062278

1980 REPORT

on the

SURFACE PROGRAM

VENUS MINES AREA

by

Ken W. Watson,
Project Geologist,
United Keno Hill Mines Limited,
Exploration Department,
409 Black Street,
Whitehorse, Yukon

Dated: January, 1981

N.T.S. Sheet: 105D-2
Latitude: 60° 01'N
Longitude: 134° 37'W
Dates: May 22nd to September 2/80

TABLE of CONTENTS

Page Number

SUMMARY and CONCLUSIONS 1

RECOMMENDATIONS 2

INTRODUCTION 3

LOCATION and ACCESS 3
Figure 1: Location Map 1 inch to 40 miles

HISTORY 3

PROPERTY 4
Figure 2: Location Map-Venus Claims-1" to ½ mile
Figure 3: Location Map-AB #1 Claim -1" to ½ mile
Figure 4: Location Map-MOL Millsite Claims-1:50,000

PHYSIOGRAPHY 6
Photo 1: Venus Area
Photo 2: Venus Area

REGIONAL GEOLOGY 7
Table 1: Table of Formations-Montana Mountain 8

GEOLOGY -

(a) General 9
(b) Mineralization 9

DISCUSSION of VEINS -

1. Uranus Vein 10
Photo 3: South Uranus Area
Figure 5: South Uranus Lower Adit

2. Joe Petty Vein 11
Photo 4: Joe Petty Area

3. Montana Vein(includes Mountain Hero)... 12
Photo 5: Montana Workings
Photo 6: Mountain Hero Workings

4. M & M Vein 13
Photo 7: M & M Area
Figure 6: M & M Main Adit

5. Aurora Vein 14
Photo 8: Aurora Workings

6. Columbia Vein 14

7. Thistle Vein 14

8. Road Vein 14

Page Number

GEOCHEMISTRY -

(a) General..... 16

Figure 7: Arsenic - Histogram Comparison
Figure 8: Silver - Histogram Comparison
Figure 9: Lead - Histogram Comparison
Figure 10: Zinc - Histogram Comparison
Figure 11: Arsenic-1979 & 1980(histogram)
Figure 12: Silver-1979 & 1980 (histogram)
Figure 13: Lead-1979 & 1980 (histogram)
Figure 14: Zinc-1979 & 1980 (histogram)

(b) Discussion of Results -

1. Elements 16
2. Anomalous Areas -
   (a) Venus Vein Area 17
   (b) Nipper Creek Area 17
   (c) Humper Vein 18
   (d) Ruby Silver Area 18
   (e) Uranus Area 18
   (f) Joe Petty Area 18
   (g) Montana Area 19
   (h) Thistle Area 19
   (i) Aurora Lake Area 19
   (j) Matheson Lake Area 20
   (k) Dail Peak Area 20

TAILINGS POND - Arctic Gold & Silver Mines Limited 21

Figure 15: Arctic Tailings Pond-Auger Drill Hole Locations (Approx) and ore Reserve Blocks with No. of Tons
Photo 9: Arctic Tailings Pond

APPENDIX A: Personnel and Contractors Employed
APPENDIX B: Logistics
APPENDIX C: Soil Sample Statistics
APPENDIX D: Assay Result Forms
APPENDIX E: Ore Reserves in Tailings - Arctic Gold & Silver Mines Limited

MAPS in POCKET:

General Geology
Geochemical - Gold
Geochemical - Silver
Geochemical - Arsenic
Geochemical - Lead
Geochemical - Zinc

SUMMARY and CONCLUSIONS:-

The Venus property is comprised of some 97 claims of which 25 (17 Annual and 8 Crown grants) were optioned from Tagish Lake Syndicate. In addition to the above, one (1) claim was staked to cover the 1970-71 Venus Mines tailings pond, and one (1) claim was staked to cover the Arctic Gold and Silver Mines Limited tailings pond. Four (4) claims, comprising 34 units, were staked in Northern British Columbia to cover an area for a millsite.

In April, 1980, a decision to put the Venus Mine into production at 100 t.p.d. was made at the annual meeting of the Board of Directors. Site preparation for the mine and mill was initiated at that time and is ongoing.

A 2 to 5 person crew worked on the property between May 22nd and September 2nd, 1980, and completed the soil sample coverage and three-quarters of the geological mapping.

The property is underlain by mid-Cretaceous Hutshi group volcanics which unconformably overlie earlier Mesozoic rocks and are cut by Upper Cretaceous granitic intrusions. These rocks lack many structural features but evidence from bedded tuffs and flow contacts suggest gentle deformation.

Some 25 quartz veins, varying from 0.1 to 8.0 feet in width occur on the property. Most of these veins are fissure fillings which crosscut flow contacts of the host volcanics. The Venus vein is the largest vein known to date being some 5,400 feet in strike length and from 0.5 to 8.0 feet in width with an average of 2.5 to 3.0 feet.

Ore values can be erratic, occuring in small ore shoots and mineralogy varies from vein to vein. Minerals found in the quartz veins include arsenopyrite, pyrite, sphalerite, galena, chalcopyrite, pyrargyrite, tetrahedrite, freibergite, stephanite, argentite, native silver, malachite, azurite, scorodite, realgar, jamesonite, and yukonite.

No new veins were located by prospecting and mapping. Thirty-four (34) grab and chip samples of vein material were taken from old underground workings, surface exposures and dumps. Most of these were from the Uranus, Joe Petty, Montana and M & M veins. Some encouraging gold and silver values were obtained.

Seventy-nine (79), 4 inch auger holes, drilled to a maximum depth of 4.1 feet in the Arctic Gold and Silver tailings pond, indicated 21,685 tons of 0.04 oz Au, 3.15 oz Ag, 0.20% Pb and 0.03% Zn, with an estimated 20,000 additional tons of equivalent grade material. The right to the Arctic tailings has been awarded to a prior placer claim and this will revert to U.K.H.M. should this placer claim be allowed to lapse.

A reconnaissance type soil survey using a 100 ft. sample interval on 300 ft. spaced lines was completed over the Venus property. A total of 2805 samples were taken in 1980. This brings the total number of samples collected on the property to 5269. Samples were analysed for silver, lead, zinc and arsenic. Gold determinations were carried out on 853 of the samples taken in 1979 and 1980.

Several anomalous areas were outlined.

On the Windy Arm slope of Venus there are several highly anomalous areas with unknown sources. The most significant of these are large multi-element anomalies that occur above the 2900' adit, above the Red Deer Vein and below the Ruby Silver Vein. Large multi-element anomalies occur below the Venus Vein and are associated with mine dumps.

Highly anomalous areas are located near the Uranus Vein, Joe Petty Vein and Montana Vein. The most significant of these are those occuring above the Uranus Vein and at the extremities of the Joe Petty Vein.

The Aurora Lake area exhibits several single element anomalies with unknown sources that do not have correlative anomalous values for other elements.

Several large arsenic anomalies with non to moderately correlative values in other elements occur in the vicinity of Matheson Lake, Aurora Lake, Thistle area and Dail Peak area. The sources of these anomalies are unknown and none have correlative values in gold.

RECOMMENDATIONS:-

It is recommended that the geological coverage of the property be completed.

It is recommended that favourable surface results be investigated by grid soil sampling, cat trenching, percussion and/or diamond drilling.

INTRODUCTION:-

This report is a supplement to the 1979 report and describes the continuation of geological and geochemical surveys initiated during that year.

A 2 to 5 person crew worked on the property between May 22nd and September 2nd, 1980, and completed the soil sample coverage and three-quarters of the geological mapping.

In April, 1980, a decision to put the Venus Mine into production at 100 t.p.d. was made at the annual meeting of the Board of Directors. Site preparation for the mine and mill was initiated at that time and is ongoing.

LOCATION and ACCESS:-

The Venus Mine and Property is located 50 air miles south of Whitehorse (62 miles by road) on the north side of Windy Arm of Tagish Lake. The mine is situated at latitude 60° 01'N, longitude 134° 37' 30" W on N.T.S. Sheet 105D-2 (Figure 1).

Access to the Mine Site was by vehicle from Whitehorse. A narrow, steep mine road, some 2/3 of a mile in length, connects the 2600 and 2700 Level Portals to the Klondike Highway, No. 2 at Kilometer 84.5.

Access to the higher elevations of the property was by 4 wheel drive vehicle over a narrow, rough cat trail via the Arctic Gold and Silver Mine or by helicopter from Whitehorse.

HISTORY:-

The Venus Group of claims, containing the Venus Mine and consisting of 17 Annual and 8 Crown Grants were optioned from Tagish Lake Syndicate on December 31st, 1978.

In May, 1979, an additional 72 GHI Claims were staked adjacent to the optioned Venus Group in order to cover other vein systems in the area.

In September, 1979, the ZYX No 1 Claim was staked to cover the (1970-71) Venus tailings pond, following encouraging results from random sampling.

In October, 1979, the MOL No. 1 Claim was staked between Tutshi Lake and Windy Arm to cover a proposed millsite.


Elsa
Keno
Mayo
Minto Bridge
Gordon Landing
Stewart Crossing
Pelly Crossing
Minto
Yukon Crossing
Five Finger Rapids
Carmacks
Little Salmon
Faro
Ross River
Macmillan Pass
Hootalinqua
Lower Laberge
Upper Laberge
Whitehorse
Haines Junction
Marsh Lake
Cowley
Tagish
Jakes Corner
Johnsons Crossing
Carcross
Beloud Post
Klukshu
Chilkat Pass
Bennett
White Pass
Skagway
Klukwan
Haines
Porcupine
Tuchitua
Big Salmon
Canyon Creek
Scotia Bay
Engineer
YUKON
BRITISH COLUMBIA
VENUS
MACKENZIE MOUNTAINS
SELWYN MOUNTAINS
RUGGED MOUNTAINS
CASSIA MOUNTAINS
NADALEEN RANGE
HESS MOUNTAINS
RUSSELL RANGE
CLARKE HILLS
McARTHUR GAME SANCTUARY
WILLIAMSON RANGE
SOUTH FORK RANGE
ANVIL RANGE
SELWYN RANGE
TATCHUN HILLS
BIG SALMON RANGE
SIMPSON RANGE
HUMANS RANGE
TRENCH
MINERS RANGE
SEMENOF HILLS
CANOL ROAD
ROBERT CAMPBELL HIGHWAY
ALASKA HIGHWAY
KLONDIKE HIGHWAY
TAKHINI CROSSING
SKAGWAY ROAD
TAGISH ROAD
YUKON CROSSING ROAD
summer trail only
MT. MYE
MT. SELOUS
MT. SHELDON
MT. WILSON
MT. PYKE
MT. SLOAN
MT. ST. CYR
MT. BLACK
MT. ROSS
TRAFFIC MTN.
PACKERS MTN.
PILOT MTN.
MT. ARMSTRONG
MT. PATTERSON
MT. ORTELL
MT. JOY
MT. MENZIE
MT. EDWARDS
MT. GRANGER
MT. SKOLAI
MT. MICHIE
MT. LORIEN
MT. SHEEN
MT. HOYLE
MT. SNAG
MT. WATSON
MT. CHRISTIE
MT. HARPER
MT. CAIRNES
MT. MACAULEY
MT. MACDONALD
MT. MACKENZIE
MT. MACMILLAN
MT. MACNAB
MT. MACNEILL
MT. MACPHERSON
MT. MACRAE
MT. MACTAGGART
MT. MACTAVISH
MT. MACWILLIAM
MT. MACWILLIAMS
MT. MACWILLIAMSON
MT. MACWILLIAMSON
MT. MACWILLIAMSON

The MOL No. 2 and No. 3 Claims were staked adjacent to the MOL No. 1 in February, 1980, to cover additional ground between Tutshi Lake and Windy Arm.

In June, 1980, the AB No. 1 Claim was staked to cover the (1968-69) Arctic Gold and Silver Mines Limited tailings pond.

In November, 1980, the MOL No. 4 Claim was staked along the west side of MOL No. 2 to cover a potential water supply for the mill.

A 4 to 6 man crew worked the property between May 18th and September 30th, 1979, when approximately one-half of the property was geologically mapped and soil sampled.

PROPERTY:-

The Venus Property comprises a group of 97 contiguous claims (Figure 2) consisting of 89 annual and 8 crown grants.

One (1) claim, the ZYX, was staked to cover the 1970-71 Venus Mine tailings pond area.

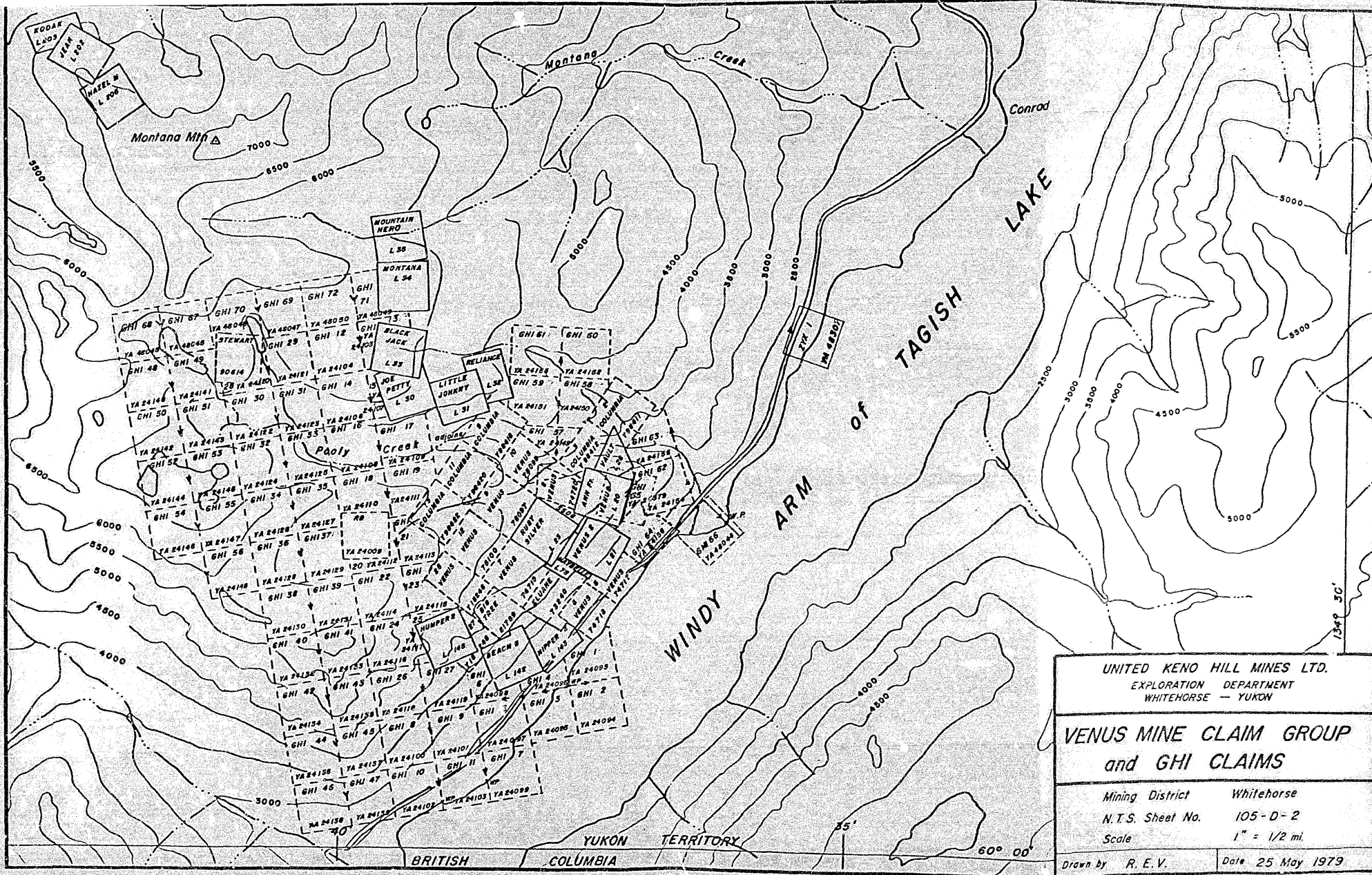
The AB No. 1 Claim was staked to cover the (1968-69) Arctic Gold and Silver Mines Limited tailings pond area (Figure 3).

The MOL 1-4 Claims, comprising 34 units, were staked to cover an area for a millsite (Figure 4).

OPTIONED CLAIMS:

(a) Annual Grants:

CLAIM	GRANT NO.	LOCATION DATE	RECORD DATE	EXPIRY DATE
Kluane	73240	20/7/57	2/9/57	31/12/85
Venus 5	74717	15/8/59	25/8/59	31/12/84
Venus 6	74718	"	"	"
Venus 7	74719	16/8/59	"	31/12/85
Venus 8	74720	16/8/59	"	31/12/84
Venus 9	75097	24/7/59	28/7/60	"
Venus 10	75098	"	"	"
Venus 12	75100	"	"	"
Big Tree	81769	29/8/62	6/9/62	"
Ann Fr.	Y5508	9/5/66	10/5/66	"
Venus 25	Y18246	25/5/67	26/5/67	31/12/85
Venus 27	Y18248	"	"	31/12/84
Columbia 2	Y98411	3/5/75	8/5/75	8/5/88
Columbia 3	Y98412	"	"	"
Columbia 9	Y98418	"	"	"
Columbia 11	Y98420	"	"	"
Columbia 13	Y98422	"	"	"



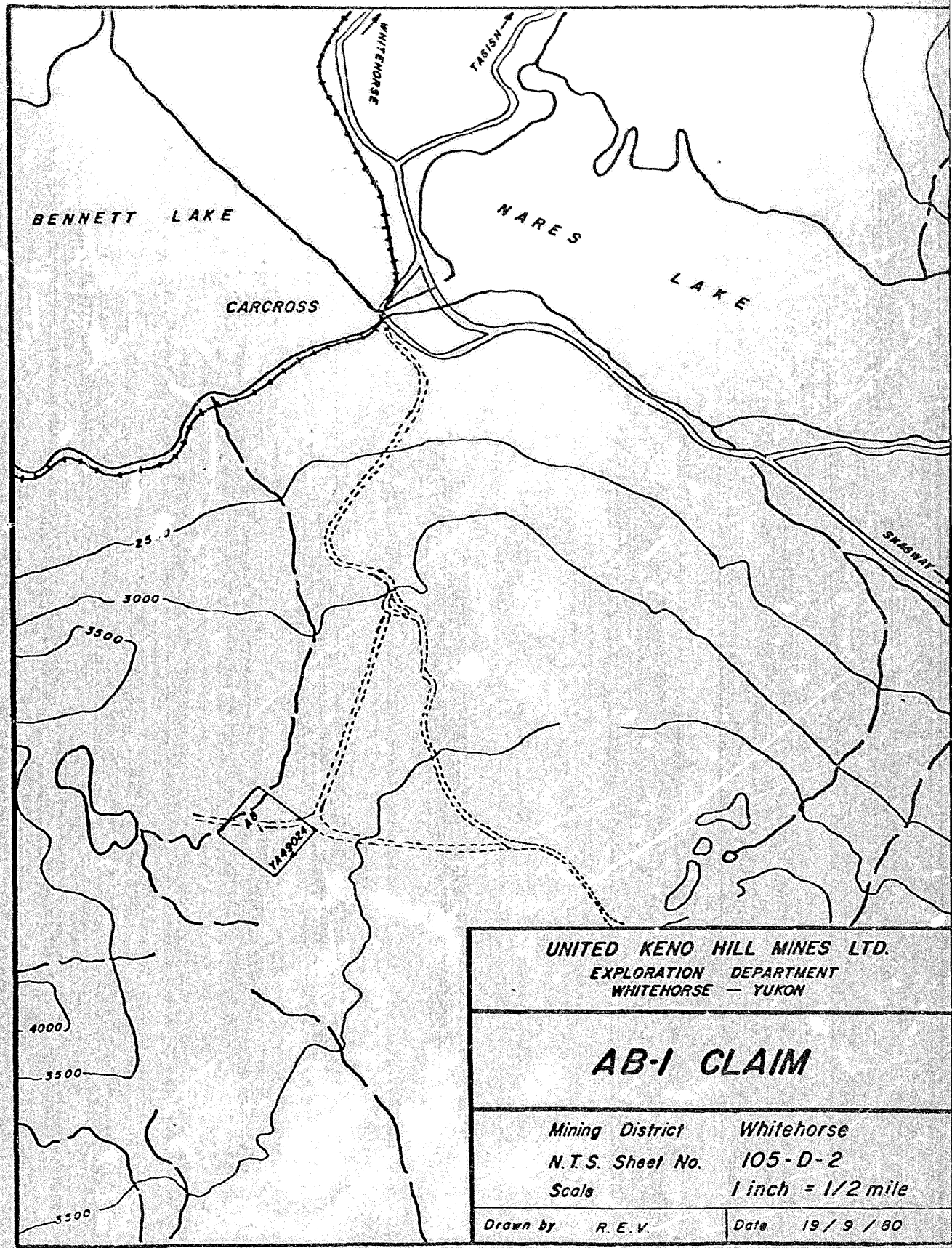
UNITED KENO HILL MINES LTD.
EXPLORATION DEPARTMENT
WHITEHORSE — YUKON

VENUS MINE CLAIM GROUP and GHI CLAIMS

Mining District	Whitehorse
N.T.S. Sheet No.	105-D-2
Scale	1" = 1/2 mi.
Drawn by R. E. V.	Date 25 May 1979

FIG. 2

BCIL - 3043 - U.K.H.M.

