VALENTINE MOUNTAIN PROJECT

SUMMARY REPORT

March, 1988 827205

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1.0 <u>OVERVIEW</u>

The Valentine Mountain Gold Project consists of a major land package, located on the southern tip of Vancouver Island, close to the City of Victoria, and accessible year round by an extensive network of logging roads. It includes numerous gold occurrences many of which are ore grade and often in the form of spectacular, coarse visible gold. Large geological structures, considered to be related to gold mineralization, underlie the property.

Prior to Valentine Gold Corporation's involvement, the Leech River Formation, which underlies most of the property, had not been subject to a comprehensive methodical exploration program. Valentine Gold Corporation has spent approximately \$3.0 million over the past year on an extensive exploration program on the known mineralized zones and in the search for new areas of interest. As a result a considerable data base has been established, which includes the following:

1. Extremely large coincident geochemical and geophysical anomalies with ore grade material at surface, partially tested by drilling.

2. Completely untested gold geochemical anomalies up to 900 metres long, with stronger gold values than the adjacent, on strike, known gold bearing veins.

3. The initial phase of bulk sampling has already shown close to ore grade gold values over minable widths along significant strike lengths.

4. Numerous untested anomalies outlined in a multi-sensor aerial geophysical (Dighem) survey.

5. Several areas with silt samples very high in gold.

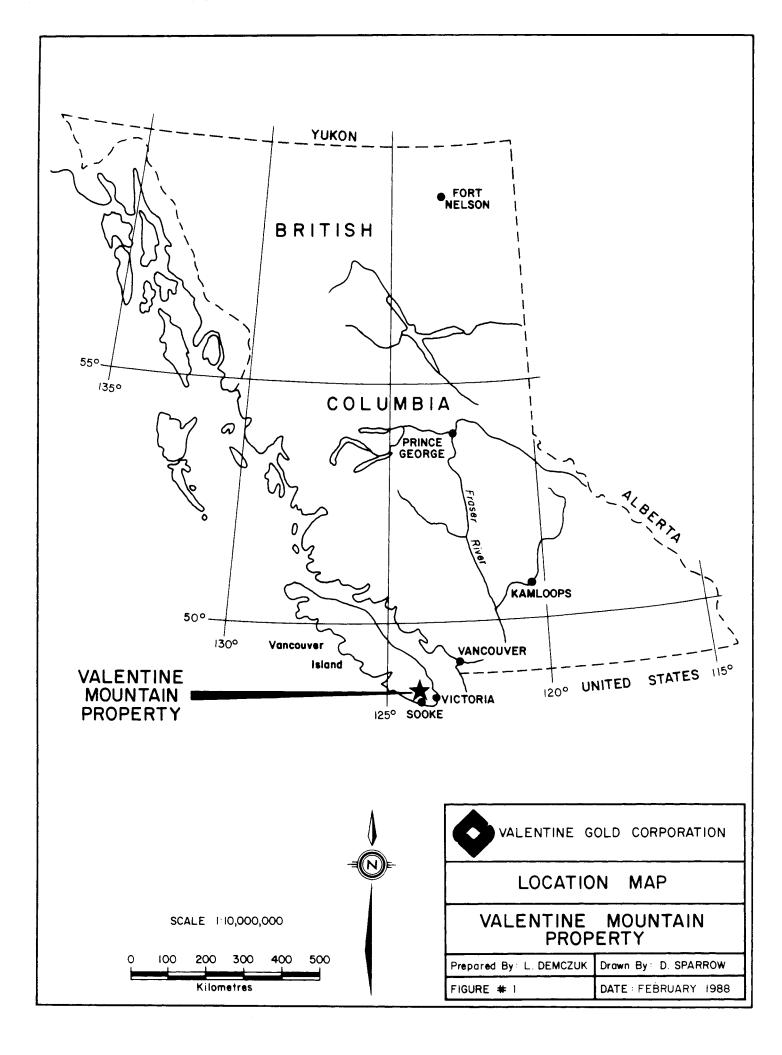
A program to thoroughly test these targets is recommended at an estimated cost of \$500,000.

2.0 <u>INTRODUCTION</u>

2.1 Property, Location and Access

The Valentine Mountain gold project consists of a large land package made up of 71 claims (631 units) situated on the southern end of Vancouver Island approximately 42 kilometers west of the City of Victoria and 19 kilometers northwest of the town of Sooke. (see Figure 1 Location Map).

The property covers approximately 12,000 hectares, (30,000 acres) and is 20 km long (east-west) by about 6 km wide. The Bear



Creek and Diversion Reservoirs bound the property on the south, and Valentine Mountain lies in the central portion of the property. Highway 1A and Sooke Road lead from Victoria to Sooke and the property is reached from Sooke by an extensive network of well maintained gravel logging roads.

2.2 Ownership of Mineral and Surface Rights

Beau Pre Explorations Ltd. owns, through staking and acquisition, a central block of 39 mineral claims.

Valentine Gold Corporation has signed an option agreement with Beau Pre for these claims (see next section for details) and has added 32 more claims to the land package by staking and acquisition.

The surface rights and roads to the property are owned by C.I.P. Inc., a logging company with offices in Sooke. C.I.P. Inc. and Valentine Gold Corporation (Valentine) have an agreement whereby for the annual payment of \$150 Valentine is able to use the C.I.P. radio frequency and logging road system.

2.3 <u>Physiography</u>, Vegetation and Climate

The terrain is mountainous and is moderately steep and rugged in places.

Heavy conifer forest would typically cover the area but much of this has been clear-cut logged, leaving a predominant cover of second growth with some logging slash areas as yet unseeded. An extensive network of roads, therefore, exist making access to most of the property excellent. The property is amenable to year-round work, though a nine to ten month season is more reasonable due to moderate snowfall.

2.4 Gold Mineralization

Spectacular occurrences of free gold are found in swarms of quartz veins in the south central part of the property referred to as the Discovery Zone. Visible gold has been recorded in a series of outcrops along a 6 km east-west band stretching either side and along strike of the Discovery Zone.

The extremely erratic distribution of this gold has caused difficulty for many years with estimating an average grade of certain veins (the nugget effect).

2.5 Exploration Work to Date

Beaupre Explorations Ltd., the owner of the "core" claims has, since 1976, along with work done by Falconbridge, expended an estimated \$1.0 million on prospecting, sampling, trenching, bulk sampling and drilling. Valentine Gold Corporation (Valentine) initiated the main thrust of the exploration effort in May, 1987 and to date has spent some \$3.0 million on the property.

3.0 LEGAL AND LAND STATUS

3.1 General

Beau Pre Explorations is a publicly traded company, listed on the Vancouver Stock Exchange with head offices in Victoria, B.C. The company owns 35 mineral claims (254 units) and 10 placer leases on Valentine Mountain.

In an option agreement signed on November 15th, 1986, Beau Pre Explorations Ltd. granted Valentine Gold Corporation the right to earn a 100% interest in these claims subject to a royalty.

Valentine Gold Corporation (Valentine) is a limited company incorporated under the laws of the Province of British Columbia with head office in Vancouver, B.C. The company has been publicly traded on the Vancouver Stock Exchange since December, 1987.

The "Area of Interest" clause in the agreement calls for all property acquired by either party within 10 km from the Beau Pre claims to be included in the terms of the option agreement.

Subsequent to signing the agreement, Valentine acquired an additional 12 claims (99 units) in two separate agreements and also staked 20 more claims (301 units).

