

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORTS

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GEOLOGICAL, GEOCHEMICAL, GEOPHYSICAL AND
DIAMOND DRILLING REPORT

on the

COREY PROPERTY, 104B/07E, 08W, 09W, 10E

Latitude 56° 32' N, Longitude 130° 28' W

SKEENA MINING DIVISION
BRITISH COLUMBIA

FOR

KENRICH MINING CORPORATION
910 - 510 Burrard Street
Vancouver, B.C.
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TECHNICAL

APR 2 - 1996

Gold Commissioner's Office
VANCOUVER, B.C.

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GEOLOGICAL BRANCH
ASSESSMENT REPORT
February, 1996

24,373

PART 1 OF 5

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INTRODUCTION

Location and Access

The Corey Project area is in northwestern British Columbia, approximately 70 kilometers north of Stewart and 900 kilometers northwest of Vancouver (Fig. 1). Reference maps are NTS sheets 104B/07E, 08W, 09W, 10E.

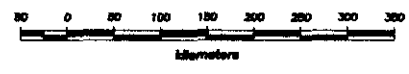
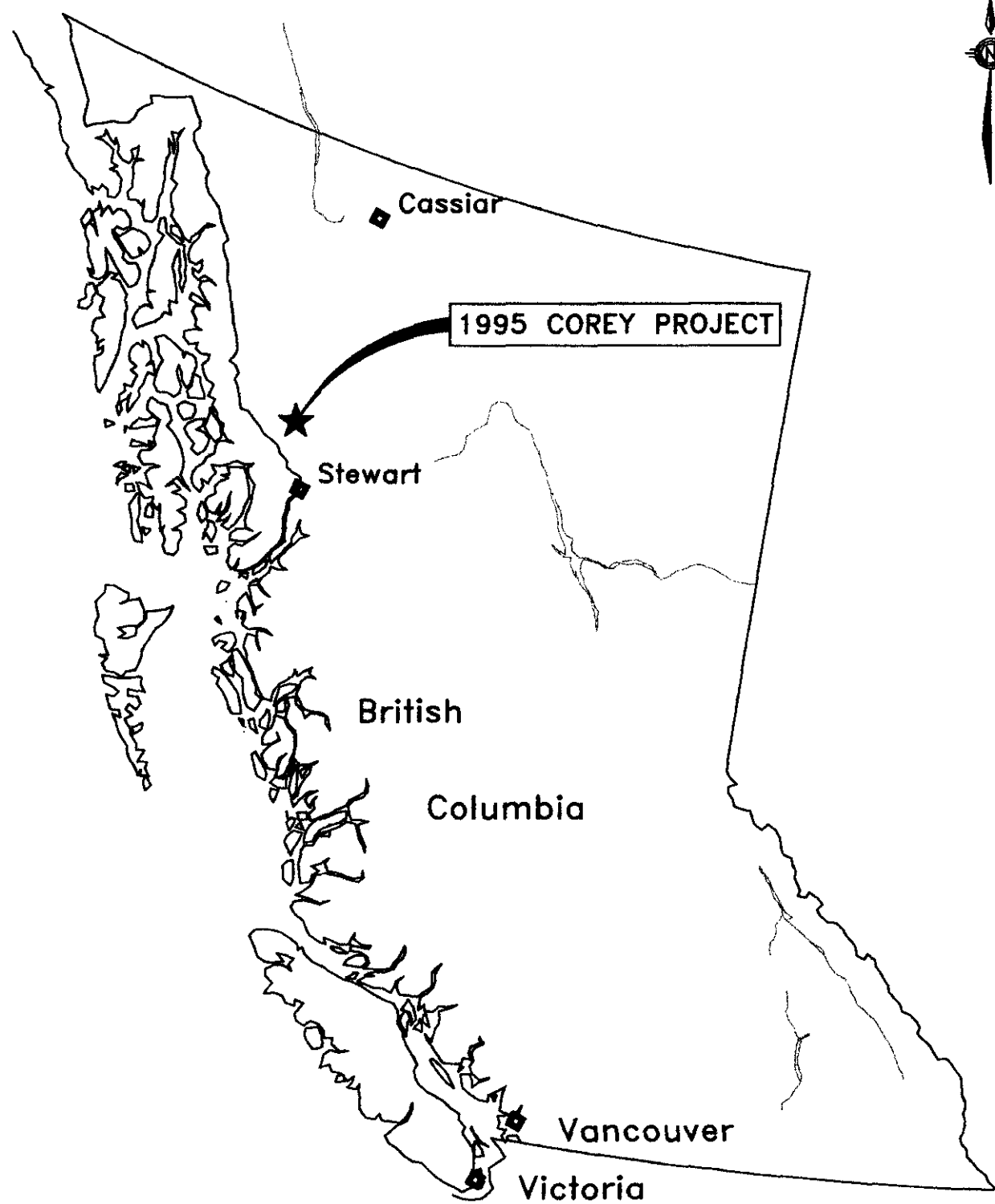
Access is by helicopter from the 52.8 kilometer mark of the Eskay Creek Mine road, where the exploration camp (complete with helicopter) was located. The Eskay Creek Mine road is accessible from the Stewart Cassiar Highway, at Bob Quinn Lake.

