EQUINOX
RESOURCES LTD.

GEOCHEMICAL REPORT ON THE BEN PROPERTY

(Record No. 3120, 3121, 3123, ~~1324~~ 3124)

Nanaimo M.D., B.C.
Latitude 50° ~~25~~ 21'N
Longitude 127° ~~27~~ 15'W
NTS 92L/6W

Owners:	**Equinox Resources Ltd.**
Author:	**R. Culbert, Ph.D., P.Eng.**
Contractor:	**Equinox Operations Group**
Date of Work:	**Oct. and Nov., 1988**
Date of Report:	**September, 1989**

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TABLE OF CONTENTS

FIGURES

APPENDICES

1. SUMMARY

Exploration work described in this report was carried out in October and November 1988 on the BEN claims in pursuit of gold mineralization associated with the former Merry Widow Mine, Bereson Lake, B.C.

The work has consisted largely of detailed sampling and evaluation of the Merry Widow and Kingfisher skarn deposits. It was carried out by geologists J. Mustard and R. Albert, from whose notes and maps the author has compiled this report.

2. INTRODUCTION

2.1 Location and Access

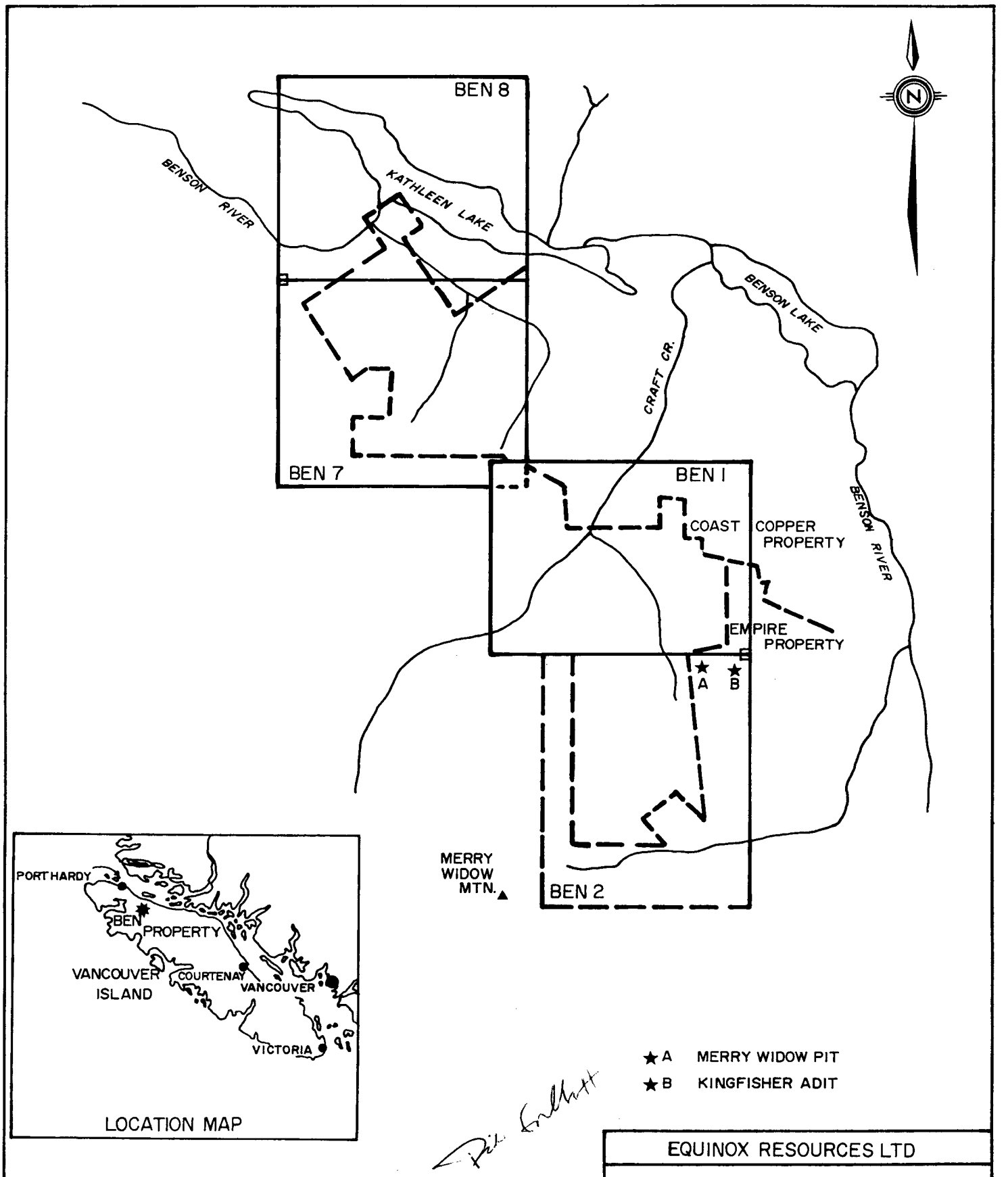
The BEN Property is located 320 km northwest of Vancouver and 42 km south southeast of Port Hardy on Northern Vancouver Island. It is accessible by logging roads which leave the North Island Highway near Port McNeill and approach the Benson Lake area from the north. There are logging roads in both Craft and Merry Widow Creeks, as well as older mining roads serving the Merry Widow deposit (figure 2).

2.2 Claim Description

The BEN Property is comprised of four grouped claims totalling 80 units.

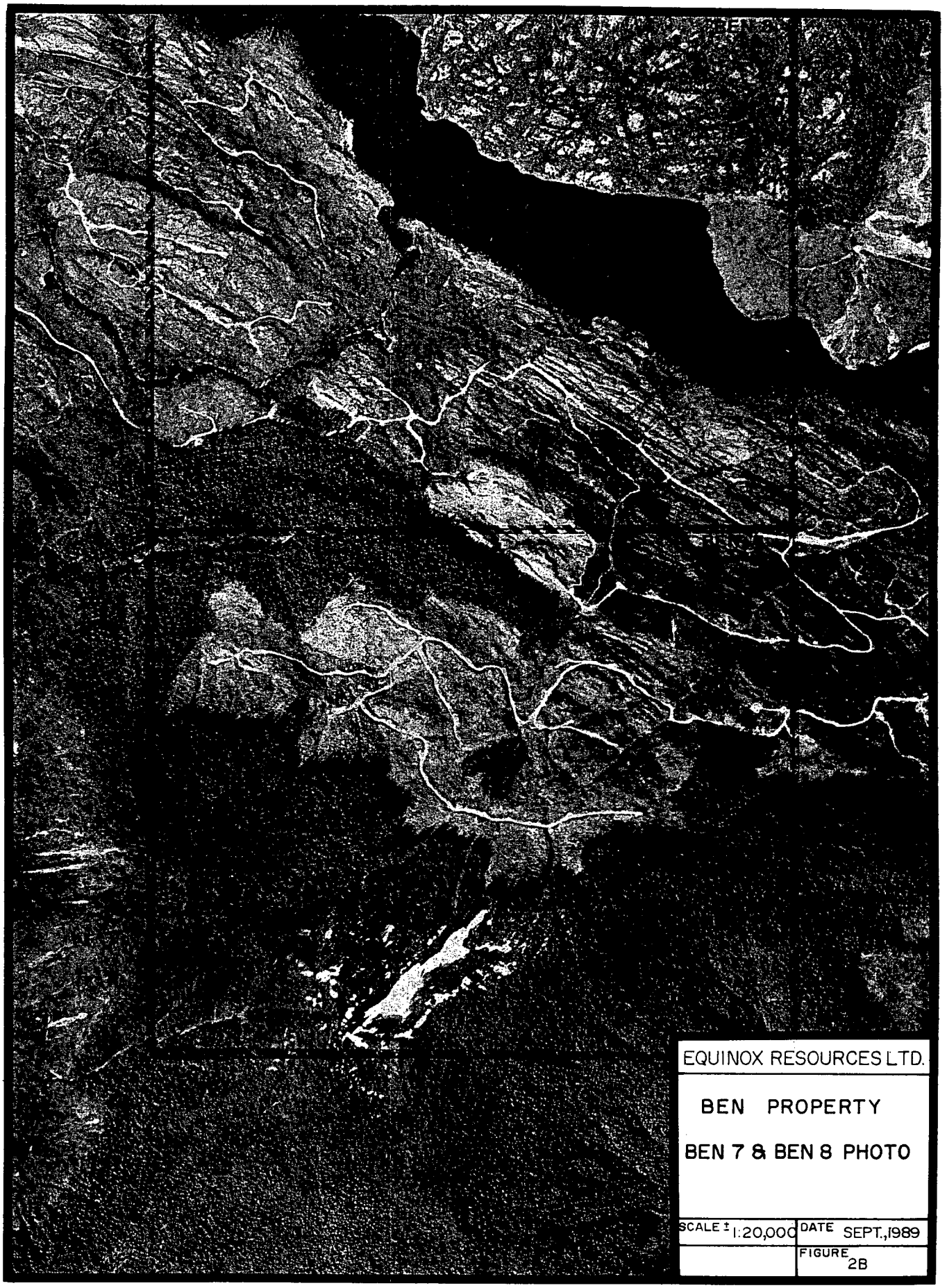
The BEN Claim Group was staked in September 1988 to cover known skarn deposits in the vicinity of the former Merry Widow Mine and the area west thereof. The deposits themselves lie on ground of the Empire and Coast Copper Properties, whose claims were escheated at the time of staking and during the period in which the work described here was carried out. Since this time, however, these properties have been re-awarded to their original owners.