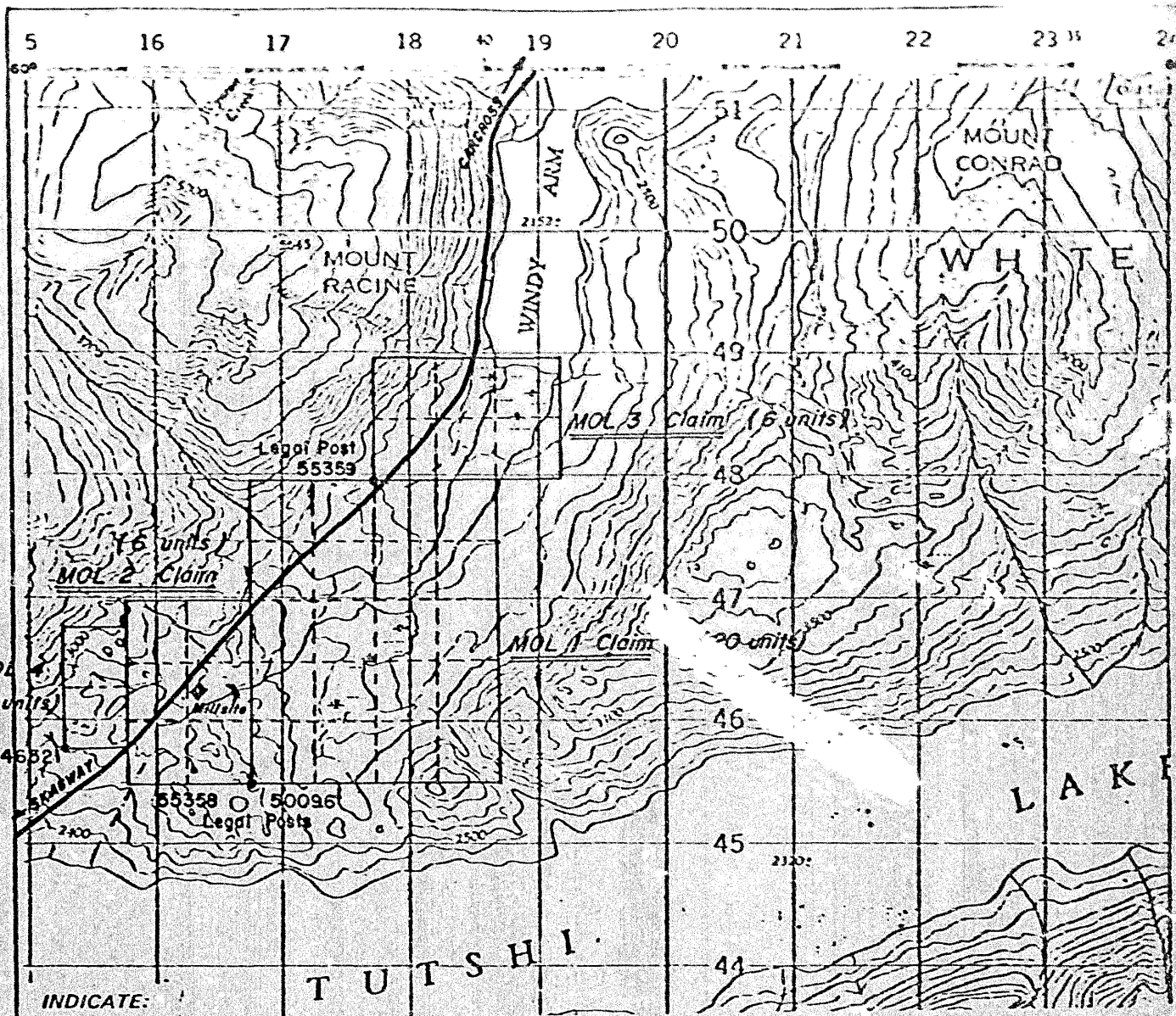


UNITED KENO HILL MINES LTD.
EXPLORATION DEPARTMENT
WHITEHORSE — YUKON

AB-1 CLAIM

Mining District	Whitehorse
N.T.S. Sheet No.	105-D-2
Scale	1 inch = 1/2 mile
Drawn by R.E.V.	Date 19/9/80

FIG. 3

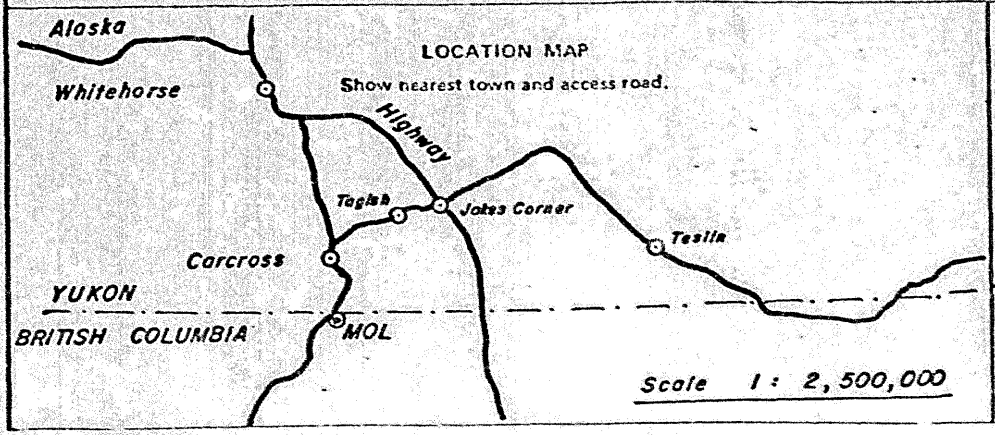


INDICATE:

Claim boundaries, permanent watercourses, access road and distance to nearest town, proposed roads, test pits, trenches, ground slope at trenches, drill sites, and camp sites.

104 M - 15E

Scale 1 : 50,000



Name of property MOL

Claim No. 1, 2 and 3, 4

Owner United Keno Hill Mines

Date

File No. F.M.C. No. 172901 (79)
F.M.C. No. 182623 (80)

FIG. 4

(b) Crown Grants: (Annual Tax)

NAME	GROUP NO.	LOT NO.	ACRES
Venus	754	20	50.44
Venus 2	"	21	51.13
Ruby Silver	"	23	51.65
Vault	"	26	21.48
Maybelle	"	78	14.00
Beach 5	"	142	48.50
Nipper 2	"	143	36.76
Humper 2	"	145	51.17

STAKED CLAIMS:

(a) Mine Site:

CLAIM	GRANT NO.	LOCATION DATE	RECORD DATE	EXPIRY DATE
GHI 1- 8	YA24093-24100	23/5/79	25/5/79	25/5/89
GHI 9-11	YA24101-24103	9/5/79	"	"
GHI 12-56	YA24104-24148	12/5/79	"	"
GHI 57-63	YA24149-24155	15/579	"	"
GHI 64	YA24156	18/5/79	"	"
GHI 65	YA24379	1/6/79	5/6/79	5/6/89
GHI 66	YA48044	14/8/79	21/8/79	21/8/89
GHI 67-72	YA48045-48050	18/8/79	"	"

(b) 1970-71 Tailings Pond Area:

CLAIM	GRANT NO.	LOCATION DATE	RECORD DATE	EXPIRY DATE
ZYX 1	YA48307	3/10/79	4/10/79	4/10/85

(c) Proposed Mill Site (Northern B.C.):

CLAIM	NUMBER	UNITS	LOCATION DATE	RECORD DATE	EXPIRY DATE
MOL 1	50096	20	2/10/79	4/10/79	4/10/86
MOL 2	55358	6	21/2/80	25/2/80	25/2/89
MOL 3	55359	6	22/2/80	25/2/80	25/2/86
MOL 4	46521	2	7/11/80	12/11/80	12/11/81

(d) Arctic Gold and Silver Tailings Pond Area:

CLAIM	GRANT NO.	LOCATION DATE	RECORD DATE	EXPIRY DATE
AB 1	YA49024	6/6/80	9/6/80	9/6/81

PHYSIOGRAPHY:-

The Venus property lies in part on the northeast fringe of the Coast Range Mountains on the Yukon-British Columbia border (Photo 1).

The Venus Mine lies on a steep 36° slope on the Windy Arm Face of Montana Mountain. This slope is characterized by intermittent tree cover of black spruce and willow up to 4500 feet. Heavy outcrop exposure occurs on the upper half of the face forming jagged cliffs with deep, steep rock walled stream cuts (Photo 2).

The most rugged topography occurs in the vicinity of Dail Peak (6320 feet) in the south part of the property.

The western portion of the property is an upland plateau, characterized by many sharp changes in topography caused by stream cuts and cirques.

There are five (5) tarns in this upland plateau area, four (4) of which form the headwaters of the north fork of Pooly Creek. The south fork of Pooly Creek has its headwaters in a cirque and both branches flow in an easterly direction across the property. These branches join and flow into the deep, steep walled rocky Pooly Creek Canyon. Pooly Creek is joined in the Canyon by the North Canyon tributary and flows southeasterly to south into Windy Arm.

The Windy Arm of Tagish Lake at an elevation of 2,152 feet, forms the southeastern boundary of the Venus Property.

In some areas of the property, veins dip at low angles into steep sided hills. Detailed investigation by certain surface exploration methods is difficult.

Any promising veins found on the western to northwestern upland plateau of the property will have to be developed by access from the northern slope of Montana Mountain via the Arctic Gold and Silver road.

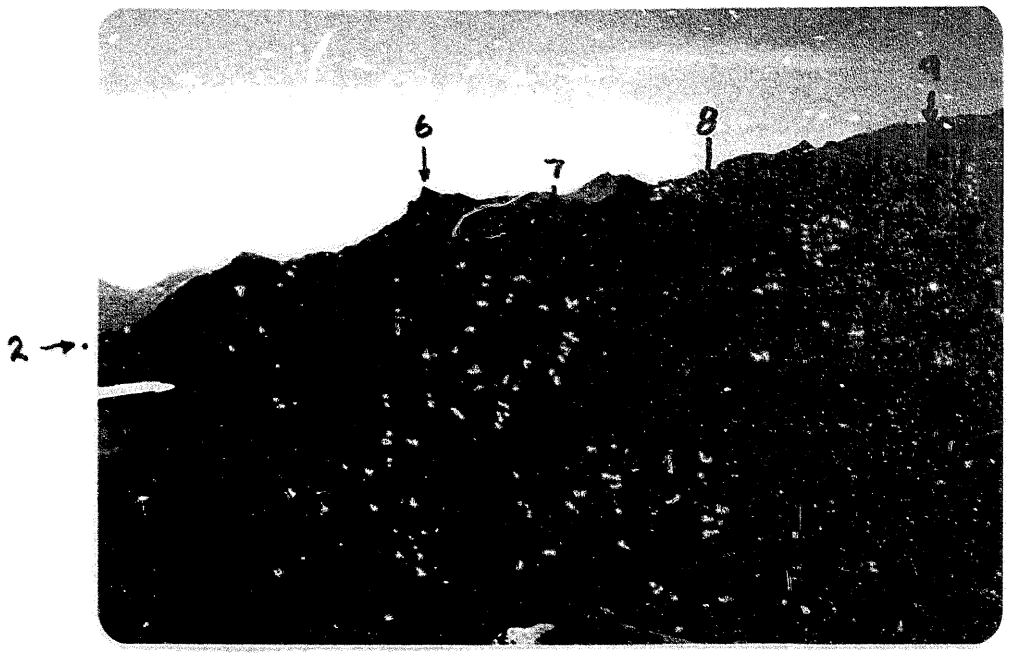


Photo 1: Venus Area, looking southwest. (1) Venus Mine, (2) U.K.H.M. Mill, (3) Pooly Point, (4) Venus (1970-71) Tailings Pond, (5) Pooly Creek Canyon, (6) Dail Peak, (7) Uranus, (8) Joe Petty, (9) Montana

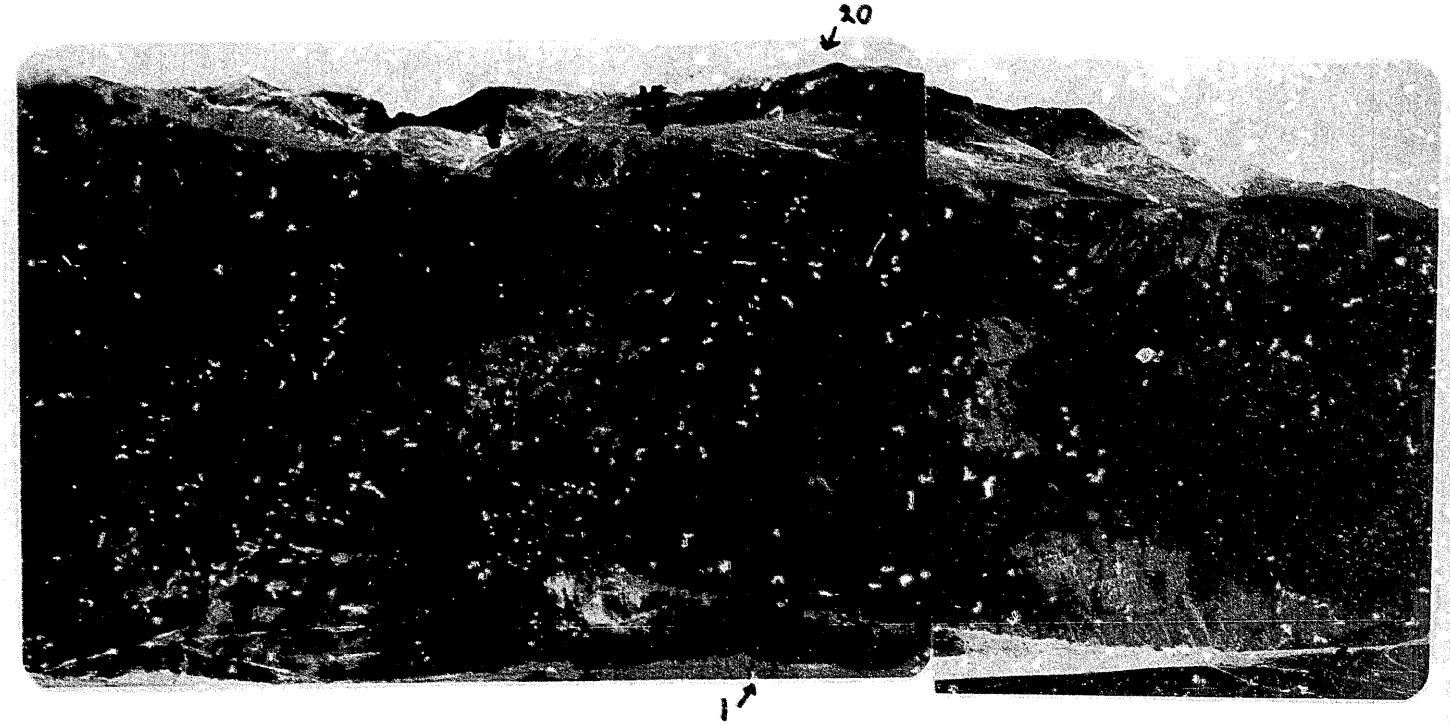


Photo 2: Venus Area, looking northwest. (1) 1988 mill, (2) Pooly Point Camp, (3) 2600' Level, (4) 2700' Level, (5) 2900 Portal, (6) Venus 2, (7) Venus 1, (8) Road Vein, (9) Nipper 2, (10) Nipper 1, (11) Humper, (12) Red Deer, (13) Ruby Silver, (14) Uranus, (15) Joe Petty, (16) M & M, (17) Thistle, (18) Montana, (19) Aurora, (20) Montana Mountain Peak. --- Venus Vein

REGIONAL GEOLOGY:-

Montana Mountain is located on the western boundary of a belt of Permian and Mesozoic sediments known as the Tagish Belt. The geopsynclinal basin in which these sediments occur is known as the Whitehorse Trough.

Table 1 shows a table of formations for the Montana Mountain area.

The main rock units within the map area belong to the Hutshi group volcanics, which are broadly mid-Cretaceous and unconformably overlie earlier Mesozoic rocks and are cut by upper Cretaceous granitic intrusions.

The Hutshi group volcanics lack many structural features but evidence from bedded tuffs and flow contacts suggest gentle deformation.

"Although the Hutshi group, which appears to be at least 3,000 feet thick in this area, may be a down-faulted part of a more extensive volcanic terrain, the abundance of breccia, the basin-like structure, the faulted contact on the south, and the great thickness of volcanic rocks for so restricted an area, all suggest the subsidence of a volcanic center into a caldera", (Wheeler, 1961).

TABLE of FORMATIONS - MONTANA MOUNTAIN

CENOZOIC	Pleistocene & Recent		Glacial Drift, gravel, etc.
MESOZOIC	Upper and Middle	Coast Intrusives	Granodiorite
		Intrusive Contact	
	Cretaceous	Hutshi Group 3,000' +	Andesite, Andesite Breccia tuff, conglomerate, Minor ultrabasic Rocks
	Unconformity		
	Lower Jurassic	Laberge Group	Greywacke conglomerate
	Unconformity		
	Upper Triassic	Lewes River Group	Greenstone and Pyroclastic Rocks
	Unconformity		
PALAEO-ZOIC	Pennsylvanian & Permian	Taku Group	Limestone and Pyroclastic Rocks

(after Wheeler, 1961)

Table 1

GEOLOGY:-

(a) General -

The area is underlain by dark to light, medium grained volcanics, volcanic breccias, and fine-grained volcanics. Porphyritic varieties of all units are present.

There is a paucity of structural features visible on surface. Underground investigation indicated that the volcanics are highly fractured and are cut by numerous faults. Most faults exhibit limited or no displacement.

Most of the alteration in the Venus area is present as envelopes along the margins of quartz veins. These envelopes show as bleached zones containing disseminated pyrite, in the darker volcanics. Silicification is the most common type of alteration.

(b) Mineralization -

Some 25 quartz veins, varying from 0.1 to 8.0 feet in width, occur on the property. These veins appear to be fissure fillings that crosscut flow contacts of the host volcanics.

Some of the veins exhibit a banded appearance indicating several periods of mineralization.

Mineral found in the quartz veins of the Venus area include, arsenopyrite (auriferous), pyrite, sphalerite, galena (argentiferous), chalcopyrite, pyrargerite, tetrahedrite, freibergite, stephanite, argentite, native silver, malachite, azurite, yukonite, scorodite, realgar and jamesonite.

Mineralogy varies from vein to vein and there appears to be several types of mineralization, the two main ores being the Au, Ag, Pb veins and the Ag (Au) veins.

The Au, Ag, Pb veins contain banded pyrite, arsenopyrite and galena and are characterized by the Venus, Float, Red Deer, Uranus and South Aurora veins.

The Ag (Au) veins contain disseminated and discontinuous banded mineralization of tetrahedrite, freibergite, stephanite and argentite and are characterized by the M & M, Joe Petty and Humper veins.

The Montana vein appears to have features of both types.

The Ruby Silver and Aurora veins appear to be Au, Ag veins.

Very little data is available on the relation of Zn to the vein types.

Uranus Vein -

The vein has a width of 0.2 to 2.0 feet and can be traced for 2,000 feet along strike.

There are eight workings located on the vein. Six of these (five collapsed, one 5 ft. adit) are present on the north face of the hill.

The amount of mining, as a function of dump size could not be estimated due to downslope transport. The North Uranus No. 4 working appears to have been fairly substantial. The other workings are fairly small.

The vein exposed in the North Uranus No. 1 adit is 1.5 to 2.0 feet thick, and consists of barren quartz. Quartz from the other dumps is barren or contains weak mineralization.

Two workings and several vein exposures are located on the south side of the hill (Photo 3). The vein averages 1.0 foot in width and is composed of moderate to well mineralized quartz.

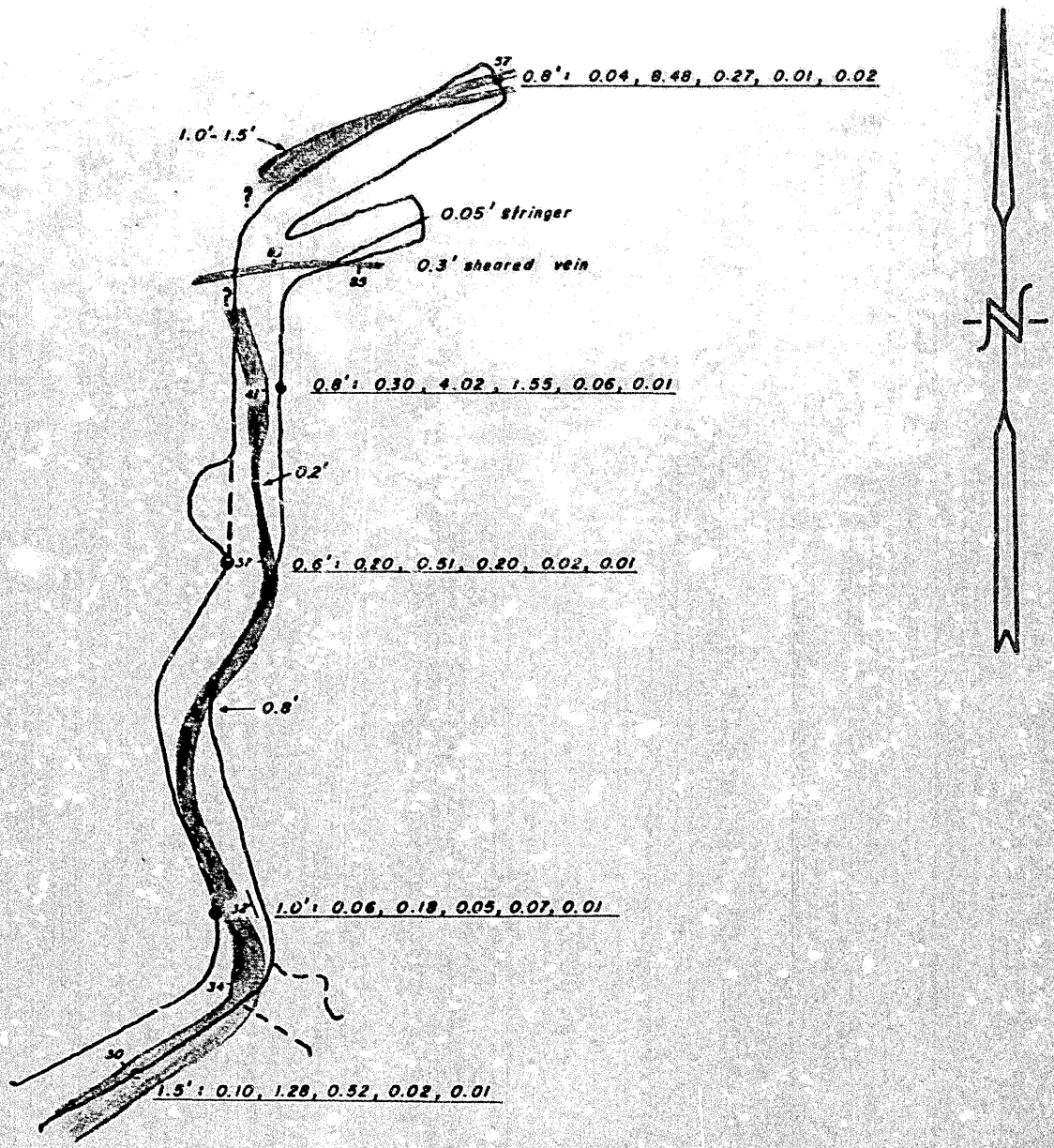
The South Uranus Upper Adit is a 10 foot drift on the vein. A 0.9 foot chip at the portal returned 0.96 oz Au, 71.8 oz Ag, and 15.3% Pb. A 1.0 foot chip taken in 1979 returned 0.44 oz Au, 40.76 oz Ag and 14.8% Pb.