Physiography and Climate

The area of interest is in the Unuk River watershed of the Intermontane Belt. Major drainages include the Unuk River and Sulphurets Creek.

The area of interest is rugged to moderate terrain with elevations ranging from 250 meters in the Unuk River valley to approximately 2250 meters at John Peaks. Slopes are moderate to very steep with frequent cliffs. Tree line is at about 1200 meter elevation, below which forest cover consists of mature hemlock, spruce and fir. Lower elevations, along the Unuk River, host thick stands of aspen and alder. Undergrowth at lower levels consists of ferns, huckleberry, salmonberry, elderberry and devils club. Alpine areas host a healthy cover of heather, heath, blueberry, copperbush, black spruce and juniper.

Snow conditions prevail from late October through May with extreme depths (ten to fifteen meters) at higher elevations while along the Unuk River minimal depths (two to three meters) are the norm. However, precipitation in the form of rain occurs all year round with many cloudy days during summer months.



KENRICH MINING CORPORATION		
1995 COREY PROJECT		
LOCATION MAP		
CANAMERA GEOLOGICAL LTD		
SCALE: AS SHOWN	DATE: DECEMBER, 1995	FIGURE NO.1
NTS: 104K/8	FILE NO. KEN-FIG1.DWG	

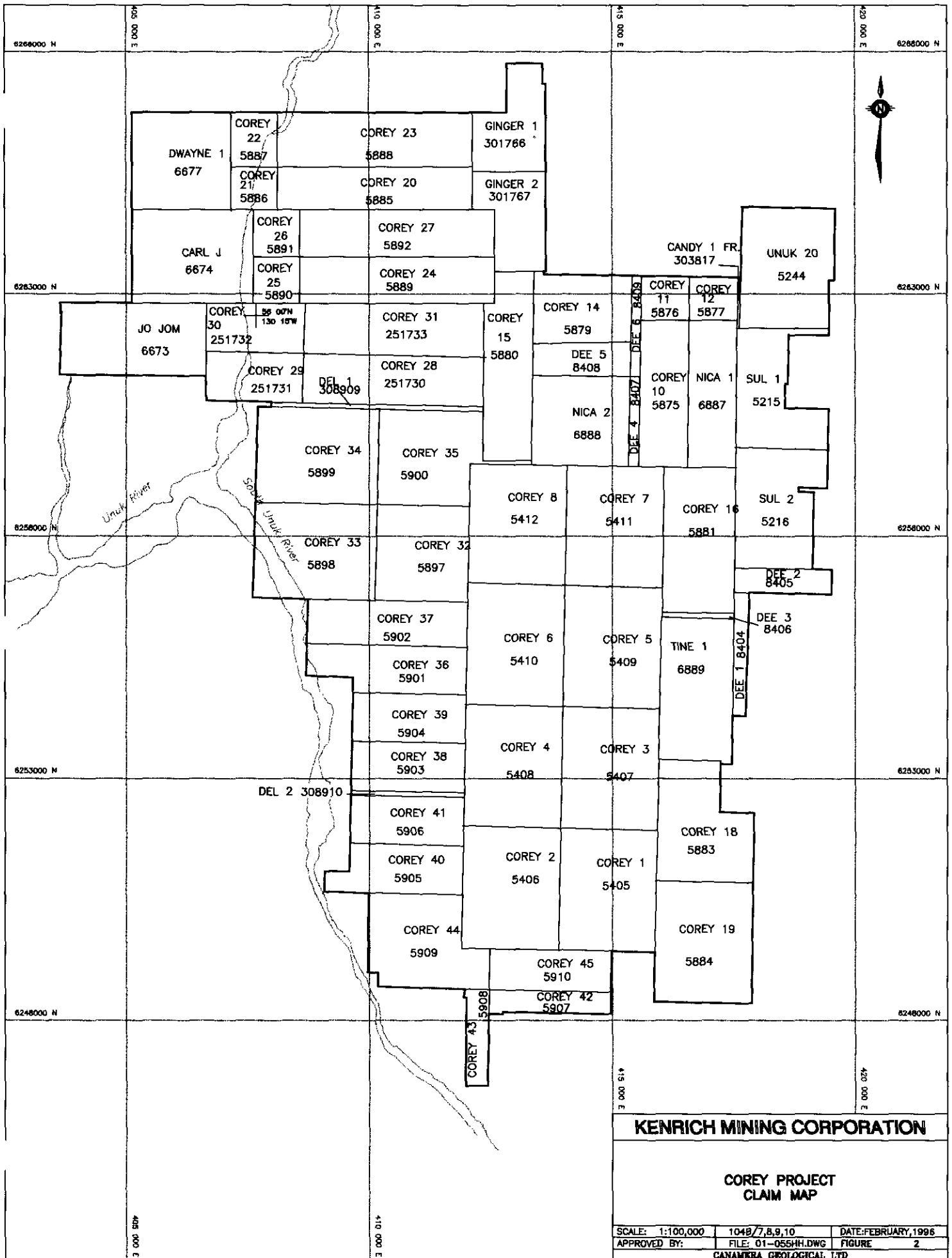
Property and Claims

Claims

The Corey property consists of 837 contiguous mineral claim units totaling approximately 32,400 hectares and are located in the Skeena Mining Division (Fig. 2). Work on the property was conducted by Canamera Geological Ltd. on behalf of Kenrich Mining Corporation. Claims within the Corey property with their respective tenure number, number of units, record date and expiry date are listed in Table 1.