Claim Name	Record Number	Units	Completion Date	Owner
BEN 1	3123	20	Sept. 15/88	Equinox Resources Ltd.
BEN 2	3124	20	Sept. 15/88	Equinox Resources Ltd.
BEN 7	3120	20	Sept. 18/88	Equinox Resources Ltd.
BEN 8	3121	20	Sept. 17/88	Equinox Resources Ltd.



EQUINOX RESOURCES LTD	
BEN CLAIMS PROPERTY & LOCATION MAP	
EQUINOX OPERATIONS GROUP	
SCALE 1:50,000	DATE SEPT.,1989
DRAWN RRC, GR	FIGURE 1

EQUINOX RESOURCES LTD.	
BEN PROPERTY BEN 1 & BEN 2 PHOTO	
SCALE ± 1:20,000	DATE SEPT., 1989
	FIGURE 2 A



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BEN PROPERTY

BEN 7 & BEN 8 PHOTO

SCALE ± 1:20,000	DATE SEPT., 1989
	FIGURE 2B

3. HISTORY

The Merry Widow and Kingfisher deposits are copper-magnetite skarn bodies located near the top of the Quatsino limestone near the Coast Copper diorite stock. Mining here between 1957 and 1967 produced 3.4 million tons of ore. The adjacent Old Sport Mine of the Coast Copper Property produced 3,869 kg of gold, 1,731 kg of silver and 41.2 million kg of copper from 2.7 million tons of ore between 1962 and 1973.

4. GEOLOGY

Accordingly to Lund, 1966*, the Merry Widow deposit can be divided into three main skarn (ore) units. The upper unit is a tabular body some 103 m long by 150 m thick plunging eastward at 30^{o}. This zone terminates abruptly down plunge against limestone. Lying below and separated from it by about 12 m of relatively barren mixed skarn and Bonanza volcanic rocks, is the intermediate unit. It is tabular in shape, has a length of 85 m, thickness of 9 m and lies parallel to the upper unit. A thrust fault extends between these two ore bodies, cutting the barren rocks. The third and lowermost unit lies along the gabbro contact. Down dip extent is some 165 m, with a maximum thickness of 40 m. Where the Coast Copper Stock contact steepens, ore layers also steepen and at one point, ore occupies an enclave in the gabbro.

In the Merry Widow ore body, magnetite occurs as irregular sheets or lenses which lie within the Bonanza Volcanics adjacent to the Quatsino limestone contact. The Kingfisher ore body is within the Quatsino limestone and is composed of two near vertical pipes. The Central pipe is some 50 m in diameter and the east pit is some 30 m in diameter. The two ore bodies merge at depth, but have limited vertical dimension.

The Raven ore body is located at the southwesterly end of a long northeasterly trending zone of mineralized greenstone associated with a north-easterly trending fault. The ore body is now completely covered but reportedly consisted of magnetite with a associated sulphides-pyrrhotite, pyrite, sphalerite and chalcopyrite. The ore body occurs as a tabular mass surrounded in part by massive garnet and epidote skarn and plunges steeply to the southeast. High sulphide content make the deposit uneconomic, and after extracting some 20,000 tons, the deposit was abandoned.

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*Lund, J.L., 1966. "Structural Geology of the Empire Mine, Empire Development Company Limited; unpublished M. Sc. thesis, University of British Columbia, 61 p.

4.1 Structure

Regional bedding in the Merry Widow-Kingfisher area strikes northwesterly with westerly dips of 25^{o} to 35^{o}. Within the Merry Widow pit, relict bedding is near vertical, with local reversals to 45^{o} easterly. Much of the dip and strike variations are a result of the intrusion of the Coast Copper stock.

Faulting appears to have played a major role during deposit formation. The Kingfisher Fault is the most persistent both laterally and vertically. It is an east-northeasterly striking fault with a steep southeasterly dip which extends through both the Kingfisher and Merry Widow deposits. This fault is important as a structural control for skarnification. Numerous other skarn showings exist along structures which have similar orientations. Thrust faulting also appears to be closely associated with the Merry Widow ore body, but its control on the mineralization is unknown.

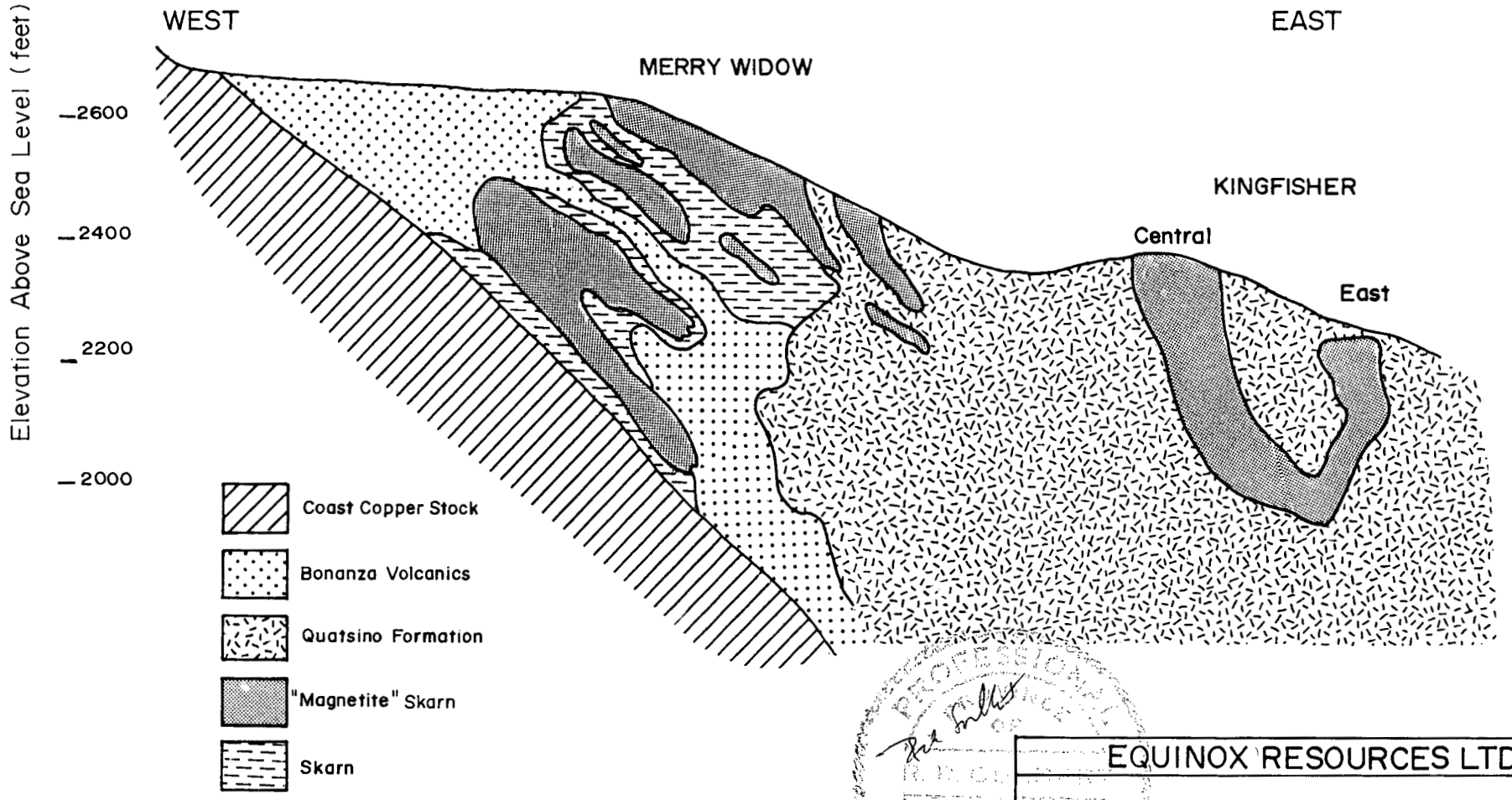
4.2 Mineralization

The skarnification process of the Empire property has affected a number of rock types. Quatsino limestone and Coast Copper gabbro have been altered to varying degrees. Economically, the most significant rock type altered is the Bonanza volcanics which hosts the Merry Widow deposit. Most intrusive dykes and sills within and proximal to skarn zones are also altered.

The original protolith is often questionable since original textures and mineralogy have been completely destroyed. Host lithologies are often only determined by regional setting.

The following minerals have been identified within the skarn environment.

