with a mattock and placed in a wet strength Kraft paper bag. The samples were partly air dried in camp, then shipped to the Whitehorse laboratory of Barringer Research where analyses were done by Doug Read.

The sample was oven dried at 75°C and sieved to minus 80 mesh. Two hundred and fifty milligrams of the minus 80 mesh fraction was digested

in perchloric acid (HClO_4) and the resultant solution submitted to atomic absorption spectrophotometry. The perchloric acid extraction is essentially a total extraction. Duplicate samples were submitted to Barrinager as a check on precision of their analyses; the results of these checks showed good reproducibility.

Description of Soils

The soils developed on the claim group fall into two main categories, depending mainly on topography and drainage; all the soils are immature. On the rolling upland surface, two sequences of soil horizons are found. In well drained areas, a few inches of virtually undecomposed organic material (A_0) is underlain by slightly decomposed black organic material with a slight to moderate content of mineral matter (A_1) up to two or more feet thick but usually less than one foot thick. The A_1 is locally underlain by a lighter coloured leached horizon (A_2) but it is usually very thin and often absent.

A prominent layer of white volcanic ash is commonly found in the soil profile, usually at the base of the A_1 but also can occur within the A_1 horizon. The B horizon is light-medium brown to orange-brown or dark brown and free of organic material, except where buried horizons are found.

The second type of upland soil is found in less well drained areas, and consists of grey to greenish-grey clay rich material overlain by the A horizons described above, including the ash layer. This material is thought to be a weakly developed gley horizon and will be referred to as the G horizon.

On the south facing slopes where drainage is better and permafrost is deeper or absent, the A-B soils predominate although A-G soils are found locally.

On the north and east facing slopes, soils are very poorly developed and frozen poorly decomposed organic material often directly overlies large talus boulders. Where mineral rich soils are developed, they commonly consist of fine rock fragments, mixed fine rock and ash or ash alone.

Permafrost, or at least frozen ground, is widespread on the property with the exception of the south slopes and more exposed portions of the upland surface. Frost is usually encountered at depths of a few inches just below the moss cover and in many cases prevents obtaining a sample below the A horizon or the ash where this is thick. In some cases, heavily frozen A horizon material proved to be underlain at a depth of 2 - 3 feet by completely thawed B or C horizons. These relations suggest that a substantial blanket of impermeable frozen humus overlying a permeable B horizon might effectively blank out a geochemical response over mineralization by channeling the metal rich waters beneath the frozen humus. This would deny metal contribution to the overlying A horizon soils which, in routine sampling, are difficult to avoid. In such a case however, a substantial anomaly should be found downhill from mineralization, thus it seems unlikely that permafrost will completely eliminate signs of mineralization, but it could easily confuse the detailed picture.

The ash layer noted above is ubiquitous in central Yukon and was generally avoided as a sample media. Where samples of ash were taken, they yield unusually low metal values.

The B horizon was the desired sample media but in areas of poor drainage, a G horizon sample was taken. Where the A horizon was unusually thick or well frozen, it was sampled. On the north slopes, A₀ horizon samples were taken where nothing else was available, but these usually proved to have insufficient minus 80 mesh material for an analysis.

Results

The distribution of metal content in the soils sampled is shown in Figures 3 through 8, along with the metal content of the various soil horizons west of line 12E taken from Jilson and Simpson (1975a). Although there are differences in metal content of the various soil horizons, they are not significant compared to the difference between anomalies and background. The A horizon soils do not contain as many highly anomalous samples, suggesting that these samples (indicated with parenthesis on maps) should be viewed with caution.

All things considered, it appears the geochemical surveys on the whole gave a faithful picture of the metal content of the underlying rock, taking into account lateral transport.

There are five main areas of interest, labeled "A" through "F", that stand out on the geochemical maps (Maps 3, 4 and 5).

Areas "A" and "B" together comprise the anomalous response due to the main sulphide zone. Area "A" shows very strong anomalous Cu-Pb-Zn values with good coincidence. The highest metal content is offset a few hundred feet downhill due to mechanical transport, but the anomaly is surprisingly compact and "in place", considering the steep slope

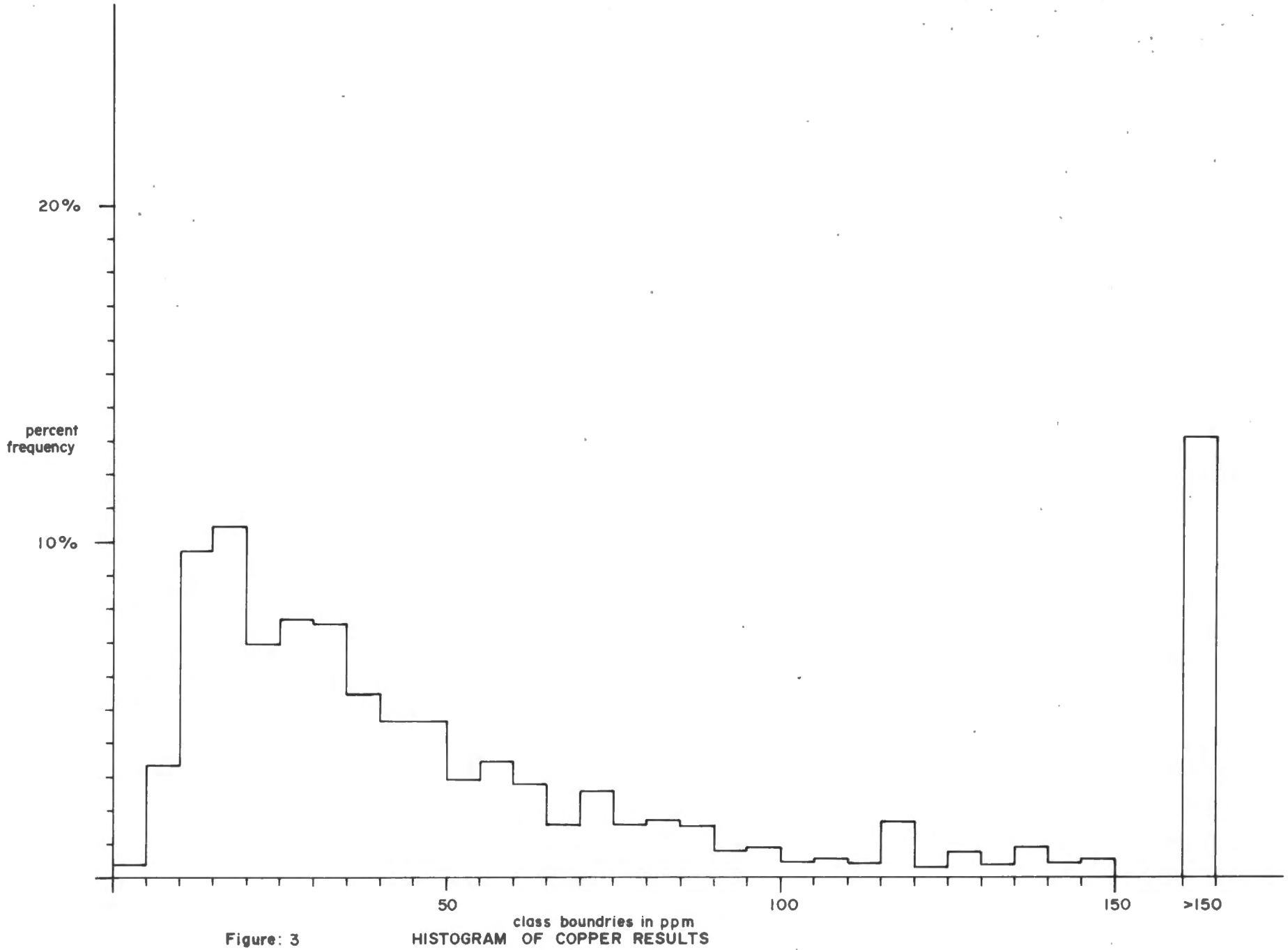


Figure: 3

HISTOGRAM OF COPPER RESULTS

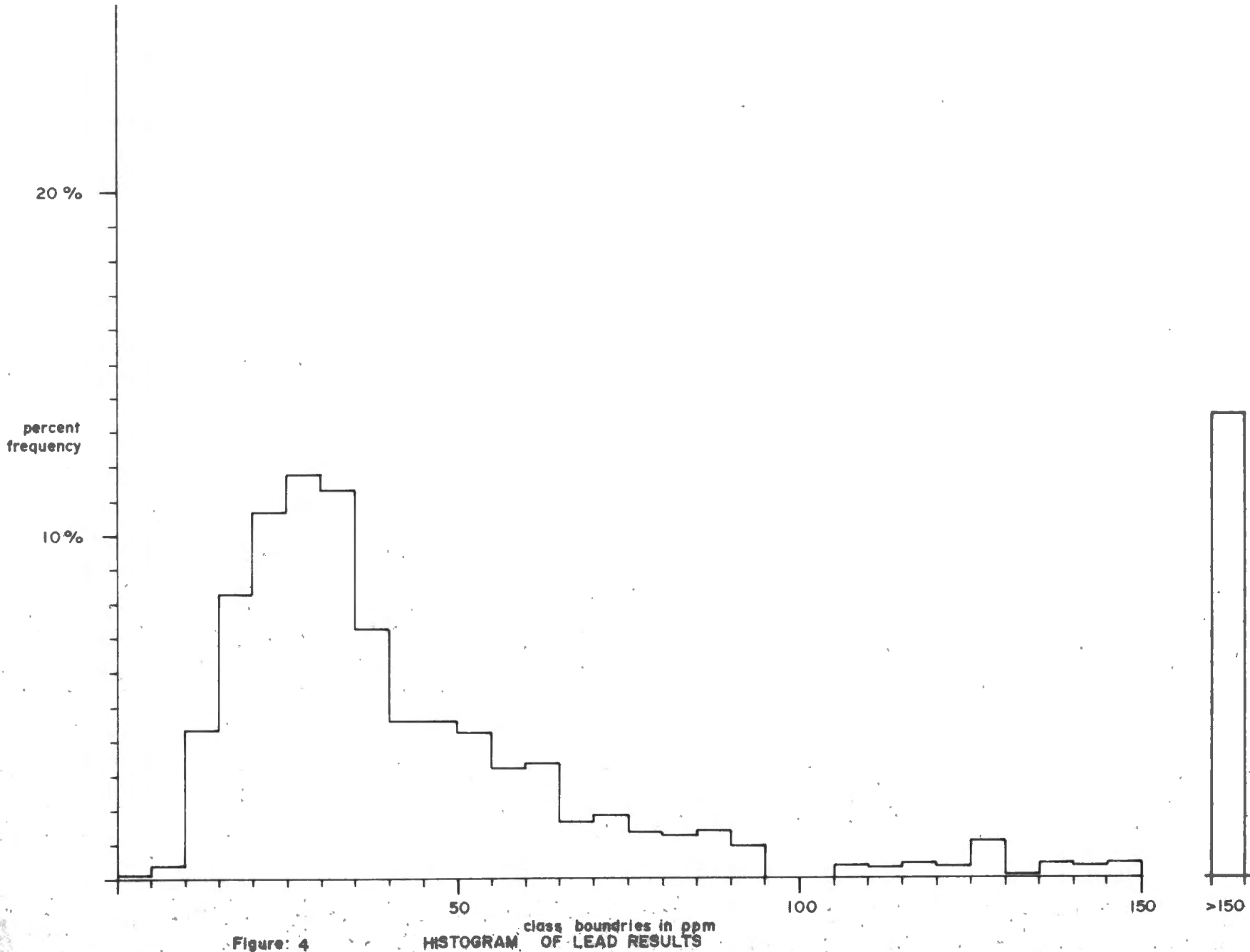


Figure: 4

HISTOGRAM OF LEAD RESULTS

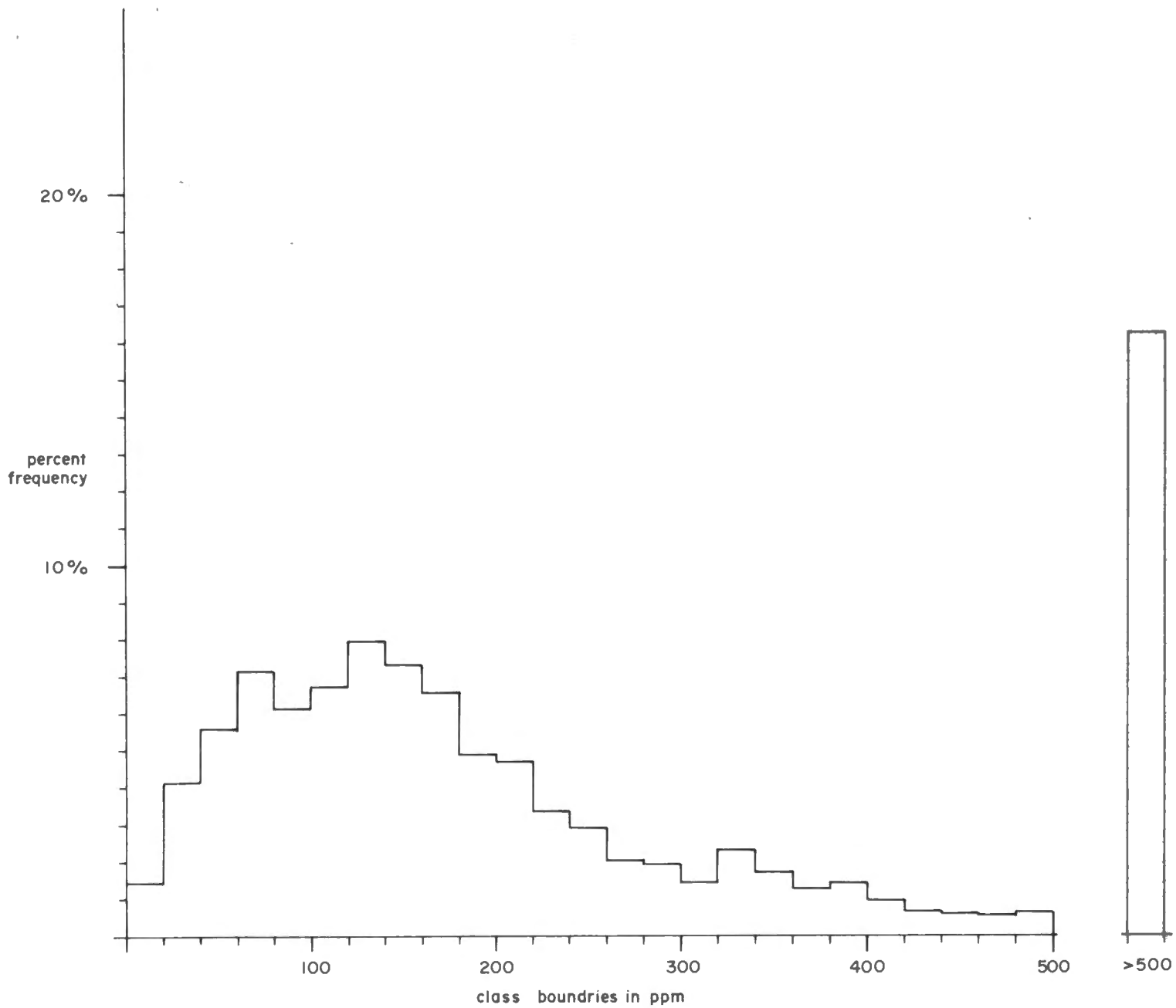


Figure: 5

HISTOGRAMS OF ZINC RESULTS

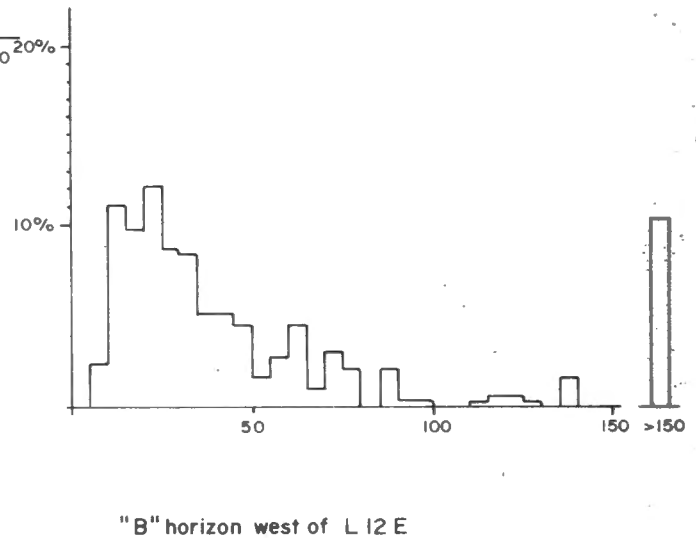
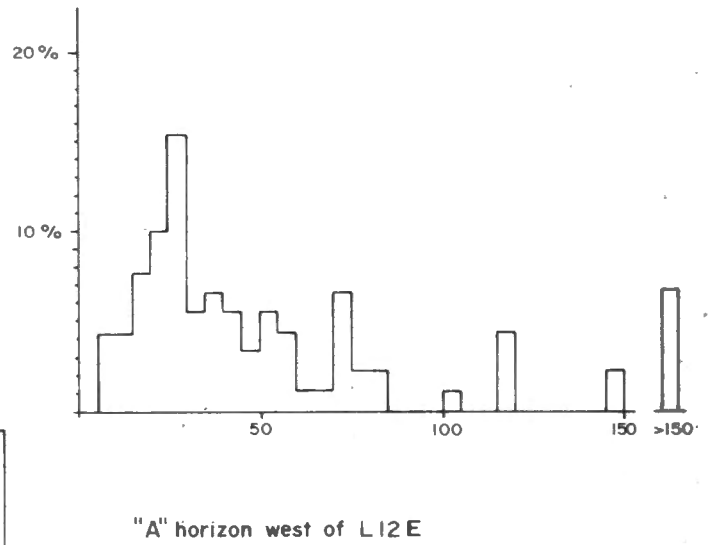
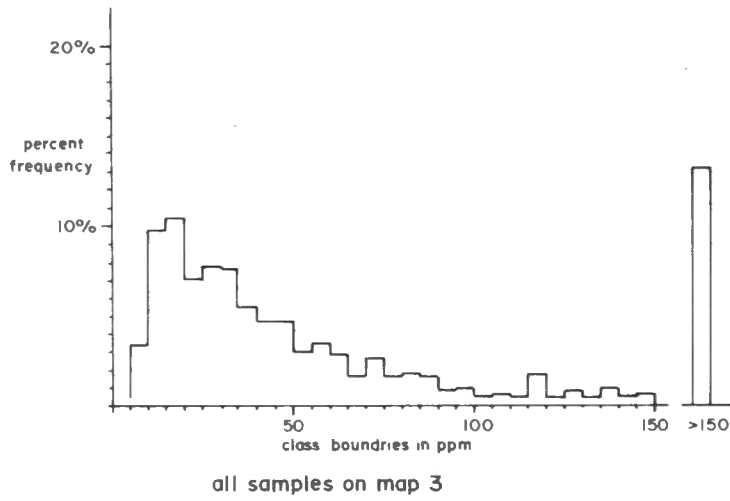
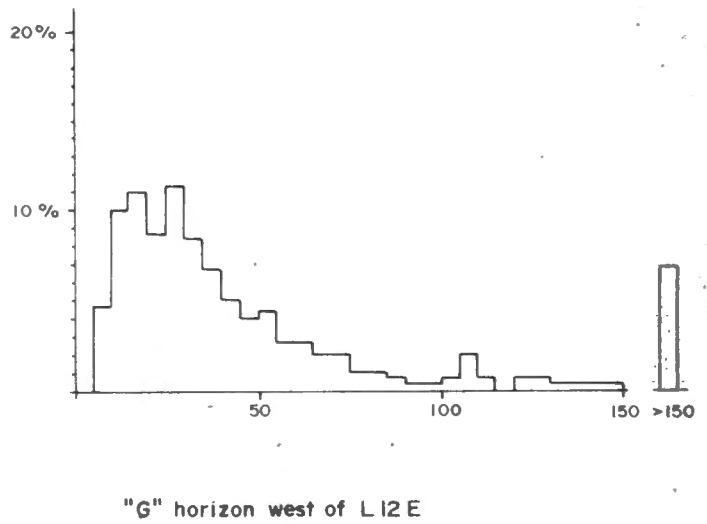
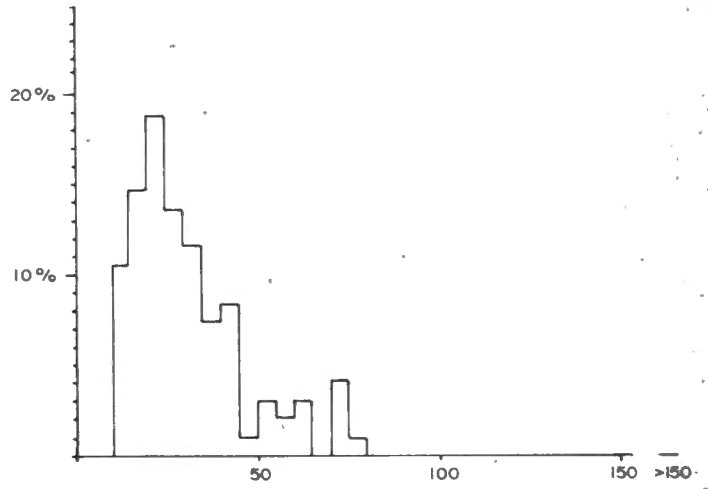
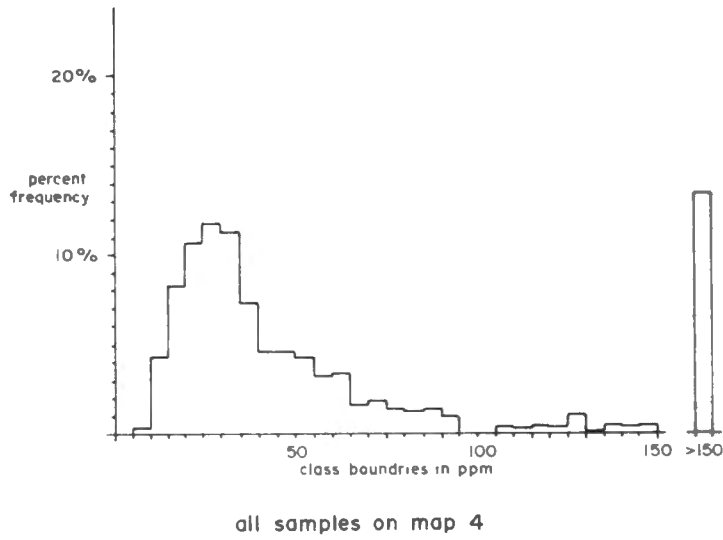


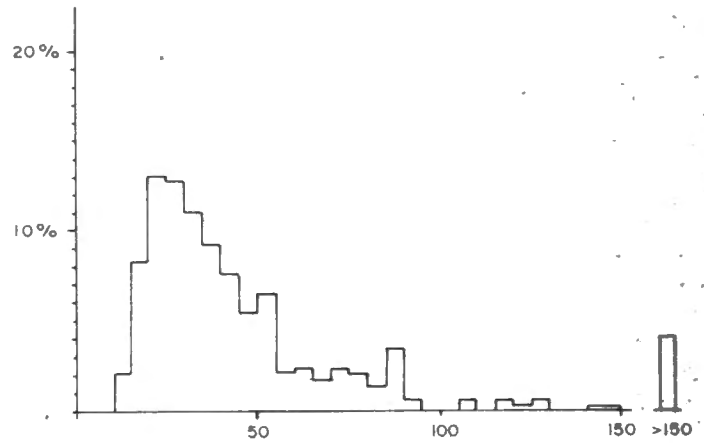
Figure: 6

Histogram of Copper values of all samples plotted on map 3 with histograms of "A", "B" & "G" horizons west of L 12E for comparison of metal contents of various soil horizons sampled.

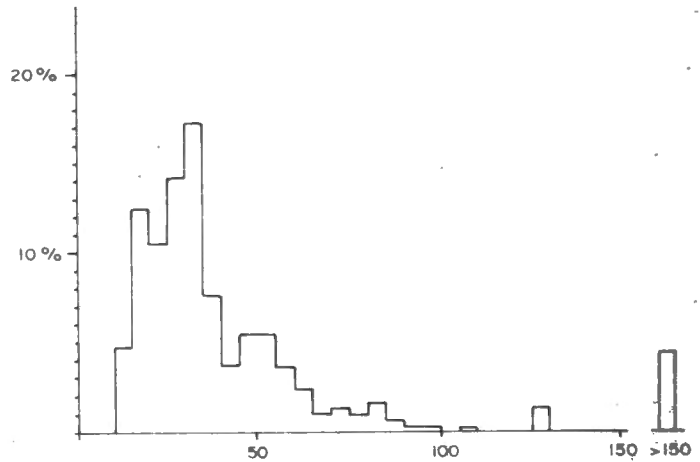




"A" horizon west of L12E



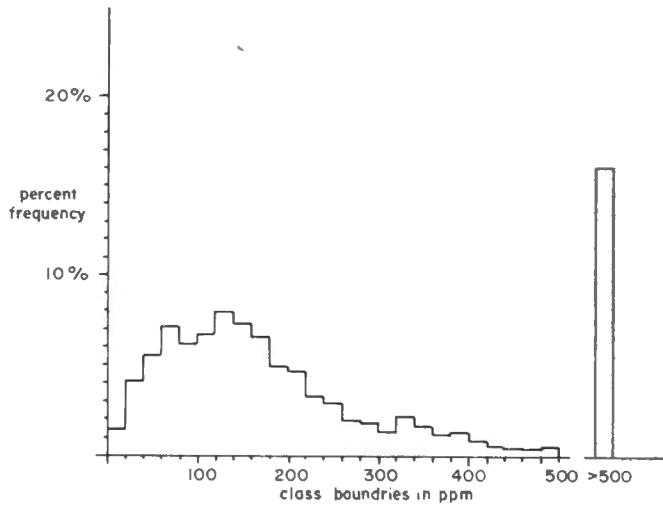
"B" horizon west of L12E



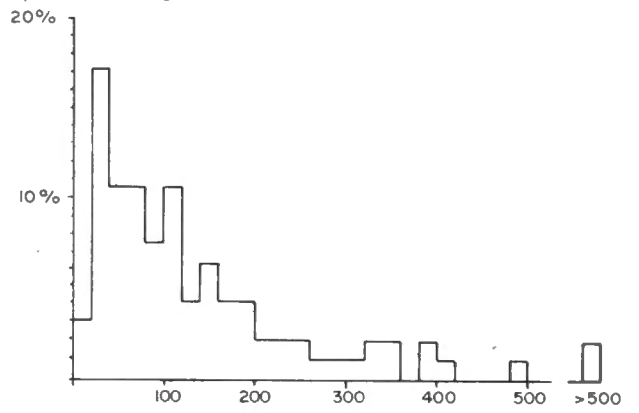
"G" horizon west of L12E

Figure: 7

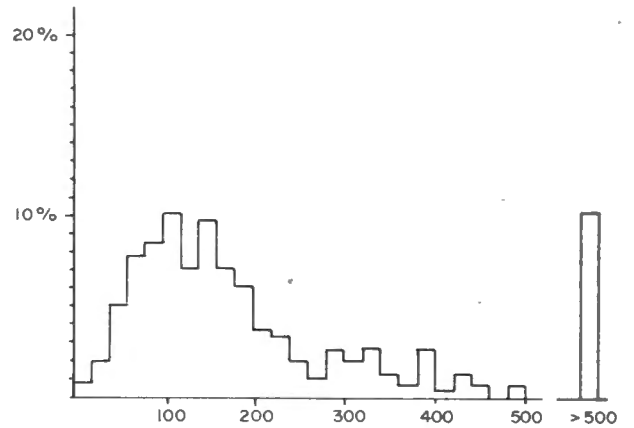
Histogram of Lead values of all samples plotted on map 4 with histograms of "A", "B" & "G" horizons west of L12E for comparison of metal contents of various soil horizons sampled.



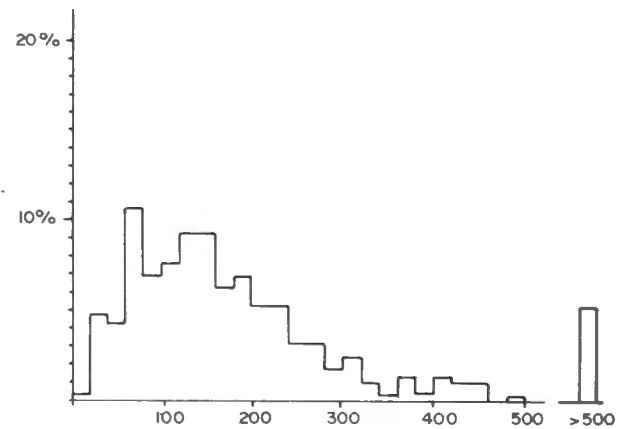
all samples on map 5



"A" horizon west of L12E



"B" horizon west of L12E



"G" horizon west of L12E

Figure: 8

Histogram of Zinc values of all samples plotted on maps with histograms of "A", "B" & "G" horizons west of L12E for comparison of metal contents of various soil horizons sampled.