TABLE 1
COREY PROPERTY CLAIMS

Name	Tnr. Number	Units	Record Date	Expiry Date
Dwayne 1	97756	16	May 13, 1988	May 13, 2000
Carl J	97757	20	May 13, 1988	May 13, 2000
JoJo	97758	18	May 13, 1988	May 13, 2000
Corey 1	251446	20	June 25, 1986	June 25, 1996
Corey 2	251447	20	June 25, 1986	June 15, 1996
Corey 3	251448	20	June 25, 1986	June 25, 1996
Corey 4	251449	20	June 25, 1986	June 25, 1996
Corey 5	251450	20	June 25, 1986	June 25, 1997
Corey 6	251451	20	June 25, 1986	June 25, 1997
Corey 7	251452	20	June 25, 1986	June 25, 1997
Corey 8	251453	20	June 25, 1986	June 25, 1997
Corey 10	251714	12	February 11, 1987	February 11, 1997
Corey 11	251715	4	February 11, 1987	February 11, 1997
Corey 12	251716	4	February 11, 1987	February 11, 1997
Corey 14	251717	12	February 11, 1987	February 11, 1999
Corey 15	251718	16	February 11, 1987	February 11, 1999
Corey 16	251719	18	February 11, 1987	February 11, 1997
Corey 18	251720	20	February 11, 1987	February 11, 1996
Corey 19	251721	20	February 11, 1987	February 11, 1996
Corey 20	251722	16	February 11, 1987	February 11, 2000
Corey 21	251723	4	February 11, 1987	February 11, 2000
Corey 22	251724	4	February 11, 1987	February 11, 2000
Corey 23	251725	16	February 11, 1987	February 11, 2000
Corey 24	251726	16	February 11, 1987	February 11, 2000
Corey 25	251727	4	February 11, 1987	February 11, 2000
Corey 26	251728	4	February 11, 1987	February 11, 2000
Corey 27	251729	16	February 11, 1987	February 11, 2000
Corey 28	251730	16	February 11, 1987	February 11, 2000
Corey 29	251731	8	February 11, 1987	February 11, 2000
Corey 30	251732	8	February 11, 1987	February 11, 2000
Corey 31	251733	16	February 11, 1987	February 11, 2000
Corey 32	251734	20	February 11, 1987	February 11, 2000



