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REPORT ON THE 1988 SUMMER EXPLORATION PROGRAM
PROSPECTING, GEOLOGICAL MAPPING, DRILLING AND TRENCHING
ON THE
MARMOT GROUP OF CLAIMS

TEDRAY 9,10,11,12,13,14,15,16,17,18, DK 1,2

SULPHURETS PROJECT

BRUCEJACK LAKE AREA

SKEENA MINING DIVISION

BRITISH COLUMBIA, CANADA

NTS 104B/8,9

56 DEG 30'N. LATITUDE

130 DEG 13'W. LONGITUDE

for

NEWHAWK GOLD MINES LTD.

860-625 HOWE ST.

VANCOUVER, B.C. V6C 2T6

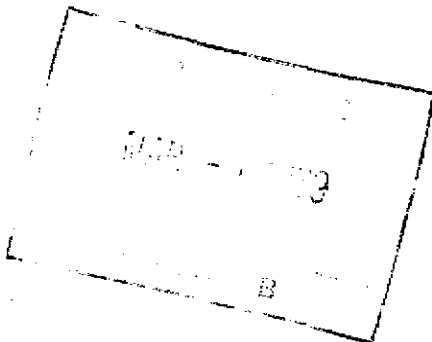
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#1500-675 W. HASTINGS ST.

VANCOUVER B.C. V6B 1N2

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GEOLOGICAL BRANCH
ASSESSMENT REPORT

18,564

MARCH 1, 1988

N.L. TRIBE F. Eng.

REPORT ON THE 1988 SUMMER EXPLORATION PROGRAM
PROSPECTING, GEOLOGICAL MAPPING, DRILLING AND TRENCHING
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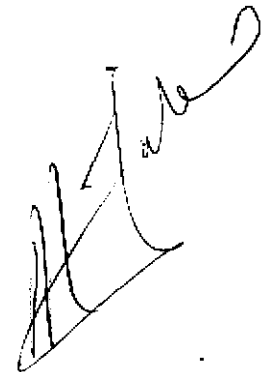
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REPORT ON THE 1988 SUMMER EXPLORATION PROGRAM
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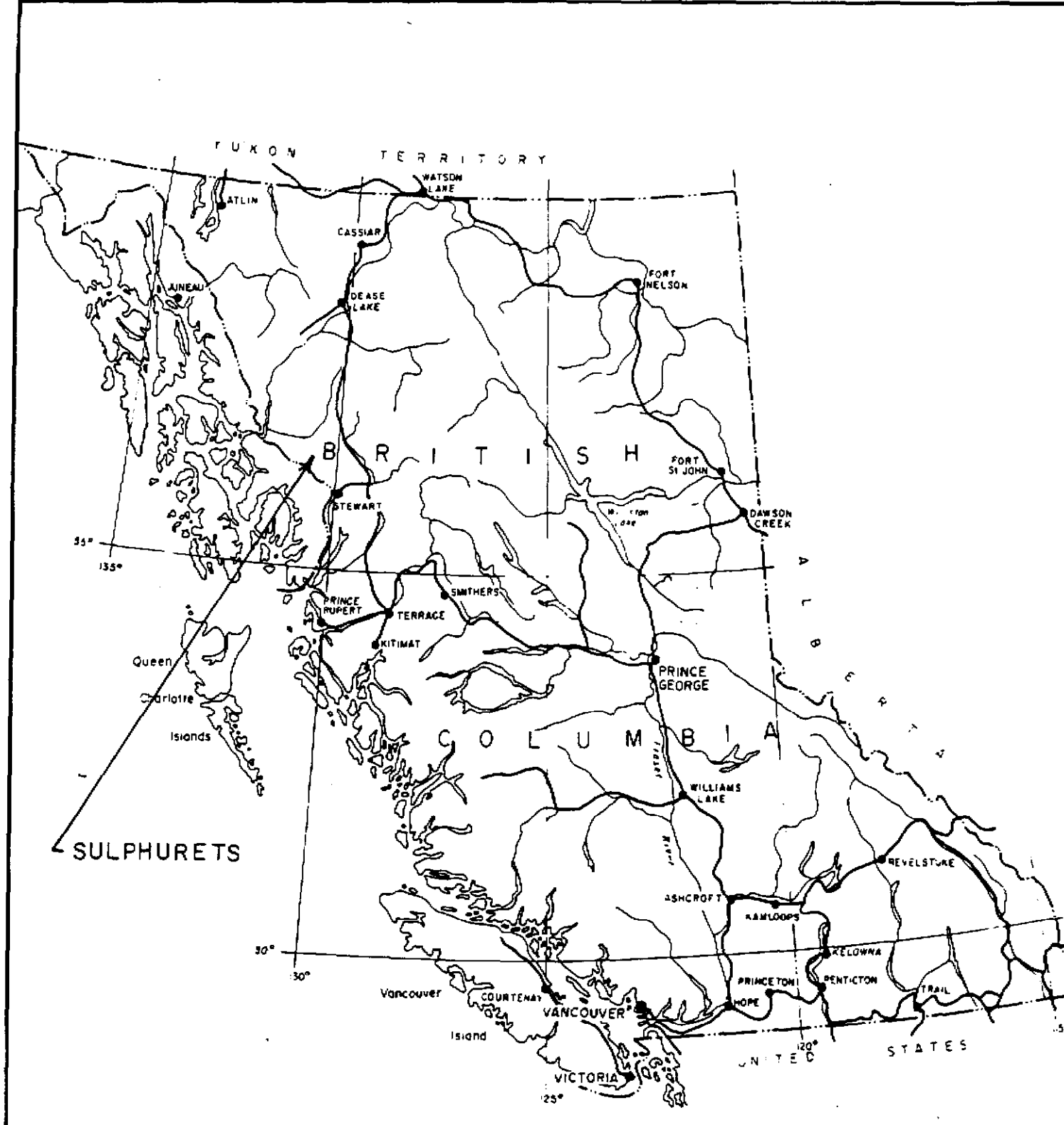
INTRODUCTION

The purpose of this report is to document the work done on the surface exploration portion of the Sulphurets Project for the 1988 summer field season. The report will include a summary of the prospecting efforts on the whole of the property, and an assessment of the new discoveries revealed by this prospecting.

The report will review the surface diamond drilling and summarize the results.

Summary

The property is located 60 Km. northwest of Stewart B.C. in the Coast Range mountains. Much of the property is alpine with high plateaus ridges arêtes icefields and deep



NEWHAWK GOLD MINES LTD.
SULPHURETS PROJECT
LOCATION MAP

SCALE: As Shown
 DATE: DECEMBER 1968
 DRAWN BY: M.L.T.
 FIGURE NO. 1
 N. TRIBE & ASSOC. LTD.

glacier filled valleys. Access is by highway 37 into Stewart thence by helicopter into the property.

The property is owned by Granduc Mines Limited of #1500-675 W. Hastings St. Vancouver B.C. V6B 1N6 and is made up of a mineral claim group called the Marmot Group, which includes the Tedray 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, OK 1, 2, mineral claims and is part of a larger holding called the Sulphurets Property. The work was carried out by Newhawk Gold Mines Ltd. of 860-625 Howe St. Vancouver B.C. V6C 2T6.

The surface exploration crew consisted of four geologists: N. Tribe B.A.Sc., P.Eng., R. Leep B.Sc., P. Bower B.Sc., M. Genn B.Sc. These technical people were augmented by a 2 man trenching crew, a diamond drill with helicopter support.

The exploration base camp was established next to the mine camp and cook shack and laundry privileges were enjoyed by the surface exploration personnel.

The program got underway July 6, 1988 with crews arriving on the property on July 13, 1988.

An area of 56 ha. was mapped on the Golden Marmot Zone on 1:2000 scale.

A total of 70 man days was spent prospecting, and 40 man days mapping.

A total of 672.3 m. of BQ core was drilled and a total of 268 core samples assayed by fire assay methods in Stewart. A Map I XRF portable silver scanner was used to screen samples and provide direction for the prospecting, drilling and mapping.

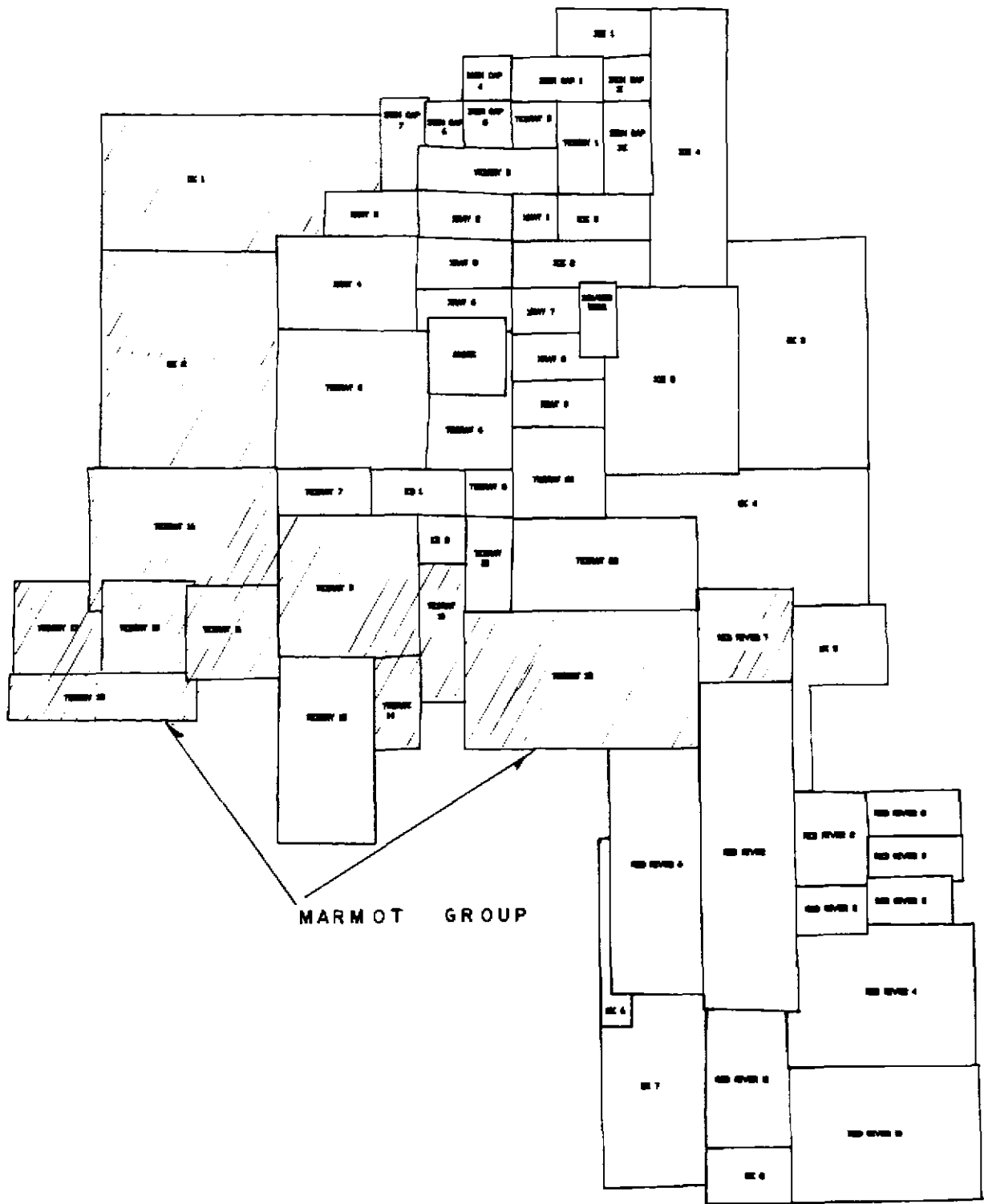
A total of 521 samples were assayed of which 268 were core, 49 were trench samples and 204 were grab samples. In support of this a further 1,112 samples were scanned by MAP I.

The total cost of this portion of the summer program is \$132,937.72 with the completion of this report.

Background

Several stages of exploration were undertaken on the claims, starting in 1880'S with the Johnson brothers searching for gold in the Sulphurets. Prospectors arrived in 1935 locating the Main Copper Zone. In 1960 Granduc took up the main body of claims on the Main Copper deposit on the Mitchell-Sulphurets Ridge. Over the years these holdings were extended to the south to include the claims around Brucejack Lake. In 1985 Newhawk staked the remainder of the claims to bring the holdings up to their present size.

In 1974 Montgomery et al and in later years others carried out a broad litho-geochemistry survey in which copper was the main target but which also provided a data base for gold and silver. Granduc spent several years studying the Main Copper Zone on Mitchell-Sulphurets Ridge and established a reserve of 87,000,000 tons of 0.55 - 0.85% Cu. and 0.013 - 0.020% MoS₂ and 0.021 - 0.050 opt Au. When Esso optioned the property in 1980, their efforts were directed toward this copper deposit. After the first year the emphasis was shifted toward the precious metals discoveries around Brucejack Lake. These discoveries proved too small and too late within the framework of their option agreement for Esso



MARMOT GROUP



[Handwritten signature]

NEWHAWK GOLD MINES LTD.	
SULPHURETS PROJECT	
CLAIM MAP	
SCALE 1:5000	DRAWN BY: NLT
DATE NOVEMBER 1988	FIGURE NUMBER 2

to continue and Newhawk Gold Mines Ltd. took over in 1985. Newhawk's efforts were directed toward developing the West Zone at Brucejack Lake and very little was done in the following two years on the numerous areas of known mineralization or the numerous anomalies outlined in the geochem surveys.

RESULTS

Purpose

At the beginning of the 1988 season Newhawk's board considered that an overall evaluation was necessary for a systematic development of the property. They directed the field program to return to as many of the known areas of mineralization and as many of the geochem anomalies as possible, and establish priorities in evaluating each within the overall property development plan. This, then, was the purpose of the exploration program in the summer field season of 1988.

The program got somewhat side-tracked with some impressive new discoveries early in the season, but was able to relocate most of the previously documented gold bearing mineral occurrences and visit the larger geochem anomalies.

Prospecting

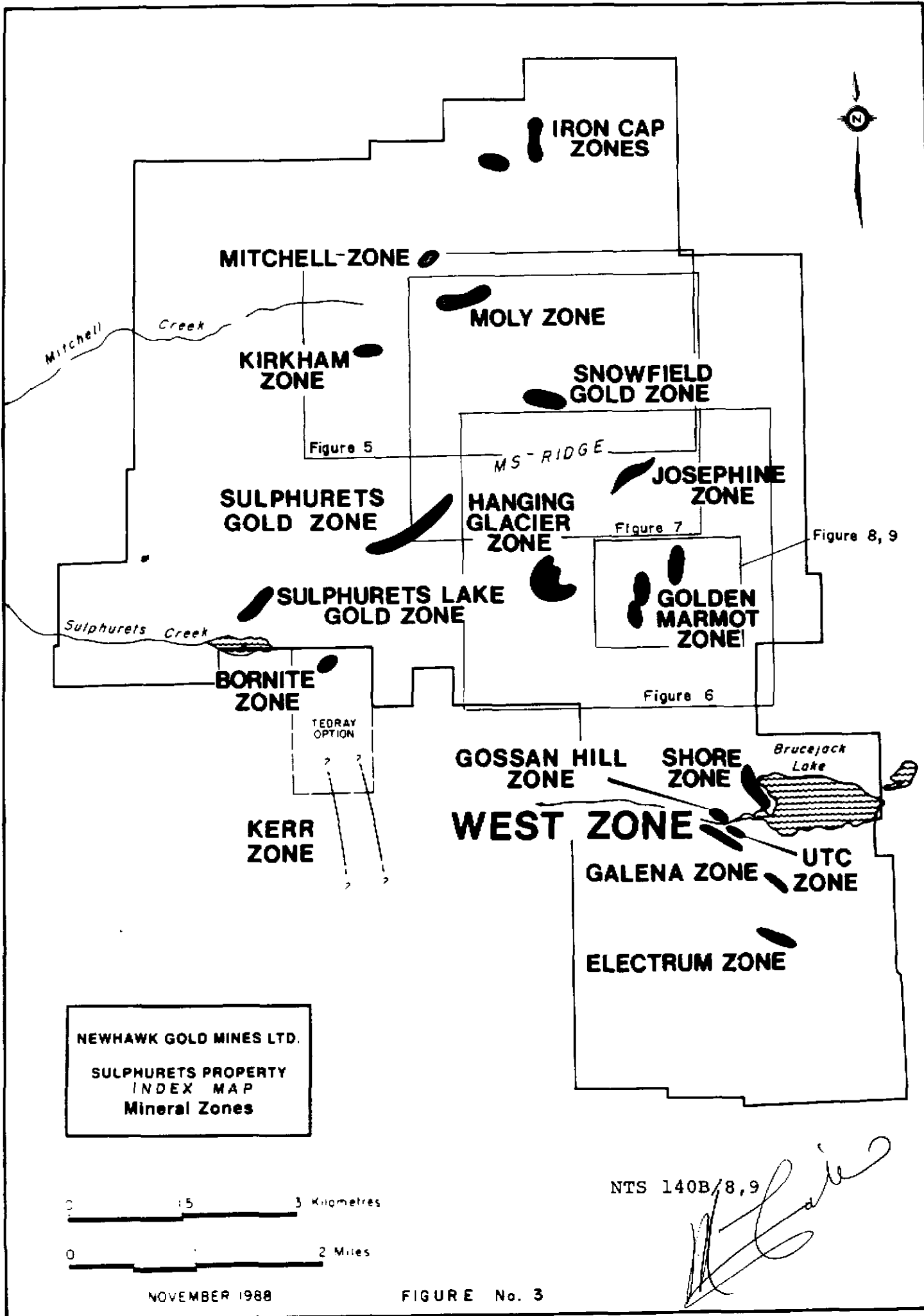
Sulphurets Lake Gold Zone

This zone, located near the toe of the Sulphurets glacier, (Figure #4) consists of sericite-pyrite alteration with quartz-bearing shears up to 5 meters wide cutting andesite lapilli tuffs and intrusive rocks. These shears trend 050 degrees to 060 degrees and dip to the northwest.

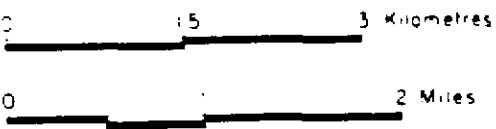
Initial chip samples across the shears assayed 0.246 opt Au. and 1.38 opt Ag. over 2.0 m. and 0.244 opt Au. and 2.99 opt Ag. over 2.0 m. Resampling in the area was not able to duplicate these values but did get values as high as 0.074 opt Au. over 2.5 m. The gold is probably associated with small quartz stringers and veinlets in the shears within the overall sericite-pyrite-quartz package. Montgomery mentions an assay 1.0 opt Au over 3.0 m. and 0.324 opt Au. over 12 m.

Sulphurets Gold Zone

The Sulphurets Gold Zone (Figure #4, "Property Geology Sample Locations Summer 1988") is similar to the Sulphurets Lake Gold Zone consisting of large gossanous sericite-pyrite-quartz shears. These shears trend NNE and dip to the west. Molybdenum and chalcopyrite are also present in the shears. A select grab sample of pyrite in a shear assayed 0.154 opt Au. A representative chip sample across 3.0 m. in a mineralized shear assayed 0.204 opt Au. Silver samples in this area were generally low but went as high as 77.3 opt Ag. over 0.5 m. in a quartz vein. An assay from the east end of the zone, from a massive pyrite pod within a larger sericite-pyrite-quartz zone, assayed 0.119 opt Au. over 5 m. A follow-up sample taken above the pyrite pod in the alteration zone gave 0.129 opt Au. across 3.0 m. and two samples taken below the pyrite pod gave assays of 0.047 opt Au. across 4.0 m. and 0.040 opt Au. across 5.0 m. The zone seemed fairly continuous but the gold mineralization was not easily defineable. Sample locations are shown on a map entitled "Property Geology Sample Locations Summer 1988"



NEWHAWK GOLD MINES LTD.
SULPHURETS PROPERTY
INDEX MAP
Mineral Zones



NTS 140B/8,9

[Handwritten Signature]

NOVEMBER 1988

FIGURE No. 3

(Figure #4).

The area is extreme in relief and access is hazardous or impossible without expert climbers and climbing gear. Loose crumbling rocks increase the problems and will require extreme care to work safely.

The zone continues to the northwest into the treed area in which there is good alteration and some limited outcrop to work with. This area was not covered in this program.

West-Mitchell-Sulphurets Ridge Area and the Main Copper Zone

Several traverses were made along the west end of the ridge, west and north of the Main Copper Zone, "Property Geology Sample Locations Summer 1988" (Figure #4). Several veins were noted but none had sufficient size to warrant immediate follow up. The best of these was a quartz hematite vein assaying 0.195 opt Au. over 0.3 m., and 0.376 opt Au. across 25 cm., and quartz carbonate galena sphalerite vein assaying 0.162 opt Au., 28.3 opt Ag. across 50 cm.

East Mitchell-Sulphurets Ridge and Josephine Zone

A very short reference is made to this area in Bridges work and a small sketch map was found in the files passed on to us. The old sketch map had noted occurrences of barite and made references to electrum. A visit to the area "Mitchell-Sulphurets Ridge Geology Map 1988 Josephine Zone Sample Location Map" (Figure #7) late in the season revealed several quartz-barite stockwork structures with abundant tetrahedrite which gave some exciting assays ranging from 2.84 opt Ag. to 104.73 opt Ag. and up to 0.309 opt Au over

1.5 m. The length of this zone is in the hundreds of meters and sits just west of the Brucejack Fault on the Mitchell-Sulphurets Ridge at about 6,300 ft. (1,920 m.) elevation.

Hanging Glacier Area

Several traverses were made in this area "Hanging Glacier Area Sample Location Map", (Figure #6) and the numerous rich veinlets known to exist were revisited. The veins found to date have all been small, in the order of a few centimeters wide and a few meters long. No area has yet been located where these veinlets could be bulk mined. Other areas of greater potential preclude any further work on this area.

Golden Marmot Area

This is one of the areas showing anomalous on Montgomery's geochem maps. The area did not receive much attention in the past but was visited early in the prospecting program. Initial traverses discovered numerous quartz stockworks, many with an abundance of tetrahedrite and/or tennantite. Five main systems were defined "Geology with Interpretation Golden Marmot Zone", (Figure #8), "Golden Marmot Zone Assay Plan", (Figure #9). These are The Weasel Zone, The Deb Zone, The Marmot Zone, The Wall Vein and The Ptarmigan Zone. The area is mainly andesite volcanics but with sediments around the perimeter and syenite and plagioclase porphyry intrusives breaking through the volcanics. The whole of the area is highly sericitized pyritized and propylitized and appears as a broad gossaneous

area.

The Weasel Zone

The Weasel Zone is a quartz stringer zone with a north-south strike and a near vertical dip. The zone of mineralization is 3 to 5 m. wide. The best surface sample assayed 0.121 opt Au., 23.14 opt Ag. across 3.5 m. The zone was trenched with three trenches and one hole was drilled. Trenching and drilling results were not able to duplicate the surface results.

The Marmot Zone

The Marmot Zone is an ESE trending quartz vein up to 2.5 m. wide assaying 0.956 opt Au. 0.32 opt Ag. from surface samples. No trenching was done but one hole was drilled with disappointing results showing a much smaller (1.5 m.) structure and grades of 0.165 opt Au., 0.26 opt Ag.

The Deb Zone

The Deb Zone is the strongest of the quartz stockwork structures, some tens of meters wide and hundreds of meters long. The trenching and drilling results were disappointing, giving only 0.030 opt Au. over 1.8 m. and 0.030 opt Au. over 3.0 m.

The Wall Vein

The Wall Vein is made up of two prominent quartz veins lying in or just west of the Brucejack Fault. Each vein is approximately 1.0 m. wide, can be traced through the scree for about 30 m., and assayed 0.668 opt Au. One hole was drilled and gave assays up to 0.030 opt Au.

