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880222

TGS
Mar. 14/87
FAMF

OBJECT OF PRESENT WORK - cont'd

Environmental water sampling was performed by Norecol Environmental Consultants Ltd. of Vancouver, B.C.

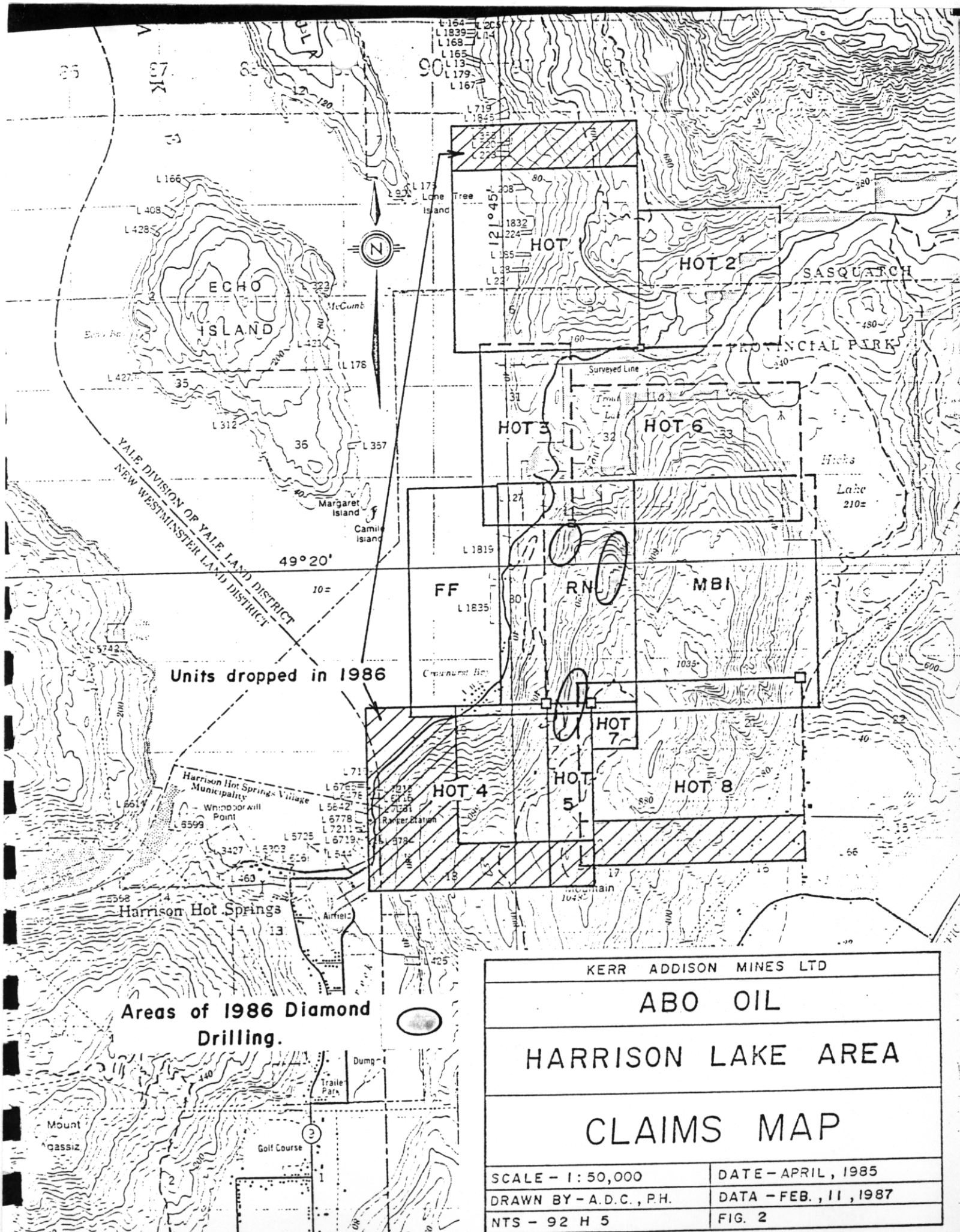
Geotechnical studies were performed by C.O. Brawner Engineering of West Vancouver, B.C.