Magnetite	-occurs in a variety of habits and is later than other skarn minerals.
Pyrite	-euhedral crystals with other sulfides, calcite and quartz.
Arsenopyrite	-similar occurrence to pyrite.
Cobaltite	-occurs (sparingly) where pyrite and arsenopyrite occur.
Chalcopyrite	-frequently with other sulfides or small aggregates and or fracture fillings especially within the Kingfisher pit.
Sphalerite	-trace amounts.
Pyrrhotite	-pyrrhotite occurs as replacement of other sulfides and is as abundant as chalcopyrite in the Merry Widow deposit. In the Raven deposit, pyrrhotite is reported to be the more abundant sulfide.



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Schematic East—West Section of the Merry Widow and Kingfisher Deposits

EQUINOX OPERATIONS GROUP

SCALE as shown	DATE SEPT., 1989
DRAWN JM,GR	FIGURE 3

Gold -reported to occur as minute grains within chalcopyrite.-

5. EXPLORATION PROGRAM

A detailed sampling program was carried out over the workings of the Merry Widow-Kingfisher pits. A generalized cross section of the geology is given in figure 3 and a detailed section is presented in figure 5. Sample descriptions are listed in Appendix II.

5.1 Results

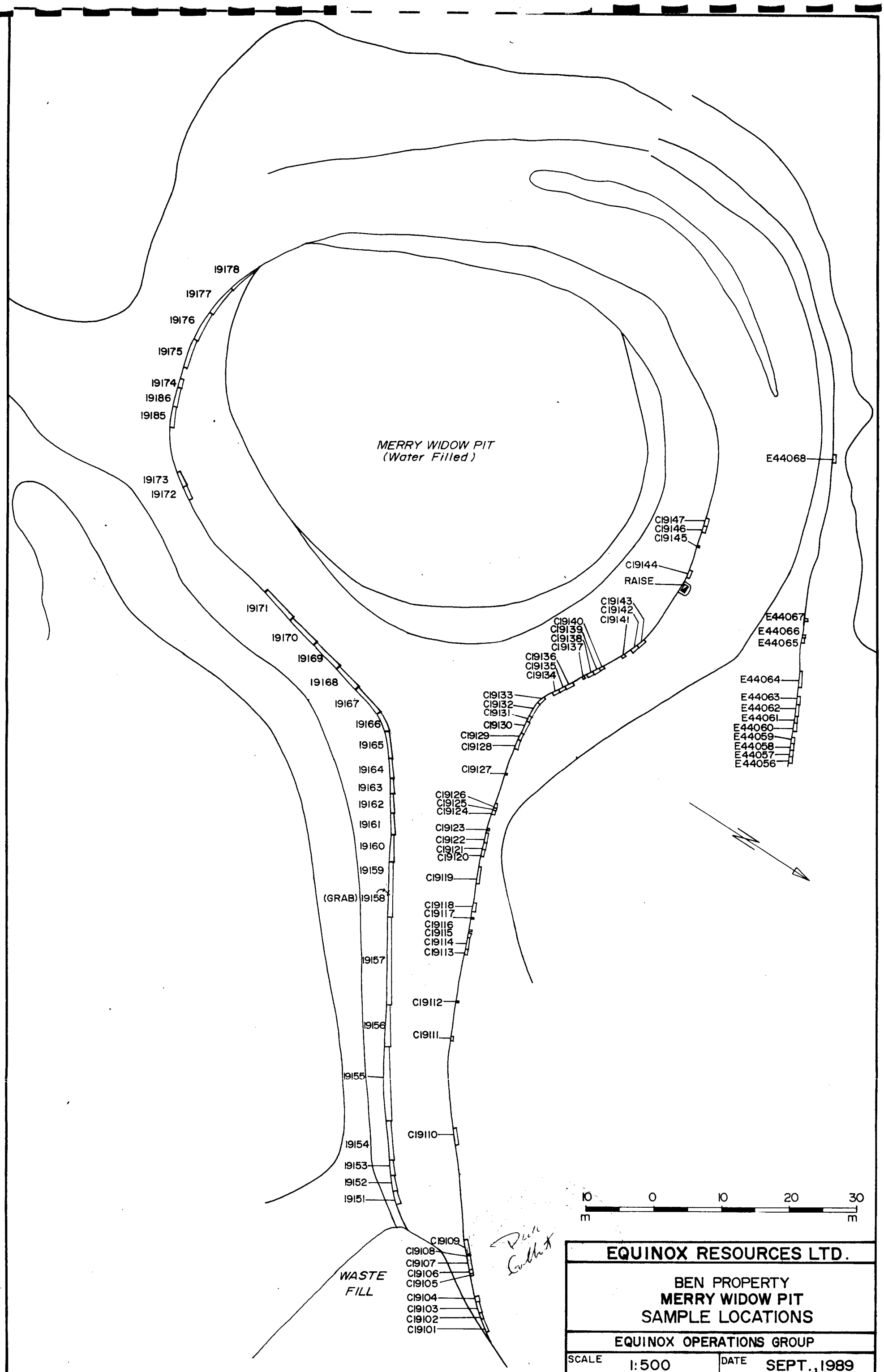
Figures 4A and 4B and Appendix III give results for the Merry Widow sampling.

Although somewhat erratic, very encouraging values in gold, silver and copper were found. There is a strong correlation between these elements and additionally with arsenic which might be used as a geochemical tracer. Cobalt and manganese were also anomalous.

5.2 Recommendations

Further exploration on the Empire property should concentrate on extending the known economic gold zones identified in the Merry Widow pit. A program of continued detail mapping and sampling in conjunction with magnetic surveys is recommended. As the size of individual deposit may be small and pipe-like in shape, a closely spaced sample pattern should be used. All other known skarn occurrences should be sampled in detail. The area of particular interest occurs between the Merry Widow and Raven pits. The combination of economic gold grades in the Merry Widow pit and the high sulfide content of the Raven pit makes this area attractive. Also, the Raven pit was not shut down for lack of ore but due to the relatively low iron content. The gold content of the Raven ore is unknown as there appears not to be any specific production records.

The full strike extent of the Quatsino-Bonanza contact should be evaluated thoroughly, especially where any NE-SW faulting is evident. The Old Sport horizon is a prime exploration target on the Empire property but exploration efforts should follow from systematic work on the adjoining Coast Copper ground. Any exploration on the horizon will potentially be costly because of the conflict between dip and topography.



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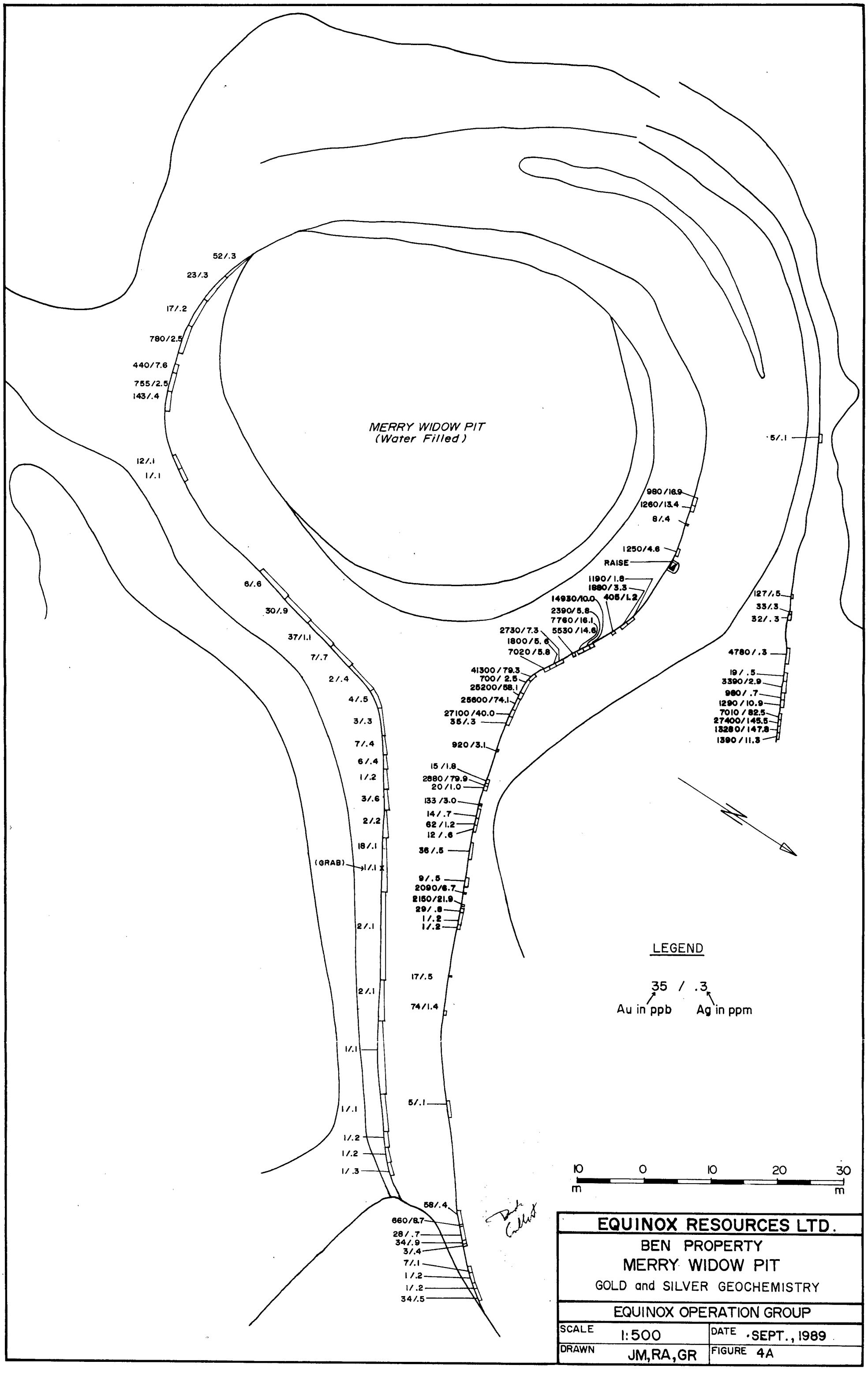
BEN PROPERTY
MERRY WIDOW PIT
SAMPLE LOCATIONS