DWAYNE 1
6677

COREY 22
5887
COREY 21
5886

COREY 23
5888
COREY 20
5885

GINGER 1
301766
GINGER 2
301767

CARL J
6674

COREY 26
5891
COREY 25
5890

COREY 27
5892
COREY 24
5889

CANDY 1 FR.
303817

UNUK 20
5244

JO JOM
6673

COREY 30
251732
35 07N
130 15W

COREY 31
251733

COREY 15
5880

COREY 14
5879

COREY 11
5876

COREY 12
5877

COREY 29
251731

DEL 1
308909

COREY 28
251730

DEE 5
8408

COREY 10
5875

NICA 1
6887

SUL 1
5215

COREY 34
5899

COREY 35
5900

COREY 8
5412

COREY 7
5411

COREY 16
5881

SUL 2
5216

COREY 33
5898

COREY 32
5897

DEE 2
8405

COREY 37
5902

COREY 6
5410

COREY 5
5409

TINE 1
6889

DEE 3
8406

COREY 36
5901

COREY 39
5904

COREY 38
5903

COREY 4
5408

COREY 3
5407

DEE 1
8404

DEL 2 308910

COREY 41
5906

COREY 18
5883

COREY 40
5905

COREY 2
5406

COREY 1
5405

COREY 44
5909

COREY 19
5884

COREY 45
5910

COREY 42
5907

COREY 43
5908

KENRICH MINING CORPORATION

**COREY PROJECT
CLAIM MAP**

SCALE: 1:100,000	1048/7.8.9.10	DATE: FEBRUARY, 1996
APPROVED BY:	FILE: 01-0554H.DWG	FIGURE 2
CANAMERA GEOLOGICAL LTD		

Corey 33	251735	20	February 11, 1987	February 11, 2000
Corey 34	251736	20	February 11, 1987	February 11, 2000
Corey 35	251737	20	February 11, 1987	February 11, 2000
Corey 36	251738	14	February 11, 1987	February 11, 1996
Corey 37	251739	14	February 11, 1987	February 11, 1996
Corey 38	251740	12	February 11, 1987	February 11, 1996
Corey 39	251741	12	February 11, 1987	February 11, 1996
Corey 40	251742	12	February 11, 1987	February 11, 1996
Corey 41	251743	12	February 11, 1987	February 11, 1996
Corey 42	251744	5	February 11, 1987	February 11, 1996
Corey 43	251745	4	February 11, 1987	February 11, 1996
Corey 44	251746	20	February 11, 1987	February 11, 1996
Corey 45	251747	10	February 11, 1987	February 11, 1996
Tine 1	252211	18	February 10, 1988	February 10, 1997
Ginger 1	301766	20	June 26, 1991	June 26, 1996
Ginger 2	301767	20	June 26, 1991	June 26, 1999
Candy 1	303817	1	September 10, 1991	September 10, 1997
Del 1	308909	8	April 16, 1992	April 16, 2000
Del 2	308910	5	April 16, 1992	April 16, 1996
Fox 1	336914	1	June 12, 1995	June 12, 1996
Fox 2	336915	1	June 12, 1995	June 12, 1996
Fox 3	336916	1	June 12, 1995	June 12, 1996
Fox 4	336917	1	June 12, 1995	June 12, 1996
Fox 5	336918	1	June 12, 1995	June 12, 1996
Fox 6	336919	1	June 12, 1995	June 12, 1996
Sul 1	251348	20	February 28, 1986	February 28, 1997
Sul 2	251349	20	February 28, 1986	February 28, 1997
Unuk 20	251377	20	February 28, 1986	February 28, 1996
Nica 1	252209	12	September 10, 1988	September 10, 1997
Nica 2	252210	16	September 10, 1988	September 10, 1999
Dee 1	253609	5	February 18, 1990	February 18, 1997
Dee 2	253610	4	February 18, 1990	February 18, 1997
Dee 3	253611	3	February 18, 1990	February 18, 1997
Dee 4	253612	4	February 18, 1990	February 18, 1999
Dee 5	253613	8	February 18, 1990	February 18, 1999
Dee 6	253614	4	February 18, 1990	February 18, 1999

Previous Work