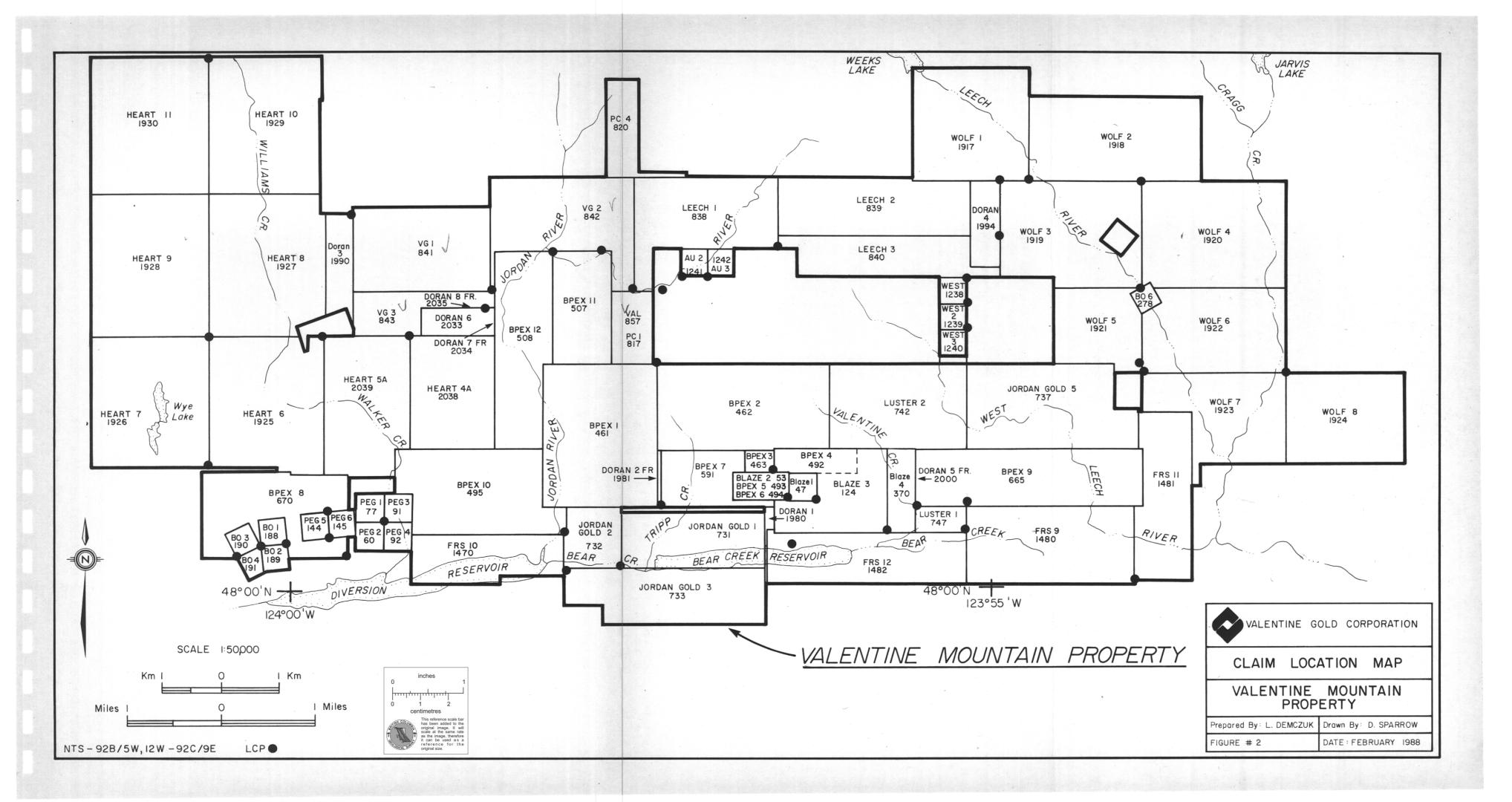
A complete list of all claims controlled by the company in the project are listed in Appendix I. Also Figure 2 shows the location of the claims.

3.2 The Valentine/Beau Pre Agreement

Under the terms of the November 15th, 1986 Valentine/Beau Pre Agreement, Valentine is able to firstly earn a 50% interst (1st Option), then a 75% interest (2nd Option) and finally a 100% interest (3rd Option) in the Valentine Mountain property by completing certain expenditures on the property and cash payments to Beau Pre Explorations Ltd.

By the expenditure of some \$3.0 million on the property to date Valentine has completed all the requirements to exercise the 1st Option (50% ownership) with the exception of the final cash payment of \$100,000.

Currently Valentine and Beau Pre are in the process of negotiating the terms of the present agreement to allow for an incoming third party to be able to earn at least a 50% interest in the project.



4.0 <u>GEOLOGY</u>

4.1 <u>Regional Geology</u>

The southwestern part of Vancouver Island is in part underlain by the Leech River Formation which is composed of folded sedimentary and volcanic units altered by regional metamorphism and cut by swarms of Teritiary intrusives. Rocks forming the Leech River Formation are dominated by thick sequences of metasandstone with intercalated metapelites, quartzites, metavolcanics, schists and phyllites. This assemblage has been folded by compressive forces into relatively simple large, open, easterly plunging folds. The folding, which is generally of a cylindrical fold geometry, is controlled by the competent, thick, metasandstone units.

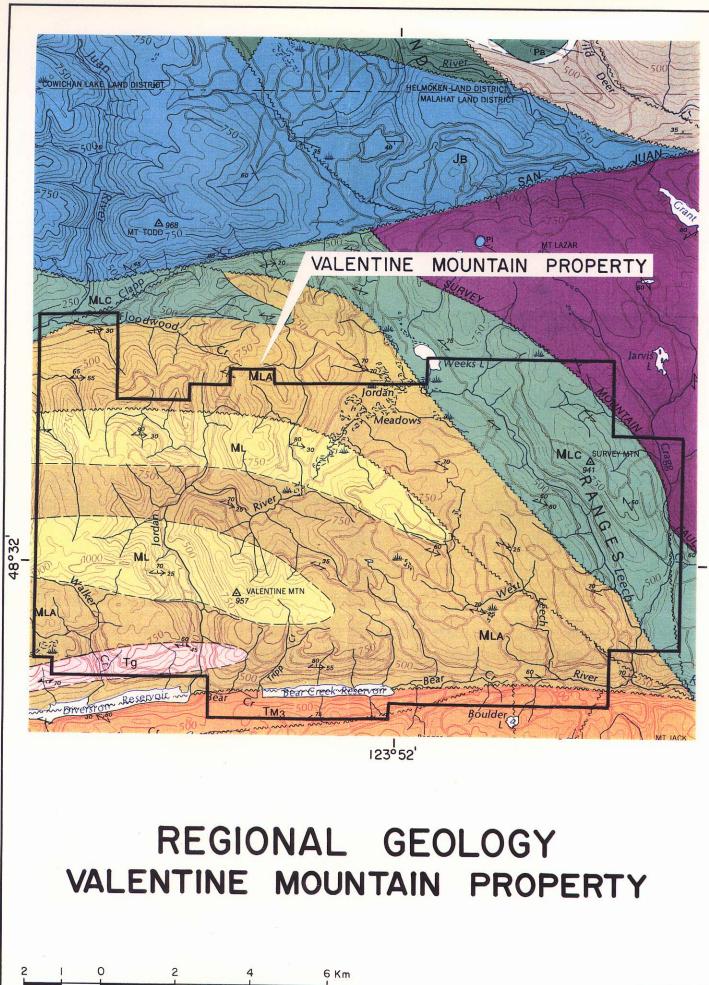
The Leech River Formation is exposed in a belt 2 to 12 kilometers wide between the San Juan and Leech River Faults and has a regional east-west strike. The east end of the block forms a large, easterly plunging antiform (Fairchild, 1979).

The Leech River Formation is in sharp contact with the Eocene volcanics and related intrusive rocks of the Metchosin Volcanics and Sooke Gabbros to the south along the Leech River Fault. To the north it is separated by the San Juan Fault from the volcanic and sedimentary packages belonging to the Sicker, Karmutsen and Bonanza Groups. To the east across the Survey Mountain Fault the Leech River Formation is in contact with the Paleozoic and Mesozoic rocks comprising the Wark diorite, Colquitz gneisses and other meta-volcanic and intrusive rocks. (See Figure 3)

The rocks of the Leech River Formation are considered to be of Cretaceous and Jurassic age.(Dawson 1887, Clapp 1917) Metamorphic grades increase from phyllites in the north to garnet-biotite schists with andalusite porphyroblasts near the Leech River Fault in the south. Rocks forming the Leech River Formation have undergone two well defined but overlapping periods of metamorphism in part followed by Eocene intrusions along strong east-west fold trends. The combination of regional metamorphism and late intrusive activity has culminated in upper amphibolite grade mineral assemblages (Grove, 1975).