(see Map 1). Area "B" also shows quite strong zinc response but the copper and lead values are less than in area "A". The "A" anomaly is developed over "remobilized zone" sulphides while the "B" is developed over "bedded zone" sulphides, thus the metal content of the soils reflects this difference. The north-south trending "B" zone seems to show somewhat more clear-cut downhill transport than the "A". The patchy anomalies south of the "A" and "B" zones are due to small sulphide occurrences in the hanging wall rocks of the sulphide zone as encountered in DDH 466-75-5 and in nearby outcrops. The southernmost portion of this area is due to the repeated sulphide zone which here has changed facies to pyrrhotite and minor chalcopyrite \pm sphalerite, thus the different soil response. The soil conditions and outcrop in this area south of baseline 100N are optimum for development of anomalies representative of bedrock metal content, thus it seems most unlikely that significant Zn + Cu could be intersected by drilling the repeated portion of the sulphide zone except at considerable depth.

Area "C" is a much less spectacular anomaly, also developed over sulphides. The main Hal claims showing in the trenches at 20W shows up well on the copper map and, to a lesser extent, the zinc, but the lead response is negligible. Soil conditions are less than ideal but it seems unlikely that an anomaly could not be subdued to this extent, thus it was suggested (Jilson and Simpson, 1975a) that, although more extensive sulphide would be found here by drilling, the grade would be very low and base metal content would be mainly copper. Two drill holes put down by Northern Homestake in this area in 1975, after Cyprus Anvil dropped its option on the claims, tended to confirm this. The

intense Cu-Zn (Pb) response on Line 4W east of Area "C" is due to contamination as the line crosses a trench which exposes very small showings; the one high copper value on Line 8W is due to a small amount of bedded pyrrhotite with chalcopyrite.

Area D was an interesting area because of the coincident EM, mag and IP response. The anomaly is at the base of the steep north slope and, in most cases, the first anomalous sample site is the first sample site that is in wet ground north of the slope. The anomaly shows good Cu-Pb-Zn coincidence but Cu and Zn tend to extend further downhill, as might be expected. The anomalous response was considered most likely due to downhill hydromorphic transport from the main sulphide zone but, because of the intense coincident geophysical response, a drill was put down. The hole intersected graphitic and pyrrhotitic sediments with only traces of Zn and Cu beneath the geophysical anomalies, thus the geochemical anomaly is a fine example of downhill transport.

Area "E" stands out only on the zinc map but is coincident with geophysical response. The source is probably sphalerite bearing calcite veins reported by Lewis (1974), but not seen by the author.

The broad area of zinc response could also be due to high background zinc content of the argillaceous rocks of unit 2 but a few rock samples analysed from this unit gave low background values.

Geophysics

During the 1974 field season, the grid was covered by magnetometer and Induced Polarization surveys and a small amount of Turam electromagnetic

surveying. In 1975, a small amount of Crone JEM surveying was attempted without success. The magnetometer and JEM surveys were carried out by Cyprus Anvil personnel and are described in the following sections. The IP and Turam surveys were done by P. E. Walcott and Associates and are described in a separate report (Walcott, 1976); only brief mention of the results of these surveys is made in this report and, for a more complete version, see Walcott's report.

Magnetometer Survey

Methods and Procedure

The magnetic survey was conducted with a McPhar M-600 fluxgate magnetometer. This instrument measures the relative intensity of the vertical component of the earth's magnetic field.

All readings were taken with the instrument about three feet from the ground and with the instrument facing north. All ferro magnetic material was removed from the operator's person during the survey.

Drift during the survey was compensated by reading base stations at intervals no greater than two hours, generally within one hour. Base stations were set up as marked on the map along the base line and tie lines using carefully controlled short loops on a magnetically quiet day. A permanently marked main base station at 16+20W, 88+80N, with assumed value of 1,550 gammas, was used as the starting point of the base station loops and to define the background level of the survey. Any drift noted during the survey was linearly distributed back through the loop in which it occurred. Numerous stations, especially those on the baseline, were re-read during the survey with good

reproducibility. When more than one hundred gammas per hour drift was encountered, the loop was discarded and re-read.

Results

The survey outlined two types of anomalies, one in the northeast corner of the grid is a broad 500 gamma anomaly with coincident IP and Turam anomalies, the other types are sharp, very intense dipole anomalies.

The former type indicates a large, near-surface source which DDH 466-75-6 showed to be pyrrhotite-bearing sediments.

The latter type is doubtless caused by small, very near-surface pods of pyrrhotite such as are exposed in the trenches at 20W and which contribute massive pyrrhotite float to the overburden over the remobilized sulphide zone. The distribution of these anomalies corresponds very well with the results of the IP survey, as can be seen on Map 7 where contours of metal factor are superimposed over the magnetic contours. The fact that the response over the bedded sulphide zone is also that of intense dipoles suggests that nowhere in that zone will substantial amounts of massive pyrrhotite bearing copper-zinc sulphides be found. The small, sharp anomalies away from zones of better IP response are probably due to remobilization of the usual disseminated or bedded pyrrhotite of unit 3 into fractures as can commonly be seen on small scale in outcrop. Local copper response supports this notion as pyrrhotite and chalcopyrite show a strong affinity.

The anomalies on 8E and 12E at 85N and their coincident IP response

would suggest, at first glance, an undrilled sulphide zone; however, this area is extensively trenched and these exposures reveal a setting vastly different from the known sulphide showings. The IP response there is caused by dark argillaceous lithologies but the source of the magnetic anomalies is unknown. They probably indicate sparse pyrrhotite bearing veins which probably also carry some sphalerite because of the slight zinc geochemical response.

JEM Survey

Methods and Procedure

The Crone JEM unit was used in a horizontal loop configuration with a coil separation of 200 feet. Frequency generally used was 1,800 hz with local use of 480 hz. Readings were taken every 100 feet and plotted midway between the chief and helper locations. The shoot-back method was used; the plotted value is the sum of the chief and helper's readings, thus averaging out the topographic effect that would be expected on the steep north slope.

Results

The JEM survey was carried out over the remobilized zone on 400 foot lines to check for a medium sized pod of massive sulphide plunging down the dip of the strata that might have been missed by the 800 foot IP lines. As can be seen on Map 8, no such mass is indicated.

Some surveying was carried out south of the baseline to check areas not covered by the IP survey due to instrument malfunction, mainly for structural information but no useful data was generated.

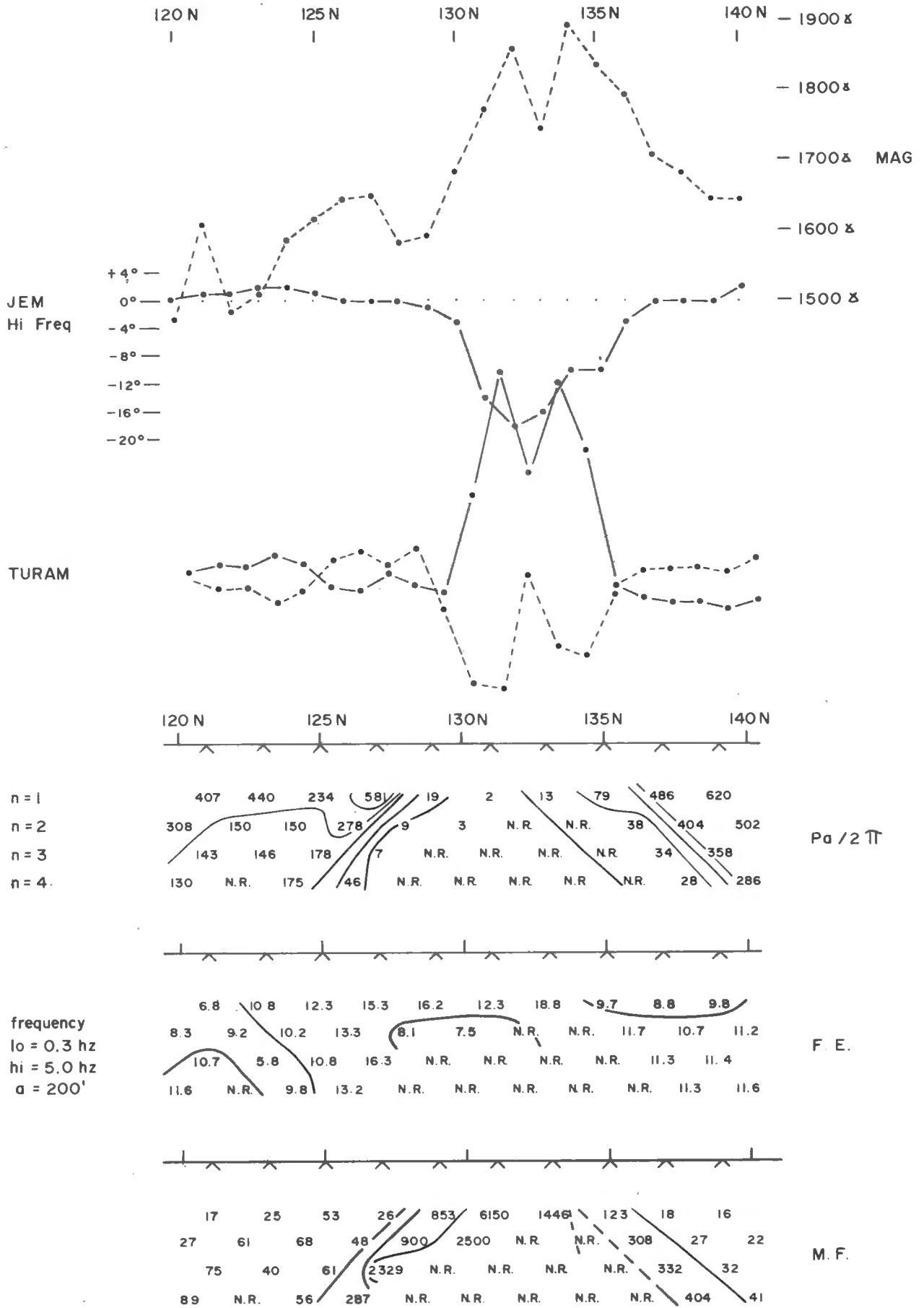


Figure: 9

Comparison of geophysical anomalies
 line 24 E north of Dana Fault
 horizontal scale: 1" = 500'

Mainly to check whether the instrument was functioning properly, two lines were run over the known, highly conductive zone north of Dana fault and, as can be seen on the map, the zone is indicated but not nearly as strongly as expected. The northward dip of the zone is clearly indicated, however (see Figure 9).

The most interesting result of the JEM survey was a peculiar pulsating interference noted during the first day of the survey which the usual remedies (i.e. cleaning the earphone ground and wetting it to improve contact) failed to correct. The interference turned out to be caused by one of the operator's electric watch.

Diamond Drilling

Three holes, totalling 1,624 feet, were drilled late in the 1974 field season and three more holes, totalling 2,058 feet, early in the 1975 season, for a grand total of 3,682 feet.

Methods and Equipment

Drilling was done by Arctic Diamond Drilling of Whitehorse, Yukon. A gas powered BBS-1 screw feed wireline diamond drill was used with AQ rods. Bit life was short in the highly siliceous rocks but use of cutting oil lengthened the life to about 50 feet per bit. The drill and camp was mobilized from Ross River via a Husky aircraft to Caribou Lake and by helicopter to the first drill site. All moves from hole to hole were by helicopter, either using Bell 206B, 47G3B1 or Allouette II aircraft. Setups on the steep north slope were dug by hand and had to be dug well in advance of drilling because of permafrost. Two potential setups had to be abandoned because of frozen ground and these conditions caused the holes to be placed on ridges, thus the nature of

mineralization in the intervening draws has not been investigated. Water from holes 1 - 5 was obtained from Camp Lake via a 7,000 foot waterline with a net drop in elevation. Four coil heaters were needed to keep this line open in September. Water for hole 6 was obtained easily from Ivan Creek. Core from all holes is stored in sturdy covered racks at the site of DDH 466-74-1.

Results

Summaries of the results of each hole are given below. Complete drill logs can be found in Appendix I.

DDH 456-74-1

| | | | |
|--------------|--------------------|-------------|------------------|
| Location: | 114+20N, 36+60E | Elevation: | 3,910' |
| Azimuth: | N13 ^o W | Dip: | -70 ^o |
| Total Depth: | 763' | Overburden: | 32' |

This hole was drilled to test showings on either side of L36E, the geochemical anomaly and IP and magnetic anomalies. The hole intersected interlayered, very fine grained siliceous rocks and coarser calc-silicates (altered quartzites, etc.). The calc-silicate layers are typically 1 - 3 feet or more thick and are interlayered with greater thicknesses of fine siliceous rock. The calc-silicate sections locally contain considerable pyrrhotite and coarse black sphalerite, as well as lesser chalcopyrite and galena. The mineralization appears to be a replacement of the calc-silicates but locally is layered, suggesting that the mineralization is bedded. Considerable fracture bound mineralization also occurs in the calc-silicate. The siliceous rocks are generally barren and when mineralized, almost invariably the

mineralization is fracture-bound. As a result, a long section of very erratic mineralization was encountered as can be seen on the graphic logs. Selected average assays for various intervals of core are given in Table II. The hole adequately answered all questions to be tested.

DDH 456-74-2

| | | | |
|--------------|--------------------|-------------|------------------|
| Location: | 114+80N, 27+80 | Elevation: | 4,060' |
| Azimuth: | N16 ⁰ W | Dip: | -70 ⁰ |
| Total Depth: | 658' | Overburden: | 8' |

This hole, like Hole No. 1, was drilled to test geophysical and geochemical anomalies and showings. The results are as in Hole No. 1. The hole did not completely penetrate the zone but the casing was left in the hole and capped if cause is found to deepen it.

DDH 466-74-3 and 466-75-4

466-74-3

| | | | |
|--------------|--------------------|-------------|------------------|
| Location: | 110N, 17+70E | Elevation: | 4,340' |
| Azimuth: | N35 ⁰ W | Dip: | -70 ⁰ |
| Total Depth: | 203' | Overburden: | 4' |

466-75-4

| | | | |
|--------------|--------------|-------------|------------------|
| Location: | 110N, 17+70E | Elevation: | 4,340' |
| Azimuth: | - | Dip: | -90 ⁰ |
| Total Depth: | 729' | Overburden: | 7' |

These holes were meant to test the western extent of the mineralized zone and geochemical anomalies. Hole No. 3 was abandoned at 203' due to serious problems with cave. It entered the mineralized zone but

did not completely penetrate it. Hole No. 4 was drilled vertically from the same setup and encountered less problem with cave. These holes were important as they intersected the bedded sulphide zone with only minor remobilized mineralization and, as explained previously, the bedded zone was underlain by stringer sulphides. Pre-alteration lithologies are more clearly visible in these holes especially above the sulphide zone.

DDH 466-75-5

| | | | |
|--------------|-----------------|-------------|--------|
| Location: | 109+00N, 35+50E | Elevation: | 4,110' |
| Azimuth: | - | Dip: | -90° |
| Total Depth: | 919' | Overburden: | 7' |

This hole was drilled to test both the down dip extent of sulphides and a small lead soil anomaly south of the main anomaly.

The hole intersected a good section of quartzite and limy quartzite locally cross bedded and possibly oolitic. The quartzites are clearly the protolith for the calc-silicate rocks in Hole No. 1, but in this hole are virtually barren. Minor replacement(?) and fracture-bound mineralization are found throughout but the bulk of the mineralization occurs between 607' and 740', where it occurs in sparse beds an inch to a few inches thick. As in DDH 466-75-4, the sphalerite is the evenly disseminated brown variety, rather than the coarse black sphalerite characteristic of DDH's 466-74-1 and 2. The host lithology for mineralization is apparently a fine grained quartzite but there is little relation to coarser granular calc-silicates as in DDH 466-74-1. There was no stringer zone beneath the bedded zone in this hole, assuming the bedded zone (or zones?) was completely penetrated.

The hole was terminated at 919' after the drillers dropped about 700' of rods. The last couple hundred feet of the stem remains in the hole. This hole was a bit beyond the capacity of the BBS-1, showing that further drilling, if required, will dictate use of a larger drill.

DDH 466-75-6

| | | | |
|--------------|-----------------|-------------|--------|
| Location: | 129+00N, 40+00E | Elevation: | 3,250' |
| Azimuth: | - | Dip: | -90° |
| Total Depth: | 410' | Overburden: | 44' |

This hole was to test the magnetic and electromagnetic/IP anomalies and the Cu-Pb-Zn geochemical anomalies downhill from the main mineralized zone. The hole intersected pyrrhotite bearing siliceous argillite, chert and chert grit with a substantial section of sheared graphitic rock, thus explaining the geophysical anomalies. Only minor sphalerite was seen, suggesting that the geochemical anomalies originate from the mineralized zone uphill.

DANA CLAIMS EAST OF IVAN CREEK

Only minor work was carried out east of Ivan Creek in 1975, mainly to check the lithologies mapped by Lewis (1974) and to look at and sample the gossan before allowing that portion of the block to lapse. The samples of gossan material analysed all yielded very low results as was expected from the geochemical survey completed in 1973 (Jilson and Simpson, 1974). The only known mineralization on the claim block consists of minor fracture-bound sulphides best developed in drill core from DDH V-2, which tested a small extension of unit 3 west of Ivan Creek (Adamson, 1966, see also Map No. 1 for hole location).

Anvil's 1966 geophysical surveys appear to trace the extension of unit 1a with some ambiguity in a broad arc concave to the south across the old grid north of Lewis' mapped trace of his unit 8, with a trend not too different from his bedding measurements. Without straining Lewis' data too badly, the stratigraphic picture presented in this report can be accommodated; in fact, his section E-F suggests a repetition of his unit 5 and 6 (unit 1 of this report) should occur not too far north of the apparent geophysical response. Two (V-3 and V-4) and possibly a third (V-1) drill holes have been put down in this conductive zone without hitting sulphides. Correlation of Lewis' rock units with those of this writer suggest that the gossan originates from the lower part of unit 3 and may result from the minor bedded to disseminated pyrrhotite common in that unit. This horizon is extensively exposed southeast of the gossan with only slight geochemical response.

Some evidence for the existence of the Ivan Creek fault zone can be seen in the 1966 magnetic and electromagnetic surveys. The fault zone appears to consist of several faults trending NE-SW in a zone several thousand feet wide with apparent right lateral separation but probably normal movement with NW block down-dropped.

There appears to be little reason to retain claims on the well-exposed portion of the claim block east of Ivan Creek and the potential of the remainder of that area appears slight.

IRMA CLAIMS

The 31 Irma claims were located in September 1975 to cover an isolated airborne magnetic anomaly interpreted on the basis of airborne Mag and EM surveys (Cathro, 1967) to be at approximately the stratigraphic level of

the mineralization at Dana. The interpretation is based on identification of the conductive and magnetic unit 1a in the overburden covered area north of the Dana and Hal claims and definition of a syncline in the valley to explain the trace of that unit. Unit 3 should be preserved within the trough of that syncline. Due to the uncertainty of correlation of unit 1a, the interpretation is also somewhat uncertain but the possibility seemed good enough for further work.

A small grid was cut over the airborne anomaly (see Map 1 for grid location) and the grid was covered by magnetic and gravity surveys. An account of these surveys can be found in a report by P. Walcott (1976b) who carried out the work. Basically the surveys outlined the magnetic anomaly and partly indicated a large gravity anomaly deserving further work.

The area is one of low relief and probable thick overburden cover, thus soil geochemical coverage has not yet been attempted; however, a string of Cu-Pb-Zn anomalies trending towards the area from the 1973 Dana claims reconnaissance soil grid (Jilson and Simpson, 1974) suggests such coverage may be worthwhile. These anomalies were thought to be transported from the Dana showings; however, they may originate from the Irma claims as they build in that direction. Soil conditions will be poor in the valley and augers will probably be needed due to thick moss cover.

The proposed program for the 1976 season consists of enlarging the grid and covering it with magnetic, Turam and gravity surveys with a provision for drilling, if warranted. Geophysical work must be carried out in spring as much swampy ground is to be covered and the thick moss cover provides a poor support for the gravity meter. The proposed soil coverage will, of

course, necessitate a small summer program. Drilling will probably best be carried out in winter conditions due to ground condition but, if the anomalies are suitably located, a summer program may be feasible.

SUMMARY

The extensive work program on the Dana, Halo Fractions and Irma claims has shown the presence of an interesting and important type of mineralization in the Earn group rocks.

The rocks of the Earn group exposed on the property consist of chert, silty and possibly tuffaceous chert, argillaceous chert, quartzite, limy quartzitic limestone, chert grit and black slate and argillite. The rocks are extensively altered and bleached in many areas and widespread Zn-Cu-Pb-Ag mineralization is present. The mineralization consists of sparse bedded Zn-Cu-Fe sulphides underlain by Fe-Cu stringer sulphides and a large area of remobilized fracture-bound and replacement Zn-Cu-Pb-Ag sulphides apparently related to the stringer zone. The Earn group rocks, including the mineralized zone, are thrown into large, northerly overturned folds with northerly vergence and cut by several sets of normal faults. A possible extension of the mineralized zone is indicated to the northwest on the Irma claims but there appears to be insignificant extension to the southeast onto the main block of the Dana claims. All geochemical and geophysical anomalies on the 1974 and 1975 grid appear to have been adequately tested by outcrop inspection, pre-existing trenches, and by six diamond drill holes totalling 3,682 feet.

RECOMMENDATIONS

It is recommended that the following claims be allowed to lapse in the spring of 1976:

Dana 13 - 16

Dana 29 - 36

Dana 37, 39, 41, 43, 45, 47

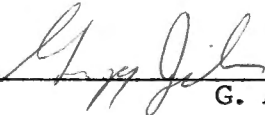
Dana 49 - 56

Dana 57 - 76

All available assessment work should be applied to the remainder of the Dana and the Halo Fraction claims to hold them for as long a period as possible, pending new thinking on the sulphide zone. At the present, no future drilling is warranted on the Dana claims; however, more work may be desirable pending outcome of work on the Irma claims and the adjoining Hal claims held by Northern Homestake.

The geophysical and geochemical program should be carried out on the Irma claims and drilling there may be warranted.

Respectfully submitted,



G. A. JILSON

GAJ/cb

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APPENDIX I

Drill Logs

DDH 466-74-1 to DDH 466-75-6

Diamond Drill Record

| COLLAR: | | HOLE SURVEY | | |
|-------------------|-------------------|-------------|------------------|-------------|
| NORTH | <u>114+20N</u> | FOOTAGE | AZIMUTH | DIP |
| EAST | <u>36+60E</u> | <u>0</u> | <u>N13°W</u> | <u>-70°</u> |
| ELEVATION | <u>3800'</u> | <u>500</u> | <u>-</u> | <u>-70°</u> |
| LOGGED BY | <u>G. Jilson</u> | | | |
| DATE LOGGED | <u>Sept. 1974</u> | T.D. | <u>763'</u> | |
| MAP REFERENCE NO. | <u>105-K-11</u> | METHOD: | <u>Acid test</u> | |

COMPANY NAME Cyprus Anvil Mining Corporation
 PROPERTY NAME Dana, Hal and Halo Claims
 DRILLING CONTRACTOR Arctic Diamond Drilling
 ASSAYER Bondar Clegg, Whitehorse Lab
 PURPOSE OF HOLE To test geochemical and geophysical anomalies and depth extent of showings

| | |
|-------------|-------------------------|
| HOLE NO. | <u>D-74-1</u> |
| CLAIM NAME | <u>Dana # 6 -Y75002</u> |
| COMMENCED | <u>2 Sept. 1974</u> |
| FINISHED | <u>14 Sept. 1974</u> |
| PROJECT NO. | <u>466</u> |

| FROM | TO | RECOVY | DESCRIPTION | SAMPLE | | | | ASSAYS | | | | | |
|------|-----|-----------------------|--|--------|-----|-------|------|--------|------|------|------|--|--|
| | | | | FROM | TO | WIDTH | NO. | Cu | Pb | Zn | Ag | | |
| 0 | 32 | Nil | Overburden. | | | | | | | | | | |
| 32 | 129 | 75% | Very fine grained, hard, very light greenish grey to light grey siliceous rocks, thinly (on a scale of a few feet) interlayered with softer, fine grained, darker greenish to greenish grey rocks, probably containing fine diopside and with variable content of calcite. Rocks range from very soft impure, light green, fine marble to calcite free, moderately hard to very hard diopside-quartz hornfels. Lesser amounts of earthy light green rocks probably a variety of calc-silicate and friable, medium to dark green rock which is carbonate rich (most of carbonate is in veinlets locally with calcite + idocrase? breccia veins) and may be a serpentine-bearing, sheared and realterred calc-silicate rock. | | | | | | | | | | |
| | | Most core loss 32-83' | | 32 | 40 | 8 | 9326 | 0.45 | 0.08 | 2.76 | 0.18 | | |
| | | | | 40 | 50 | 10 | 9327 | 0.15 | 0.17 | 0.26 | 0.25 | | |
| | | | | 50 | 60 | 10 | 9328 | 0.06 | 0.11 | 0.99 | 0.04 | | |
| | | | | 60 | 70 | 10 | 9329 | 0.09 | 0.46 | 0.82 | 1.60 | | |
| | | | | 70 | 80 | 10 | 9330 | 0.05 | 0.06 | 0.06 | 0.10 | | |
| | | | | 80 | 90 | 10 | 9331 | 0.11 | 0.31 | 0.14 | 0.61 | | |
| | | | | 90 | 100 | 10 | 9332 | 0.36 | 0.05 | 1.20 | 0.33 | | |
| 129 | 142 | ~100% | Light grey to off-white, very fine grained, siliceous rocks with short (up to 2') sections of medium to light grey, fine to medium grained pure calcite marble. This interval is less well mineralized than calc-silicate rich units. | 100 | 110 | 10 | 9333 | 0.25 | 0.02 | 2.32 | 0.17 | | |
| | | | | 110 | 120 | 10 | 9334 | 0.11 | 0.05 | 0.79 | 0.18 | | |

Diamond Drill Record

PAGE 2 OF 10

| | | | |
|-------------------------|--------------------|---------|-----|
| COLLAR: | HOLE SURVEY | | |
| NORTH _____ | FOOTAGE | AZIMUTH | DIP |
| EAST _____ | | | |
| ELEVATION _____ | | | |
| LOGGED BY _____ | | | |
| DATE LOGGED _____ | | | |
| MAP REFERENCE NO. _____ | METHOD: _____ | | |

COMPANY NAME Cyprus Anvil Mining Corporation
 PROPERTY NAME Dana, Hal and Halo Claims
 DRILLING CONTRACTOR _____
 ASSAYER _____
 PURPOSE OF HOLE _____

HOLE NO. D-74-1
 CLAIM NAME Dana #6 -Y75002
 COMMENCED 2 Sept. 1974
 FINISHED 14 Sept. 1974
 PROJECT NO. 466

| FROM | TO | RECOVY | DESCRIPTION | SAMPLE | | | | ASSAYS | | | |
|------|-----|--------|---|--------|-----|-------|------|--------|------|------|------|
| | | | | FROM | TO | WIDTH | NO. | Cu | Pb | Zn | Ag |
| 142 | 159 | ~100% | Grey-green to light green to light grey, mixed siliceous and and calc-silicate rocks with carbonate rich greenish diopside(?) rocks. Local medium to dark green serpentine(?) bearing calc-silicates. These rocks are highly fractured and are fissile with serpentine(?) on fractures. May represent a late stage alteration of the already altered diopside calc-silicates. This section is more mineralized than those above and below lacking calc-silicate units. Most mineralization occurs in the interval 144-149' and consists mostly of coarse, irregular, black sphalerite blebs, smaller finer, irregular blebs of pyrrhotite and chalcopryrite and small masses of galena. Some sphalerite and pyrrhotite mineralization is weakly banded with banding at about 20° to core. | 120 | 130 | 10 | 9335 | 0.06 | 0.13 | 0.40 | 0.27 |
| | | | | 130 | 140 | 10 | 9336 | 0.10 | 0.11 | 0.79 | 0.29 |
| | | | | 140 | 150 | 10 | 9337 | 0.01 | 0.03 | 0.03 | 0.04 |
| | | | | 150 | 160 | 10 | 9338 | 0.01 | 0.02 | 0.04 | |
| 159 | 193 | ~100% | Generally light to medium grey, fine grained siliceous rocks with minor small disseminated masses of pyrrhotite and calcite with local and minor chalcopryrite and more general pyrrhotite + calcite + sphalerite + galena veinlets. Also short sections of medium grey to light grey, fine grained calcite marble and short, light greenish calc-silicate sections. Generally poorly mineralized throughout. | 160 | 170 | 10 | 9339 | 0.09 | 0.29 | 0.12 | |
| | | | | 170 | 180 | 10 | 9340 | 0.02 | 0.09 | 0.05 | |
| | | | | 180 | 190 | 10 | 9341 | 0.01 | 0.03 | 0.04 | |