The Ptarmigan Zone

The Ptarmigan Zone is a series of quartz-carbonate veins and stockworks with irregular trends and varying amounts of mineralization. It is the largest of the zones in the Golden Marmot area, but is more scattered than the others. The best surface grab sample assayed 0.459 opt Au. and 14.16 opt Ag. Twelve trenches were cut across the various veins along the ridge and the best result was from trench T273 with assays of 4.814 opt Au. 3.52 opt Ag. over 3.0 m. One hole was drilled through a number of veins which run along the ridge, giving assays of 0.175 opt Au., 0.45 opt Ag. over 3.1 m. and 0.101 opt Au. 0.41 opt Ag. over 3.1 m.

On the west end of this zone is an area containing quartz breccia with pyrite which has a southeasterly trend. Surface samples assayed 0.211 opt Au. across 1.0 m. and 0.120 opt Au. over 3.0 m. The trenching on this outcrop gave results of 1.116 opt Au., 0.44 opt Ag. over 0.5 m. One isolated carbonate vein in this area assayed 0.011 opt Au., 96.01 opt Ag. over 0.4 m.

Mitchell Glacier-Kirkham Zone

The area near the toe of the Mitchell Glacier along the south side of the valley was traversed over a period of several days "Interpreted Surface Geology Moly-Kirkham Zone Sample Locations Summer 1988", (Figure #5). A large intensely mineralized quartz stockwork with pyrite and chalcopyrite was noted just south of the toe of the glacier in an area sometimes referred to as the Kirkham Zone. Twenty-eight samples were taken and the best result was

0.057 opt Au., 2.36 opt Ag.

Geology

The regional geology was mapped by Bridge et al in the period 1980-1983. The majority of the rocks are Unuk River Formation andesite lapilli tuffs and Salmon River Formation sediments derived therefrom. Into this package is intruded numerous syenite, diorite or plagioclase porphyry stocks. The volcanics are steeply folded into near vertical standing folds with an overriding strike direction of about 320 degrees. Large areas of alteration several kilometers long and 1 - 2 km. wide of highly sericitized, pyritized rocks mark the centers of mineralization.

Structurally the most important features on the property are thought to be a north-south trending set of regional faults and the north-east trending set of regional faults. A study of the orthphoto has provided a better understanding of the importance of these structures.

The most predominant of the north-south system is the Brucejack Fault but others dubbed the Ice Fault, Mill Fault, Ptarmigan Fault and Freegold Faults can be seen on the airphoto mosaic cutting through the Brucejack area north south at 500 to 1,000 m. intervals. The most prominent of the north-east trending set is the Golden Rocket Fault and others have been dubbed the N.W. Fault, Gossan Fault and Galena Faults.

Early work indicated the north-south faults to have a right lateral displacement providing a right lateral

torsional moment along which many of the quartz stockworks have developed. Close examination of jointing adjacent to the Brucejack Fault reveals a curvature to the left which contradicts this right lateral movement but as yet this problem has not been resolved. The quartz stockworks fit more comfortably, at this time, into a right lateral strain envelope.

The present thinking is that the Brucejack fault and the Mill Fault control the openings from the Electrum Zone, Spine Zone, Galena Zone, Notch Zone, West Zone, Waterfall Zone, the five distinct stockworks on Gossan Hill, and several more including the NW3 Zone and the Iceberg Zone, north to the crossing, Golden Rocket Fault, near Catear's Mill.

To the west is a corridor of stockworks between the Brucejack Fault and the Ptarmigan Fault. These include the BJB Zone, the Golden Rocket Zone (Catear's), the Marmot Zone, Deb Zone, Ptarmigan Zone, and the Weasel Vein.

The structural model which fits the observations made to date is one involving a regional stress-strain pattern developing along the north-south lineaments with right lateral rotation. Strong north-south lineaments appear to form strain boundaries for most of the tensional openings (ie. most of the quartz stockwork zones) and the alteration zones within the Brucejack area. These openings are oriented about 40 degrees counterclockwise from the north-south lineaments or in the R1 direction (Reidal System). Large areas of sericitic alteration and numerous quartz stockwork zones have been mapped at or near this orientation (Az. 140

degrees). A second set of openings sometimes occur within the strain envelope. These are rotated a further 40 degrees counterclockwise and have a general orientation of about Az. 100 degrees or in the R2 direction. Veins fitting this orientation are the sulphide rich parts of the West Zone. An overall "S" shape for the West Zone is apparent when viewed as a loop including the Southwest stockworks. One problem with this model is that the easterly hook in the south end of the loop is incompatible with a right lateral rotation strain pattern.

A second pattern of regional faults is noted in the north-east orientation and these may play a significant part in the structural picture, but are not fully understood at this time. A left lateral moment in this orientation along these north-east faults could explain the hook in the south end of the West Zone and perhaps also the left lateral curvature noted in the jointing adjacent to the Brucejack Fault.

An alternative structural model could be based on east-west crustal deformation with a left lateral rotation passing approximately up the Knipple Glacier and through the Brucejack Lake area. This model is the simplest in explaining the shape and orientation of the West Zone, Shore Zone, and other stockworks in the Brucejack area. As yet evidence of a major east-west structure has not come to light.

The development of the stockworks appears also to be related to the contact between the sediments and the

volcanics and develops best just inside the contact within the volcanics. There are some obvious structural reasons for this, such as changes in competency, for instance, but there are probably chemical and permeability reasons as well.

The Reidal structures which form the loci for the mineralization do not always develop quartz stockworks but often form a broad zone of sericitic, argillic and propylitic alteration with or without quartz stockwork at the core. This zoning grades outward through sericitization, then propylitic alteration, then argillitic alteration halos, in a lateral zoning.

The detailed mapping of the Golden Marmot Zone (Figure #8) shows a markedly similar geological environment to the West Zone and Shore Zone, 3 km. to the south. The quartz stockworks of the Golden Marmot Zones form a series of lenses in a general northwest orientation just inside the andesites near the volcanic sedimentary contact. The syenite and plagioclase intrusives are also present as is the sericite and argillic alteration patterns. The whole package is located between the Brucejack Fault and the Ptarmigan Fault completing the structural comparison.

DRILLING RESULTS

Golden Marmot Area

The drilling results on the Golden Marmot Area were successful in locating, establishing orientation and measuring widths and grade of the veins systems located during the surface prospecting program.

Diamond drill hole DDHS88-280, drilled on the Marmot Zone, was drilled to test the Marmot Vein systems at depth. The hole was drilled mainly in plagioclase porphyry and syenite intrusive rocks with moderate to intense jade green sericite alteration, mild brecciation and occasional stockwork vein systems. Vein systems were encountered from 28.7 m. - 29.3 m. which graded 0.165 opt Au., 0.26 opt Ag. over 0.5 m. and from 44.2 m. - 47.5 m. which graded 0.096 opt Au., 2.02 opt Ag. over 1.5 m.

The Marmot Zone is typical of the stockwork vein systems found in the Brucejack Area with stockworks and alteration comparable to that found in the West Zone and Shore Zone. The Marmot Zone has thus been proven at depth but will probably require further drilling when the 1:500 scale mapping is complete.

One hole, DDHS88-281, was drilled on the Deb Zone. The Deb Zone is the strongest of the stockworks on surface in the Golden Marmot Area, but does not display sulphides at surface. This hole was drilled to 191.7 m. in andesite lapilli tuff throughout. Stockwork or veins were not as strong in the drill hole as on surface and did not give significant assays. Detailed mapping at 1:500 scale, may provide a better understanding of the Deb Zone but no further drilling is required until then.

One hole, DDHS88-282, was drilled on the Weasel Vein to test the vein where excellent results were obtained from surface sampling. The hole was collared in moderately to intensely sericitized andesite lapilli tuff and remained in

this rock type throughout. Areas of quartz stockwork and chlorite alteration were encountered as well as the dikes noted on surface. No significant precious metal values were encountered.

One hole, DDHS88-283, was drilled to test the Wall Vein where excellent gold values were obtained from surface samples. This vein sits in a zone of shearing associated with the Brucejack Fault. The hole was collared in moderately silicified, moderately chloritized andesite lapilli tuffs containing traces of copper. The Wall Vein was intersected from 36.4 m. to 40.1 m. and is made up of two, 1.0 m. veins separated by chlorite altered tuffs. Assays from the vein were 0.034 opt Au., 0.05 opt Ag. over 2.0 m. and 0.033 opt Au., 0.12 opt Ag. over 2.3 m. These results were disappointing compared to the surface values of 0.668 opt Au., 0.23 opt Ag. collected earlier. Detailed 1:500 scale mapping and further surface sampling may provide an insight as to the potential of this vein but there does not appear to be a further worthwhile target here at this time.

The most promising zone in the Golden Marmot Area is the Ptarmigan Zone where samples assaying 4.814 opt Au., 3.52 opt Ag. over 3.0 m. were taken from trench T273. One hole, DDHS88-284 was drilled to 179.5 m. through a portion of the wide spread scattered quartz stockwork zone. The hole was collared in overburden as far back as the terrain would permit and the hole passed in to 6.7 m. of quartz vein directly after hitting bedrock. The wall rocks here are moderately to intensely sericitized andesite tuffs with an

abundance of jade green sericite. Further veining occurs at 41.8 m. - 42.4 m., 92.6 m. - 92.8 m. and 107.4 m. - 107.6 m. with assays up to 0.175 opt Au., 0.45 opt Ag. over 3.1 m. A second assay of 0.101 opt Au., 0.41 opt Ag. was obtained from a section of chloritized andesite containing up to 20% pyrite but lacking in quartz.

Traces of chalcopyrite and malachite have been noted in the core of several holes in the Golden Marmot Area and assays for copper will have to be done.

CONCLUSIONS

Prospecting

The prospecting was successful in relocating most of the gold showings reported in the old reports. As well, a new area called the Golden Marmot Area was discovered which contained at least five good mineralized quartz stockwork zones, four with high silver values. Prospecting is still one of the most effective methods for discovering mineralization in this area.

added to the interpretation.

The structure of the Brucejack Area quartz stockworks appears to be related to the dynamics generated by the right lateral, north-south faulting. These stockwork zones form classic loop patterns. Some interference either contemporaneous or subsequent, by a left lateral movement on the north-east trending faults, is necessary to explain the easterly hook in the south end of several of the zones.

The stockwork zones should not be regarded in isolation, but viewed within the total alteration envelope.

More study is required in order to fully understand the structural controls and alteration patterns of the Brucejack area. The possibility of major left lateral east-west crustal deformation feature should not be over looked. Such a structure would go a long way in explaining the shapes observed to date at Brucejack.

Driling

The drilling on the Golden Marmot area was moderately successful in intersecting significant ore grade material. The most favourable area appears to be the Ptarmigan Zone where grab samples on surface, trench samples from T273, and core samples from DDHS88-284 all gave ore grade values over mining widths. The other zones in the Golden Marmot Area did not give ore grade intersections in the drilling but should not be ignored. More surface work will be required before more drilling can be recommended.

CORE STORED AT NEWHAWK CAMPSITE AT BRUCEJACK LAKE.

Statement of Cost

Physical

Trenching	\$13,797.10
Labour, Geological Support (27.5 days @ \$200/day)	\$5,510.00
Assays	\$1,530.70
Helicopter Support	\$3,900.00
Drafting and Reporting	\$822.02

=====

Total \$25,559.82

Geological

Drilling 5 holes 672.1 m.	\$62,332.94
Labour (16 man/days @ \$200/day)	\$3,200.00
Helicopter Support - drill moves (5 moves X 4 hours X \$675/hr.) plus crew change (16 X 0.3 hrs X \$675/hr.)	\$13,500.00 \$3,240.00
Assaying and Supplies	\$1,440.54
Reporting and Drafting (30 man days @ \$200/manday plus expenses)	\$6,826.00

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Total \$90,539.48

Mapping

Labour 62 man-days	\$12,400.00
Helicopter Support 3 hrs X \$675/hr.	\$2,025.00
Reporting	\$2,313.42

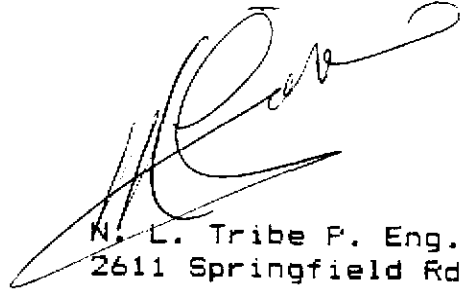
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Total \$16,738.42

=====

Grand Total \$132,837.72

This report is respectfully submitted as part of the assessment work requirements for the Marmot Group of mineral claims.



N. L. Tribe P. Eng.
2611 Springfield Rd.
Kelowna B.C. V1X 1B9
March 1, 1989.

APPENDIX I

Core Logs

DIAMOND DRILL RECORD

PROPERTY SULPHURETS HOLE NO. S88-280
 Section Special Az. 246 GN
 Date August 20, 1988 Elev. 1530 m.
 Lat. -2226 N Depth 124.7 m.
 Dep. 4432 E Logged by N.L.T.

DIP

<u>Footage</u>	<u>Reading</u>	<u>Dip</u>
0		-45°

Depth		Description
From	To	
0	6.1	Casing.
6.1	22.4	PFP. Plagioclase porphyry. Pale to med. grey. Hardness 3 - 4. Fine grained matrix with up to 40% coarse plag. phens. rounded. Mod. - intense sericitization. 6.1 - 7.0 - Coarse grained, partially weathered. 7.0 - 9.1 - Int. ser. 9.1 - 11.6 - Wk. ser. 11.6 - 23.8 - Mod. - int. ser. Broken core: 7.9 - 8.2 8.8 - 9.4 11.6 - 11.9 Ground core: Nil. Faulting: Crush and mud. 0.3 m. at 21.0 m. @ 30° CA. Foliation: 40° @ 14.9 m. 35° @ 19.8 m. Contact across 5 cm. Bx zone.
22.4	28.7	Syen. Hornblende syenite. Pale - med. grey. Hardness: 3 - 4. Silky lustre in some areas. Med. gr. (2 - 5 mm.). Sericite altered layers up to 40% in very fine grained pale grey matrix. Laths are angular elongated. Faults: #2 fault 30° CA @ 26.2 m. #1 fault 35° CA @ 27.4 m. Jointing predominantly at 45°. Broken core: 0.15 m. @ 22.6 m. 0.30 m. @ 24.4 m.

Depth		Description
From	To	
		22.4 - 23.5 - Mod. ser. 23.5 - 25.3 - Wk. ser. 25.3 - 28.7 - Mod. py. very fine grained - 5 - 10%. Contact with the vein at 25° CA.
28.7	29.3	QCVN. Quartz carbonate pyrite vein. Med. grey-white. Hardness 6 - 7. Very fine grained siliceous. Mildly brecciated, 5 - 10% pyrite trace, dark sx. Mineralization @ 40° CA. Contact with the following section 30°.
29.3	124.7	PFP. Plagioclase porphyry.. Medium grey to pale grey. Hardness: 3 - 5. Medium - fine grained phaneritic ground mass with med. - coarse grain plagioclase laths up to 1.5 cm often altered to sericite and displaying a jade green color and silky lustre. Texture is phaneritic to schistose. Foliations: 35° @ 33.2 m. 30° @ 36.3 m. 50° @ 100.3 m. 35° @ 69.8 m. 50° @ 88.1 m. 40° @ 109.4 m. 40° @ 121.6 m. 29.3 - 30.8 - PFP. Moderate ser., fine grained. Minor 2 mm. QC veinlets. 30.8 - 44.2 - PFP. Int. sericitized. Med. grained - coarse phenocrysts. Mod. schist- ose elongate laths altered to sericite. Jade green sericite. Hardness: 3. 44.2 - 47.5 - QCSW. QC BX. PFP. Int. ser. Injected with 70% QC veinlets. Traces Py. and Tet. <1%. Mildly brecciated or crackled. 47.5 - 61.0 - PFP. Int. ser. Med. grained laths to jade ser., mod. foliated. Laths dist- inct. Less than 1% QC vein- lets. Occasional large phenocrysts of unaltered plag.

Depth		Description
From	To	
		61.0 - 86.9 - PFP. Weak - moderate sericite. Fine grained laths altered to ser. Laths fine grained. 1 mm. x 3 mm. phaneritic to weakly schistose. 2 - 3% QC veinlets.
		86.9 - 87.5 - PFP. QCVN. White QC veinlets. No Sx.
		87.5 - 124.7 - PFP. Weakly - moderately sericite grains. Distinct med. grained laths of jade green sericite. Minor QC veins: 6.0 cm. @ 101.8 30.0 cm. @ 103.9 30.0 cm. @ 113.1 6.0 cm. @ 118.0 3.0 cm. @ 121.6.
124.7		END OF HOLE.

DIAMOND DRILL RECORD

PROPERTY SULPHURETS Sheet No. 1 of 1Hole No. S88-280

Sample No.	From	To	Width	Au	Ag	Au-e.
5718	17.83	19.66	1.83	<0.005	<0.05	
5719	19.66	21.04	1.37	<0.005	<0.05	
5720	21.04	22.41	1.37	0.010	<0.05	
5721	22.41	23.78	1.37	0.011	0.12	
5722	23.78	25.00	1.22	0.016	<0.05	
5723	25.00	26.52	1.53	0.008	<0.05	
5724	26.52	27.59	1.07	0.005	<0.05	
5725	27.59	28.81	1.22	<0.005	<0.05	
5726	28.81	29.27	0.46	0.165	0.26	
5727	29.27	31.40	2.13	0.009	<0.05	
5728	31.40	32.92	1.53	0.014	<0.05	
5729	32.92	34.75	1.83	0.013	<0.05	
5730	34.75	36.27	1.53	0.005	<0.05	
5731	36.27	37.80	1.53	0.017	<0.05	
5732	37.80	39.32	1.53	0.025	<0.05	
5733	39.32	40.84	1.53	0.013	<0.05	
5734	40.84	42.37	1.53	0.044	0.05	
5735	42.37	42.98	0.61	0.049	0.05	
5736	42.98	43.89	0.91	0.017	<0.05	
5737	43.89	44.50	0.61	0.061	0.12	
5738	44.50	45.42	0.91	0.096	2.02	
5739	45.42	47.24	1.83	0.062	0.40	
5740	47.24	48.46	1.22	0.021	0.05	
5741	48.46	49.49	1.53	0.021	<0.05	
5742	49.49	55.78	1.53	0.006	0.24	
5743	55.78	57.30	1.53	0.014	<0.05	
5744	64.62	65.84	1.22	0.014	0.13	
5749	65.84	67.36	1.53	<0.005	<0.05	
5750	67.36	69.49	2.13	<0.005	<0.05	
5745	69.49	70.41	0.91	<0.005	<0.05	
5746	70.41	71.32	0.91	0.005	0.13	
5747	71.32	72.84	1.53	0.005	<0.05	
5748	72.84	74.68	1.83	0.005	0.05	
5751	85.03	86.56	1.53	<0.005	<0.05	
5752	86.56	88.09	1.53	<0.005	<0.05	
5753	88.09	100.23	1.53	0.005	<0.05	
5754	100.23	101.50	1.22	<0.005	<0.05	
5755	101.50	102.11	0.61	0.015	<0.05	
5756	102.11	103.75	1.68	0.012	<0.05	
5757	103.78	104.85	1.07	0.024	0.05	

DIAMOND DRILL RECORD

PROPERTY SULPHURETS HOLE NO. S88-281
 Section Special Az. 060° GN
 Date August 22, 1988 Elev. 1544 m.
 Lat. -2610 N Depth 191.72 m.
 Dep. 3996 E Logged by N.L.T.

DIP

<u>Footage</u>	<u>Reading</u>	<u>Dip</u>
0		-45°

Depth		Description
From	To	
0	18	Casing.
18	129.23	ANLT. Andesite lapilli tuff. Grey-green, pale grey, white - dark green, black. Hardness: 3 - 7. Very fine grained aphanitic - med. grained phaneritic. Massive to moderately schistose. Some fragmental sections. Alteration varies from unaltered to int. sericitized. Mod. chloritization - weak silicification. Int. pyritized. Foliations: <ul style="list-style-type: none"> 6.10 mod. @ 40° 30.48 weak @ 40° 39.62 contorted +55° 48.77 weak @ 25° - 30° 67.06 weak @ 70° 79.25 weak @ 60° 88.39 weak @ 35° 100.58 weak @ 50° 109.73 weak @ 40° 118.87 weak @ 40° 124.97 med. - int. @ 50° 129.54 mod. @ 50° Faulting: <ul style="list-style-type: none"> 29.57 m. - 2 cm. gouge @ 70° 85.34 m. - 2 cm. gouge @ 40° 89.92 m. - 5 cm. gouge @ 30° 91.44 m. - 40 cm. gouge @ 25° 94.49 m. - 1 cm. gouge @ 25°

Depth		Description
From	To	
		5.49 - 11.58 - ANLT. Intensely sericitized. Intense pyritized. Up to 40% pyrite in coarse blotches up to 5 cm. plus disseminations, QCSX vein @ 6.4 m.
		11.58 - 39.01 - ANLT. Weak - moderately sericitized. Some patches of intense pyrite but generally less than 10% as fine disseminations. Fragments visible throughout - 1 - 5 cm. Weakly foliated 20 cm. vein QCSX at 35.97 m. @ 40° CA.
		39.01 - 42.06 - ANLT. Weak - moderate sericite. Weak to chloritized. Numerous 1 cm. veinlets and QCSX altered shears. Sx - Py.
		42.06 - 45.11 - ANLT. Mod. ser. Wk. chlor. Frag. - 5 cm. phaneritic matrix.
		45.11 - 45.42 - QCSX Vn. Int. ser., wk. chlor. 35 - 40% Sx Py. Foliation: @ 30°.
		45.42 - 80.16 - ANLT. Weak sericitization. Some fragments massive syenite. Up to 20 cm. weak pyrite chlor. 10 - 20% Sy Py.
		71.93 - 73.46 - ANLT. Mod. - int. ser. with some pyrite along the shearing.
		80.16 - 82.60 - ANLT. Mod. - int. sericite. Mod. - intense py. 15 - 20% pyrite as fine disseminations and coarse blebs parallel to the foliation.

Depth		Description
From	To	
		82.60 - 95.71 - ANLT. Extreme sericitization alteration. Mainly grey. Minor jade green @ 95.09 m. - 10 - 15% pyrite with several massive patches - 20 cm. - numerous veins massive pyrite \pm 1 cm. parallel foliation. Numerous fine QCVN \pm Sx, \pm 1 cm. No fragments visible.
		95.71 - 114.30 - ANLT. Moderate sericitization. Mod. - inten. pyritized as disseminations and coarse patches - 5 cm. \pm 15 - 20% frags. present but not distinct.
		114.30 - 121.62 - ANLT. Mod. int. ser. \pm 20% pyrite. Weak chloritization. Sharp angular fragments of some massive Sx. Mod. sheared, weak shear vein in some places.
		121.62 - 129.24 - ANLT. Light grey-green, mod. si and ser., 10 - 15% pervasive py.
129.23	191.72	ANTF. Andesite Tuff. Medium grey, grey-green, weak - mod. Si; 15 - 20% pervasive py, bands and clots of semi-massive pyrite about every 0.2 m.; banding, clast orientation, shearing, qtz. veining at about 50° CA on average; minor clay zones, usually light grey-green (more intense ser.), faults generally mod. ser.; rock generally massive except where faulted.
		129.23 - 129.54 - ANTF. Weak sil., clayey, w/2.5 cm. qtz. vein at base. Fault.
		129.54 - 131.06 - ANTF. Mod. sil., mod. ser., one noticeable qtz. vein about 25 cm. wide w/ semi - massive pyrite

Depth		Description
From	To	
		around it (but there are other masses present with no quartz vein).
	131.06 - 131.83	- ANTF. Weak - mod. sil., mod. - intense shearing, 3.5 cm. qtz. vein at base; a more mottled - marly look to it.
	131.83 - 134.42	- ANTF. Mod. sil. and ser. with occ. shear of intense ser.; about 50% of core is blotchy (about 0.5 cm. size) with pyrite-rich frags.
	134.42 - 134.57	- Highly sheared, clayey fault.
	134.57 - 147.52	- ANTF. Mod. sil. and ser. in parts blotchy, but most semi-mass. py. as large (+2.5 cm.) bands, occ. qtz. vn. (2.5 cm.) with intense ser.
	147.52 - 147.68	- ANTF. Weak - mod. sil., mod. - int. ser., highly sheared, no qtz. vn. with it.
	147.68 - 148.44	- QTVN. Qtz. veinlets continue for 0.5, mod. sil. and ser.
	148.44 - 148.59	- ANTF. Highly sheared, mod. sil., mod. - int. ser., 3.5 cm. qtz. vn.
	148.59 - 149.35	- ANTF. Mod. sil. and ser., semi-massive py as clots and stringers, qtz. veinlets and stringers @ 70° CA.