4.2 Property Geology

The geology described in this report is a summary of Fairchild - M.Sc. Thesis (1979), Wingert - B.Sc. Thesis (1984), Grove - Geological Report and Work Proposal on the Valentine Mountain Property - 1982, Peatfield - Geology and Geochemistry on the Valentine Mountain Property - 1987 and field work carried out by Valentine Gold Corporation from June to December, 1987. (See Map 1)



GEOLOGY LEGEND

CENOZOIC

TERTIARY

EOCENE (AND OLDER?)

	T	g		
		y		
and the second	2.2	1.21	100	(m)

CATFACE INTRUSIONS: quartz diorite, agmatite



METCHOSIN VOLCANICS: TM1: pillow basalt, breccia, tuff; TM2: mainly basaltic lava; TM3: schistose metavolcanic rock

MESOZOIC

TRIASSIC TO CRETACEOUS

LEECH RIVER FORMATION: (MLC to ML) METAGREYWACKE UNIT: metagreywacke, meta-arkose, quartz-feldspar-biotite schist



ML

ARGILLITE-METAGREYWACKE UNIT: thinly bedded greywacke and argillite, slate, phyllite, quartz-biotite schist



CHERT-ARGILLITE-VOLCANIC UNIT: ribbon chert, cherty argillite , metarhyolite, metabasalt, chlorite schist

JURASSIC

BONANZA GROUP



Basaltic to rhyolitic tuff, breccia, flows, minor argillite, greywacke

PALEOZOIC

PENNSYLVANIAN AND MISSISSIPPIAN



SEDIMENT-SILL UNIT: argillite, greywacke, chert, diabase sills

LOWER PALEOZOIC (OR YOUNGER?)



WARK GNEISS: massive and gneissic metadiorite, metagrabbro, amphibolite

Geological boundary, (approximate)
Fault, (approximate)
Anticlinal axis
Synclinal axis
Bedding, (inclined, vertical, overturned)
Foliation (inclined, vertical, with plunge of lineation)
Gneissosity, (inclined, vertical)

4.3 Lithologies

The Leech River Complex can be divided into three main structurally deformed and metamorphosed rock types. These are metasandstones, metapelites (schists, phyllites) and amphibolites. South of the Leech River Fault, a small area of the Metchosin volcanics underlie the claims. East of the Survey Mountain Fault Wark Gneisses form part of the property.

Metasandstones: These massive, poorly bedded 4.3.1 metasandstone units underlie much of the Valentine property from west of the Jordan River to the Survey Mountain area. Grove (1984) describes the metasandstone as follows: "These rocks are typically buff-coloured with a weak to strong folation defined by fine grained biotite. The recrystallized matrix comprises a fine to very fine grained mosaic of quartz and feldspar with accessory apatite, sphene and occasional muscovite and pyrite. Hornblende, actinolite, garnet, epidote and Kfeldspar are irregularly present as incipient to fine grained disseminations in most of the biotitic gneisses. An unusual texture imported to the gneisses by close spaced biotite rich layers has been termed "wood grained" sandstone because of the distinctive appearance and seems to "The original composition of the represent primary layering. metasandstones is not known but they were probably arkose or arkosic greywackes."

The relatively simple mineral assemblages in the metasandstone suggest lower to middle amphibolite facies regional metamorphism.

Quartz veins are relatively common in the metasandstone bodies throughout the area. Many of the gold bearing quartz veins found on the upper east slope of Valentine Mountain are hosted by metasandstone which is intercalated with amphibolite and schist along or near the axial plane of the major anticlinal fold.

4.3.2 <u>Metapelites (schists, phyllites)</u>: These 3 units represent metamorphosed pelites which range in composition from carbonaceous, sericitic and chloritic phyllite to carbonaceous and alusitestaurolite-garnet-biotite schist.

The higher grade units are andalusite-staurolite-garnet-biotite schists and are observed as a narrow zone west of Walker Creek. These rocks are dark, moderately fissile and contain large staurolite, andalusite, garnet and tourmaline crystals. Most of the large andalusite crystals have been altered to sericite, brown biotite and minor chlorite, and the coarse primary biotite has been altered to golden brown chlorite and secondary biotite.

The andalusite-garnet-biotite schists occur on the Valentine Mountain as discrete members intercalated with metasandstone and amphibolite together forming a relatively extensive succession overlying the thick Valentine metasandstone unit. The schist ranges from centimetre thick bands laminated with metasandstone forming striped rocks to homogeneous mappable units more than a hundred meters thick. These schists are dark, often black, thinly laminated or banded, and very fine grained with a shiny appearance marking their carbonaceous nature. Andalusite, garnet and biotite are common as porphyroblasts. Euhedral crystals of garnets up to one centimetre long make up an average of five per cent of the schist. The biotite is brown, fine grained and composes 15 to 20 per cent of the rock. Very fine grained carbonaceous material which imparts the dark or black colour composes 15 to 25 per cent of the schist. Fine grained recrystallized quartz-feldspar laminae are ubiquitous in all of the schists.

The andalusite-garnet-biotite schists have been extensively deformed along the Leech River shear zone, resulting in numerous subparallel narrow shears on the southerly slope of Valentine Mountain. Relatively late stage quartz veins cross-cut, generally at low angles, the schistosity of the country rock; it is these quartz veins that on the upper eastern slopes of Valentine Mountain contain native gold with minor sulphides.

4.3.3 <u>Amphibolites:</u> The amphibolites are generally composed of porphyritic basalt and crystal tuff. Wingert (1984) describes the mineralogical composition of the amphibolites as ranging from "actinolite-chlorite rich to hornblende-biotite rich containing quartz, feldspar and accessory calcite, epidote sphene, apatite, tourmaline and opaques. In higher metamorphic grade areas amphibolite appears as fine grained schistose rock with compositional layers. In places cut by pegmatite and tourmaline-quartz veins (Walker Creek) amphibolites have been extensively tourmalinized. Magnetite and pyrite disseminations with traces of chalcopyrite are common occurrences in these metavolcanic units.

The amphibolites show a relatively high competency and lateral continuity, rendering them useful as markers.

4.3.4 <u>Intrusives:</u> Granitic and dioritic intrusions occur dominantly as sills, paralleling foliation or fold structures, some of which show signs of folding. Most of the small cross-cutting dykes tend to be fine grained diorites. The intrusions appear to cluster from the Jordan River westward and conform to the region of highest metamorphic grade. Small pegmatite dykes and sills are apparently related to the large sills and are composed of quartz, feldspar, tourmaline and muscovite.

These intrusives are generally considered to form part of the "Cat face" group of Eocene age seen predominately further north on the Island.

4.3.5 <u>Metchosin Volcanics</u>: The claims south

of the Leech River Fault are underlain by the Metchosin Volcanics which are divided into two units, the lower unit of pillow basalts, tuff and breccia and the upper unit of basaltic flows. They are of tholeiitic composition and range from low to medium metamorphic grade, up to epidote-amphibolite grade. Diabase dykes and sills are common, especially in the lower part of the formation. An area of Metchosin Volcanics just south of Leech River Fault is pervasively deformed and altered into chlorite schist.

4.3.6 <u>Wark Gneisses</u>: These consist of fine to medium grained massive to gneissic biotite-hornblende diorite and quartz diorite. The light coloured gneisses are considered to have been derived from early Paleozoic clastic rocks, and the dioritic group to have been derived from basaltic sills and flows. Metamorphism is dated at early Jurassic.