The drill logs, complete with assay and analysis results are attached as Appendix I.

The entire core was crushed and is stored at Chemex Labs Ltd., North Vancouver, B.C.

REGIONAL GEOLOGY:

The ABO Property is located on the southeast side of Harrison Lake in the Cascade Mountain System of rocks. The Cascade Mountain system is composed of an axial core of gneiss and granitic rocks flanked on the east and west by folded and faulted but little metamorphosed sedimentary and volcanic rocks. The contact between the axial core and the western belt is the Harrison Fault which juxtaposes highly deformed metamorphosed rock to the east against the little deformed strata to the west. The Harrison Fault is a 1-2 km wide zone with well developed cleavage but no marked linear fabric. The strike slip fault which runs north-northwest along Harrison Lake and Lillooet River, can be traced to the south across the Fraser River and Chilliwack River into Washington by joining the Harrison Fault with the Shuksan Fault west of Chilliwack Lake. The Harrison Fault has a steep easterly dip of 65° and distinctive branches of the fault have been located in the vicinity of the fault zone. The fault was emplaced in Lower Cretaceous about 110 m.y.


HOT
HOT 2
SASQUATCH
PROVINCIAL PARK
ECHO
ISLAND
HOT 3
HOT 6
Surveyed Line
Lone Tree Island
Margaret Island
Camile Island
YALE DIVISION OF YALE LAND DISTRICT
NEW WESTMINSTER LAND DISTRICT
49°20'
121°45'
FF
RN
MBI
HOT 7
HOT 4
HOT 5
HOT 8
Units dropped in 1986
Areas of 1986 Diamond Drilling.
Harrison Hot Springs Village Municipality
Whippoorwill Point
Ranger Station
Harrison Hot Springs
Airfield
Trailer Park
Golf Course
Mount Agassiz
Hicks Lake
KERR ADDISON MINES LTD
ABO OIL
HARRISON LAKE AREA
CLAIMS MAP
SCALE - 1:50,000
DATE - APRIL, 1985
DRAWN BY - A.D.C., P.H.
DATA - FEB., 11, 1987
NTS - 92 H 5
FIG. 2

The rocks in the western belt are relatively undeformed, sub-greenschist facies near its eastern limits where it lies close to the Harrison Fault. The fossiliferous Triassic to Lower Cretaceous sequence includes two major volcanic episodes. One during the Middle Jurassic (Harrison Lake Formation) and the other during the Lower Cretaceous (Brokenback Hill Formation). They are separated by argillite (Mysterious Creek Formation), volcaniclastic rock (Billhook Creek Formation) and conglomerate and sandstone (Peninsula Formation). South of Harrison Lake, the rocks are older than to the west and north of the lake. Here the Pennsylvanian and Permian Chilliwack Group of volcanic rocks and argillites as well as the Triassic Cultus Lake Formation of argillite and sandstone are the dominant rock types. All these rocks have been intruded by Cretaceous to Tertiary granodiorite and quartz diorite stocks and batholiths. (Figure 3). Locally the rocks of the western belt show extensive hydrothermal alteration.

The rocks of the axial core are volcanics interbedded with argillites and conglomerates, which are penetratively deformed and recrystallized. Most rocks are metamorphosed to greenschist facies while rocks in the eastern part of this belt are metamorphosed to lower amphibolite facies. A strong northeast-trending, northeast-plunging linear fabric is developed locally. The rocks of the axial core have also been intruded by Cretaceous and Tertiary granodiorite and quartz diorite stocks and batholiths.

The property is situated in the western belt along the Harrison Fault with a branch of the Harrison Fault running through the mine area by the Jenner Stock.