Property SULPHURETSSheet No. 5 of 5Hole No. S88-281

Depth		Description
From	To	
		149.35 - 153.31 - ANTF. Dark grey volcano-clastic with clasts up to 7.6 cm. across; py dominantly but not exclusively in with clasts; gradational contact with lower rock; mod. si, weak ser.
		153.31 - 171.91 - ANTF. Mod. si. and ser., med. grey; py about 15% as small blotches with clots (1 cm. across dominantly), occ. qtz. veins, usually with intense ser. and occ. shear zone with intense ser. and no quartz veins.
		171.91 - 177.39 - ANTF. Dark grey volcano-clastic with clasts up to 10 cm. across, alt. layers of finer and coarser grained rock (sections at least 0.3 m. long), generally pyrite associated with matrix and not clasts.
		177.39 - 181.05 - ANTF. Medium grey, wk. - mod. ser., mod. sil. volcano-clastic with clast up to 3 cm. wide (indistinct due to alt.), py as small clots and stringers, no quartz veins, rose colored cast to portions of section.
		181.05 - 191.72 - ANTF. Dark grey-green; wk. - mod. sil, weak - mod. ser., clasts from lapilli to blocks; py as small bands, stringers and clots, occ. distinct qtz. veins and two or three quartz flooded zones no greater than 3 cm. wide.
191.72		END OF HOLE.

DIAMOND DRILL RECORD

PROPERTY SULPHURETSSheet No. 1 of 2Hole No. S88-281

Sample No.	From	To	Width	Au	Ag	Au-e.
5951	0	5.79	5.79	0.006	<0.05	
5952	5.79	8.08	2.29	<0.005	<0.05	
5953	8.08	10.97	2.90	<0.005	<0.05	
5954	10.97	13.41	2.44	0.008	<0.05	
5955	13.41	14.63	1.22	<0.005	<0.05	
5956	14.63	16.46	2.44	<0.005	<0.05	
5957	16.46	17.98	1.52	0.012	2.19	
5958	17.98	21.03	3.05	0.009	<0.05	
5859	21.03	24.08	3.05	<0.005	0.46	
5960	24.08	27.13	3.05	<0.005	<0.05	
5961	27.13	30.18	3.05	<0.005	<0.05	
5962	30.18	33.22	3.05	<0.005	<0.05	
5963	33.22	36.27	3.05	<0.005	<0.05	
5964	36.27	39.32	3.05	<0.005	<0.05	
5965	39.32	42.38	3.05	<0.005	<0.05	
5966	42.38	45.42	3.05	<0.005	<0.05	
5967	45.42	48.46	3.05	<0.005	<0.05	
5968	48.46	51.51	3.05	<0.005	<0.05	
5969	51.51	54.56	3.05	<0.005	<0.05	
5970	54.56	54.61	3.05	<0.005	<0.05	
5971	57.61	60.66	3.05	<0.005	<0.05	
5972	60.66	63.70	3.05	<0.005	<0.05	
5973	63.70	66.75	3.05	<0.005	<0.05	
5974	66.75	69.80	3.05	<0.005	<0.05	
5975	69.80	72.85	3.05	<0.005	<0.05	
5976	72.85	75.90	3.05	<0.005	<0.05	
5834		VOID				
5835		VOID				
5836		VOID				
5837		VOID				
5838	75.90	78.94	3.05	<0.005	<0.05	
5839	78.94	81.84	2.90	0.005	<0.05	
5840	81.84	83.52	1.68	0.010	<0.05	
5841	83.52	84.73	1.22	0.014	<0.05	
5842	84.73	86.87	2.13	0.030	<0.05	
5843	86.87	88.54	1.68	<0.005	<0.05	
5844	88.54	91.74	3.20	0.015	<0.05	
5845	91.74	93.57	1.83	0.009	<0.05	
5846	93.57	95.40	1.83	<0.005	<0.05	
5847	95.40	97.23	1.83	<0.005	<0.05	
5848	97.23	100.28	3.05	0.008	<0.05	
5849	100.28	103.33	3.05	0.005	<0.05	
5850	103.33	106.38	3.05	<0.005	<0.05	
5851	106.38	107.59	1.22	0.006	<0.05	
5852	107.59	109.58	1.98	<0.005	<0.05	
5853	109.58	112.47	2.90	<0.005	<0.05	
5854	112.47	114.00	1.52	0.016	<0.05	

DIAMOND DRILL RECORD

PROPERTY SULPHURETSSheet No. 2 of 2Hole No. S88-281

Sample No.	From	To	Width	Au	Ag	Au-e.
5855	114.00	117.05	3.05	<0.005	<0.05	
5856	117.05	118.57	1.52	<0.005	<0.05	
5857	118.57	120.70	2.13	<0.005	<0.05	
5858	120.70	123.13	2.44	<0.005	<0.05	
5859	123.13	124.36	1.22	<0.005	<0.05	
5860	124.36	125.88	1.52	<0.005	<0.05	
5861	125.88	127.71	1.83	<0.005	<0.05	
5862	127.71	129.24	1.52	<0.005	<0.05	
5863	129.24	130.76	1.37	<0.005	<0.05	
5864	VOID					
5865	130.76	132.44	1.68	0.006	<0.05	
5866	132.44	133.81	1.37	<0.005	<0.05	
5898	133.81	136.86	3.05	0.031	<0.05	
5867	136.86	139.90	3.05	<0.005	<0.05	
5868	139.90	141.43	1.52	0.006	<0.05	
5869	141.43	142.95	1.52	<0.005	<0.05	
5870	142.95	146.00	3.05	0.006	<0.05	
5871	146.00	147.52	3.05	0.010	<0.05	
5872	147.52	149.20	1.68	<0.005	<0.05	
5873	149.20	152.10	2.90	<0.005	0.06	
5874	152.10	155.15	3.05	<0.005	0.02	
5875	155.15	158.19	3.05	<0.005	1.36	
5876	158.19	161.24	3.05	<0.005	<0.05	
5877	161.24	164.29	3.05	0.007	<0.05	
5878	164.29	167.34	3.05	<0.005	<0.05	
5879	167.34	170.38	3.05	<0.005	<0.05	
5880	170.38	171.91	1.52	<0.005	<0.05	
5881	171.91	173.43	1.52	<0.005	<0.05	
5882	173.43	174.96	1.52	<0.005	<0.05	
5883	174.96	177.39	2.44	<0.005	<0.05	
5884	177.39	180.14	2.74	<0.005	<0.05	
5885	180.14	182.58	2.44	0.005	<0.05	
5886	182.58	185.62	3.05	<0.005	<0.05	
5887	185.62	188.67	3.05	<0.005	<0.05	
5888	188.67	191.72	3.05	<0.005	<0.05	

DIAMOND DRILL RECORD

PROPERTY SULPHURETS HOLE NO. S88-282
 Section Special Az. 155° GN
 Date August 24, 1988 Elev. 1525 m.
 Lat. -2520 N Depth 75.9 m.
 Dep. 3870 E Logged by Vergin

DIP

<u>Footage</u>	<u>Reading</u>	<u>Dip</u>
0		-60°

Depth		Description
From	To	
0	7.93	<p>ANTF. Andesite Tuff. Light grey-green to medium grey-green; moderate sil.; mod. ser. grading into chlor; py about 15% as blebs with a dominant trend of about 45° to CA; no calc. present; Tr. chalco.</p> <p>0.00 - 1.37 - ANTF. Lapilli tuff with occasional larger clasts; less than 2% py; clasts going to chlor. while matrix is dom. ser. Tr chalco.</p> <p>1.37 - 5.79 - ANTF. Py, about 15% as blebs and stringers (chalco); clasts going to chlor. matrix still mostly ser. but chlor. picking up with depth.</p> <p>5.79 - 5.94 - QTVN. 3 cm. wide qtz. vein.</p> <p>5.94 - 7.93 - ANTF. Chlor. alt. becomes dominant.</p>
7.93	11.13	<p>Dior diorite dike. Dark green; fine grained, aphanitic mafic dyke; less than 0.5% py introduced by cross-cutting structures; some calc. alt., shows as white blebs; contact at top and bottom at about 45° CA, weak - mod. chlor. alt., mag. present.</p>

Depth		Description
From	To	
11.13	13.41	<p>ANTF. Andesite Tuff. Dark grey to light grey; moderate st. si; moderate ser. in matrix, mod. chlor. alt. of clasts; py about 20%; dominant trend still about 45° to CA.</p> <p>11.13 - 11.58 - Dom. chlor. alt.</p> <p>11.58 - 13.41 - Dom. ser. alt.</p>
13.41	14.63	<p>Dior. Diorite dike. Dark grey, fine grained aphanitic mafic dyke with 5 - 10% py; mag. present; calc. alt. shows as white blebs dom. chlor. alt., contacts at top and bottom at about 45° to CA.</p>
14.63	75.90	<p>ANLT. Andesite lapilli tuff. Light grey to dark grey; mod. - st. si, weak - mod. ser.; py 15 - 20% as blebs and stringers; very minor weak chlor. alt. of lapilli; occasional bull qtz. veins and bx zones and mafic dykes and fault/shear zones.</p> <p>14.63 - 14.78 - QTVN. Quartz vein.</p> <p>14.78 - 19.20 - ANLT. Mod. - wk. sil., mod. ser., 10 - 15% py.</p> <p>19.20 - 19.51 - Dior. Aphanitic mafic dyke; chlor. alt., no magnetite, 0 to tr. py; contacts at 45° to CA.</p> <p>19.51 - 20.12 - ANTF. Wk. sil., mod. ser. 10% py overall, about 20% py at 19.51m. contact with dyke; chalco (?).</p> <p>20.12 - 26.21 - ANLT. Light grey, wk. sil., mod. ser; relic and lapilli to chlor; py as blebs and minor stringers at about 45° CA; py - chalco about 1.5%; occ. minor (less than 2.5 cm) qtz, - calc. veins also at 45° CA.</p>

Depth		Description
From	To	
		26.21 - 32.31 - ANLT. Light grey-green; wk. sil., wk. ser., occ. wiping out original texture; py - chalco (?) at 15% and trending 45° to CA; occ. qtz. - calc. veins.
		32.31 - 32.61 - SXVN. Qtz. vein with py. and tet.
		32.61 - 40.54 - ANLT. Light grey-green; wk. sil., wk. ser., occ. wiping out original texture; py - chalco (?) at 15% and trending 45° to CA; occ. qtz. - calc. veins.
		40.54 - 46.94 - QTSW. Zone of quartz veins and inter. veining rock; py about 15%.
		40.54 QTVN, SWVN, 3 cm. wide qtz. vein with tetrahedrite.
		42.21 - 42.37 - QTVN. Quartz vein with tet.
		42.98 - 43.89 - QTSW. Quartz flooded zone.
		45.42 - 45.57 - QTVN. Quartz vein, no py nor tet.
		45.57 - 49.94 - QTSW. Qtz. flooded zone, some bx; py contained in rock frags. not quartz; no tet.
		46.94 - 47.55 - QTBX. Frac. then partially healed by quartz; mod. sil., py about 20%.
		47.55 - 49.99 - ANLT. Mod. sil., weak - mod. ser.
		49.99 - 50.60 - ANLT. Wk. sil., weak - mod. ser.

Property SULPHURETSSheet No. 4 of 4Hole No. S88-282

Depth		Description
From	To	
		52.73 FLT. Rehealed frac. zone, about 3 cm. thick; weak sil.
		53.04 - 56.39 - QTSW. Quartz flooded zone.
		54.25 QTVN. 8 cm. wide quartz vein with tet.
		55.17 - 55.47 - FLT. Lightly frac. and gouge filled zone. Fracs about 45° to CA; Oro tr. qtz.
		58.83 - 59.74 - QTBX. Frac. and quartz healed zone; fracs. @ 45° to CA; fracs. with zero quartz; healed zone (last 1.0 cm. with weak qtz.).
		70.41 QTSX. 3 cm. wide quartz vein with tet and sphal.
		75.90 END OF HOLE.

DIAMOND DRILL RECORD

PROPERTY SULPHURETS

Sheet No. 1 of 1

Hole No. S88-282

Sample No.	From	To	Width	Au	Ag	Au-e.
5808	0	5.79	5.79	<0.005	<0.05	
5809	5.79	8.08	2.29	<0.005	<0.05	
5810	8.08	10.97	2.90	<0.005	<0.05	
5811	10.97	13.41	2.44	<0.005	<0.05	
5812	13.41	14.63	1.22	<0.005	<0.05	
5813	14.63	16.46	2.44	0.008	<0.05	
5814	16.46	17.98	1.52	0.011	<0.05	
5815	17.98	21.03	3.05	0.016	<0.05	
5816	21.03	24.08	3.05	0.008	<0.05	
5817	24.08	27.13	3.05	0.016	<0.05	
5818	27.13	30.18	3.05	<0.005	<0.05	
5819	30.18	33.22	3.05	0.020	0.08	
5820	33.22	36.27	3.05	0.013	<0.05	
5821	36.27	39.32	3.05	0.016	0.31	
5822	39.32	42.38	3.05	0.015	0.24	
5823	42.38	45.42	3.05	0.018	0.55	
5824	45.42	48.46	3.05	0.017	0.30	
5825	48.46	51.51	3.05	0.018	<0.05	
5826	51.51	54.56	3.05	0.007	0.43	
5827	54.56	57.61	3.05	<0.005	0.26	
5828	57.61	60.66	3.05	<0.005	0.11	
5829	60.66	63.70	3.05	<0.005	<0.05	
5830	63.70	66.75	3.05	<0.005	<0.05	
5831	66.75	69.80	3.05	<0.005	0.09	
5832	69.80	72.85	3.05	<0.005	<0.05	
5833	72.85	75.90	3.05	0.015	<0.05	

DIAMOND DRILL RECORD

PROPERTY SULPHURETS HOLE NO. S88-283
 Section Special Az. 145° GN
 Date August 27, 1988 Elev. 1780 m.
 Lat. 2592 N. Depth 100.3 m.
 Dep. 4392 E Logged by Vergin, M. Genn.

DIP

<u>Footage</u>	<u>Reading</u>	<u>Dip</u>
0		-45°

Depth		Description
From	To	
0	5.79	ANTF. Andesite Tuff. Light reddish-grey; st Si; qtz. veinlets at 0° CA with very minor chalcopryrite; occasional spots of malachite on fractures; quartz veinlets with chlorite in them; oxidized rock.
5.79	36.42	ANTF. Andesite Tuff. Dark grey-green; wk - mod. sil, wk. - mod. chlor. alt., qtz, - calc. veinlets throughout at about 45° CA; minor amount of chalcopryrite as blebs and veinlets; malachite dominately on fractures chalco. tr - 0.5%; no pervasive pyrite; trace sphal. 19.6 QTVN. Quartz carbonate veinlet, chlor. alteration; about 4 cm wide at about 50° CA. 31.70 - 36.42 - Wk sil. with quartz veining; rock fracture; no more mineralization than above; at about 35.66 m. there is a noticeable lighting of color to light green chlorite alt.
36.42	40.08	QTBX/QTVN. Quartz breccia and quartz vein. "Wall vein": quartz veins and quartz bx zones interspersed with weakly sil. wk chlor. alt.; lt. green alt. with int. sil. zones; chalcopryrite veinlets and blebs from

Depth		Description
From	To	
		0.5 - 1.0% in QTBX and QTVN areas, tr - 0.5% chlor. alt. zones; no pervasive pyrite, no cu. alt.
		36.42 - 36.58 - QTVN. Qtz. vein.
		36.58 - 37.95 - Weak si, st. chlor. alt.
		37.95 - 40.08 - Qtz. bx, esp. broken at base.
40.08	68.88	ANTF. Andesite tuff. Dark grey-green; wk. sil; mod. - wk. chlorite alt., qtz. - calc. veinlets throughout (about 3/2.5 cm) generally at 45 - 50° to CA; chalcopryrite tr.; generally weak chlor. alt. along edges of wide quartz veins (more than 2.5 cm) and within narrower quartz veins, no pervasive pyrite; less calcite in quartz-calcite veins with depth; trace sphalerite; pyrite more than chalcopryrite; no secondary Cu mineralization.
		64.62 - 67.67 - FLT. Fault. Zone of rubbly rock and thick quartz veins at about 50° CA; chlorite alteration within veins; no more or less mineralization than rest of rock.
68.88	75.59	ANBX. Andesite breccia. Dark green; weak - moderate sil.; strong chlorite alteration with some zones of medium chlorite alteration where fragments and clasts can still be seen; 50% of the core is rubble; pyrite about 15% usually not in matrix but clustered around remnants of fragments; no carbonate; little or no sericite alteration. Feldspar porphyroclasts noted at 71.68 m.
75.59	100.28	ANTF. Andesite tuff. Light grey; some light grey-green (where there is chlor. alt.) weak - moderate sil; sericite alteration dominant; pyrite about 10 - 15% as blebs and minor stringers; fabric trends about 45° CA, some quartz veins at 80 - 85° to CA.

Property SULPHURETS

Sheet No. 3 of 3

Hole No. S88-283

Depth		Description
From	To	
		75.59 - 76.20 - ANTF. Chlor. still dominant but sericite alteration more visible; ser. dom. after 76.20 m.
		82.60 - 83.82 - ANTF. Much finer grained or mafic dyke (?).
		85.95 - 88.39 - ANTF. Dom. chlor. alt. then back to dom. ser. alt.
	100.28	END OF HOLE.

DIAMOND DRILL RECORD

PROPERTY SULPHURETSSheet No. 1 of 1Hole No. S88-283

Sample No.	From (meters)	To (meters)	Width (meters)	Au	Ag	Au-e.
5926	0	5.79	5.79	0.010	<0.05	
5927	5.79	8.84	3.05	0.011	<0.05	
5928	8.84	11.89	3.05	0.029	<0.05	
5929	11.89	14.94	3.05	0.012	<0.05	
5930	14.94	17.98	3.05	0.015	0.07	
5931	17.98	21.03	3.05	0.029	<0.05	
5932	21.03	24.08	3.05	0.020	<0.05	
5933	24.08	27.13	3.05	0.015	<0.05	
5934	27.13	30.18	3.05	0.014	<0.05	
5935	30.18	33.22	3.05	0.039	0.20	
5936	33.22	34.44	1.22	0.028	0.06	
5937	34.44	36.42	1.98	0.034	0.05	
5938	36.42	37.95	1.52	0.006	<0.05	
5939	37.95	40.23	2.29	0.033	0.12	
5940	40.23	42.37	2.13	0.014	0.08	
5941	42.37	45.42	3.05	0.024	0.16	
5942	45.42	48.46	3.05	0.021	0.19	
5943	48.46	51.51	3.05	0.014	0.08	
5944	51.51	54.56	3.05	0.009	<0.05	
5945	54.56	57.61	3.05	0.044	0.09	
5946	57.61	60.66	3.05	0.019	0.56	
5947	60.66	62.48	1.83	0.010	<0.05	
5948	62.48	64.62	2.13	0.022	<0.05	
5949	64.62	67.67	3.05	0.006	<0.05	
5950	67.67	68.88	1.22	0.010	0.10	
5977	68.88	71.32	2.44	0.007	<0.05	
5978	71.32	73.15	1.83	0.005	<0.05	
5979	73.15	75.59	2.44	<0.005	<0.05	
5980	75.59	77.72	2.13	0.009	<0.05	
5981	77.72	79.86	2.14	<0.005	<0.05	
5982	79.86	81.99	2.13	0.019	<0.05	
5983	81.99	84.73	2.74	<0.005	0.08	
5984	84.73	87.78	3.05	<0.005	0.08	
5985	87.78	89.92	2.14	<0.005	<0.05	
5986	89.92	92.97	3.05	<0.005	<0.05	
5987	92.97	94.18	1.22	<0.005	<0.05	
5988	94.18	97.23	3.05	0.005	<0.05	
5989	97.23	100.28	3.05	<0.005	0.77	

DIAMOND DRILL RECORD

PROPERTY SULPHURETS HOLE NO. S88-284
 Section Special Az. 246° GN
 Date August 29, 1988 Elev. 1775 m.
 Lat. -2226 N Depth 179.5 m.
 Dep. 4432 E Logged by N.L.T.

DIP

<u>Footage</u>	<u>Reading</u>	<u>Dip</u>
0		-45°

Depth		Description
From	To	
0	2.13	Casing.
2.13	2.90	QCVN. Vein. White, med. grey, rust. Hardness: 3 - 5. Finely banded quartz carbonate Sx vein (Py). Banding 35 - 50°. Bands $\frac{1}{2}$ cm. Contact along shear @ 70°.
2.90	8.84	QCVN. Weak vein. (QCZN). Grey-grey-green, grey maroon, white. Hardness: 3 - 7. Very fine grained - aphanitic. Foliation vary from indistinct to weakly foliated. 70° @ 4.57 m., 70° @ 8.23 m. 10 - 25% py in patches stringers and disseminated largest quartz vein 10 cm.
8.84	24.08	ANTF. Andesite tuff. Pale grey, dull grey, maroon grey, white. Hardness: 3 - 4. Very fine grained aphanitic distinctly banded 60° @ 10.06 m., 70° @ 19.81 m., 70° @ 23.77 m. Weak veining developed 10.36 - 10.97 m., 14.94 - 15.39 m., 15.85 - 16.61 m. Intensely sericitized throughout Sx 10%.
24.08	73.15	ANTF. Andesite tuff. Dull grey-green. Dull grey, maroon, white. Very fine grained - aphanitic. 24.08 - 28.96 - ANTF. Finely banded. 70° @ 24.69 m., 70° @ 27.13 m. Mod. - int. sericitization, weak foliation. 70° @ 28.65

Depth		Description
From	To	
		40° @ 31.39 m., 80° @ 34.75.
41.76	42.37	- QTVN. Weak vein. Med. - coarse grained QC with patches of pyrite ±25% py. Foliation: 40° CA.
42.37	49.68	- ANTF. Intensely sericitized, moderately - intensely pyritized, occasional jade green lenses of sericite.
49.68	57.97	- ANTF. Mod. - int. sericitized. ±5% pyrite.
57.97	52.58	- ANTF (dior). Dark grey fragments. Phaneritic to weakly sericitized. Contacts sharp suggestion of chill margin may be a dike.
52.58	57.30	- ANTF. Mod. - int. sericitization. Banded or bedded some bands up to 50% pyrite. ±10% Py.
57.30	59.44	- ANTF. Int. sericitization, moderately banded. ±5% Py. Banded 60 - 70° CA.
59.44	60.05	- ANTF. Int. ser. Mod. silicified. ±15% Py.
60.05	73.15	- ANTF. Mod. - int. sericitization. Mod. banded -60° @ 64.62 m., 60° @ 68.58 m., 50° @ 71.63 m. Patches stringers and disseminated Py. Opt. ±15%. Some darker bands may be chlorite coming in 1 - 2% QC stringers.