EQUINOX OPERATIONS GROUP

SCALE	1:500	DATE	SEPT., 1989
DRAWN	JM, RA, GR	FIGURE	4



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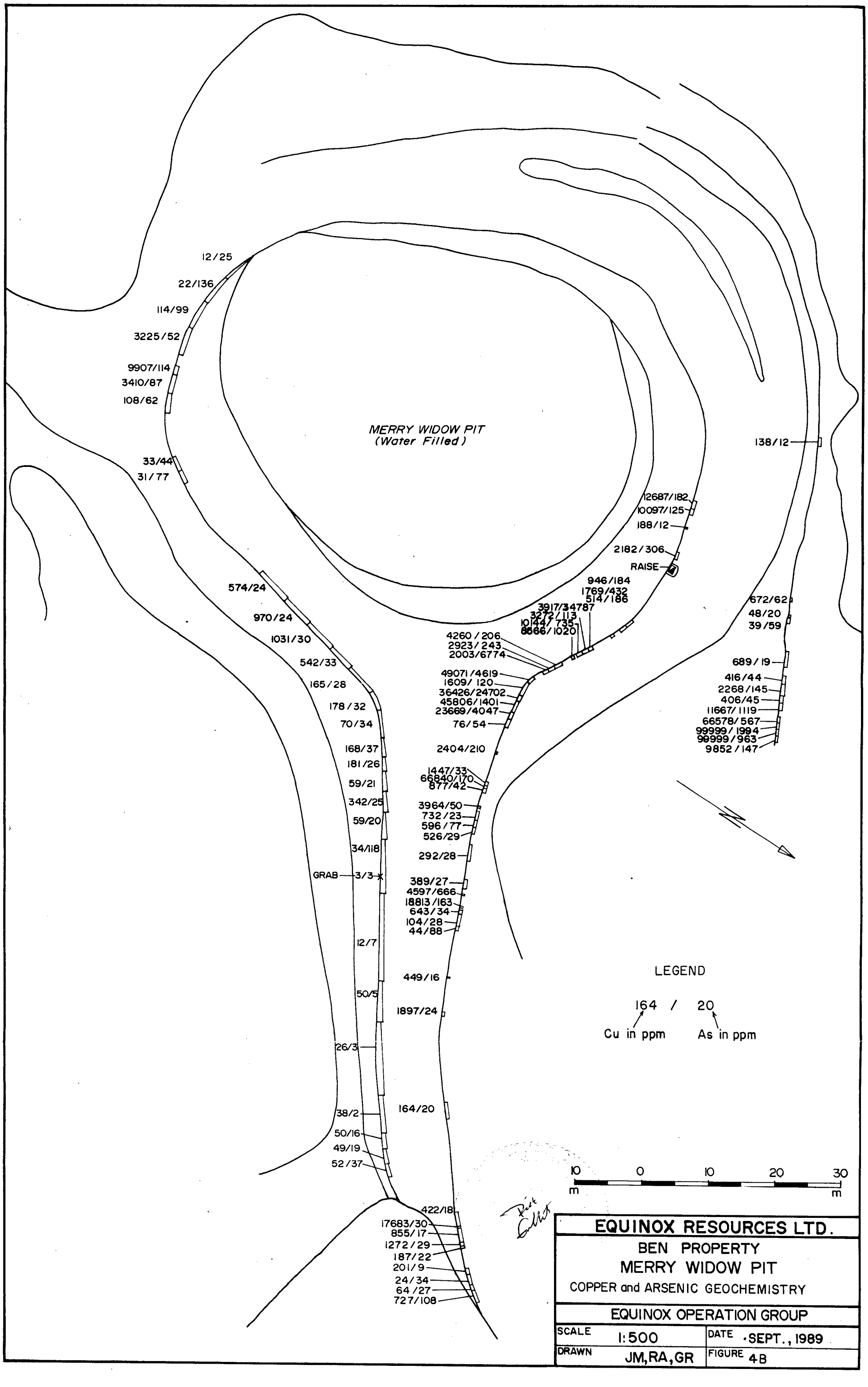
BEN PROPERTY
MERRY WIDOW PIT
GOLD and SILVER GEOCHEMISTRY

EQUINOX OPERATION GROUP

SCALE 1:500	DATE SEPT., 1989
DRAWN JM,RA,GR	FIGURE 4A



EQUINOX RESOURCES LTD.	
BEN PROPERTY MERRY WIDOW PIT COPPER and ARSENIC GEOCHEMISTRY	
EQUINOX OPERATION GROUP	
SCALE 1:500	DATE SEPT., 1989
DRAWN JM,RA,GR	FIGURE 4B

6. STATEMENT OF QUALIFICATIONS

I, R.R. Culbert hereby certify:

1. That I am a practicing Engineer with offices at #900-625 Howe Street, Vancouver, British Columbia.

2. That I am a member in good standing of the Association of Professional Engineers of British Columbia, and have practiced mining exploration for twenty-seven years.

3. That I am a graduate of the University of British Columbia, B.A. Sc. (1964), Ph.D. (1971).

4. That the work herein described was carried out by geologists J. Mustard and R. Albert. I have compiled this report from their field notes and data and I believe the presented results here to be fair and accurate.

Dated at Vancouver, British Columbia this 28th day of September, 1989.

R.R. Culbert, Ph.D., P.Eng.

APPENDIX I-GEOCHEMICAL PROCEDURES

All rock samples were crushed to $^{-3}/_{16}$" and $^{1}/_{2}$ lb. splits pulverized to -100 mesh (98%). Silt samples were screened to -80 mesh.

For gold, 10 gm samples were leached with hot aqua regia, extracted with MIKB and analyzed by graphite furnace AA.

All other elements were analyzed by induction coupled plasma analysis, following the digestion of $^{1}/_{2}$ gm samples in aqua regia for one hour.

Analyzes were carried out by Acme Analytical Laboratories.

APPENDIX II-SAMPLE DESCRIPTIONS

EMPIRE PROPERTY - MERRY WIDOW PIT SAMPLING

LOWER NORTH WALL

Sample No.	Width (m)	Description
C19101	2	90% magnetite skarn, 5-7% coarse grained calcite, 20 cm wide diopside unit containing trace chalcopyrite. Magnetite is mostly fine grained with minor medium grained, secondary, euhedral magnetite as stringers.
C19102	1.1	90-95% magnetite skarn, >5% calcite, locally trace pyrite in magnetite.
C19103	1.6	80-85% magnetite skarn, 10-15% calcite, locally trace pyrite in magnetite.
C19104	0.7	50% coarse grained calcite, 30% dark green amphibole, 10-20% magnetite, trace limonite, trace malachite associated with calcite. The dark green amphibole unit is ~8 cm wide and subvertical.
C19105	0.4	Light gray limestone (marble) with sub-vertical bedding poorly preserved; 5% coarse grained grayish brown anhedral garnet, trace euhedral pyrite.
C19106	0.5	80% light gray marble (or limestone) with 10-15% dark green tremolite or actinolite skarn, 3-5% diopside, 1-2% brown garnet, 1-2% epidote. The 10 cm wide unit, containing diopside, also contains 1-2% chalcopyrite and trace malachite.
C19107	2.3	95% magnetite skarn, 3-4% coarse grained calcite. Two calcite-diopside units of 4-6 cm wide containing trace-1% chalcopyrite. These units are steeply dipping to the east. The calcite-diopside units also contain trace-1% malachite locally. The magnetite contains minor malachite and locally rare grains of chalcopyrite.
C19108	5	5 cm wide malachite rich magnetite skarn with trace of light brown garnet, 10% malachite, 90% fine grained magnetite.
C19109	2.2	Massive magnetite skarn (90%) with 10% coarse grained calcite and trace pyrite in magnetite. Sulfides are poorly distributed.
C19110	2.4	Brecciated magnetite-calcite skarn. Large blocks of magnetite from 5 mm to 50 cm in diameter. 60% magnetite, 30-35% coarse grained calcite, 1% limonite. A small sub-vertical unit of dark green amphibole. No mineralization observed.