4.4 Metamorphism

The Leech River Formation, Jurassic-Cretaceous in age, underwent two stages of deformation and metamorphism in the early Tertiary. These events were not synchronous and the second stage of metamorphism began before the second stage of deformation. Two metamorphic grades are seen in the metapelites: greenschist metamorphism characterized by chlorite-epidote with actinolite, albite and magnetite; and amphibolite metamorphism, characterized by hornblendeepidote-quartz-plagioclase assemblage. The highest grade of metamorphism seen is characterized by andalusite-staurolite-biotite assemblages and can be seen in vicinity of a large number of intrusive sills adjacent to the Leech River fault in the southwestern part of the property. To the north and northeast of the Leech River fault the metamorphic grade decreases to greenschist facies. Co-existence of staurolite and andalusite indicates a first phase andalusite-grade event followed by a second (overlapping), retrograde, metamorphic event which produced staurolite and altered andalusite.

4.5 Structure

The rocks in the Valentine Mountain area have undergone two stages of deformation. The isoclinal folds Fl refolded by F2 resulting in cylindrical folds which are generally asymmetric-open in the north and progressively symmetrically-closed to the south. The axial trace is approximately east-west plunging 25-30 degrees east and the dominant foliation is F2 axial plane, and steeply north dipping. The most prominent regional fold is an antiform with its hinge near the peak of Valentine Mountain. To the south lithological layers are folded into a regional synform and a second regional antiform (Map I). In the area of the Valentine property F1 penetrative features are rarely evident, having been transposed to the F2 structures. Parasitic mesoscopic folds, boudins, crenulation cleavages and transposed fragramental ptymagtic quartz veins are features of the second deformation. (Wingert, 1984).

The Leech River fault in the southern part of the property consists of two to four sub-parallel faults separating the Leech River complex and the Metchosin volcanics. These faults are parallel or subparallel to the rock foliations and occur as displacement surfaces with little effect on adjacent rocks. Recent lithoprobe work indicates that these faults dip at a shallow angle (approx. 30 degrees) to the north.

4.6 Mineralization

Previous to Valentine's exploration program all known gold mineralization occurred within narrow quartz veins, in the Discovery Zone, cross cutting both metasedimentary and metavolcanic rocks on the east slope of Valentine Mountain. This mineralization appears as spectacular, coarse grained, free gold pockets in nearly vertical quartz veins. The veins are locally limonitic, containing patches of abundant iron oxides. The veins may be vuggy but are generally massive in character. Gold smears have been also noted along slicken-sided fracture surfaces and as small specks in the wall rock, a few centimeters from vein material.

In the Discovery Zone only minor sulphide mineralization is present and this occurs as disseminations of arsenopyrite, pyrite, pyrrhotite and occasionally chalcopyrite. Large arsenopyrite crystals containing fractures with visible gold infillings have also been found in the Discovery Zone.

5.0 HISTORY AND RECENT WORK

5.1 <u>History</u>

In 1864 rich placer gold was discovered near the confluence of the Sooke and Leech Rivers. This caused a small local gold rush in which an estimated 5,000 to 10,000 ounces of gold was recovered mostly from the Leech River over a 2 year period. This was Vancouver Island's first gold rush and resulted in the establishment of the settlement of Leechtown.

The hard rock source of this placer gold was never discovered probably due to the extremely rugged terrain. In the 1960's logging roads were built into the Valentine Mountain area and in 1966 Mr. Fred Zorelli, involved in the logging operations, recognized gold in a quartz fragment on the eastern slopes of Valentine Mountain. Mr. Zorelli mentioned this to Bob Beaupre who had been prospecting in the area. In 1976, Beaupre discovered visible gold in the "A" vein on the eastern end of the area now known as the Discovery Zone. Over the next several years, Beaupre staked claims over a series of gold showings stretching in a 6 km long, east-west band, across the southern and eastern slopes of Valentine Mountain. The focus of Beaupre's attention, however, has been the handfull of quartz veins occasionally hosting spectacular showings of free gold in the Discovery Zone in the south central part of the property.

5.2 Work between 1976 and 1986

Between 1976 and 1980 Beau Pre Explorations carried out a program of prospecting, mapping, rock chip sampling, trenching, bulk sampling and drilling along the quartz veins in the Discovery Zone. During 1977 and 1978, L.H. Fairchild undertook a mapping program leading toward his M.Sc. thesis at the University of Washington, and a portion of his thesis area is covered by the property.

In 1979 and 1980 limited grid-based soil sampling was carried out in the Discovery Zone, as well as further trenching and sampling.

Regional prospecting and silt sampling, followed by detailed prospecting and sampling were undertaken by Beau Pre Explorations Ltd. in 1981.

In 1982 further trenching and sampling were undertaken, again by Beau Pre, primarily in the Discovery Zone.

During 1982 - 83 the property was geologically mapped at a scale of 1:7200 by E.W. Grove and thirteen diamond drill holes were completed in the Discovery Zone, totalling approximately 1,828 meters (1294 m NQ, 534 m BQ).

An airborne magnetometer and VLF-EM survey, totalling 370 line kilometers was conducted by White Geophysical in 1984 over the entire property.

In 1985, Falconbridge Limited optioned the property and started a program of trenching and sampling in the Discovery Zone; this program was rapidly terminated prior to completion following the restructuring of Falconbridge after the purchase of Kidd Creek Mines Ltd., in early 1986.

In 1986 Beau Pre Explorations started trenching on the vein "36" and adjacent veins and contracted Minequest Exploration Associates Ltd. of Vancouver to undertake a heavy mineral stream sediment orientation sampling program.

In late 1986 after signing an agreement with Beau Pre Explorations, Valentine Gold Corporation contracted Garratt Geoservices to review and compile all data on the project as well as re-logging core from the Beau Pre drilling and have assayed much of the unassayed core. The reader is referred to Garratt's report dated November 14, 1986 as this is an excellent comprehensive review and summary of all the Beau Pre and Falconbridge work. (Appendix II)

6.0 DISCOVERY ZONE EXPLORATION BY VALENTINE GOLD

6.1 <u>Rock Chip Sampling</u>

At the onset of Valentine's program in May, 1987 all available data pertaining to the Discovery Zone was compiled. This largely consisted of the incomplete work of Falconbridge comprising a geological map (see Map # 2) and detailed geology and sampling maps of "A" vein, 36 vein, Trench #1 and Trench #2. (see Sections 6, 7, 8, 9, and Plans 1 and 2). Falconbridge assays were only complete for "A" Trench, but an incomplete set of unassayed samples were located at CDN Labs in Vancouver and Valentine had them assayed by Sando Labs in Delta, B.C. All available assays are attached as Appendix III.

Sando Labs assay figures, however, were viewed with some suspicion and consequently a number of the sample rejects were reassayed by Chemex Lab in North Vancouver. From these assay figures it can be seen that the apparent wide zones of low grade gold mineralization that were indicated by Sando assays do not seem to exist.

The assay figures for the "A" trench are all from Falconbridge's work and represent total gold content of each sample from a cyanide leach done on each sample by Lakefield Lab in Ontario. (See Appendix IV) This was done to overcome sub-sampling problems caused by the nugget effect.

In July, 1987, Valentine performed a rock chip sampling program over part of the Discovery Zone; 20 north-south traverses were established between the "36" trench and the "A" trench, spaced at 15 meter intervals. Rock chip samples were collected by means of an air hammer on one meter intervals. Each sample weighed between 3 - 4 kg. The results show gold values ranging from 5 to 1715 ppb which in general are not of economic grade (Map 3). Due to the erratic distribution of the gold and the consequent problem of collecting representative small samples, geochemically significant gold values found in many of the channel lines were considered encouraging.

6.2 <u>Drilling</u>

Also in July, 1987, Valentine started a 22 hole diamond drill program on the Discovery Zone. Drill holes DDH-87-01 to DDH-87-22 were completed for a total accumulated length of 2,428 metres. The holes were all drilled at 45 degrees to the north on a grid pattern 100 m between traverses and about 60 m between holes on the traverses. Each hole was about 100 m long. This covered a strike length of 400 m and a width of approximately 300 m (see Map 4).