LOCAL GEOLOGY:

Three different rock units have been identified on the property. In the northeast and in the southwest the property is underlain by Chilliwack Group rocks, which have undergone at least two episodes of deformation.

LOCAL GEOLOGY - cont'd

The Chilliwack Group sediments on the property are consistently bedded (and foliated) with northwesterly strikes and moderate northeasterly dips, and are intensely folded with numerous felsite dykes cutting through the strata. The sediments usually occur as fine grained black argillite, but lower portions of the strata include some andesite and dacite. Regional metamorphism is mildly apparent on the property, usually exemplified by chloritization.

The rocks in the Chilliwack Group are metamorphosed to greenschist facies, perhaps transitional to glaucophane schist facies.

The central part of the property (Bear Mountain) is underlain by rocks of the Mysterious Creek Formation. The Mysterious Creek Formation is separated from the Chilliwack Group to the northeast and southwest by north-northwest striking faults. The fault between the Chilliwack Group and the Mysterious Creek Formation in the north part of the property is the Harrison Lake Fault.

The Mysterious Creek Formation is an extremely uniform, monotonous black argillite.

The eastern part of the property is underlain by Mid-Tertiary granitic rocks in a large pluton of about 3.5 by 6 km. The lithology of the pluton is a coarse grained, massive and unsheared granodiorite.

The Mysterious Creek Formation has been intruded by 9 quartz diorite stocks believed to be apophyses of the granodiorite pluton to the east. These stocks are generally globular shaped with a size ranging from 70 by 150m to 1200 by 1400m. The quartz diorite is fine to coarse grained with subhedral texture of hornblende and minor biotite along with 10% quartz and up to 5% sulphides, pyrrhotite and pyrite. A couple of diorite stocks and feldspar porphyry dykes are also found to have intruded the Mysterious Creek Formation.

LOCAL GEOLOGY - cont'd

Sericite from the main quartz vein in the Portal Stock has been age dated at 24 M.Y.

MINERALIZATION

Mineralization on the property is found as disseminated sulphides, pyrrhotite, with minor pyrite and chalcopyrite, in the sediments and the quartz diorite stocks. The sulphide content varies between 1 to 15%. In addition to the disseminated sulphides mineralized quartz veins are found all over the property. The quartz veins all have pinch and swell texture with thicknesses varying betwen 1mm and 400mm. Although quartz veins are found in all rock types on the property the quartz diorites have a better developed quartz vein stockwork than the older rocks. Quartz veins with free gold are also concentrated in the quartz diorite stock.

There are at least two types and generations of quartz veins. The older unmineralized white and often barren type and the younger sulphide bearing translucent grey or milky white type. The sulphides are mainly pyrrhotite with some pyrite and minor chalcopyrite with or without traces of bismuth & silver telluride, molybdenite, arseno-pyrite and sphalerite. Sulphide content varies between 1% and 90% with an average of about 5%. The sulphide mineralization is also associated with chlorite and sometimes carbonate. The precious metal mineralization is identified in the latest of the sulphide bearing quartz veins in the form of visible free gold with or without a bismuth & silver telluride. Free gold can be found in grains up to 2mm although the most common size is .2mm to .6mm.

MINERALIZATION - cont'd

This style of mineralization is believed to have developed through microfaulting and fracturing of the brittle subvertical quartz diorite stocks followed by the injection of gold bearing solutions along the fractures. Sulphide mineralization in quartz veins emplaced in a quartz diorite stock, about 10 km to the southeast, has been interpreted as several pulses of sulphide deposition associated with the quartz veins. The first pulse is a pyrite-arsenopyrite assemblage and the second pulse is a pyrrhotite-chalcopyrite assemblage followed by a marcasite, telluride and native gold succession. The general sequence is that of a continuing process of mineralization which does not appear to have been interrupted by any significant lapses in deposition. Due to the similarities in geological environment and age of the quartz diorite on these properties, it is believed that sulfide mineralization of the quartz veins on the ABO Property is of the same type as that found in the quartz diorite stock to the southeast.