Depth		Description
From	To	
73.15	94.18	<p>ANTF. Andesite Tuff. Dark green, mod. - wk. sil., mod. ser.; Cal and Cal-qtz. vein and veinlets throughout running from 50 - 80° to CA, also the trend of relic and clasts; occ. zone of ore mineralization (sp, ga) tet and very minor chal. generally in steeper veins (25 - 35°) to CA and with less calcite and more qtz in the veins; py 10 - 15%, less than 5% of pyrite as disseminated and the rest dominantly in and around clasts; the more steeply dipping veins generally have light green (more intense ser. alt.) altered rock in and around them (faults?); pyrite where altered going to hematite.</p> <p>79.86 - 80.01 - QTBX. Qtz. (with minor calcite) bx zone, fragments still mod. si and ser; tet mineralization about 2%; zone at 30° CA.</p> <p>89.46 - 89.61 - QCVN, FLT. 12 cm. qtz (very minor calc) vein; with clay gouge.</p> <p>92.66 - 92.81 - QCVN, QCSX. 3.5 cm quartz (very minor calcite) vein at 25 - 35° CA with sp, tet, gal, chal.</p>
94.18	116.28	<p>ANTF. Andesite Tuff. Grey-green. Wk - mod sil, mod. ser. (generally more intense with wk sil); about 50% of the number of calc. and qtz.-calc. veins and veinlets as above; veinlets run from 30 - 90° CA, but the general trend of the fabric of the rock is about 45 - 50° CA; shears and faults run at about 30° CA; pyrite overall is 5 - 10% with most pyrite associated with relic and clasts (?), chlorite alteration with depth.</p> <p>95.71 - 96.62 - ANTF. Wk. Sil. and ser. alt; highly fractured; quartz vein (about 2.5 cm) at base; no ore mineralization.</p>

Depth		Description
From	To	
		104.85 - 105.00 - QCVN, QCSX. 3 cm. quartz vein (very minor calcite) with sp, gal. - tet., chal.
		107.44 - 107.59 - ANTF, FLT. Zone of intense ser., mod. si, cal.-qtz. vein at top; clayey gouge.
		107.90 - 116.28 - ANTF. Clots and blebs of pyrite increase in size.
		112.78 ANTF. Chlorite dominate over ser. alteration.
116.28	130.15	ANTF. Andesite tuff. Light grey-green; Int. sil, increasing chlor. with depth; total pyrite 5 - 10%, upper part of section general trends at 90° to CA and lower down 45 - 50°, the lower section does not show consistent intense ser. but only spots of it; in the lower zone calc. and qtz.-calc. veins and veinlets equal to the top of the hole.
		116.28 - 118.57 - Zone of most consistent high chlorite wk. quartz alteration, quartz and calc.-quartz veins up to 2.5 cm wide; veinlets are generally 80% calc. and are 80 - 90° CA.
		118.57 - 130.15 - Fragments and veins 45 - 50° CA, nil sericite; pyrite up to 10% overall with some sections up to 20%.
130.15	179.53	ANLT. Andesite lapilli tuff. Dark grey-green with some occasional reddish cast from FeOx; well defined lapilli mod. - wk. sil. except with intense chlorite then moderate sil; alteration is chlorite; pyrite about 10% as stringers and blebs, stringers running at about 45° to CA; fractures and faults at 30 - 50° to CA; rock becomes a darker green with depth; minor calcite with quartz veins.

Property SULPHURETS

Sheet No. 5 of 5

Hole No. S88-284

Depth		Description
From	To	
		138.07 Fault.
		145.69 Fault.
		154.53 Fault.
		155.75 Fault with chloritic alteration.
		165.81 Fault, with quartz vein at 5 - 10° CA.
		158.50 Fault with quartz vein.
		179.53 END OF HOLE.

DIAMOND DRILL RECORD

PROPERTY SULPHURETSSheet No. 1 of 2Hole No. S88-284

Sample No.	From	To	Width	Au	Ag	Au-e.	Scan
5758	7.0	11.0	4.0	0.024	0.28		0.8
5759	11.0	15.5	4.5	0.015	0.12		0.0
5760	15.5	19.0	4.5	0.005	0.05		1.6
5761	19.0	23.0	4.0	0.005	0.05		0.0
5762	23.0	27.5	4.5	0.007	0.18		0.0
5763	27.5	31.0	3.5	0.010	0.41		0.0
5764	31.0	35.0	4.0	0.006	0.20		0.0
5765	35.0	41.0	6.0	0.005	0.05		0.0
5766	41.0	46.0	5.0	0.005	0.09		0.0
5767	46.0	50.0	4.0	0.006	0.39		0.3
5768	50.0	55.0	5.0	0.009	0.05		0.5
5769	55.0	59.5	4.5	0.005	0.05		0.0
5770	59.5	64.5	5.0	0.005	0.05		0.0
5771	64.5	69.0	4.5	0.005	0.05		0.0
5772	69.0	74.0	5.0	0.017	0.05		0.0
5773	74.0	79.0	5.0	0.017	0.05		0.0
5774	79.0	84.0	5.0	0.005	0.05		0.0
5775	84.0	89.0	5.0	0.005	0.05		0.0
5776	89.0	94.0	5.0	0.005	0.05		1.8
5777	94.0	99.0	5.0	0.005	0.05		0.8
5778	99.0	104.0	5.0	0.008	0.05		0.0
5779	104.0	109.0	5.0	0.005	0.05		0.4
5780	109.0	114.0	5.0	0.006	0.05		0.2
5781	114.0	119.0	5.0	0.014	0.05		0.0
5782	119.0	124.0	5.0	0.013	0.05		0.0
5783	124.0	129.0	5.0	0.022	0.05		0.1
5784	129.0	134.0	5.0	0.008	0.05		0.0
5785	134.0	139.0	5.0	0.005	0.05		0.0
5786	139.0	144.0	5.0	0.034	0.05		0.0
5787	144.0	149.0	5.0	0.014	0.05		0.0
5788	149.0	154.0	5.0	0.006	0.05		0.0
5789	154.0	159.0	5.0	0.006	0.05		0.0
5790	159.0	164.0	5.0	0.005	0.05		0.0
5791	164.0	169.0	5.0	0.006	0.05		0.0
	169.0		5.0				0.0
5793		170.5	1.5	0.014	0.05		0.0
5794	170.5	172.5	2.0	0.005	0.05		1.0
5795	172.5	179.0	6.5	0.010	0.05		0.0
5796	179.0	184.0	5.0	0.005	0.05		0.0
5797	184.0	189.0	5.0	0.016	0.05		0.0
5798	189.0	194.0	5.0	0.022	0.07		0.0
5799	194.0	199.0	5.0	0.026	0.05		0.0
5800	199.0	204.0	5.0	0.012	0.05		0.0
5801	204.0	209.0	5.0	0.005	0.05		0.0
5802	209.0	214.0	5.0	0.005	0.05		0.0
5803	214.0	219.0	5.0	0.005	0.05		0.0

DIAMOND DRILL RECORD

PROPERTY SULPHURETSSheet No. 2 of 2Hole No. S88-284

Sample No.	From	To	Width	Au	Ag	Au-e.	
5804	219.0	224.0	5.0	0.005	0.05		0.0
5805	224.0	230.0	5.0	0.005	0.05		0.0
5806	230.0	234.0	4.0	0.014	0.14		0.0
5807	234.0	239.0	5.0	0.005	0.05		
5889	72.85	75.90	3.05	0.005	0.05		
5890	75.90	78.94	3.05	0.005	0.05		
5891	78.94	81.99	3.05	0.008	0.05		
5892	81.99	85.04	3.05	0.005	0.05		
5893	85.04	88.09	3.05	0.005	0.05		
5894	88.09	91.14	3.05	0.175	0.45		
5895	91.14	94.18	3.05	0.032	0.12		
5896	94.18	97.23	3.05	0.017	0.05		
5897	97.23	100.28	3.05	0.049	0.05		
5898	100.28	103.33	3.05	0.031	0.05		
5899	103.33	106.38	3.05	0.015	0.05		
5900	106.38	109.42	3.05	0.005	0.05		
5901	109.42	112.47	3.05	0.015	0.05		
5902	112.47	115.52	3.05	0.011	0.17		
5903	115.52	118.57	3.05	0.005	0.06		
5904	118.57	121.62	3.05	0.010	0.05		
5905	121.62	124.66	3.05	0.007	0.05		
5906	124.66	127.71	3.05	0.101	0.41		
5907	127.71	130.76	3.05	0.016	0.11		
5908	130.76	133.81	3.05	0.005	0.05		
5909	133.81	136.86	3.05	0.009	0.05		
5910	136.86	138.38	1.52	0.006	0.05		
5911	138.38	139.90	1.52	0.005	0.05		
5912	139.90	142.95	3.05	0.005	0.05		
5913	142.95	146.00	3.05	0.006	0.05		
5914	146.00	149.05	3.05	0.009	0.15		
5915	149.05	152.10	3.05	0.005	0.05		
5916	152.10	155.14	3.05	0.005	0.05		
5917	155.14	158.19	3.05	0.005	0.05		
5918	158.19	161.24	3.05	0.005	0.05		
5919	161.24	164.29	3.05	0.005	0.05		
5920	164.29	167.34	3.05	0.005	0.07		
5921	167.34	170.38	3.05	0.006	0.05		
5922	170.38	173.43	3.05	0.005	0.05		
5923	173.43	176.48	3.05	0.005	0.05		
5924	176.48	178.00	1.52	0.009	0.05		
5925	178.00	180.14	2.13	0.005	0.05		

APPENDIX II

Assay Certificates

NEWIIAWK GOLD MINES LTD.

Certificate of Assay

Project No. _____

Date SEPT 28/88

File No. NH 5 - 324

TO _____

SAMPLE No.	WT. A.T.	Dora	Au oz/ton	Ag oz/ton	Remarks
↓			↓	↓	
S 6209			0.007	0.25	
↓			↓	↓	
S 6212			0.005	0.30	
*			*	*	
S 6950			0.028	0.51	
S 6951			<.005	1.81	
S 6952			0.007	0.13	
S 6953			0.006	<.05	
*			*	*	
U 6913			0.013	0.36	
U 6914			0.012	0.90	
U 6915			0.006	<.05	
U 6916			<.005	<.05	
U 6917			0.005	<.05	
U 6918			<.005	<.05	
U 6919			<.005	<.05	
U 6920			<.005	<.05	
U 6921			0.020	2.17	
			↓	↓	
U 138			0.026	0.66	
U 6939			0.020	0.87	
U 6940			0.015	0.66	
*			*	*	

CERTIFIED BY: W Campbell

NEWHAWK GOLD MINES LTD.

Certificate of Assay

TO _____

Project No. _____

Date Sept 1988

File No. NH16-312

SAMPLE No.	WT A.T.	Dore	Au oz/ton	Ag oz/ton	Remarks
S 5815			0.016	2.05	
↓			↓	↓	
S 5818			0.016	2.05	
S 5819			0.020	0.08	
↓			↓	↓	
S 5823			0.018	0.55	
S 5824			0.017	0.30	
S 5825			0.018	2.05	
↓			↓	↓	
S 5828			2.005	0.11	
↓			↓	↓	
S 5831			2.005	0.09	
—			—	—	
S 5833			0.015	2.05	
*			*	*	
S 5918			2.005	2.05	
↓			↓	↓	
S 5932			0.020	2.05	
↓			↓	↓	
S 5936			0.028	0.06	
↓			↓	↓	
S 5939			0.033	0.12	
—			—	—	
S 5941			0.024	0.16	
S 5942			0.021	0.19	
↓			↓	↓	
S 5945			0.044	0.09	
S 5946			0.019	0.56	

CERTIFIED BY:

M. Campbell

NEWHAWK GOLD MINES LTD.

Certificate of Assay

TO _____

Project No. _____

Date SEPT 19/88

File No. AK-309

SAMPLE No.	WT. A.T.	Dore	Au oz/ton	Ag oz/ton	Remarks
SELECT GRAB DDH-R 1109/-45			0.264	0.64	
*			*	*	
U 6821			0.101	3.17	
*			*	*	
S 6717			0.031	0.13	
*			*	*	
U 8865			0.027	3.42	
U 8866			0.030	3.03	
↓			↓	↓	
U 8875			0.025	3.34	
*			*	*	
S 5822			0.015	0.24	
↓			↓	↓	
S 5826			0.007	0.43	
S 5827			2.005	0.26	
—			—	—	
S 5829			2.005	2.05	
↓			↓	↓	
S 5832			2.005	2.05	
*			*	*	
S 5995			0.020	0.18	
↓			↓	↓	
S 6000			0.057	0.20	
S 6001			0.027	0.06	
S 6002			0.047	0.21	
S 6003			0.032	0.08	
—			—	—	
S 6005			2.005	2.05	
S 6006			2.005	0.08	
—			—	—	
S 6008			0.016	0.10	

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NEWIIAWK GOLD MINES LTD.

Certificate of Assay

Project No. _____

Date Sept 17/88File No. NHG 307

TO _____

SAMPLE No.	WT. A.T.	Dore	Au oz/ton	Ag oz/ton	Remarks
S 5865			0.006	2.05	
↓			↓	↓	
S 5872			2.005	2.05	
S 5873			2.005	0.06	
↓			↓	↓	
S 5882			2.005	2.05	
↓			↓	↓	
S 5885			0.005	2.05	
S 5886			2.005	2.05	
S 5887			2.005	2.05	
S 5888			2.005	2.05	
*			*	*	
S 5926			0.010	2.05	
S 5927			0.011	2.05	
S 5928			0.029	2.05	
S 5929			0.012	2.05	
S 5930			0.015	0.07	
S 5931			0.029	2.05	
↓			↓	↓	
S 5951			0.012	2.19	
*			*	*	
U 6783			0.020	2.25	
U 6784			0.025	3.69	
↓			↓	↓	
U 6788			0.108	5.03	
U 6789			0.006	0.51	
U 6790			0.113	3.78	
U 6791			0.095	17.18	
U 6792			0.410	31.36	
↓			↓	↓	
U 6807			0.344	14.38	

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NEWHIAWK GOLD MINES LTD.

Certificate of Assay

Project No. _____

Date SEPT 16/88

File No. NHG-304

TO _____

SAMPLE No.	WT. A.T.	Dore	Au oz/ton	Ag oz/ton	Remarks
S 5774			2.005	2.05	
S 5775			2.005	2.05	
*			*	*	
S 6925			0.023	2.05	
↓			↓	↓	
S 6936			0.043	4.24	
*			*	*	
S 5976			2.005	2.05	
*			*	*	
S 5858			2.005	2.05	
S 5859			2.005	2.05	
S 5860			2.005	2.05	
S 5861			2.005	2.05	
S 5862			2.005	2.05	
S 5863			↓	↓	
↓			2.005	2.05	
S 5866			2.005	2.05	
S 5867			0.006	2.05	
S 5868			2.005	2.05	
S 5869			0.006	2.05	
S 5870			0.010	2.05	
S 5871			↓	↓	
↓			2.005	0.20	
S 5874			2.005	1.36	
S 5875			2.005	2.05	
S 5876			↓	↓	
↓			2.005	2.05	
S 5881					

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M Campbell

NEWHAWK GOLD MINES LTD.

Certificate of Assay

TO _____

Project No. _____

Date SEPT 15/88

File No. NHG-303

SAMPLE No.	WT. A.T.	Dore	Au oz/ton	Ag oz/ton	Remarks
S 5877			0.007	<.05	
S 5878			<.005	<.05	
S 5879			<.005	<.05	
S 5880			<.005	<.05	
↓			↓	↓	
S 5883			<.005	<.05	
S 5884			<.005	<.05	
*			*	*	
S 6715			0.030	0.06	
S 6716			0.062	<.05	
*			*	*	
S 6898			<.005	<.05	
↓			↓	↓	
S 6943			<.005	<.05	
S 6944			0.032	0.74	
S 6945			<.005	<.05	
S 6946			<.005	0.73	
S 6947			0.009	0.26	
S 6948			0.011	0.33	

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NEWIIRAWK GOLD MINES LTD.

Certificate of Assay

Project No. _____

TO _____

Date SEPT 13/88File No. BHG-301

SAMPLE No.	WT. A.T.	Dore	Au oz/ton	Ag oz/ton	Remarks
S 5769			2.005	2.05	
S 5770			0.006	2.05	
S 5771			2.005	2.05	
—			—	—	
S 5773			0.017	2.05	
↓			↓	↓	
S 5776			2.005	2.05	
S 5777			2.005	2.05	
S 5778			0.008	2.05	
*			*	*	
S 5839			2.005	2.05	
↓			↓	↓	
S 5843			2.005	2.05	
↓			↓	↓	
S 5847			2.005	2.05	
S 5848			0.006	2.05	
S 5849			0.005	2.05	
S 5850			2.005	2.05	
S 5851			0.006	2.05	
S 5852			2.005	2.05	
S 5853			2.005	2.05	
S 5854			0.016	2.05	
S 5855			2.005	2.05	
S 5856			2.005	2.05	
S 5857			0.005	2.05	
*			*	*	
S 6700			1.116	0.44	
*			*	*	
S 5951			0.006	2.05	
↓			↓	↓	
S 5975			2.005	2.05	

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Certificate of Assay

Project No. _____

Date SEPT 13 1993

File No. NHG-303

TO _____

SAMPLE No.	WT. A.T.	Dore	Au oz/ton	Ag oz/ton	Remarks
*			*	*	
S 6923			0.013	2.08	
S 6924			0.010	2.05	
—			—	—	
S 6926			0.019	2.05	
S 6927			0.028	2.05	
S 6928			0.010	2.05	
↓			↓	↓	
S 6931			0.009	0.20	
S 6932			0.015	2.05	
S 6933			0.036	6.44	
S 6934			0.017	0.09	
S 6935			0.013	2.05	
—			—	—	
S 6937			0.013	2.05	
S 6938			0.027	1.87	
S 6939			0.010	0.13	
S 6940			0.024	2.05	
S 6941			0.023	2.05	
S 6942			0.126	0.69	
*			*	*	

CERTIFIED BY: *W. Campbell*

NEWHAWK GOLD MINES LTD.

Certificate of Assay

TO _____

Project No. _____

Date SEPT 12/88

File No. NHG-397

SAMPLE No.	WT.	A.T.	Dore	Au oz/ton	Ag oz/ton	Remarks
U 8817				0.045	1.06	
↓				↓	↓	
U 8825				0.133	8.04	
*				*	*	
S 5768				0.009	2.05	
↓				↓	↓	
S 5772				0.011	2.05	
↓				↓	↓	
S 5779				2.005	2.05	
↓				↓	↓	
S 5783				0.022	2.05	
↓				↓	↓	
S 5786				0.034	2.05	
*				*	*	
S 5840				0.010	2.05	
S 5841				0.014	2.05	
S 5842				0.030	2.05	
—				—	—	
S 5844				0.015	2.05	
S 5845				0.009	2.05	
*				*	*	
S 5962				2.005	2.05	
S 5953				2.005	2.05	
S 5954				0.008	2.05	
S 5955				2.005	2.05	
S 5956				2.005	2.05	
↓				↓	↓	
S 5961				2.005	2.05	
↓				↓	↓	
S 5964				2.005	2.05	
S 5965				2.005	2.05	

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M Campbell

NEWIIAWK GOLD MINES LTD.

Certificate of Assay

Project No. _____

Date SEPT 11/88

File No. NHG 292

TO _____

SAMPLE No.	WT. AT.	Dore	Au oz/ton	Ag oz/ton	Remarks
U 8829			0.027	1.93	
U 8830			0.051	0.32	
U 8831			0.047	0.55	
U 8832			0.010	3.71	
U 8833			0.026	2.99	
U 8834			0.022	3.79	
U 8835			0.006	0.20	
U 8836			0.015	2.05	
X			*	*	
S 5780			0.006	2.05	
S 5781			0.014	2.05	
S 5782			0.013	2.05	
-			-	-	
S 5784			0.008	2.05	
S 5785			2.005	2.05	
-			-	-	
S 5787			0.014	2.05	
S 5788			0.006	2.05	
S 5789			0.006	2.05	
S 5790			2.005	2.05	
↓			↓	↓	
S 5838			2.005	2.05	
↓			↓	↓	
S 5846			2.005	2.05	
*			*	*	
S 5958			0.009	2.05	
S 5959			2.005	0.46	
S 5960			2.005	2.05	
-			-	-	
S 5962			2.005	2.05	
S 5963			2.005	2.05	

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NEWHAWK GOLD MINES LTD.

Certificate of Assay

Project No. _____

Date SEPT 11 1988

File No. NHG - 298

TO _____

SAMPLE No.	WT. A.T.	Dore	Au oz/ton	Ag oz/ton	Remarks
u 6769			0.108	0.69	
u 6770			0.223	10.42	
u 6771			0.023	0.34	
↓			↓	↓	
u 6786			0.069	0.06	
*			*	*	
S 6912			0.006	2.05	
—			—	—	
S 6914			0.047	0.08	
—			—	—	
S 6916			0.030	2.05	
*			*	*	
u 8744			0.020	0.33	
u 8745			0.033	0.17	
↓			↓	↓	
u 8760			0.062	0.60	
↓			↓	↓	
u 8764			0.025	0.20	
↓			↓	↓	
u 8767			0.007	0.26	
u 8768			2.005	2.05	
↓			↓	↓	
u 8781			0.060	3.65	
u 8782			0.051	2.63	
↓			↓	↓	
u 8802			0.018	2.05	
↓			↓	↓	
u 8808			2.005	0.27	
↓			↓	↓	
u 8825			0.087	6.37	
u 8826			0.092	7.63	

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M. Campbell

NEWHAWK GOLD MINES LTD.

Certificate of Assay

TO Newhawk

Project No. _____

Date Sept 11/88File No. NHG 295

SAMPLE No.	WT. A.T.	Dore	Au oz/ton	Ag oz/ton	Remarks
S 5791			0.006	4.05	
↓ *			*	*	
↓ 6913			0.129	0.66	
-			-	-	
6915			0.018	4.05	
-			-	-	
6917			0.013	0.40	
6918			0.040	0.10	
6919			0.015	0.15	
6920			4.005	4.05	
*			*	*	
S 7013			0.005	0.09	
*			*	*	
U 8761			0.037	0.74	
↓			↓	↓	
↓ 8783			0.007	4.05	
-			-	-	
8785			0.036	0.05	
8786			0.025	0.19	
8787			0.034	1.18	
8788			0.022	0.70	
8789			0.007	0.32	
8790			4.005	4.05	
8791			0.069	2.26	
8792			0.055	2.63	
8793			0.010	4.05	
8794			0.014	0.33	
8795			0.017	0.71	
8796			0.048	1.96	
8797			0.025	1.22	
U 8798			0.024	1.56	

CERTIFIED BY:

John Craft

NEWIAWK GOLD MINES LTD.

Certificate of Assay

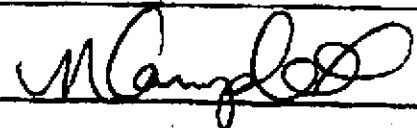
Project No. _____

TO _____

Date Sept 9 1988File No. NMG 293

SAMPLE No.	WT. AT.	Dore	Au oz/ton	Ag oz/ton	Remarks
S 5767			0.006	0.39	
↓			↓	↓	
S 5795			0.010	2.05	
↓			↓	↓	
S 5818			2.005	2.05	
↓			↓	↓	
G 5890			2.005	2.05	
↓			↓	↓	
S 5897			0.049	2.05	
S 5898			0.031	2.05	
S 5899			0.015	2.05	
S 5900			2.005	2.05	
S 5901			0.015	2.05	
↓			↓	↓	
S 5906			0.101	0.41	
↓			↓	↓	
S 5909			0.009	2.05	
↓			↓	↓	
S 5915			2.005	2.05	
S 5916			2.005	2.05	
↓			↓	↓	
S 5920			2.005	0.07	
*			*	*	
U 6776			0.025	3.01	
U 6777			0.017	1.42	
U 6778			0.060	3.34	
U 6779			2.332	714.48	
U 6780			0.049	7.65	
U 6781			0.616	38.40	
U 6782			0.154	2.41	
↓			↓	↓	

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NEWHAWK GOLD MINES LTD.