Diamond Drill Record

| | | | |
|-------------------------|--------------------|---------|-----|
| COLLAR: | HOLE SURVEY | | |
| NORTH _____ | FOOTAGE | AZIMUTH | DIP |
| EAST _____ | | | |
| ELEVATION _____ | | | |
| LOGGED BY _____ | | | |
| DATE LOGGED _____ | | | |
| MAP REFERENCE NO. _____ | METHOD: _____ | | |

COMPANY NAME Cyprus Anvil Mining Corporation
 PROPERTY NAME Dana, Hal and Halo Claims
 DRILLING CONTRACTOR _____
 ASSAYER _____
 PURPOSE OF HOLE _____

| |
|-----------------------------------|
| HOLE NO. <u>D-74-1</u> |
| CLAIM NAME <u>Dana #6 -Y75002</u> |
| COMMENCED <u>2 Sept. 1974</u> |
| FINISHED <u>14 Sept. 1974</u> |
| PROJECT NO. <u>466</u> |

| FROM | TO | RECOVY | DESCRIPTION | SAMPLE | | | | ASSAYS | | | |
|-------|-------|--------|--|--------|-----|-------|------|--------|------|------|------|
| | | | | FROM | TO | WIDTH | NO. | Cu | Pb | Zn | Ag |
| 193 | 216.5 | ~100% | Same rocks as above but richer in light green, earthy, fine grained, poorly mineralized, calc-silicate rock and associated darker green highly fractured rocks. | 190 | 200 | 10 | 9342 | 0.02 | 0.07 | 0.05 | |
| | | | 210-213 gougy and rusty fault zone. | 200 | 210 | 10 | 9343 | 0.01 | 0.03 | 0.03 | 0.12 |
| 216.5 | 272 | ~100% | Mostly bleached, off-white to light grey, siliceous rocks locally with a few percent disseminated pyrrhotite + calcite blebs and minor chalcopryrite. Remnants of unbleached, medium grey, fine grained, siliceous rock occur locally. Banding at 20°-30° to core. | 210 | 220 | 10 | 9344 | 0.09 | 0.54 | 1.44 | 0.85 |
| | | | Short calc-silicate sections at: | | | | | | | | |
| | | | 239-243' dark green, medium grained and well mineralized. | 240 | 250 | 10 | 9347 | 0.37 | 1.38 | 1.08 | 4.90 |
| | | | 256-257' light green, fine grained. | | | | | | | | |
| | | | 262-262'8" light green, fine grained. | 250 | 260 | 10 | 9348 | 0.04 | 0.03 | 0.05 | Tr |
| | | | Medium grey, unbleached siliceous rocks are becoming more obvious with depth. | 260 | 270 | 10 | 9349 | 0.03 | 0.13 | 0.05 | 0.35 |
| 272 | 284.5 | ~90% | Mixed section as above but with more calc-silicate rock ranging from light green poorly mineralized to dark green, coarse well mineralized rocks. Most fine grained siliceous rocks are bleached and have "speckled" pyrrhotite (i.e. disseminated, small | 270 | 280 | 10 | 9350 | 0.23 | 0.68 | 0.80 | 1.60 |

Diamond Drill Record

| | | | | |
|-------------------------|--|---------------|---------|-----|
| COLLAR: | | HOLE SURVEY | | |
| NORTH _____ | | FOOTAGE | AZIMUTH | DIP |
| EAST _____ | | | | |
| ELEVATION _____ | | | | |
| LOGGED BY _____ | | | | |
| DATE LOGGED _____ | | | | |
| MAP REFERENCE NO. _____ | | METHOD: _____ | | |

COMPANY NAME Cyprus Anvil Mining Corporation
 PROPERTY NAME Dana, Hal and Halo Claims
 DRILLING CONTRACTOR _____
 ASSAYER _____
 PURPOSE OF HOLE _____

| |
|-----------------------------------|
| HOLE NO. <u>D-74-1</u> |
| CLAIM NAME <u>Dana #6</u> -Y75002 |
| COMMENCED <u>2 Sept. 1974</u> |
| FINISHED <u>14 Sept. 1974</u> |
| PROJECT NO. <u>466</u> |

| FROM | TO | RECOVY | DESCRIPTION | SAMPLE | | | | ASSAYS | | | | | | |
|-------|-----|--------|---|--------|-----|-------|------|--------|------|------|------|--|--|--|
| | | | | FROM | TO | WIDTH | NO. | Cu | Pb | Zn | Ag | | | |
| | | | equant masses as above). Only minor unbleached, medium grey siliceous rocks. | 280 | 290 | 10 | 9351 | 0.18 | 0.07 | 2.20 | 0.37 | | | |
| 284.5 | 341 | ~95% | Mostly bleached, light grey to off-white, siliceous rocks with local remnants of medium grey, very fine grained to cherty siliceous rocks. Rocks have minor speckled pyrrhotite disseminations where bleaching is most intense. | 290 | 300 | 10 | 9352 | 0.08 | 0.05 | 0.50 | 0.18 | | | |
| | | | 287.5-288.5' medium to dark green calc-silicate with good sphalerite and chalcopyrite. | 300 | 310 | 10 | 9353 | 0.03 | 0.04 | 0.05 | 0.32 | | | |
| | | | 292-294' as above but not so well mineralized. | 310 | 320 | 10 | 9354 | 0.03 | 0.12 | 0.01 | 0.38 | | | |
| | | | 319.5-320' rusty fault gouge. | 320 | 330 | 10 | 9355 | 0.03 | 0.05 | 0.40 | 0.25 | | | |
| | | | 326' banding dipping at 20° relative to core. | 330 | 340 | 10 | 9356 | 0.07 | 0.04 | 1.05 | 0.24 | | | |
| | | | 328.5-334' calc-silicate locally well mineralized but mostly poorly mineralized. Light to medium green. | | | | | | | | | | | |
| | | | 332-334' 3-4" poor recovery (mostly looks like cave). | | | | | | | | | | | |
| 341 | 352 | ~100% | Mixed section of calc-silicates and grey to greenish grey siliceous rock with numerous thin veinlets at various angles. Minor pyrrhotite and pyrite throughout as disseminated blebs and on fractures where it is associated with minor sphalerite and galena. Section contains a few short intersections of high grade | 340 | 350 | 10 | 9357 | 0.05 | 0.08 | 0.29 | 0.35 | | | |

Diamond Drill Record

| | | | |
|-------------------------|--------------------|---------|-----|
| COLLAR: | HOLE SURVEY | | |
| NORTH _____ | FOOTAGE | AZIMUTH | DIP |
| EAST _____ | | | |
| ELEVATION _____ | | | |
| LOGGED BY _____ | | | |
| DATE LOGGED _____ | | | |
| MAP REFERENCE NO. _____ | METHOD: _____ | | |

COMPANY NAME Cyprus Anvil Mining Corporation
 PROPERTY NAME Dana, Hal and Halo Claims
 DRILLING CONTRACTOR _____
 ASSAYER _____
 PURPOSE OF HOLE _____

| |
|-----------------------------------|
| HOLE NO. <u>D-74-1</u> |
| CLAIM NAME <u>Dana #6 -Y75002</u> |
| COMMENCED <u>2 Sept. 1974</u> |
| FINISHED <u>14 Sept. 1974</u> |
| PROJECT NO. <u>466</u> |

| FROM | TO | RECOVY | DESCRIPTION | SAMPLE | | | | ASSAYS | | | | | |
|--------|--------|--------|---|--------|-----|-------|------|--------|--------|--------|------|--|--|
| | | | | FROM | TO | WIDTH | NO. | Cu | Pb | Zn | Ag | | |
| | | | sphalerite + pyrite + chalcopyrite mineralization. | | | | | | | | | | |
| 352 | 379 | ~100% | Mostly bleached and unbleached grey siliceous rocks as above. | 350 | 360 | 10 | 9358 | 0.06 | 0.16 | 0.30 | 0.02 | | |
| | | | 374-376' minor calc-silicate and highly veined, light grey siliceous rocks with dark green serpentine(?) on fractures. Section poorly mineralized throughout. | 360 | 370 | 10 | 9359 | 0.10 | 0.06 | 0.25 | 0.02 | | |
| | | | | 370 | 380 | 10 | 9360 | 0.22 | 0.05 | 4.20 | 0.02 | | |
| 379 | 392.5 | | Mostly limy and calc-silicate rocks with short sections of flashy high grade sphalerite and some chalcopyrite. Some of the best mineralization fills a crackle breccia near a small fault with pyrrhotite smeared on the fault plane (at 380') - crackle breccia zone is only 8" thick. Best mineralization in this section found at: 379-381', 384-385.5', 389-392.5'. | 380 | 390 | 10 | 9361 | 0.03 | 0.05 | 0.13 | 0.02 | | |
| 392.5 | 397.75 | | Mostly half altered light grey to off-white, very fine grained siliceous rocks with some "speckled" pyrrhotite and minor pyrite galena, chalcopyrite and sphalerite on steep fractures. | 390 | 400 | 10 | 9362 | 0.11 | 0.30 | 1.10 | 0.67 | | |
| 397.75 | 401 | | Light green weakly mineralized calc-silicate. | | | | | | | | | | |
| 401 | 404 | | Incompletely altered siliceous rocks as above and as usual | 400 | 410 | 10 | 9363 | (0.01) | (0.17) | (0.15) | | | |

Diamond Drill Record

| | | | |
|-------------------------|--------------------|---------|-----|
| COLLAR: | HOLE SURVEY | | |
| NORTH _____ | FOOTAGE | AZIMUTH | DIP |
| EAST _____ | | | |
| ELEVATION _____ | | | |
| LOGGED BY _____ | | | |
| DATE LOGGED _____ | METHOD: _____ | | |
| MAP REFERENCE NO. _____ | | | |

COMPANY NAME Cyprus Anvil Mining Corporation
 PROPERTY NAME Dana, Hal and Halo Claims
 DRILLING CONTRACTOR _____
 ASSAYER _____
 PURPOSE OF HOLE _____

| | |
|-------------|-------------------------|
| HOLE NO. | <u>D-74-1</u> |
| CLAIM NAME | <u>Dana #6 - Y75002</u> |
| COMMENCED | <u>2 Sept. 1974</u> |
| FINISHED | <u>14 Sept. 1974</u> |
| PROJECT NO. | <u>466</u> |

| FROM | TO | RECOVY | DESCRIPTION | SAMPLE | | | | ASSAYS | | | | | |
|------|-----|--------|---|--------|-----|-------|------|--------|--------|--------|----|--|--|
| | | | | FROM | TO | WIDTH | NO. | Cu | Pb | Zn | Ag | | |
| | | | with clear fracture control of bleaching. Most controlling features are steep but dips from 45-90° occur - minor sulphide mineralization on these fractures. | | | | | | | | | | |
| 404 | 410 | | Calc-silicates with sections of very coarse calcite. A little galena on fractures but not much mineralization. 408-409' is mostly variably bleached siliceous rocks. | | | | | | | | | | |
| 410 | 416 | | Altered and remnant very siliceous rocks with local larger than usual pyrrhotite speckles. Some steep fractures with pyrite + galena and some with pyrrhotite + galena and chalcopyrite but low grade throughout. | 410 | 420 | 10 | 9364 | (0.03) | (0.10) | (0.04) | | | |
| 416 | 435 | ~100% | Probable fault zone healed over by coarse flesh colored to white calcite which locally includes small angular buff colored, highly altered fragments of country rock. No mineralization but for a little malachite. Much of this interval could be described as a calcite cemented crackle breccia. There are locally large remnants of country rock laced with calcite veinlets. | 420 | 430 | 10 | 9365 | (0.04) | (0.08) | (0.05) | | | |
| 435 | 447 | ~100% | Weakly altered, very fine grained, grey siliceous rocks, | 430 | 440 | 10 | 9366 | (0.02) | (0.02) | (0.02) | | | |

Diamond Drill Record

| | | | | |
|-------------------------|--|---------------|---------|-----|
| COLLAR: | | HOLE SURVEY | | |
| NORTH _____ | | FOOTAGE | AZIMUTH | DIP |
| EAST _____ | | | | |
| ELEVATION _____ | | | | |
| LOGGED BY _____ | | | | |
| DATE LOGGED _____ | | | | |
| MAP REFERENCE NO. _____ | | METHOD: _____ | | |

COMPANY NAME Cyprus Anvil Mining Corporation
 PROPERTY NAME Dana, Hal and Halo Claims
 DRILLING CONTRACTOR _____
 ASSAYER _____
 PURPOSE OF HOLE _____

| |
|-----------------------------------|
| HOLE NO. <u>D-74-1</u> |
| CLAIM NAME <u>Dana #6 -Y75002</u> |
| COMMENCED <u>2 Sept. 1974</u> |
| FINISHED <u>14 Sept. 1974</u> |
| PROJECT NO. <u>466</u> |

| FROM | TO | RECOVY | DESCRIPTION | SAMPLE | | | | ASSAYS | | | | | |
|-------|-------|--------|--|--------|-----|-------|------|--------|-------|------|------|--|--|
| | | | | FROM | TO | WIDTH | NO. | Cu | Pb | Zn | Ag | | |
| | | | locally cherty. Banding at 10 ^o -30 ^o to core. A few short greenish (quartz + diopside?) sections with minor sphalerite. A few pyrrhotite veinlets in the siliceous rocks but siliceous rocks are mostly barren. | 440 | 450 | 10 | 9367 | 0.07 | 0.07 | 0.03 | | | |
| 447 | 467.5 | ~100% | Mostly calc-silicate rocks and limy rocks. From 450-460' rocks are relatively dark green and have serpentine covered shear surfaces and locally good sphalerite and chalcopyrite with calcite breccias near faults. Several siliceous sections mostly barren but some with disseminated pyrrhotite + chalcopyrite and a little sphalerite in veinlets. | 450 | 460 | 10 | 9368 | 0.54 | 0.35 | 2.10 | 3.3 | | |
| | | | | 460 | 470 | 10 | 9369 | 0.12 | 0.15 | 0.70 | 0.82 | | |
| 467.5 | 471 | ~100% | Coarse white to flesh colored calcite with euhedral quartz and carbonate cemented breccia. Minor euhedral arsenopyrite in the zone. Contains a few highly altered angular buff rock fragments. Minor malachite but no other mineralization. | | | | | | | | | | |
| 471 | 472.5 | ~100% | Very light grey siliceous rock with minor blebby pyrrhotite + chalcopyrite + sphalerite. | 470 | 480 | 10 | 9370 | 0.09 | 0.10 | 0.15 | 0.06 | | |
| 472.5 | 481.5 | ~80% | Carbonate zone as above. 2' core loss near 478'. | 480 | 490 | 10 | 9371 | 0.02 | <0.01 | 0.03 | | | |

Diamond Drill Record

| | | | |
|-------------------------|--------------------|---------|-----|
| COLLAR: | HOLE SURVEY | | |
| NORTH _____ | FOOTAGE | AZIMUTH | DIP |
| EAST _____ | | | |
| ELEVATION _____ | | | |
| LOGGED BY _____ | | | |
| DATE LOGGED _____ | | | |
| MAP REFERENCE NO. _____ | METHOD: _____ | | |

COMPANY NAME Cyprus Anvil Mining Corporation
 PROPERTY NAME Dana, Hal and Halo Claims
 DRILLING CONTRACTOR _____
 ASSAYER _____
 PURPOSE OF HOLE _____

| |
|-----------------------------------|
| HOLE NO. <u>D-74-1</u> |
| CLAIM NAME <u>Dana #6 -Y75002</u> |
| COMMENCED <u>2 Sept. 1974</u> |
| FINISHED <u>14 Sept. 1974</u> |
| PROJECT NO. <u>466</u> |

| FROM | TO | RECOVY | DESCRIPTION | SAMPLE | | | | ASSAYS | | | |
|-------|-----|--------|--|--------|-----|-------|------|--------|------|------|------|
| | | | | FROM | TO | WIDTH | NO. | Cu | Pb | Zn | Ag |
| 481.5 | 533 | ~100% | Mostly medium to dark grey, very fine grained siliceous rocks, locally cherty, and light grey altered versions of same rock. | 490 | 500 | 10 | 9372 | 0.01 | 0.01 | 0.01 | |
| | | | 484' banding dips 30° relative to hole. | 500 | 510 | 10 | 9373 | 0.01 | 0.01 | 0.01 | |
| | | | 498' banding dips 0-30° relative to hole. | | | | | | | | |
| | | | 519' banding dips 30° relative to hole. | 510 | 520 | 10 | 9374 | 0.03 | 0.01 | 0.03 | |
| | | | 527' banding dips 25° relative to hole. | | | | | | | | |
| | | | 529' banding dips 40° relative to hole. | 520 | 530 | 10 | 9375 | 0.15 | 0.10 | 0.10 | 0.37 |
| | | | Rocks are mostly barren. A little fracturebound pyrrhotite with local chalcopyrite in trace amounts in darker grey rocks and same plus minor disseminated pyrrhotite + chalcopyrite in more altered varieties. | | | | | | | | |
| | | | Rusty calcite breccia zones at 483' (6" thick), 485.5-487' and 490' (6" thick). | | | | | | | | |
| | | | Dark grey unaltered rocks predominate 510-533'. | | | | | | | | |
| 533 | 543 | ~100% | A few short light green calc-silicate sections some with flashy sphalerite + chalcopyrite replacement mineralization and some fracturebound pyrrhotite + chalcopyrite + sphalerite in the bounding light grey siliceous altered rocks. | 530 | 540 | 10 | 9376 | 0.30 | 0.20 | 0.99 | 0.77 |
| | | | | 540 | 550 | 10 | 9377 | 0.06 | 0.10 | 0.21 | 0.28 |
| 543 | 554 | ~100% | Mostly light grey altered and medium grey unaltered, very | 550 | 560 | 10 | 9378 | 0.05 | 0.30 | 0.40 | 1.60 |

Diamond Drill Record

| COLLAR: | | HOLE SURVEY | | |
|-------------------|-------------------|-------------|------------------|------|
| NORTH | <u>14+80</u> | FOOTAGE | AZIMUTH | DIP |
| EAST | <u>27+80</u> | 0 | N 16° W | -70° |
| ELEVATION | | 500 | | -70° |
| LOGGED BY | <u>G. Jilson</u> | | | |
| DATE LOGGED | <u>Sept. 1974</u> | T.D. | 658' | |
| MAP REFERENCE NO. | <u>105-K-11</u> | METHOD: | <u>Acid test</u> | |

COMPANY NAME Cyprus Anvil Mining Corporation
 PROPERTY NAME Dana, Hal and Halo Claims
 DRILLING CONTRACTOR Arctic Diamond Drilling
 ASSAYER Bondar Clegg, Whitehorse Lab
 PURPOSE OF HOLE To test showings geochemical and geophysical anomalies

| | |
|-------------|------------------------|
| HOLE NO. | <u>D-74-2</u> |
| CLAIM NAME | <u>Dana 6 - Y75002</u> |
| COMMENCED | <u>16 Sept. 1974</u> |
| FINISHED | <u>19 Sept. 1974</u> |
| PROJECT NO. | <u>466</u> |

| FROM | TO | RECOVY | DESCRIPTION | SAMPLE | | | | ASSAYS | | | | | |
|------|----|--------|--|--------|----|-------|------|--------|------|------|------|--|--|
| | | | | FROM | TO | WIDTH | NO. | Cu | Pb | Zn | Ag | | |
| 0 | 8 | Nil | Overburden. | | | | | | | | | | |
| 8 | 21 | ~100% | Mostly medium grained sucrose greenish grey calc-silicate and light green carbonate rich rocks. Above 18' heavily mineralized with pyrrhotite, sphalerite, chalcopyrite and galena. Locally over a few inches replacement by pyrrhotite is nearly complete. Flashy sphalerite and chalcopyrite where core is light colored and carbonate rich. Mineralization from 18-21' is on fractures in the calc-silicates. | 8 | 13 | 5 | 9405 | 0.72 | 1.55 | 4.00 | 7.00 | | |
| | | | | 13 | 18 | 5 | 9406 | 0.32 | 2.60 | 4.80 | 7.40 | | |
| | | | | 18 | 28 | 10 | 9407 | 0.08 | 0.63 | 0.81 | 1.50 | | |
| 21 | 43 | | Mostly very fine grained, medium grey, hard siliceous rocks. Some with a slight purplish tinge and short sections of light green calc-silicate rocks. Locally good mineralization (i. e. near 27' and 35') where it is mostly fracturebound although irregular blebs occur that are probably transitional to replacement. Overall the section is low grade. Locally greenish coloration suggestive of calc-silicate mineralogy seems to be controlled by fractures and mineralization in some of the calc-silicates is strongly fracture controlled. | 28 | 38 | 10 | 9408 | 0.10 | 0.75 | 0.81 | 0.96 | | |
| | | | | 38 | 46 | 8 | 9409 | 0.03 | 0.03 | 0.49 | 0.21 | | |
| 43 | 74 | ~100% | Mostly calc-silicates with minor light grey altered fine | 46 | 56 | 10 | 9410 | 0.08 | 0.19 | 1.30 | 1.10 | | |

Diamond Drill Record

PAGE 2 OF 10

| | | | | |
|-------------------------|---------------|-------------|-----|--|
| COLLAR: | | HOLE SURVEY | | |
| NORTH _____ | FOOTAGE | AZIMUTH | DIP | |
| EAST _____ | | | | |
| ELEVATION _____ | | | | |
| LOGGED BY _____ | | | | |
| DATE LOGGED _____ | | | | |
| MAP REFERENCE NO. _____ | METHOD: _____ | | | |

COMPANY NAME Cyprus Anvil Mining Corporation
 PROPERTY NAME Dana, Hal and Halo Claims
 DRILLING CONTRACTOR _____
 ASSAYER _____
 PURPOSE OF HOLE _____

| |
|-----------------------------------|
| HOLE NO. <u>D-74-2</u> |
| CLAIM NAME <u>Dana 6 - Y75002</u> |
| COMMENCED <u>16 Sept. 1974</u> |
| FINISHED <u>19 Sept. 1974</u> |
| PROJECT NO. <u>466</u> |

| FROM | TO | RECOVY | DESCRIPTION | SAMPLE | | | | ASSAYS | | | | | |
|------|-----|--------|--|--------|-------|-------|------|--------|------|------|------|--|--|
| | | | | FROM | TO | WIDTH | NO. | Cu | Pb | Zn | Ag | | |
| | | | grained siliceous rocks. Locally good mineralization, mostly in calc-silicates but no strong continuous sections. Interesting banded light green and pinkish grey calc-silicate near 71'. | 56 | 66 | 10 | 9411 | 0.10 | 0.06 | 0.86 | 0.25 | | |
| 74 | 90 | ~100% | Mostly medium grey, fine grained, siliceous rocks with some alteration (bleaching) along fractures. Minor calc-silicates. Upper and lower contacts are gradational as if through an increase in alteration (i.e. metasomatism). A little pyrrhotite + sphalerite + chalcopyrite in veins but not much. | 74 | 84 | 10 | 9413 | 0.02 | 0.06 | 0.02 | | | |
| | | | | 84 | 94 | 10 | 9414 | 0.05 | 0.20 | 0.12 | 0.20 | | |
| 90 | 145 | ~100% | Light green sucrose fine to medium grained calc-silicate rocks and bleached light grey, very fine grained, siliceous rocks. These two rock types seem to grade into each other through varying intensity of fracturecontrolled alteration. From 96' to 102' this alteration can be clearly seen "advancing on" the banded siliceous rocks along the banding away from fractures. This unit is about 70% green calc-silicates and 30% grey bleached and unbleached siliceous rocks. | 94 | 103.5 | 9.5 | 9415 | 0.31 | 2.60 | 2.24 | 2.10 | | |
| | | | From 93-94' is bull quartz with minor calcite and chlorite and 8" very good arsenopyrite + galena below it. Scattered blebs pyrrhotite, sphalerite, chalcopyrite and galena in calc-silicates | 103.5 | 111.5 | 8 | 9416 | 0.12 | 0.27 | 0.33 | 0.36 | | |
| | | | | 111.5 | 125.5 | 14 | 9417 | 0.07 | 0.11 | 1.30 | 0.16 | | |

Diamond Drill Record

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|-------------------------|--|---------------|---------|-----|
| COLLAR: | | HOLE SURVEY | | |
| NORTH _____ | | FOOTAGE | AZIMUTH | DIP |
| EAST _____ | | | | |
| ELEVATION _____ | | | | |
| LOGGED BY _____ | | | | |
| DATE LOGGED _____ | | | | |
| MAP REFERENCE NO. _____ | | METHOD: _____ | | |

COMPANY NAME Cyprus Anvil Mining Corporation
 PROPERTY NAME Dana, Hal and Halo Claims
 DRILLING CONTRACTOR _____
 ASSAYER _____
 PURPOSE OF HOLE _____

| |
|-----------------------------------|
| HOLE NO. <u>D-74-2</u> |
| CLAIM NAME <u>Dana 6 - Y75002</u> |
| COMMENCED <u>Sept. 16, 1974</u> |
| FINISHED <u>Sept. 19, 1974</u> |
| PROJECT NO. <u>466</u> |

| FROM | TO | RECOVY | DESCRIPTION | SAMPLE | | | | ASSAYS | | | | | |
|------|-----|--------|--|--------|-------|-------|------|--------|------|------|------|--|--|
| | | | | FROM | TO | WIDTH | NO. | Cu | Pb | Zn | Ag | | |
| | | | but not much substantial above about 125'. Some bleached, fine grained, grey, siliceous rocks have disseminated pyrrhotite speckles. | 125.5 | 133 | 7.5 | 9418 | 0.06 | 0.06 | 0.79 | 0.04 | | |
| | | | Below 125' the better developed (i. e. greener and coarser) calc-silicate units have flashy blebs of sphalerite and chalcopyrite + galena in short weakly banded high grade replacements. | 133 | 140 | 7 | 9419 | 0.73 | 0.26 | 4.56 | 1.10 | | |
| | | | 112' banding at ~40° dip relative to core. | | | | | | | | | | |
| | | | 102' banding at ~20° dip relative to core. | 140 | 154 | 14 | 9393 | 0.04 | 0.09 | 0.11 | 0.32 | | |
| 145 | 185 | ~100% | Same rocks as above but in proportions of about 50-50. (Contact with above unit is arbitrary.) Consists of 2' to 5' of calc-silicate, then similar amount of bleached, light grey, fine grained, siliceous rocks with banding brought out by alteration and remnants of very fine grained, medium grey, siliceous rocks. Some speckled pyrrhotite in more bleached siliceous rocks but not much. Calc-silicate - siliceous rock contacts are sharper here - there is some gradation but only on a scale of a few inches. Light green sucrose calc-silicates have pyrrhotite veinlets in them with darker green selvages. Better mineralized sections are at: | 154 | 163 | 9 | 9394 | 0.06 | 0.11 | 1.40 | 0.04 | | |
| | | | | 163 | 169 | 6 | 9395 | 0.29 | 0.27 | 3.16 | 1.00 | | |
| | | | | 169 | 174.5 | 5.5 | 9396 | 0.02 | 0.01 | 0.06 | | | |

Diamond Drill Record

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|-------------------------|---------------|-------------|-----|--|
| COLLAR: | | HOLE SURVEY | | |
| NORTH _____ | FOOTAGE | AZIMUTH | DIP | |
| EAST _____ | | | | |
| ELEVATION _____ | | | | |
| LOGGED BY _____ | | | | |
| DATE LOGGED _____ | | | | |
| MAP REFERENCE NO. _____ | METHOD: _____ | | | |