The earliest exploration in the area of the claims was in the late 1800's. Mineral claims were staked in the area by H.W. Ketchum in 1898. The Unuk River Mining and Dredging Company acquired Ketchum's property in 1900 and excavated two adits on the Cumberland claim. Exploration resumed in the area in 1980 when Dupont of Canada Exploration Limited and E & B Explorations Ltd. conducted regional heavy mineral stream sediment sampling and reconnaissance geological mapping respectively in the Mount Madge, Sulphurets Creek and Unuk River areas.

In 1986, Catear Resources Ltd staked eight claims (Corey 1-8) in the Mount Madge area and undertook rock and stream sediment geochemical sampling. The work resulted in the discovery of the C-10 zone. In 1987 widespread stream sediment, soil and rock geochemical sampling and prospecting was conducted on the Corey claims by Bighorn Development Corporation. Detailed work focused on the Cumberland prospect and included 49 meters of trenching and 590 meters of surface diamond drilling in six holes. Follow up work in 1988 on the C-10 zone consisted of 647 meters of diamond drilling in six holes.

Placer Dome Exploration Limited evaluated the economic mineral potential of the Cumberland and C-10 zones in 1991. Work consisted of geological mapping, soil and rock geochemical sampling and VLF-EM and IP surveys.

In 1993, Kenrich Mining Corporation conducted regional scale stream sediment, soil and rock geochemical sampling in the area immediately north of Sulphurets Creek. This program tested the potential for along-strike extensions (East of Unuk River) of Hazelton Group rocks which host the Eskay Creek Mine massive sulphide Ag-Au-Zn-Cu deposits. Systematic sampling and prospecting lead to the discovery of the TV, Bench and Battlement zones. Follow up IP and VLF-EM surveys were conducted on the Bench zone in late 1993. Follow up trenching and rock chip sampling in 1993 resulted in the discovery of high grade gold mineralization (39.1 grams per tonne gold over 1 meter) at the TV zone.

Kenrich Mining Corporation launched a detailed mapping, linecutting, and soil and rock geochemical sampling program on the TV, Bench and Battlement zones in 1995. An IP survey was conducted over the TV zone in conjunction with trenching and geological mapping. The program culminated in diamond drilling of 3863.63 meters in twenty two holes..

Exploration Program

The field program was conducted between July 1, 1995 and November 5, 1995. A field camp for the program was constructed at kilometer 52.8 of the Eskay Creek Mine road. This location facilitated road access to within 15 kilometers of the property and greatly reduced service costs for the camp and program overall. A Canadian Helicopters' Hughes 500D was based at the camp and shared between the Corey Project (Kenrich Mining Corporation) and Eskay Project (Tagish Resources). During the program the number of personnel ranged from twelve to twenty two.