The South Uranus Lower Adit consists of 160 feet of drifting on the vein (Figure 5). Chip samples of the vein in the drift returned low to moderate assay values.

A 1.2 foot chip of a vein exposure between the Upper and Lower adits returned 1.08 oz Au, 47.9 oz Ag and 17.9% Pb.

Mineralization consists of galena, arsenopyrite and pyrite.

The Uranus vein exhibits banded mineralization, making it very similar in appearance to the Venus vein. A characteristic of the Uranus vein is its variable orientation over short distances.



ASSAYS = WIDTH : Au , Ag , Pb , Zn , Cu
(in feet) (oz/ton) (oz/ton) (%) (%) (%)

= approximate trace of vein at a height of 4.5' (not to scale)

UNITED KENO HILL MINES LTD.
EXPLORATION DEPARTMENT
WHITEHORSE — YUKON

SOUTH URANUS LOWER ADIT

Mining District Whitehorse
N.T.S. Sheet No. 105-D-2
Scale 1 inch = 20 feet

Drawn by K.W.W. | Date 19/09/80

FIG. 5

Joe Petty Vein -

This vein, or vein system, can be divided into east and west halves. In several sections of the western half there is a strong upper vein and a weaker lower vein separated by 5 to 50 feet of volcanic rock. In the eastern half it is difficult to determine whether there are two veins or one vein that has been displaced by faulting.

The total system can be traced for 3,800 feet along strike (Photo 4). The veins exhibit an easterly strke and dip 45-50° North.

The upper vein in the west half consists of a 0.2 to 5.0 foot zone composed of decomposed mineralized quartz, alternating with altered mineralized volcanic.

There are two main workings on this vein, a 30 foot crosscut adit with drifts at the end for 85 feet west and 25 feet east on the vein and an inclined shaft which is now caved at 15 feet. The shaft was reported to have been driven for 50 feet down dip on the vein with two drifts off it. A 5.0 foot chip sample by the portal of the shaft returned 87.20 oz/ton Ag.

The vein(s) in the eastern half of the Joe Petty have an average width of 0.4 feet. Most of the vein(s) appears to be weakly mineralized although one grab sample from the dump of a collapsed adit returned 204.85 oz/ton Ag.

There are several small trenches and blast pits on the vein.

The vein is poorly exposed in outcrop and most of the data on the vein was obtained from the old workings.

The main sulphide in the Joe Petty vein is freibergite.



Photo 3: South Uranus vein, looking north. (1) South Uranus Lower Adit, (2) South Uranus Upper Adit --- = trace of vein



Photo 4 - Joe Petty Area, looking north. (1) Shaft, (2) Adit, (3) trenching, (4) cat trenches, (5) caved adit

Montana Vein (includes Mountain Hero) -

The Montana Vein is 2 feet wide in surface exposures and is reported to widen to 5 feet at depth. Old reports indicate a 1,600 foot strike length, from the center of the Montana Claim to the center of the Mountain Hero Claim. At present, the vein can only be traced in surface exposures for 800 feet on the Montana Claim. No vein attitudes could be measured and old reports indicate conflicting measurements, but a general northerly strike with shallow to moderate westerly dips is assumed.

There are five workings on the Montana Claim (Photo 5). From south to north they are as follows.

Montana Wooden Adit - This adit, which was a drift on the vein, has a 50 foot wood framed portal and is now caved. Arctic Gold and Silver Mines Limited drove this adit in 1967 to a reported length of 800 feet and encountered only low grade ore. Grab samples of the dump assayed from 0.02 to 0.16 oz/ton Au, 22.9 to 29.64 oz/ton Ag, 1.80 to 6.91% Pb, and 0.03 to 2.10% Zn.

Old Montana Adit - The portal of this working is now caved. This adit was driven in 1906 and is reported to have been a 700 foot drift on the vein. A grab sample from the dump returned 0.08 oz/ton Au, 59.5 oz/ton Ag and 3.38% Pb.

A caved shaft on the vein is located just above the Old Montana Adit and may have been a raise to surface from the drift.

Two recent trenches expose the vein farther to the north. The vein is 2 feet wide, and the trench closest to the Old Montana Adit may have had an old working in it.

A 2.0 foot chip/grab sample of the vein in the trench closest to the Old Montana Adit returned 0.04 oz/ton Au, 52.9 oz/ton Ag, 0.75% Pb and 2.04% Zn.

A 2.0 foot chip/grab sample of the vein in the trench closest to the Montana Shaft returned 0.05 oz/ton Au and 0.74 oz/ton Ag.

Montana Shaft - This working is now caved but was reported to have been a 320 foot decline on the vein. The vein is poorly exposed by the shaft. Grab samples from the dump ranged from 0.08 to 0.10 oz/ton Au, 12.88 to 69.1 oz/ton Ag, 2.28 to 23.2% Pb and 0.05 to 0.13% Zn.

Several bulldozed trenches are located to the north of the Montana Shaft and some weakly mineralized quartz is visible in these trenches.



Photo 5: Montana Area, looking northwest. (1) Wooden Adit, (2) Old Adit dump, (3) Old Adit, (4) Headframe for shaft.

Photo 6: Mountain Hero Area - looking south. (1) Mountain Hero Adit, (2) Head of tramline to Conrad (1905), (3) Upper dumps.

There are three workings in the Mountain Hero area (Photo 6) which old reports indicate were attempts to prove and work the postulated northern extension of the Montana Vein.

Two old dumps, containing quartz, are located on the upper part of the hill on the south side of Montana Creek.

The working of the Mountain Hero Upper 1 dump has been obliterated by talus. A grab sample of quartz from the dump returned tr Au, and 3.28 oz/ton Ag.

The working of the Mountain Hero Upper 2 dump has been obliterated by a bulldozer road. A grab sample of quartz from this dump returned tr. Au, 69.2 oz/ton Ag and 3.38% Pb.

Old reports indicate that one of these workings was an 80 foot crosscut with a 50 foot raise at the end that intersected a quartz vein similar in character to the Montana vein.

The Mountain Hero Adit is located near the head of the 18,697 foot tramway to Conrad. This adit is now caved and old reports indicate that it was a 300 foot crosscut with a 65 foot raise at the end. It was driven in 1905, and did not encounter any veins. It appears that the Mountain Hero Adit may have been driven entirely within the footwall of the vein.

There is no vein exposed in outcrop.

M & M Vein -

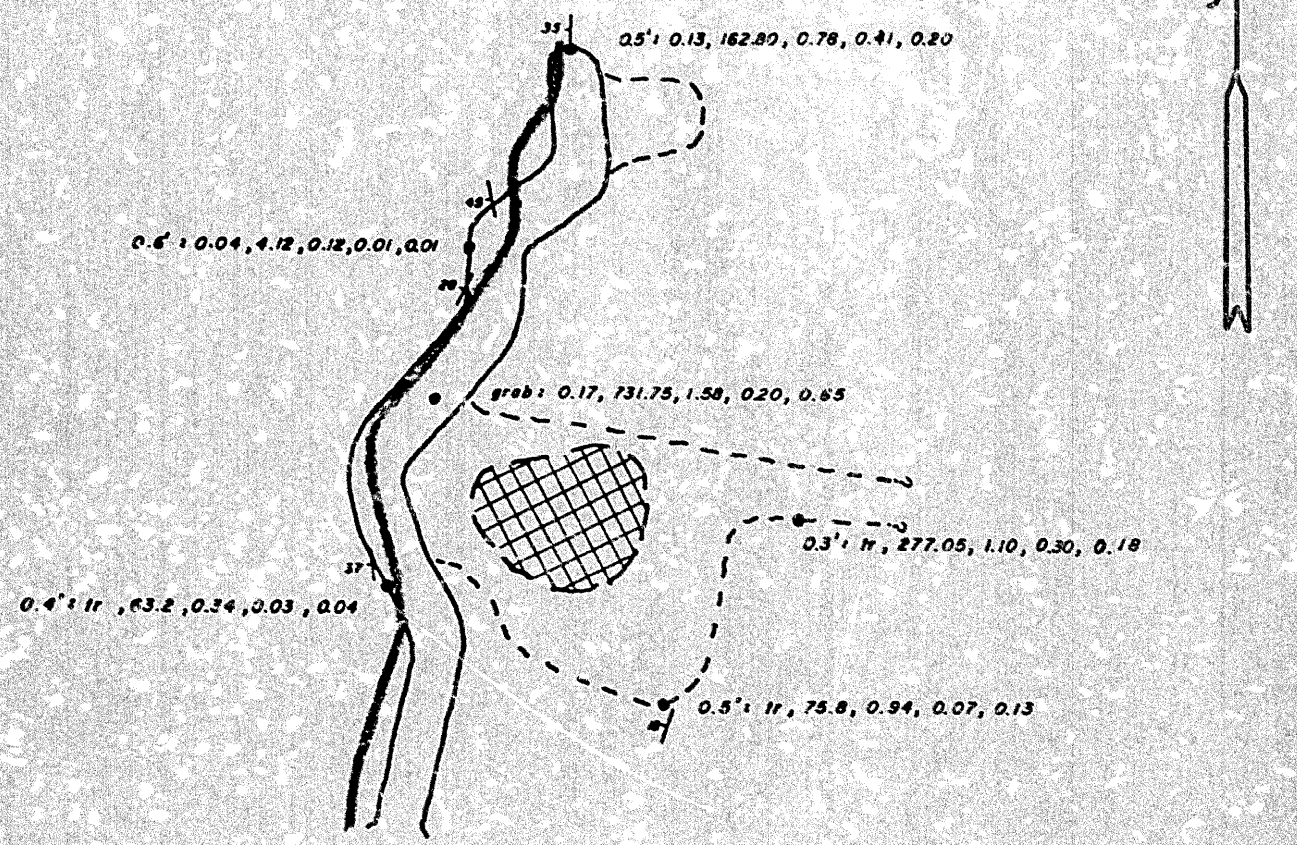
This is a 0.3 to 1.0 foot wide north striking quartz vein, with moderate westerly dips. It can be traced for 800 feet along strike.

The west half of the vein is poorly mineralized, massive to crystalline quartz, while the east half has several well-mineralized sections.

There are three workings on the vein.

The "M & M Main Adit" is a 94 foot drift on the vein (Figure 6, Photo 7). Vein widths ranged from 0.3 to 0.8 feet and chip samples of the vein returned some very high silver values.

The "M & M No. 2" working is a 10 ft. x 10 ft. decline on the vein. Vein widths vary from 0.1 to 1.0 ft. with an average width of 0.8 feet. The vein in this working is well mineralizsd and a 0.9 foot chip sample returned 164.55 oz/ton silver.



ASSAYS = WIDTH : Au , Ag , Pb , Zn , Cu
(in feet) (oz/ton) (oz/ton) (%) (%) (%)

= approximate trace of vein at a height of 4.5' (not to scale).

UNITED KENO HILL MINES LTD.
EXPLORATION DEPARTMENT
WHITEHORSE — YUKON

M & M MAIN ADIT

Mining District Whitehorse
N.T.S. Sheet No. 105-D-2
Scale 1 inch = 20 feet

Drawn by K.W.W. | Date 19/09/80

FIG. 6

The "M & M No. 3" working is a 10 foot wide by 20 foot deep decline on the vein. Vein widths vary from 0.1 to 0.7 ft. with an average vein width of 0.5 feet. Some sections of the vein in this working are well mineralized. A 0.3 foot chip sample returned 29.4 oz/ton silver.

Mineralization consists of pyrargyrite, tetrahedrite, (freibergite), minor stephanite, azurite and malachite. Argentite and native silver may also be present but were not identified.

Mineralization occurs as disseminations of sulphides within the quartz with some discontinuous stringers. Assays indicate low Au, Pb, Zn and Cu with high Ag.

Since the M & M vein crops out on an extremely steep slope any follow-up work would be difficult.

Aurora Vein -

Two workings are located on the Aurora vein, a trench and a caved adit with dump (Photo 8).

The vein is not visible in outcrop. Quartz from the dump and trench indicated weak arsenopyrite and galena mineralization.

Columbia Vein -

A caved adit on the Columbia vein is located just above Aurora Lake.

The vein is not visible in outcrop, and a grab sample of quartz from the dump assayed only trace mineralization.

Thistle Vein -

Three workings are located on this vein, two collapsed and one 15 foot adit. Minor quartz with trace mineralization was visible in the dumps. The vein was not seen in outcrop.

Road Vein -

The road vein is located just above the Klondike Highway near Nipper Creek. A brief investigation revealed a 0.1 ft. to 0.8 ft. wide quartz vein which exhibits a westerly strike and vertical dip.

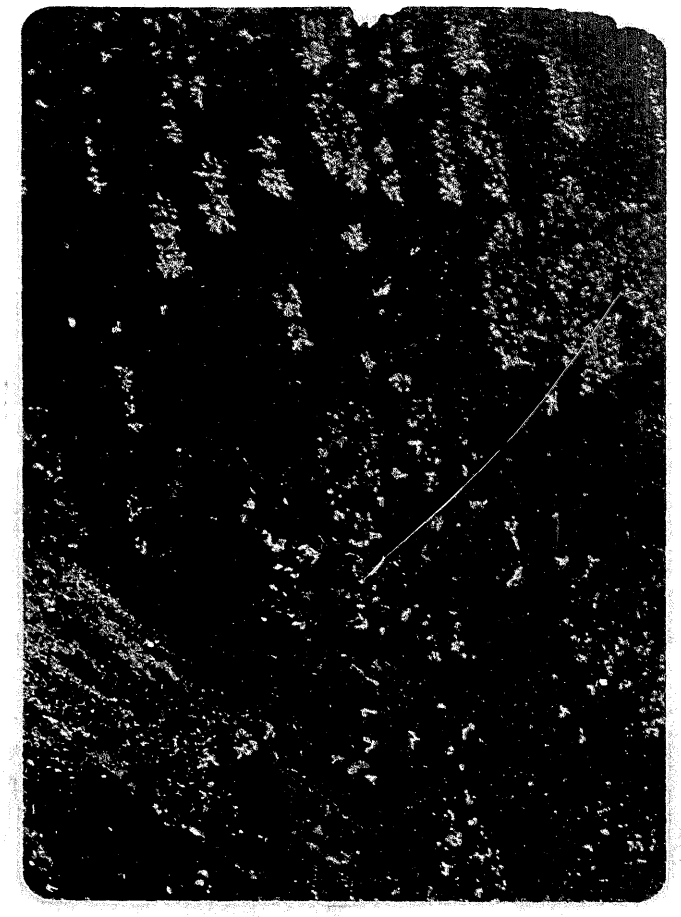


Photo 7: M & M workings - looking north (1) M & M Main Adit, (2) No. 2 Adit, (3) No. 3 Adit, --- = trace of vein.

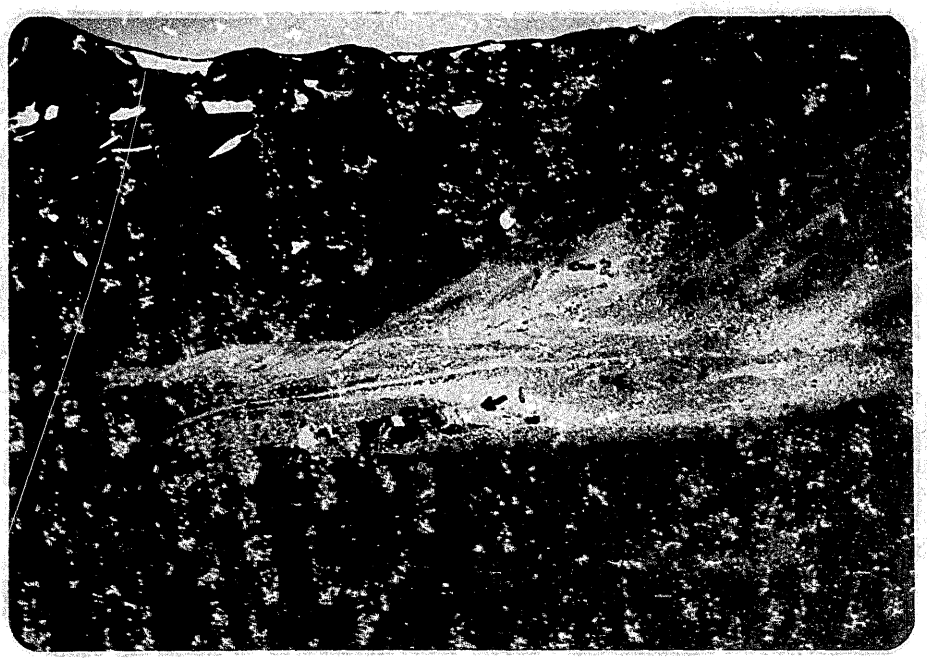


Photo 8 - Aurora area, looking south, (1) Stone building, (1905), (2) caved adit, (3) trench.

The vein is fault bounded with slickensides on the hanging wall and footwall of the vein. Mineralization was not apparent.

The lower adit is a 30 foot drift on the vein and the upper adit is a 15 foot drift on the vein. The vein pinches to 0.1 ft. at the ends of both adits. Several open cuts were present on the vein.

A 0.5 ft. quartz vein with a 15' drift, sub parallel to the Road vein, occurs 200 ft. to the north.

GEOCHEMISTRY

A. GENERAL:-

During 1980 a reconnaissance type soil survey was completed over the Venus property.

Several control lines were established and sampling was conducted using a 100 ft. sample interval on 300 ft. spaced lines.

A total of 2,805 samples were taken in 1980. This brings the total number of samples collected on the property to 5,269.

An orientation survey in 1979 indicated that B horizon or talus fine samples on a 100 ft. spacing, orthogonal to vein strike, would be adequate to detect mineralized areas. All samples collected during that survey were analysed for gold, arsenic, lead, zinc and silver. It was found that significant and anomalous gold values were correlative with arsenic values greater than 250 ppm. The approximately 853 samples taken in 1979 and 1980 that returned greater than 250 ppm arsenic were analysed for gold.

All samples were analysed by Bondar-Clegg and Company Ltd. using standard analytical techniques.

Histograms were prepared for arsenic, lead, zinc and silver.

The first set (Figures 7-10) show a comparison between both years and areas for the various elements. The histograms for the front face, particularly those of silver and arsenic, indicate two populations. This reflects dump contamination from workings on the Venus and other veins. The histograms from the top portion of the property show a more normal distribution of results.

Histograms are also presented, showing the overall results of sampling in 1979 and 1980 (Figures 11-14).