The main object of the drilling program was to gain a comprehensive three dimensional picture of the geological setting of the mineralized areas in the Discovery Zone, particularly in regard to features such as structure and lithology which are possible controls of mineralization. It was also hoped to be able to recognize a geochemical "signature" of this type of mineralization. As is common with this type of erratic gold mineralization drilling proved to be an unsuitable tool for estimating average gold grade. This is obviously due to the small unrepresentative size of the sample obtained from material in which the gold is very erratically distributed. The assay results from these individual small samples tend to be low with the occasional very high values this "nugget effect" makes estimates of average grade from drilling impossible. This has historically been a probem with the Discovery Zone type of gold mineralization.

Descriptive logs were made of all the drill core (Appendix V). The core was then sawn in half, one half was retained and stored in core racks, the other was sent to Chemex Labs in North Vancouver for assay (all core was assayed).

The sample preparation technique used by Chemex was designed to minimize the nugget effect. All samples were reduced to -20 mesh and a minimum split of 1 kg. was pulverized; this was passed through a 120 mesh screen to see if any metallics were visible. A one assay-ton fire assay was performed on the 120 mesh fraction with atomic-absorption analysis for gold on the resulting bead (5 ppb gold detection limit). If metallics were noted on the 120 mesh screen then a second assay was completed on this material.

The assay results can be seen on the logs in graphic form (Appendix V) and all drill hole assays over 200 ppb are listed in Table 1.

The location of Beau Pre's 11 drill holes completed in 1982 can also be seen on Map 4. A summary of significant assays for this drilling can be found in Table 2.

Only about 20% of the 1390 meter Beau Pre drill core had been split and assayed when Valentine became involved in the project; the remainder of the core was assayed by Valentine during the 1987 program.

TABLE 1

VALENTINE DISCOVERY ZONE DRILLING - ASSAY SUMMARY

Drill Hole # Significant Intervals

.

	From-To (m)	Length (m)	Pts per billion	(+500 ppb) Oz/ton
	·		Gold	Gold
DDH-87-1	98.00-99.00	1.00	550	.016
DDH-87-3	28.54-29.07	0.53	1580	.046
	34.00-35.00	1.00	200	
	71.00-72.00	1.00	535	.016
	110.00-111.00	1.00	555	.016
DDH-87-4	50.00-51.00	1.00	4,680	.137
DDH-87-5	83.64-84.11	0.47	260	
	84.11-85.00	0.89	1,065	.031
	86.00-87.00	1.00	260	
	87.00-88.00	1.00	265	
DDH-87-6	40.00-41.00	1.00	345	
	99.00-100.00	1.00	460	
	100.00-101.00	1.00	2,760	.078
			2,700	
DDH-87-7	67.00-68.00	1.00	215	
DDH-87-9	44.00-45.00	1.00	620	.018
	49.00-50.00	1.00	320	
	65.00-65.50	0.50	560	.016
	79.00-80.00	1.00	935	.027
	83.00-84.00	1.00	1,665	.049
	85.00-86.00	1.00	305	
DDH-87-1(31.00-32.00	1.00	800	.023
	46.00-47.00	1.00	1,265	.037
	50.00-51.00	1.00	935	.027
	51.00-52.00	1.00	245	
DDH-87-1	51.00-52.00	1.00	205	
	56.98-58.24	0.26	>10,000	5.856*
	58.24-59.00	0.76	765	.022
	95.00-96.00	1.00	3,030	.088
	99.00-100.00	1.00	340	
DDH-87-12	2 54.00-55.00	1.00	900	.026
DDH-87-13	62.00-63.00	1.00	1,800	.052

.

<u>Significant</u>

<u>Drill Hole #</u> Intervals

				(+500 ppb)
	From-To (m)		Length (m) Pts per	billion Oz/ton
			Gold	Gold
DDH-87-14	47.00-48.00	1.00	6830	.199
	48.00-49.16	1.16	220	
	49.45-50.00	0.55	325	
	60.00-61.00	1.00	315	
	78.00-79.00	1.00	1115	.033
1	07.00-108.51	1.51	435	
DDH-87-16	11.00-12.00	1.00	4180	.122
	30.00-31.00	1.00	225	
DDH-87-17	10.00-11.00	1.00	375	
	32.00-33.00	1.00	245	
	33.00-34.00	1.00	360	
DDH87-181	14.60-115.00	0.40	265	
DDH-87-22	36.00-37.00	1.00	410	
	26.00-27.00	1.00	3050	.089
	94.00-95.00	1.00	275	
1	01.80-103.00	1.20	865	.025
1	03.00-104.00	1.00	370	

* Average of 2 fire assays 6.286 and 5.426 oz/ton

TABLE 2

BEAU PRE DRILLING ASSAY SUMMARY

<u>Drill Hole #</u> Intervals

.

<u>Significant</u>

			(+:	500 ppb)
	From-To (m)	Length (m)	Pts per billion	Oz/ton
			Gold	Gold
	5 (0 5 50)		5 (0 0	
DH -3	5.42-5.79	0.37	5690	0.166 (1)
	7.92-8.29	0.37	411	
	13.72-14.63	0.91	205	
	17.89-18.20	0.31	205	
	18.20-19.20	1.00	410	
DH -5	4.57-4.72	0.15	685	0.020
	5.18-5.33	0.15	615	0.018
	10.76-11.03	0.27	340	0.010
	14.63-15.54	0.91	515	0.015
	27.89-28.96	1.07	580	0.017
	38.71-39.65	0.94	805	0.024 (2)
	44.65-46.33	1.98	205	0.024 (2)
	50.29-50.90	0.61	205	
	76.20-76.81	0.61	305	
	/0.20 /0.01	0.01	505	
DH-5A	8.84-9.08	0.24	205	
	9.08-9.30	0.22	1,095	0.032
	24.54-24.84	0.30	375	
	32.62-33.53	0.91	205	
DH - 6	35.96-36.45	0.49	<10,000	7.55 (3)
_	88.54-89.48	0.94	745	0.022 (4)
	204.83-206.35	1.52	2,135	0.062 (5)
			-,	0.002 (0)
DH -6A	5.00-6.00	1.00	515	0.015
	7.32-8.23	0.91	205	
	9.14-9.45	0.31	<10,000	0.296 (6)
	9.45-9.75	0.90	343	
	13.10-13.41	0.31	2,490	0.073 (7)
	55.47-55.78	0.31	1,115	0.033 (8)
	67.67-68.89	1.22	1,990	0.058
	158.19-159.10	0.91	260	
	211.84-212.45	0.61	255	
	227.69-228.60	0.91	452	
DH -7	7.62-8.99	1.37	205	
D 11 /	8.99-10.21	1.22	205	
	44.81-45.41	0.60	515	0.015
	45.41-46.48	1.07	360	0.015
	43.41-40.40	1.07	200	

Drill Hole #		Significant Intervals		
				(+500 ppb)
	From-To (m)	Length (m)	Pts per billion	Oz/ton
		· · · · · · · · · · · · · · · · · · ·	Gold	Gold
DH - 7A	1.22-1.83	0.61	370	
DII - /A	6.55-7.01	0.01	370	
	7.01-8.53	1.52	275	0.000 (0)
	8.53-9.60	1.07	960	0.028 (9)
	49.07-49.98	0.91	790	0.023
	49.98-49.90	0.92	310	
	73.46-74.37	0.91	410	
	74.37-75.28	0.91	580	0.017
	77.11-78.02	0.91	445	
	96.41-96.77	0.36	2,075	0.061(10)
DH - 9	4.72-5.03	0.91	345	
	33.83-34.59	0.76	375	
	38.71-39.47	0.76	1,575	0.023(11)
DH - 12A	50.29-52.12	1.83	1,610	0.047(12)
211 1211	52.12-53.34	1.22	1,030	0.030
	52.12 55.54	1.22	1,050	0.050
DH - 12N	19.20-19.96	0.46	390	
	19.96-20.42	0.46	990	0.029
	20.73-21.49	0.76	245	
	53.34-53.95	0.61	220	
13	39.29-139.44	0.15	205	
DH - 15 15	50.27-151.18	0.91	770	0.023(13)
	54.53-154.96	0.43	1,730	0.051(14)

Notes: Value below recorded as oz/ton gold

.