COMPANY NAME Cyprus Anvil Mining Corporation
 PROPERTY NAME Dana, Hal and Halo Claims
 DRILLING CONTRACTOR _____
 ASSAYER _____
 PURPOSE OF HOLE _____

| |
|-----------------------------------|
| HOLE NO. <u>D-74-2</u> |
| CLAIM NAME <u>Dana 6 - Y75002</u> |
| COMMENCED <u>Sept. 16, 1974</u> |
| FINISHED <u>Sept. 19, 1974</u> |
| PROJECT NO. <u>466</u> |

| FROM | TO | RECOVY | DESCRIPTION | SAMPLE | | | | ASSAYS | | | | | |
|------|-----|--------|---|--------|-----|-------|------|--------|------|------|------|--|--|
| | | | | FROM | TO | WIDTH | NO. | Cu | Pb | Zn | Ag | | |
| | | | 155.5-158.5' - Fracturebound and banded replacements. (Some light brown idocrase in these rocks.) | | | | | | | | | | |
| | | | 161' - Few inches. | | | | | | | | | | |
| | | | 163-164.5' - As above but heavier replacement locally. | 174.5 | 179 | 4.5 | 9397 | 0.20 | 0.24 | 1.92 | 0.95 | | |
| | | | 174.5-179' - As 155.5-158.5'. At 153' banding dips 30° relative to core. At 163' banding dips 20° relative to core. | | | | | | | | | | |
| | | | At 166.5' banding dips 60° relative to core. | 179 | 185 | 6 | 9398 | 0.05 | 0.07 | 0.17 | 0.31 | | |
| | | | At 174' banding dips 25° relative to core. At 182' banding dips 20° relative to core. | | | | | | | | | | |
| 185 | 227 | ~100% | Mostly light grey to off-white, banded, bleached, fine grained siliceous rocks - a few calc-silicate units near 189', 200-203' (with good banded replacement mineralization), 219.5-220.5', 207-208.5'. Very low grade throughout although calc-silicate layers have fracturebound and replacement blebs of sphalerite, pyrrhotite and chalcopyrite. Some remnants of unbleached, very fine grained to cherty, medium grey, siliceous rocks. Siliceous rocks are <u>very</u> barren with the exception of a few steep pyrrhotite and sphalerite bearing veinlets some with idocrase. Most veinlets, however, have only pyrrhotite as the sulphide phase. | | | | | | | | | | |
| | | | | 185 | 200 | 15 | 9399 | 0.02 | 0.06 | 0.24 | 0.22 | | |
| | | | | 200 | 207 | 7 | 9400 | 0.08 | 0.04 | 2.60 | 0.10 | | |
| | | | | 207 | 217 | 10 | 9401 | 0.01 | 0.01 | 0.05 | 0.04 | | |

Diamond Drill Record

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|-------------------------|---------|-------------|-----|--|
| COLLAR: | | HOLE SURVEY | | |
| NORTH _____ | FOOTAGE | AZIMUTH | DIP | |
| EAST _____ | | | | |
| ELEVATION _____ | | | | |
| LOGGED BY _____ | | | | |
| DATE LOGGED _____ | | | | |
| MAP REFERENCE NO. _____ | METHOD: | | | |

COMPANY NAME Cyprus Anvil Mining Corporation
 PROPERTY NAME Dana, Hal and Halo Claims
 DRILLING CONTRACTOR _____
 ASSAYER _____
 PURPOSE OF HOLE _____

| |
|-----------------------------------|
| HOLE NO. <u>D-74-2</u> |
| CLAIM NAME <u>Dana 6 - Y75002</u> |
| COMMENCED <u>Sept. 16, 1974</u> |
| FINISHED <u>Sept. 19, 1974</u> |
| PROJECT NO. <u>466</u> |

| FROM | TO | RECOVY | DESCRIPTION | SAMPLE | | | | ASSAYS | | | | | |
|------|-----|--------|---|--------|-----|-------|------|--------|--------|--------|------|--|--|
| | | | | FROM | TO | WIDTH | NO. | Cu | Pb | Zn | Ag | | |
| | | | diopside?). These rocks are host to fracturebound sphalerite, pyrrhotite, chalcopyrite and galena and enclose very short sucrose calc-silicate units with better development of mineralization of the blebby replacement and heavily fracturebound types. | | | | | | | | | | |
| | | | From 285-290' is very intense fracturebound mineralization which grades into almost complete replacement by fine grained sulphides of the very fine grained siliceous host. There is sucrose calc-silicate nearby but it is not these rocks that are being replaced. Could be quite a high grade section as mineralization is very fine grained and it looks to contain quite a bit of galena but most looks like pyrrhotite. This zone is surrounded by less intense fracturebound mineralization that is more typical of the mineralization in this hole. | 269 | 283 | 14 | 9386 | 0.04 | 0.06 | 0.19 | 0.08 | | |
| | | | | 283 | 288 | 5 | 9387 | 0.15 | 2.60 | 2.72 | 2.00 | | |
| | | | | 288 | 294 | 6 | 9388 | 0.13 | 0.54 | 1.76 | 0.68 | | |
| 294 | 462 | ~100% | Mostly very fine grained, light to medium grey siliceous rocks with many fractures carrying pyrrhotite and having bleached selvages, most veinlets are relatively steep. These rocks are mostly heavily bleached and recrystallized. Locally they grade into sucrose siliceous rocks and into similar rocks with a slight greenish coloration but short of the good calc-silicates. Bleaching and recrystallization controlled by | | | | | | | | | | |
| | | | | 294 | 304 | 10 | 9389 | (0.04) | (0.04) | (0.35) | | | |
| | | | | 304 | 314 | 10 | 9390 | (0.04) | (0.08) | (0.27) | | | |
| | | | | 314 | 324 | 10 | 9391 | 0.02 | 0.05 | 0.05 | 0.17 | | |

Diamond Drill Record

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|-------------------------|---------|-------------|-----|--|
| COLLAR: | | HOLE SURVEY | | |
| NORTH _____ | FOOTAGE | AZIMUTH | DIP | |
| EAST _____ | | | | |
| ELEVATION _____ | | | | |
| LOGGED BY _____ | | | | |
| DATE LOGGED _____ | | | | |
| MAP REFERENCE NO. _____ | METHOD: | | | |

COMPANY NAME Cyprus Anvil Mining Corporation
 PROPERTY NAME Dana, Hal and Halo Claims
 DRILLING CONTRACTOR _____
 ASSAYER _____
 PURPOSE OF HOLE _____

| | |
|-------------|------------------------|
| HOLE NO. | <u>D-74-2</u> |
| CLAIM NAME | <u>Dana 6 - Y75002</u> |
| COMMENCED | <u>16 Sept. 1974</u> |
| FINISHED | <u>19 Sept. 1974</u> |
| PROJECT NO. | <u>466</u> |

| FROM | TO | RECOVY | DESCRIPTION | SAMPLE | | | | ASSAYS | | | | | |
|------|----|--------|---|--------|-----|-------|------|--------|--------|--------|------|--|--|
| | | | | FROM | TO | WIDTH | NO. | Cu | Pb | Zn | Ag | | |
| | | | steep fractures (70-80°), some filled by quartz and carbonate | 324 | 334 | 10 | 9392 | 0.05 | 0.18 | 0.13 | 0.56 | | |
| | | | with and without idocrase and some pyrrhotite, pyrite, chalco- | | | | | | | | | | |
| | | | pyrite and galena but not much. Despite intense alteration there | 334 | 358 | 24 | 9447 | 0.01 | <0.01 | (0.01) | | | |
| | | | is little mineralization in this section. | | | | | | | | | | |
| | | | Between about 363' and 385' the rocks are more coarsely | | | | | | | | | | |
| | | | recrystallized than usual and more fractured in places. | 358 | 368 | 10 | 9420 | 0.03 | (0.07) | (0.08) | | | |
| | | | Pyrrhotite, sphalerite, chalcopryrite and galena occur on | | | | | | | | | | |
| | | | fractures especially in the last half of the section. Tectonic | | | | | | | | | | |
| | | | breccia at 378.5-379.5' and at 365' with crackle breccia else- | | | | | | | | | | |
| | | | where. Lots of carbonate on fractures in this section. Locally | | | | | | | | | | |
| | | | core is rusty but only 1 foot of core loss between 368' and 373'. | 368 | 377 | 9 | 9421 | 0.12 | 0.10 | 0.65 | 0.32 | | |
| | | | Short sections of milky quartz occur locally, some well | | | | | | | | | | |
| | | | mineralized with pyrrhotite, chalcopryrite, sphalerite and galena | 377 | 383 | 6 | 9422 | 0.09 | 0.05 | 1.80 | 0.19 | | |
| | | | but others barren. Milky quartz not common in hole. | | | | | | | | | | |
| | | | Below 385' are mostly fine grained siliceous rocks as above with | 383 | 393 | 10 | 9423 | (0.04) | (0.04) | (0.06) | | | |
| | | | some fracturebound sulphide but very low grade overall. Most | | | | | | | | | | |
| | | | siliceous rocks are light grey and bleached especially near | 393 | 403 | 10 | 9424 | 0.09 | 0.10 | 0.40 | 0.63 | | |
| | | | steep fractures. Some short calc-silicate layers with blebby | | | | | | | | | | |
| | | | replacement. Sphalerite, pyrrhotite and/or pyrite and chalco- | 403 | 410 | 7 | 9425 | (0.04) | (0.05) | (0.12) | | | |
| | | | pyrite with minor galena at 394', 413', 420', 428', 433', 434', | | | | | | | | | | |
| | | | 436', 438.5-439.5', 442-443'. | 410 | 420 | 10 | 9426 | 0.12 | 0.10 | 0.30 | 0.61 | | |

Diamond Drill Record

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|-------------------------|--|---------------|---------|-----|
| COLLAR: | | HOLE SURVEY | | |
| NORTH _____ | | FOOTAGE | AZIMUTH | DIP |
| EAST _____ | | | | |
| ELEVATION _____ | | | | |
| LOGGED BY _____ | | | | |
| DATE LOGGED _____ | | | | |
| MAP REFERENCE NO. _____ | | METHOD: _____ | | |

COMPANY NAME Cyprus Anvil Mining Corporation
 PROPERTY NAME Dana, Hal and Halo Claims
 DRILLING CONTRACTOR _____
 ASSAYER _____
 PURPOSE OF HOLE _____

| |
|-----------------------------------|
| HOLE NO. <u>D-74-2</u> |
| CLAIM NAME <u>Dana 6 - Y75002</u> |
| COMMENCED <u>Sept. 16, 1974</u> |
| FINISHED <u>Sept. 19, 1974</u> |
| PROJECT NO. <u>466</u> |

| FROM | TO | RECOVY | DESCRIPTION | SAMPLE | | | | ASSAYS | | | | | | |
|------|-------|--------|--|--------|-----|-------|------|--------|--------|--------|------|--|--|--|
| | | | | FROM | TO | WIDTH | NO. | Cu | Pb | Zn | Ag | | | |
| | | | From 449-462' rocks are little bleached, medium grey, siliceous, very fine grained rocks. | 420 | 432 | 12 | 9427 | (0.02) | (0.03) | (0.03) | | | | |
| | | | At 419' banding dips 30° relative to core. | 432 | 443 | 11 | 9428 | 0.16 | 0.15 | 2.04 | 0.81 | | | |
| | | | At 429' banding dips 45° relative to core. | | | | | | | | | | | |
| | | | At 445' banding dips 45° relative to core. | 443 | 463 | 20 | 9429 | (0.04) | (0.01) | (0.05) | | | | |
| | | | At 450' banding dips 45° relative to core. | | | | | | | | | | | |
| | | | At 460' banding dips 45° relative to core. | | | | | | | | | | | |
| 462 | 576.5 | ~100% | Mixed calc-silicate and light grey siliceous rock but mostly siliceous rocks. Calc-silicate best developed at: | 463 | 474 | 11 | 9430 | 0.26 | 0.47 | 1.88 | 1.10 | | | |
| | | | 463-464' (with pyrrhotite galena and chalcopryrite), 467-469.5' (with moderate sphalerite and chalcopryrite), 473-474' (with good sphalerite and chalcopryrite), 475-480' (with a little pyrrhotite and chalcopryrite), 487' (4" with chalcopryrite and sphalerite), 492-493', 505-507' (with good sphalerite and chalcopryrite), 515' (with chalcopryrite and sphalerite), 519-520' (chalcopryrite and sphalerite), 523.5-524' (sphalerite and chalcopryrite), 531-537' (sphalerite and chalcopryrite), 540' (sphalerite, chalcopryrite and pyrrhotite), 551-554' (with good sphalerite, chalcopryrite and pyrrhotite), 561.5-563, 564-565' and near 565.5' (all with a little sphalerite, pyrrhotite and chalcopryrite). | 474 | 486 | 12 | 9431 | (0.03) | (0.01) | (0.07) | | | | |
| | | | | 406 | 495 | 9 | 9432 | 0.11 | 0.11 | 0.61 | 0.61 | | | |
| | | | | 495 | 505 | 10 | 9433 | (0.05) | (0.01) | (0.13) | | | | |
| | | | | 505 | 515 | 10 | 9334 | 0.17 | 0.03 | 0.64 | 0.41 | | | |
| | | | | 515 | 525 | 10 | 9435 | 0.31 | 0.05 | 1.09 | 0.63 | | | |
| | | | | 525 | 535 | 10 | 9446 | 0.06 | 0.05 | 0.35 | 0.16 | | | |

Diamond Drill Record

| | | | | |
|-------------------------|--|--------------------|---------|-----|
| COLLAR: | | HOLE SURVEY | | |
| NORTH _____ | | FOOTAGE | AZIMUTH | DIP |
| EAST _____ | | | | |
| ELEVATION _____ | | | | |
| LOGGED BY _____ | | | | |
| DATE LOGGED _____ | | | | |
| MAP REFERENCE NO. _____ | | METHOD: _____ | | |

COMPANY NAME Cyprus Anvil Mining Corporation
 PROPERTY NAME Dana, Hal and Halo Claims
 DRILLING CONTRACTOR _____
 ASSAYER _____
 PURPOSE OF HOLE _____

| |
|-----------------------------------|
| HOLE NO. <u>D-74-2</u> |
| CLAIM NAME <u>Dana 6 - Y75002</u> |
| COMMENCED <u>16 Sept. 1974</u> |
| FINISHED <u>19 Sept. 1974</u> |
| PROJECT NO. <u>466</u> |

| FROM | TO | RECOVY | DESCRIPTION | SAMPLE | | | | ASSAYS | | | | | |
|-------|-----|--------|---|--------|-----|-------|------|--------|--------|--------|------|--|--|
| | | | | FROM | TO | WIDTH | NO. | Cu | Pb | Zn | Ag | | |
| | | | Most of the above mineralization in the calc-silicates is | 535 | 542 | 7 | 9445 | 0.13 | 0.05 | 0.45 | 0.36 | | |
| | | | blebby to banded replacement with lesser fracturebound. A small | | | | | | | | | | |
| | | | amount of disseminated and veinlet mineralization in the inter- | 542 | 551 | 9 | 9444 | 0.08 | 0.04 | 0.22 | 0.41 | | |
| | | | vening siliceous rocks. Bleaching is quite strong in this section | | | | | | | | | | |
| | | | with only minor grey remnants but decreases slightly below | 551 | 566 | 15 | 9443 | 0.12 | 0.05 | 1.05 | 0.18 | | |
| | | | about 540'. | | | | | | | | | | |
| | | | | 566 | 578 | 12 | 9442 | (0.07) | (0.02) | (0.05) | | | |
| 576.5 | 582 | ~100% | Rusty gougy fault zone. | | | | | | | | | | |
| | | | | 578 | 592 | 14 | 9441 | 0.30 | 0.07 | 0.24 | 0.67 | | |
| 582 | 609 | ~100% | Light grey to greenish grey, very fine grained, siliceous | | | | | | | | | | |
| | | | rocks and subordinate calc-silicates. Some remnant medium | 592 | 597 | 5 | 9440 | 1.72 | 0.16 | 4.64 | 3.10 | | |
| | | | grey, very fine grained, siliceous rocks. More bleached rocks | | | | | | | | | | |
| | | | have disseminated pyrrhotite and chalcopyrite but not a general | | | | | | | | | | |
| | | | condition. Chalcopyrite is very noticeably abundant here in | 597 | 609 | 12 | 9439 | 0.68 | 0.14 | 0.87 | 1.3 | | |
| | | | fractures and as disseminations and with flashy sphalerite in | | | | | | | | | | |
| | | | sucrose calc-silicate sections at 592-596.5' and 605-606' | | | | | | | | | | |
| | | | (586-609.5' is a good copper section.) | | | | | | | | | | |
| 609 | 658 | ~100% | Medium grey, siliceous rocks locally bleached light grey to | 609 | 618 | 9 | 9438 | (0.05) | (0.04) | (0.03) | | | |
| | | | off-white. | | | | | | | | | | |
| | | | At 615' banding dips 30° relative to core. | 618 | 635 | 17 | 9437 | (0.08) | (0.04) | (0.05) | | | |

Diamond Drill Record

| | | | | |
|-------------------|-------------------|-------------|--------------|-------------|
| COLLAR: | | HOLE SURVEY | | |
| NORTH | <u>110N</u> | FOOTAGE | AZIMUTH | DIP |
| EAST | <u>17+70E</u> | <u>0</u> | <u>N35°W</u> | <u>-70°</u> |
| ELEVATION | | | | |
| LOGGED BY | <u>G. Jilson</u> | | | |
| DATE LOGGED | <u>Sept. 1974</u> | T.D. | <u>203'</u> | |
| MAP REFERENCE NO. | <u>105-K-11</u> | METHOD: | | |

COMPANY NAME Cyprus Anvil Mining Corporation
 PROPERTY NAME Dana, Hal and Halo Claims
 DRILLING CONTRACTOR Arctic Diamond Drilling
 ASSAYER Bondar-Clegg, Whitehorse Lab & Vancouver Lab
 PURPOSE OF HOLE To test strike extension of mineralization

| | |
|-------------|----------------------------|
| HOLE NO. | <u>D-74-3</u> |
| CLAIM NAME | <u>Halo 6 Fr. - Y79653</u> |
| COMMENCED | <u>26 Sept. 1974</u> |
| FINISHED | <u>Not completed</u> |
| PROJECT NO. | <u>466</u> |

| FROM | TO | RECOVY | DESCRIPTION | SAMPLE | | | | ASSAYS | | | | | |
|------|-----|--------|--|--------|-------|-------|------|--------|--------|--------|------|--|--|
| | | | | FROM | TO | WIDTH | NO. | Cu | Pb | Zn | Ag | | |
| 0 | 4 | Nil | Overburden. | | | | | | | | | | |
| 4 | 203 | ~90% | Mixed, very fine grained, siliceous, calc-silicate and carbonate rich rocks. Bleaching becomes progressively more intense down hole, becoming widespread by 100'. Bleaching shows clear fracture control. Rocks mostly unmineralized above 110'. Core badly broken above 85' but not much core loss. | | | | | | | | | | |
| | | | Below 110' mineralization mostly restricted to calc-silicate layers with siliceous rocks between relatively barren except for fracturebound and minor disseminated pyrrhotite and traces of chalcopyrite. Best mineralized calc-silicate sections are: | 110 | 130 | 20 | 9448 | (0.01) | (0.02) | (0.10) | | | |
| | | | Near 127' (few inches flashy sphalerite with pyrite). | | | | | | | | | | |
| | | | 130-135' (blebs of sphalerite, pyrite, pyrrhotite, chalcopyrite and a little arsenopyrite but low grade throughout). | 130 | 138 | 8 | 9449 | 0.02 | 0.01 | 0.71 | 0.06 | | |
| | | | 150-152' (blebby to banded replacement pyrrhotite, sphalerite, chalcopyrite and a little pyrite). | 138 | 150 | 12 | 9450 | (0.02) | (0.01) | (0.04) | | | |
| | | | Near 160' (minor sphalerite, pyrrhotite, chalcopyrite). | 150 | 155 | 5 | 9451 | 0.14 | 0.04 | 1.54 | Tr | | |
| | | | 166' (few inches flashy sphalerite). | | | | | | | | | | |
| | | | 173-174' (pyrrhotite, sphalerite and minor chalcopyrite in blebby replacement). | 155 | 165.5 | 10.5 | 9452 | 0.02 | 0.01 | 0.54 | 0.04 | | |
| | | | 178-179' (pyrrhotite, sphalerite, chalcopyrite, blebby replacement) | 165.5 | 173 | 7.5 | 9453 | 0.05 | 0.01 | 0.79 | Tr | | |

Diamond Drill Record

| | | | | |
|-------------------|-----------|------------------|---------|-----|
| COLLAR: | | HOLE SURVEY | | |
| NORTH | 110+00N | FOOTAGE | AZIMUTH | DIP |
| EAST | 17+70E | 0 | - | -90 |
| ELEVATION | | | | |
| LOGGED BY | G. Jilson | | | |
| DATE LOGGED | June 1975 | | | |
| MAP REFERENCE NO. | 105-K-11 | METHOD: no tests | | |

COMPANY NAME CYPRUS ANVIL MINING CORPORATION
 PROPERTY NAME Dana, Halo & Hal Claims
 DRILLING CONTRACTOR Arctic Diamond Drilling
 ASSAYER Bondar Clegg - Whitehorse Lab
 PURPOSE OF HOLE To test zinc geochemical anomaly
 TOTAL DEPTH: 729' OVERALL RECOVERY: essentially 100%

| | |
|-------------|---------------------------|
| HOLE NO. | <u>466-75-4</u> |
| CLAIM NAME | <u>Halo 6 Fr.</u> |
| COMMENCED | <u>8 June, 1975</u> |
| FINISHED | <u>13 June, 1975</u> |
| PROJECT NO. | <u>466 (EARN PROJECT)</u> |

| FROM | TO | RECOVY | DESCRIPTION | SAMPLE | | | | ASSAYS | | | | STRUCTURE | | |
|------|------|--------|---|--------|----|-------|-----|--------|------|------|-----------|-----------|-------|-----|
| | | | | FROM | TO | WIDTH | NO. | Cu % | Pb % | Zn % | Ag oz/ton | Ftge. | Bedd. | |
| 0 | 7 | nil | Overburden and broken bedrock. | | | | | | | | | | | |
| 7 | 40 | ~ 90% | Siliceous rocks - light grey, very fine grained, hard, very siliceous rocks - possibly a recrystallized chert. Variably bleached to off-white along layering and fractures. Some flesh-colored sericite-rich layers and lenses. Minor light colored coarser quartzite. | | | | | | | | | | 19' | 30° |
| | | | | | | | | | | | | | 21' | 20° |
| | | | | | | | | | | | | | 26' | 15° |
| | | | | | | | | | | | | | 31' | 23° |
| 40 | 60.5 | ~ 90% | Quartzite and limy quartzite - off-white, medium grained massive to finely bedded - variable content of lime, locally enough to be considered a sandy limestone over very short sections. Limy quartzites become greener with depth, probably due to small amounts of diopside. Locally badly weathered and crumbly. Locally with ovoid mottling resembling pisolites but probably a weathering effect. Minor very fine grained siliceous rocks as above. | | | | | | | | | | 41' | 24° |
| | | | | | | | | | | | | | 48' | 15° |
| | | | | | | | | | | | | | 52' | 45° |
| | | | | | | | | | | | | | 60' | 40° |
| 60.5 | 129 | ~ 100% | Siliceous rocks and quartzites - very fine grained grey siliceous rocks, quartzite and limy quartzite as above. Finer rocks bleached along fractures and coarser rocks with slight green coloration as above. Poorly mineralized, minor finely disseminated brown or black sphalerite in quartzites, especially near 89', 94', 97', 100' and 108'. Good | | | | | | | | | | 65' | 30° |
| | | | | | | | | | | | | | 69' | 20° |
| | | | | | | | | | | | | | 75' | 24° |
| | | | | | | | | | | | | | 88' | 33° |
| | | | | | | | | | | | | | 103' | 10° |

() indicates results determined by A.A and converted from ppm to % or oz/ton.

Diamond Drill Record

| | | | | |
|-------------------------|---------------|---------------|-----------|--|
| COLLAR: | | HOLE SURVEY | | |
| NOITH _____ | FOOTAGE _____ | AZIMUTH _____ | DIP _____ | |
| EAST _____ | _____ | _____ | _____ | |
| ELEVATION _____ | _____ | _____ | _____ | |
| LOGGED BY _____ | _____ | _____ | _____ | |
| DATE LOGGED _____ | _____ | _____ | _____ | |
| MAP REFERENCE NO. _____ | METHOD: _____ | | | |

COMPANY NAME _____
 PROPERTY NAME _____
 DRILLING CONTRACTOR _____
 ASSAYER _____
 PURPOSE OF HOLE _____

| |
|--------------------------|
| HOLE NO. <u>466-75-4</u> |
| CLAIM NAME _____ |
| COMMENCED _____ |
| FINISHED _____ |
| PROJECT NO. _____ |

| FROM | TO | RECOVY | DESCRIPTION | SAMPLE | | | | ASSAYS | | | | STRUCTURE | |
|-------|-------|--------|---|--------|-------|-------|------|--------|------|--------|-----------|-----------|-------|
| | | | | FROM | TO | WIDTH | NO. | Cu % | Pb % | Zn % | Ag oz/ton | Ftce. | Bedd. |
| | | | examples of coarse twinned calcite and coarse white/green mottled calc. silicate rocks locally. | | | | | | | | | 108' | 23° |
| | | | | | | | | | | | | 118' | 20° |
| | | | | | | | | | | | | 121' | 26° |
| 129 | 149.5 | ~100% | Quartzite and calc. silicates - quartzites as above, generally colored light olive green by diopside - some brown idocrase. Lesser very fine grained siliceous units as above. 140.5-149.5 good mineralization, coarse black sphalerite and pyrrhotite in calc. silicates and limy rocks. | 131.5 | 140.5 | 9' | 9476 | (69) | (42) | (1070) | (1.7) | 130' | 36° |
| | | | | | | | | | | | | 135' | 60° |
| | | | | | | | | 0.06 | 0.01 | 2.12 | | | |
| 149.5 | 244 | ~100% | Mixed siliceous rocks, quartzite, limy quartzite and derived calc. silicates - very fine grained grey and bleached offwhite siliceous rocks as above and coarse: rocks as above. Calc. silicate sections locally well-mineralized. | | | | | | | | | 155' | 45° |
| | | | 149.5-164 - about 80% fine siliceous rocks, 20% white quartzite. Larger quartzite beds show evidence of pinch and swell on contacts and internal brecciation as noted in outcrop. Layering generally dips 35°-45°. Minor replacement of quartzites by pyrrhotite but little overall sulphide. | 149.5 | 164 | 14.5 | 9478 | (166) | (54) | (800) | (2.7) | | |

Diamond Drill Record

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|-------------------------|--|---------------|---------|-----|
| COLLAR: | | HOLE SURVEY | | |
| NORTH _____ | | FOOTAGE | AZIMUTH | DIP |
| EAST _____ | | | | |
| ELEVATION _____ | | | | |
| LOGGED BY _____ | | | | |
| DATE LOGGED _____ | | | | |
| MAP REFERENCE NO. _____ | | METHOD: _____ | | |

COMPANY NAME _____
 PROPERTY NAME _____
 DRILLING CONTRACTOR _____
 ASSAYER _____
 PURPOSE OF HOLE _____

| |
|--------------------------|
| HOLE NO. <u>466-75-4</u> |
| CLAIM NAME _____ |
| COMMENCED _____ |
| FINISHED _____ |
| PROJECT NO. _____ |

| FROM | TO | RECOVY | DESCRIPTION | SAMPLE | | | | ASSAYS | | | | STRUCTURE | | |
|------|----|--------|--|--------|--------|-------|------|--------|------|------|----|-----------|-------|--|
| | | | | FROM | TO | WIDTH | NO. | Cu % | Pb % | Zn % | Ag | Ftge. | Bedd. | |
| | | | black sphalerite and pyrrhotite with lesser pyrite and chalcop- pyrite (pyrite and chalcopyrite are minor but more obvious in veinlets than in replacements). The veinlets and type (a) replacements are similar and both may be a result of remobiliza- tion of types (b) and (c) mineralization differing only in site of deposition (i.e. brittle versus non-brittle structures). | | | | | | | | | | | |
| | | | 178.50-182.25 - grey siliceous rocks and lighter, white to light green altered quartzite and limy quartzite. Fine pyrrhotite and brown sphalerite replacement of coarser quartzite beds. Mineralization looks very unspectacular compared to flashy, coarse bleby zones but probably assays about the same. Overall sulphide content is about 5%. Much of the host of the fine disseminated mineraliza- tion, while occurring in the coarser rocks of this section, is in a finer and much lighter green host than the rocks which host coarser mineralization (type a) elsewhere. The host appears to be a calc.-silicate but is finer and more siliceous than other calc.-silicates consistent with finer mineralization. This type of rock may be a syngenetic protore or the difference may be due to the same replacement process working on a finer host, thus producing a finer disseminated mineralization. | 178.5 | 182.25 | 3.75 | 9481 | 0.03 | 0.01 | 0.35 | | | | |
| | | | | 182.25 | 192.75 | 10.5 | 9482 | 0.14 | 0.02 | 4.32 | | | | |