Sample No.	Width (m)	Description
C19111	0.6	75-80% massive, coarse grained garnet skarn with 1-2% epidote, and 20% brecciated magnetite skarn (fragments from 1-15 cm). Trace pyrite + chalcopyrite and trace of patchy malachite. Presence of 15% 20cm wide unit of dark green amphibole (sub-vertical).
C19112	0.3	Thin unit of coarse grained, anhedral garnet skarn containing few grains of pyrite, chalcopyrite and malachite.
C19113	0.6	Shear zone (fault?) 90% coarse grained anhedral garnet unit with trace of poorly dispersed mineralization consisting of pyrite and malachite. Shear zone is steeply dipping to the east.
C19114	1.9	65% magnetite skarn and 35% coarse grained calcite. No other mineralization observed.
C19115	0.9	Brecciated magnetite-calcite skarn; 60-70% magnetite, 20-25% calcite, 4-5 cm pods of tremolite containing trace chalcopyrite. Trace of coarse grained, euhedral brown garnet in coarse grained, euhedral calcite.
C19116	0.4	Thin unit of semi-massive sulfides, 30-40% pyrrhotite, 55% pyrite and trace chalcopyrite. This unit is sub-vertical.
C19117	1-1.2	Semi-massive sulfide unit with 20% pyrite and 10% pyrrhotite. 30% dark green amphibole. (possibly pseudomorph after pyroxene).
C19118	1.4	40% magnetite and 30% calcite skarn, 25-30% garnet skarn producing 20-30 cm pods, 1-2% (3-4 cm) pods of tremolite. No mineralization observed.
C19119	2.4	65% massive magnetite skarn. Several 4-5 cm wide diopside-calcite and tremolite-calcite skarns. Rare epidote stringers associated with minor garnet pods. 5% tremolite pods containing only a few grains of pyrite.
C19120	1.2	60% brecciated magnetite skarn and 20% coarse grained calcite. A 40 cm wide coarse grained poorly crystallized garnet skarn containing large pods of dark green amphibole. Rare grains pyrite in calcite, adjacent garnet unit. The garnet unit is vertical.
C19121	0.9	10% brecciated magnetite and 20% coarse grained calcite skarn. Trace-1% garnet in calcite, 5-7% tremolite stringers with several orientations. 60% brecciated volcanic. Trace pyrite near calcite.
C19122	1.5	Massive magnetite (90-95%) skarn. Rare fragments of dark green volcanic, 3-5% calcite. Rare grains of medium grained, euhedral pyrite in magnetite.

Sample No.	Width (m)	Description
C19123	0.4	A tremolite vein occurring in dark green, fine grained volcanic. The vein contains 1% magnetite, trace chalcopyrite and trace malachite. Poorly oriented vein. The vein is contorted and revealing an undefinite orientation.
C19124	0.4	Massive magnetite skarn, strongly brecciated, 3-5% calcite. No other mineralization.
C19125	0.2	Semi-massive pyrite unit with 25% brecciated coarse grained calcite. Sub-vertical unit steeply dipping to the east.
C19126	0.8	50% magnetite-calcite skarn, brecciated with 3-5% tremolite and ~40% volcanic breccia. No mineralization observed.
C19127	0.1	Epidote pod with trace euhedral pyrite, occurring in grayish brown garnet skarn.
C19128	1.5	Massive magnetite unit, 1% calcite and trace pyrrhotite (only present locally).
C19129	1	Massive sulfide with 60% pyrrhotite and 30% pyrite and 1% chalcopyrite. ~10% volcanic breccia, calcite, magnetite (trace). Vertical unit sub-parallel to wall orientation.
C19130	1	Semi-massive sulfides, 50% pyrrhotite, 30% pyrite, 20% volcanic breccia, 1% chalcopyrite and 1-2% calcite. This unit is vertical and sub-parallels wall orientation.
C19131	1	15% volcanic breccia, 80-85% semi-massive sulfides (mostly pyrrhotite and pyrite with trace chalcopyrite), 1-2% magnetite. Same unit as sampled in C19129 and C19130.
C19132	2.2	20% massive greenstone dyke; sub-vertical. 60-70% dark gray hornfelsic volcanic, 5-7% calcite, 1-2% magnetite. Calcite and magnetite are brecciated and occur on the east portion of the unit adjacent the previously sampled semi-massive sulfide unit.
C19133	1.2	Dark green volcanic with 3% poorly crystallized pyrite and 1% pyrrhotite and 1% chalcopyrite. Rock is weakly brecciated in places, where 1-3% calcite appears.
C19134	1.1	Dark green volcanic with 3% calcite, 3% pyrrhotite, 1% pyrite and 1% chalcopyrite. 5-10% tremolite crystals producting deformed veins in several directions around large blocks of volcanic material.
C19135	0.9	Dark green volcanic with 3-5% calcite-tremolite, and 2-3% sulfides (pyrite, pyrrhotite, chalcopyrite) and trace malachite locally.

Sample No.	width (m)	Description
C19136	1.3	Dark green volcanic with 1% pyrite and trace to locally 2% chalcopyrite. 10-20% tremolite producing 1 cm long laths. Locally 3-4% brown garnet (1-2 mm pods) associated with tremolite.
C19137	0.2	Dark green hornfelsic unit containing a 20 cm wide unit of sulfides (4% pyrrhotite and 3% chalcopyrite in tremolite). This unit is vertical.
C19138	1	Semi-massive sulfide horizon with large dark green hornfelsic volcanic inclusions. 60-65% pyrrhotite, 3% chalcopyrite and trace pyrite. 2-3% medium grained garnets in volcanic inclusions.
C19139	2-3	Large hornfelsic volcanic breccia. 10-15% pyrrhotite, 10% pyrite and 1% chalcopyrite. Small diopside-calcite veinlets (from 1-3 cm wide) having several orientations.
C19140	.7 1.5	2 heavily chloritized quartz veins with minor inclusions of brecciated volcanics, 20% fine grained pyrite. Veins are vertical.
C19141	0.5	Tremolite skarn in dark green, moderately chloritized volcanics. 1-2% pyrite pods in tremolite. Rare brownish red pods (1-2 mm) of garnet.
C19142	1.2	Slightly mineralized dark green, moderately chloritized volcanic. 20-25 cm wide magnetite unit (vertical). 1-2% pyrrhotite and trace chalcopyrite in the volcanic matrix.
C19143	1.2	Brecciated volcanics with rare, large (20-30 cm) pods of magnetite. Volcanics are crosscut by calcite veins (3%) containing 1-2% pyrrhotite and trace chalcopyrite. Magnetite content is ~35%.
C19144	1.1	Massive dark green volcanic with 10% tremolite-calcite skarns producing 2-4 cm wide veins. Skarns contain 2% pyrrhotite and trace chalcopyrite. Skarns are poorly oriented.
C19145	0.3	Tremolite-calcite-garnet skarn occurring in massive volcanic. Skarn is shallowly dipping east. No mineralization observed.
C19146	1	Massive volcanics with calcite-tremolite skarns (5-7%) as scattered pods and containing 1-2% pyrrhotite and trace chalcopyrite.
C19147	1.1	Massive volcanics with calcite-tremolite skarns (5-7%) producing scattered pods and containing 1-2% pyrrhotite and trace chalcopyrite.

Sample No.	Width (m)	Description
UPPER NORTH WALL		
E44056	1	Tremolite-garnet skarn with minor epidote and calcite. Small stringers (4-5 cm wide) of chalcopyrite shallowly dipping east at ~20-30°. Overall 2% chalcopyrite.
E44057	1	20 cm wide massive chalcopyrite unit in brecciated volcanics. Fragments from 4-15 cm. Rare pods of coarse grained calcite (1-2%). Sulfides rim the volcanic units and calcite pods, thus producing 20% chalcopyrite and trace-1% malachite. The sulfide unit dips at ~30°E.
E44058	1	20 cm wide chalcopyrite unit dipping at 30°E, in brecciated volcanics. Rare pods of coarse grained calcite (1-2%). Sulfides rim the volcanics and the calcite pods. Rare presence of diopside 25-30% chalcopyrite and 1% malachite. Locally, trace pyrrhotite.
E44059	0.9	Large blocks of brecciated, coarse grained calcite with 10% interstitial chalcopyrite and trace-1% malachite.
E44060	1.3	Brecciated magnetite skarn in brecciated volcanics. Small calcite pods and euhedral garnets (medium-coarse grained). Fine to medium grained magnetite. Calcite-garnet skarns (2-3%) contain minor pyrite, chalcopyrite and malachite.
E44061	1	Massive magnetite skarn with 2% coarse grained calcite pods. Trace medium grained garnet associated with calcite pods and also trace pyrite, trace malachite and trace chalcopyrite associated to same pods.
E44062	1.6	25% magnetite skarn in volcanics, 3% coarse grained calcite, 1% brown garnet skarns. Trace malachite mostly in calcite and magnetite. Trace chalcopyrite associated with garnet skarn. Trace pyrite and epidote associated with magnetite skarn.
E44063	1.3	25% magnetite skarn in volcanics, 1-2% coarse grained calcite and extremely rare garnet. Still minor epidote in magnetite. No visible sulfides. Trace malachite in magnetite and in calcite pods.
E44064	2.5	3-5% garnet skarn in volcanics. Volcanics are dark green, strongly fractured and with trace-1% malachite on fracture surfaces. Rock matrix is non mineralized. Rare calcite seams. Skarns are non mineralized.
E44065	0.3	Small fault zone dipping at ~55°ESE. Fault zone contains 95% epidote and garnet skarns with 1-3% hematite and 1% pyrite. Slickensides present.
E44066	0.4	98% massive magnetite skarn with trace calcite and pyrite (sub-vertical).
E44067	0.3	Magnetite-garnet-calcite skarn; 60% magnetite, 30% garnet, 10% calcite. Trace pyrite and trace malachite in calcite.