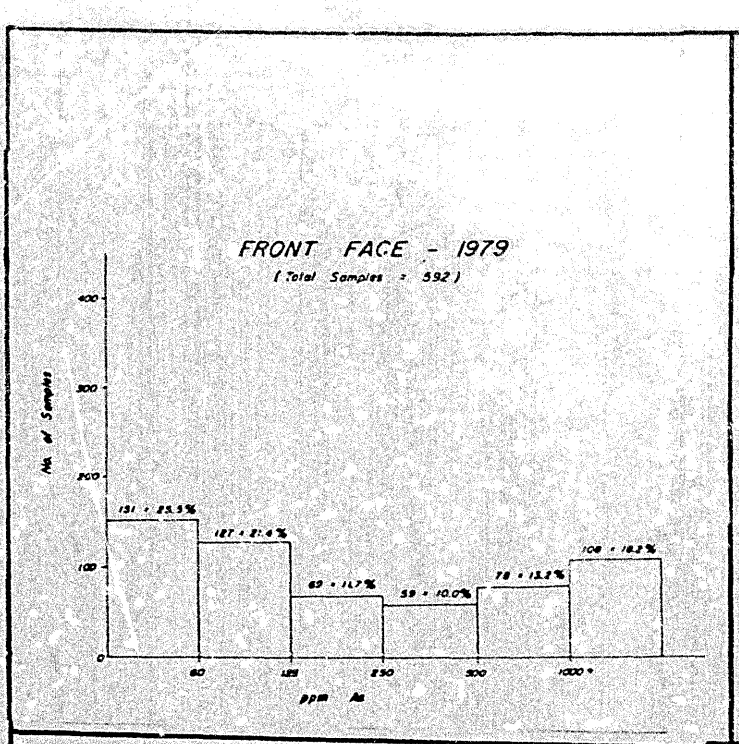
B. DISCUSSION of RESULTS:-

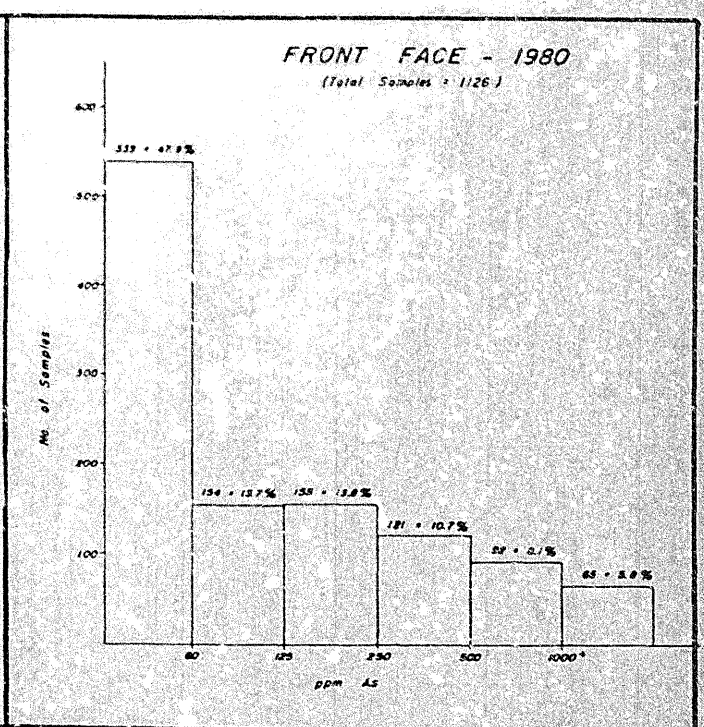
1. Elements -

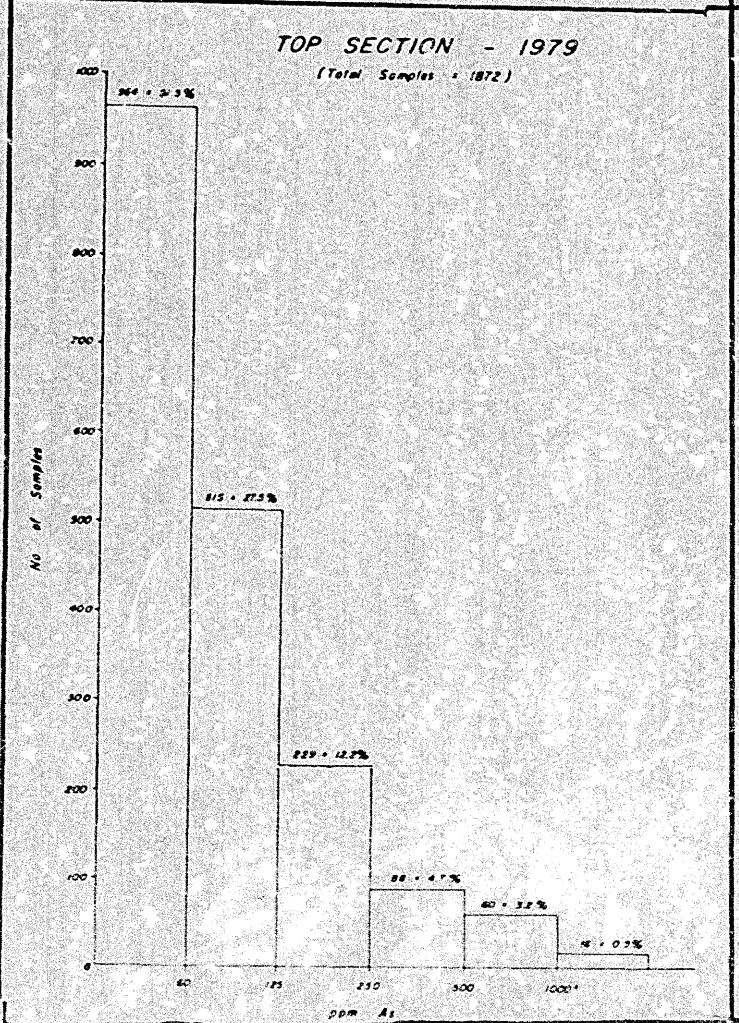
Anomalous results were returned for all elements, including highs of greater than 100 ppm silver, greater than 2000 ppm arsenic, 11,200 ppm lead, 3,300 ppm zinc and greater than 10,000 ppb gold.

Arsenic returned the most widespread anomalies followed in descending order by silver, lead, and zinc (plots in pocket).

ARSENIC - HISTOGRAM COMPARISON







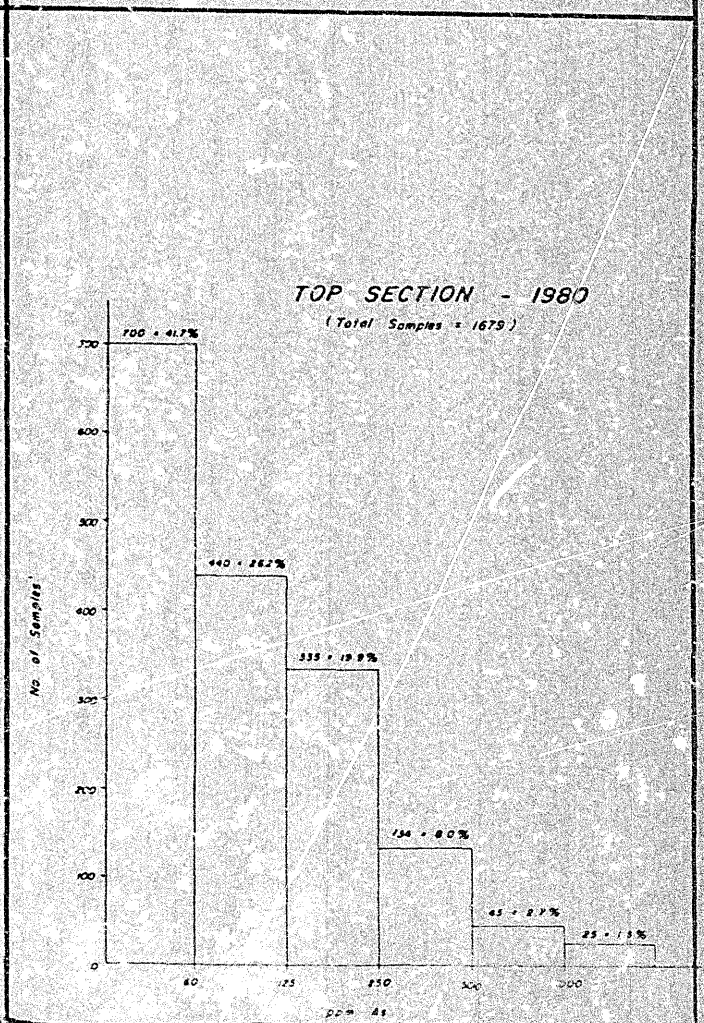
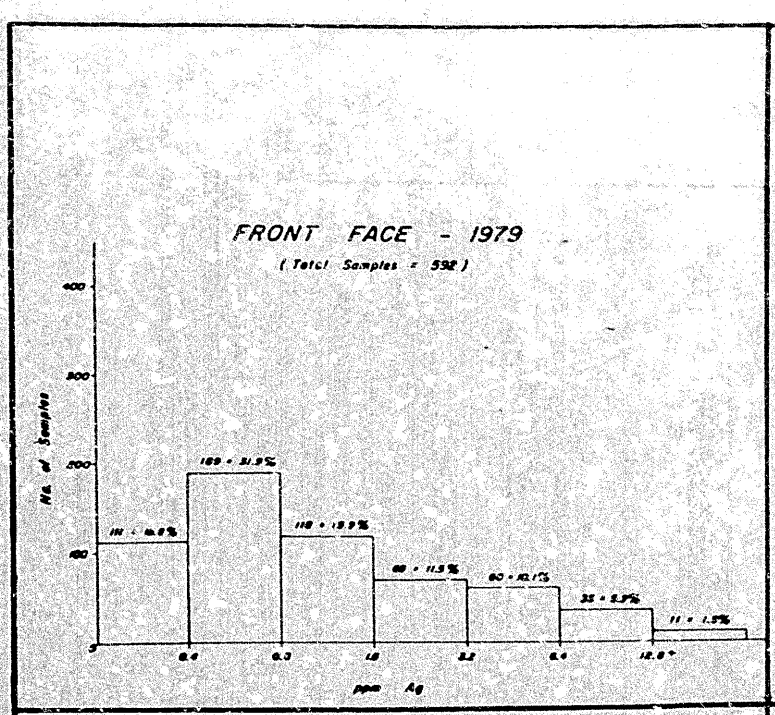
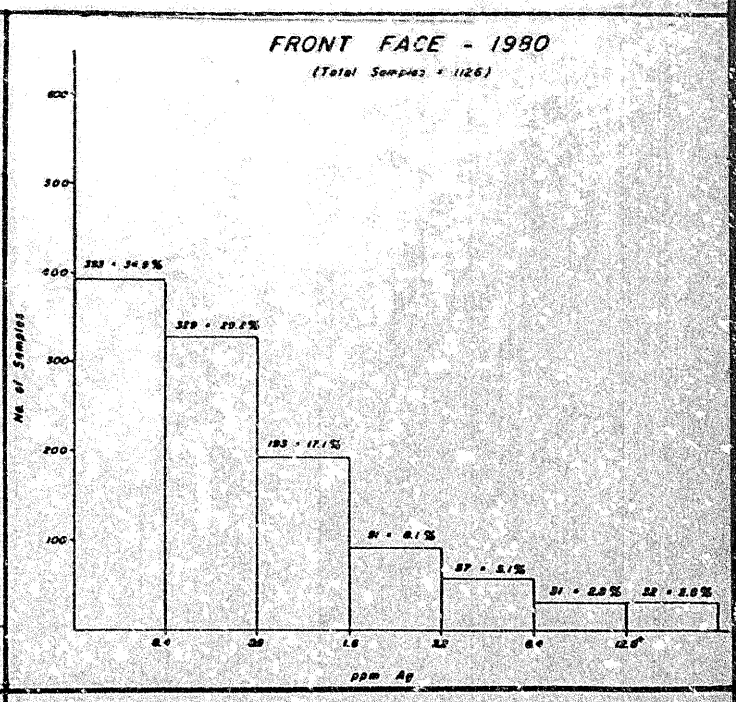
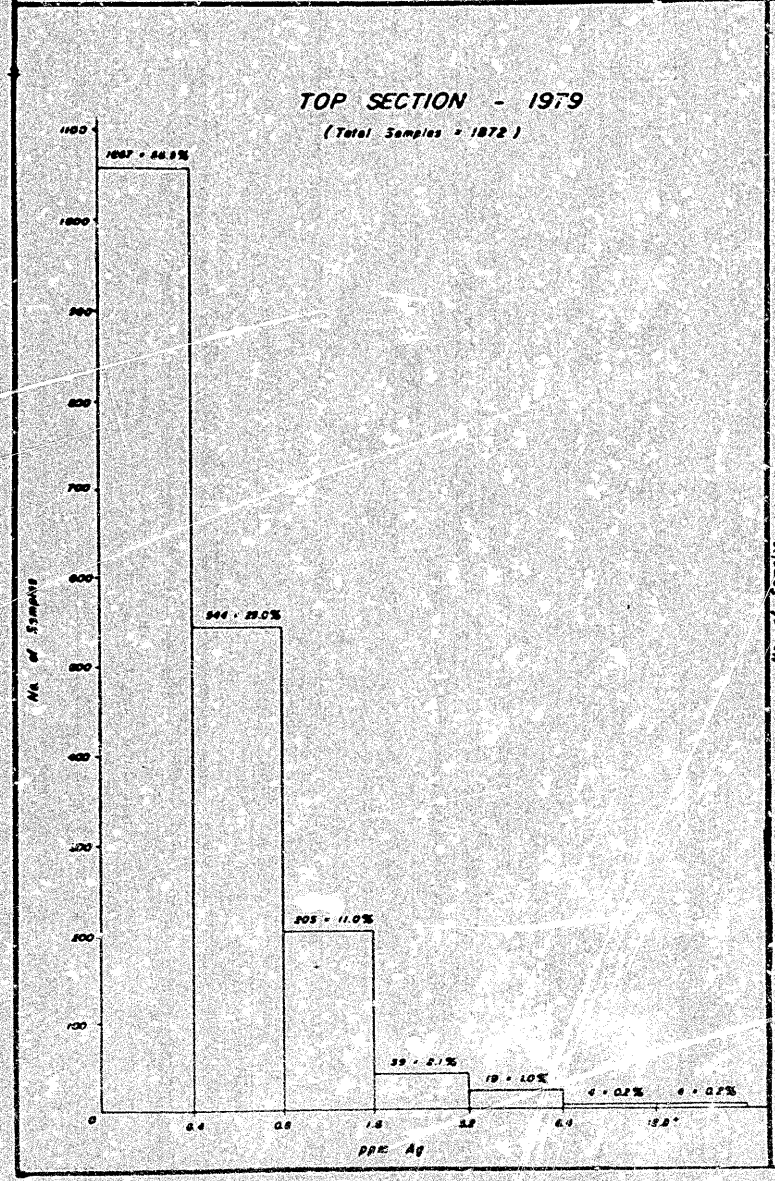


FIG. 7

SILVER - HISTOGRAM COMPARISON







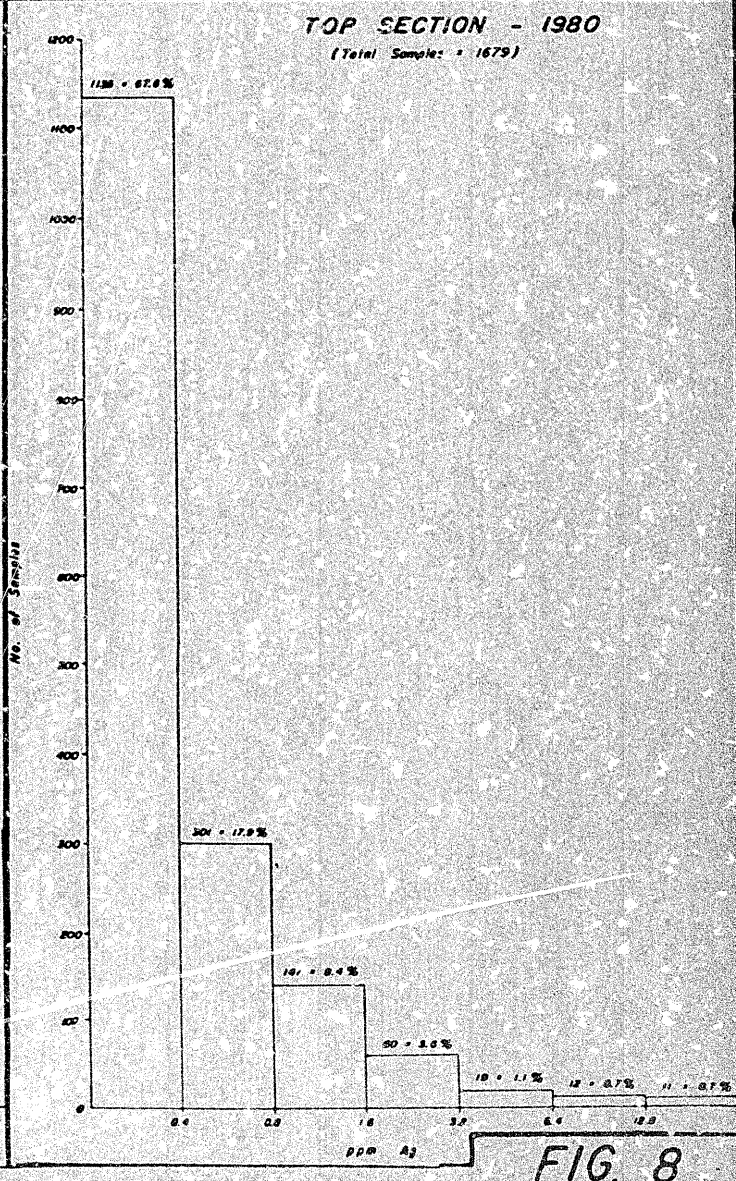
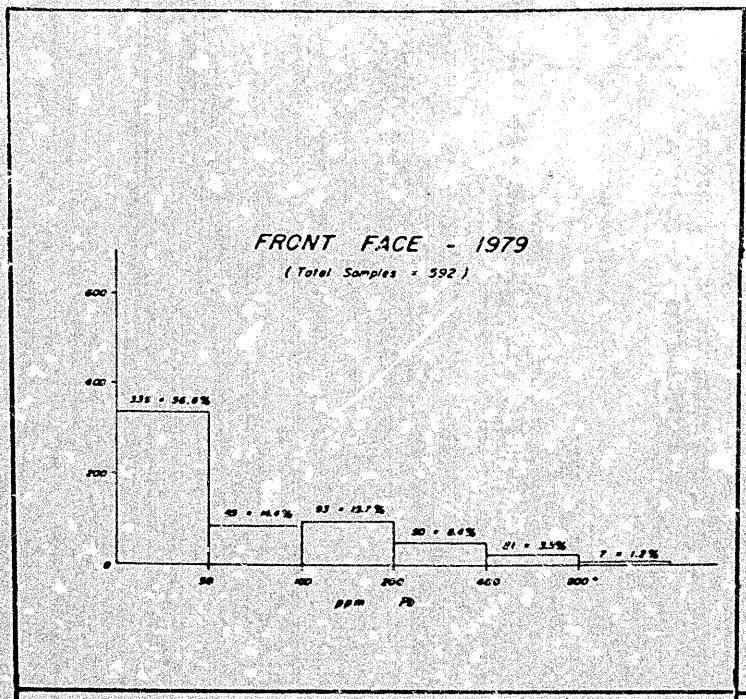
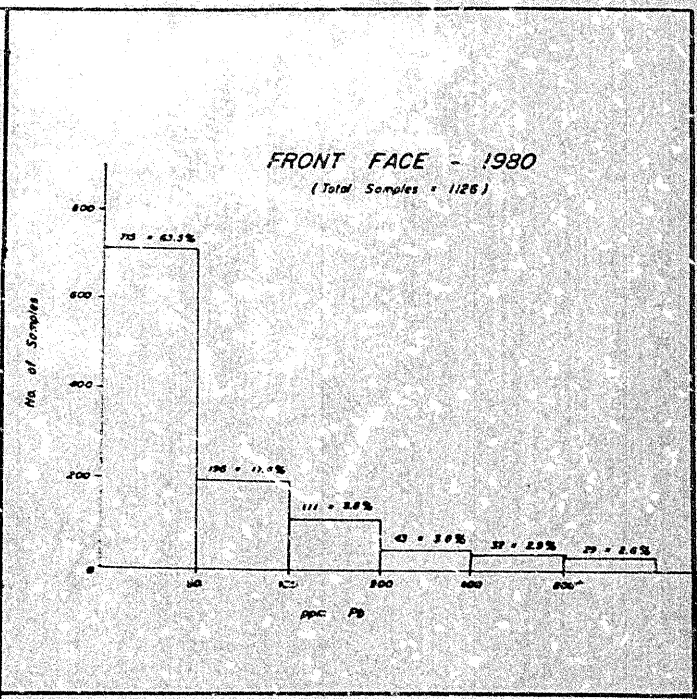
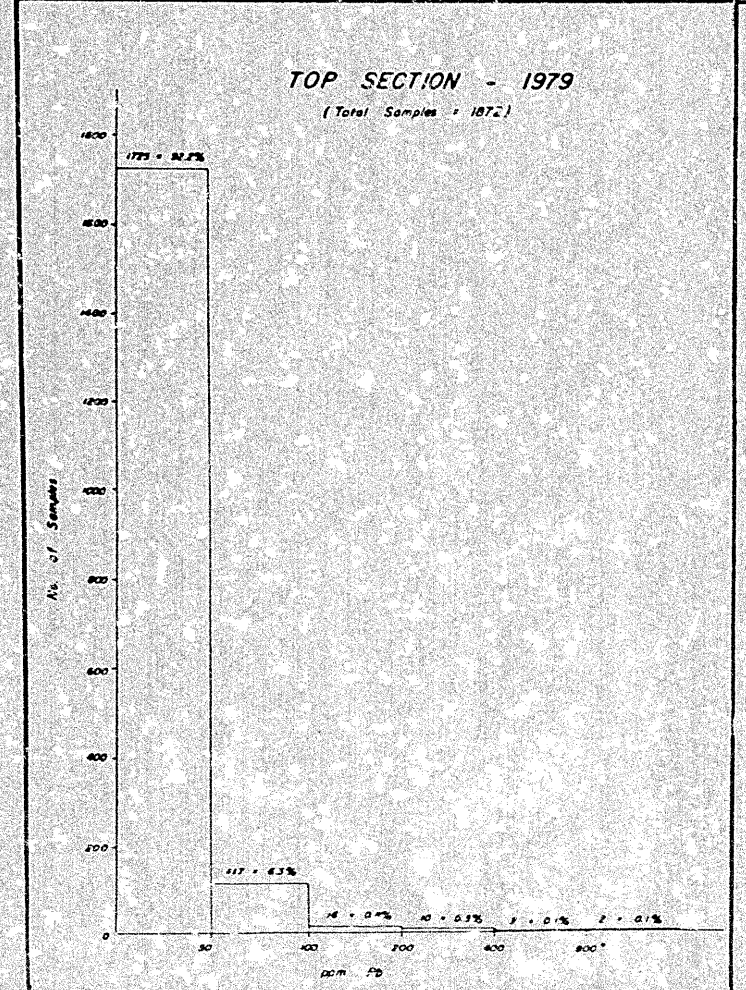