Diamond Drill Record

PAGE 5 OF 9

| | | | |
|-------------------------|---------------|---------|-----|
| COLLAR: | HOLE SURVEY | | |
| NORTH _____ | FOOTAGE | AZIMUTH | DIP |
| EAST _____ | | | |
| ELEVATION _____ | | | |
| LOGGED BY _____ | | | |
| DATE LOGGED _____ | | | |
| MAP REFERENCE NO. _____ | METHOD: _____ | | |

COMPANY NAME _____
 PROPERTY NAME _____
 DRILLING CONTRACTOR _____
 ASSAYER _____
 PURPOSE OF HOLE _____

| |
|--------------------------|
| HOLE NO. <u>466-75-4</u> |
| CLAIM NAME _____ |
| COMMENCED _____ |
| FINISHED _____ |
| PROJECT NO. _____ |

| FROM | TO | RECOVY | DESCRIPTION | SAMPLE | | | | ASSAYS | | | | STRUCTURE | | |
|------|----|--------|--|--------|-----|-------|------|--------|------|-------|-------|-----------|-------|-----|
| | | | | FROM | TO | WIDTH | NO. | Cu % | Pb % | Zn % | Ag | Ftg. | Bedd. | |
| | | | 182.25-192.75 - about half quartzite and calc.-silicate and half fine grained siliceous rocks. Much of the quartzite has finely disseminated pyrrhotite, brown sphalerite and chalcopryrite. Local coarser, greener layers with large bleby pyrrhotite and black sphalerite, particularly below 191'. Section contains nice minor fold in finely laminated quartzite - plunge of axis is about 20°. | | | | | | | | | | 186' | 45° |
| | | | 192.75-201 - first one-third and last one-third well-mineralized calc.-silicate rock - heavily fractured and sheared with black to dark green serpentine or chlorite on shears. Middle part 195'-198' is 1-1/2' of coarse sulphide, poor calcite vein material with selvage of rusty, brecciated and sheared country rock. The section 191-202' is probably an early mineralized, steeply dipping fault zone (feeder zone?) healed over by late post-mineralization calcite. | 192.75 | 201 | 8.25 | 9483 | 0.14 | 0.03 | 3.10 | | | | |
| | | | 201-215 - fairly barren section of mostly very fine-grained grey siliceous rocks and lesser off-white, mottled green calc.-silicates. A little disseminated pyrrhotite near top but <1% sulphide overall. Moderately fractured with steep main fractures and more or less random subordinate fractures. Layering dips 40°-60°. | 201 | 215 | 14 | 9484 | (300) | (18) | (900) | (2.6) | | | |

Diamond Drill Record

PAGE 6 OF 9

| | | | |
|-------------------------|---------------|---------|-----|
| COLLAR: | HOLE SURVEY | | |
| NO. _____ | FOOTAGE | AZIMUTH | DIP |
| EAST _____ | | | |
| ELEVATION _____ | | | |
| LOGGED BY _____ | | | |
| DATE LOGGED _____ | | | |
| MAP REFERENCE NO. _____ | METHOD: _____ | | |

COMPANY NAME _____
 PROPERTY NAME _____
 DRILLING CONTRACTOR _____
 ASSAYER _____
 PURPOSE OF HOLE _____

| |
|--------------------------|
| HOLE NO. <u>466-75-4</u> |
| CLAIM NAME _____ |
| COMMENCED _____ |
| FINISHED _____ |
| PROJECT NO. _____ |

| FROM | TO | RECOVY | DESCRIPTION | SAMPLE | | | | ASSAYS | | | | STRUCTURE | |
|------|-----|--------|--|--------|--------|-------|------|--------|------|--------|-------|-----------|-------|
| | | | | FROM | TO | WIDTH | NO. | Cu % | Pb % | Zn % | Ag | Ptce. | Bedd. |
| | | | 215-226 - as above - very barren section. | 215 | 226 | 11 | 9485 | (206) | (17) | (270) | (1.4) | | |
| | | | 226-233.50 - mostly white quartzite to light green calc.-silicate, some with disseminated pyrrhotite, lesser black sphalerite and chalcopryrite. Good layering fairly steep locally up to 80°. | 226 | 233.5 | 7.5 | 9486 | (1200) | (28) | (9700) | (2.8) | | |
| | | | 233.50-246 - as above but with low grade overall but good short pyrrhotite and chalcopryrite sectors locally. Most mineralization is in interval 239-244 which is a light green, earthy, fine-grained calc.-silicate. | 233.5 | 245.75 | 12.25 | 9487 | (650) | (20) | (810) | (1.8) | 234 | 30° |
| 244 | 402 | ~100% | Siliceous rocks - massive to finely laminated, very fine-grained, grey to greenish grey siliceous rocks, bleached off-white locally. May be very fine quartzite and/or recrystallized chert. Locally very heavily replaced by disseminated pyrrhotite and chalcopryrite. Where replacement(?) is only partially complete, core has a spotted appearance. Particularly good pyrrhotite and chalcopryrite mineralization around 271-273', 290', 295', 360'. Steeply dipping pyrrhotite and chalcopryrite bearing veinlets are important in this zone. Compared to rocks overlying the ZnCu zone, these rocks are much more fractured and, while pyrrhotite and chalcopryrite | 245.75 | 258 | 12.25 | 9488 | (500) | (22) | (136) | (1.8) | | |
| | | | | 258 | 271 | 13 | 9489 | (270) | (24) | (132) | (2.2) | | |
| | | | | 271 | 282 | 11 | 9490 | (1240) | (36) | (102) | (2.6) | | |
| | | | | 282 | 296 | 14 | 9491 | (1230) | (26) | (102) | (2.4) | | |
| | | | | 296 | 313 | 17 | 9492 | (760) | (30) | (88) | (2.2) | 294 | 30° |
| | | | | 313 | 319.75 | 6.75 | 9494 | (530) | (35) | (153) | (1.7) | 317 | 30° |

Diamond Drill Record

| | | | | |
|-------------------------|---------------|-------------|-----|--|
| COLLAR: | | HOLE SURVEY | | |
| NORTH _____ | FOOTAGE | AZIMUTH | DIP | |
| EAST _____ | | | | |
| ELEVATION _____ | | | | |
| LOGGED BY _____ | | | | |
| DATE LOGGED _____ | | | | |
| MAP REFERENCE NO. _____ | METHOD: _____ | | | |

COMPANY NAME _____
 PROPERTY NAME _____
 DRILLING CONTRACTOR _____
 ASSAYER _____
 PURPOSE OF HOLE _____

| |
|--------------------------|
| HOLE NO. <u>466-75-4</u> |
| CLAIM NAME _____ |
| COMMENCED _____ |
| FINISHED _____ |
| PROJECT NO. _____ |

| FROM | TO | RECOVY | DESCRIPTION | SAMPLE | | | | ASSAYS | | | | STRUCTURE | | |
|------|-----|--------|--|--------|--------|-------|------|--------|------|-------|-------|-----------|--------|--|
| | | | | FROM | TO | WIDTH | NO. | Cu % | Pb % | Zn % | Ag | Ftge. | Bedd. | |
| | | | veinlets are not common above the ZnCu zone, they are the rule below | | | | | | | | | | | |
| | | | it. This suggests that the ZnCu zone may be stratiform and strata- | 319.75 | 329 | 9.25 | 9495 | (750) | (28) | (129) | (2.1) | | | |
| | | | bound syngenetic ore while this is a copper stringer zone. Some of the | 329 | 338.50 | 9.50 | 9496 | (560) | (26) | (175) | (1.9) | 334 | 35° | |
| | | | veinlets appear to have a chloritic selvage, others have border | 338.5 | 348.75 | 10.25 | 9497 | (500) | (22) | (240) | (1.8) | 343 | 42° | |
| | | | which is slightly greener than adjoining siliceous rock, suggesting | 348.5 | 357.75 | 9.25 | 9499 | (760) | (19) | (106) | (2.0) | 382 | 37° | |
| | | | a slight calc.-silicate content (or perhaps just extremely finely | 357.75 | 362 | 4.25 | 9500 | (1690) | (37) | (129) | (3.4) | | | |
| | | | divided chlorite?). | 362 | 372 | 10 | 9501 | (750) | (74) | (133) | (2.9) | | | |
| 414 | 420 | ~100% | Strongly altered, coarse carbonate-rich rocks - coarse rocks composed | 372 | 384 | 12 | 9502 | (530) | (97) | (360) | (3.2) | 414 | 35° | |
| | | | of coarse, white calcite and green diopside(?) - fizzes readily. | 384 | 391.50 | 7.50 | 9503 | (400) | (31) | (212) | (2.0) | | | |
| | | | Resembles highly altered porphyry but details of structure and texture | 391.5 | 402 | 10.50 | 9504 | (460) | (23) | (135) | (1.9) | | | |
| | | | suggest this is unlikely. Locally with good pyrrhotite but little else. | | | | | | | | | | | |
| 420 | 502 | | Siliceous rocks - grey to greenish grey, finely laminated, very fine | | | | | | | | | 430 | 25° | |
| | | | grained siliceous rocks as above. Generally with fine disseminated | | | | | | | | | 432 | 25° | |
| | | | pyrrhotite but less than above. A few thin pyrrhotite-rich | | | | | | | | | 442 | 20-50° | |
| | | | (⁺ chalcopyrite) coarser calc.-silicate(?) beds, especially 434-435' | | | | | | | | | 460 | 35° | |
| | | | and 467-473'. Below 480' there is less sulphide on fractures and | | | | | | | | | 467 | 20° | |
| | | | more chloritic material. | | | | | | | | | 471 | 50° | |
| | | | | | | | | | | | | 481 | 35° | |
| | | | | | | | | | | | | 490 | 20° | |
| | | | | | | | | | | | | 500 | 27° | |

Diamond Drill Record

| | | | |
|-------------------------|---------------|---------|-----|
| COLLAR: | HOLE SURVEY | | |
| NORTH _____ | FOOTAGE | AZIMUTH | DIP |
| EAST _____ | | | |
| ELEVATION _____ | | | |
| LOGGED BY _____ | | | |
| DATE LOGGED _____ | | | |
| MAP REFERENCE NO. _____ | METHOD: _____ | | |

COMPANY NAME _____
 PROPERTY NAME _____
 DRILLING CONTRACTOR _____
 ASSAYER _____
 PURPOSE OF HOLE _____

| |
|--------------------------|
| HOLE NO. <u>466-75-4</u> |
| CLAIM NAME _____ |
| COMMENCED _____ |
| FINISHED _____ |
| PROJECT NO. _____ |

| FROM | TO | RECOVY | DESCRIPTION | SAMPLE | | | | ASSAYS | | | | STRUCTURE | | |
|------|-----|--------|--|--------|----|-------|-----|--------|------|------|----|-----------|-------|-----|
| | | | | FROM | TO | WIDTH | NO. | Cu % | Pb % | Zn % | Ag | Ftqe. | Bedd. | |
| 502 | 511 | ~100% | Coarse carbonate-rich rocks - heavily altered, coarse calcite-rich zone with "pseudo porphyry" texture as above. Locally contains light apple green talc(?). | | | | | | | | | | | |
| 511 | 521 | ~100% | Siliceous rocks - grey, very fine grained to cherty siliceous rocks locally with slight brownish tinge reminiscent of unit "c". Minor disseminated and fracture bound pyrrhotite and chalcovpyrite - moderately fractured. | | | | | | | | | | | |
| 521 | 536 | ~100% | Siliceous rocks and calc.-silicates - highly fracture carbonate and calc.-silicate-rich rocks probably originally finely bedded limy quartzite and cherty siliceous rocks as above. | | | | | | | | | | | |
| 536 | 729 | ~100% | Siliceous rocks - very fine-grained to cherty siliceous rock - medium to greenish grey locally with brownish tinge as above. | | | | | | | | | | | |
| | | | 562-569 - greenish earthy textured, highly fractured zone with some brecciation and healing by calcite. | | | | | | | | | | 575 | 38° |
| | | | Rocks cut by numerous steep pyrrhotite and chalcovpyrite † pyrite veinlets, some with altered light green selveges similar to above zone- possibly chloritic alteration. Below 590', rock is commonly rich in | | | | | | | | | | 577 | 29° |

Diamond Drill Record

| | | | |
|-------------------------|---------------|---------|-----|
| COLLAR: | HOLE SURVEY | | |
| NORTH _____ | FOOTAGE | AZIMUTH | DIP |
| EAST _____ | | | |
| ELEVATION _____ | | | |
| LOGGED BY _____ | | | |
| DATE LOGGED _____ | | | |
| MAP REFERENCE NO. _____ | METHOD: _____ | | |

COMPANY NAME _____
 PROPERTY NAME _____
 DRILLING CONTRACTOR _____
 ASSAYER _____
 PURPOSE OF HOLE _____

| |
|--------------------------|
| HOLE NO. <u>466-75-4</u> |
| CLAIM NAME _____ |
| COMMENCED _____ |
| FINISHED _____ |
| PROJECT NO. _____ |

| FROM | TO | RECOVY | DESCRIPTION | SAMPLE | | | | ASSAYS | | | | STRUCTURE | |
|------|----|--------|--|--------|----|-------|-----|--------|------|------|----|-----------|--------|
| | | | | FROM | TO | WIDTH | NO. | Cu % | Pb % | Zn % | Ag | Ftge. | Bedd. |
| | | | buff sericite - weakly foliated with foliation dipping 0 - 10°. | | | | | | | | | 580 | 10° |
| | | | Foliation probably parallels bedding and is folded about a shallowly plunging axis. | | | | | | | | | 630 | 20° |
| | | | 618-661 - strongly altered to greenish chloritic(?) material along close fractures, minor pyrrhotite and chalcopyrite. Particularly good remnant brown cherty rocks near 689'. | | | | | | | | | 643 | 45° |
| | | | | | | | | | | | | 669 | 25° |
| | | | | | | | | | | | | 680 | 25° |
| | | | Below 715', highly fractured and veined with chloritic or calc.-silicate(?) alteration along fractures. Minor pyrrhotite + pyrite in fractures - some calcite. | | | | | | | | | 684 | 15° |
| | | | 729 - END OF HOLE | | | | | | | | | 687 | 60° |
| | | | | | | | | | | | | 688 | 33° |
| | | | | | | | | | | | | 692 | 35° |
| | | | | | | | | | | | | 699 | 45° |
| | | | | | | | | | | | | 704 | 30-50° |
| | | | | | | | | | | | | 707 | 10° |
| | | | | | | | | | | | | 709 | 20° |

Diamond Drill Record

| | | | | |
|-------------------|-----------|------------------|---------|-----|
| COLLAR: | | HOLE SURVEY | | |
| NORTH | 109N | FOOTAGE | AZIMUTH | DIP |
| EAST | 35+50E | 0 | - | -90 |
| ELEVATION | | | | |
| LOGGED BY | G. Jilson | | | |
| DATE LOGGED | July 1975 | | | |
| MAP REFERENCE NO. | 105-K-11 | METHOD: no tests | | |

COMPANY NAME CYPRUS ANVIL MINING CORPORATION
 PROPERTY NAME Dana, Halo and Hal Claims
 DRILLING CONTRACTOR Arctic Diamond Drilling
 ASSAYER Bondar Clegg, Whitehorse Lab
 PURPOSE OF HOLE To test mineralization down dip
 TOTAL DEPTH: 919' OVERALL RECOVERY: essentially 100%

| | |
|-------------|---------------------------|
| HOLE NO. | <u>466-75-5</u> |
| CLAIM NAME | <u>Dana #8</u> |
| COMMENCED | <u>14 June 1975</u> |
| FINISHED | <u>29 June 1975</u> |
| PROJECT NO. | <u>466 (Earn Project)</u> |

| FROM | TO | RECOVY | DESCRIPTION | SAMPLE | | | | ASSAYS | | | | STRUCTURE | |
|------|-----|--------|---|--------|----|-------|-----|--------|------|------|----|---|--|
| | | | | FROM | TO | WIDTH | NO. | Cu % | Pb % | Zn % | Ag | Ftge. | Bedd. |
| 0 | 7 | Nil | Overburden and broken bedrock. | | | | | | | | | | |
| 7 | 580 | ~100% | <p>Fine siliceous rocks, quartzite and limy quartzite - quartzite and limy quartzite are fine to medium grained, finely bedded and, where distinguishable, the grains appear well-rounded and sorted. Possible cross bedding locally. They appear to be normal, clean sedimentary quartzites. Quartzites are generally light colored, mostly off-white tending to light olive green, possibly due to incipient alteration to calc.-silicate mineralogy. In limy quartzites, the carbonate is commonly recrystallized to large twinned calcite crystals up to several inches across. Very limy rocks locally have round, light colored areas within a darker, softer matrix suggestive of pisolites or pebbles but probably an alteration or weathering phenomena.</p> <p>Siliceous rocks are very fine grained, medium grey to off-white and very hard. The white rocks appear to be both bleached equivalents and interbeds of the grey rocks as usual. Fine, streaky lamination (light streaks on a grey background) are characteristic of the siliceous rocks compared to the fine, regular bedding of the coarser quartzites.</p> | | | | | | | | | 13 18 45 42 50 55 56 63 66 72 75 77½ 79 84 87 99 109 115 125 131 145 148 154 156 159 160 161 170 173 174 179 181 183 185 | 15° 35° 20° 70° 20° 25° 20° 20° 35° 30° 25° 65° 60° 20° 20° 25° 40° 50° 15° 20° 30° 30° 30° 60° 60° 70° 45° 20° 35° 30° 30° 32° 55° 50° |

() indicates results are determined by A.A and converted from ppm to % or oz/ton.

Diamond Drill Record

| | | | |
|-------------------------|---------------|---------|-----|
| COLLAR: | HOLE SURVEY | | |
| NO. _____ | FOOTAGE | AZIMUTH | DIP |
| EAST _____ | | | |
| ELEVATION _____ | | | |
| LOGGED BY _____ | | | |
| DATE LOGGED _____ | | | |
| MAP REFERENCE NO. _____ | METHOD: _____ | | |

COMPANY NAME _____
 PROPERTY NAME _____
 DRILLING CONTRACTOR _____
 ASSAYER _____
 PURPOSE OF HOLE _____

HOLE NO. 466-75-5
 CLAIM NAME _____
 COMMENCED _____
 FINISHED _____
 PROJECT NO. _____

| FROM | TO | RECOVY | DESCRIPTION | SAMPLE | | | | ASSAYS | | | | STRUCTURE | |
|------|----|--------|---|--------|-----|-------|------|--------|--------|--------|--------|-----------|--------|
| | | | | FROM | TO | WIDTH | NO. | Cu % | Pb % | Zn % | Ag | Ftge. | Bedd. |
| | | | Coarse twinned carbonate particularly good at: 14-15', 32-33', 51½-52', | | | | | | | | | 189 | 35° |
| | | | 52½-53½', 58', 62½', 65-66', 68½', 70-73½', 82-83', 100-100½', 107', | | | | | | | | | 198 | 40° |
| | | | 108', 116-118', 123', 132-135', 137', 142-143', 150', 172-173', 177', | | | | | | | | | 208 | 25° |
| | | | 195', 422-423', 502-505'. | | | | | | | | | 212 | 30° |
| | | | Mottled ("pisolitic") carbonate rocks well-developed at: 31-32½', 47', | | | | | | | | | 228 | 20° |
| | | | 55-56', 62½', 64½-65½', 68', 70', 86-87', 95-96½', 163½-165½', 166-170' | | | | | | | | | 230½ | 25° |
| | | | 176-178', 245½', 247½'. | | | | | | | | | 238 | 25° |
| | | | The distribution of coarse carbonate and mottling reflects the distri- | | | | | | | | | 243 | 20-25° |
| | | | bution of lime in the quartzites in a general way. In a gross sense, | | | | | | | | | 245 | 35° |
| | | | the upper 200' of the unit is richer in carbonate with some very | | | | | | | | | 250 | 30° |
| | | | carbonate-rich sections as at 132-150' (including short sections of | | | | | | | | | 253 | 70° |
| | | | white marble) and, to a lesser extent from 7-100'. | | | | | | | | | 259 | 30° |
| | | | Steep veinlets (60° or greater dip) are common throughout the section - | | | | | | | | | 261 | 40° |
| | | | generally are carbonate ± pyrrhotite with local sphalerite, galena or | | | | | | | | | 264 | 30° |
| | | | chalcopyrite. Sparse disseminated sulphides occur locally, particu- | | | | | | | | | 280 | 25° |
| | | | larly in the more carbonate-rich rocks. Usually pyrrhotite blebs but | | | | | | | | | 282 | 35° |
| | | | locally base metal sulphides, i.e. minor brown sphalerite near 14½', | | | | | | | | | 288 | 30° |
| | | | galena near 53', black sphalerite and chalcopyrite near 79', sphalerite | | | | | | | | | 302 | 20° |
| | | | at 100', galena 150-163'. | 150 | 163 | 13 | 9515 | (0.05) | (0.23) | (0.17) | (0.47) | 305 | 60° |
| | | | | | | | | | | | | 311 | 55° |

Diamond Drill Record

PAGE 3 OF 7

| | | | |
|-------------------------|---------------|---------|-----|
| COLLARI: | HOLE SURVEY | | |
| NO. _____ | FOOTAGE | AZIMUTH | DIP |
| EAST _____ | | | |
| ELEVATION _____ | | | |
| LOGGED BY _____ | | | |
| DATE LOGGED _____ | | | |
| MAP REFERENCE NO. _____ | METHOD: _____ | | |

COMPANY NAME _____
 PROPERTY NAME _____
 DRILLING CONTRACTOR _____
 ASSAYER _____
 PURPOSE OF HOLE _____

| |
|--------------------------|
| HOLE NO. <u>466-75-5</u> |
| CLAIM NAME _____ |
| COMMENCED _____ |
| FINISHED _____ |
| PROJECT NO. _____ |

| FROM | TO | RECOVY | DESCRIPTION | SAMPLE | | | | ASSAYS | | | | STRUCTURE | |
|------|----|--------|---|--------|-----|-------|------|--------|--------|--------|--------------|-----------|--------|
| | | | | FROM | TO | WIDTH | NO. | Cu % | Pb % | Zn % | Ag oz/ton | Ftge. | Bedd. |
| | | | 190-199 - fault zone rocks highly fractured and cemented by calcite, core badly broken and oxidized - no sulphides associated with faulting. | | | | | | | | | 315 | 70° |
| | | | | | | | | | | | | 320 | 20-30° |
| | | | | | | | | | | | | 322 | 20° |
| | | | 216-223 - fault zone as above - minor coarse twinned carbonate in these fault zones, i.e. 197' and 215-216'. | | | | | | | | | 323 | 20° |
| | | | | | | | | | | | | 329 | 20° |
| | | | | | | | | | | | | 333 | 30° |
| | | | Below about 200', coarse carbonate and mottling are not common but short very calcite-rich sections occur throughout, particularly 277-280'. | | | | | | | | | 335 | 45° |
| | | | | | | | | | | | | 338 | 40° |
| | | | | | | | | | | | | 344 | 30° |
| | | | Layering (probably bedding in most cases) is generally shallowly dip- ping 15-45° but locally is steep, particularly 76-80', 100-115', 155- 160', 183-185', 255' and 305-315'. A few minor folds are present, i.e. 153½' and 345' - they have Z symmetry (looking N.W.). | | | | | | | | | 348 | 35° |
| | | | | | | | | | | | | 353 | 48° |
| | | | | | | | | | | | | 363 | 35° |
| | | | | | | | | | | | | 370 | 25° |
| | | | | | | | | | | | | 374 | 25° |
| | | | 378-453 - limy sediments are greener, probably due to onset of calc.- silicate alteration - may be some chlorite in rocks, particularly on fractures - numerous calcite + pyrrhotite veinlets, some with galena and sphalerite. Rocks less competent than above. | 370 | 380 | 10 | 9516 | (0.02) | (0.05) | (0.12) | (0.15) | 377 | 35° |
| | | | | | | | | | | | | 383 | 30° |
| | | | | | | | | | | | | 388 | 25° |
| | | | | | | | | | | | | 393 | 45° |
| | | | | | | | | | | | | 396 | 45° |
| | | | At 371-377', minor galena replacing limy rocks. | | | | | | | | | 399 | 35° |

Diamond Drill Record

| | | | |
|-------------------------|---------------|---------|-----|
| COLLAR: | HOLE SURVEY | | |
| NORTH _____ | FOOTAGE | AZIMUTH | DIP |
| EAST _____ | | | |
| ELEVATION _____ | | | |
| LOGGED BY _____ | | | |
| DATE LOGGED _____ | | | |
| MAP REFERENCE NO. _____ | METHOD: _____ | | |

COMPANY NAME _____
 PROPERTY NAME _____
 DRILLING CONTRACTOR _____
 ASSAYER _____
 PURPOSE OF HOLE _____

| |
|--------------------------|
| HOLE NO. <u>466-75-5</u> |
| CLAIM NAME _____ |
| COMMENCED _____ |
| FINISHED _____ |
| PROJECT NO. _____ |

| FROM | TO | RECOVY | DESCRIPTION | SAMPLE | | | | ASSAYS | | | | STRUCTURE | |
|------|-----|--------|--|--------|-----|-------|------|--------|--------|--------|--------|--|-------|
| | | | | FROM | TO | WIDTH | NO. | Cu % | Pb % | Zn % | Ag | Ftge. | Bedd. |
| | | | 400-415 - minor galena and sphalerite, mostly in steeply dipping veinlets. | 400 | 415 | 15 | 9517 | (0.01) | (0.07) | (0.18) | (0.21) | 404 35° 405 25° 408 30° 412 30° 419 40° 430 20° | |
| | | | 453-580 - limy and siliceous rocks as above, but with less green coloration and more competent core. Minor disseminated blebs pyrrhotite + sphalerite and galena throughout but very erratic and very low grade. | | | | | | | | | 438 25° 441 33° 451 40° 456 45° 460 45° 463 40° 473 20° 475 35° 479 30° 492 50° 497 50° 500 40° 507 40° 510 60° 523 60° 526 30° | |
| | | | Disseminated mineralization near 550' consists of fine (<1/8"), irregular blebs of dark sphalerite and has tendency to accentuate layering but looks like replacement mineralization in limy quartzites. | | | | | | | | | 531 20° 536 40° 540 20° 545 25° 550 20° 554 25° | |
| | | | Tight minor fold plunging 15° to east at 529'. | | | | | | | | | 560 60° 561 23° 564 20° 566 25° | |
| | | | 472-494' - green calc.-silicate mottling - steep sulphide bearing veinlets with minor sulphide as above are common. | 572 | 594 | 22 | 9518 | (0.05) | (0.17) | (0.35) | (0.50) | 569 25° 577 32° | |
| | | | - arbitrary contact - | | | | | | | | | | |
| 580 | 759 | | Siliceous rocks - very fine-grained, medium grey and light grey to off-white siliceous rocks. Planar structure consists of fine, light/ | 594 | 607 | 13 | 9519 | (0.02) | (0.01) | (0.05) | (0.08) | | |
| | | | | 607 | 617 | 10 | 9505 | (0.02) | (0.04) | (0.12) | (0.26) | | |

Diamond Drill Record

| | | | |
|-------------------------|---------------|---------|-----|
| COLLAR: | HOLE SURVEY: | | |
| NORTH _____ | FOOTAGE | AZIMUTH | DIP |
| EAST _____ | | | |
| ELEVATION _____ | | | |
| LOGGED BY _____ | | | |
| DATE LOGGED _____ | | | |
| MAP REFERENCE NO. _____ | METHOD: _____ | | |