Sample No.	Width (m)	Description
E44068	1.1	Poorly mineralized volcanic unit with trace pyrite producing scattered pods adjacent diorite dyke. Dyke is nearly horizontal and 12 cm wide.

UPPER SOUTH WALL

E44069	1	Slightly reddish, oxidized zone is garnet-magnetite skarn. No fresh sulfides observed. 30% magnetite, 60% massive garnet, trace calcite. Skarn is brecciated, revealing 4-8 cm angular blocks.

LOWER SOUTH WALL

Sample No.	Width (m)	Description
C19151	2.0	Section of magnetite breccia skarn at ramp entrance. 10-15% coarse grained calcite interstitial to magnetite.
C19152	2.0	Similar to sample 19151, magnetite skarn, no sulfide observed.
C19153	2.4	Similar to samples 19151 and 19152; magnetite skarn, brecciated with 10-15% coarse grained, euhedral calcite interstital to fragments; slight to moderate increase in pyroxene and amphibole content along interval towards sample 19154.
C19154	5.6	Sample is a series of selective grabs collected within a band of calcite-silicate skarn. Trace sulfides present. 15-20% darker hornfels present. Calcite-silicate occurs as fracture controlled veinlets and wider zones in hornfels. Protolith may either be Bonanza volcanics or argillite.
C19155	11.0	Interval is very similar to 19154 with a slight increase in sulfide content. Samples are selective grabs and not continuous chips.
C19156	6.0	Similar to sample 19154, 19155; calcite-silicate (diopside)skarn with trace of garnet, and sulfides. Coarse grained feldspar porphyries locally present as dykes.
C19157	13.0	Interval is similar to 19156.
C19158	-	Grab sample of "breccia skarn" which occurs at 45.3 m along face. Occurs as a dyke lke body with angular fragments of magnetite and volcanics. 0.7 m where exposed along face.
C19159	8.0	Calcite-silicate skarn; 10-15% garnet skarn; otherwise very similar to 19157; sample consists of selected grabs from within the interval.

Sample No.	Width (m)	Description
C19160	4.0	95% of the interval is garnet skarn brown-red in colour. Not a typical red garnet but zone is very well defined; resonably well defined contact with the calcite-silicate skarn; very sharp contact with the magnetite skarn as well.
C19161	3.0	Magnetite breccia skarn with 10-15% calcite interstital to fragments; 10% garnet skarn from 54.0-55.0 m.
C19162	3.0	Magnetite breccia skarn as in previous interval; fragments very angular to 0.6 m, typically smaller but bulk of fragments are 0.4-0.5 m.
C19163	2.0	Magnetite breccia skarn as above, slight increase in garnet content.
C19164	3.0	Mixed zone of magnetite/garnet skarn, trace of bleby chalcopyrite trace of pyrrhotite and pyrite, calcite present intersitial to localized breccia.
C19165	4.0	Interval of mixed skarn:garnet-pyroxene 20-30%; magnetite 70% minor chalcopyrite observed.
C19166	3.0	10-20% magnetite in a garnet-pyroxene dominant skarn, locally minor breccia present. (Possible protolith:tuff).
C19167	5.0	Predominantly magnetite skarn with garnet, amphibole-pyroxene present as well. Interval has from 10-15% calcite (Possible protolith:tuff).
C19168	4.0	Mostly a magnetite skarn but does include 15-25% "volcanic" skarn.
C19169	5.0	90% magnetite, trace chalcopyrite, pyrrhotite and pyrite, presence of arsenopyrite. Suspected, locally calcite "sweats" present.
C19170	5.0	95% magnetite "skarn" with traces of chalcopyrite, pyrite and possibly arsenopyrite. Interval very similar to 19169.
C19171	5.5	Magnetite skarn; minor garnet minor included Bonanza volcanics.
C19172	1.5	Garnet-pyroxene calcite-silicate skarn at contact with massive magnetite skarn interval.
C19173	2.0	Massive magnetite skarn; 10% calcite sweats.
C19174	1.5	Massive magnetite skarn, little sulfide present.
C19175	4.5	Massive magnetite skarn possibly trace amounts of arsenopyrite.

Sample No.	Width (m)	Description
C19176	4.0	Similar to above sample 19175; possible cobalt bloom present.
C19177	2.8	Massive magnetite skarn; similar to samples 19175 and 19176. A 0.3 m wide feldspar porphyry dyke was not included in the sampled interval.
C19178	4.2	Similar to above massive magnetite skarns; abundant light blue mineral coating along bedding and/or fracture surfaces.
C19185	3.0	Massive magnetite skarn with abundant calcite sweats.
C19186	3.0	Similar to 19185; erythrite is present as 1-2 mm specs on the surface face.
	Note:	The above samples are selected chip samples over the widths indicated except where noted. Relative locations and line lengths are shown on Map . Analytical results for the above samples are given in Appendix 1.

EMPIRE PROPERTY GRAB SAMPLING
(see plan map of property for general location)

Sample	Location	Remarks
19179	Some 240 m N60E from Merry Widow	Skarn in limestone estimated at 0.8 m thick. Skarn pitpod in limestone estimated at 0.8 m thick. Short adit near by which attempted to intersect mineralization underground. No mineralized observed in adit. Skarn pod is sulfide rich (pyrite, pyrrhotite and abundant arsenopyrite).
19180	Same as sample 19179	Sulfide "pod" in skarn lense, similar to above description. Sample location is estimated to be 15 m along strike.
19181	Same as sample 19179	Selected grub sample of sulfide seam or pod in skarnified limestone. Chalcopyrite and arsenopyrite to 2-3%. In outcrop sulfide content can be considerably higher: chalcopyrite to 5-10% arsenopyrite to 5% magnetite to 20-50%
19182	Skarn zone south of Merry Widow	Approximately 750 south of the Merry Widow pit. Apparently a "gossan" or skarn zone Bonanza volcanics. Rocks are badly oxidized to determine mineralogy. Abundant pyrite assumed to be present.
19183	Skarn zone south of Merry Widow	Some as 19182 selected grab from different area of exposure.
19184	Skarn zone south of Merry Widow	Some as 19182 and 19183. Possible same zone as "Bluebird" as indicated on Empire map.

APPENDIX III-GEOCHEMICAL RESULTS

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: ROCK AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: NOV 16 1988 DATE REPORT MAILED: Nov 21/88 SIGNED BY. C. Leong .D.TOYE, C.LEONG, B.CHAN, J.WANG; CERTIFIED B.C. ASSAYERS

EQUINOX RESOURCES LTD. PROJECT 216 File # 88-5888 Page 1

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	Bi PPM	W PPM	Au* PPB
C 19101	727	11	114	.5	3	32	535	25.98	108	2	1	34
C 19102	64	5	84	.2	3	30	380	30.38	27	3	1	1
C 19103	24	4	71	.2	3	31	362	32.33	34	2	1	1
C 19104	201	5	103	.1	3	7	302	1.54	9	2	1	7
C 19105	187	2	93	.4	4	23	1176	13.16	22	3	1	3
C 19106	1272	2	83	.9	6	31	1062	6.77	29	2	1	34
C 19107	855	2	100	.7	3	29	503	34.33	17	2	1	28
C 19108	17683	6	253	8.7	43	92	886	11.14	30	2	2	660
C 19109	422	2	75	.4	2	31	358	35.51	18	2	1	58
C 19110	164	13	62	.1	1	24	386	26.69	20	2	1	5
C 19111	1897	5	63	1.4	8	14	827	6.40	24	2	1	74
C 19112	449	10	70	.5	6	7	1004	5.79	16	2	1	17
C 19113	44	2	35	.1	3	5	1932	2.62	88	2	1	1
C 19114	104	9	448	.2	8	35	986	23.92	28	2	1	1
C 19115	643	6	159	.8	11	31	694	26.48	34	2	1	29
C 19116	18813	2	423	21.9	13	71	1522	21.36	163	20	2	2150
C 19117	4597	26	97	6.7	11	150	2127	21.17	666	16	3	2090
C 19118	389	8	72	.5	7	28	491	27.92	27	2	1	9
C 19119	292	4	69	.5	4	27	581	25.78	28	2	1	36
C 19120	526	2	69	.6	1	23	489	20.48	29	2	1	12
C 19121	596	15	62	1.2	7	40	3119	11.98	77	2	1	62
C 19122	732	2	76	.7	8	32	523	28.13	23	4	1	14
C 19123	3964	3	100	3.0	3	28	1304	6.67	50	2	3	133
C 19124	877	2	174	1.0	7	24	1088	12.53	42	2	1	20
C 19125	66840	11	2195	79.9	9	239	167	31.92	170	40	1	2880
C 19126	1447	2	239	1.8	3	28	1632	18.76	33	2	1	15
C 19127	2404	2	87	3.1	5	138	621	3.20	210	2	1	920
C 19128	76	2	54	.3	12	37	557	28.97	54	2	1	35
C 19129	23669	15	419	40.0	7	251	478	24.61	4047	189	1	27100
C 19130	45806	21	858	74.1	2	298	137	34.01	1401	304	2	25600
C 19131	36426	14	525	58.1	10	310	224	32.20	24702	255	1	25200
C 19132	1609	5	85	2.5	18	39	1283	13.71	120	2	1	700
C 19133	49071	11	750	79.3	6	179	741	23.15	4619	110	1	41300
C 19134	2003	2	76	5.8	5	82	990	17.35	6774	74	1	7020
C 19135	2923	2	106	5.6	7	81	1179	15.59	243	17	2	1800
C 19136	4260	5	111	7.3	5	87	992	8.15	206	3	1	2730
STD C/AU-R	62	37	134	7.3	66	31	1051	4.15	42	23	13	520