Certificate of Assay

Project No. _____

Date SEPT 9/88File No. NHG-294

TO _____

SAMPLE No.	WT. A.T.	Dore	Au oz/ton	Ag oz/ton	Remarks
U 6785			0.006	1.11	
—			—	—	
U 6787			1.075	44.90	
*			* —	*	
S 6901			2.005	2.05	
S 6902			0.055	0.68	
—			—	—	
S 6904			0.010	2.05	
↓			↓	↓	
S 6911			0.033	0.38	
↓			↓	↓	
S 6921			0.027	3.46	
S 6922			0.051	22.31	
↓			↓	↓	
S 7009			2.005	2.05	
S 7010			2.005	0.11	
S 7011			0.006	0.27	
S 7012			2.005	0.12	
—			—	—	
S 7014			0.010	2.05	
S 7015			2.005	0.11	
*			*	*	
U 7820			0.043	2.34	
↓			↓	↓	
U 8747			0.031	0.29	
U 8748			0.031	0.33	
↓			↓	↓	
U 8773			0.030	0.20	
↓			↓	↓	
U 8784			0.023	0.28	

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NEWHAWK GOLD MINES LTD.

Certificate of Assay

TO Newhawk

Project No. _____

Date Sept 9/88File No. NHG 291

SAMPLE No.	WT. AT.	Dore	Au oz/ton	Ag oz/ton	Remarks
S 5766			0.005	0.09	
↓			↓	↓	
↓ 5793			0.014	4.05	
↓			↓	↓	
5797			0.016	4.05	
5798			0.022	0.07	
5799			0.026	0.05	
5800			0.012	4.05	
5801			4.005	4.05	
5802			4.005	4.05	
5803			4.005	4.05	
5804			4.005	4.05	
5805			4.005	4.05	
5806			0.014	0.14	
5807			4.005	4.05	
↓			↓	↓	
5889			4.005	4.05	
-			-	-	
5891			0.008	4.05	
5892			0.005	4.05	
5893			0.005	4.05	
5894			0.175	0.45	
5895			0.032	0.12	
5896			0.017	4.05	
↓			↓	↓	
5902			0.011	0.17	
5903			0.005	0.06	
5904			0.010	4.05	
5905			0.007	4.05	
-			-	-	
S 5907			0.016	0.11	

CERTIFIED BY:

Adrian Cuyt

NEWHAWK GOLD MINES LTD.

Certificate of Assay

TO Newhawk

Project No. _____

Date Sept. 9, 1988

File No. NHG 292

SAMPLE No.	WT. A.T.	Dore	Au oz/ton	Ag oz/ton	Remarks
5 5908			4.005	4.05	
↓ -			-	-	
↓ 5910			0.006	4.05	
5911			0.005	4.05	
5912			4.005	4.05	
5913			0.006	4.05	
5914			0.009	0.15	
↓			↓	↓	
5917			4.005	4.05	
-			-	-	
5919			4.005	4.05	
-			-	-	
5921			0.006	4.05	
*			*	*	
6903			0.044	0.22	
-			-	-	
6905			0.074	0.36	
6906			0.010	4.05	
6907			0.030	0.42	
6908			0.009	4.05	
6909			0.007	4.05	
6910			0.010	0.29	
*			*	*	
7001			0.005	0.17	
7002			0.013	0.32	
7003			0.025	0.11	
7004			0.010	0.06	
7005			0.008	0.12	
7006			4.005	4.05	
7007			0.009	0.18	
5 7008			0.012	0.11	

CERTIFIED:

John Craft

NEWHAWK GOLD MINES LTD.

Certificate of Assay

Project No. _____

Date Sept 6/88File No. NHG 289TO Newhawk

SAMPLE No.	WT. A.T.	Dore	Au oz/ton	Ag oz/ton	Remarks
S 5761			4.005	4.05	
↓ 5762			0.007	0.18	
↓ 5763			0.010	0.41	
5764			0.006	0.20	
5765			4.005	4.05	
*			*	*	
5922			4.005	4.05	
5923			4.005	4.05	
5924			0.009	4.05	
5925			4.005	4.05	
*			*	*	
6674			0.309	41.77	
6675			0.026	14.75	
6676			0.007	4.05	
6677			4.814	3.52	
6678			0.010	4.05	
6679			0.015	0.73	
6680			0.011	0.10	
6681			0.018	0.25	
6682			0.014	0.05	
6683			0.020	0.63	
6684			0.011	4.05	
6685			0.005	4.05	
6686			0.022	0.41	
6687			0.010	0.35	
6688			0.075	0.15	
6689			0.021	0.75	
6690			0.024	2.36	
6691			0.006	4.05	
6692			0.009	2.84	
S 6693			0.010	4.05	

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Chin Craft

NEWIIAWK GOLD MINES LTD.

Certificate of Assay

TO NewhawkProject No. _____
Date Sept. 3/89
File No. UNG 2-27

SAMPLE No.	WT. A.T.	Dore	Au oz/ton	Ag oz/ton	Remarks
S 5758			0.024	0.28	
↓ 5759			0.015	0.12	
↓ 5760			4.005	4.05	
*			*	*	
6651			0.021	0.46	
6652			0.007	0.06	
6653			0.174	3.70	
6654			0.010	0.22	
6655			4.005	4.05	
6656			0.020	1.22	
6657			0.021	0.60	
6658			0.057	2.36	
6659			0.011	0.18	
6660			0.024	0.99	
6661			0.006	0.36	
6662			0.010	0.43	
6663			0.020	0.49	
6664			0.012	0.34	
6665			4.005	0.14	
6666			0.016	0.09	
6667			0.026	0.45	
6668			4.005	4.05	
6669			0.024	0.45	
6670			0.015	0.29	
6671			0.019	0.35	
6672			0.020	0.34	
6673			0.014	0.24	
*			*	*	
6783			0.035	0.26	
-			-	-	
S 6785			0.019	0.06	

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Nolin Craft

NEWHAWK GOLD MINES LTD.

Certificate of Assay

TO Newhawk

Project No. _____

Date Sept. 2/88

File No. NHG 285

SAMPLE No.	WT. AT.	Dore	Au oz/ton	Ag oz/ton	Remarks
S 5721			0.011	0.12	
↓ 5722			0.016	4.05	
↓			↓	↓	
5725			4.005	4.05	
5726			0.165	0.26	
↓			↓	↓	
5730			0.005	4.05	
↓			↓	↓	
5738			0.096	2.02	
↓			↓	↓	
5747			4.005	4.05	
↓			↓	↓	
5751			0.005	0.13	
-			-	-	
5753			0.005	4.05	
-			-	-	
S 5755			0.015	4.05	
*			*	*	
u 6751			0.311	14.46	
↓ 6752			0.022	1.91	
↓ 6753			0.933	77.85	
6754			0.031	0.19	
6755			0.040	0.45	
6756			0.035	0.26	
6757			0.072	2.97	
6758			0.056	6.70	
6759			0.015	0.50	
6760			0.020	0.42	
6761			0.014	4.05	
6762			0.034	0.15	
u 6763			0.122	12.92	

CERTIFIED BY: John Craft

NEWHAWK GOLD MINES LTD.

Certificate of Assay

Project No. _____

Date 30 Aug/88

File No. NHG 29

TO Newhawk

SAMPLE No.	WT. A.T.	Date	Au oz/ton	Ag oz/ton	Remarks
D 003028			0.006	0.32	
003029			0.010	0.18	
v 003030			0.008	0.17	
D 003031			0.036	3.94	
*			*	*	
S 6642			1.005	1.05	
-			-	-	
6644			0.014	1.02	
6645			0.011	1.58	
6646			0.009	0.89	
S 6647			0.010	0.26	
*			*	*	
u 6726			0.044	0.64	
6727			0.026	0.40	
v 6728			0.033	0.33	
↓			↓	↓	
↓			0.079	0.70	
6731			↓	↓	
↓			0.040	0.43	
6736			-	-	
-			0.227	2.63	
u 6738			*	*	
*			0.020	1.41	
S 6781			0.081	1.13	
S 6782			*	*	
*			0.023	0.32	
u 8672			↓	↓	
↓			0.400	1.93	
8680			0.425	3.80	
8681			0.034	0.38	
8682			0.040	0.49	
u 8683					

CERTIFIED BY: John Lupt

NEWHAWK GOLD MINES LTD.

Certificate of Assay

Project No. _____

Date 28 Aug 1988File No. NHG 277TO Newhawk

SAMPLE No.	WT. A.T.	Dore	Au oz/ton	Ag oz/ton	Remarks
S 5719			2.005	4.05	
↓ 5720			0.010	4.05	
↓			↓	↓	
5723			0.008	4.05	
5724			0.005	4.05	
↓			↓	↓	
5727			0.009	4.05	
5728			0.014	4.05	
5729			0.013	4.05	
-			-	-	
5731			0.017	4.05	
5732			0.025	4.05	
5733			0.013	4.05	
5734			0.044	0.05	
5735			0.049	0.05	
5736			0.017	4.05	
5737			0.061	0.12	
-			-	-	
5739			0.062	0.40	
5740			0.021	0.05	
5741			0.021	4.05	
5742			0.006	0.24	
5743			0.014	4.05	
5744			0.014	0.13	
5745			4.005	4.05	
5746			0.005	0.13	
-			-	-	
5748			4.005	4.05	
5749			4.005	4.05	
S 5750			4.005	4.05	

CERTIFIED BY:

Colin Craft

NEWHAWK GOLD MINES LTD.

Certificate of Assay

Project No. _____

Date 29 Aug 88File No. NHG 279

TO

Newhawk

SAMPLE No.	WT. A.T.	Dore	Au oz/ton	Ag oz/ton	Remarks
S 5752			4.005	4.05	
↓			-	-	
↓ 5754			4.005	4.05	
-			-	-	
5756			0.012	4.05	
5757			0.024	0.05	
*			*	*	
6704			0.116	0.31	
6705			0.010	0.07	
6706			0.005	4.05	
6707			0.017	0.78	
6708			0.005	0.14	
6709			0.009	0.40	
6710			0.015	0.23	
↓			↓	↓	
6713			0.007	0.33	
6714			0.007	0.27	
↓			↓	↓	
6776			0.019	0.24	
-			-	-	
6778			0.016	0.75	
-			-	-	
6780			0.018	0.97	
*			*	*	
S 6616			0.024	0.48	
*			*	*	
U 6737			0.04	0.54	

CERTIFIED BY:

John Crompt

NEWHAWK GOLD MINES LTD.

Certificate of Assay

Project No. _____

Date Aug 29/88File No. NHG 279TO Newhawk

SAMPLE No.	WT. AT.	Dore	Au oz/ton	Ag oz/ton	Remarks
D 003012			4.005	4.05	
↓ 003013			0.010	0.22	
↓ 003014			4.005	4.05	
003015			4.005	4.05	
003016			0.006	0.07	
003017			0.008	0.10	
003018			4.005	4.05	
003019			4.005	4.05	
003020			4.005	0.20	
003021			0.005	0.49	
003022			4.005	0.11	
003023			0.005	0.20	
003024			4.005	0.11	
003025			4.005	4.05	
003026			4.005	0.11	
D 003027			0.006	0.21	
*			*	*	
S 5718			0.005	4.05	
↓ *			*	*	
↓ 6649			0.021	0.20	
6650			0.017	0.37	
*			*	*	
6702			0.132	0.46	
6703			0.017	0.16	
↓			↓	↓	
6711			0.013	0.07	
6712			0.017	0.19	
↓			↓	↓	
6773			0.025	0.12	
6774			0.010	0.21	
S 6775			0.017	0.28	

CERTIFIED BY: Adin Craft

NEWHAWK GOLD MINES LTD.

Certificate of Assay

TO Newhawk

Project No. _____

Date August 26, 1988File No. NHC 275

SAMPLE No.	WT. A.T.	Dore	Au oz/ton	Ag oz/ton	Remarks
S 6617			0.025	0.60	
↓ 6618			0.009	0.24	
↓ 6619			4.005	0.07	
6620			0.027	0.72	
6621			0.047	0.24	
6622			0.025	0.13	
6623			0.009	4.05	
6624			0.026	0.31	
6625			0.027	0.60	
↓			↓	↓	
6635			0.009	4.05	
6636			0.006	4.05	
6637			4.005	4.05	
6638			0.011	4.05	
6639			0.085	0.17	
6640			0.056	11.82	
6641			0.185	2.27	
*			*	*	
6766			0.015	0.41	
6767			0.014	0.20	
6768			0.008	0.07	
6769			0.011	0.17	
6770			0.009	0.26	
6771			0.015	0.09	
S 6772			0.029	0.07	
*			*	*	
u 6712			0.027	0.82	
↓ 6713			0.022	3.73	
↓ 6714			0.015	0.36	
6715			0.046	8.74	
u 6716			0.087	6.27	

CERTIFIED BY:

John Craft

NEWHAWK GOLD MINES LTD.

Certificate of Assay

Project No. _____

Date August 26, 1988

File No. NHG-27-1

TO _____

SAMPLE No.	WT. AT.	Dore	Au oz/ton	Ag oz/ton	Remarks
U 6718			0.040	1.22	
↓			↓	↓	
U 6721			0.011	2.68	
*			* -	*	
S 6610			2.005	0.37	
S 6611			0.018	1.57	
S 6612			0.211	0.09	
S 6613			0.120	0.41	
S 6614			0.016	0.20	
S 6615			0.019	0.86	
*			*	*	
U 8654			0.035	0.16	
U 8655			0.040	0.32	
↓			↓	↓	
U 8662			0.082	8.63	
↓			↓	↓	
U 8665			0.059	0.99	
U 8666			0.054	0.89	
U 8667			0.009	0.41	
↓			↓	↓	
U 8676			0.007	0.09	
U 8677			0.009	0.16	
U 8678			0.011	0.20	
U 8679			0.014	0.09	

CERTIFIED BY: 

NEWHAWK GOLD MINES LTD.

Certificate of Assay

Project No. _____

Date August 1988File No. NHC 257

TO _____

SAMPLE No.	WT. AT.	Core	Au oz/ton	Ag oz/ton	Remarks
S 6596			0.016	0.22	
S 6597			0.015	1.37	
S 6598			0.010	0.34	
S 6599			0.459	14.16	
S 6600			0.027	1.93	
↓			↓	↓	
S 6626			0.032	0.57	
S 6627			2.005	2.05	
S 6628			0.013	0.61	
S 6629			2.005	2.05	
*			*	*	
S 6736			0.007	0.08	
S 6737			0.042	0.28	
S 6738			0.040	0.17	
*			*	*	
U 6576			18.523	603.37	1
↓			↓	↓	
U 6580			0.083	0.90	
U 6581			0.034	0.35	
U 6582			0.059	4.89	
U 6583			0.068	1.11	
U 6584			0.046	9.22	
U 6585			0.293	28.58	
U 6586			0.020	2.04	
U 6587			0.057	12.33	
U 6588			0.055	11.48	
U 6589			0.062	3.80	
↓			↓	↓	
U 6593			0.022	0.33	
*			*	*	
U 8539			0.060	0.97	

CERTIFIED BY: U/M Campbell

NEWHAWK GOLD MINES LTD.

Certificate of Assay

Project No. _____

Date August 1988File No. WHE 200

TO _____

SAMPLE No.	WT. AT.	Dore	Au oz/ton	Ag oz/ton	Remarks
S 6574			0.007	0.18	
*			*	*	
S 6739			0.051	1.55	
S 6740			0.017	0.79	
S 6741			0.020	0.66	
S 6742			0.015	0.29	
S 6743			0.011	1.65	
*			*	*	
U 8538			0.065	0.69	
↓			↓	↓	
U 8541			<.005	0.99	
U 8542			0.015	0.46	
↓			↓	↓	
U 8546			0.007	<.05	
U 8547			0.012	<.05	
U 8548			0.009	0.07	
—			—	—	
U 8550			0.007	0.44	
U 8551			<.005	0.25	
↓			↓	↓	
U 8556			0.020	0.17	
U 8557			<.005	<.05	
—			—	—	
U 8559			0.115	7.81	!
↓			↓	↓	
U 8562			0.039	0.42	
U 8563			0.040	0.32	
—			—	—	
U 8565			<.005	0.23	
U 8566			0.006	0.22	
↓			↓	↓	

CERTIFIED BY: W. Sample

NEWHAWK GOLD MINES LTD.

Certificate of Assay

TO Newhawk

Project No. _____

Date Aug 18 1988

File No. NHG 25

SAMPLE No.	WT. AT.	Dore	Au oz/ton	Ag oz/ton	Remarks
5 6588			0.029	1.97	
↓ 6589			0.045	6.91	
↓ 6590			0.128	6.76	
6591			0.096	4.19	
6592			0.099	22.72	
6593			0.017	4.18	
6594			0.025	4.20	
6595			0.006	0.34	
*			*	*	
6729			0.024	0.73	
6730			0.442	25.34	
6731			0.472	121.36	
↓			↓	↓	
5 6735			0.024	0.12	
*			*	*	
u 6562			0.050	0.41	
↓			-	-	
↓ 6564			0.065	0.48	
*			*	*	
3527			4.005	4.05	
↓			↓	↓	
4558			0.137	32.22	
↓			↓	↓	
u 3561			0.046	0.49	

CERTIFIED BY: Colin Coyle

NEWHAWK GOLD MINES LTD.

Certificate of Assay

Project No. _____

Date August 18 1988File No. NHG-253

TO _____

SAMPLE No.	WT. AT.	Dore	Au oz/ton	Ag oz/ton	Remarks
S 6514			0.025	2.05	
—			—	—	
S 6516			2.005	2.05	
S 6517			0.006	1.35	
S 6518			0.040	0.68	
S 6519			0.007	2.13	
S 6520			2.005	0.57	
S 6521			0.027	0.66	
S 6522			0.121	23.14	
S 6523			0.013	0.10	
S 6524			0.020	0.94	
S 6525			2.005	0.85	
↓			↓	↓	
S 6562			0.010	0.28	
S 6563			0.634	25.95	1
S 6564			0.023	1.87	
S 6565			2.005	1.50	
S 6566			0.022	1.62	
S 6567			0.020	0.17	
S 6568			0.023	0.10	
S 6569			0.033	0.24	
S 6570			0.110	0.23	1
S 6571			0.036	2.05	
S 6572			0.021	0.48	
S 6573			0.015	0.09	
—			—	—	
S 6575			0.009	0.16	
X			*	*	
U 6559			0.030	0.33	
U 6560			0.034	0.29	
↓			↓	↓	

CERTIFIED BY: W Campbell

NEWHAWK GOLD MINES LTD.

Certificate of Assay

Project No. _____

Date August 12 88

File No. NH6-25

TO _____

SAMPLE No.	WT. A.T.	Dore	Au oz/ton	Ag oz/ton	Remarks
u 6287			0.025	0.65	
*			*	*	
u 6553			0.015	2.05	
u 6554			0.011	2.05	
u 6555			0.501	1.31	
u 6556			0.031	1.00	
u 6557			0.041	0.47	
u 6558			0.037	0.70	
*			*	*	
u 8504			0.062	0.49	
u 8507			0.015	2.34	
u 8510			0.075	0.36	
u 8513			0.068	3.98	
u 8516			0.065	9.21	
u 8522			2.005	2.05	
u 8525			0.006	1.00	
u 8528			0.110	16.20	
u 8531			0.205	18.94	
u 8534			2.005	0.11	
u 8537			0.077	2.39	
u 8540			0.029	4.49	
u 8543			0.034	0.43	
*			*	*	
S 6513			0.006	2.05	
---			---	---	
S 6515			2.005	0.19	

CERTIFIED BY:

[Signature]

NEWHAWK GOLD MINES LTD.

Certificate of Assay

Project No. _____

Date August 3, 1988File No. NHG-535

TO _____

SAMPLE No.	WT. AT.	Dore	Au oz/ton	Ag oz/ton	Remarks
U 6432			<.005	0.69	
u 6433			<.005	0.74	
u 6434			0.021	0.33	
u 6435			0.021	0.09	
u 6436			0.009	<.05	
u 6437			0.016	1.44	
u 6438			0.019	0.66	
u 6439			0.017	0.31	
u 6440			0.018	0.30	
u 6441			<.005	<.05	
u 6442			0.008	0.26	
u 6443			0.014	6.44	
u 6444			0.025	10.32	
u 6445			0.044	6.58	
u 6446			0.007	0.84	
↓			↓	↓	
u 6450			0.016	0.12	
u 6451			0.011	0.08	
*			*	*	
S 6503			0.009	<.05	
S 6504			0.086	0.08	
S 6505			0.154	<.05	
S 6506			0.011	0.37	
S 6507			<.005	<.05	
S 6508			0.012	12.90	
S 6509			<.005	0.24	
S 6510			0.018	<.05	
S 6511			0.162	28.32	
S 6512			0.061	1.18	
↓			↓	↓	
S 6543			0.037	0.85	

CERTIFIED BY:

M. Campbell

NEWHAWK GOLD MINES LTD.

Certificate of Assay

Project No. _____

Date AUGUST 31/88File No. NHG 236

TO _____

SAMPLE No.	WT. A.T.	Dore	Au oz/ton	Ag oz/ton	Remarks
S 6544			2.005	0.09	
S 6545			0.024	17.26	
S 6546			0.007	0.15	
S 6547			0.080	0.23	
S 6548			0.034	0.14	
S 6549			0.043	2.05	
S 6550			0.018	2.05	
S 6551			2.005	2.05	
S 6552			0.006	2.05	
S 6553			0.009	0.010	
S 6554			0.008	2.05	
S 6555			2.005	2.05	
↓			↓	↓	
S 6558			0.376	0.42	
S 6559			0.046	0.07	
S 6560			0.042	3.91	
U 7869			0.044	0.32	
↓			↓	↓	
U 7877			0.110	8.11	
↓			↓	↓	
U 7892			0.012	0.46	
U 7893			0.007	0.38	
—			—	—	
U 7895			0.019	0.57	
U 7896			0.031	0.35	
↓			↓	↓	
U 7902			0.017	0.35	
U 7903			0.016	0.25	
—			—	—	
U 7905			0.006	0.32	

CERTIFIED BY: CR Campbell

NEWHAWK GOLD MINES LTD.

Certificate of Assay

Project No. _____

Date July 31/84

TO _____

File No. NHG-225

SAMPLE No.	WT. A.T.	Dore	Au oz/ton	Ag oz/ton	Remarks
U 8035			0.007	0.30	
U 8036			0.036	0.57	
U 8037			0.020	0.86	
U 8038			0.334	25.61	
U 8039			0.014	1.05	
U 8040			0.010	0.77	
U 8041			0.016	2.17	
U 8042			0.055	3.92	
U 8043			0.205	15.55	
U 8044			0.016	1.46	
*			*	*	
S 6501			0.246	1.38	
S 6502			0.244	2.99	
↓			↓	↓	
S 6526			0.023	0.17	
S 6527			0.149	2.57	
S 6528			0.082	0.99	
S 6529			0.005	0.05	
—			—	—	
S 6531			0.097	0.05	
↓			↓	↓	
S 6535			0.010	0.05	
S 6536			0.011	0.14	
—			—	—	
S 6538			0.013	0.05	
S 6539			0.092	0.23	
S 6540			0.204	0.59	
S 6541			0.042	0.11	

CERTIFIED

M. Campbell

APPENDIX III

Qualifications of Field Personnel

Qualifications of
N. Tribe, P. Eng., Author and Field Supervisor

RESUME OF
NORMAN L. TRIBE, P.ENG.