1	Average of 4 assays (0.096, 0.106, 0.292, 0.170)
2	Average of 2 assays (0.029 and 0.018)
3	Average of range of assays from 4.795 to 9.1
4	Average of 3 assays (0.029, 0.010, 0.026)
5	Average of 3 assays (0.095, 0.021, 0.071)
6	Average of range of assays from 0.111 to 0.604
7	Average of range of assays from 0.011 to 0.173
8	Average of 2 assays (0.026 and 0.039)
9	Average of 2 assays (0.040 and 0.016)
10	Average of 2 assays (0.084 and 0.037)
11	Average of 2 assays (<0.001 and 0.046)
12	Average of 3 assays (0.060, 0.043 and 0.038)
13	Average of 2 assays (0.003 and 0.042)
14	Average of 2 assays (0.003 and 0.098)

6.3 Bulk Sampling

The object of the bulk sampling program was to evaluate accurately, by means of total gold recovery, the average gold content of certain mineralized areas previously identified in the Discovery Zone.

Bacon, Donaldson and Associates (BD & A) were contracted by Valentine to perform the initial metallurgical tests and subsequently manage the design, procurement, construction and operation of an on site 20 ton per day Bulk Sampling Plant.

Several hundred pounds of material from the Falconbridge Trench #1 and the "A" Trench were collected into 3 40 gallon drums. These samples were processed by BD & A in their laboratory in Vancouver in order to optimize the gold recovery process. The full results are contained in BD & A's report dated June 19, 1987 (see Appendix VI). The two samples from the "D-14" zone of biotite schist in Falconbridge trench #1 showed average grades of 0.382 oz/to and 0.144 oz/t gold. The "A" trench barrel showed a grade of 0.392 oz/t gold.

Construction of the Bulk Sampling Plant and tailings dam started adjacent to the Discovery Zone in mid June, 1987. The hot dry weather, particularly in late summer created high fire danger and consequently the use of heavy equipment was restricted by both the Forest Service and C.I.P. Inc. As a consequence the construction of the tailings dam in particular was held up for close to three months; the plant was not ready to operate until late November, 1987.

The first bulk sample designated "D-14" (this was the original Falconbridge sample number in Trench #1 and was the same area from where the two barrels of material tested by BD & A were taken) started to be processed through the plant on November 30th, 1987.

The plant ran until February 10th, 1988 with intermittent shut downs for the Christmas period and to clean up the equipment between samples. These samples total 653.1 tons. BD & A have estimate tonnage and average grade of each sample thus: (See Appendix VII for complete results)

	<u>Tonnage</u>	<u>Average Grade</u> <u>oz/T Gold</u>
D-14	247.1	0.015
36 Vein East	184.0	0.106
36 Vein West	222.0	0.0265
TOTAL TONNAGE	653.1	

The attached plan (Plan #3) shows the location and dimensions of these three bulk samples.

The "A" trench area has been drilled and blasted but the material has not been excavated from the trench. (It should be noted that the "A" trench showed the highest gold grades in the Falconbridge sampling - see Appendix III & IV).

As can be seen from these results this first round of bulk sampling has already outlined significant, close to ore grade, gold mineralization over minable widths along considerable strike lengths.

7.0 **PROPERTY WIDE EXPLORATION**

7.1 Introduction

The numerous visible gold showings found by Beau Pre along a 6 km strike length, on both sides of the Discovery Zone are, of course, strong indications that the Discovery Zone type of gold mineralization extends considerably beyond its present known limits. Plus the fact that the quartz veins in the Discovery Zone were largely found by prospecting methods in areas with relatively good access and outcrop made for an excellent chances of finding more by utilizing more methodical modern exploration techniques.

Having a zone of known gold mineralization also was a great asset in the sense that it has been possible to test various exploration methods first before applying to them the property at large.

Silt sampling and soil sampling were tested over and adjacent to the Discovery Zone with positive results and subsequently used as basic exploration tools on the whole property.

A Very Low Frequency - Electromagnetic (VLF-EM) and Magnetometer orientation survey were also tried over the Discovery Zone; initial results appeared to show structures apparently related to mineralization and therefore these methods were used for sometime. However, it became obvious that the results were actually difficult or impossible to interpret and so VLF-EM and magnetometer work was later discontinued.

7.2 <u>Silt Sampling</u>

Initial orientation work by Peatfield (Peatfield, 1987) showed anomalously high gold values in streams draining the mineralized area on the southern and eastern slopes of Valentine Mountain. Each sample was wet screened at 20 mesh on site and heavy mineral separations were made of each sample and the concentrate assayed, and the value back calculated to the total dry weight of the original sample. It was concluded therefore that this technique was successful in outlining general areas of gold mineralization and therefore this method was applied to the whole property.

In June and early July all major drainages over the entire property were sampled giving a total of some 490 samples. Results can be seen summarized on Map 5.

Background values are considered to be 2 to 5 parts per billion (ppb) and of the original samples 151 samples showed values between 10 and 105,000 ppb.

Some of the higher values have been followed up by more silt sampling, prospecting, and in some cases soil sampling (i.e. grids S-1, 5-2, WL-1, BC-1, 4, 5, 7 - See Map 6).

Notably Zone "C" was first recognized by anomalous gold values in the silt from a small creek draining east into the Jordan River.

7.3 <u>Soil Sampling</u>

As a first step three orientation soil sampling traverses were completed over the known gold showings in the Discovery Zone. Samples were taken by digging, with a shovel, as close to bedrock as possible usually less than 40 cm deep and taking 1 - 2 kg. of material. Each traverse was orientated north-south, 300 meters between traverses and each sample was taken at 20 m intervals along the line. Six resultsclose to known mineralization in the Discovery Zone - on two traverses, showed anomalously high values between 12 and 45 ppb gold.

Consequently a soil sampling program was started over the easterly and westerly strike extensions of the Discovery Zone mineralization (Grids 1 & 2 - See Map 6). All other soil grids were located on areas of interest based on silt sample results.

In total some 5,900 samples were taken on lines that were 100 m apart and samples spaced at 20 m.

The results, as seen in detail in Maps 7, 8, 9, and 10 show a number of well grouped highly elevated gold values in soils, notably in Zones B and C. These results are particularly interesting when compared to the relatively low, sporadic values seen in the initial orientation traverses over known mineralization. In most areas these anomalies were checked by in-fill sampling at closer spacings; as can been seen in most cases the anomalies proved to be "real" in that intermediate sample lines confirmed the presence of elevated gold in the soil. Some anomalies, on the other hand, particularly in Zone "A" appear not to be "real" and fell apart when sampled in more detail.

Multi-element ICP analysis was run on the majority of samples from Grid 1 and 2. The only values to be elevated, as might be expected, were arsenic. However, there was no positive (or negative) correlation with gold values.

This situation is entirely different in Zone "C" (See Map 10); arsenic values are commonly elevated up to several hundred ppm (i.e. 20 to 50 x background), and these high values are completely coincident with elevated gold values.

Iron values are also high in Zone "C" - showing a "background" within the anomalous zone between 1,000 to 2,000 ppm. but with occasional "spikes" between 3,000 to 7,000 ppm in areas at least weakly coincident with higher gold values.

This different geochemistry in the soils of Zone C, along with the wider anomalies were the first suggestions of a different style of mineralization than is seen in the Discovery Zone.

7.4 Prospecting and Rock Chip Sampling

During the summer, Valentine geologists spent a good deal of time prospecting areas of interest throughout the whole property. These areas were chosen for a variety of reasons; some as follow up work to anomalous silt values, some from soil sample results, others from locations where visible gold had been noted from previous work and also areas that just looked interesting.

As a result of this work some 890 rock chip samples were taken. A summary of this work can be seen on Map 11.