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	Bi PPM	W PPM	Au* PPB
C 19137	8566	16	121	14.6	6	165	678	19.38	1020	46	4	5530
C 19138	10144	16	141	16.1	2	128	361	33.64	735	56	6	7760
C 19139	3272	18	51	5.8	3	70	878	21.13	113	56	2	2390
C 19140	3917	28	74	10.0	19	301	571	23.95	34787	87	4	14930
C 19141	514	14	59	1.2	1	26	1444	11.71	186	2	2	405
C 19142	1769	16	52	3.3	6	54	853	16.86	432	2	3	1880
C 19143	946	15	37	1.8	4	39	835	12.68	184	6	5	1190
C 19144	2182	18	59	4.6	3	55	1324	12.71	306	17	4	1250
C 19145	188	6	42	.4	3	12	1095	4.96	12	2	3	8
C 19146	10097	9	211	13.4	6	83	1540	19.71	125	4	7	1260
C 19147	12687	24	274	16.9	5	103	1277	19.44	182	2	11	980
C 19148	23834	24	417	17.4	4	107	749	24.23	116	12	15	680
C 19149	10864	13	126	15.0	12	75	261	28.20	38	2	5	1760
C 19150	340	27	79	.6	5	25	521	31.88	15	2	1	8
C 19151	52	17	70	.3	7	39	357	36.39	37	2	1	1
C 19152	49	17	62	.2	3	29	398	31.53	19	2	1	1
C 19153	50	2	64	.2	1	27	375	33.78	16	2	1	1
C 19154	38	8	23	.1	1	3	173	1.98	2	2	1	1
C 19155	26	3	22	.1	1	5	167	2.46	3	2	1	1
C 19156	50	4	50	.1	3	11	274	2.33	5	2	2	2
C 19157	12	4	36	.1	4	8	445	1.62	7	4	3	2
C 19158	3	5	32	.1	1	2	305	.95	3	2	2	1
C 19159	34	2	19	.1	2	74	748	1.95	118	2	2	18
C 19160	59	17	58	.2	4	6	1141	4.55	20	2	2	2
C 19161	342	19	62	.6	4	30	444	26.23	25	2	2	3
C 19162	59	13	69	.2	6	30	387	37.29	21	2	1	1
C 19163	181	25	60	.4	3	24	696	21.59	26	2	2	6
C 19164	168	19	223	.4	8	33	632	22.63	37	2	1	7
C 19165	70	18	83	.3	7	29	684	22.42	34	2	1	3
C 19166	178	19	130	.5	6	24	861	11.92	32	2	3	4
C 19167	165	10	103	.4	5	28	568	25.80	28	2	3	2
C 19168	542	19	115	.7	7	34	550	28.75	33	2	2	7
C 19169	1031	15	83	1.1	10	37	539	33.02	30	3	2	37
C 19170	940	19	87	.9	6	35	504	35.26	24	3	3	30
C 19171	574	23	73	.6	4	34	489	36.34	24	2	1	6
C 19172	31	2	15	.1	1	47	768	2.48	77	2	2	1
STD C/AU-R	60	42	132	6.8	68	30	1034	4.28	41	19	12	480

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	Bi PPM	W PPM	Au* PPB
C 19173	33	9	62	.1	1	43	277	34.24	44	2	1	12
C 19174	9907	17	196	7.6	17	110	553	30.13	114	2	10	440
C 19175	3225	24	139	2.5	5	57	508	30.31	52	2	2	780
C 19176	114	4	81	.2	10	83	432	40.11	99	2	1	17
C 19177	22	11	116	.3	6	105	626	36.38	136	2	1	23
C 19178	12	12	65	.3	5	42	620	39.56	25	2	1	52
C 19179	1426	16	66	7.2	6	286	447	36.22	1019	2	4	590
C 19180	68200	11	788	244.7	8	602	5828	29.46	5220	124	29	13480
C 19181	30474	13	320	39.5	10	3705	660	34.10	6737	2	15	1060
C 19182	1032	2	26	3.2	47	67	902	6.35	83	2	2	102
C 19183	1090	20	120	1.7	33	94	1431	18.76	178	2	1	82
C 19184	1093	10	121	1.8	37	56	1497	23.54	856	2	2	240
C 19185	108	2	63	.4	4	44	406	34.95	62	2	1	143
C 19186	3410	5	103	2.5	2	67	478	28.88	87	2	3	755
C 19187	291	2	52	.5	5	26	555	19.85	17	2	2	32
C 19188	1503	7	88	2.4	1	69	728	32.28	86	2	4	240
C 19189	11090	15	655	12.7	7	70	3443	18.09	137	2	8	141
C 19190	1552	3	74	1.9	3	78	630	36.36	32	2	10	290
C 19191	354	2	22	.6	2	7	406	1.69	2	2	2	18
C 19192	29	2	63	.2	4	25	334	25.78	7	2	1	7
C 19193	1763	7	61	2.4	6	30	699	31.53	22	2	2	103
C 19195	1938	16577	99999	153.3	1	8	3560	17.37	11821	2	1	9890
C 19196	1643	20109	99999	145.0	1	5	6176	8.27	777	2	1	8130
E 44051	5710	285	490	2.1	9	39	252	38.08	75	2	8	620
E 44052	13535	228	402	4.4	10	52	213	20.08	13	2	7	560
E 44053	63966	26	70	18.3	14	34	568	24.28	81	14	49	495
E 44054	11334	33	74	4.2	6	17	809	8.41	38	2	11	380
E 44055	6449	16	55	1.4	4	42	96	38.73	3	2	4	205
E 44056	9852	10	134	11.3	5	99	993	6.63	147	2	4	1390
E 44057	99999	10	1324	147.8	8	551	778	18.36	963	31	14	13280
E 44058	99999	19	2080	145.5	15	975	647	20.54	1994	31	22	27400
E 44059	66578	14	1381	82.5	5	247	2265	10.30	567	2	21	7010
E 44060	11667	15	303	10.9	11	665	1165	14.46	1119	2	11	1290
E 44061	406	3	63	.7	9	42	645	26.75	45	2	5	980
E 44062	2268	2	184	2.9	8	99	750	20.73	145	2	7	3390
E 44063	416	4	77	.5	10	24	793	15.93	44	2	3	19
STD C/AU-R	61	42	133	6.7	69	31	1012	4.35	42	24	13	510

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	Bi PPM	W PPM	Au* PPB
E 44064	689	2	51	.3	6	14	927	3.06	19	2	4	4780
E 44065	39	6	32	.3	3	5	1156	12.16	59	2	4	32
E 44066	48	2	100	.3	6	14	909	20.88	20	3	2	33
E 44067	672	7	24	.5	4	36	1063	8.12	62	2	6	127
E 44068	138	28	138	.1	2	14	169	4.27	12	2	1	5
E 44069	209	2	39	.3	7	14	709	15.77	10	2	1	4
STD C	59	42	132	6.9	67	29	1023	4.16	40	21	12	-

Assay required for correct result for Cu, Pb, Zn, As > 1%
Ag > 35 ppm

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE(604)253-3158 FAX(604)253-1716

DATE RECEIVED: NOV 24 1988
DATE REPORT MAILED: Nov. 29/88.

ASSAY CERTIFICATE

- SAMPLE TYPE: Pulp
AU** AND AG** BY FIRE ASSAY FROM 1/2 A.T.