- Graduated from the University of British Columbia in 1964 with a B.A.Sc. in Geological Engineering.
- Registered Professional Engineer in the Province of British Columbia.
- President and principal of N. Tribe & Assoc. Ltd. a geological contracting company serving the industry for 18 years.
- A total of 24 years experience in most phases of my profession including underground grade control, pit grade control, mine development, mine evaluation, property evaluation, project management, project consultant, exploration management, exploration geology and reporting to the various governments and/or stock exchanges.
- Wide ranging experience throughout the world including postings in the Canadian Cordillera, the Canadian Shield (Ontario, Saskatchewan, Manitoba and the N.W.T.), Australia and the Pacific Islands, (Fiji, Misima, P.N.G., etc.), the Australian Shield, the Guiana Shield.
- Experience in various mines including Cragmont (Merritt), Eldorado (Beaverlodge), Highland Bell (Beaverdell), Argo (Zortman), Pegasus (Landusky), Lupin (Contwoyto Lake), Scottie Gold (Stewart), Newhawk Gold Mines (Brucejack Lake), Esperanza Gold (Burton) and Edjudina (Australia).
- Spent six months with the Ministry of Energy Mines and Petroleum Resources of British Columbia as Mines Inspector in Kamloops, B.C.
- Holder of the following industry related certificates:
 - Underground Shift Boss, U.G. 2029
 - Open Pit Shift Boss, O.P. 811
 - General Blasting Ticket, B.C. 37431
 - Blasters Permit, Yukon Territories, 2037
 - Industrial First Aid Ticket, 703669465 (expired)
 - Underground Mine Rescue Ticket, 6642
 - Surface Mine Rescue Ticket, 03969
 - British Columbia Class 5 Drivers Licence 3146483
 - International Drivers Licence
 - Valid Current Canadian Passport

RESUME OF
RICHARD LEEP, B.Sc.

Richard Leep, B.Sc., majored in geology and maths at the University of New Mexico, graduated in 1970.

- 18 years' experience including:
- 10 years as mine geologist at Hecla's Star Mine
- 1 year as shift boss at the Lucky Friday Mine
- 5 years as district geologist at Hecla's Coeur d'Alene office
- 2 years as exploration geologist for the Hecla Escalante Mine in Utah.

RESUME OF
BRIAN BOWER, B. Sc.

Brian Bower graduated from the University of British Columbia in 1986 with a Bachelor of Science, Geology Major.

Pre-graduation experience:

-4 years summer experience as geological assistant for Kidd Creek Mines in northern British Columbia and the Toadoggone.

Since graduation:

-2 years for Total Erikson at Erikson Gold Mines, Cassiar, B.C.

RESUME OF
MICHAEL GENN, B.Sc.

Michael Genn graduated from the University of British Columbia in 1987 with a Bachelor of Science degree in Geology.

Pre-graduation experience:

-1 year as field assistant at Syncrude, Fort McMurray, Alberta.

Post-graduation experience:

-1 year as field geologist for Omni Resources Inc. at Whitehorse, Y.T.

APPENDIX IV

LEGEND AND LITHOLOGIC DESCRIPTIONS

LEGEND

The legend in use when we arrived in July 1988 was as detailed below. We started with this legend and expanded it to describe the rocks as we moved away from the West Zone ore body and the rocks and alteration found there.

The legend that developed is as follows:

AN?? - Various varieties of andesite rocks

All "Andesitic" Units have undergone local quartz sericite pyrite alteration. Dusty disseminated Py may be responsible for overall grey cast of rocks.

ANLT - Andesite lapilli tuff: color dark to medium grey, moderately foliated, to massive rock. Angular felsic phenocrysts to rounded clasts up to 3 cm, averaging 7 - 8 mm long in a granular to ashy matrix. Regional alteration 20% silica, 5 - 10% sericite, 5% interstitial pyrite. Fragments are matrix supported.

ANTF - Andesite tuff: Colour dark to medium grey moderately foliated to massive rock. Generally fine-grained with average grain size 2 - 3 mm. Contains minor subunits of ANLT, ANXT, ANBX, ANPP and HELT.

ANXT - Andesite crystal tuff: Color dark to medium grey moderately foliated to massive rock. Feldspar and sometimes quartz phenocrysts up to 5 mm long in a grainy matrix. Fragments clast supported.

ANBX - Andesite Breccia: Medium to dark grey rock with angular fragments to 20 cm in diameter. Fragments often contain small 6 mm feldspar phenocrysts. Matrix is grainy to ashy in composition. Clasts usually matrix supported.

DC?? various dacitic units.

Dacitic Units: Moderately silicified and bleached equivalents of andesitic units described above. Discrete small muscovite (sericite) books and minor secondary pyrite are common in a medium grey grainy to ashy, welded looking groundmass.

DCLT, DCTF, DCBX - dacitic equivalent to the andesite units noted above.

PPFP - Feldspar Porphyry: White to generally beige

sub to euhedral 3 - 15 mm feldspar phenocrysts comprising 10 - 15% of rock in a grainy matrix. Overall colour ranges from medium to pale grey and grey-olive green, due to silicification and pyrophyllite alteration present where this unit occurs.

PPHB - Hornblende Porphyry Dyke: Massive medium green, uniform fine-grained intermediate dyke. Characteristic 0.5 - 2 mm black hornblende laths comprise up to 5% of the rock. This intrusive is postmineral and crosscuts highly silicified units and veining with clean sharp contacts. These dykes may be flat lying as extrapolated from drill hole information.

CHRT - Chert: Massive grey to grey-green massive to "flow banded" amorphous rock. Rock behaves brittlely to deformation with numerous tension gashes and slips while the "Heterolithic Tuff" surrounding this unit behaves in a ductive fashion. Contact relationships with surrounding rocks appear primarily with soft sediment deformation features.

HELT - Heterolithic Tuff: Medium to dark grey pyro-epiclastic rock with highly variable appearing generally andesitic clasts in a foliated ashy matrix. Fragments range from 0.5 - 20 cm in diameter and are rounded to hackly. Some cyclic bedding can be seen. Possible fluviatile and other subaqueous textures and rock types are associated with this unit. This is the dominant rock type and host rock of the West Zone.

SYEN - Syenite. Dark to medium greys flecked with white. Hardness -5. Medium grained, phanuretic to weakly prophyritic. Weakly to moderately sericitized but feldspars still visible.

AKSS - Arkose, arkosic sandstone. Dark, medium greys. Hardness 4. Fine grained to grainy, may show bedding or cross bedding.

CNGL - Heterolithic conglomerate. Particles 0.5 cm - 2 cm. Angular fragments of argillite usually present.

CONG - Monolithic conglomerate as above without the argillite fragments.

PPGL - Pebble conglomerate. As in CONG but with a distinct one cm. pebble mosaic. This conglomerate becomes intensely sericitized and becomes CGZN.

BLQT - Dark greys - black. Hardness 7. Very fine grained black siliceous matrix often contains an abundance of secondary white quartz veins.

ARGL - Black, harness 5 - 6. Very fine grained argillite does not take the sericite pyrite or silica

alteration, but does brecciate and accept the QTVN, QCVN or QBVN.

DIOR - This category is a generalization for several varieties of medium to basic dyke material. The typical dyke is fine grained Hb diorite with a good pale green chill margin. DIOR may also include diabase or other dike.

Alteration Suite is as follows:

??Zn - Zone rock: called in the mine legend, QTZN. These rocks are pale grey to dark grey, hardness 3, fine to medium grained, weakly to moderately schistose, intensely sericitized, moderately to intensely pyritized, 10 - 50% fine grained pyrite and weakly to moderately silicified with 5 - 10% quartz veining. Petrogenic variations on this rock type are:

- QTZN - Generic zone rock, indeterminate origin
- ANZN - Andesite zone rock
- AKZN - Arkosic zone rock
- SYZN - Syenite zone rock
- PPZN - Plagioclase porphyry zone rock
- CGZN - Conglomerate zone rock

QCZN - Quartz Carbonate (Calcite, Siderite, Ankerite) Zone: Generic zone rock generally medium grey silicified with early quartz followed by later quartz carbonate veining. Quartz calcite veining ranges from white to dark grey and also pink calcite. Quartz siderite is distinctive with its yellow siderite grains in white quartz. This is a common apparently last phase of veining and seen in tension gash line features. Quartz Ankerite is distinctive with pale yellow to ivory ankerite in late quartz fracture and gash veining.

Q?SW - Stockwork veining 10 - 80%. Veining forming a crisscross network usually in a pale intensely sericitized and/or pyritized matrix.

Variations are:

- QTSW - quartz stockwork
- QCSW - quartz carbonate stockwork
- QBSW - quartz barite stockwork

Q?BX - Quartz breccia veining. Similar to Q?SW but with a brecciation of some of the earlier veins.

Variations are:

- QTBX - Quartz breccia veining
- QCBX - Quartz carbonate breccia veining
- QBBX - quartz barite breccia veining

Q?VN - Massive veining. Usually white massive vein material of a single generation of vein material may contain some wall rock fragments 80% plus vein material.

Variations:

QTVN - Quartz veining

QCVN - Quartz carbonate veining at least 5% carbonate.

QBVN - Quartz barite veining at least 5% barite.

SXVN - Sulphide vein. Should be subscripted to identify the minerals:

- tet. - tetrahedrite
- ga. - Galena
- sph. - Sphalerite
- py - Pyrite
- po - Pyrrhotite
- ten. - Tenanite
- cpy - chalcopyrite
- asp - arsenopyrite
- el - electrum
- chc - chalcite
- mo - molybdenite
- fl - fluorite
- pyg - pyrargyrite
- bor. - bornite
- ba. - barite
- tour. - tourmalene

Subscript modifiers are also applied to any of the above rock types according to the following coding:

wsW - Weak stockwork, 2 - 5% stockwork.

msW - Moderate stockwork, 5 - 10% stockwork.

Assays are plotted on the sections as:

.OX / .OOX

ounces per ton Ag. / ounces per ton Au.

or as:

.OX ounces per ton Ag.

.OOX ounces per ton Au.

Old legend still in use.

Some carry over from the work of Bridge et al is still in use. This legend is too generalized to be used except for the regional mapping. It is summarized as follows to provide a reference for use when referring to the earlier work:

- 1, the sedimentary package, sandstone, arkose wacke, lithic arkose and shale, pebble conglomerate arenite.

- 2, andesite fragmentals, monolithic and heterolithic tuffs, tuff breccias.

- 3, alkali feldspar porphyry syenite.

- 4, syenite.
- 5, dike rock suite.
- 6, black quartz.
- 7, quartz veins.
- 8, alteration package.
- subscripts to the alteration package:
 - Q - silicification
 - w, weak
 - m, moderate
 - i, intense
 - S - sericitization
 - w, weak
 - m, moderate
 - i, intense
 - P - pyritization
 - w, weak
 - m, moderate
 - i, intense

LEGEND

- METAMORPHIC ROCKS
- METAVOLCANIC ROCKS
- QUARTZITE
- GNEISS
- SLATE
- MARBLE
- GRANITE
- DIORITE
- GABBRO
- ANDESITE
- BASALT
- TRAP
- TUFF
- SANDSTONE
- SHALE
- LIMESTONE
- CONGLOMERATE
- ALLUVIUM
- GLACIAL DEBRIS
- RIVER CHANNEL
- ROAD
- RAILROAD
- POWER LINE
- TELEPHONE LINE
- FENCE
- BOUNDARY
- PROPERTY LINE
- ADJACENT PROPERTY
- UNDEVELOPED LAND
- OPEN SPACE
- WOODLAND
- PASTURE
- CROPLAND
- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL
- PUBLIC BUILDING
- CHURCH
- SCHOOL
- HOSPITAL
- OFFICE BUILDING
- GARAGE
- DRIVE
- WALKWAY
- PLAYGROUND
- PARK
- GOLF COURSE
- BEACH
- BOAT DOCK
- MARINA
- AIRPORT
- RAILROAD STATION
- BUS STOP
- TRUCK STOP
- FUEL TANK
- RESTAURANT
- HOTEL
- MOTEL
- APARTMENT BUILDING
- CONDOMINIUM
- TOWNHOUSE
- SINGLE-FAMILY HOME
- GARAGE
- DRIVE
- WALKWAY
- PLAYGROUND
- PARK
- GOLF COURSE
- BEACH
- BOAT DOCK
- MARINA
- AIRPORT
- RAILROAD STATION
- BUS STOP
- TRUCK STOP
- FUEL TANK
- RESTAURANT
- HOTEL
- MOTEL
- APARTMENT BUILDING
- CONDOMINIUM
- TOWNHOUSE
- SINGLE-FAMILY HOME

Rock Sample Assay (1988 Exploration)

TABLE 3: SULPHURETS GOLD ZONE SAMPLES

SMP. NO.	AREA LOCATION	TYPE	AZ/DIP	WIDTH	ASSAY RESULTS-est		COMMENTS
					Au	Ag	
S 4503	Sulphurets Gold Zone	regr. chips	000/7	3a	0.009	0.00	0 vns in tail
S 4504	Sulphurets Gold Zone	regr. chips	000/7	3a	0.086	0.08	Serpy shear
S 4505	Sulphurets Gold Zone	select grab	---	---	0.154	0.00	16 vns of S 4504
S 4506	Sulphurets Gold Zone	regr. chips	---	10ca	0.011	0.37	0-py near S 4509
S 4530	Sulphurets Gold Zone	select grab	015/70W	1a	0.034	0.00	Carb-0-py vns near
S 4531	Sulphurets Gold Zone	select grab	042/70W	3a	0.097	0.00	0-py-sph shears
S 4532	Sulphurets Gold Zone	select grab	015/70W	1a	0.034	0.00	0-py in shear
S 4533	Sulphurets Gold Zone	float grab	---	---	0.053	0.00	0-py-no below oc of S 4532
S 4534	Sulphurets Gold Zone	float grab	---	---	0.000	0.00	0-py-no above
S 4535	Sulphurets Gold Zone	select grab	---	2a	0.010	0.00	0-py-no
S 4536	Sulphurets Gold Zone	float grab	---	---	0.011	0.14	0-py, below oc of S 4535
S 4537	Sulphurets Gold Zone	select grab	---	20ca	0.016	0.00	0-py-wt
S 4538	Sulphurets Gold Zone	float grab	---	---	0.013	0.00	0-carb-py
S 4539	Sulphurets Gold Zone	regr. chips	010/80W	1a	0.092	0.23	0-py-no in shear
S 4540	Sulphurets Gold Zone	regr. chips	010/80W	3-4a	0.204	0.59	0-py-no in shear
S 4541	Sulphurets Gold Zone	regr. chips	130/90	2a	0.042	0.11	0-py-no in shear
S 4542	Sulphurets Gold Zone	select grab	055/7	20ca	0.022	0.00	0 vns, 2-30 cpy
S 4543	Sulphurets Gold Zone	select grab	---	5-8a	0.037	0.05	0-casson oc
S 4544	Sulphurets Gold Zone	select grab	---	10ca	0.000	0.09	0-py-aly tail
S 4545	Sulphurets Gold Zone	select grab	---	10ca	0.024	17.26	0-bossom zone is above
S 4546	Sulphurets Gold Zone	regr. chips	---	20ca	0.007	0.15	0-py-cpy wts
S 4547	Sulphurets Gold Zone	select grab	030/70W	3a	0.060	0.25	0-py, minor cpy
S 4548	Sulphurets Gold Zone	select grab	050/80W	2-1a	0.015	0.14	0 vns
S 4549	Sulphurets Gold Zone	select grab	---	5a	0.043	0.00	West of S 4548
S 4550	Sulphurets Gold Zone	select grab	090/85W	1-2a	0.010	0.00	0 vns in shear
S 4551	Sulphurets Gold Zone	select grab	020/90	10ca	0.000	0.00	0-py-cpy
S 4552	Sulphurets Gold Zone	select grab	---	10ca	0.060	0.00	0-py-cpy-sph
S 4553	Sulphurets Gold Zone	select grab	---	1a	0.009	0.01	0-py-cpy-sph
S 4554	Sulphurets Gold Zone	select grab	---	10ca	0.000	0.00	0-py-cpy-sph
S 4555	Sulphurets Gold Zone	select grab	---	10ca	0.000	0.00	0-py-cpy-sph wts
S 4556	Sulphurets Gold Zone	select grab	---	5a	0.119	0.42	Py in shear, fresh rock
S 4557	Sulphurets Gold Zone	select grab	040/70W	2a	0.006	0.05	0-py-sph, 0 vns
S 4558	Sulphurets Gold Zone	regr. chips	040/70W	3a	0.129	0.46	0-py-sph
S 4559	Sulphurets Gold Zone	select grab	040/70W	4-5a	0.047	0.08	0-py-sph
S 4560	Sulphurets Gold Zone	regr. chips	040/70W	3a	0.010	0.25	0-py-sph
S 4561	Sulphurets Gold Zone	regr. chips	040/70W	2a	0.030	0.00	0-py-sph
S 4562	Sulphurets Gold Zone	select grab	040/70W	2a	0.013	0.40	0-py-sph
S 4563	Sulphurets Gold Zone	regr. chips	040/70W	5a	0.040	0.10	0-py-sph
S 4564	Sulphurets Gold Zone	regr. chips	040/70W	1a	0.015	0.15	0-py-sph
S 4565	Sulphurets Gold Zone	regr. chips	040/70W	3a	0.005	0.20	0-py-sph
S 4566	Sulphurets Gold Zone	select grab	---	3a	0.027	1.43	0-py-sph
S 4567	Sulphurets Gold Zone	select grab	047/90	10ca	0.051	17.31	0-py-wt

TABLE 4: GALENA MAIN COPPER ZONE SAMPLES

SMP. NO.	AREA LOCATION	TYPE	AZ/DIP	WIDTH	ASSAY RESULTS-est		COMMENTS
					Au	Ag	
S 4525	Galena Main Cu Zone	regr. chips	076/90	1a	0.003	0.17	0-py-sph in shear
S 4526	Galena Main Cu Zone	select grab	078/90W	75ca	0.149	2.57	0-py-sph in shear
S 4527	Galena Main Cu Zone	select grab	078/90W	20ca	0.182	0.99	0-casson fracture
S 4528	Galena Main Cu Zone	select grab	030/65W	2a	0.000	0.00	0-bossom py

GEOLOGICAL BRANCH ASSESSMENT REPORT

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PROPERTY GEOLOGY

SAMPLE LOCATION SUMMER 1988

FIGURE NUMBER 4

[Signature]

TABLE 1: SULPHURETS LAKE GOLD ZONE SAMPLES

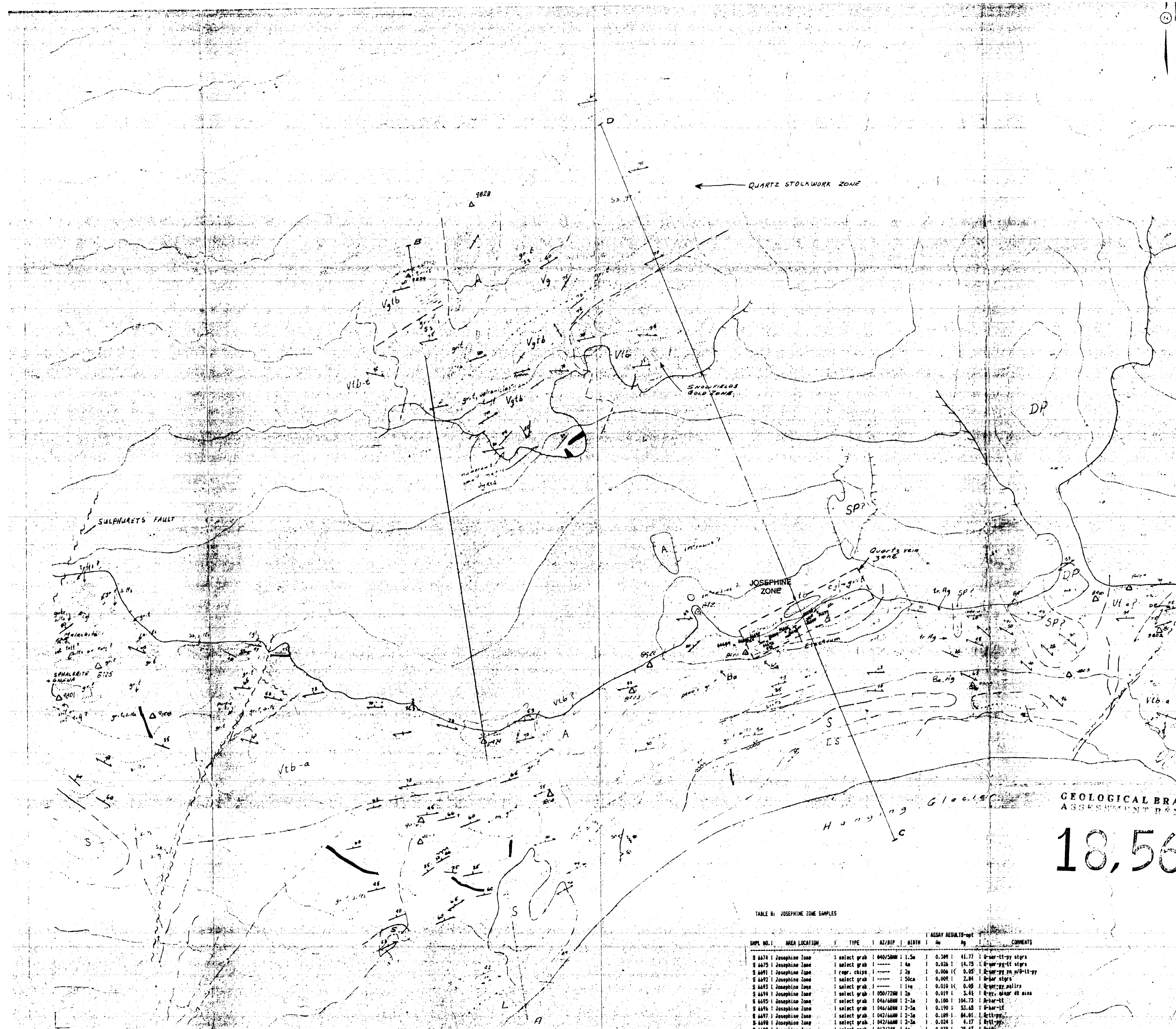
SMP. NO.	AREA LOCATION	TYPE	AZ/DIP	WIDTH	ASSAY RESULTS-est		COMMENTS
					Au	Ag	
S 4501	Sulphurets Lake Zone	select grab	035/55W	2a	0.245	1.78	0-py-sph shears
S 4502	Sulphurets Lake Zone	regr. chips	050/45W	2a	0.214	2.39	0-py-sph shears
S 4503	Sulphurets Lake Zone	regr. chips	---	2a	0.005	0.76	0-silic serpy zone
S 4504	Sulphurets Lake Zone	regr. chips	---	1a	0.055	0.30	0-py-sph, 0 vns
S 4505	Sulphurets Lake Zone	regr. chips	---	1a	0.044	0.22	0-py-sph
S 4506	Sulphurets Lake Zone	regr. chips	---	1a	0.010	0.35	0-py-sph
S 4507	Sulphurets Lake Zone	regr. chips	---	1-2.5a	0.074	0.35	0-py-sph in silic zone
S 4508	Sulphurets Lake Zone	regr. chips	---	2a	0.010	0.05	0-silic serpy zone
S 4509	Sulphurets Lake Zone	regr. chips	---	4a	0.020	0.42	0-silic serpy zone
S 4510	Sulphurets Lake Zone	regr. chips	---	2a	0.009	0.05	0-wly boss zone
S 4511	Sulphurets Lake Zone	regr. chips	---	1a	0.007	0.05	0-py-sph
S 4512	Sulphurets Lake Zone	regr. chips	---	1a	0.010	0.29	0-sph wts
S 4513	Sulphurets Lake Zone	select grab	---	50ca	0.033	0.38	0-py-sph in preser alt walls

TABLE 2: HANGING GLACIER SAMPLES

SMP. NO.	AREA LOCATION	TYPE	AZ/DIP	WIDTH	ASSAY RESULTS-est		COMMENTS
					Au	Ag	
S 4514	Hanging Glacier	regr. chips	052/70W	20ca	missing	missing	0-py shear
S 4515	Hanging Glacier	select grab	052/70W	20-30ca	0.075	0.45	0-carb-py wts
S 4516	Hanging Glacier	regr. chips	010/55E	10ca	missing	missing	0-py-cpy
S 4517	Hanging Glacier	regr. chips	092/55E	10-50ca	0.065	0.05	0-carb vns, no wts
S 4518	Hanging Glacier	select grab	150/50W	20ca	0.010	0.28	0-carb-py-sph-tt-w
S 4519	Hanging Glacier	select grab	078/40W	10-20ca	0.074	25.75	0-carb-py-sph-tt-w
S 4520	Hanging Glacier	select grab	015/75W	20-70ca	0.022	1.87	0-carb in shears
S 4521	Hanging Glacier	select grab	132/10NE	10ca	0.065	1.50	0-carb-sph-tt
S 4522	Hanging Glacier	select grab	135/10NE	10ca	0.022	1.62	0-carb-sph-tt