DIAMOND DRILLING IN JENNER/PORTAL STOCKS:

Between February 12 and May 21, 1986 a 15 hole 1971m diamond drill program was conducted in the mine area on the Jenner and Portal Stocks. The location of the holes is shown on Figures 2 and 4 and tabulated in Appendix I. The complete drill hole logs are in Appendix II.

A total of 12 holes and 1499m were drilled in the Jenner Stock. Four sections, 25m apart, with up to 4 holes in a fan from each set up were drilled. This drilling has provided a better understanding of the stock which is funnel shaped and thicker (the east-west dimension) in the north than in the south (Figure 4). To the north the true thickness of the stock is about 75m, in the centre it is about 65m while it is about 35m in the south. The length (north-south dimension)

DIAMOND DRILLING IN JENNER/PORTAL STOCKS - cont'd

is about 120m out of which only the southern most 75m have been covered by drilling. The drilling has confirmed a depth extension of the stock to 33.8m below sea level, but it is still open to depth. The vertical dimension of the stock is at present confirmed to be in excess of 250m.

The drilling intersected the quartz vein stockwork throughout the drilled part of the quartz diorite stock. The vein frequency per meter decreased from about 3.0 in steep dipping holes (about -60°) to about 2.0 in flatter holes (between -40° to -20°). An increase in vein frequency was located again in almost horizontal holes (about $+10^{\circ}$). It appears that there are several sets of quartz veins with gentle easterly dips and therefore holes with dips of -40° to -20° follow subparallel to the veins. The most favorable drilling is at an azimuth of N090E with dips of about -60° or $+10^{\circ}$.

During the Spring/1986 drilling on the Jenner Stock a total of 297 quartz veins and 7 pyrrhotite veins with visible free gold were intersected for a total of 3,499 specks of gold to 1.5mm. The core was sampled in one meter intervals and the whole core assayed for gold by fire assay with AA finish. The assays ranged from <.07 g/tonne Au to 119.50 g/tonne Au. Some samples with tellurides were also assayed for Ag by fire assay with AA finish and analysed for tellurium to help identify the telluride. There are believed to be both silver and bismuth tellurides in the quartz veins.

AMOND DRILLING IN JENNER/PORTAL STOCKS - cont'd

Tabulated below are some of the intersections located in the nner Stock during drilling from 1984 to 1986.

DH	From Meters	To Meters	Interval Meters	Weighted Assays gm/tonne Au
4-28	0	64	64	3.77
4-29	0	40	40	4.56
34-30	0	30	30	2.74
35-35	0	16	16	4.70
85-36	40	142	102	3.54
85-37	148	164	16	2.23
85-38	151	189	38	1.41
86-39	5	86	81	2.04
86-40	87	104	17	2.01
86-41	28	35	7	4.02
86-42	27	50	23	3.71
86-46	10	52	42	3.52
86-47	43	60	17	3.20
86-48	3	27	24	5.28
86-49	4	34	30	2.58
86-50	37	58	21	2.91
86-51	0	41	41	1.94
86-52	1	85	84	3.32
86-53	6	11	5	5.27

Following the completion of the drilling of the Jenner Stock we set out preliminary parameters as follows, for estimating the tonnes and grade identified to date to use in planning future programs on the Jenner Stock.

Veins: 1m samples assaying 7 gm/tonne or more but not necessarily composed of all vein material.

Sheets: 2 or more veins (as defined above) separated by not more than 2m of waste (low grade) and with a weighted average 4 gm/tonne or more.

DIAMOND DRILLING IN JENNER/PORTAL STOCKS - cont'd

Selected bulk: Somewhat subjective but generally 10m or more which include 1m sections assaying not less than 1 gm/tonne and no internal dilution (<1g/tonne) blocks larger than 3m.

Bulk: Average of total mineralized section with no internal dilution less than .5 gm/tonne.