Notable results area as follows:

- 1. Zone C West side (Grid #5) 11 samples in excess of 200 ppb gold and one sample of 0.53 oz/t and another 0.16 oz/t gold.
- 2. Zone C East side (Grid #7) 3 samples over 200 ppb gold and one sample of 0.078 oz/t and another at 0.16 oz/t gold. (It should be pointed out that rock chip sampling was much more extensive on the west side of Zone C due to easier access and terrain)
- 3. Zone A (East of Discovery Zone). Four samples over 200 ppb gold including 6,000 ppb (0.18 oz/t) gold over 1 m width.
- 4. South of Bear Creek Reservoir in the Metchosin Volcanics 3 samples over 200 ppb gold including one of 0.42 oz/t gold.

7.5 Geophysics

A variety of ground and airborne geophysical techniques have been used on the property; there follows a list, in historical order of this work and its usefulness.

7.5.1 Dighem Survey by Gulf Minerals, 1981

In November, 1981, Dighem Ltd. carried out 249 line kilometers of airborne electromagnetic and magnetic surveys for Gulf Minerals Canada Ltd. in the Survey Mountain - Leech River area of the present Valentine property. This information was available through assessment reports. The survey covered the north-east corner of the property amounting to about 1/4 of the present land position.

Dennis Woods, Chief Geophysicist for White Geophysical Inc. made an interpretation for Valentine of the data. (Woods, 1987).

These studies identified several targets worthy of followup work. A number of these have been field checked with some rock chip samples taken (see Map 11). Further work is warranted.

7.5.2 <u>Western Geophysical Aero Data Ltd.</u>

In 1984 Western Geophysical conducted a regional airborne VLF-EM and magnetometer survey over a large portion of the Leech River complex on behalf of several landholders (Pezzot, E.T. and White, G.E. 1984).

A number of reviews have concluded that this data is of no use to current exploration programs.

7.5.3 <u>VLF-EM & Magnetic Orientation Survey</u>

In June 1987, Valentine contracted White Geophysical to conduct an orientation ground VLF-EM and magnetics survey over the known mineralization in the Discovery Zone. The idea was to establish if these techniques could be utilized in the exploration for other mineralized zones on the property. (Woods, D.V., August, 1987).

Three north-south orientated traverses each about 2.5 km long and spaced 300 m apart with 10 m station spacing were completed (same as orientation soil lines).

A series of "cross over" and inflection anomalies were seen on all these lines close to the areas of known mineralization in the Discovery Zone.

The magnetic response was quiet with some erratic anomalies.

7.5.4 <u>Valentine VLF-EM & Magnetics Survey</u>

Largely based on recommendations of Dennis Woods (the geophysical consultant who conductd the survey for White Geophysical) a large portion of the property, particularly along the immediate east-west strike extension of the Discovery Zone, was covered by a VLF-EM survey using Valentine personnel and rented equipment. (See Map 12)

7.5.5 <u>Valentine Orientation VLF-EM & Magnetics</u> Aerial Survey

In August 1987, Valentine contacted White Geophysical to run an orientation aerial VLF-EM and magnetics survey.

At the time the ground VLF/magnetic work was still considered to be of value and therefore the thinking was that perhaps the whole property should be covered with an aerial survey.

Four orientation lines were flown by White Geophysical over ground previously covered by ground VLF/mag surveys.

The results showed that the type of the airborne equipment used could in most cases distinguish anomalies defined by the ground surveys.

However; due to the increasing skepticism of the usefulness of the ground based data a complete aerial survey was never completed.

7.5.6 <u>Max-Min EM Survey</u>

In September 1987, the extremely large "Zone C" soil anomaly had been more or less completely outlined. The style of mineralization was obviously different to other areas of the property particularly the strong association of sulphides especially arsenopyrite.

Test traverses were made across the soil anomalies with the VLF-EM unit but no significant anomalies emerged.

In order to test whether the sulphides might respond to other EM frequencies a Max-Min unit using three widely spaced frequencies was tried by a contractor (MWH Geophysics Ltd., Sidney, B.C.). It was found that the system registered anomalies indicative of poorly electrically connected sulphides or graphite and these anomalies were coincident with much of the soil geochemical anomalies. Tests with 25 m, 50 m, 100m and 200 m soil separations indicated that the anomalies had continuity over depth down to approximately 100 m. Some difficulty was encountered with the rugged terrain, especially with the long coil separations and often the data showed ambiguous results. A system with improved resolution and discrimination was needed.

7.5.7 Induced Polarization Survey

An induced polarization and resistivity survey was carried out to overcome difficulties encountered with the Max-Min. The system was easier to operate in the terrain and was also able to discriminate between sulphides, graphite and clay. It was also able to successfully map the amphibolite unit, the metasandstones and to some extent the intercalated biotite schists. (See Maps 13 and 14).

Pacific Geophysics, Vancouver, was selected for the work using the Phoenix IPR8 frequency system and a 2.5 kw transmitter. Approximately 12 km of lines were completed on Zone C, most of it being on the west side. (Grid #5).

Orientation surveys were carried out with 20, 30, 50 and 70 m dipole spacings. The final survey utilized the dipole-dipole array with 30 m dipoles at N=1, 2, 3 & 4 (except for line 600 W where N=5 and 6 were added).

Work was also completed on Zone B and the Discovery Zone with the same parameters as above plus some detailed work using 10 m dipole. The results outline several targets that need field checking, probably by trenching.

7.5.8 Dighem Aerial Survey

After reviewing the orientation surveys with the Max-Min, along with the encouraging surface chip samples plus the high quality of the previous 1981 Dighem Survey it was decided to complete an airborne survey over the whole property. In particular it was hoped that the co-planar high frequency Digham coil would detect new anomalies of the type registered by the Max-Min in Zone C and possibly associated with gold mineralization as well as the usual mapping of massive sulphides, graphite, intrusions, structures and lithological units.

In late December 1987, 312 line kilometers were surveyed at 200 m line spacings. Two blocks were flown; Block 1 was 263 line km of nearly north-south lines. A smaller block of nearly east-west lines were flown superimposed on the Block 1, in order to register suspected north south features. This block consisted of 49 line km. (see Appendix IX).

An initial interpretation of the data has revealed EM conductors, the location of intrusions and structures, and mapped certain lithologies. Many of these features may well be related to gold mineralization and should be followed up. The data also correlates well with the known geology. A future detailed interpretation would reveal further follow up targets, prioritize the targets, suggest the most suitable follow up methods and enhance the geological picture.

7.6 Zone C Drilling

Largely promoted by "flow-through" spending requirements a drilling program was put together in December 1987. Drilling started on December 17th.

A total of 15 holes (NQ size) were completed (DDH-87-23 & 24 and DDH-88-01 to DDH-88-13) for a total of 2,243.3 meters. Ease of access was a big factor in locating the holes and this was the reason that drilling was restricted to the west side (Grid #5) which is accessed by a number of logging roads.

The west side (Grid #7) which is generally steeper and is only partly logged has no roads crossing it.

The drill sites were chosen based on a number of parameters; proximity of existing roadways to coincident I.P. conductive zones and geochemical anomalies; closeness of roads to significant rock chip samples, and testing what appears to be fault structure running NW-SE through the upper part of the Jordan River valley.

The first several holes were drilled while the I.P. crew was still working and therefore before final interpretations had been completed.

The drilling results are summarized in Table 3, and drill log summaries can be seen in Appendix VIII. As can be seen there exist wide zones of metasandstone in particular that contain elevated gold values, many approaching ore grade. These zones are associated with disseminated arsenopyrites and can be directly related to the conductive zones seen in the I.P results. Also Hole DDH-88-12 contained a 3 metre intersectin of an average of 0.133 oz/ton gold.

All the core has been assayed, generally at 1 m intervals by Chemex Labs in Vancouver. Check assays have been performed by Bondar Clegg Labs on selected rejects; the possibility of a significant nugget effect was checked for by having Bondar Clegg use a fire assay technique where a minimum of 500 grams is pulverized and sieved through a -150 mesh. Fraction is then assayed separately, with a second assay from the -150 mesh. Early indications are that this process may in some cases significantly upgrade gold values.