Communications for the project were facilitated by an Inmarsat satellite telephone system and fax machine. Each person in the field was supplied with a hand held FM radio which, coupled with a repeater system, allowed for constant contact with camp.

Work conducted on the Corey property by Canamera Geological Ltd. for Kenrich Mining Corporation is outlined below.

Linecutting

Grids on the TV zone were established by Twin Mountain Enterprises of Whitehorse, Yukon Territory, and consisted of slope corrected, brunton compass sight-picketed lines. Pickets were placed at 25 meter intervals along lines spaced 200 meters apart. Lines were tied to a previous north trending baseline (L0+00) and two newly cut, slope corrected north trending tie lines (6+50W and 10+00W). Grid lines were run east (090°) and tie lines north (000°). Lines were cut mainly for the purpose of an IP survey, however, they were used in conjunction with soil sampling and geological mapping. A total of 18.5 kilometers of line, including tielines, were cut. Pickets were labelled with metal tags. The Battlement baseline was re-established.

Geochemical Surveys

Geochemical soil sampling was conducted on three zones: TV, Bench and Battlement. A total of 1955 soil samples, 1346 from TV zone, 376 from Bench zone and 233 from Battlement zone were collected. Soil was collected from the B horizon, where possible, from depths ranging from 10 to 40 cm. Notes on soil texture, depth and colour were recorded. Samples were collected at 25 meter intervals along 100 meter spaced, compass surveyed and picketed lines. Generally geochemical survey lines were located between Kenrich's 1993 lines to increase the sample density and to extend several 1993 lines. At the TV zone, half of the sampling was conducted along cut lines. The other half of the sampling at the TV zone and all of the sampling at the Bench and Battlement zones was done slope corrected along conventional hip chained compass lines.

In conjunction with geological mapping and prospecting a total of 264 (83 from Corey 20 and 177 from Corey 23) rock chip samples were collected from selected outcrops and trenches from the TV and Bench zones.

Geochemical analyses were conducted by Eco-Tech Laboratories Ltd. of Kamloops, B.C. The fine fractions of soils (-80 mesh) and rocks (-140 mesh) were analyzed geochemically for gold using AA in conjunction with a 28 element ICP analysis. Eco-Tech's analytical methods are summarized Appendix 1.

Induced Polarization Survey

An IP Survey was conducted over a portion of the TV zone. The survey was conducted by Peter E. Walcott and Associates Ltd. A total of 16.5 kilometers of pole-dipole IP surveying was completed.

Trenching

Approximately 200 meters of trenching in ten trenches, was completed on the TV zone. Trenches were excavated using traditional drill and blast techniques. Drilling was done with an air powered plugger served by a 500 kg (Hughes 500D flyable) Atlas Copco, Deutz powered (150 CFM) air compressor. Drilled holes were charged with blasting cap, Cil-Gel (70%) and Nilite (Anfo) and detonated by detonating cord (E-line). Blasted bedrock was hand mucked and chip sampled with hammer and moil and/or air powered chipping chisel. A total of 148 meters of trench were chip sampled and a total of 264 rock chip samples were collected.

Reconnaissance Surveys

Reconnaissance geological mapping and rock chip sampling was conducted on the GFJ and Cumberland showings in the Mount Madge area of the Corey property. A total of 54 rock and 2 stream sediment samples were collected from the GFJ and Cumberland showings.

Geological Survey

An area around the TV zone covering a total of 1700 hectares was mapped at a scale of 1:5000. A hip chain and compass were used to tie in outcrops to stations along cut grid lines. Several geological orientation traverses were made on the Bench and Battlement zones to consolidate ideas regarding geological structure relevant to geology at the TV zone.

Kenrich geological data served as a base for the lithologic and stratigraphic perspective consistent with the updated five Hazelton Group rock units proposed by Lewis (1995). The geology as mapped and compiled in 1995 is summarized on Map No. 1 (1:5000 scale) and Map No. 2 (1:1000 scale), for the TV grid and TV zone respectively.