TABLE 5: MITCHELL-SULPHURETS RIDGE SAMPLES

SMP. NO.	AREA LOCATION	TYPE	AZ/DIP	WIDTH	ASSAY RESULTS-est		COMMENTS
					Au	Ag	
S 4507	M-S Ridge Zone	select grab	020/80E	3-5ca	0.000	0.00	0-carb-py wts
S 4508	M-S Ridge Zone	float grab	---	---	0.012	12.90	0-py, 0-py-sph
S 4509	M-S Ridge Zone	regr. chips	050/90	70ca	0.000	0.24	0-py-cpy-sph wts
S 4510	M-S Ridge Zone	regr. chips	065/55W	1a	0.010	0.00	0-carb vns
S 4511	M-S Ridge Zone	regr. chips	060/90	50ca	0.162	28.32	0-py
S 4512	M-S Ridge Zone	regr. chips	022/50W	40ca	0.061	1.10	0-py
S 4513	M-S Ridge Zone	select grab	010/70	30ca	0.135	0.85	0-py-cpy-sph
S 4514	M-S Ridge Zone	select grab	010/90	25ca	0.375	0.42	0-py-cpy
S 4515	M-S Ridge Zone	select grab	025/65W	20ca	0.046	0.07	0-carb-py-cpy
S 4516	M-S Ridge Zone	float grab	---	---	0.042	2.91	0-py-cpy-sph-tt, below S 4559
S 4517	M-S Ridge Zone	select grab	---	1a	0.000	0.07	0-py-sph, 0 vns in shear



- LEGEND**
- A HIGHLY ALTERED
 - INTRUSIVES**
 - K Karotophyre dykes
 - S Syenite
 - SP Syenite Porphyry
 - DP Diorite Porphyry
 - SEDIMENTARY AND VOLCANICS**
Lower-Middle Jurassic
 - Vtb Mixed clastic, epiclastic and pyroclastic
 - VLb Volcanic full breccia, intermediate to mafic (a) andesite, (b) trachyandesite
 - Vg Grit, sandstone, siltstone, conglomerate
 - LS Lower Sediments - sandstone, siltstone, shale
 - Geological boundary defined, approximate, assumed
 - Fault, approximate, assumed
 - Bedding
 - Foliation
 - Lincation
 - Joint
 - Shear
 - Outcrop
 - Quartz vein, Ag-Ru mineralized
 - Barite vein
 - Ag Tetrahedrite, argentic, pyrogenite
 - Rock assay sample
 - Edge of ice and snow
 - Cross section location
 - Rock Assay Sample (1988)

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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1988 JOSEPHINE ZONE SAMPLE
LOCATION MAP Figure No. 7

NEWHAVK GOLD MINES LTD

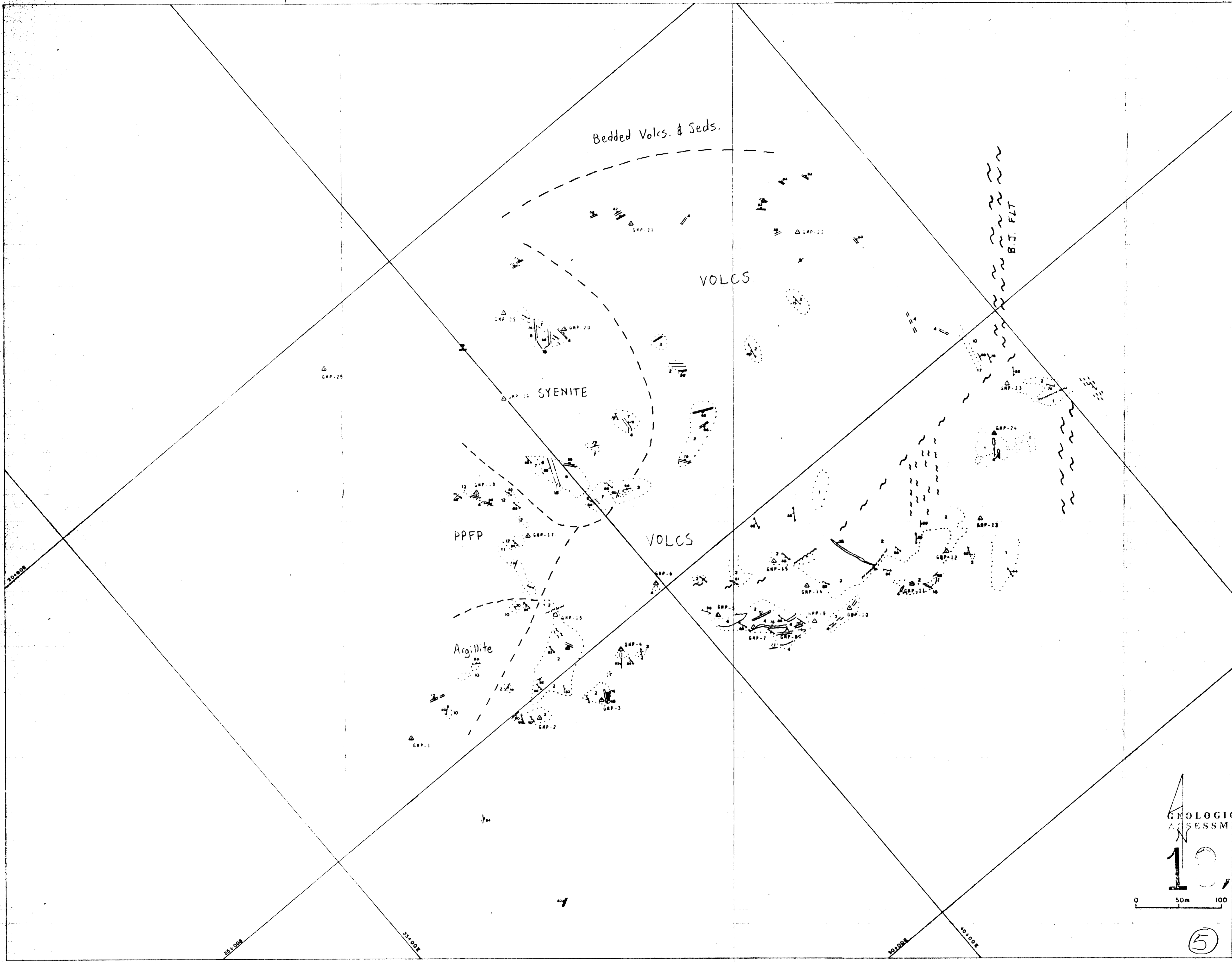
MITCHELL SULPHURETS RIDGE
GEOLOGY MAP

Project No. 2258 Mining District SKEWEN
Latitude 58° 31' Longitude 130° 14'
M.S. 1048.9E
Scale 1:50,000

[Signature]
DRAWING 0158

TABLE B: JOSEPHINE ZONE SAMPLES

SMP. NO.	AREA LOCATION	TYPE	AZ/DP	WIDTH	ASSAY RESULTS - ppt		COMMENTS
					Ag	Ag	
S 4474	Josephine Zone	select grab	040/50M	1.5m	0.380	41.77	0-bar-tt-py stgrs
S 4475	Josephine Zone	select grab	---	1.4m	0.024	14.75	0-bar-tt-py stgrs
S 4491	Josephine Zone	reg. chips	---	2m	0.004	0.45	0-bar-tt-py stgrs
S 4492	Josephine Zone	select grab	---	50cm	0.000	2.84	0-bar stgrs
S 4493	Josephine Zone	select grab	---	1.1m	0.010	0.95	0-bar-tt-py stgrs
S 4494	Josephine Zone	select grab	050/72M	2m	0.019	3.44	0-bar-tt-py stgrs
S 4495	Josephine Zone	select grab	046/68M	2-3m	0.100	104.73	0-bar-tt
S 4496	Josephine Zone	select grab	046/68M	2-3m	0.190	53.40	0-bar-tt
S 4497	Josephine Zone	select grab	042/68M	2-3m	0.189	84.91	0-bar-tt
S 4498	Josephine Zone	select grab	042/68M	2-3m	0.024	4.17	0-bar-tt
S 4499	Josephine Zone	select grab	012/74M	1.4m	0.030	25.43	0-bar-tt



LEGEND	
1	ANLT, ANGT, ANTP
2	QTZM, ANZM
3	QTSV
4	QTVF
5	SXVH
6	SYEN
7	SYZN
8	ALSS
9	AKZN
10	ARGL
11	PPFP
12	PPZK
13	CHL, CONG, MEL
14	MELT
15	BLUP
16	MSR, BYSG
17	CHBT
18	
	OUTCROP
	CONTACT
	FAULT
	CRACK
	TRENCH
	LAKE
	MUCK PILE
	BEDDING
	FAULTING AND SHEARING
	GEYSER
	VEIN

NEWHAWK GOLD MINES LTD.

GEOLOGICAL BRANCH
ASSESSMENT REPORT SULPHURETS PROJECT

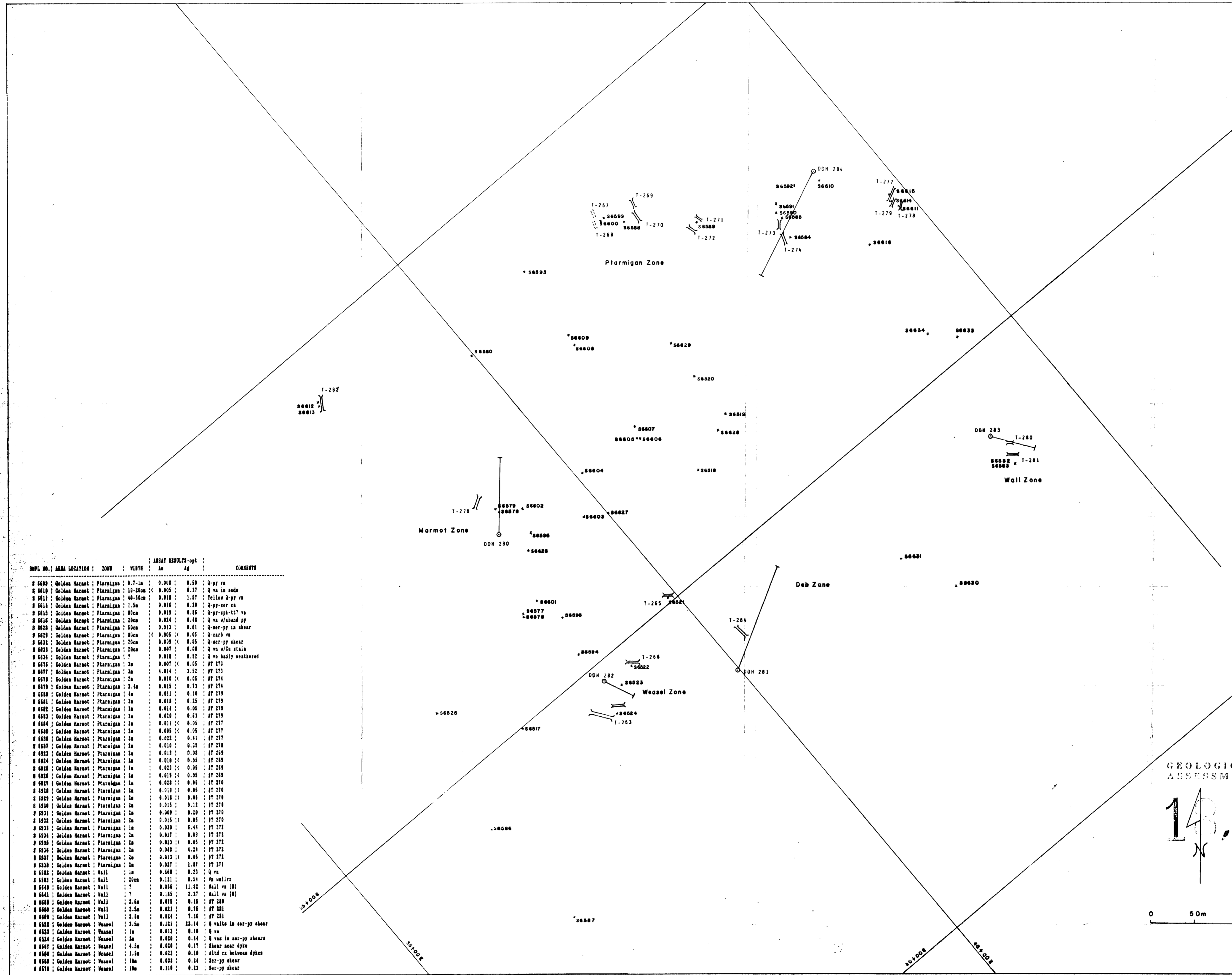
10,564 GEOLOGY
WITH INTERPRETATION
GOLDEN MARMOT ZONE

SCALE: 1:2000
DATE: November 1988
DRAWN BY: *[Signature]*

NTS: 1048 B & B
PLATE NO.
DRAWING NO.: 0135

0 50m 100

5



SAMPL. NO.	AREA LOCATION	ZONE	WIDTH	ASSAY RESULTS-opt		COMMENTS
				As	Ag	
S 6488	Golden Harrot	Ptarmigan	8.7-in	0.008	0.50	Q-py va
S 6410	Golden Harrot	Ptarmigan	10-10cm	0.005	0.37	Q va in seds
S 6511	Golden Harrot	Ptarmigan	10-10cm	0.010	1.57	Yellow Q-py va
S 6514	Golden Harrot	Ptarmigan	1.5m	0.016	0.28	Q-py-ter ca
S 6515	Golden Harrot	Ptarmigan	10cm	0.019	0.28	Q-py-ter ca
S 6516	Golden Harrot	Ptarmigan	10cm	0.024	0.40	Q va w/abund py
S 6520	Golden Harrot	Ptarmigan	10cm	0.013	0.61	Q-ser-py in shear
S 6523	Golden Harrot	Ptarmigan	10cm	0.005	0.05	Q-carb va
S 6524	Golden Harrot	Ptarmigan	10cm	0.009	0.05	Q-ser-py shear
S 6525	Golden Harrot	Ptarmigan	10cm	0.007	0.08	Q va w/Ox stain
S 6534	Golden Harrot	Ptarmigan	?	0.018	0.35	Q va badly weathered
S 6576	Golden Harrot	Ptarmigan	3m	0.007	0.05	PT 273
S 6577	Golden Harrot	Ptarmigan	3m	0.014	0.55	PT 273
S 6578	Golden Harrot	Ptarmigan	2m	0.010	0.05	PT 274
S 6579	Golden Harrot	Ptarmigan	3.4m	0.015	0.73	PT 274
S 6580	Golden Harrot	Ptarmigan	1m	0.011	0.10	PT 279
S 6581	Golden Harrot	Ptarmigan	3m	0.018	0.25	PT 279
S 6582	Golden Harrot	Ptarmigan	3m	0.014	0.05	PT 279
S 6583	Golden Harrot	Ptarmigan	3m	0.020	0.83	PT 279
S 6584	Golden Harrot	Ptarmigan	3m	0.011	0.05	PT 277
S 6585	Golden Harrot	Ptarmigan	3m	0.005	0.05	PT 277
S 6586	Golden Harrot	Ptarmigan	3m	0.022	0.41	PT 277
S 6587	Golden Harrot	Ptarmigan	3m	0.010	0.35	PT 278
S 6593	Golden Harrot	Ptarmigan	3m	0.013	0.08	PT 269
S 6594	Golden Harrot	Ptarmigan	3m	0.010	0.05	PT 269
S 6595	Golden Harrot	Ptarmigan	3m	0.023	0.05	PT 269
S 6596	Golden Harrot	Ptarmigan	3m	0.013	0.05	PT 269
S 6597	Golden Harrot	Ptarmigan	3m	0.028	0.05	PT 270
S 6598	Golden Harrot	Ptarmigan	3m	0.010	0.08	PT 270
S 6599	Golden Harrot	Ptarmigan	3m	0.010	0.05	PT 270
S 6600	Golden Harrot	Ptarmigan	3m	0.015	0.12	PT 270
S 6601	Golden Harrot	Ptarmigan	3m	0.009	0.20	PT 270
S 6602	Golden Harrot	Ptarmigan	3m	0.015	0.05	PT 270
S 6603	Golden Harrot	Ptarmigan	3m	0.030	0.44	PT 272
S 6604	Golden Harrot	Ptarmigan	3m	0.017	0.05	PT 272
S 6605	Golden Harrot	Ptarmigan	3m	0.013	0.05	PT 272
S 6606	Golden Harrot	Ptarmigan	3m	0.010	0.08	PT 272
S 6607	Golden Harrot	Ptarmigan	3m	0.013	0.08	PT 272
S 6608	Golden Harrot	Ptarmigan	3m	0.027	1.87	PT 271
S 6582	Golden Harrot	Wall	1m	0.668	0.23	Q va
S 6583	Golden Harrot	Wall	10cm	0.121	0.54	Va walltz
S 6640	Golden Harrot	Wall	?	0.056	11.02	Wall va (B)
S 6641	Golden Harrot	Wall	?	0.185	2.27	Wall va (B)
S 6642	Golden Harrot	Wall	?	0.075	0.15	PT 280
S 6643	Golden Harrot	Wall	1.5m	0.283	0.75	PT 281
S 6644	Golden Harrot	Wall	1.5m	0.224	7.38	PT 281
S 6518	Golden Harrot	Weasel	3.5m	0.121	23.14	Q valts in ser-py shear
S 6524	Golden Harrot	Weasel	2m	0.013	0.10	Q va
S 6525	Golden Harrot	Weasel	2m	0.020	0.44	Q va in ser-py shear
S 6526	Golden Harrot	Weasel	4.5m	0.020	0.17	Shear near dyke
S 6527	Golden Harrot	Weasel	1.3m	0.023	0.10	Ald rd between dykes
S 6528	Golden Harrot	Weasel	10m	0.030	0.24	Ser-py shear
S 6529	Golden Harrot	Weasel	10m	0.110	0.23	Ser-py shear

SAMPL. NO.	AREA LOCATION	ZONE	WIDTH	ASSAY RESULTS-opt		COMMENTS
				As	Ag	
S 6521	Golden Harrot	Deb	4m	0.027	0.66	Q-py-ph va
S 6571	Golden Harrot	Deb	10m	0.016	0.05	Ser-py-Q shear
S 6572	Golden Harrot	Deb	10m	0.021	0.40	Ser-py-Q shear
S 6573	Golden Harrot	Deb	10m	0.015	0.09	Ser-py-Q shear
S 6574	Golden Harrot	Deb	10m	0.007	0.18	Ser-py-Q shear
S 6575	Golden Harrot	Deb	40m	0.003	0.16	Q pods in shear zone
S 6576	Golden Harrot	Deb	2m	0.017	0.82	Q-ser-py (weathered)
S 6577	Golden Harrot	Deb	5m	0.006	0.13	Q-ser-py (fresh)
S 6525	Golden Harrot	Deb	---	0.009	0.05	GM-475m B
S 6526	Golden Harrot	Deb	---	0.008	0.05	GM-475m B
S 6527	Golden Harrot	Deb	---	0.005	0.05	GM-475m B
S 6528	Golden Harrot	Deb	---	0.011	0.05	GM-475m B
S 6529	Golden Harrot	Deb	2m	0.032	0.74	PT 264
S 6530	Golden Harrot	Deb	2m	0.005	0.05	PT 264
S 6531	Golden Harrot	Deb	2m	0.005	0.12	PT 264
S 6532	Golden Harrot	Deb	2m	0.009	0.16	PT 264
S 6533	Golden Harrot	Deb	2m	0.011	0.33	PT 264
S 6534	Golden Harrot	Deb	5m	0.007	0.13	PT 265
S 6535	Golden Harrot	Deb	5m	0.006	0.06	PT 265
S 6578	Golden Harrot	Harrot	2.5m	0.356	0.32	Q va
S 6579	Golden Harrot	Harrot	2m	0.110	0.81	Ser-py silts
S 6580	Golden Harrot	Harrot	11m	0.018	0.32	Silic zone
S 6581	Golden Harrot	Harrot	30cm	0.010	0.51	PT 266
S 6582	Golden Harrot	Harrot	---	0.013	16.36	Q-py-tt BQ
S 6583	Golden Harrot	Harrot	2m	0.005	0.56	Q-py va
S 6584	Golden Harrot	Harrot	1m	0.211	0.09	Silic py material
S 6585	Golden Harrot	Harrot	3m	0.120	0.41	Silic py in vado-shed lm
S 6586	Golden Harrot	Harrot	1m	0.032	0.57	Q-ser-py in 140/150 shear
S 6587	Golden Harrot	Harrot	40cm	0.005	0.05	Q-ser-py in shear
S 6588	Golden Harrot	Harrot	1m	1.115	0.04	Q-py lg
S 6589	Golden Harrot	Harrot	1m	0.018	0.51	PT 267
S 6590	Golden Harrot	Harrot	---	0.010	1.81	PT 267
S 6591	Golden Harrot	Ptarmigan	1m	0.007	0.08	Q-py va
S 6592	Golden Harrot	Ptarmigan	1m	0.007	2.13	Q va
S 6593	Golden Harrot	Ptarmigan	60cm	0.005	0.57	Q va
S 6594	Golden Harrot	Ptarmigan	10cm	0.011	05.01	Carb-tt-agg va
S 6595	Golden Harrot	Ptarmigan	?	0.009	0.73	Q-carb va
S 6596	Golden Harrot	Ptarmigan	80cm	0.004	1.08	Q-agg-tt
S 6597	Golden Harrot	Ptarmigan	---	0.125	1.08	Q Flint
S 6598	Golden Harrot	Ptarmigan	15m	0.009	1.97	Q va in shear
S 6599	Golden Harrot	Ptarmigan	80cm	0.045	0.81	Q va
S 6600	Golden Harrot	Ptarmigan	1-1.5m	0.120	0.76	Q-py-tt va
S 6601	Golden Harrot	Ptarmigan	50cm	0.000	4.19	Q-py-agg va
S 6602	Golden Harrot	Ptarmigan	50cm	0.000	23.72	Q-py-agg-tt-ga
S 6603	Golden Harrot	Ptarmigan	80cm	0.017	4.18	Q-py-agg-tt-agg
S 6604	Golden Harrot	Ptarmigan	30cm	0.015	1.27	Q-py-agg-tt
S 6605	Golden Harrot	Ptarmigan	20cm	0.040	0.14	Q-ser-py in walltz
S 6606	Golden Harrot	Ptarmigan	10cm	0.010	14.18	Q-carb va magist
S 6607	Golden Harrot	Ptarmigan	50cm	0.021	1.83	Q-carb va
S 6608	Golden Harrot	Ptarmigan	10cm	0.005	2.18	Va magist
S 6609	Golden Harrot	Ptarmigan	2-3m	0.000	0.00	Magistive Q va
S 6610	Golden Harrot	Ptarmigan	0.75-in	0.000	0.00	Q-py va
S 6611	Golden Harrot	Ptarmigan	?	0.010	11.23	Redded B subcrop

SAMPL. NO.	AREA LOCATION	ZONE	WIDTH	ASSAY RESULTS-opt		COMMENTS
				As	Ag	
S 6617	Golden Harrot	Weasel	3m	0.025	0.69	PT 268
S 6618	Golden Harrot	Weasel	3m	0.009	0.24	PT 268
S 6619	Golden Harrot	Weasel	3m	0.005	0.07	PT 268
S 6620	Golden Harrot	Weasel	3m	0.027	0.19	PT 268
S 6621	Golden Harrot	Weasel	3m	0.047	0.54	PT 268
S 6622	Golden Harrot	Weasel	3m	0.025	0.13	PT 268
S 6623	Golden Harrot	Weasel	3m	0.000	0.00	PT 268
S 6624	Golden Harrot	Weasel	3m	0.025	0.31	PT 268
S 6625	Golden Harrot	Weasel	3m	0.027	0.09	PT 268
S 6626	Golden Harrot	Weasel	3m	0.000	0.17	PT 268
S 6627	Golden Harrot	Weasel	3m	0.005	1.15	Q-agg-tt
S 6628	Golden Harrot	Weasel	1m	0.005	0.00	va
S 6629	Golden Harrot	Weasel	2m	0.022	0.12	Q va in argillite
S 6630	Golden Harrot	Weasel	2m	0.022	0.00	Argill. or graph. talc
S 6631	Golden Harrot	Weasel	1m	0.023	0.00	Q va, silic py
S 6632	Golden Harrot	Weasel	30cm	0.019	0.16	Q-py va
S 6633	Golden Harrot	Weasel	30cm	0.025	0.30	Q-py-lin
S 6634	Golden Harrot	Weasel	10m	0.000	0.24	Q-ser-py in shear or
S 6635	Golden Harrot	Weasel	5m	0.000	0.00	ser-py v talc

GEOLOGICAL BRANCH
ASSESSMENT REPORT

14.534

NEWHAWK GOLD MINES LTD.