SIGNED BY..C. Leong.. D.TOYE, C.LEONG, B.CHAN, J.WANG; CERTIFIED B.C. ASSAYERS

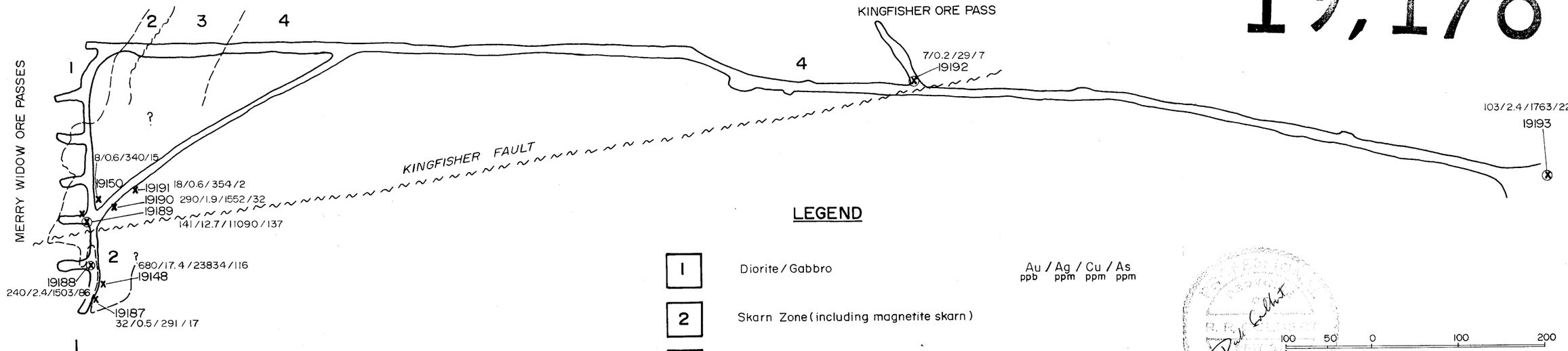
EQUINOX RESOURCES LTD. PROJECT-216 FILE # 88-5965R

SAMPLE#	Ag** OZ/T	Au** OZ/T
19194	.23	.226
19198	.11	.101
19199	.05	.061
44070	.05	.092
44078	4.19	.263
44079	4.50	.398

216

APPENDIX IV-COST STATEMENT

Wages	J. Mustard	28.5 days @ $225/day	$6,412.50
	R. Albert	25.5 days @ $160/day	4,080.30
	R. Culbert	3 days @ $230/day	690.00
Field Expenses			1,699.67
Supplies			948.05
Draughting			125.94
Air Photographs			437.30
Geochemical Analyses			1,765.25
Air Fares			272.40
Truck Rental		10 days @ $50.00	500.00
Total			$16,930.91



LEGEND

		Au / Ag / Cu / As ppb ppm ppm ppm
1	Diorite / Gabbro	
2	Skarn Zone (including magnetite skarn)	
3	Bonanza Group	
4	Quatsino Limestone (includes numerous sills and dykes)	
x	Grab sample location (Wall Rock)	
⊗	Grab sample location (Broken Ore)	

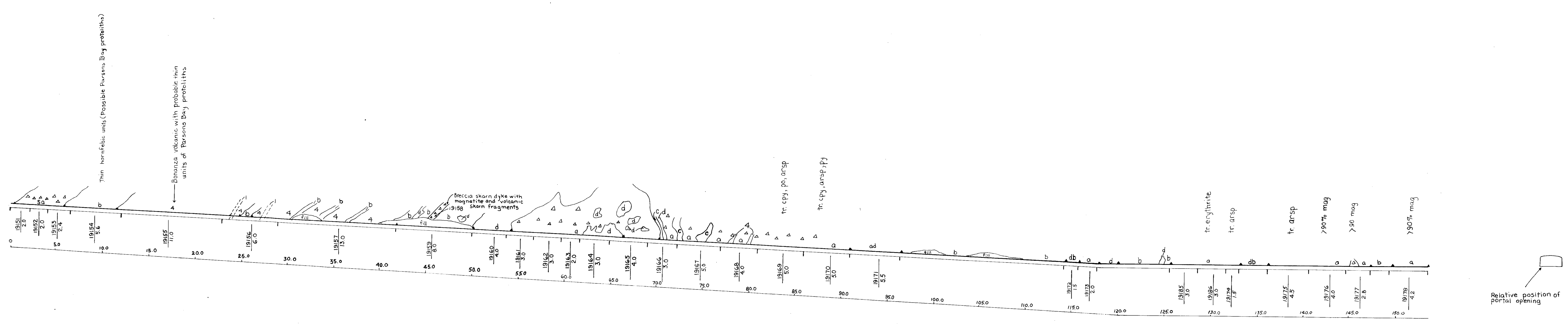
100 50 0 100 200
feet

EQUINOX RESOURCES LTD.

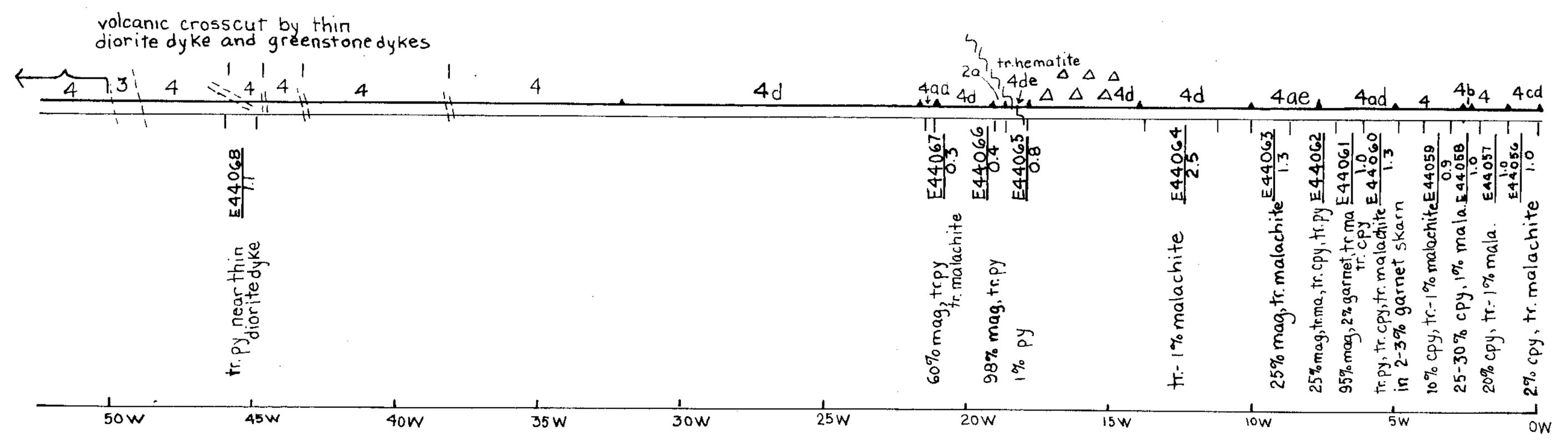
SKETCH OF THE
KINGFISHER-MERRY WIDOW ADIT
1920 LEVEL
AFTER LUND(1966)

EQUINOX OPERATIONS GROUP

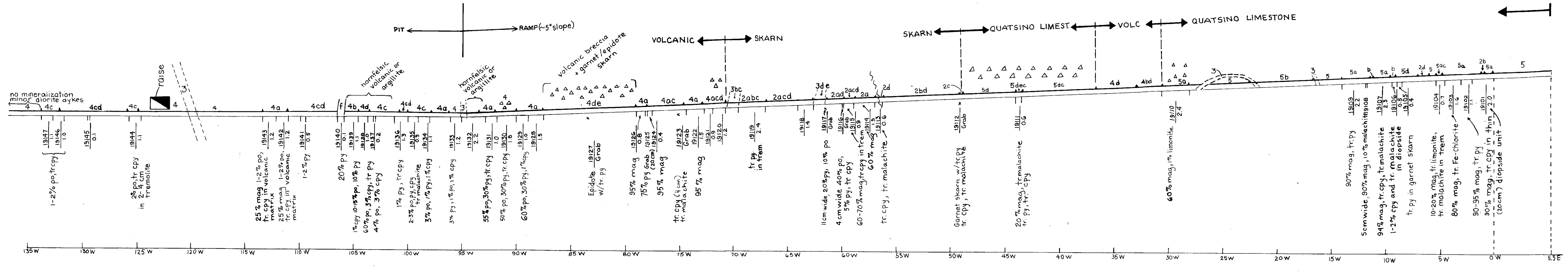
SCALE AS SHOWN	DATE SEPT., 1989
DRAWN JM, RRC, GR	FIGURE 6



SOUTH WALL



UPPER NORTH WALL



NORTH WALL

LEGEND

- 1 — Late coarse grained feldspar porphyry dyke, diorite dyke
- 2 — Massive skarn
- 3 — Greenstone dyke
- 4 — Bonanza Formation – volcanic
- 5 — Quatsino Formation – limestone

- a — Magnetite skarn
- b — Pyroxene skarn
- c — Amphibole skarn (tremolite, actinolite)
- d — Garnet skarn
- e — Epidote skarn
- f — Quartz vein

- Brecciated
- Fault
- Approximate geological contact

GEOLOGICAL BRANCH ASSESSMENT REPORT

19,178

EQUINOX RESOURCES LTD.

BEN PROPERTY

MERRY WIDOW PIT

LINE MAPS OF NORTH AND SOUTH WALL

EQUINOX OPERATIONS GROUP

SCALE	1:250	DATE	SEPT., 1989
DRAWN	JM, RA, GR	FIGURE	5