Mapping was conducted mostly by Gordon McRoberts, Ed Ronyecz, Dane Bridge, Greg Burroughs, Dave Awram and Helgi Segirgerson. Outcrops along Kenrich L20+00S and L15+00S were checked by Greg Burroughs for lithostratigraphic verification. Dane Bridge mapped trenches TR-95-02, TR-95-03, and TR-95-05. Trenches TR-95-04, TR-95-06 and TR-95-07 were mapped by Gordon McRoberts.

Diamond Drilling

A total of 3863.63 meters of NQ diamond drilling was completed in twenty two holes. Drilling was conducted by Canamera Geological (Drilling Division) and Britton Brothers Diamond Drilling using Boyles 37A (mechanical drive) and Britton Bros. 2500 (hydraulic drive) drills respectively.

Drill and helicopter pads were prepared utilizing a combination of drill-blast and/or timbered cribbings. Thirteen drill pads, with their respective helipads, were constructed. Eleven pads were used in 1995. The two unused pads are ready to occupy when drilling resumes.

GEOLOGY

Regional Geology

The regional geology of the claim area (Bridge, 1995) was established by geologists of the Geological Survey of Canada (Anderson, 1989; Anderson and Thorkelson, 1990) and the British Columbia Geological Survey Branch (Alldrick and Britton, 1988; Alldrick et al., 1989, 1990). Lewis (1992) established a structural framework for the Prout Plateau, which is west of the claims.

Exploration on the claims has focused on discovering Eskay Creek type deposits. The Eskay Creek deposit and property geology are described by Bartsch (1990a, 1990b), Idzizek et al. (1990), Blackwell (1990), Britton et al. (1990), Ettlinger (1991), Roth and Godwin (1992) and Roth (1993a, 1993b).

The claim area of interest is underlain largely by Jurassic volcanic and sedimentary strata of the Hazelton Group and Bowser Lake Group. A portion of the most eastern Hazelton Group rocks is underlain by an area of Triassic Stuhini Group (John Peaks area). Some previously unrecognized intrusive rocks, probably of Jurassic age, form sills or dikes in the Hazelton Group.

Stuhini Group

The oldest Mesozoic strata in the region are sedimentary and volcanoclastic rocks of the Triassic Stuhini Group. The Stuhini Group consist of a dominantly sedimentary lower division and a dominantly volcanic and volcanoclastic upper division. Most of the sedimentary division comprises undifferentiated fine grained well bedded rocks but coarser conglomerate layers serve as local stratigraphic markers. The volcanic division is locally subdivided into mafic to intermediate tuff and volcanic breccia, mafic porphyritic flows, and felsic flows and flow breccia.

Hazelton Group

The Hazelton Group has undergone considerable redefinition since it was defined to encompass Jurassic and Cretaceous volcanic and sedimentary strata of the Skeena River region of central British Columbia. Present usage is restricted to Lower and Middle Jurassic volcanogenic and sedimentary strata in this region (Tipper and Richards, 1976). Hazelton Group rocks are widely distributed within Stikinia, outlining much of the Bowser Basin, and were first described in the Iskut River camp by Schoefield and Hanson (1992). Noting differences from classical Hazelton Group sequences, Grove (1986) established a formational nomenclature for the Iskut River-Salmon River-Anyox region separate from existing, more regional, definitions. The nomenclature, with subsequent modifications by Anderson and Thorkelson (1989), Alldrick (1991), and Henderson et al.(1992), outlines a five-fold division within the Hazelton Group in the Iskut river camp, comprising the Jack, Unuk River, Betty Creek, Mount Dilworth, and Salmon River formations (Jack and Mount Dilworth formations not formally defined). Difficulties in correlating these units regionally, ambiguous stratigraphic relations at type sections, and apparently contradictory age assignments (Lewis et al. 1992, 1993) have led to inconsistent usage of these formational divisions in the Iskut River area. Lewis (1995) has divided the Hazelton Group into 5 rock stratigraphic units. These units comprise, from lowest to highest: i) basal, coarse to fine grained, locally fossiliferous siliciclastic rocks or granitic pebble conglomerate, ii) porphyritic andesitic composition flows, breccias, and related epiclastic rocks, iii) dacitic to rhyolitic flows and tuffs, iv) locally fossiliferous marine sandstone, mudstone, and conglomerate, and v) bimodal subaerial to submarine volcanic rocks and intercalated mudstone.