Three holes totalling 472.0m were drilled on one section in the Portal Stock (Figure 4). One hole was drilled at N090E while the two other holes were drilled at N270E. All the holes intersected quartz vein stockworks in the quartz diorite similar to those located in the Jenner Stock. The drilling intersected 69 quartz veins and 1 pyrrhotite vein with visible free gold for a total of 498 specks of gold to 1.0mm. The core was sampled in 1.0m intervals and assayed for gold by fire assay with AA finish. The assays ranged from <.07 g/tonne Au to 41.4 g/tonne Au. Samples with tellurides were also assayed for Ag by fire assay with AA finish and analysed for tellurium. It is believed that there are more silver tellurides than bismuth tellurides present in the quartz veins in the Portal Stock.

Some mineralized intersections from the 1986 drilling in the Portal Stock are tabulated below.

DDH	From Meters	To Meters	Interval Meters	Weighted Assays gm/tonne Au
86-43	7	14	7	9.78
86-44	6	11	5	5.39
86-45	7	13	6	2.48

The drilling of DDH 86-45 at N270E intersected sediments of the Mysterious Creek Formation between 84.15m and 118.8m and from 142.0m to the end of the hole at 200.0m. This indicates that the Portal Stock may be two separate stocks at this elevation.

DIAMOND DRILLING JENNER/PORTAL STOCKS - cont'd

Chemex Labs Ltd. carried out check assays on 30 selected samples from DDH85-36. Two 1/4 splits of the original sample were assayed 4 times, twice using a 1/2 assay ton charge, and twice using a 1 assay ton charge. The results showed that the range of the 9 different assays was too large to determine a reliable mean and variance.

A 1/4 of the original sample of the selected 30 samples were sent to Bacon, Donaldson and Associates Ltd. for a total cyanide extraction to determine the "true" value of gold in these samples. The total cyanide extraction results (3.89 gm/tonne) were essentially equal to the average of the 9 fire assays (3.88 gm/tonne). Our conclusion is that the average of 5 or more duplicate assays or 5 or more assay intervals can be used as a true value of the drilled grade of the core. Microprobe analysis of two samples by Bacon, Donaldson and Associates Ltd. indicates that the gold is relatively pure and is not intimately intergrown with other metallic minerals.

Preliminary metallurgical testing of the suite of 30 samples from DDH85-36 which had been used in the check assaying, was done by Coastech Research Inc. Four different methods were used. A pan concentrate recovered 58.7% of the gold. By using floation between 77.9% Au 97.7% of the gold was recovered and cyanide extraction recovered between 76.1% and 85.5%.

A 106 lb. sample from a 1/4 split composite from the coarse reject from DDH86-46 was run through a rod mill and across a large table at Sando Industries Ltd. The result of this was a 69.6% recovery.

The back calculated head grade from the testing at Coastech Research Inc. varied from the original assay by -40% to +34% depending

DIAMOND DRILLING JENNER/PORTAL STOCKS - cont'd

on the method used. The back calculated head grade from tabling a 106 lb. sample at Sando Industries Ltd. was 7% higher than the original assay.

GEOLOGICAL MAPPING, BEAR MOUNTAIN

Minor geological mapping was done on the property. Several traverses were made down the east slope of Bear Mountain to locate the eastern boundary between the Mysterious Creek Formation argillite and the Hicks Lake batholith granodiorite. (Figure 5). No additional quartz diorite stocks were located in this area.

As a result of this mapping as well as last year's mapping it was decided to drop 20 units from the property since they covered areas believed to have no economic value either for ore potential or mill sites. Four units were dropped from HOT 1 on the northern boundary of the property and 16 units were dropped from HOT 4, HOT 5 and HOT 8 on the southern and western boundary of the property. (Figure 2).

During the geochemical soil survey, geological mapping was done along the grid lines to locate the contacts of the quartz diorite stocks. This mapping was limited as there was only one geologist on the property and the result is that only part of the contacts were located in detail. (Figure 6 and 7). Additional mapping is needed to complete a detailed outline of the quartz diorite stocks. Quartz veins located in the stocks were assayed for gold and as a result 3 drill targets were located. Two in the Bluff Stock (Figure 6) and one in the Lake Stock (Figure 7).