FIG. 8

LEAD - HISTOGRAM COMPARISON







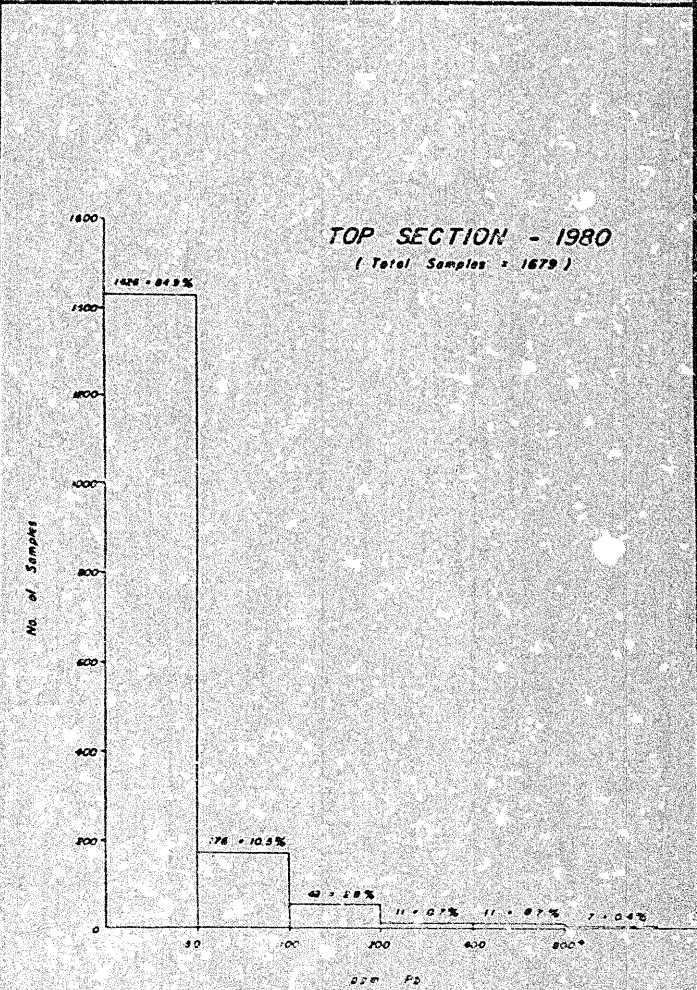
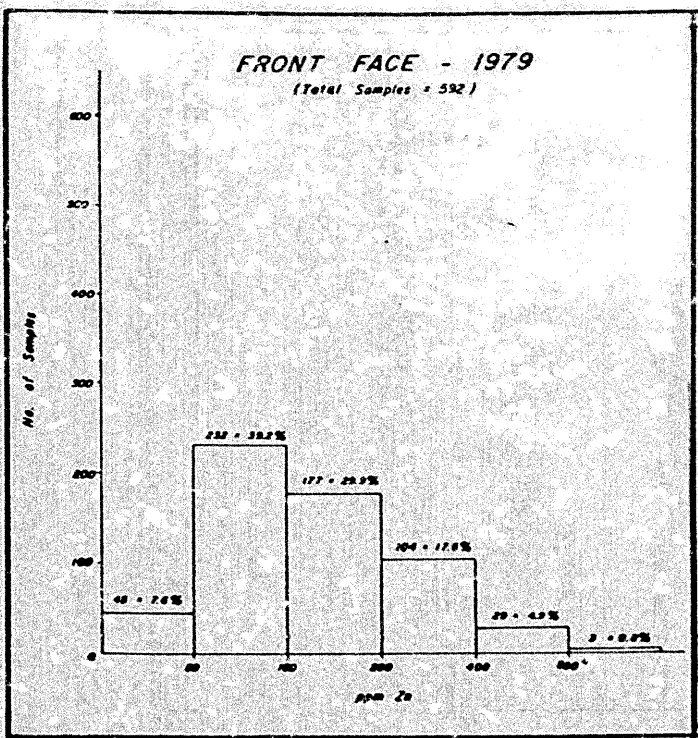
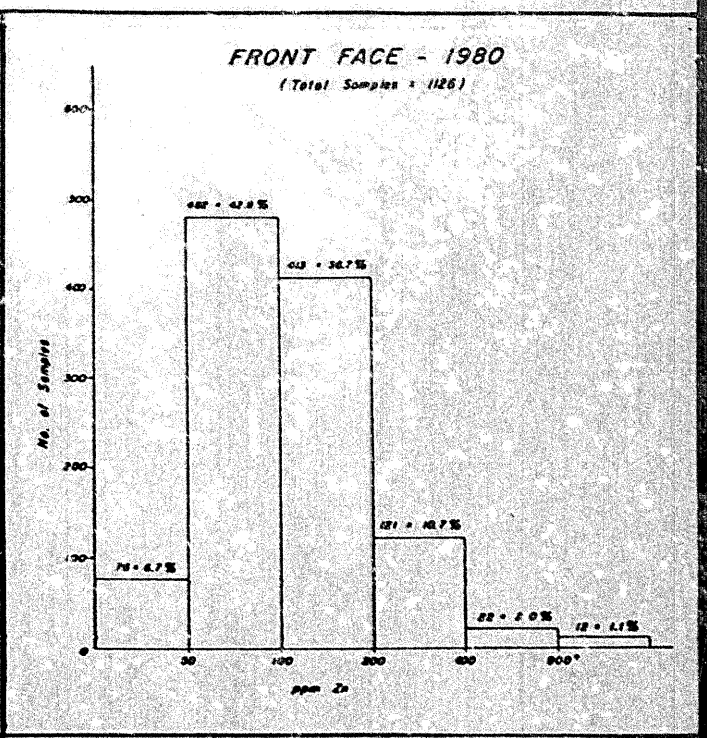
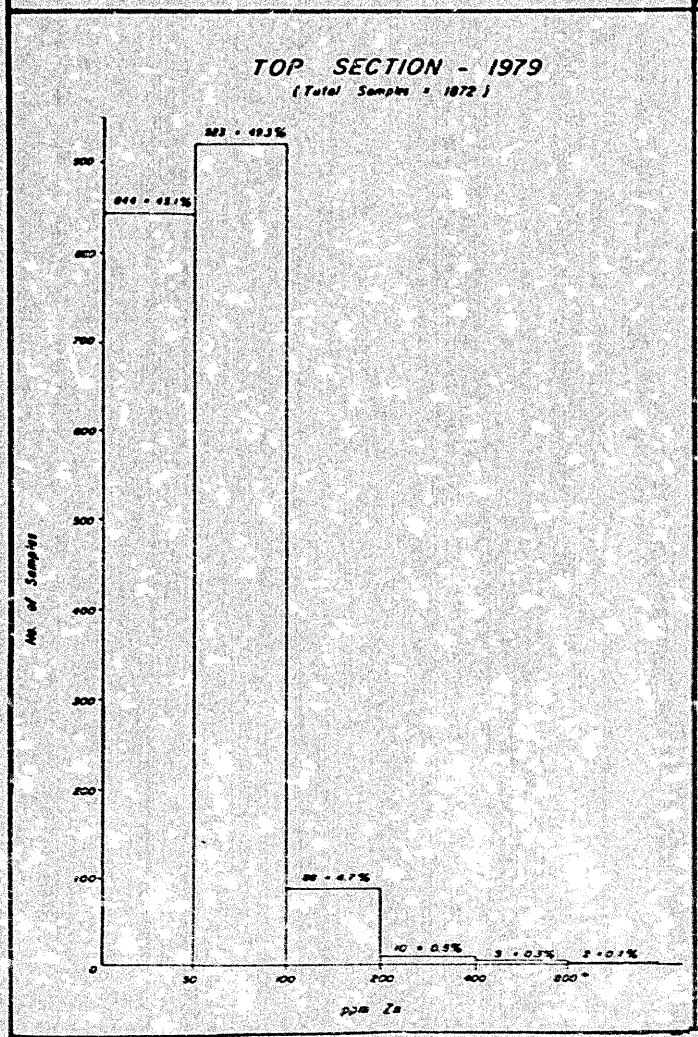


FIG. 9

ZINC - HISTOGRAM COMPARISON







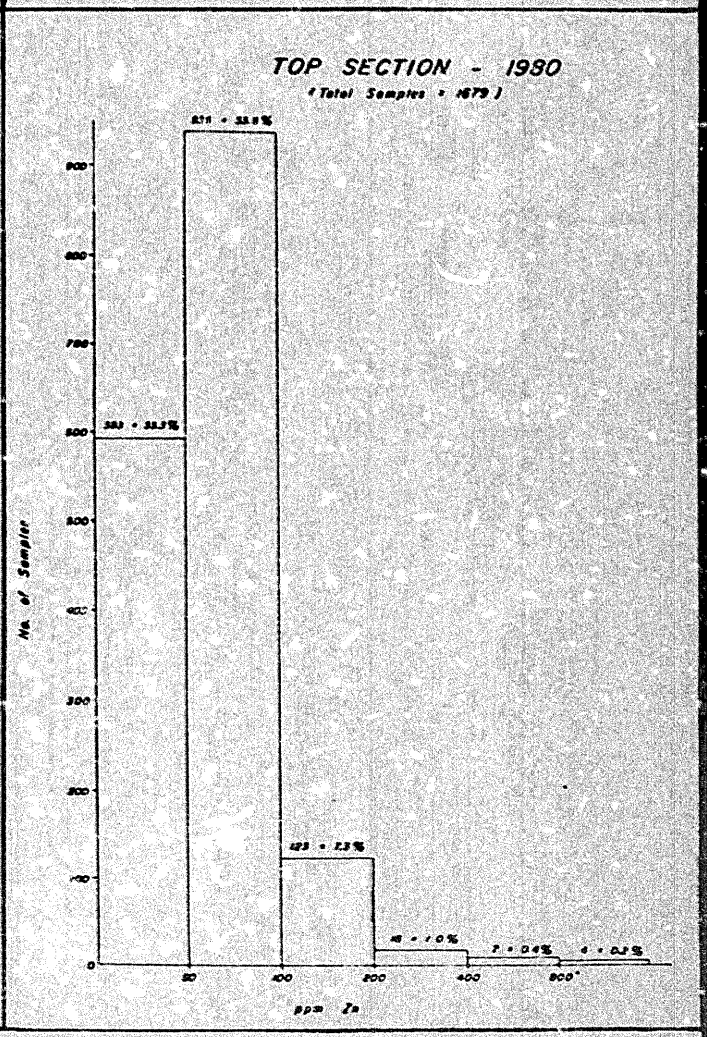


FIG 10

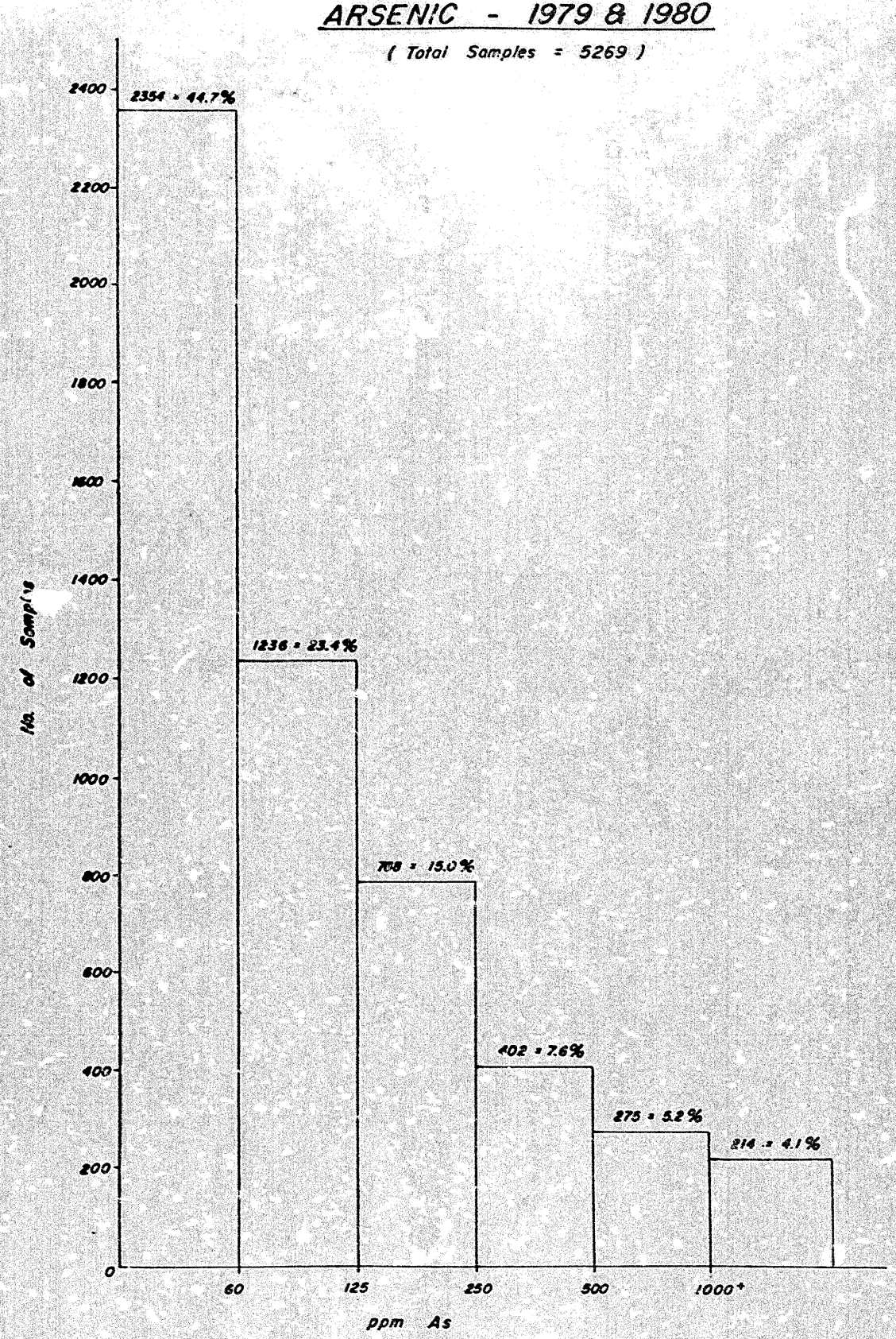

ARSENIC - 1979 & 1980
(Total Samples = 5269)
No. of Samp'ls
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
2354 = 44.7%
1236 = 23.4%
798 = 15.0%
402 = 7.6%
275 = 5.2%
214 = 4.1%
60
125
250
500
1000+
ppm As

FIG. 11

SILVER - 1979 & 1980

(Total Samples = 5269)

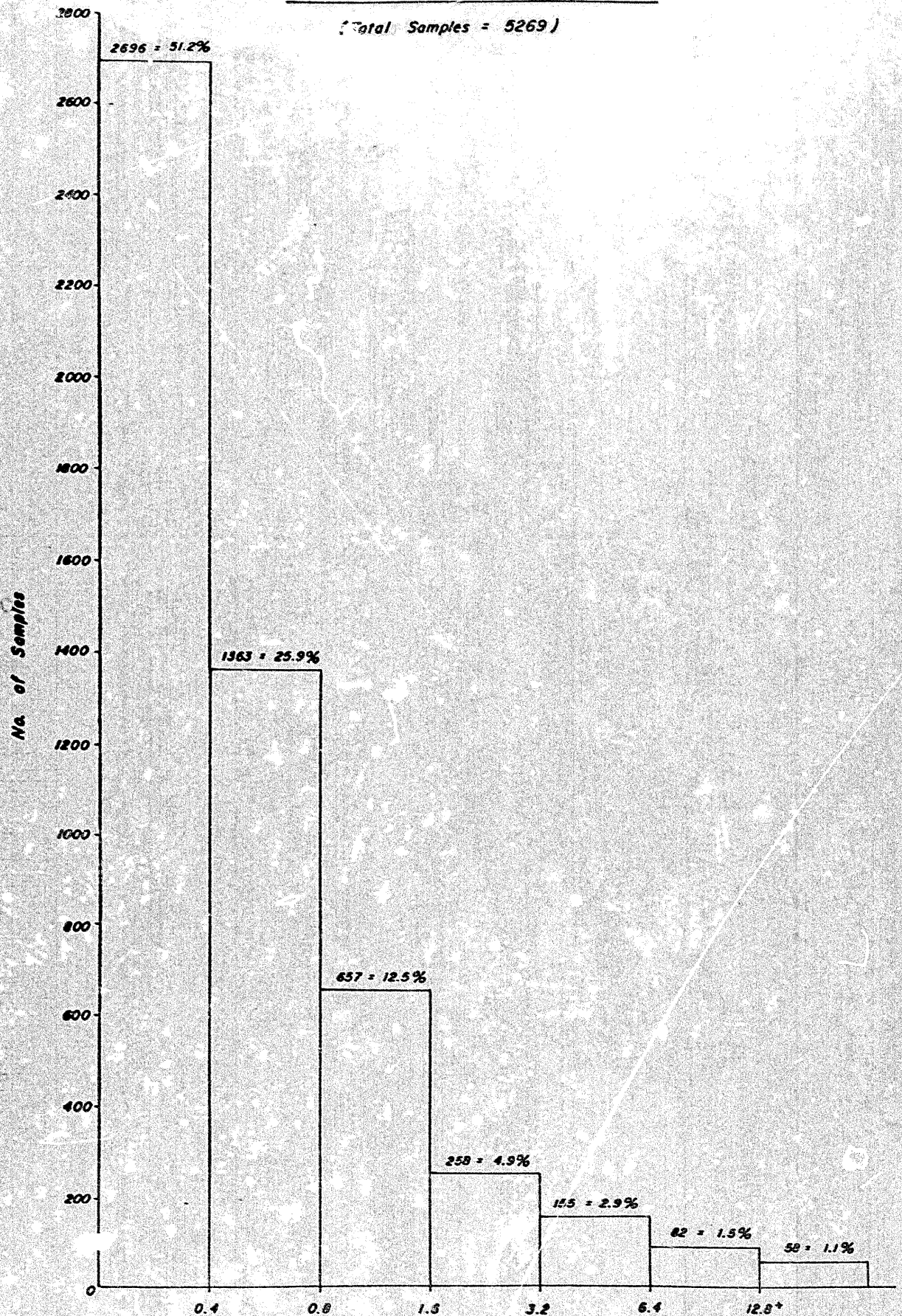


FIG. 12

LEAD - 1979 & 1980

(Total Samples = 5269)

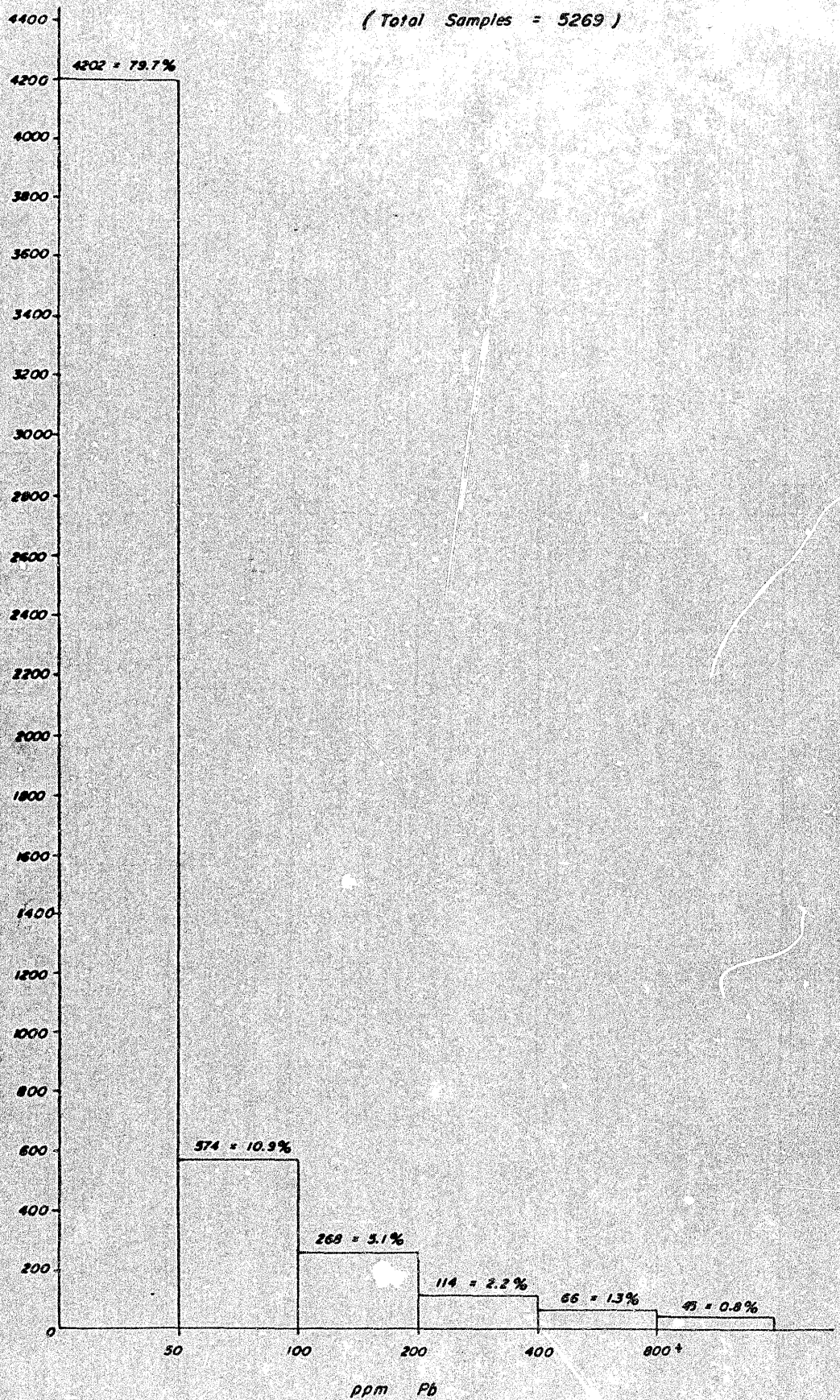


FIG. 13

ZINC - 1979 & 1980

(Total Samples = 5269)