SULPHURETS PROJECT

ASSAY PLAN

GOLDEN MARMOT ZONE

FIGURE NUMBER 9

SCALE: 1:2000 NTS. 104/B 8 & 9

DATE: November 1984 PLATE NO.

DRAWN BY: [Signature] DRAWING NO. 4638

6

24+14.55
38+00.0E

+1600.00 m

+1600.00 m

+1550.00 m

+1550.00 m

+1500.00 m

+1500.00 m

+1450.00 m

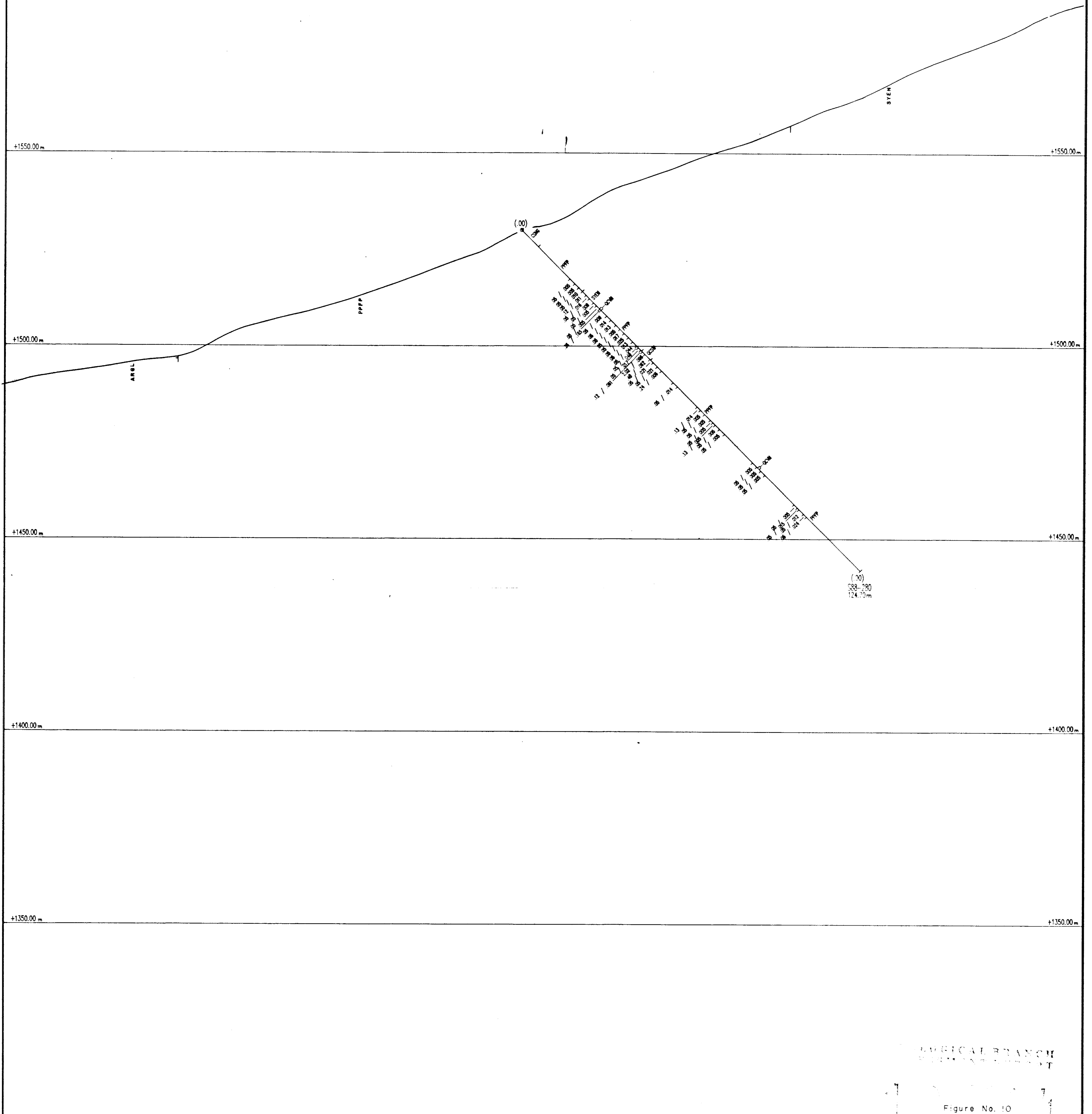
+1450.00 m

+1400.00 m

+1400.00 m

+1350.00 m

+1350.00 m



LITHICAL BRANCH

Figure No. 10

LEGEND

1	ANLT, ANXT, ANTF	7	SYZN	13	DNGL, CONG, PPGL
2	QTZN, ANZN	8	AKSS	14	HELT
3	QTSW	9	AKZN	15	BLQT
4	QTNW	10	ARGL		--- CONTACT
5	SKVN	11	PPFP		~ ~ ~ FAULT
6	SYEN	12	PPZN		

NEWHAWK GOLD MINES LTD.
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 GOLDEN MARMOT AREA
 GEOLOGY
 SPECIAL SECTION S88-280



SCALE: 1:500

ORIENTATION: 040° AZ (MINE GRID)

DATE: DECEMBER 15, 1988

DRAWN BY:

DRAWING NUMBER 0104

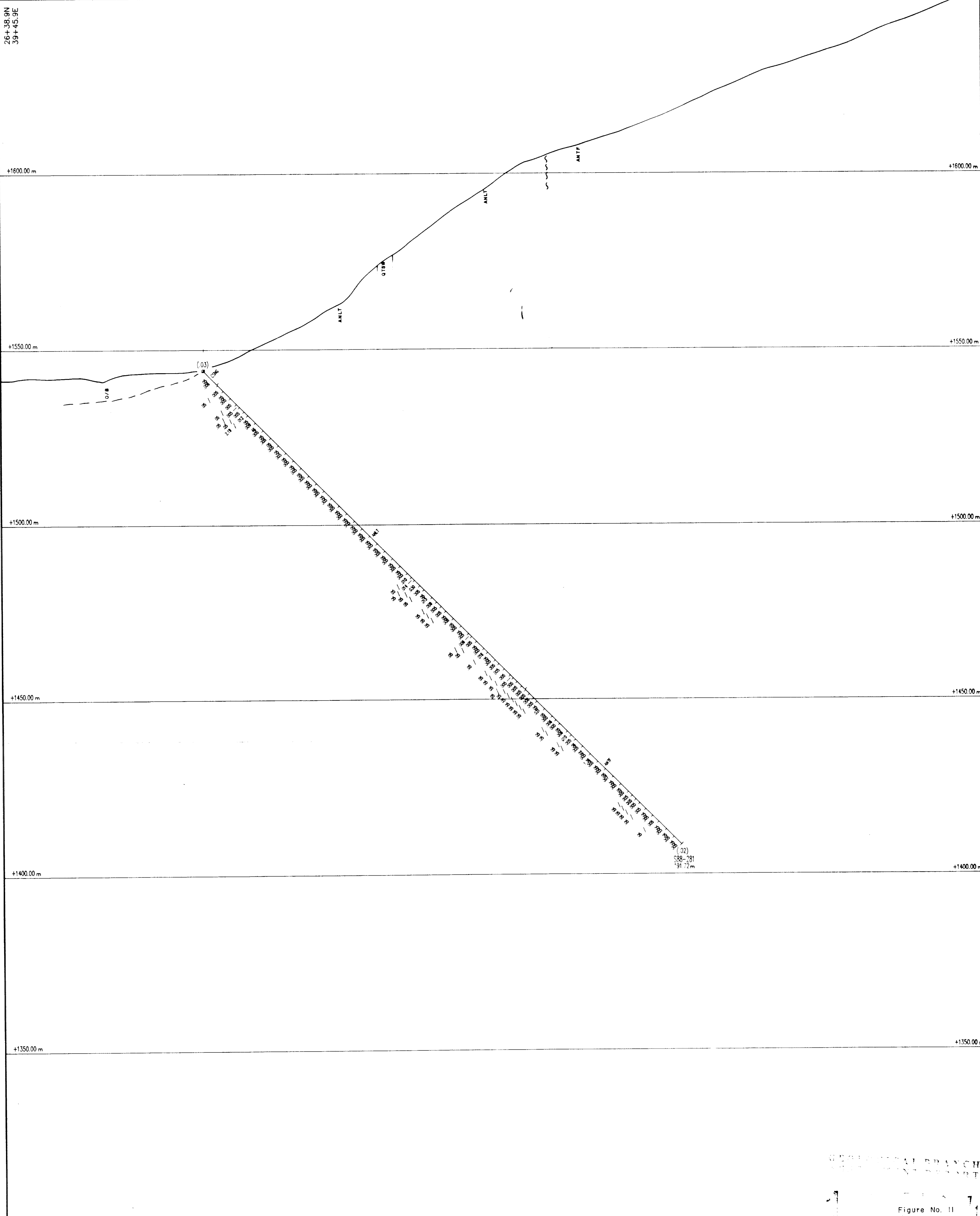
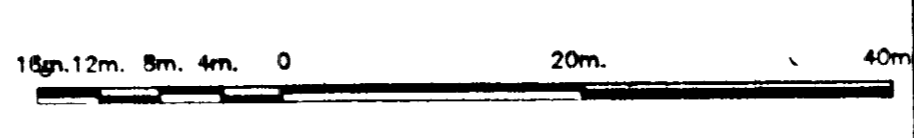


Figure No. 11

LEGEND					
1	ANLT, ANXT, ANTF	7	SYZN	13	CNGL, CONG, PPGL
2	QTZN, ANZN	8	AKSS	14	MELT
3	QTSW	9	AKZN	15	BLGT
4	QTVN	10	ARGL		
5	SKVN	11	PPEP		— CONTACT
6	SYEN	12	PPZN		- - - FAULT

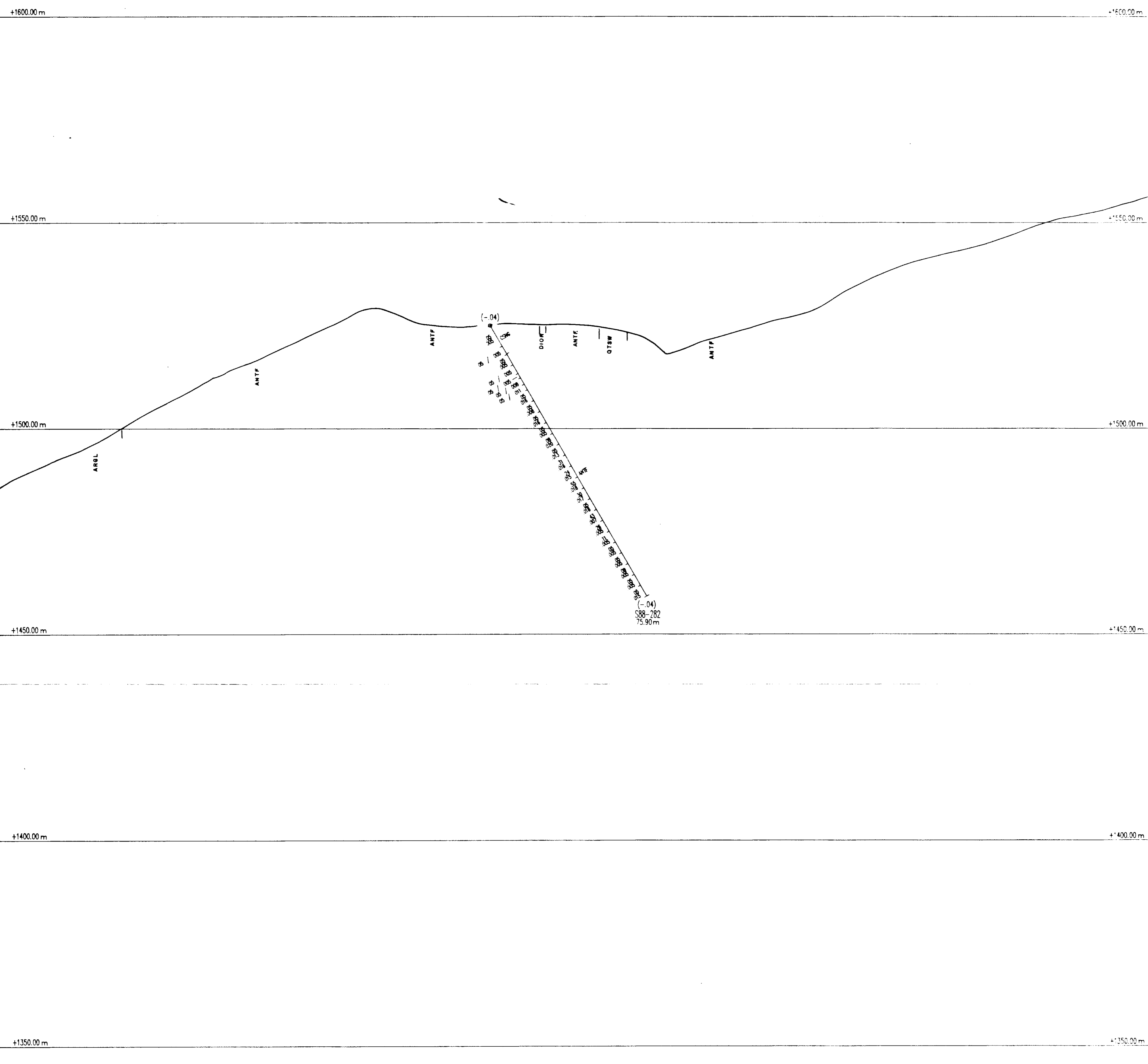
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 GEOLOGY
 SPECIAL SECTION S88-281



SCALE: 1:500
 DATE: DECEMBER 16, 1988
 ORIENTATION: 060° 42' (MINE GRID)
 DRAWN BY: *[Signature]*

DRAWING NUMBER 0108

24+11.25
38+19.3E



GEOLOGICAL BRANCH
LITHOLOGY REPORT

Figure No. 12

LEGEND					
1	ANLT, ANXT, ANTF	7	SYZN	13	CONGL. CONG. PPGL
2	QTN, ANZN	8	AKSS	14	MELT
3	QTSW	9	AKZN	15	BLGT
4	QTN	10	ARGL		CONTACT
5	SKVN	11	PPFP		FAULT
6	SYEN	12	PPZN		

NEWHAWK GOLD MINES LTD.
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 GOLDEN MARMOT AREA
 GEOLOGY
 SPECIAL SECTION S88-282

SCALE: 1:500
 ORIENTATION: 156° AZ (MINE GRID)
 DATE: DECEMBER 16, 1988
 DRAWN BY: *[Signature]*

16m 12m 8m 4m 0 20m 40m
 DRAWING NUMBER 0106

25+06.05
43+31.8E

+1850.00m +1850.00m

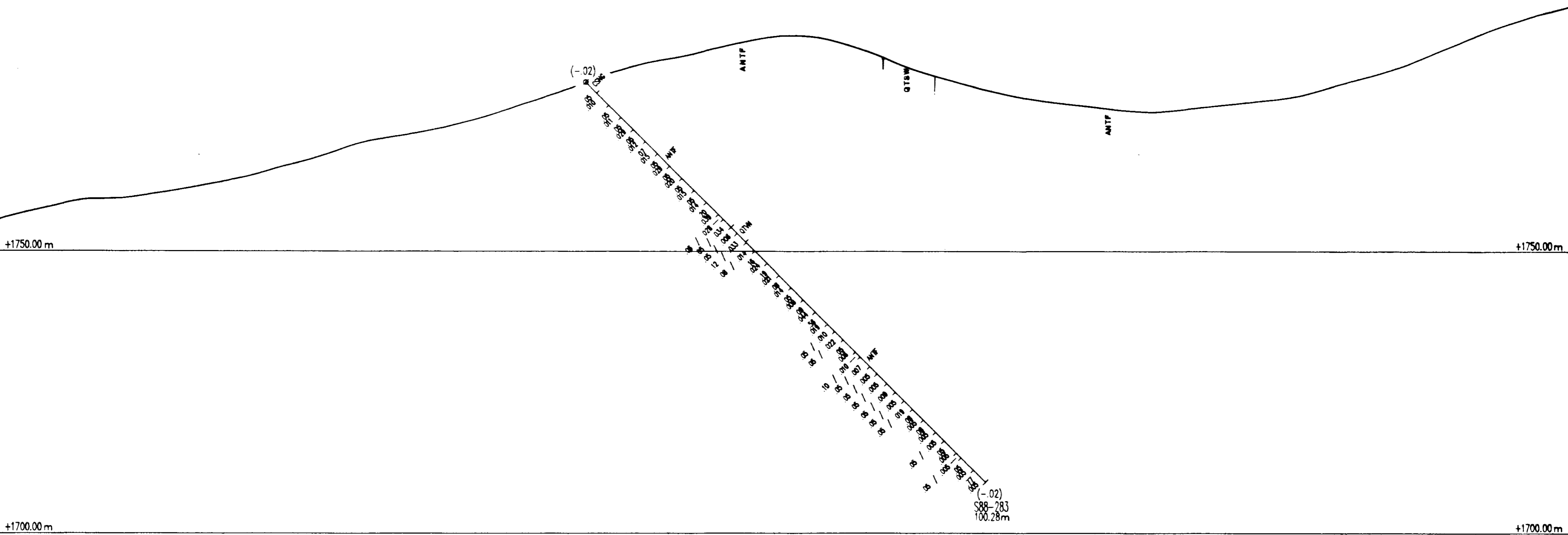
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+1750.00m +1750.00m

+1700.00m +1700.00m

+1650.00m +1650.00m

+1600.00m +1600.00m



GEOLOGICAL BRANCH
ASSESSMENT REPORT

1354
Figure No. 13

LEGEND

1 ANLT, ANXT, ANTF	7 SYZN	13 ONGL, CONG, PPGL
2 QTZN, ANZN	8 AKSS	14 HELT
3 QTSW	9 AKZN	15 BLQT
4 QTN	10 ARGL	--- CONTACT
5 SXVN	11 PFPF	~ FAULT
6 SYEN	12 PPZN	

NEWHAWK GOLD MINES LTD.
 SULPHURETS PROJECT
 GOLDEN MARMOT AREA
 GEOLOGY
 SPECIAL SECTION S88-283



DRAWING NUMBER 0107

SCALE: 1:500 ORIENTATION: 145° AZ (MINE GRID)
 DATE: DECEMBER 16, 1988 DRAWN BY: *[Signature]*

21+97.55
44+95.9E

+1850.00m

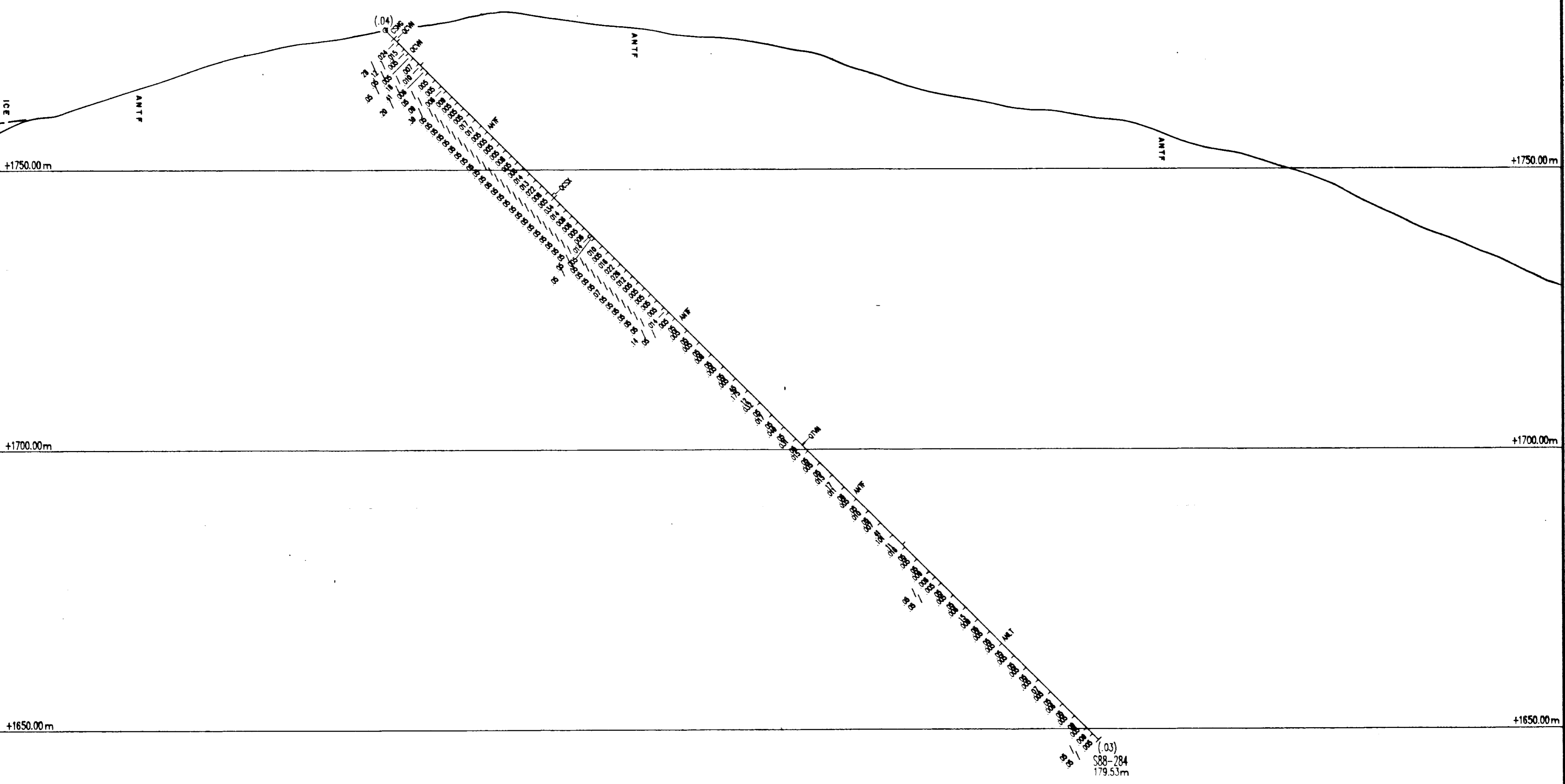
+1800.00m

+1750.00m

+1700.00m

+1650.00m

+1600.00m



GEOLOGICAL BRANCH
ASSESSMENT REPORT

Figure No. 14

LEGEND

1	ANLT, ANXT, ANTF	7	SYZN	13	CHGL, CONG, PPGL
2	QTZN, ANZN	8	AKSS	14	HELT
3	QTSW	9	AKZN	15	BLQT
4	QTVN	10	ARGL		--- CONTACT
5	SKVN	11	PPFP		~ ~ ~ FAULT
6	SYEN	12	PPZN		

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GEOLOGY
SPECIAL SECTION S88-284



DRAWING NUMBER 0108

SCALE: 1:500
ORIENTATION: 246° AZ (MINE GRID)
DATE: DECEMBER 16, 1988
DRAWN BY: [Signature]