GEOCHEMICAL SURVEY, BEAR MOUNTAIN

A geochemical survey was carried out on two separate grids, the Bluff Stock grid and the Bear Mountain grid, on the west slope of Bear Mountain to cover the remaining 7 quartz diorite stocks and the feldspar porphyry dyke. A total of 42.665 km were sampled on 50 meter lines and 25 meter spacing except over the north end of the Bluff Stock, (Figure 5), where additional 25 meter lines were added to define the anomalies. The samples were collected from B-horizon where possible in the steep and locally talus covered slope. All samples were assayed for gold.

Several significant gold anomalies were outlined by this survey. Three significant gold anomalies with up to 900 ppb Au were located on the north end of the Bluff Stock on the east and west side of a north south ridge. It was believed that this reflected mineralization along the ridge and 3 diamond drill holes were drilled to locate the mineralization.

Three significant gold anomalies were located on the western part of the Bear Mountain grid in the steep, (+35 degree) western slope of Bear Mountain. (Figure 7). The anomaly in the south part of the grid, along the northwestern contact of the Hill Stock contained up to 425 ppm Au. This anomaly was believed to be downslope from mineralization in the north part of the Hill Stock and was later tested by diamond drilling.

The largest anomaly in the western centre of the grid spreads out downslope across a 150m wide slide from a high of 940 ppb Au. This anomaly was believed to reflect mineralization around the south end of the Cliff Stock. The irregular shape of the anomaly is due to the fact that it covers a recent slide area. The anomaly was later tested by diamond drilling.

CONCLUSIONS AND RECOMMENDATIONS

The drilling of the Jenner Stock outlined extensive gold mineralization which should be followed up. The coarse visible gold in the quartz veins creates problems in replicate assaying, and to test the mineable grade versus the drilled grade it is recommended that a bulk sample be collected from underground. Raising up known drill holes will give us a bulk sample that can all be run through a mill to obtain a "mined grade" that can be compared to the averaged assay grade from the drilling. Preliminary metallurgical testing indicates that the best results in a mill will be achieved by floation.

Drilling of the Portal Stock confirmed the presence of gold mineralization intersected in several diamond drill holes during the 1983 drilling by ABO Resource Corp. Additional drilling will be needed to outline the extent of the mineralization and to establish whether the Portal Stock is one large quartz diorite stock or two smaller stocks connected at depth.

To complete the exploration outside the Jenner/Portal Stock area additional mapping of the quartz diorite stocks is needed to locate the contacts as well as mineralized quartz veins. This is especially important around the open geochemical soil anomaly in the northwest part of the Bear Mountain grid. The mapping and extension of the grid to close this anomaly should outline a target for diamond drilling.

Follow up mapping and prospecting along the drainages from the three heavy mineral anomalies will be necessary to locate the source of these anomalies.

CONCLUSIONS AND RECOMMENDATIONS - cont'd

The drill program intersected minor mineralization in the Hill Stock and the Lake Stock. Prospecting of these stocks is believed to be necessary to locate additional mineralization. It is also recommended that DDH86-60 be redrilled with an azimuth of 090° to intersect the quartz veins instead of drilling subparallel to the veins. The same should be done with DDH86-54. DDH86-58 should be extended for a possible intersection of the Cliff Stock at depth.

The three holes drilled to test the soil anomalies at the north end of the Bluff Stock were collared too close to the anomalies in the steep, (about 40°), slope. A diamond drill hole farther up slope from the anomaly will be needed here to test the quartz diorite since the 3 previous holes mainly tested the sediments which host the stock.

Respectfully Submitted

A. D. Clendenan
P. Geol. (Alta), F.G.A.C.

T. Bruland, F.G.A.C.

Vancouver, B.C.
11th February, 1987.