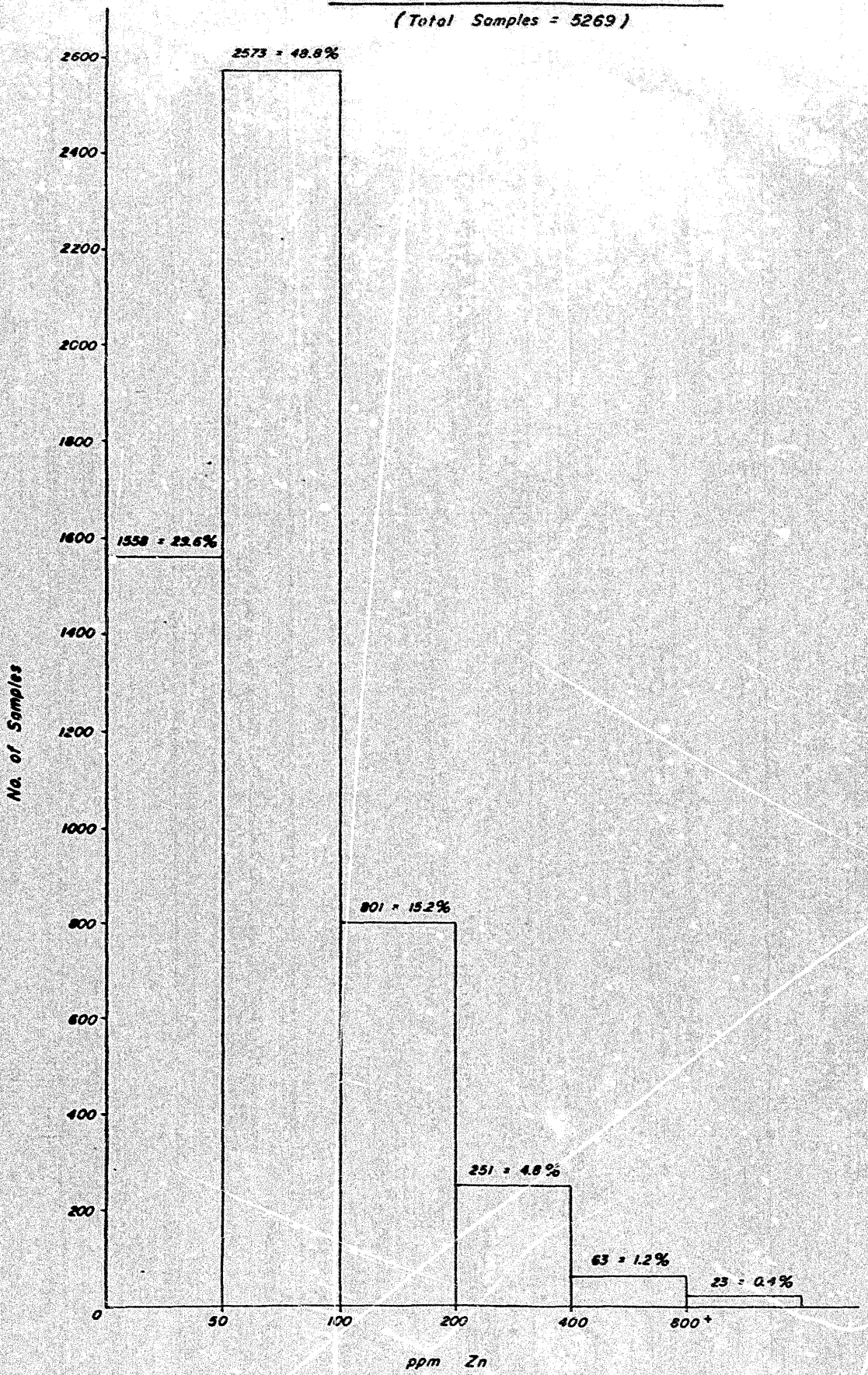


FIG. 14

Many anomalies reflect the presence of old mine dumps.

There are several large arsenic anomalies which do not correlate with other elements. Field follow-up is required to determine if these anomalies are reflecting sub-surface mineralization.

2. Anomalous Areas -

(a) Venus Vein Area -

Highly anomalous, multi-element anomalies are associated with dumps from workings on the Venus Vein. The largest of these are associated with dumps from the 2900' adit, the 2600' adit and the Venus 2 adits. Samples from the Venus 2 dump returned the highest results for the property.

Multi-element anomalies are present above the 2900' adit, the Venus 2 and Venus 1 workings. These anomalies cannot be correlated to any known vein systems.

Anomalies are present on the shoreline of Windy Arm below the 2600' and 2900' dumps and are directly related to these dumps.

Spot anomalies are present on Pooly Point. Pooly Point is a delta so the anomalies occur in transported material.

(b) Nipper Creek Area -

A multi-element, spot anomaly is directly related to the Nipper 2 dump.

An east-west trending, multi-element anomaly is located to the west of the Nipper 2 and may represent the Beach vein.

An anomaly is located on the shoreline of Windy Arm, south-east of Nipper 2. This area is the former delta of Nipper Creek, which has now been diverted to the south-west. Thus the anomaly is due to contamination from upstream sources.

Two spot anomalies are located halfway up the hill at the fork in Nipper Creek. The anomaly just above the fork is related to a narrow, galena bearing quartz vein.

The anomaly just below the fork was investigated with trenching and limited soil sampling but the source was not located.

A spot anomaly is located west of the fork in Nipper Creek and the source of this anomaly is unknown.

A large multi-element anomaly is located just above the Red Deer vein, between the forks of Nipper Creek. This anomaly may be related to the vein system at the head of the West Fork but this requires investigation.

(c) Humper Vein -

A spot anomaly in silver is associated with the Humper vein. This sample was taken in a blast pit on the vein and reflects the character of the Humper Vein as an Ag type vein. Sampling to the southeast of the known workings gave poor responses and no sampling was done on the north-west extension of the vein.

(d) Ruby Silver Area -

A large, multi-element anomaly is located below the Ruby Silver vein. Investigation is required to indicate whether this anomaly is associated with this vein.

(e) Uranus Area -

There are several high, multi-element anomalies in the Uranus area. The anomalies below the Uranus vein reflect the presence of dumps on the vein.

The anomalies above the Uranus vein and south of the West Uranus cannot be correlated with known veins. There are some small quartz veins and old hand trenches near some of the anomalous areas and the anomalies may be reflecting the presence of veins sub-parallel to the Uranus.

There is a major arsenic anomaly with low responses in gold, silver and lead south of the West Uranus. The source of this anomaly is unknown.

There is a moderate multi-element anomaly north of the West Uranus in an area of no known quartz veins.

(f) Joe Petty Area -

Several good silver and arsenic anomalies with moderate zinc, lead and low gold can be related to the Joe Petty vein system.

Strong anomalies are located in the gulches below the Joe Petty adit and shaft. These reflect contamination by dump material.

Anomalies are also located north-west of this area and indicate the northwest extension of the Joe Petty.

Most of the anomalies on the Little Johnny and Reliance claims reflect known veins. The sources of spot anomalies above the known veins near the cat trenching on the Little Johnny are not known.

The anomaly (arsenic plot) at the base of the Reliance Claim, appears to be too far downslope to be reflecting known veins in the area and requires investigation.

(g) Montana Area -

The Montana vein, between the Montana adits and shaft, is reflected in the silver and lead results. Moderate arsenic and zinc and poor gold values were returned for samples collected in this area. This anomaly is due to dump contamination. A spot high to the southeast may reflect another source of mineralization.

The Mountain Hero Claim returned poor, spotty responses which may in part be due to, lack of good sample coverage and sample material.

There are no geochemical responses south of the known workings on the Montana.

(h) Thistle Area -

The workings on the Thistle vein returned low to moderate silver and arsenic with no lead, zinc or gold values.

There is a large arsenic anomaly south of the North Branch of Pooly Creek. This anomaly has moderate responses in lead and zinc with no silver or gold. The source of this anomaly is unknown.

(i) Aurora Lake Area -

There is very little element correlation in the vicinity of Aurora Lake.

A large arsenic anomaly trends southwest from the Columbia workings. This area doesn't have correlative anomalous values for other elements and the source is not known. This anomaly continues as spot anomalies to the southwest. Although there are a few small quartz veins in the area the sources of the anomalies are not known.

The silver plot exhibits a northwest trending anomaly from the Columbia workings. This may be related to a unit of rusty, light coloured tuff.

Lead exhibits several spot anomalies while zinc and gold returned background values.

There is a good arsenic anomaly directly north of Aurora Lake which exhibits non to weakly anomalous responses from the other elements. The source of this anomaly is unknown.

A spot anomaly is located at the edge of the sampled area, northwest of Aurora Lake. There is mineralization of some of the rusty light volcanics in this area which may be the source of this anomaly.

The Aurora and South Aurora veins exhibit poor geochemical expressions.

(j) Matheson Lake Area -

There is a large arsenic anomaly immediately northwest of Matheson Lake. This is reflected as two moderate anomalies in silver and lead with gold and zinc showing no expression.

The source of this anomaly is unknown.

(k) Dail Peak Area -

A large arsenic anomaly is located 3,000 feet northwest of Dail Peak. This anomaly is not reflected by the other element, and the source is unknown.

TAILINGS POND - ARCTIC GOLD & SILVER MINES LIMITED:-

The Arctic Gold and Silver Mines Limited began production in 1968 with a 300 ton per day mill. Reserves were quoted as being 255,000 tons grading 0.68 oz/ton gold and 19.7 oz/ton silver. Between May - December 1968 and March - October 1969 55,943 tons grading about .26 oz/ton gold and 9.0 oz/ton silver were milled to field 14,309 ounces of gold and 425,963 ounces of silver (ACNM1 #9, 105D). These figures indicate recoveries of 98 percent (.255 oz/ton) for gold and 85 percent (7.61 oz/ton) for silver. However, 1980 assay data (Appendix C) suggest that the calculated mill heads were at least 15 percent below actual grades.

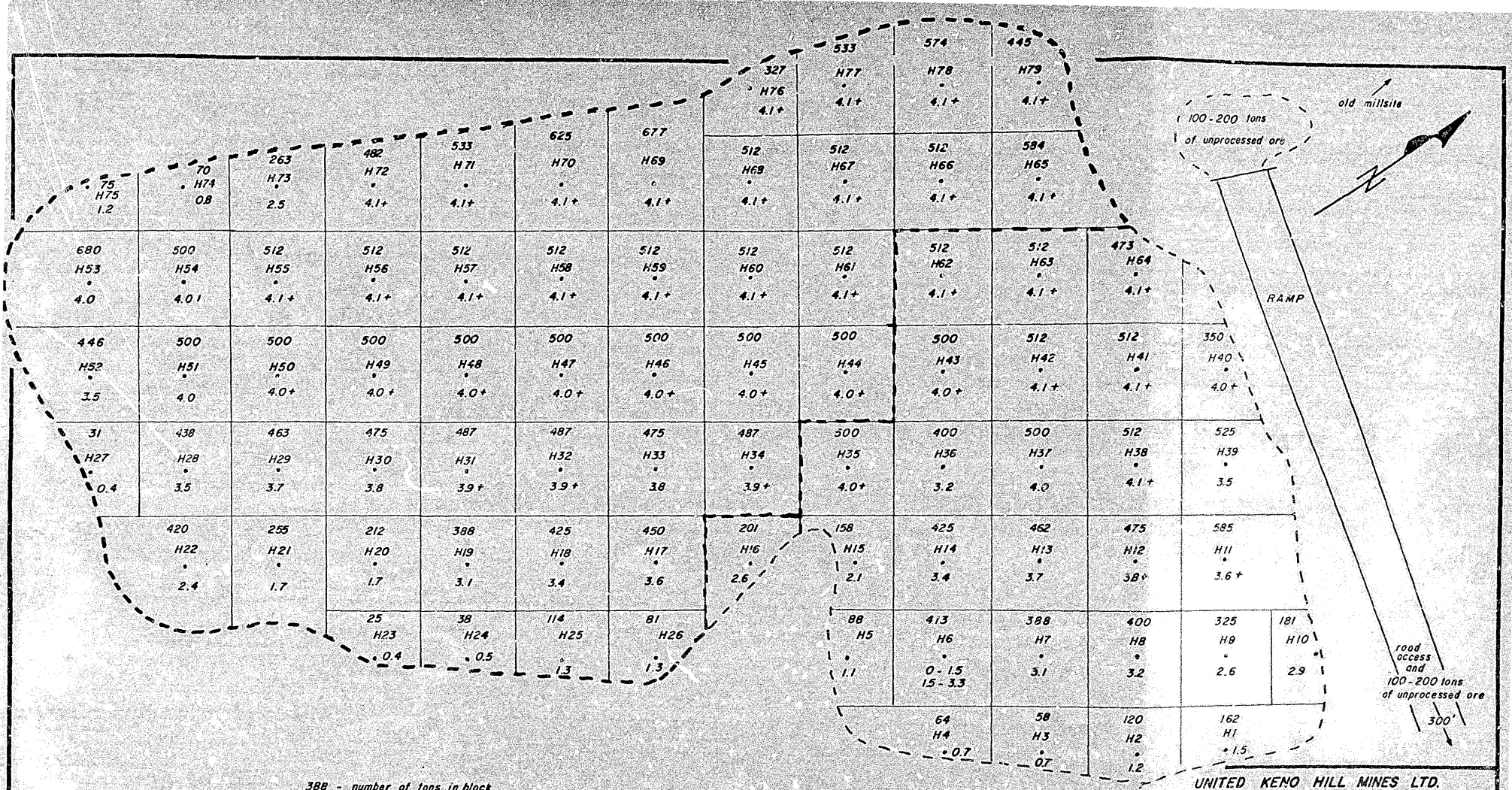
The mill equipment was sold off and the land lease covering the mill site allowed to lapse. A quartz claim (RB) was staked to cover the tailings in the spring of 1979. This claim lapsed in 1980.

The AB 1 Mineral Claim was staked on June 6th, 1980 to cover material in this tailings pond. Unfortunately, the owner of the previous quartz claim had been advised by somebody in the Mining Recorder's Office that the material would be better covered by a placer claim because he intended to use placer methods to process the material. Thus, he allowed the quartz claim to lapse and staked a placer claim on May 30, 1980. Although there is some discussion as to the type of placer claim granted, a lawyer for the Mining Recorder advised that the Intent Sections of the Acts give the minerals to the owner of the placer claim.

R. Joy met with the Mining Recorder, Whitehorse District and the Supervising Mining Recorder to discuss the situation. It would appear that neither of the Mining Acts really cover such material. However, the Mining Recorder will grant both claims. The AB 1 claim will be subject to the rights of the placer claim. This AB 1 Claim may be kept in good standing by paying $100.00 per year in lieu of assessment work. Should the placer claim be allowed to lapse, no other placer claims will be permitted without seeking the consent of United Keno (owner of the quartz claim).

Before anything had been resolved or the claim granted a sampling program was carried out. This program involved drilling seventy-nine (79) four (4) inch drill holes on fifty (50) foot centers (Figure 7). A small hand operated power auger with a depth capacity of 4.1 ft. was used for this work.

All samples were assayed for gold, silver, lead, and zinc. Ore reserve calculations (Appendix C) indicates a selected area contains at least 21,685 tons of material that grades 0.04 oz/ton Au, 3.15 oz/ton Ag, 0.20% Pb, and 0.03% Zn. It is estimated that another 20,000 tons of similar grade material is present.



388 - number of tons in block
H19 - hole number
• - auger hole location
3.1 - hole depth in feet, 4" diameter
\+ - indicates bottom not reached
- - - ore grade material

Hole numbers 1 to 5 = assay numbers 2601 to 2605 respectively
Hole number 6 = assay numbers 2606 & 2607
Hole numbers 7 to 79 = assay numbers 2608 to 2680 respectively

UNITED KENO HILL MINES LTD.
EXPLORATION DEPARTMENT
WHITEHORSE — YUKON

ARTIC TAILINGS POND

Auger drill hole locations (approx.) & ore reserve blocks with no. of tons

Mining District Whitehorse
N.T.S. Sheet No. 105-D-2
Scale 1 inch = 50 feet

Drawn by R.J.J. | Date 04/09/80

BCIL - 3063 - U.K.H.M.

FIG. 15



Photo 9 - Arctic Gold and Silver Mines Limited Tailings Pond, looking north. Stakes with red flags mark U.K.H.M. auger test holes.

Two types of material are present in most holes. The upper layer was present in almost all auger holes and consisted of fairly dry pale yellow to greenish white granular material. This material was dominant in much of the non-ore portion of the tailings. A lower layer of dark grey moist, sulphide-rich clayey material was present in the bottom of most holes in the ore-grade material. Assay samples 2606 and 2607 were taken of the light and dark materials in Hole 6. These samples show a three-fold increase in metal values in the dark layer. All other samples are composites. Thus, additional reserves may have considerably higher grades than suggested in the ore reserve.

Any further work by United Keno would require the permission of the owner of the placer claim (William Wilson) or posting a bond. The Mining Recorder would advise whether a bond was required and, should one be necessary, the amount.

APPENDIX A

GEOLOGICAL MAPPING by:-

Ken Watson,
Project Geologist,
United Keno Hill Mines Ltd.,
409 Black Street,
Whitehorse, Yukon — July 20 - September 2

Assisted by -

John Fisher,
298 University Ave.,
Kingston, Ontario — July 20 - September 2

GEOCHEMICAL SAMPLING by:-

Mike Kelly,
316 McLean Ave.,
Selkirk, Manitoba — May 22 - July 31

Pierre Maheux,
30 Paultiel Drive,
Willowdale, Ontario — May 22 - August 12

Brent Bailey,
76 Hampton Cres.,
London, Ontario — May 22 - May 28

Janette Haase,
307 Alfred St.,
Apt. #1,
Kingston, Ontario — May 29 - June 1

Scott Corden,
Box 733,
Morrisburg, Ontario — May 29 - June 17

Bob Saunders,
37 Shouldice Ct.,
Willowdale, Ontario — May 29 - June 17

Robert Nolin,
305 Leighton Ave.,
Winnipeg, Manitoba — August 2 - August 12

Paul Kynas,
Whitehorse, Y.T. — August 16 - August 19

HELICOPTER SUPPORT by:-

Trans North Turbo Air,
Whitehorse, Yukon

Shirley Helicopters Ltd.,
Whitehorse, Yukon

Keystone Helicopters Ltd.,
Whitehorse, Yukon

GEOCHEMICAL ANALYSES by:-

Bondar-Clegg and Company Ltd.,
136B Industrial Road,
Whitehorse, Yukon

ASSAY DETERMINATIONS by:-

Assay Lab,
United Keno Hill Mines Ltd.,
Elsa, Yukon

APPENDIX B

APPENDIX B

LOGISTICS:-

PROJECT: Project No. 41 - Venus Property

TERRAIN: Mountainous

MAIN BASE: Whitehorse

OPERATING CAMPS: 3 at strategic locations

CREWS: Geology - geologist and assistant
Soil Sampling - two soil samplers

HELICOPTER TIME DISTRIBUTION:-

MILL SITE:	Hours Flown
Mill equipment and site work	5.2
Staking MOL Claims	3.0
EXPLORATION:	
Camp moves and supply	13.1
TOTAL	21.3

APPENDIX B

1980 DISTRIBUTION OF MAN DAYS - VENUS PROPERTY

	MAY	JUNE	JULY	AUGUST	SEPTEMBER	TOTAL	%
Possible Man-Days	36	94	85	90	4	309	100
Days Lost -							
Rain & Other	9	24	35	23	2	93	30.1
Camp Moves	7	6	2	2	2	19	6.1
R & R	-	2	10	7	-	19	6.1
							42.3
Days Worked -							
Geochemistry	20	62	26	25	-	133	43.1
Geology	-	-	12	33	-	45	14.6
							57.7

PROJECT COSTS | VENUS PROPERTY | PROJECT No. 41

GENERAL:-

Salaries & wages	$30,399.00	
Hiring expenses	1,622.00	
Claim taxes	800.00	
Services	504.00	
Communication	85.00	
Stationery & Supplies	65.00	
Maps	162.00	
Staff travel	5,990.00	
	39,627.00	$39,627.00

PROPERTY ACQUISITION:-

Legal fees	1,510.00	
Assessment fees	4,012.00	
	5,522.00	5,522.00

GEOLOGICAL:-

Company labour	5,521.00	
Equipment & supplies	89.00	
	5,610.00	5,610.00

GEOCHEMICAL:-

Sampling Equipment & Supplies	1,251.00	
Company labour	7,542.00	
Contract Analysis	19,671.00	
	28,464.00	28,464.00