TABLE 3

ZONE C DRILL HOLE SUMMARY

	(Gold Values greater than 200 ppb)		
DDH Number	<u>From - To(m)</u>	PPb(Gold)	+500 ppb <u>Oz/ton_Gold</u>
87-23	22.0 - 23.0	300	
	27.0 - 28.0	1,600	.047
87-24	3.94 - 5.0	360	
07-24	6.0 - 7.0	700	.020
	7.0 - 8.0	285	.020
	8.0 - 9.0	700	.020
	9.0 - 10.0	305	.020
	28.0 - 29.0	320	
	61.0 - 62.0	1,100	.032
	69.0 - 70.0	265	.052
	78.0 - 79.0	865	.025
	79.0 - 80.0	495	.025
	80.0 - 81.0	295	
	82.0 - 83.0	295	
	82.0 - 85.0	205	
88-01	22.97 - 24.0	200	
88-02	11.85 - 12.85	220	
88-03	1.95 - 3.0	220	
	13.0 - 13.64	305	
	14.65 - 16.0	695	.020
	16.0 - 17.0	315	
	17.0 - 18.0	445	
	19.0 - 20.0	393	
	138.0 - 139.0	580	.017
88-04	4.57 - 6.0	400	
00-04	6.0 - 8.0	385	
	15.0 - 16.0	215	
	24.0 - 25.0	365	
	33.0 - 34.0	325	
	43.0 - 44.0 50.0 - 51.0	275	016
		545	.016
	51.0 - 52.0	340	010
	60.0 - 61.0	605	.018
	61.0 - 62.0	585	.017
	63.0 - 64.0	315	000
	76.0 - 77.0	2,820	.082
	113.0 - 114.0	200	
	125.0 - 126.0	385	000
	174.0 - 175.0	1,000	.029

DDH Numbe	<u>r From - To (m)</u>	PPb (Gold)	+500 ppb <u>Oz/ton Gold</u>
88-05	31.0 - 31.78	350	
00 05	43.87 - 45.0	295	
	46.0 - 47.0	205	
	60.0 - 61.0	280	
	64.0 - 65.0	865	.025
	65.0 - 66.0	345	
	66.0 - 67.0	655	.019
	68.0 - 69.0	488	
	69.0 - 70.0	620	.018
	75.0 - 76.0	235	
	77.0 - 78.0	205	
88-08	9.0 - 10.0	365	
	10.0 - 11.0	305	
	11.0 - 12.0	235	
	12.0 - 13.0	225	
	26.0 - 27.0	225	
	31.0 - 32.0	350	
	44.0 - 45.0	315	
	45.0 - 46.0	295	
	51.0 - 52.0	295	
	101.0 - 102.0	545	.016
	102.90 - 104.0	205	
88-09	103.0 - 104.0	285	
	112.0 - 113.0	1,385	.040
	148.63 - 149.20	1,365	.040
	149.20 - 149.80	565	.017
	149.80 - 150.50	275	
	151.0 - 152.0	240	
	153.0 - 153.92	260	
88-12	96.0 - 97.0	7,348	0.214
	97.0 - 98.0	1,235	0.036
	98.0 - 99.0	5,140	0.150

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7.7 Petrographic Studies

In order to increase the level of understanding of the geological environment and gold genesis on Valentine Mountain a number of samples have been sent to Vancouver Petrographic Ltd. for thin section work. Also John Payne, Chief Geologist, for Vancouver Petrographic Ltd. visited the property in January, 1988. All reports resulting from this work can be seen in Appendix X.

In summary the work by Vancouver Petrographics shows the following:

Discovery Zone

The gold bearing veins consist of quartz that shows signs of deformation with minor muscovite and feldspar. Sulphides are dominated by arsenopyrite and much less pyrrhotite. Gold occurs in two forms:

1. Gold formed by replacement found between quartz

2. Gold as grains and patches contained within and on the borders of arsenopyrite crystals.

Zone C

grains.

The metasandstone and schists of Zone C are composed of black laminated biotite and muscovite, quartz and feldspar. They contain clots and veins of cross cutting quartz veins. Sulphides are mainly large (up to 5 mm) euthedral crystals of arsenopyrite which are found in both quartz veins and wall rock. The presence of envelopes of k-feldspar to the quartz veins, euhedral tourmaline crystals and arsenopyrite indicate hydrothermal alteration and mineralization.

8.0 <u>RECOMMENDED FURTHER WORK</u>

The following exploration program is recommended to evaluate the best targets currently outlined on the property.

8.1 <u>Zone B</u>

The soil geochemical anomalies outlined in Zone B should be trenched, across strike, particularly in areas where the highest gold values were obtained. The bedrock thus exposed should be hosed clean, mapped and sampled. Areas of particular interest, especially quartz veins, can then be better exposed by small scale, localized drilling and blasting.

The estimated cost of this work can be seen in Table III.

8.2 <u>Zone C</u>

A detailed geological mapping and outcrop rock samping program is recommended for Zone "C". Also the I.P. survey begun on the western half of the area should be completed to cover the whole zone.

It is anticipated that this work will lead to a number of specific drill targets. As it seems that the most likely target on Zone "C" is a disseminated, high tonnage/low grade gold deposit, then the reverse-circulation drilling method should be considered as the primary means of testing Zone "C". This method has the advantage of being able to use small track mounted rigs thus minimizing road building. However, some diamond drilling will no doubt be necessary and therefore the estimated cost (Table 4) allows for both drilling methods.

8.3 Silt Sample/Dighem Anomaly Follow-up

It is recommended that the numerous silt sample anomalies, along with geophysical anomalies as outlined by the Dighem data, be followed up by geochemical sampling, geological mapping and rock chip sampling. Cost estimates are given in Table 4.

TABLE 4

Cost Estimate of Recommended Further Work

<u>Zone B</u>

Initial trenching - cat & backhoe		
15 machine days x \$1000/day	\$ 15,000	
Geological work		
30 days x \$300/day	9,000	
Field Help		
60 man days x \$100/day	6,000	
Drill & blast		•
10 days x \$1000/day	10,000	
Assaying		
1000 samples x \$15/ea	15,000	
Materials & expenses	10,000	
Sub-total	\$ 65,000	\$ 65,000

Zone C

Mapping		
60 geologist man days x \$300/day	\$ 18,000	
Assays		
500 samples x \$15/ea	7,500	
Hand trenching/localized blasting	10,000	
Field Help		
60 man days x \$100/day	6,000	
Surveying		
10 days x \$400/day	4,000	
Materials and Expenses for above	10,000	
I.P. 15 days x \$1200/day	18,000	
I.P. Supervision & Interpretation		
20 days x \$300/day	6,000	
Drill Road construction		
30 machine days x \$1,000/day	30,000	
Drilling - 3000' diamond drilling \$25/ft	75,000	
- 7000' reverse-circulation		
drilling \$15/ft	105,000	
Assaying and sample prep for drilling		
3000 samples x \$15/ea	45,000	
Supervisor and management of drilling		
60 days / \$300/day	18,000	
Sub-total	\$352,500	\$352,500

Silt Sample/Dighem Follow-up

-

60 man geologist da Assays 500 samples Materials & expense	x \$15/ea	\$ 18,000 7,500 <u>10,000</u>	
	Sub-total	\$ 35,500	\$ 35,500
	Total		\$453,000
	10% Contingency		45,000
	GRAND TOTAL		<u>\$498,000</u>

CERTIFICATE OF QUALIFICATIONS

I, MICHAEL J. HOPLEY, of 308 - 69 Gorge Road West, Victoria, British Columbia do hereby certify as follows:

1. I am employed by Valentine Gold Corporation as Project Manager for the Valentine Mountain Poject with offices at 2038 Otter Point Road, Sooke, British Columbia. I have worked in this capacity since April, 1987.

2. I graduated in 1970 from London University, London, England with a Bachelor of Science Degree in Geology.

3. I have been engaged in mineral exploration in England, United States and Canada since 1970.

4. I am a member in good standing of the American Institute of Mining and Metallurgy.

5. I have an employee option on 157,400 Valentine Gold Corporation shares at a price of \$0.70.

DATED in Vancouver, British Columbia, this 7th day of April,

Michael J. Hopley, B. Sc.

1988.

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