COMPANY NAME _____
 PROPERTY NAME _____
 DRILLING CONTRACTOR _____
 ASSAYER _____
 PURPOSE OF HOLE _____

| |
|--------------------------|
| HOLE NO. <u>466-75-5</u> |
| CLAIM NAME _____ |
| COMMENCED _____ |
| FINISHED _____ |
| PROJECT NO. _____ |

| FROM | TO | RECOVY | DESCRIPTION | SAMPLE | | | | ASSAYS | | | | STRUCTURE | | |
|------|----|--------|---|--------|-----|-------|------|--------|---------|--------|--------|-----------|--------|-----|
| | | | | FROM | TO | WIDTH | NO. | Cu % | Pb % | Zn % | Ag | Ftge. | Bedd. | |
| | | | | | | | | | | | | | 597 | 32° |
| | | | dark lamination which is accentuated by differential bleaching. This | 617 | 627 | 10 | 9506 | (0.02) | (0.02) | (0.28) | (0.12) | | 600 | 20° |
| | | | section lacks a substantial carbonate content in contrast to the above | | | | | | | | | 607 | 30° | |
| | | | unit which is otherwise very similar. There are a few very short | 627 | 634 | 7 | 9507 | 0.05 | 0.04 | 1.60 | (0.17) | 615 | 20° | |
| | | | sections of greenish, granular rocks which are probably calc.-silicate | | | | | | | | | 625 | 60° | |
| | | | altered quartzites. | 634 | 644 | 10 | 9508 | 0.05 | 0.05 | 1.12 | (0.24) | 653 | ~20° | |
| | | | | | | | | | | | | 657 | ~20° | |
| | | | Minor low-grade disseminated and fracture-bound mineralization 580-594' | 644 | 662 | 18 | 9509 | (0.03) | (0.04) | (0.46) | (0.21) | 662 | ~20° | |
| | | | | | | | | | | | | 667 | 25-30° | |
| | | | Top of main mineralized zone is at 607', best mineralization is at | 662 | 681 | 19 | 9510 | (0.03) | (0.02) | (0.47) | (0.15) | 672 | 50° | |
| | | | 607-608', 617-617½', 630-631', 633-635', 637-641', 654' (1" high grade | | | | | | | | | 677 | 40° | |
| | | | bedded, fine brown sphalerite and pyrrhotite), 662½' (1" as above), | 681 | 693 | 12 | 9511 | 0.05 | 0.04 | 0.98 | (0.27) | 681 | ~30° | |
| | | | 677-679', 681-¾-682', 703-703-¼', 716-717', 727-728', 735-736' | | | | | | | | | 686 | ~30° | |
| | | | (last two in calc.-silicate host). | 693 | 706 | 13 | 9512 | 0.04 | 0.01 | 1.05 | (0.13) | 699 | ~30° | |
| | | | | | | | | | | | | 705 | ~35° | |
| | | | The best mineralization above occurs in fine quartzite, usually with a | 706 | 724 | 18 | 9513 | (0.05) | <(0.01) | (0.59) | (0.09) | 709 | 45° | |
| | | | grey color but locally is greenish grey to markedly green. There | 724 | 742 | 18 | 9514 | (0.07) | (0.11) | (0.68) | (0.64) | 714 | 50° | |
| | | | appears to be little relation between calc.-silicate mineralogy and | | | | | | | | | 719 | 40-45° | |
| | | | zinc mineralization. The mineralization is finely disseminated brown | | | | | | | | | 722 | 40° | |
| | | | sphalerite, pyrrhotite and minor chalcopyrite. Dissemination is even | | | | | | | | | 728 | 40° | |

Diamond Drill Record

| | | | | |
|-------------------|-----------|------------------|---------|-----|
| COLLAR: | | HOLE SURVEY | | |
| NORTH | 129+00N | FOOTAGE | AZIMUTH | DIP |
| EAST | 40+00E | 0 | - | -90 |
| ELEVATION | | | | |
| LOGGED BY | G. Jilson | | | |
| DATE LOGGED | July 1975 | | | |
| MAP REFERENCE NO. | 105-K-11 | METHOD: no tests | | |

COMPANY NAME CYPRUS ANVIL MINING CORPORATION
 PROPERTY NAME Dana, Hal & Halo Claims
 DRILLING CONTRACTOR Arctic Diamond Drilling
 ASSAYER _____
 PURPOSE OF HOLE To test Mag-FM-IP - geochem anomalies
 TOTAL DEPTH: 410½'; OVERALL RECOVERY: essentially 100%.

| | |
|-------------|---------------------------|
| HOLE NO. | <u>466-75-6</u> |
| CLAIM NAME | <u>DANA #4</u> |
| COMMENCED | <u>2 July 1975</u> |
| FINISHED | <u>7 July 1975</u> |
| PROJECT NO. | <u>466 (Earn Project)</u> |

| FROM | TO | RECOVY | DESCRIPTION | SAMPLE | | | | ASSAYS | | | | STRUCTURE | | | |
|------|-----|--------|---|--------|----|-------|-----|--------|--|--|--|-----------|-------|-----|-----|
| | | | | FROM | TO | WIDTH | NO. | | | | | Ftce. | Bedd. | | |
| 0 | 44 | Nil | Overburden and broken bedrock. | | | | | | | | | | | | |
| 44 | 180 | ~ 90% | Cherty argillite - dark grey to black interbedded with thin siliceous arenite beds and medium grey siltstone - bedding generally on the order of 1/32 - ½" light beds with similar amounts of dark, very fine grained argillaceous rocks. Commonly argillaceous units are thicker with up to 6" black argillite in places. Light colored beds commonly have trace amounts of sphalerite and chalcopryrite accompanying several percent pyrrhotite (and lesser pyrite locally). Core is generally at least weakly magnetic. At 86', 3", approximately 60% sulphides, pyrrhotite and minor chalcopryrite - poorly developed graded beds suggest section is overturned at 4 places and very poor graded bedding suggests upright at 1 place. | | | | | | | | | | | | |
| | | | 62-64½' - bedding near vertical \pm 20°. | | | | | | | | | | | 117 | 40° |
| | | | 70-~109' - bedding shallow generally. A few thin limy beds, especially 75-115'. | | | | | | | | | | | 119 | 65° |
| | | | 110-161' - bedding generally steep. | | | | | | | | | | | 124 | 80° |
| | | | 132' - fold axis with axial plane dipping approximately 20° and horizontal axis. | | | | | | | | | | | 127 | 70° |
| | | | Near 126', good (po) sulphide-filled veinlets - late tension gashes - | | | | | | | | | | | 131 | 50° |
| | | | | | | | | | | | | | | 134 | 65° |

APPENDIX II

Tabulated Assay Results

DDH 466-74-1 to DDH 466-75-5

CYPRUS ANVIL MINING CORPORATION

PROJECT: Earn -- Dana, Hal and Halo Claims

PROJECT NO.: 466

D.D.H. NO.: D-74-1

DATE: September, 1974

Note: Results in brackets are atomic absorption values converted from ppm to %.

| ASSAY TAG # | FOOTAGE | WIDTH | ASSAY | | | | ASSAY WIDTH | | | |
|----------------|----------|-------|-----------|---------|---------|------|-------------|-------|-------|---------|
| | | | Cu | Pb | Zn | Ag | Cu | Pb | Zn | Ag |
| 9326 | 32 - 40 | 8 | 0.45 | 0.08 | 2.76 | 0.18 | 3.60 | 0.64 | 22.08 | 1.44 |
| 9327 | 40 - 50 | 10 | 0.15 | 0.17 | 0.26 | 0.25 | 1.50 | 1.70 | 2.60 | 2.25 |
| 9328 | 50 - 60 | 10 | 0.06 | 0.11 | 0.99 | 0.04 | 0.60 | 1.10 | 9.90 | 0.40 |
| 9329 | 60 - 70 | 10 | 0.09 | 0.46 | 0.82 | 1.60 | 0.90 | 4.60 | 8.20 | 10.60 |
| 9330 | 70 - 80 | 10 | 0.05 | 0.06 | 0.06 | 0.10 | 0.50 | 0.60 | 0.60 | 1.00 |
| 9331 | 80 - 90 | 10 | 0.11 | 0.31 | 0.14 | | 1.10 | 3.10 | 1.40 | 9.00 |
| 9332 | 90 -100 | 10 | 0.36 | 0.05 | 1.20 | 0.33 | 3.60 | 0.50 | 12.00 | 1.50 |
| 9333 | 100 -110 | 10 | 0.25 | 0.02 | 2.32 | 0.17 | 2.50 | 0.20 | 23.20 | 1.70 |
| 9334 | 110 -120 | 10 | 0.11 | 0.05 | 0.79 | 0.18 | 1.10 | 0.50 | 7.90 | 1.80 |
| 9335 | 120 -130 | 10 | 0.06 | 0.13 | 0.40 | 0.27 | 0.60 | 1.30 | 4.00 | 2.70 |
| 9336 | 130 -140 | 10 | 0.10 | 0.11 | 0.79 | 0.29 | 1.00 | 1.10 | 7.90 | 2.90 |
| 9337 | 140 -150 | 10 | < 0.01 | 0.03 | 0.03 | 0.04 | < 0.10 | 0.30 | 0.30 | 0.40 |
| 9338 | 150 -160 | 10 | (< 0.01) | (0.02) | (0.04) | | < 0.10 | 0.20 | 0.40 | |
| 9339 | 160 -170 | 10 | (0.09) | (0.29) | (0.12) | | 0.90 | 2.90 | 1.20 | |
| 9340 | 170 -180 | 10 | (0.02) | (0.09) | (0.05) | | 0.20 | 0.90 | 0.50 | |
| 9341 | 180 -190 | 10 | (0.01) | (0.03) | (0.04) | | 0.10 | 0.30 | 0.40 | |
| 9342 | 190 -200 | 10 | (0.02) | (0.07) | (0.05) | | 0.20 | 0.70 | 0.50 | |
| 9343 | 200 -210 | 10 | < 0.01 | 0.03 | 0.03 | 0.12 | < 0.10 | 0.30 | 0.30 | 1.20 |
| 9344 | 210 -220 | 10 | 0.09 | 0.54 | 1.44 | 0.85 | 0.90 | 5.40 | 14.40 | 8.50 |
| 9345 | 220 -230 | 10 | 0.07 | 0.15 | 0.68 | 0.42 | 0.70 | 1.50 | 6.80 | 4.20 |
| 9346 | 230 -240 | 10 | 0.02 | 0.07 | 0.42 | 0.06 | 0.20 | 0.70 | 4.20 | 0.60 |
| 9347 | 240 -250 | 10 | 0.37 | 1.38 | 1.08 | 4.90 | 3.70 | 13.80 | 10.80 | 49.00 |
| 9348 | 250 -260 | 10 | 0.04 | 0.03 | 0.05 | Tr. | 0.40 | 0.30 | 0.50 | (0.00) |
| 9349 | 260 -270 | 10 | 0.03 | 0.13 | 0.05 | 0.35 | 0.30 | 1.30 | 0.50 | 3.50 |
| 9350 | 270 -280 | 10 | 0.23 | 0.68 | 0.80 | 1.60 | 2.30 | 6.80 | 8.00 | 16.00 |
| 9351 | 280 -290 | 10 | 0.18 | 0.07 | 2.20 | 0.37 | 1.80 | 0.70 | 22.00 | 3.70 |
| 9352 | 290 -300 | 10 | 0.08 | 0.05 | 0.50 | 0.18 | 0.80 | 0.50 | 5.00 | 1.80 |
| 9353 | 300 -310 | 10 | 0.03 | 0.04 | 0.05 | 0.32 | 0.30 | 0.40 | 0.50 | 3.20 |
| 9354 | 310 -320 | 10 | 0.03 | 0.12 | 0.01 | 0.38 | 0.30 | 1.20 | 0.10 | 3.80 |
| 9355 | 320 -330 | 10 | 0.03 | 0.05 | 0.40 | 0.25 | 0.30 | 0.50 | 4.00 | 2.50 |

CYPRUS ANVIL MINING CORPORATION

PROJECT: Earn - Dana, Hal and Halo Claims

PROJECT NO.: 466

D.D.H. NO.: D-74-1

DATE: September, 1974

Note: Results in brackets are atomic absorption values converted from ppm to %.

| ASSAY TAG # | FOOTAGE | WIDTH | ASSAY | | | | ASSAY WIDTH | | | |
|----------------|----------|-------|---------|---------|---------|------|-------------|-------|-------|-------|
| | | | Cu | Pb | Zn | Ag | Cu | Pb | Zn | Ag |
| 9356 | 330 -340 | 10 | 0.07 | 0.04 | 1.05 | 0.24 | 0.70 | 0.40 | 10.50 | 2.40 |
| 9357 | 340- 350 | 10 | 0.05 | 0.08 | 0.29 | 0.35 | 0.50 | 0.80 | 2.90 | 3.50 |
| 9358 | 350 -360 | 10 | 0.06 | 0.16 | 0.30 | 0.02 | 0.60 | 1.60 | 3.00 | 0.20 |
| 9359 | 360 -370 | 10 | 0.10 | 0.06 | 0.25 | 0.02 | 1.00 | 0.60 | 2.50 | 0.20 |
| 9360 | 370 -380 | 10 | 0.22 | 0.05 | 4.20 | 0.02 | 2.20 | 0.50 | 42.00 | 0.20 |
| 9361 | 380 -390 | 10 | 0.03 | 0.05 | 0.13 | 0.02 | 0.30 | 0.50 | 1.30 | 0.20 |
| 9362 | 390 -400 | 10 | 0.11 | 0.30 | 1.10 | 0.67 | 1.10 | 3.00 | 11.00 | 6.70 |
| 9363 | 400 -410 | 10 | (0.01) | (0.17) | (0.15) | | 0.10 | 1.70 | 1.50 | |
| 9364 | 410 -420 | 10 | (0.03) | (0.10) | (0.04) | | 0.30 | 1.00 | 0.40 | |
| 9365 | 420 -430 | 10 | (0.04) | (0.08) | (0.05) | | 0.40 | 0.80 | 0.50 | |
| 9366 | 430 -440 | 10 | (0.02) | (0.02) | (0.02) | | 0.20 | 0.20 | 0.20 | |
| 9367 | 440 -450 | 10 | (0.07) | (0.07) | (0.03) | | 0.70 | 0.70 | 0.30 | |
| 9368 | 450 -460 | 10 | 0.54 | 0.35 | 2.10 | 3.30 | 5.40 | 3.50 | 21.00 | 33.00 |
| 9369 | 460 -470 | 10 | 0.12 | 0.15 | 0.70 | 0.82 | 1.20 | 1.50 | 7.00 | 8.20 |
| 9370 | 470 -480 | 10 | 0.09 | 0.10 | 0.15 | 0.06 | 0.90 | 1.00 | 1.50 | 0.60 |
| 9371 | 480 -490 | 10 | (0.02) | (<0.01) | (0.03) | | 0.20 | <0.10 | 0.30 | |
| 9372 | 490 -500 | 10 | (<0.01) | (<0.01) | (0.01) | | <0.10 | <0.10 | 0.10 | |
| 9373 | 500 -510 | 10 | (0.01) | (<0.01) | (<0.01) | | 0.10 | <0.10 | <0.10 | |
| 9374 | 510 -520 | 10 | (0.03) | (<0.01) | (0.03) | | 0.30 | <0.10 | 0.30 | |
| 9375 | 520 -530 | 10 | 0.15 | 0.10 | 0.10 | 0.37 | 1.50 | 1.00 | 1.00 | 3.70 |
| 9376 | 530 -540 | 10 | 0.30 | 0.20 | 0.99 | 0.77 | 3.00 | 2.00 | 9.90 | 7.70 |
| 9377 | 540 -550 | 10 | 0.06 | 0.10 | 0.21 | 0.28 | 0.60 | 1.00 | 2.10 | 2.80 |
| 9378 | 550 -560 | 10 | 0.05 | 0.30 | 0.40 | 1.60 | 0.50 | 3.00 | 4.00 | 16.00 |
| 9379 | 560 -570 | 10 | 0.01 | 0.20 | 0.13 | 0.30 | 0.10 | 2.00 | 1.30 | 3.00 |
| 9380 | 570 -580 | 10 | (0.03) | (0.08) | (0.03) | | 0.30 | 0.80 | 0.30 | |
| 9381 | 580 -590 | 10 | 0.10 | 0.60 | 1.15 | 3.80 | 1.00 | 6.00 | 11.50 | |

CYPRUS ANVIL MINING CORPORATION

PROJECT: Earn - Dana, Hal and Halo Claims

PROJECT NO.: 466

D.D.H. NO.: D-74-2

DATE: September, 1974

Note: Results in brackets are atomic absorption values converted from ppm to %.

| ASSAY TAG # | FOOTAGE | WIDTH | ASSAY | | | | ASSAY WIDTH | | | |
|----------------|-------------|-------|--------|----------|--------|------|-------------|-------|-------|-------|
| | | | Cu | Pb | Zn | Ag | Cu | Pb | Zn | Ag |
| 9405 | 8 - 13 | 5 | 0.72 | 1.55 | 4.00 | 7.00 | 3.60 | 7.75 | 20.00 | 35.00 |
| 9406 | 13 - 18 | 5 | 0.32 | 2.60 | 4.80 | 7.40 | 1.60 | 13.00 | 24.00 | 37.00 |
| 9407 | 18 - 28 | 10 | 0.08 | 0.63 | 0.81 | 1.50 | 0.80 | 6.30 | 8.10 | 15.00 |
| 9408 | 28 - 38 | 10 | 0.10 | 0.75 | 0.81 | 0.96 | 1.00 | 7.50 | 8.10 | 9.60 |
| 9409 | 38 - 46 | 8 | 0.03 | 0.03 | 0.49 | 0.21 | 0.24 | 0.24 | 3.92 | 1.68 |
| 9410 | 46 - 56 | 10 | 0.08 | 0.19 | 1.30 | 1.10 | 0.80 | 1.90 | 13.00 | 11.00 |
| 9411 | 56 - 66 | 10 | 0.10 | 0.06 | 0.86 | 0.25 | 1.00 | 0.60 | 8.60 | 2.50 |
| 9412 | 66 - 74 | 8 | 0.03 | 0.12 | 0.19 | 0.40 | 0.24 | 0.96 | 1.52 | 3.20 |
| 9413 | 74 - 84 | 10 | (0.02) | (0.06) | (0.02) | | 0.20 | 0.60 | 0.20 | |
| 9414 | 84 - 94 | 10 | 0.05 | 0.20 | 0.12 | 0.20 | 0.50 | 2.00 | 1.20 | 2.00 |
| 9415 | 94 -103.5 | 9.5 | 0.31 | 2.60 | 2.24 | 2.10 | 2.94 | 24.70 | 21.28 | 19.95 |
| 9416 | 103.5-111.5 | 8 | 0.12 | 0.27 | 0.33 | 0.36 | 0.96 | 2.16 | 2.64 | 2.88 |
| 9417 | 111.5-125.5 | 14 | 0.07 | 0.11 | 1.30 | 0.16 | 0.98 | 1.54 | 18.20 | 2.24 |
| 9418 | 125.5-133 | 7.5 | 0.06 | 0.06 | 0.79 | 0.04 | 0.45 | 0.45 | 5.92 | 0.56 |
| 9419 | 133 -140 | 7 | 0.73 | 0.26 | 4.56 | 1.10 | 5.11 | 1.82 | 31.92 | 7.70 |
| 9393 | 140 -154 | 14 | 0.04 | 0.09 | 0.11 | 0.32 | 0.56 | 1.26 | 1.54 | 4.48 |
| 9394 | 154 -163 | 9 | 0.06 | 0.11 | 1.40 | 0.04 | 0.54 | 0.99 | 12.60 | 0.36 |
| 9395 | 163 -169 | 6 | 0.29 | 0.27 | 3.16 | 1.00 | 1.74 | 1.62 | 18.96 | 6.00 |
| 9396 | 169 -174.5 | 5.5 | (0.02) | (< 0.01) | (0.06) | | 0.11 | 0.05 | 0.33 | |
| 9397 | 174.5-179 | 4.5 | 0.20 | 0.24 | 1.92 | 0.95 | 0.90 | 1.08 | 8.64 | 4.27 |
| 9398 | 179 -185 | 6 | 0.05 | 0.07 | 0.17 | 0.31 | 0.30 | 0.42 | 1.02 | 1.86 |
| 9399 | 185 -200 | 15 | 0.02 | 0.06 | 0.24 | 0.22 | 0.30 | 0.90 | 3.64 | 3.30 |
| 9400 | 200 -207 | 7 | 0.08 | 0.04 | 2.60 | 0.10 | 0.56 | 0.28 | 18.20 | 0.70 |
| 9401 | 207 -217 | 10 | 0.01 | 0.01 | 0.05 | 0.04 | 0.10 | 0.10 | 0.50 | 0.40 |
| 9402 | 217 -227 | 10 | (0.02) | (< 0.01) | (0.08) | | 0.20 | 0.10 | 0.80 | |
| 9403 | 227 -236 | 9 | 0.04 | 0.01 | 0.88 | Tr. | 0.36 | 0.09 | 7.92 | Tr. |
| 9404 | 236 -241 | 5 | 0.06 | 0.08 | 1.56 | 0.31 | 0.30 | 0.40 | 7.80 | 1.55 |
| 9382 | 241 -247 | 6 | (0.03) | (0.02) | (0.32) | | 0.18 | 0.12 | 1.92 | |
| 9383 | 247 -254 | 7 | 0.16 | 0.02 | 2.48 | 0.02 | 1.12 | 0.14 | 17.36 | 0.14 |
| 9384 | 254 -261 | 7 | 0.18 | 0.08 | 2.68 | 0.44 | 1.26 | 0.56 | 18.76 | 3.08 |

CYPRUS ANVIL MINING CORPORATION

PROJECT: Earn - Dana, Hal and Halo Claims

PROJECT NO.: 466

D.D.H. NO.: D-74-2

DATE: September, 1974

Note: Results in brackets are atomic absorption values converted from ppm to %.

| ASSAY TAG # | FOOTAGE | | WIDTH | ASSAY | | | | ASSAY WIDTH | | | |
|----------------|---------|------|-------|--------|----------|--------|------|-------------|-------|-------|-------|
| | | | | Cu | Pb | Zn | Ag | Cu | Pb | Zn | Ag |
| 9385 | 261 | -269 | 8 | 0.06 | 0.02 | 0.72 | 0.06 | 0.48 | 0.16 | 5.76 | 0.48 |
| 9386 | 269 | -283 | 14 | 0.04 | 0.06 | 0.19 | 0.08 | 0.56 | 0.84 | 2.66 | 1.12 |
| 9387 | 283 | -288 | 5 | 0.15 | 2.60 | 2.72 | 2.00 | 0.75 | 13.00 | 13.60 | 10.00 |
| 9388 | 288 | -294 | 6 | 0.13 | 0.54 | 1.76 | 0.68 | 0.78 | 3.24 | 10.50 | 4.08 |
| 9389 | 294 | -304 | 10 | (0.04) | (0.04) | (0.35) | | 0.40 | 0.40 | 3.50 | |
| 9390 | 304 | -314 | 10 | (0.04) | (0.08) | (0.27) | | 0.40 | 0.80 | 2.70 | |
| 9391 | 314 | -324 | 10 | 0.02 | 0.05 | 0.05 | 0.17 | 0.20 | 0.50 | 0.50 | 1.70 |
| 9392 | 324 | -334 | 10 | 0.05 | 0.18 | 0.13 | 0.56 | 0.50 | 1.80 | 1.30 | 5.60 |
| 9447 | 334 | -358 | 24 | (0.01) | (< 0.01) | (0.01) | | 0.24 | 0.24 | 0.24 | |
| 9420 | 358 | -368 | 10 | (0.03) | (0.07) | (0.08) | | 0.30 | 0.70 | 0.80 | |
| 9421 | 368 | -377 | 9 | 0.12 | 0.10 | 0.65 | 0.32 | 1.08 | 0.90 | 5.85 | |
| 9422 | 377 | -383 | 6 | 0.09 | 0.05 | 1.80 | 0.19 | 0.34 | 0.30 | 10.80 | 1.14 |
| 9423 | 383 | -393 | 10 | (0.04) | (0.04) | (0.06) | | 0.40 | 0.40 | 0.60 | |
| 9424 | 393 | -403 | 10 | 0.09 | 0.10 | 0.40 | 0.63 | 0.90 | 1.00 | 4.00 | 6.30 |
| 9425 | 403 | -410 | 7 | (0.04) | (0.05) | (0.12) | | 0.28 | 0.35 | 0.84 | |
| 9426 | 410 | -420 | 10 | 0.12 | 0.10 | 0.30 | 0.61 | 1.20 | 1.00 | 3.00 | 6.10 |
| 9427 | 420 | -432 | 12 | (0.02) | (0.03) | (0.03) | | 0.24 | 0.36 | 0.36 | |
| 9428 | 432 | -443 | 11 | 0.16 | 0.15 | 2.04 | 0.81 | 1.76 | 1.65 | 22.24 | 8.91 |
| 9429 | 443 | -463 | 20 | (0.04) | (0.01) | (0.05) | | 0.80 | 0.20 | 1.00 | |
| 9430 | 463 | -474 | 11 | 0.26 | 0.47 | 1.88 | 1.10 | 2.86 | 5.17 | 20.68 | 12.10 |
| 9431 | 474 | -486 | 12 | (0.03) | (0.01) | (0.07) | | 0.36 | 0.12 | 0.84 | |
| 9432 | 486 | -495 | 9 | 0.11 | 0.11 | 0.61 | 0.61 | 0.99 | 0.99 | 5.49 | 5.58 |
| 9433 | 495 | -505 | 10 | (0.05) | (0.01) | (0.13) | | 0.50 | 0.10 | 1.30 | |
| 9434 | 505 | -515 | 10 | 0.17 | 0.03 | 0.64 | 0.41 | 1.70 | 0.30 | 6.40 | 4.10 |
| 9435 | 515 | -525 | 10 | 0.31 | 0.05 | 1.09 | 0.63 | 3.10 | 0.50 | 10.90 | 6.30 |
| 9446 | 525 | -535 | 10 | 0.06 | 0.05 | 0.35 | 0.16 | 0.60 | 0.50 | 3.50 | 1.60 |
| 9445 | 535 | -542 | 7 | 0.13 | 0.05 | 0.45 | 0.36 | 0.91 | 0.35 | 3.15 | 2.52 |
| 9444 | 542 | -551 | 9 | 0.08 | 0.04 | 0.22 | 0.41 | 0.72 | 0.36 | 1.98 | 3.69 |
| 9443 | 551 | -566 | 15 | 0.12 | 0.05 | 1.05 | 0.18 | 1.80 | 0.75 | 15.75 | 2.70 |
| 9442 | 566 | -578 | 12 | (0.07) | (0.02) | (0.05) | | 0.84 | 0.24 | 0.60 | |

CYPRUS ANVIL MINING CORPORATION

PROJECT: Earn - Dana, Hal and Halo Claims

PROJECT NO.: 466

D.D.H. NO.: D-74-2

DATE: September, 1974

Note: Results in brackets are atomic absorption values converted from ppm to %.

| ASSAY TAG # | FOOTAGE | WIDTH | ASSAY | | | | ASSAY WIDTH | | | |
|----------------|----------|-------|--------|---------|--------|------|-------------|------|-------|-------|
| | | | Cu | Pb | Zn | Ag | Cu | Pb | Zn | Ag |
| 9441 | 578 -592 | 14 | 0.30 | 0.07 | 0.24 | 0.67 | 4.20 | 0.98 | 3.36 | 9.38 |
| 9440 | 592 -597 | 5 | 1.72 | 0.16 | 4.64 | 3.10 | 8.60 | 0.80 | 23.20 | 15.50 |
| 9439 | 597 -609 | 12 | 0.68 | 0.14 | 0.87 | 1.30 | 8.16 | 1.68 | 10.44 | 15.60 |
| 9438 | 609 -618 | 9 | (0.05) | (0.04) | (0.03) | | 0.45 | 0.36 | 0.27 | |
| 9437 | 618 -635 | 17 | (0.08) | (0.04) | (0.05) | | 1.78 | 0.68 | 0.85 | |
| 9436 | 635 -658 | 23 | (0.03) | (<0.01) | (0.03) | | 0.69 | 0.23 | 0.69 | |

CYPRUS ANVIL MINING CORPORATION

PROJECT: Earn - Dana, Hal and Halo Claims

PROJECT NO.: 466

D.D.H. NO.: D-74-3

DATE: September, 1974

Note: Results in brackets are atomic absorption values converted from ppm to %.

| ASSAY TAG # | FOOTAGE | WIDTH | ASSAY | | | | ASSAY WIDTH | | | | |
|----------------|-------------|-------|--------|----------|--------|------|-------------|------|-------|------|--|
| | | | Cu | Pb | Zn | Ag | Cu | Pb | Zn | Ag | |
| 9447 | Nil | | | | | | | | | | |
| 9448 | 110 -130 | 20 | (0.01) | (0.02) | (0.10) | | 0.20 | 0.40 | 2.00 | | |
| 9449 | 130 -138 | 8 | 0.02 | 0.01 | 0.71 | 0.06 | 0.16 | 0.08 | 5.68 | 0.48 | |
| 9450 | 138 -150 | 12 | (0.02) | (< 0.01) | (0.04) | | 0.24 | 0.12 | 0.48 | | |
| 9451 | 150 -155 | 5 | 0.14 | 0.04 | 1.54 | Tr. | 0.70 | 0.20 | 7.70 | | |
| 9452 | 155 -165.5 | 10.5 | 0.02 | 0.01 | 0.54 | 0.04 | 0.21 | 0.10 | 5.67 | 0.42 | |
| 9453 | 165.5-173 | 7.5 | 0.05 | 0.01 | 0.79 | Tr. | 0.37 | 0.07 | 5.93 | | |
| 9454 | 173 -179.5 | 6.5 | 0.07 | 0.01 | 1.30 | Tr. | 0.45 | 0.06 | 8.45 | | |
| 9455 | 179.5-183.5 | 4 | 0.05 | 0.01 | 0.71 | 0.06 | 0.20 | 0.04 | 2.84 | | |
| 9456 | 183.5-187.5 | 4 | 0.23 | < 0.01 | 5.28 | Tr. | 0.92 | 0.04 | 21.12 | | |
| 9457 | 187.5-193 | 5.5 | 0.04 | < 0.01 | 0.57 | Tr. | 0.22 | 0.05 | 3.13 | | |
| 9458 | 193 -196 | 6 | 0.14 | 0.01 | 4.40 | 0.08 | 0.84 | 0.06 | 26.40 | 0.48 | |
| 9459 | 196 -203 | 7 | (0.02) | (< 0.01) | (0.05) | | 0.14 | 0.05 | 0.35 | | |