ASSAYING and RESEARCH:-

Assaying	208.00	
Mill testing	9,732.00	
Transportation	79.00	
	10,019.00	10,019.00

CAMP OPERATION:-

Equipment & Supplies	592.00	
Food	3,743.00	
Fuel	174.00	
Equipment repair	345.00	
	4,854.00	4,854.00

AIRCRAFT CHARTER:-

Charter costs	5,765.00	5,765.00

VEHICLES:-

Operating supplies	166.00	166.00
	TOTAL	$100,027.00

SILT / SOIL SAMPLE STATISTICS

Project: VENUS Dates of Program: May 22, 1980 to Aug. 12, 1980

Number of Samples Collected: 2805

Metals Analyzed: As Ag Pb Zn Au

Samplers: M. Kelly, P. Maheux, B. Bailey
R. Saunders, S. Corden
J. Haase, R. Nolin

Man days: 133 (operating)

Samples collected / man-day: 21.1

Pb

Values in ppm	No. in Range	% of Total
0- 49	2141	76.3
50- 99	372	13.3
100-199	159	5.7
200-399	54	1.9
400-799	43	1.5
800+	36	1.3

As

Values in ppm	No. in Range	% of Total
0- 59	1239	44.2
59-124	594	21.2
125-249	490	17.4
250-499	255	9.1
500-999	137	4.9
1000+	90	3.2

Zn

Values in ppm	No. in Range	% of Total
0- 49	669	23.8
50- 99	1418	50.6
100-199	536	19.1
200-399	137	4.9
400-799	29	1.0
800+	16	0.6

Au

Values in ppb	No. in Range	% of Total
0- 49	196	53.2
50- 99	64	17.4
100-199	43	11.7
200-399	25	6.8
400-799	15	4.1
800+	25	6.8
TOTAL	368	

Ag

Values in ppm	No. in Range	% of Total
0.0-0.39	1528	54.5
0.4-0.79	630	22.5
0.8-1.59	334	11.9
1.6-3.19	151	5.4
3.2-6.39	76	2.7
6.4-12.79	43	1.5
12.8+	43	1.5

Values in ppm	No. in Range	% of Total

APPENDIX D

ASSAY RESULT FORMS

1979 and 1980

ASSAY RESULT FORM

DATE			Tag No.	Location and Description	ASSAY RESULTS								
D	Mo.	Yr.			Au oz/ton	Ag oz/ton	Pb %	Zn %	Cu %	Mo %	W %		
04	06	79	6001	MD VEIN - Shaft - 0.4' chip at 15' into shaft	0.03	1.13	0.34	0.01					
04	06	79	6002	ES SHAFT - 0.9' chip of upper 3 veins - at 30' into shaft	0.02	0.84	0.30	0.08					
04	06	79	6003	ES SHAFT - 0.5' chip of lpwer 2 veins - at 30' into shaft	0.02	0.58	0.13	0.12					
04	06	79	6004	SL ADIT - 1.1' chip - at 5' from end of adit.	0.96	8.82	0.65	0.03					
04	06	79	6005	SL ADIT - 1.2' chip of upper part of vein - at 20' into adit	0.28	1.64	0.50	0.13					
04	06	79	6006	SL ADIT - 1.3' chip of lower part of vein - at 20' into adit	0.33	18.91	5.63	0.07					
04	06	79	6007	VENUS No. 2 - UPPER X-CUT 1.3' chip at end of NE drift	0.24	15.09	4.45	0.04					
04	06	79	6008	VENUS No. 2 (3150' LEVEL) - 2.0' chip near winze in south drift	0.34	10.94	1.45	0.01					
04	06	79	6009	VENUS No. 2 (3150' LEVEL) - 2.1' chip near 'cave in', in north drift	0.08	0.46	0.14	0.01					
04	06	79	6010	VENUS EXTENSION SHAFT - 2.2' chip at 100' into shaft	0.24	12.24	3.95	0.20					
04	06	79	6011	SHAFT below Venus Extension Shaft 1.3' chip at 42' into adit	0.04	1.56	0.15	0.01					

ASSAY RESULT FORM

DATE			Tag No.	Location and Description	ASSAY RESULTS								
D	Mo.	Yr.			Au oz/ton	Ag oz/ton	Pb %	Zn %	Cu %	Mo %	W %		
09	07	79	1109	Small vein below Ruby Silver Vein 0.15' chip - Galena	0.05	113.95	58.76	0.15					
09	07	79	1110	RUBY SILVER VEIN - Shaft - 0.5' chip at portal	1.90	109.14	1.00	0.09					
09	07	79	1097	NIPPER No. 2 - 1.0' chip of alteration zone on surface	0.005	0.46							
09	07	79	1098	NIPPER No. 2 - 3.0' chip of vein and alteration zone by portal	0.02	0.52							
09	07	79	1099	NIPPER No. 2 - 0.4' chip at end of adit	0.03	1.27	0.48	Tr					
09	07	79	1100	NIPPER No. 2 - 1.0' chip at 15' into adit	0.08	0.42	0.08	0.01					
08	08	79	1111	HUMPER VEIN - 1.2' chip at entrance to middle shaft	0.05	111.69	0.15	0.01					
12	08	79	1112	VENUS VEIN - 2.0' chip on surface exposure to N of SL ADIT	0.10	0.78	0.10	0.01					
12	08	79	1113	SC ADIT - 1.4' chip of vein and shear zone at end of adit	0.03	1.13	0.39	0.11					
12	08	79	1114	SC ADIT - 0.5' chip at 20' from end of adit	0.37	10.63	3.00	0.18					
12	08	79	1115	SC ADIT - 0.4' chip at 35' into adit	0.01	0.28	0.26	0.29					

ASSAY RESULT FORM

DATE			Tag No.	Location and Description	ASSAY RESULTS								
D	Mo.	Yr.			Au oz/ton	Ag oz/ton	Pb %	Zn %	Cu %	Mo %	W %		
12	08	79	1116	UPPER VAULT - 0.3' chip at 360' into adit	0.01	0.42	0.38	0.03					
12	08	79	1117	UPPER VAULT - 2.5' chip at 300' into adit	0.24	22.76	9.72	11.04					
12	08	79	1118	UPPER VAULT - 2.0' chip at 270' into adit	1.72	92.08	5.46	1.36					
12	08	79	1119	UPPER VAULT - 2.0' chip at 225' into adit	0.01	0.24	0.35	0.03					
12	08	79	1120	UPPER VAULT - 1.0' chip at 200' into adit	0.04	12.52	7.39	2.10					
12	08	79	1121	UPPER VAULT - 1.2' chip at 130' into adit	0.01	0.16	0.20	0.05					
12	08	79	1122	UPPER VAULT - 1.8' chip at 100' into adit	0.04	1.92	0.39	0.38					
12	08	79	1123	UPPER VAULT - 0.7' chip at 70' into adit	0.04	6.96	2.80	1.28					
12	08	79	1124	LOWER VAULT - 1.3' chip at 210' into adit	0.02	0.40	0.05	0.01					
12	08	79	1125	LOWER VAULT - 0.5' chip at 100' into adit	0.02	0.08	0.03	0.01					
12	08	79	5117	FLOAT VEIN - 0.5' chip at portal to small adit	0.42	10.92	4.25	0.05					

ORE RESERVES IN TAILINGS - ARCTIC GOLD & SILVER M. L.

			ASSAYS					ASSAYS x TONS			
Assay#	Hole #	Depth	*Tons	Au oz/t	Ag oz/t	% Pb	% Zn	Au x tons	Ag x tons	Pb x tons	Zn x tons
2643	42	4.1	512	.04	1.53	.10	.01	20.48	783.36	51.12	5.12
2644	43	4.0	500	.02	1.58	.08	.01	10.00	790.00	40.00	5.00
2663	62	4.1	512	.03	1.55	.10	.02	15.36	793.60	51.12	10.24
2664	63	4.1	512	.03	1.73	.10	.02	15.36	885.76	51.12	10.24
2665	64	4.1	473	.07	2.14	.11	.02	33.11	1012.22	52.03	9.46
TOTAL			10313	.03	1.49	.10	.02	354.90	15412.02	1009.60	172.51

* tonnage factor 20 cu. ft.

ORE RESERVES IN TAILINGS - ARCTIC GOLD & SILVER M. L.

				ASSAYS				ASSAYS x TONS			
Assay#	Hole #	Depth	*Tons	Au oz/t	Ag oz/t	% Pb	% Zn	Au x tons	Ag x tons	Pb x tons	Zn x tons
2601	1	1.5	162	.03	1.19	.09	.01	4.86	192.78	14.58	1.62
2602	2	1.2	120	.04	1.02	.08	.01	4.80	122.40	9.60	1.20
2603	3	0.7	58	.03	1.30	.10	.01	1.74	75.40	5.80	.58
2604	4	0.7	64	.06	2.19	.12	.01	3.84	140.16	7.68	.64
2605	5	1.1	88	.10	1.57	.10	.01	8.80	138.16	8.80	.88
2606	6	1.5	187	.02	1.10	.08	.01				
2607	6	1.8	225	.07	3.51	.20	.06	20.65	995.33	57.82	12.39
2608	7	3.1	388	.04	1.19	.08	.01	15.52	461.72	31.04	3.88
2609	8	3.2	400	.04	1.20	.09	.01	16.00	480.00	36.00	4.00
2610	9	2.6	325	.05	1.28	.09	.01	16.25	416.00	29.25	3.25
2611	10	2.9	181	.07	1.46	.08	.01	12.67	264.26	14.48	1.81
2612	11	3.6	585	.03	0.88	.06	.01	17.56	514.80	35.10	5.85
2613	12	3.8	475	.04	1.18	.08	.01	19.00	560.50	38.00	4.75
2614	13	3.7	462	.03	1.30	.09	.03	13.86	600.60	41.58	13.86
2615	14	3.4	425	.03	1.44	.12	.02	12.75	612.00	51.00	8.50
2616	15	2.1	158	.06	1.46	.11	.02	1.08	230.68	17.38	3.16
2617	16	2.6	201	.01	1.75	.15	.07	2.01	351.75	30.15	4.02
2636	35	4.0	500	.01	1.73	.14	.03	5.00	865.00	70.00	15.00
2637	36	3.2	400	.01	1.31	.09	.01	4.00	524.00	36.00	4.00
2638	37	4.0	500	.04	1.28	.08	.01	20.00	640.00	40.00	5.00
2639	38	4.1	512	.05	1.48	.10	.01	25.60	757.76	51.12	5.12
2640	39	3.5	525	.03	1.74	.11	.03	15.75	913.50	57.75	15.75
2641	40	4.0	350	.01	1.58	.10	.02	3.50	553.00	35.00	7.00
2642	41	4.1	512	.03	1.44	.09	.02	15.36	737.28	46.08	10.24

* tonnage factor 20 cu. ft.

ORE RESERVES IN TAILINGS - ARCTIC GOLD & SILVER M. L.

				ASSAYS				ASSAYS x TONS			
Assay#	Hole #	Depth	*Tons	Au oz/t	Ag oz/t	% Pb	% Zn	Au x tons	Ag x tons	Pb x tons	Zn x tons
2678	77	4.1+	533	.07	2.20	.14	.02	37.31	1172.60	74.62	10.66
2679	78	4.1+	574	.05	2.30	.16	.03	28.70	1320.20	91.84	17.22
2680	79	4.1+	445	.05	2.08	.13	.03	22.25	925.60	57.85	13.35
TOTAL	PROVEN		21,685	.04	3.15	.20	.03	925.11	68362.08	4312.67	754.66
	PROBABLE		20,000	.04	3.15	.20	.03				
TOTAL	PROV + PROB		41,685	.04	3.15	.20	.03				

* tonnage factor 20 cu. ft.

ORE RESERVES IN TAILINGS - ARCTIC GOLD & SILVER M. L.

				ASSAYS				ASSAYS x TONS			
Assay#	Hole #	Depth	*Tons	Au oz/t	Ag oz/t	% Pb	% Zn	Au x tons	Ag x tons	Pb x tons	Zn x tons
2651	50	4.0+	500	.05	5.58	.33	.06	25.00	2790.0	165.00	30.00
2652	51	4.0	500	.06	4.60	.27	.04	30.00	2300.0	135.00	20.00
2653	52	3.5	446	.07	4.94	.31	.05	31.22	2203.24	138.26	22.30
2654	53	4.0	680	.05	2.36	.14	.01	34.00	1604.80	95.20	6.80
2655	54	4.0+	500	.05	2.61	.16	.01	25.00	1305.00	80.00	5.00
2656	55	4.1+	512	.04	2.45	.16	.01	20.48	1254.40	81.92	5.12
2657	56	4.1+	512	.04	2.72	.17	.01	20.48	1387.52	87.04	5.12
2658	57	4.1+	512	.03	3.28	.22	.04	15.36	1679.36	112.64	20.48
2659	58	4.1+	512	.03	3.43	.24	.06	15.36	1756.16	122.88	30.72
2660	59	4.1+	512	.04	2.61	.18	.03	20.48	1336.32	92.16	15.36
2661	60	4.1+	512	.03	2.10	.15	.03	15.36	1075.20	76.80	15.36
2662	61	4.1+	512	.04	1.41	.10	.02	20.48	721.92	51.20	10.24
2663	65	4.1+	584	.04	1.75	.11	.02	23.36	1022.00	64.24	11.68
2664	66	4.1+	512	.02	1.86	.12	.02	10.24	952.32	61.44	10.24
2665	67	4.1+	512	.06	1.79	.12	.02	30.72	916.48	61.44	10.24
2666	68	4.1+	512	.02	3.42	.25	.04	10.24	1751.04	128.00	20.48
2667	69	4.1+	677	.03	2.44	.18	.04	20.31	1651.88	121.86	27.08
2668	70	4.1+	625	.04	3.42	.23	.03	25.00	2137.50	143.75	18.75
2669	71	4.1+	533	.03	3.28	.22	.04	15.99	1748.24	117.26	21.32
2670	72	4.1+	482	.04	3.46	.23	.03	19.28	1667.72	110.86	14.46
2671	73	2.5	263	.15	2.91	.12	.02	39.45	765.33	31.56	5.26
2672	74	0.8	70	.12	4.70	.30	.01	8.40	329.00	21.00	.70
2673	75	1.2	75	,06	2.78	.15	.01	4.50	208.50	11.25	.75
2674	76	4.1+	327	.17	3.18	.17	.03	55.59	1039.86	55.59	9.81

* tonnage factor-20 cu. ft.

ORE RESERVES IN TAILINGS - ARCTIC GOLD & SILVER M. L.

				ASSAYS				ASSAYS x TONS			
Assay#	Hole #	Depth	*Tons	Au oz/t	Ag oz/t	% Pb	% Zn	Au x tons	Ag x tons	Pb x tons	Zn x tons
2618	17	3.6	450	.10	1.42	.12	.02	45.00	639.0	54.00	9.0
2619	18	3.4	425	.07	2.86	.20	.03	29.75	1215.5	85.00	12.75
2620	19	3.1	388	.03	4.08	.26	.05	11.64	1583.04	100.88	19.40
2621	20	1.7	212	.02	4.66	.27	.04	4.24	987.92	57.24	8.480
2622	21	1.7	255	.03	3.68	.17	.02	7.65	938.40	43.35	5.100
2623	22	2.4	420	.03	4.36	.28	.06	12.60	1831.20	117.60	25.20
2624	23	0.4	25	.04	4.83	.32	.01	1.00	120.75	8.00	.25
2625	24	0.5	38	.02	5.25	.24	.01	.76	199.50	9.12	.38
2626	25	1.3	114	.02	3.71	.23	.03	2.28	422.94	26.22	3.42
2627	26	1.3	81	.01	1.98	.16	.01	.81	160.38	12.96	.81
2628	27	0.4	31	.01	5.36	.27	.02	.31	166.16	8.37	.62
2629	28	3.5	438	.04	5.52	.33	.06	17.52	2417.76	144.54	26.28
2630	29	3.7	463	.03	5.28	.31	.04	13.89	2444.64	143.53	18.52
2631	30	3.8	475	.03	4.68	.26	.06	14.25	2223.00	123.5	28.50
2632	31	3.9+	487	.01	3.34	.21	.04	4.87	1626.58	102.27	19.48
2633	32	3.9+	487	.03	3.74	.25	.05	14.61	1821.38	121.38	24.35
2634	33	3.8	475	.02	3.08	.18	.04	9.50	1463.00	85.80	19.00
2635	34	3.9+	487	.01	2.02	.14	.03	4.87	983.74	68.18	14.61
2645	44	4.0+	500	.02	2.33	.13	.03	10.00	1165.0	65.00	15.00
2646	45	4.0+	500	.04	2.68	.17	.03	20.00	1340.0	85.00	15.00
2647	46	4.0+	500	.03	2.90	.18	.04	15.00	1450.0	90.00	20.00
2648	47	4.0+	500	.05	3.82	.23	.04	25.00	1910.0	115.00	20.00
2649	48	4.0+	500	.03	3.23	.21	.04	15.00	1615.0	105.00	20.00
2650	49	4.0+	500	.04	5.23	.30	.08	20.00	2615.0	150.00	40.00

* tonnage factor-20 cu. ft.

APPENDIX E

ORE RESERVES IN TAILINGS

ARCTIC GOLD & SILVER MINES LIMITED

ASSAY RESULT FORM

DATE			Tag No.	Location and Description	ASSAY RESULTS								
D	Mo.	Yr.			Au oz/ton	Ag oz/ton	Pb %	Zn %	Cu %	Mo %	W %		
26	08	80	2080	JOE PETTY VEIN - sample JP1 - grab		1.26	0.03	0.01	0.01				
26	08	80	2081	JOE PETTY VEIN - sample JP2 - grab		1.59	0.02	0.01	0.01				
26	08	80	2082	JOE PETTY VEIN - sample JP3 - grab	0.04	3.74	0.05	0.01	0.01				
26	08	80	2083	JOE PETTY VEIN - sample JP4 - grab from caved adit dump	0.09	204.85	0.81	0.20	0.09				
26	08	80	2084	JOE PETTY VEIN - sample JP5 - grab - approx. 0.4' width		1.33	0.03	0.01	0.01				
26	08	80	2085	JOE PETTY VEIN - sample JP6 - grab		1.78	0.09	0.01	0.01				

ASSAY RESULT FORM

DATE			Tag No.	Location and Description	ASSAY RESULTS								
D	Mo.	Yr.			Au oz/ton	Ag oz/ton	Pb %	Zn %	Cu %	Mo %	W %		
25	08	80	2071	M & M West Vein Exposure 0.4' chip		1.96	0.05	0.01	0.01				
25	08	80	2072	M&M MAIN ADIT - at 30' from portal - 0.4' chip	Tr	63.2	0.34	0.03	0.04				
25	08	80	2073	M & M MAIN ADIT - SE corner of stope - 0.5' chip	Tr	75.8	0.94	0.07	0.13				
25	08	80	2074	M & M MAIN ADIT - near top of NE corner of stope - 0.3' chip	Tr	277.05	1.10	0.30	0.18				
25	08	80	2075	M & M MAIN ADIT - at 50' from portal - grab	0.17	731.75	1.58	0.20	0.65				
25	08	80	2076	M & M MAIN ADIT - at 65' from portal - 0.6' chip	0.04	4.12	0.12	0.01	0.01				
25	08	80	2077	M & M MAIN ADIT - at 94' from portal - 0.5' chip	0.13	162.80	0.78	0.41	0.20				
25	08	80	2078	M & M No. 2 ADIT - 0.9' chip	0.05	164.55	0.96	0.05	0.07				
25	08	80	2079	M & M No. 3 ADIT - 0.3' chip	0.03	29.4	0.16	0.01	0.01				

ASSAY RESULT FORM

DATE			Tag No.	Location and Description	ASSAY RESULTS								
D	Mo.	Yr.			Au oz/ton	Ag oz/ton	Pb %	Zn %	Cu %	Mo %	W %		
24	08	80	2061	MOUNTAIN HERO UPPER 1 grab from dump	Tr	3.28	0.70	0.02	0.01				
24	06	80	2062	MOUNTAIN HERO UPPER 2 grab from dump	Tr	69.2	3.38	0.30	0.03				
24	08	80	2063	MONTANA SHAFT - quartz, breccia from dump	0.04	6.50	1.92	0.02	0.01				
24	08	80	2064	MONTANA SHAFT - quartz with black sulphide (weathered galena?)	0.10	119.0	49.3	0.10	0.01				
24	08	80	2065	MONTANA SHAFT - quartz with black mineral (pyrolusite?)	0.08	4.92	23.70	0.11	0.01				
24	08	80	2066	MONTANA SHAFT - selected grab from dump	0.10	69.1	23.2	0.05	0.01				
24	08	80	2067	VEIN EXPOSURE - near Montana Shaft - approx. 2' chip/grab	0.05	0.74	0.19	0.06	0.01				
24	08	80	2068	VEIN EXPOSURE - near Montana Adit - approx. 2' chip/grab	0.04	52.9	0.75	2.04	0.09				
24	08	80	2069	OLD MONTANA ADIT - representative grab from dump	0.08	59.5	3.38	0.48	0.09				
24	08	80	2070	MONTANA WOODEN ADIT - representative grab from dump	0.02	22.9	1.80	0.03	0.01				

ASSAY RESULT FORM

DATE			Tag No.	Location and Description	ASSAY RESULTS								
D	Mo.	Yr.			Au oz/ton	Ag oz/ton	Pb %	Zn %	Cu %	Mo %	W %		
25	07	80	2051	Near B/L3 - 39N - 29E - Unit 72 volcanic with pyrite - near soil anomaly	Tr	1.50	0.09	0.03	0.01				
08	08	80	2052	NORTH URANUS No. 1 - 1.7' chip of vein in adit.	Tr	0.06	0.02	0.02	0.01				
08	08	80	2053	NORTH URANUS No. 4 - grab from dump	Tr	0.12	0.04	0.02	0.01				
08	08	80	2054	SOUTH URANUS UPPER ADIT 0.9' chip of vein outside portal	0.96	71.8	15.30	0.32	0.03				
08	08	80	2055	SOUTH URANUS - vein exposure 1.2' chip	1.08	47.9	17.90	0.05	0.02				
08	08	80	2056	SOUTH URANUS LOWER ADIT - 1.5' chip at 4 meters from portal	0.10	1.28	0.52	0.02	0.01				
08	08	80	2057	SOUTH URANUS LOWER ADIT - 1.0' chip at 12 meters from portal	0.06	0.18	0.05	0.07	0.01				
08	08	80	2058	SOUTH URANUS LOWER ADIT - 0.6' chip at 25 meters from portal	0.20	0.51	0.20	0.02	0.01				
08	08	80	2059	SOUTH URANUS LOWER ADIT - 0.8' chip at 32 meters from portal	0.30	4.02	1.55	0.06	0.01				
08	08	80	2060	SOUTH URANUS LOWER ADIT - 0.8' chip at 47 meters from portal	0.04	8.48	0.27	0.01	0.02				

ASSAY RESULT FORM

DATE			Tag No.	Location and Description	ASSAY RESULTS								
D	Mo.	Yr.			Au oz/ton	Ag oz/ton	Pb %	Zn %	Cu %	Mo %	W %		
15	09	79	5137	NORTH URANUS No. 4 - grab from dump	0.22	47.98	0.38	0.03					
15	09	79	5138	SOUTH URANUS UPPER ADIT 1.0' chip by portal	0.44	40.76	14.80	0.10					
15	09	79	5139	SOUTH URANUS LOWER ADIT grab from dump	0.86	6.38	2.70	2.44					

ASSAY RESULT FORM

DATE			Tag No.	Location and Description	ASSAY RESULTS								
D	Mo.	Yr.			Au oz/ton	Ag oz/ton	Pb %	Zn %	Cu %	Mo %	W %		
03	09	79	5126	SOUTH AURORA - grab from dump	0.12	2.64	1.39	0.05					
03	09	79	5127	AURORA VEIN - grab from trench and adit dump	0.13	8.39	0.19	0.32					
03	09	79	5128	COLUMBIA VEIN - grab from trench and adit dump	0.03	0.73	0.01	0.01					
04	09	79	5129	Grab sample of gossen zone in volcanic	Tr	0.10	0.09	0.01					
04	09	79	5130	Grab sample of volcanic		0.01							
08	09	79	5131	Stringer zone - selected chip	0.03	0.13	0.01	0.02					
12	09	79	5132	JOE PETTY VEIN - adit - 3.0' chip at 75' west in drift	0.02	8.52	0.16	0.29	0.04				
12	09	79	5133	JOE PETTY VEIN - Adit - 3.4' chip at 25' east in drift	0.01	2.14	0.08	0.12	0.02				
12	09	79	5134	JOE PETTY VEIN - Shaft - 5.0' chip by entrance to shaft	0.03	87.20	0.44	0.08	0.16				
14	09	79	5135	MONTANA VEIN - WOODEN ADIT - grab sample from dump	0.16	29.64	6.91	2.10	0.06				
14	09	79	5136	MONTANA VEIN - SHAFT - grab sample from dump	0.08	12.88	2.28	0.13	0.01				

ORE RESERVES IN TAILINGS - ARCTIC GOLD & SILVER M. L.

			ASSAYS					ASSAYS x TONS			
Assay#	Hole #	Depth	*Tons	Au oz/t	Ag oz/t	% Pb	% Zn	Au x tons	Ag x tons	Pb x tons	Zn x tons
2643	42	4.1	512	.04	1.53	.10	.01	20.48	783.36	51.12	5.12
2644	43	4.0	500	.02	1.58	.08	.01	10.00	790.00	40.00	5.00
2663	62	4.1	512	.03	1.55	.10	.02	15.36	793.60	51.12	10.24
2664	63	4.1	512	.03	1.73	.10	.02	15.36	885.76	51.12	10.24
2665	64	4.1	473	.07	2.14	.11	.02	33.11	1012.22	52.03	9.46
TOTAL			10313	.03	1.49	.10	.02	354.90	15412.02	1009.60	172.51

* tonnage factor 20 cu. ft.

GHI 68
YA 48046
GHI 48
YA 24140
GHI 67
YA 48043
GHI 70
YA 48048
GHI 50
YA 24142
GHI 49
YA 24141
STEWART
90614
GHI 69
YA 48047
GHI 52
YA 24144
GHI 51
YA 24143
GHI 29
YA 24121
GHI 53
YA 24145
GHI 30
YA 24122
GHI 28
YA 24120
GHI 72
YA 48050
GHI 54
YA 24146
GHI 31
YA 24123
GHI 55
YA 24147
GHI 32
YA 24124
GHI 12
YA 24104
MOUNTAIN HERO
GHI 71
YA 48049
L 35
GHI 56
YA 24148
GHI 33
YA 24125
MONTANA
L 34
GHI 34
YA 24126
GHI 13
GHI 14
YA 24106
BLACK JACK
YA 24105
L 33
GHI 36
YA 24128
GHI 35
YA 24127
JOE PETTY
L 30
GHI 38
YA 24130
GHI 37
YA 24129
RB
YA 24009
GHI 16
YA 24108
GHI 15
YA 24107
GHI 17
YA 24109
LITTLE JOHNNY
L 31
GHI 18
YA 24110
GHI 39
YA 24131
RELIANCE
L 32
GHI 19
YA 24111
GHI 40
YA 24132
GHI 61
YA 24153
COLUMBIA 13
Y 98422
COLUMBIA 11
Y 98420
COLUMBIA 9
Y 98418
GHI 20
YA 24112
GHI 41
YA 24133
GHI 42
YA 24134
GHI 59
YA 24151
GHI 22
YA 24114
GHI 21
YA 24113
GHI 44
YA 24136
GHI 58
YA 24150
VENUS 25
VENUS 12
75100
VENUS 9
75097
VENUS 10
75098
GHI 57
YA 24149
GHI 43
YA 24135
GHI 26
YA 24118
GHI 24
YA 24116
HUMPER 2
L 143
GHI 23
YA 24115
GHI 46
YA 24138
GHI 45
YA 24137
VENUS 8
74720
COLUMBIA 3
Y 98412
COLUMBIA 2
Y 98411
RUBY SILVER
L 23
GHI 27
YA 24119
GHI 25
YA 24117
VENUS 27
BIG TREE
Y 18248
81759
VENUS 7
74719
VENUS
L 20
VAULT
L 26
GHI 47
YA 24139
GHI 8
YA 24180
GHI 10
YA 24102
GHI 9
YA 24101
MAYBELLE
L 78
VENUS 2
L 21
GHI 65
YA 24319
GHI 64
YA 24156
GHI 62
YA 24154
GHI 6
YA 24098
BEACH 5
L 142
KLUANE
73240
NIPPER 2
L 143
VENUS 6
74718
GHI 11
YA 24103
GHI 5
YA 24097
GHI 4
GHI 7
YA 24099
GHI 3
YA 24096
GHI 1
YA 24093
VENUS 5
74717
GHI 66
YA 48044
GHI 2
YA 24094
WINDY ARM
WINDY ARM

UNITED KENO HILL MINES LTD.

VENUS MINES
YUKON TERRITORY

SCALE
400 200 0 400 800 1200 FEET
1 : 4800
CONTOUR INTERVAL 50 FEET

AERIAL PHOTOGRAPHY BY	CONTROL BY
NWSC. DATE: AUG. 1979	HOSFORD, IMPEY & WELTER, WHITEHORSE

NORTH WEST SURVEY CORPORATION (YUKON) LTD.

DRAWN BY: S.S.	DATE: DEC. 1979	SHEET 1 OF 1
CHECKED BY: V.Y.	JOB NO: 79-389	

LEGEND

PROPERTY
- Claim boundary GHI
- Claim boundary VENUS
- Claim boundary other
- Lease boundary VENUS
- Lease boundary other
- Claim posts four; three; two; one

TOPOGRAPHY
- Lakes & Ponds
- Creeks with flow direction
- Treed Areas
- Trails
- Buildings
- Culverts & Bridges
- Highway
- Survey Target
- 3250 Contour Lines
- Swamp
- 2594 Spot High! (elevation)

UNITED KENO HILL MINES LTD.
EXPLORATION DEPARTMENT WHITEHORSE, Y.T.

VENUS AREA
N.T.S. SHEET 105 D 2

PROPERTY LOCATION

NO.	Revision Date	by	NO.	Revision Date	by	NO.	Revision Date	by
1	Feb. 15/1980	J.H.R.						
2	Feb. 18/1980	V.Y.						

FEB. 1980 | SCALE 1" = 1320' | DWG. No.

2 OF 2

MATHESON LAKE

AURORA LAKE

STEWART

MONTANA CREEK

MOUNTAIN HEAD

MONTANA

BLACK JACK

HOSE PETTY

NORTH BRANCH

LITTLE HUMMAT

RELIANCE

RB

DAILREAK

SOUTH BRANCH

NORTH CANYON

WEST CREEK

SOUTH CREEK

WINDY ARM

WINDY ARM

UNITED KENO HILL MINES LTD.

VENUS MINES
YUKON TERRITORY

SCALE

400 200 0 400 800 1200 FEET

1 : 4800
CONTOUR INTERVAL 50 FEET

AERIAL PHOTOGRAPHY BY	CONTROL BY
NWSC. DATE: AUG. 1979	HOSFORD, IMPEY & WELTER, WHITEHORSE

NORTH WEST SURVEY CORPORATION (YUKON) LTD

DRAWN BY	K.K.	DATE	DEC. 1979	SHEET 1 OF 1
CHECKED BY	V.Y.	JOB NO.	79-209	

L E G E N D

Contour Interval

- 100 - 199 p.p.b.
- 200 - 399 p.p.b.
- 400 - 799 p.p.b.
- 800 + p.p.b.

GEOCHEMISTRY

- GHI Claim Group boundary
- VENUS Group boundary
- .23 Sample Location with result
- .N Sample Location, no sample taken
- .0(-) Sample Location, less than detection limit

TOPOGRAPHY

- Lakes & Ponds
- Creeks with flow direction
- Treed Areas
- Trails
- Buildings
- Culverts & Bridges
- Highway
- Survey Target
- 1250 Contour Lines
- Swamp
- 2394 Spot Height

UNITED KENO HILL MINES LTD.

EXPLORATION DEPARTMENT WHITEHORSE, Y.T.

VENUS AREA

N.T.S. SHEET 105 - D - 2

GEOCHEMISTRY

GOLD PLOT in p.p.b.

SCALE 1" = 400'

NO.	Revisions	Date	by	NO.	Revisions	Date	by	NO.	Revisions	Date	by
1.	Feb. 15/1980	A.M.S.		3		Dec. 17/1980	K.W.M.				
2.	Oct. 22/1980	K.K.W.									

FEBRUARY 12/1980

DWG. No.

MATHESON LAKE
W.L. 5279

AURORA LAKE
W.L. 5330

W.L. 5305

W.L. 5302

STEWART

MONTANA CREEK

MOUNTAIN

MONTANA

BLACK JACK

JOE PETTY

NORTH BRANCH

RB

LITTLE JOHNNY

RELIANCE

SOUTH

APPROACH

DAILREAK

NORTH CANYON

POOLY CREEK

WINDY ARM

WINDY ARM

OLD MILL SITE

UNITED KENO HILL MINES LTD.

VENUS MINES
YUKON TERRITORY

SCALE
400 200 0 400 800 1200
FEET FEET

1 : 4800
CONTOUR INTERVAL 50 FEET

AERIAL PHOTOGRAPHY BY	CONTROL BY
NWSC. DATE: AUG. 1979	HOSFORD, IMPEY & WELTER, WHITEHORSE

NORTH WEST SURVEY CORPORATION (YUKON) LTD.

DRAWN BY K.K.	DATE DEC 1979	SHEET 1 OF 1
CHECKED BY V.Y.	JOB NO. 79-289	

L E G E N D

Contour Intervals

- 0.8 - 1.5 p.p.m.
- 1.6 - 3.1 p.p.m.
- 3.2 - 6.3 p.p.m.
- 6.4 - 12.7 p.p.m.
- 12.8 + p.p.m.

GEOCHEMISTRY

- GHI Claim Group boundary
- VENUS Group boundary
- .23 Sample Location with result
- .N Sample Location, no sample taken
- .0(-) Sample Location, less than detection limit

TOPOGRAPHY

- Lakes & Ponds
- Creeks with flow direction
- Treed Areas
- Trails
- Buildings
- Culverts & Bridges
- Highway
- Survey Target
- 5250 Contour Lines
- Swamp
- 2394 Spot Height

UNITED KENO HILL MINES LTD.

EXPLORATION DEPARTMENT WHITEHORSE, Y.T.

VENUS AREA

N.T.S. SHEET 105 - D - 2

GEOCHEMISTRY

SILVER PLOT in p.p.m.

SCALE 1" = 400'

NO.	Revision	Date	by	NO.	Revision	Date	by	NO.	Revision	Date	by
1	Feb. 12/1980		J.M.P.	3	Dec. 4/1980		J.M.P.				
2	" 17/1980		K.M.W.	4	Dec. 9/1980		K.M.W.				

FEBRUARY 12/1980

DWG. No.

MATHESON LAKE
EL. 5929

AURORA LAKE
EL. 5900

STEWART

MONTANA CREEK

MOUNTAIN

NORTH BRANCH

SOUTH BRANCH

BLACK JACK

JOE PETTY

LITTLE JOHNNY

RELIANCE

DAIRREAK

NORTH CANYON

GREEN

WINDY ARM

OLD MILL SITE

UNITED KENO HILL MINES LTD.

VENUS MINES
YUKON TERRITORY

SCALE

400 200 0 400 800 1200 FEET

1 : 4800
CONTOUR INTERVAL 50 FEET

AERIAL PHOTOGRAPHY BY	CONTROL BY
NWSC. DATE: AUG. 1979	HOSFORD, IMPEY & WELTER, WHITEHORSE

NORTH WEST SURVEY CORPORATION (YUKON) LTD.

DRAWN BY K.E.	DATE DEC. 1979	SHEET 1 OF 1
CHECKED BY V.Y.	JOB NO. 79-389	

L E G E N D

Contour Intervals

- 125 - 249 p.p.m.
- 250 - 499 p.p.m.
- 500 - 999 p.p.m.
- 1000 + = m p.p.m.

GEOCHEMISTRY

- GHI Claim Group boundary
- VENUS Group boundary
- .23 Sample Location with result
- .N Sample Location, no sample taken
- .o(-) Sample Location, less than detection limit
- .m 1000 p.p.m. or more than

TOPOGRAPHY

- Lakes & Ponds
- Creeks with flow direction
- Treed Areas
- Trails
- Buildings
- Culverts & Bridges
- Highway
- Survey Target
- 5250 Contour Lines
- Swamp
- + 5284 Spot Height

UNITED KENO HILL MINES LTD.

EXPLORATION DEPARTMENT WHITEHORSE, Y.T.

VENUS AREA

N.T.S. SHEET 105 - D - 2

GEOCHEMISTRY

ARSENIC PLOT in p.p.m.

SCALE 1" = 400'

No.	Revision Date	By	No.	Revision Date	By	No.	Cancelled Date	By	FEBRUARY 12 / 1980	DWG. No.
1	Feb. 13/1980	V.M.P.	3	Mar. 18/1980	K.M.P.					
2	Oct. 23/1980	K.M.P.	4	Dec. 9/1980	K.M.P.					

2 OF 2



UNITED KENO HILL MINES LTD.

VENUS MINES
YUKON TERRITORY

SCALE
400 200 0 400 800 1200
FEET FEET

1 : 4800
CONTOUR INTERVAL 50 FEET

AERIAL PHOTOGRAPHY BY: KWSC. DATE: AUG. 1979
CONTROL BY: HOSFORD, IMPEY & WELTER, WHITEHORSE

NORTH WEST SURVEY CORPORATION (YUKON) LTD.

DRAWN BY: K.K. CHECKED BY: V.Y. DATE: DEC. 1979 JOB NO: 79-359 SHEET 1 OF 1

LEGEND

Contour Intervals
- 50 - 99 p.p.m.
- 100 - 199 p.p.m.
- 200 - 399 p.p.m.
- 400 - 799 p.p.m.
- 800 + p.p.m.

GEOCHEMISTRY
- GHI Claim Group boundary
- VENUS Group boundary
- .23 Sample Location with result
- .N Sample Location, no sample taken
- .0(-) Sample Location, less than detection limit

TOPOGRAPHY
- Lakes & Ponds
- Creeks with flow direction
- Treed Areas
- Trails
- Buildings
- Culverts & Bridges
- Highway
- Survey Target
- 3250 Contour Lines
- Swamp
- 2394 Spot Height

UNITED KENO HILL MINES LTD.

EXPLORATION DEPARTMENT WHITEHORSE, Y.T.

VENUS AREA

N.T.S. SHEET 105 - D - 2

GEOCHEMISTRY

LEAD PLOT in p.p.m.

SCALE 1" = 400'

NO.	Revision	Date	by	NO.	Revision	Date	by	NO.	Revision	Date	by
1	Feb. 15/1980		J.N.P.	3	Dec. 5/1980		J.N.P.				
2	Oct. 27/1980		K.E.W.	4	Dec. 10/1980		K.E.W.				

FEBRUARY 12/1980

DWG. No.

2 OF 2

MATHESON LAKE

AURORA LAKE

STEWART

MONTANA CREEK

MOUNTAIN HERO

MONTANA

FLOAT PLANE BASE

JOE PETTY

NORTH BRANCH

LITTLE WINDY

RELIANCE

SOUTH BRANCH

DAILY CREEK

NORTH CANYON

DAILY CREEK

RB

Baseline

WINDY ARM

WINDY ARM

UNITED KENO HILL MINES LTD.

VENUS MINES
YUKON TERRITORY

SCALE

400 200 0 400 800 1200 FEET FEET

1 : 4800

CONTOUR INTERVAL 50 FEET

AERIAL PHOTOGRAPHY BY	CONTROL BY
NWSC. DATE: AUG. 1979	HOSFORD, IMPEY & WELTER, WHITEHORSE

NORTH WEST SURVEY CORPORATION (YUKON) LTD.

DRAWN BY: K.K.	DATE: DEC. 1979	SHEET 1 OF 1
CHECKED BY: Y.T.	JOB NO.: 79-259	

LEGEND

Contour Intervals

- 50 - 99 p.p.m.
- 100 - 199 p.p.m.
- 200 - 399 p.p.m.
- 400 - 799 p.p.m.
- 800 + p.p.m.

GEOCHEMISTRY

- GHI Claim Group boundary
- VENUS Group boundary
- .23 Sample Location with result
- .N Sample Location, no sample taken
- .0(-) Sample Location, less than detection limit

TOPOGRAPHY

- Lakes & Ponds
- Creeks with flow direction
- Treed Areas
- Trails
- Buildings
- Culverts & Bridges
- Highway
- Survey Target
- 5250 Contour Lines
- Swamp
- .2394 Spot Height

UNITED KENO HILL MINES LTD.

EXPLORATION DEPARTMENT WHITEHORSE, Y.T.

VENUS AREA

N.T.S. SHEET 105 - D - 2

GEOCHEMISTRY

LEAD PLOT in p.p.m.

SCALE 1" = 400'

NO.	Revision	Date	by	NO.	Revision	Date	by	NO.	Revision	Date	by
1		Feb. 13/1980	J.N.A.	3		Dec. 5/1980	J.M.P.				
2		Oct. 23/1980	K.M.W.	4		Dec. 10/1980	K.M.W.				

FEBRUARY 12/1990

DWG. NO.

2 OF 2



UNITED KENO HILL MINES LTD.

VENUS MINES
YUKON TERRITORY

SCALE
400 200 0 400 800 1200
FEET FEET
1 : 4800
CONTOUR INTERVAL 50 FEET

AERIAL PHOTOGRAPHY BY	CONTROL BY
NWSC DATE AUG. 1979	HOSFORD IMREY & WELTER WHITEHORSE

North West Survey Corporation (Yukon) Ltd

DRAWN BY K.K.	DATE DEC 1979	SHEET 1 OF 1
CHECKED BY V.V.	JOB NO 79-219	

L E G E N D

Contour Intervals

- 100 - 199 p.p.m.
- 200 - 399 p.p.m.
- 400 - 799 p.p.m.
- 800 + p.p.m.

GEOCHEMISTRY

- GHI Claim Group boundary
- VENUS Group boundary
- .23 Sample Location with result
- .N Sample Location, no sample taken
- .0(-) Sample Location, less than detection limit

TOPOGRAPHY

- Lakes & Ponds
- Creeks with flow direction
- Treed Areas
- Trails
- Buildings
- Culverts & Bridges
- Highway
- Survey Target
- Contour Lines
- Swamp
- Spot Height

UNITED KENO HILL MINES LTD.

EXPLORATION DEPARTMENT WHITEHORSE, Y.T.

VENUS AREA

N.T.S. SHEET 105 - D - 2

GEOCHEMISTRY

ZINC PLOT in p.p.m.

SCALE 1" = 400'

NO.	Revision Date	by	NO.	Revision Date	by	NO.	Revision Date	by
1	Feb. 18/1980	J.W.P.	3	Nov. 25/1980	J.W.P.			
2	Oct. 23/1980	K.M.W.	4	Dec. 5/1980	K.M.W.			

FEBRUARY 12/1980

DWG. No.