CYPRUS ANVIL MINING CORPORATION

PROJECT: Earn - Dana & Halo Claims

PROJECT NO.: 466

D.D.H. NO.: 466-75-4

DATE: November, 1975

Note: Results in brackets are atomic absorption values converted from ppm to %.

| ASSAY TAG # | FOOTAGE | WIDTH | ASSAY | | | | ASSAY WIDTH | | | |
|----------------|---------------|-------|----------|----------|----------|--------|-------------|------|-------|----|
| | | | Cu | Pb | Zn | Ag | Cu | Pb | Zn | Ag |
| 9476 | 131.50-140.50 | 9 | (< 0.01) | (< 0.01) | (0.11) | (0.05) | | | | |
| 9477 | 140.50-149.50 | 9 | 0.06 | 0.01 | 2.12 | | 0.54 | 0.09 | 19.08 | |
| 9478 | 149.50-164 | 14.50 | (0.02) | (< 0.01) | (0.08) | (0.08) | 0.29 | 0.14 | 1.16 | |
| 9479 | 164 -174.75 | 10.75 | 0.03 | 0.02 | 0.59 | | 0.32 | 0.21 | 6.34 | |
| 9480 | 174.75-178.50 | 3.75 | 0.15 | 0.03 | 5.48 | | 0.56 | 0.11 | 20.55 | |
| 9481 | 178.50-182.25 | 3.75 | 0.03 | 0.01 | 0.35 | | 0.11 | 0.04 | 1.31 | |
| 9482 | 182.25-192.75 | 10.50 | 0.14 | 0.02 | 4.32 | | 1.47 | 0.21 | 45.36 | |
| 9483 | 192.75-201 | 8.25 | 0.14 | 0.03 | 3.10 | | 1.15 | 0.25 | 25.57 | |
| 9484 | 201 -215 | 14 | (0.03) | (< 0.01) | (0.09) | (0.08) | | | | |
| 9485 | 215 -226 | 11 | (0.02) | (< 0.01) | (0.03) | (0.04) | | | | |
| 9486 | 226 -233.50 | 7.50 | (0.12) | (< 0.01) | (0.97) | (0.08) | | | | |
| 9487 | 233.50-245.75 | 12.25 | (0.06) | (< 0.01) | (0.08) | (0.05) | | | | |
| 9488 | 245.75-258 | 12.25 | (0.05) | (< 0.01) | (0.01) | (0.05) | | | | |
| 9489 | 258 -271 | 13 | (0.08) | (< 0.01) | (0.01) | (0.06) | | | | |
| 9490 | 271 -282 | 11 | (0.12) | (< 0.01) | (0.01) | (0.08) | | | | |
| 9491 | 282 -296 | 14 | (0.12) | (< 0.01) | (0.01) | (0.07) | | | | |
| 9492 | 296 -313 | 17 | (0.08) | (< 0.01) | (< 0.01) | (0.06) | | | | |
| 9494 | 313 -319.75 | 6.75 | (0.05) | (< 0.01) | (0.02) | (0.05) | | | | |
| 9495 | 319.75-329 | 9.25 | (0.07) | (< 0.01) | (0.01) | (0.06) | | | | |
| 9496 | 329 -338.50 | 9.50 | (0.06) | (< 0.01) | (0.02) | (0.06) | | | | |
| 9497 | 338.50-348.50 | 10 | (0.05) | (< 0.01) | (0.02) | (0.05) | | | | |
| 9499 | 348.50-357.75 | 9.25 | (0.08) | (< 0.01) | (0.01) | (0.06) | | | | |
| 9500 | 357.75-362 | 4.25 | (0.17) | (< 0.01) | (0.01) | (0.10) | | | | |
| 9501 | 362 -372 | 10 | (0.07) | (< 0.01) | (0.01) | (0.08) | | | | |
| 9502 | 372 -384 | 12 | (0.05) | (< 0.01) | (0.04) | (0.09) | | | | |
| 9503 | 384 -391.50 | 7.50 | (0.04) | (< 0.01) | (0.02) | (0.06) | | | | |
| 9504 | 391.50-402 | 10.50 | (0.05) | (< 0.01) | (0.01) | (0.06) | | | | |

CYPRUS ANVIL MINING CORPORATION

PROJECT: Earn - Dana and Halo Claims

PROJECT NO.: 466

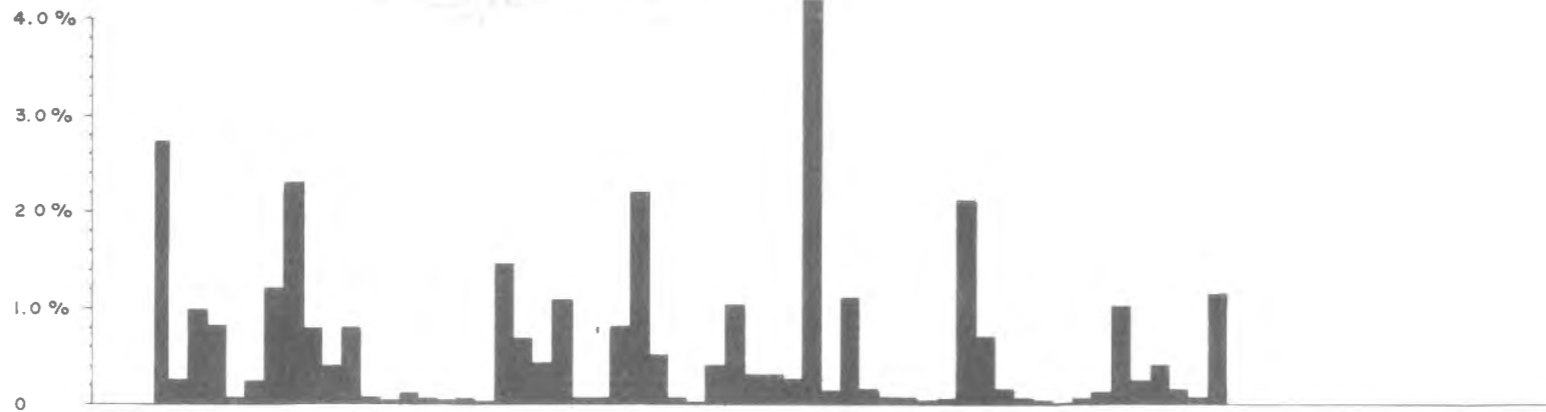
D.D.H. NO.: 466-75-5

DATE: November, 1975

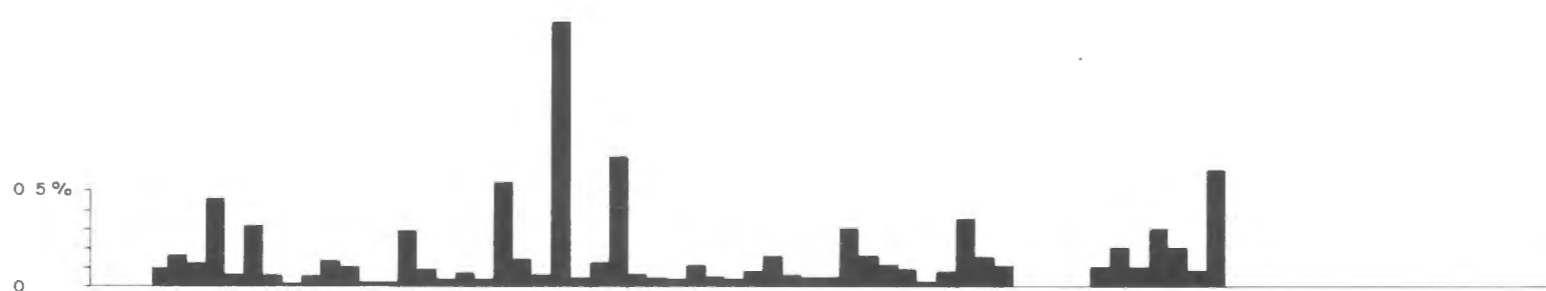
Note: Results in brackets are atomic absorption values converted from ppm to %.

| ASSAY TAG # | FOOTAGE | | WIDTH | ASSAY | | | | ASSAY WIDTH | | | |
|----------------|---------|------|-------|--------|----------|--------|--------|-------------|------|-------|-------|
| | | | | Cu | Pb | Zn | Ag | Cu | Pb | Zn | Ag |
| 9515 | 150 | -163 | 13 | (0.05) | (0.23) | (0.17) | (0.47) | | | | |
| 9516 | 370 | -380 | 10 | (0.02) | (0.05) | (0.12) | (0.15) | | | | |
| 9517 | 400 | -415 | 15 | (0.01) | (0.07) | (0.18) | (0.21) | | | | |
| 9518 | 572 | -594 | 22 | (0.05) | (0.17) | (0.35) | (0.50) | | | | |
| 9519 | 594 | -607 | 13 | (0.02) | (0.01) | (0.05) | (0.08) | | | | |
| 9505 | 607 | -617 | 10 | (0.02) | (0.04) | (0.12) | (0.26) | | | | |
| 9506 | 617 | -627 | 10 | (0.02) | (0.02) | (0.28) | (0.12) | 0.20 | 0.20 | 2.80 | 1.20 |
| 9507 | 627 | -634 | 7 | 0.05 | 0.04 | 1.60 | (0.17) | 0.35 | 0.28 | 11.20 | 0.84 |
| 9508 | 634 | -644 | 10 | 0.05 | 0.05 | 1.12 | (0.24) | 0.50 | 0.50 | 11.20 | 2.40 |
| 9509 | 644 | -662 | 18 | (0.03) | (0.04) | (0.46) | (0.21) | 0.54 | 0.72 | 8.28 | 3.78 |
| 9510 | 662 | -681 | 19 | (0.03) | (0.02) | (0.47) | (0.15) | 0.57 | 0.38 | 8.93 | 2.85 |
| 9511 | 681 | -693 | 12 | 0.05 | 0.04 | 0.98 | (0.27) | 0.60 | 0.48 | 11.76 | 3.24 |
| 9512 | 693 | -706 | 13 | 0.04 | 0.01 | 1.05 | (0.13) | 0.52 | 0.13 | 13.65 | 1.69 |
| 9513 | 706 | -724 | 18 | (0.05) | (< 0.01) | (0.59) | (0.09) | 0.09 | 0.18 | 10.62 | 1.62 |
| 9514 | 724 | -742 | 18 | (0.07) | (0.11) | (0.68) | (0.64) | 1.26 | 1.98 | 12.24 | 11.52 |

ZINC
(Wt %)



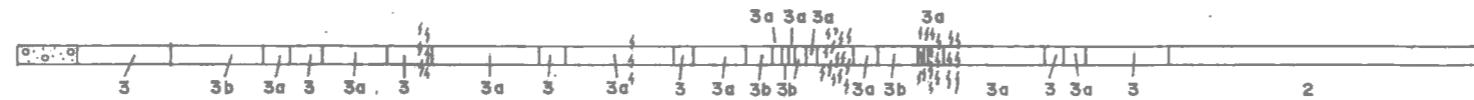
LEAD
(Wt %)



COPPER
(Wt %)



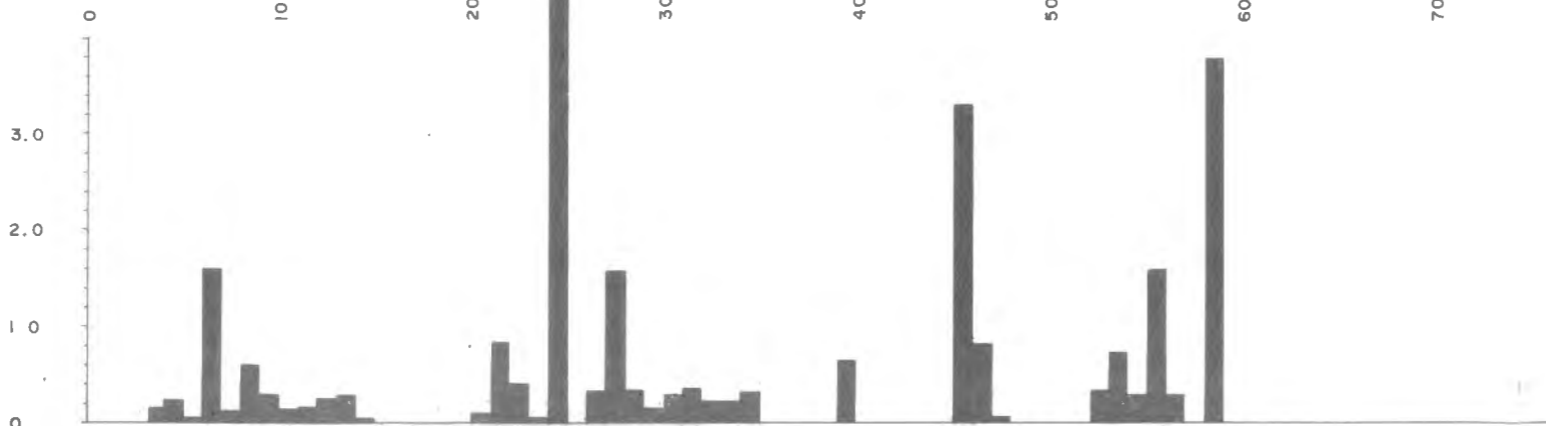
LITHOLOGY



STRUCTURE



SILVER
(OZ / ton)



LITHOLOGY



Overburden and broken bedrock
no core recovery



Fault zone and crackle breccia zone generally
healed over by coarse calcite but poorly mineralized
or unmineralized



3a Very fine grained light grey to off white bleached
and medium grey unbleached siliceous rocks.
Subordinate calc. silicate rocks



3b Light to medium green, fine to medium grained,
"aphanitic" to sucrose calc. silicate hornfels, limy
calc silicates and minor impure marble locally
Subordinate interlayered siliceous rocks as in
unit B₁



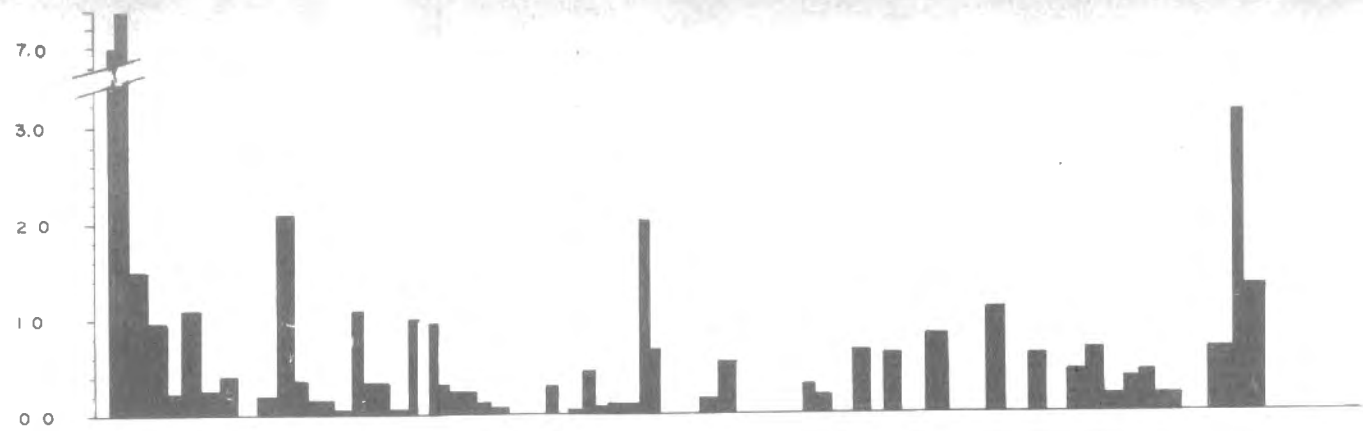
3 Mixed calc silicates and siliceous rocks as in unit
B₁ and B₂ - arbitrary unit used where rock
units are too short to show graphically at this
scale.



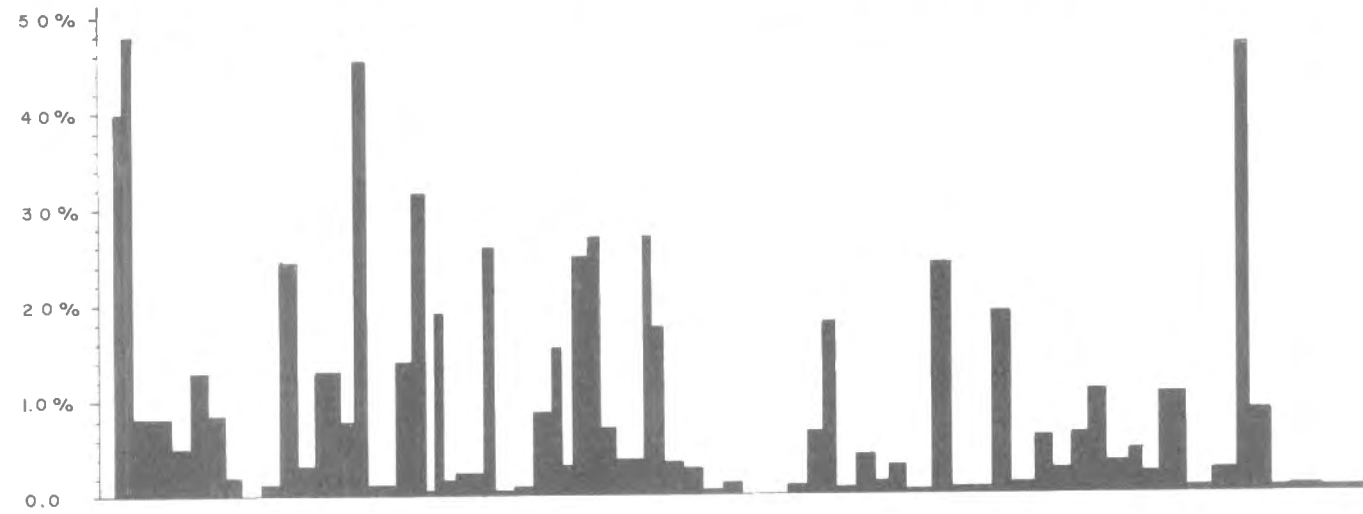
2 Argillaceous limestone, limestone, minor graphitic
argillite. Medium to dark grey. Fine grained,
mostly finely bedded. Unaltered and unmineralized.

Figure 10
 CYPRUS ANVIL MINING CORPORATION
 DANA HAL and HALO CLAIMS
 GRAPHIC LOG
 DDH 466-74-1
 Scale: 1" = 100'

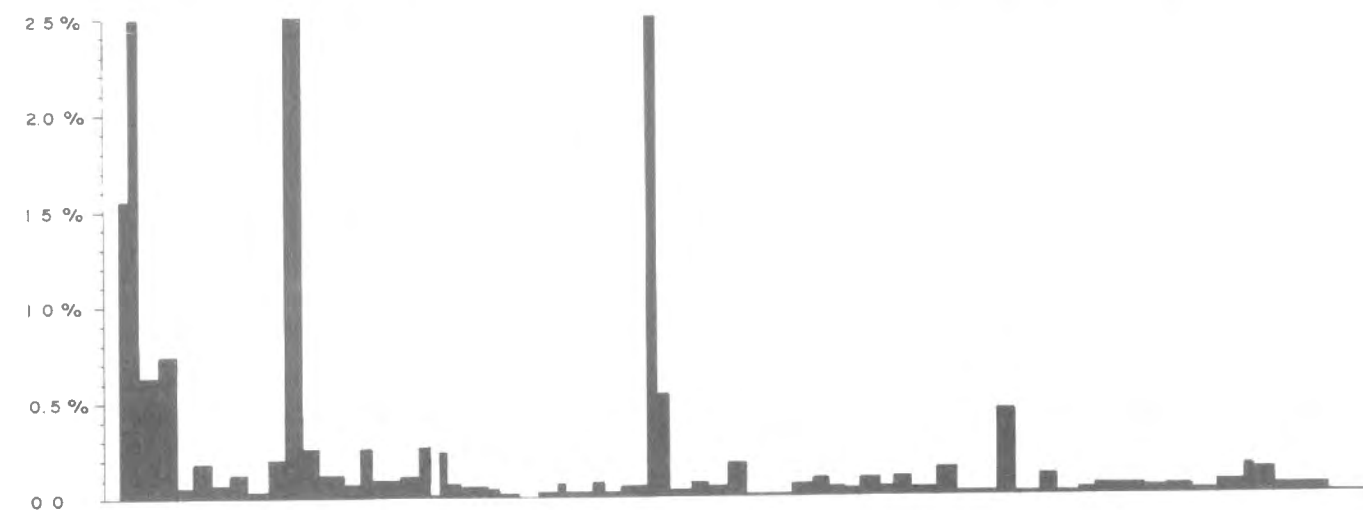
SILVER
(OZ / ton)



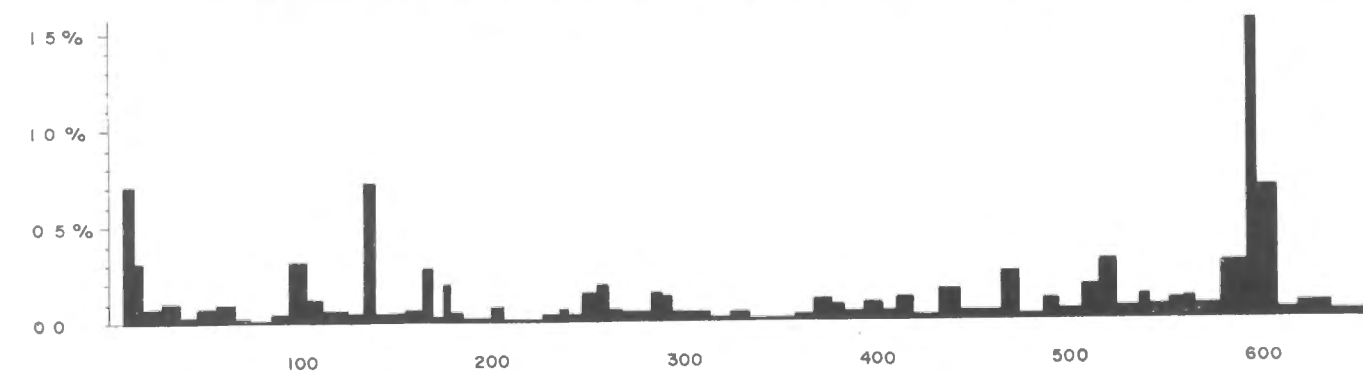
ZINC
(Wt %)



LEAD
(Wt %)



COPPER
(Wt %)



LITHOLOGY



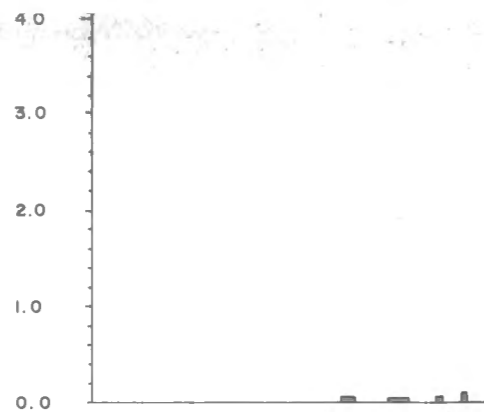
STRUCTURE



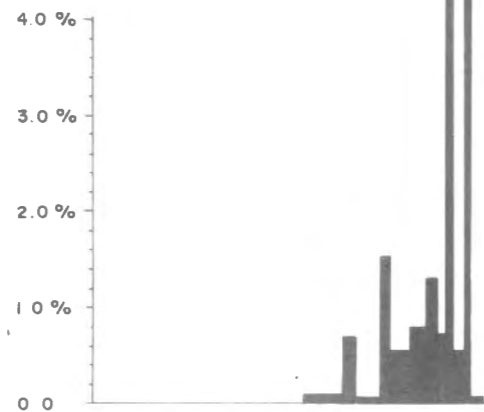
see graphic log for 466 - 74 - 1
for key to lithologies

Figure 11
CYPRUS ANVIL MINING CORPORATION
DANA HAL and HALO CLAIMS
GRAPHIC LOG
DDH 466 - 74 - 2

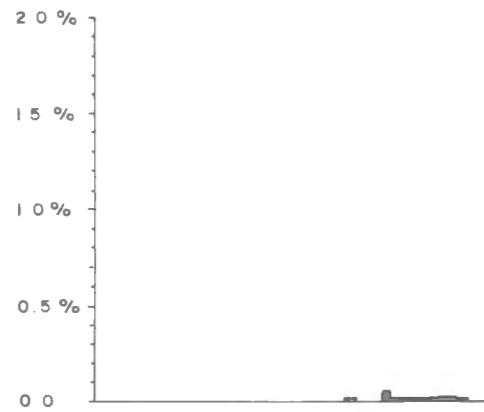
SILVER
(oz / ton)



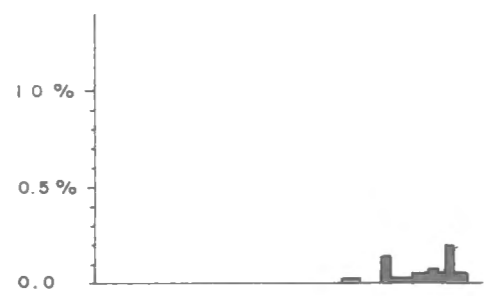
ZINC
(Wt %)



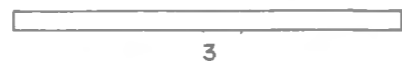
LEAD
(Wt %)



COPPER
(Wt %)



LITHOLOGY

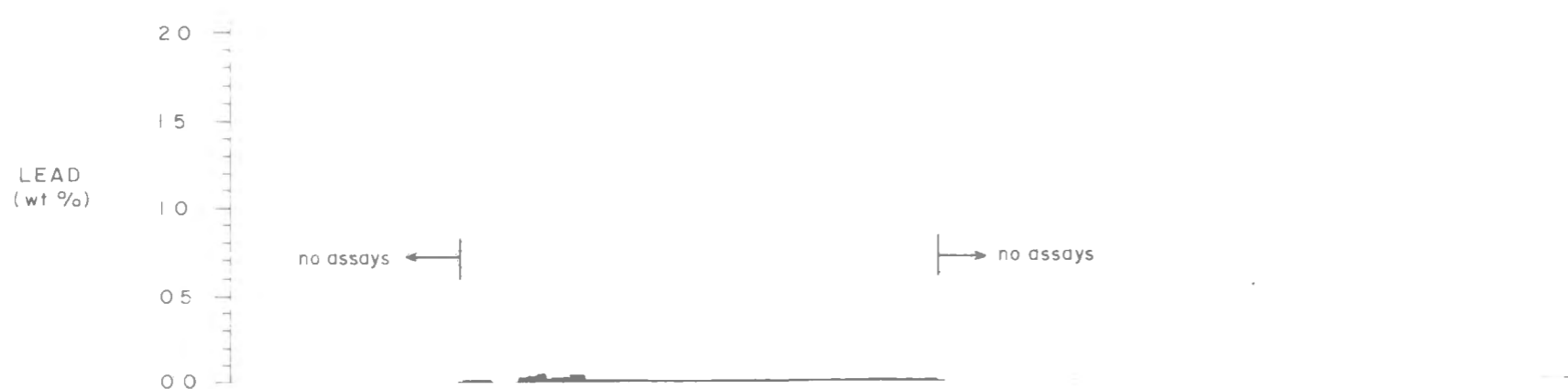
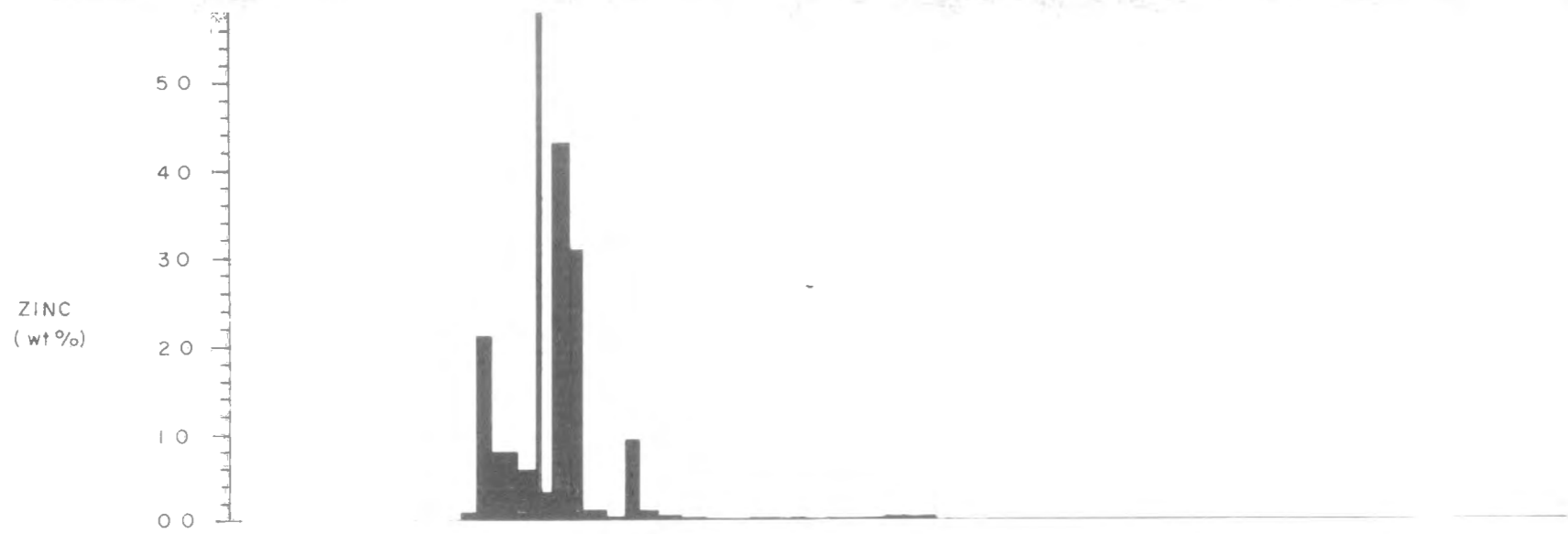


STRUCTURE









see graphic log for 466-74-1
for key to lithologies

Figure 12
CYPRUS ANVIL MINING CORPORATION
DANA HAL and HALO CLAIMS
GRAPHIC LOG
DDH 466-74-3
Scale: 1" = 100'



LEGEND

-  OVERBURDEN
-  FAULT ZONE
-  QUARTZITE, LIMY QUARTZITE, MINOR SANDY LIMESTONE, SUBORDINATE ALTERED CHERTS
-  ALTERED CHERT VERY SUBORDINATE QUARTZITE
-  MIXED QUARTZITES & ALTERED CHERTS
-  COARSE HIGHLY ALTERED CARBONATE RICH ROCKS

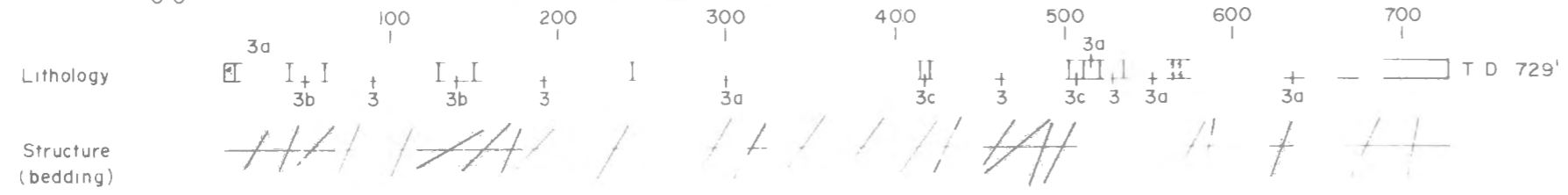
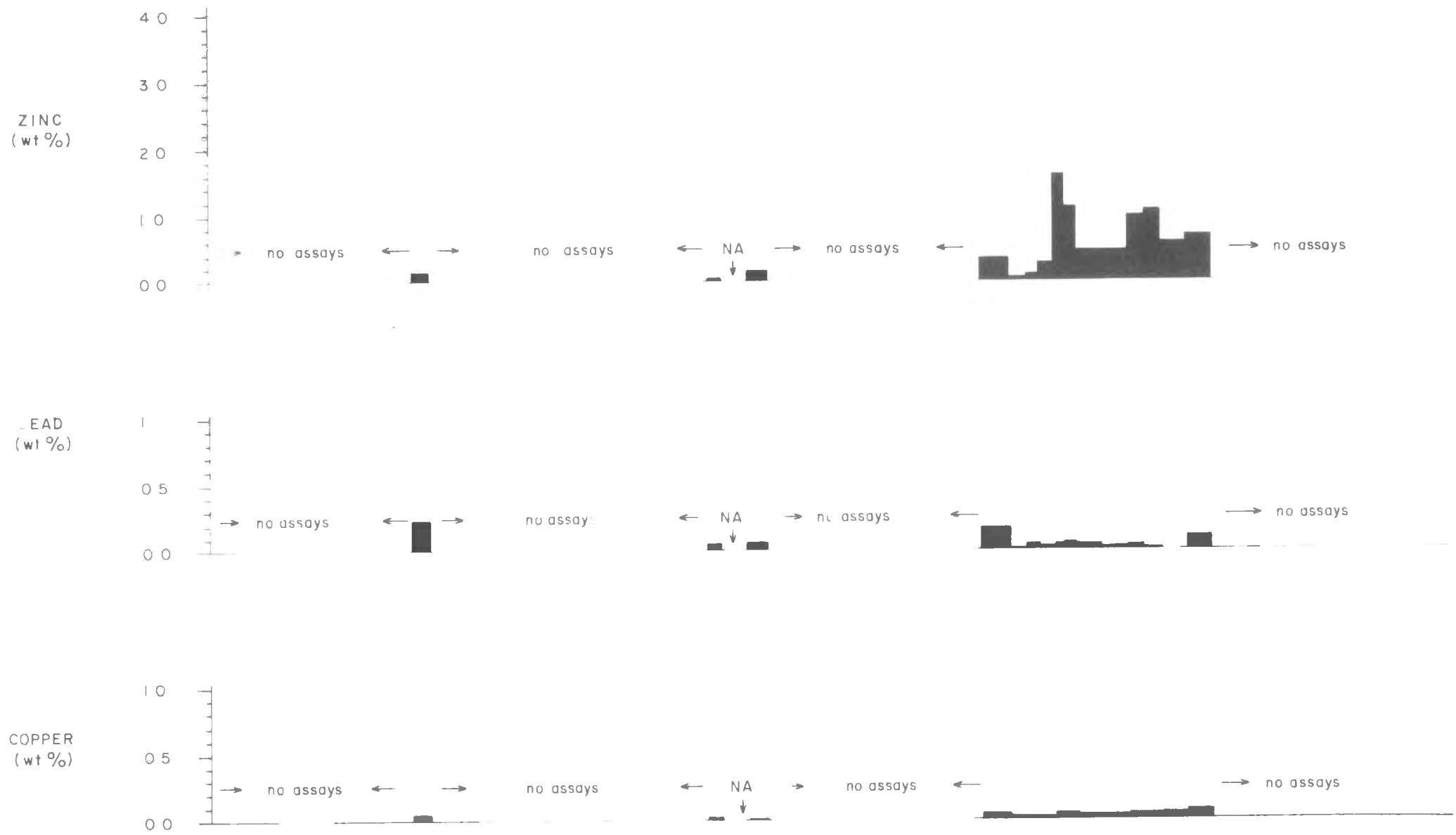








Figure 13
 CYPRUS ANVIL MINING CORPORATION
 DANA & HALO FR CLAIMS
 GRAPHIC LOG
 DDH 466-75-4
 Scale 1" = 100'



L F E N D

-  OVERBURDEN
-  FAULT ZONE
-  MIXED ALTERED CHERT & QUARTZITE, LIMY QUARTZITE & MINOR SANDY LIMESTONE - PARTICULARLY RICH IN LIMY QUARTZITE ABOVE 200'
-  ALTERED CHERTY ROCKS
-  LIMY QUARTZITE & QUARTZITE
-  COARSE GRAINED HIGHLY ALTERED CARBONATE RICH ROCKS

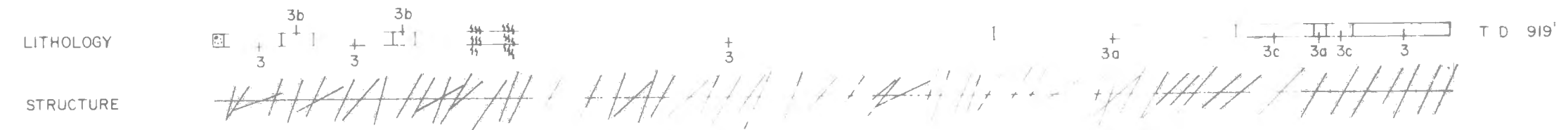


Figure 14
 CYPRUS ANVIL MINING CORPORATION
 DANA & HALO FR. CLAIMS
 GRAPHIC LOG
 DDH 466-75-5
 Scale 1" = 100'

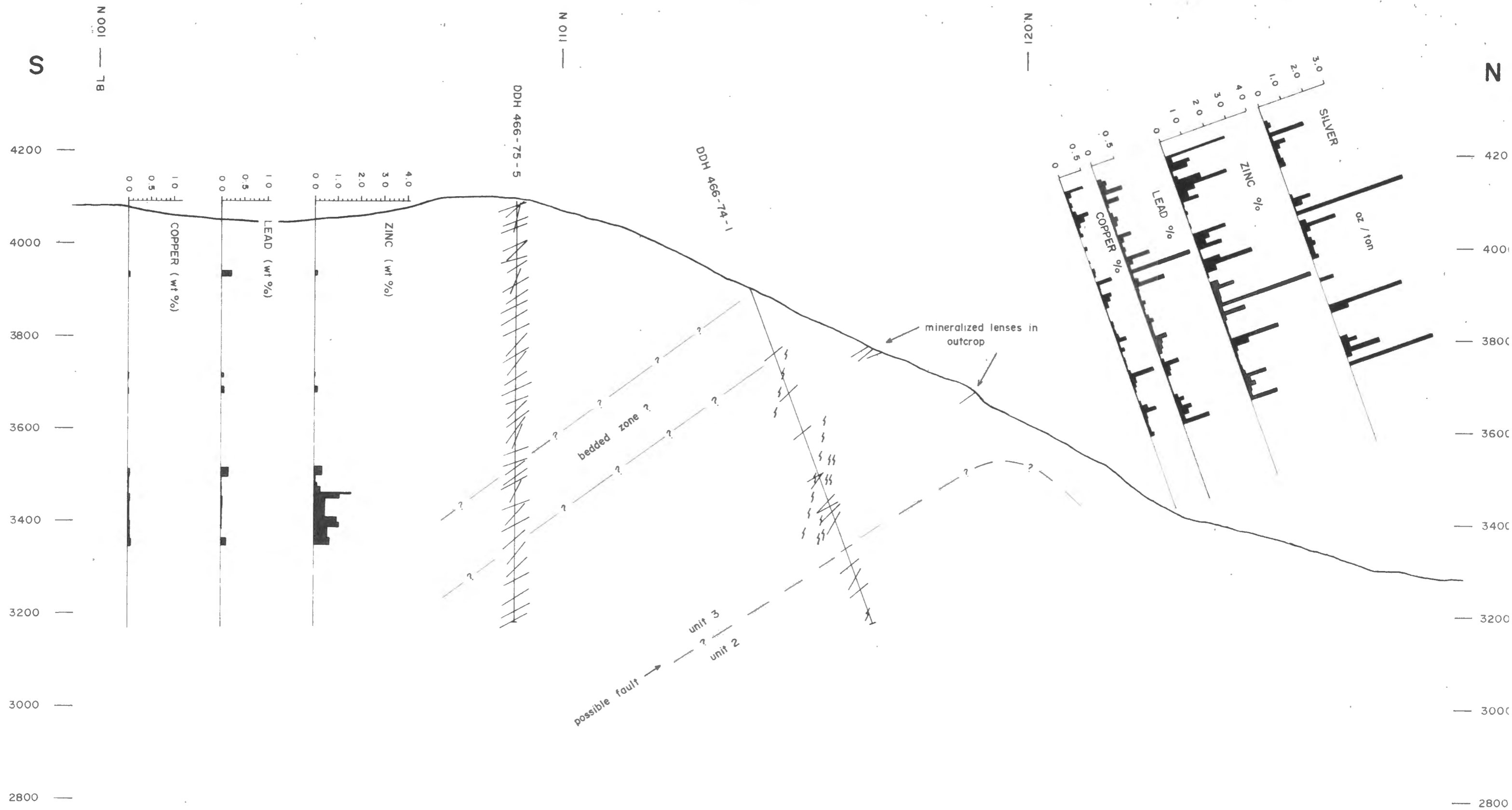


Figure 15
 CYPRUS ANVIL MINING CORPORATION
 DANA and HALO CLAIMS
 SECTION ALONG L 36 E THROUGH DDH 466-74-1
 & DDH 466-75-5

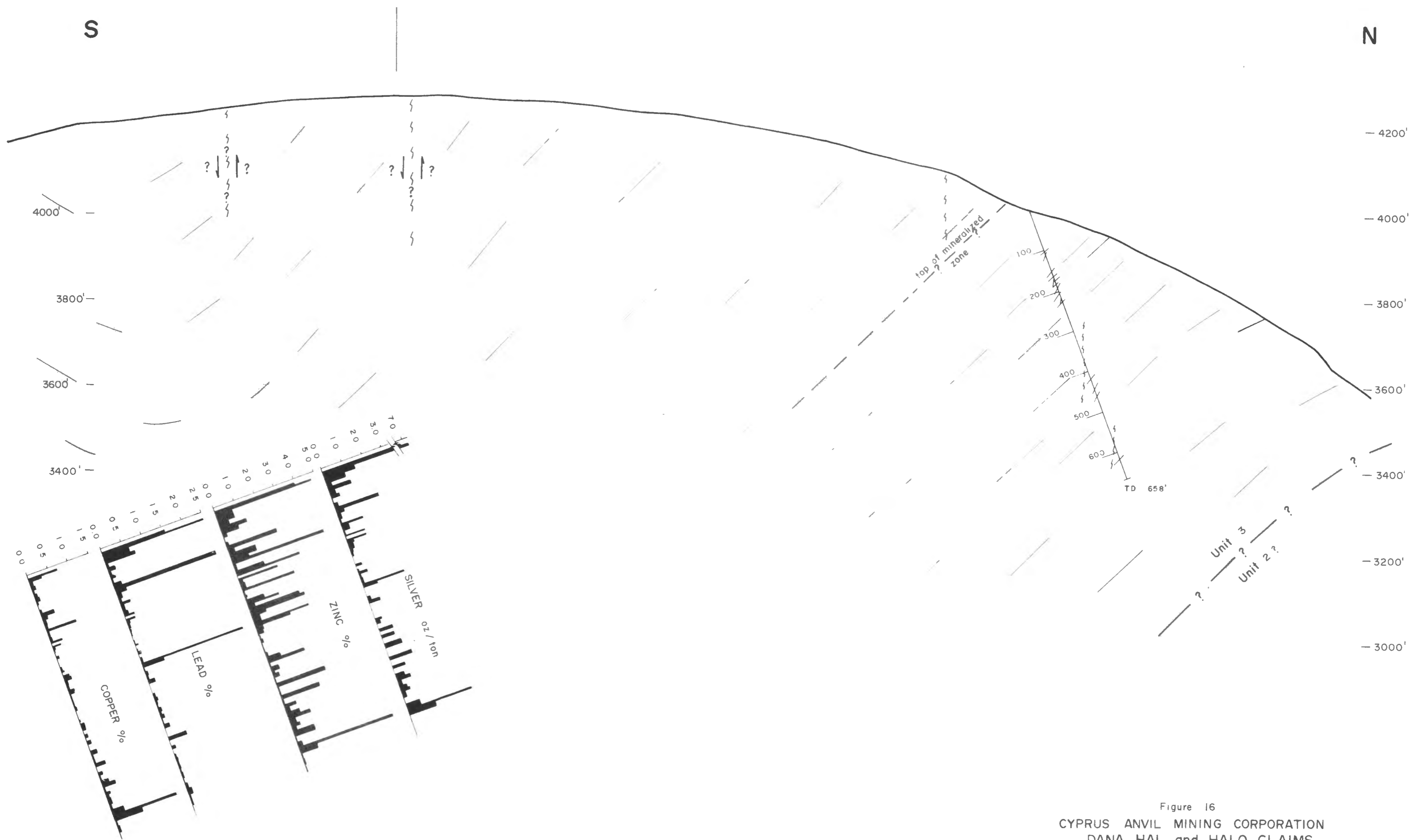


Figure 16
 CYPRUS ANVIL MINING CORPORATION
 DANA HAL and HALO CLAIMS
 SECTION THROUGH DDH 466-74-2

Horizontal = Vertical Scale. 1" = 200'

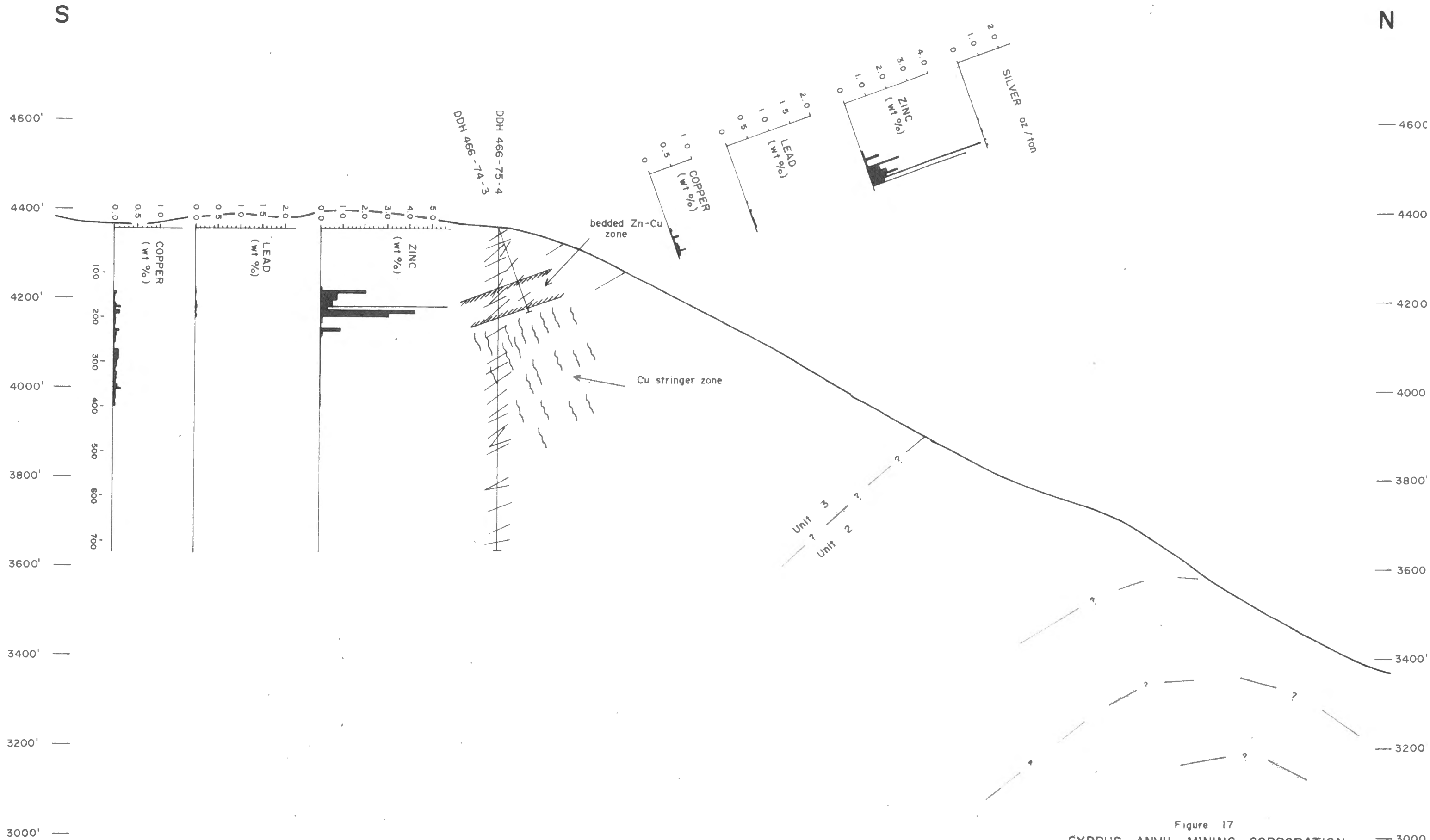


Figure 17
 CYPRUS ANVIL MINING CORPORATION
 DANA and HALO CLAIMS
 SECTION THROUGH DDH 466-74-3 & 466-75-4

Horizontal & Vertical Scale: 1" = 200'

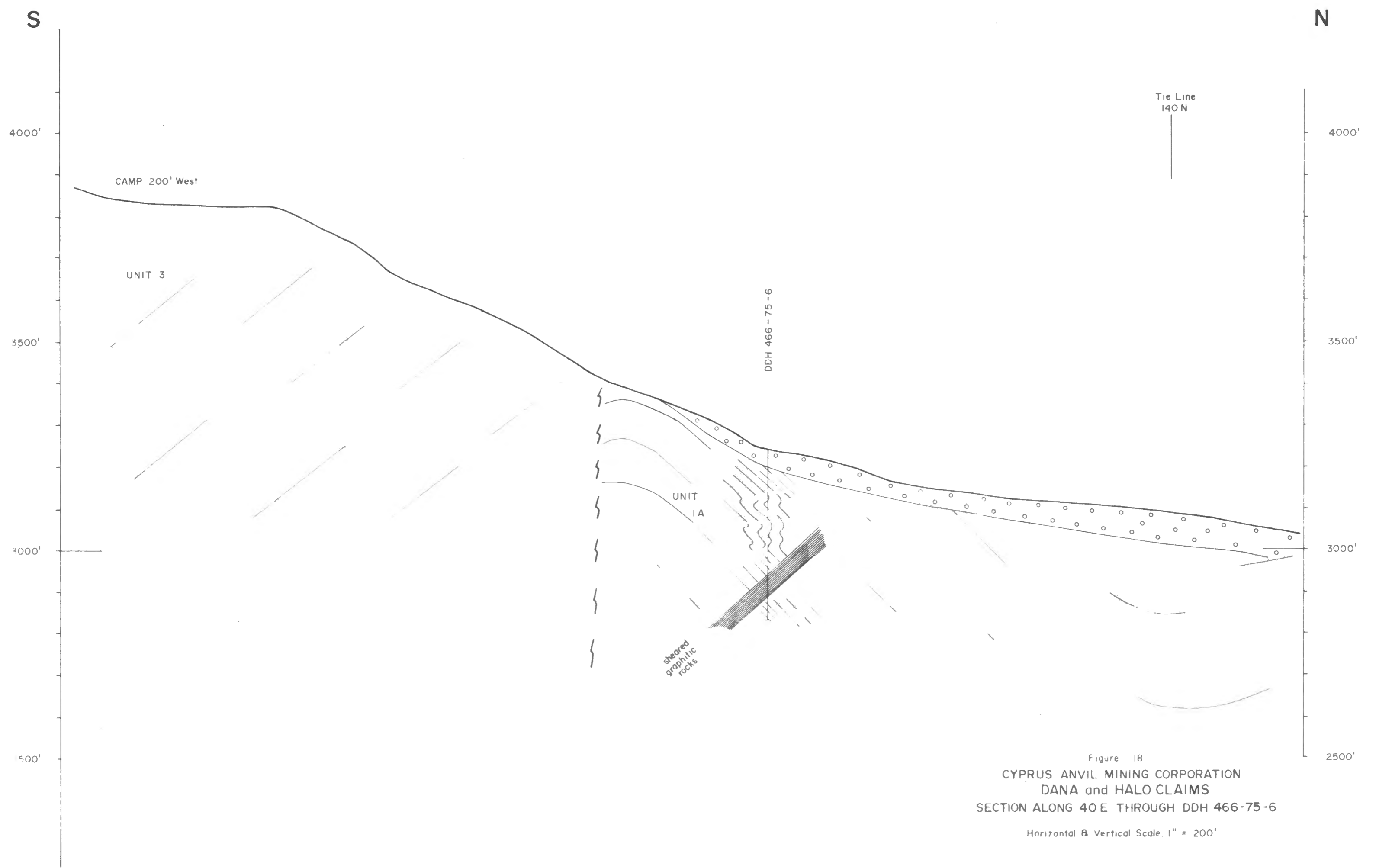


Figure 18
 CYPRUS ANVIL MINING CORPORATION
 DANA and HALO CLAIMS
 SECTION ALONG 40 E THROUGH DDH 466-75-6
 Horizontal & Vertical Scale, 1" = 200'

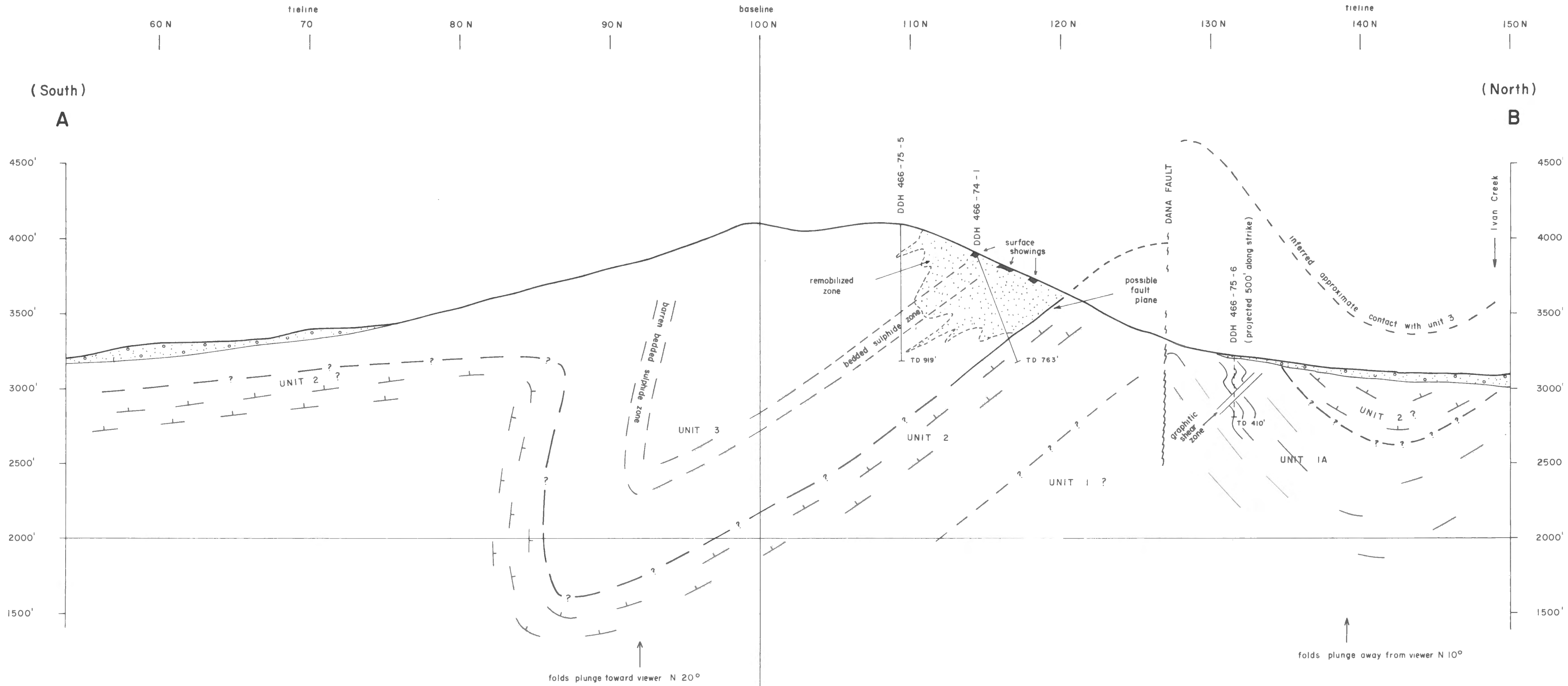


Figure 19
 CYPRUS ANVIL MINING CORPORATION
 DANA CLAIMS
SECTION A-B
 LINE OF SECTION ALONG GRID LINE 36 E
 Horizontal & Vertical Scale 1" = 500'