Hazelton Group Stratigraphy

Unit 1: Lower Hazelton Group sedimentary strata

Basal Hazelton Group typically consists of locally fossiliferous conglomerate, sandstone, and siltstone which overlie Stuhini Group rocks along a disconformity or angular unconformity. This basal clastic sequence varies from a few tens to a few hundreds of meters in thickness except in the western Iskut area (Johnny Mountain section) where it is absent. Unit 1 is best exposed along the Unuk River, where medium to coarse grained, medium to thickly bedded, trough cross-stratified arenitic sandstone is characteristic. Distinctive rounded clast supported granitic and volcanic cobble conglomerate form much of Unit 1 near Sulphurets Creek and are

interstratified with the arenitic sandstones. Pelecypod coquinas with a calcareous sandstone matrix are common near the Bruce Glacier section, and are transitional to medium bedded silty limestone. Less common rock types include intermediate welded tuff at Bruce Glacier, and phyllitic turbiditic mudstones near Jack Glacier.

In the southern Iskut River camp near the Salmon Glacier, Alldrick (1991) describes thick siltstone intervals which may be finer grained equivalents to Unit 1 in the north. These siltstones, classified as part of the Unuk River Formation by Alldrick, contain faunal assemblages of similar age to Unit 1 assemblages near Eskay Creek (Anderson, 1993). This correlation implies that lower parts of Alldrick's Unuk River Formation are actually within the Stuhini Group, an assignment consistent with available lithologic and chronologic constraints of the area.

Unit 1: Age

Fossil assemblages collected from Unit 1 exposures along the Unuk River indicate a Lower Jurassic age. Well preserved ammonites *Paracaloceros* and *Badouxia Canadensis* occur in the Eskay Creek and Treaty Glacier areas, and are diagnostic of an Upper Hetangian to Lower Sinemurian age. Unconformably underlying Stuhini Group turbiditic siltstone to mudstone in this area contain Upper Norian *Monotis cf. subcircularis* bivalves, providing a maximum age for Unit 1. Upper limits are provided by Upper Pliensbachian ammonite collections from Unit 4 at Eskay Creek and John Peaks (see Unit 4 description).

Isotopic age constraints from bounding units corroborate an Early Jurassic age. Dacitic crystal tuff in the underlying Stuhini Group at John Peaks yields a U-Pb zircon age of 215-220 Ma (V. McNicoll reported in Anderson, 1993), and a granitic clast from Unit 1 in this same section has an age of about 225 Ma. A U-Pb zircon age of 193 ± 1 Ma for Unit 2 flows at Johnny Mountain (M.L. Bevier, pers. comm. to P. Lewis, 1994).

Unit 2: Andesitic flows, breccias, and volcaniclastic rocks

Unit 2 andesitic flows, volcanic breccias, and related epiclastic rocks succeed basal Hazelton Group clastic strata in much of the Iskut River area. Lateral thickness variations are pronounced in this unit; coarse volcanic breccias form accumulations up to two kilometers thick. These localized deposits may pinch out completely in distances of less than five

kilometers. Unit 2 sharply and conformably overlies Unit 1 in most locations, but near Johnny Mountain it overlies folded Stuhini Group rocks along a sharp angular unconformity.

The thickest and best preserved sections of Unit 2 are at Eskay Creek, Johnny Mountain, Treaty Creek, and Salmon Glacier. In these locations, hornblende and plagioclase phyric andesitic to dacitic flows and dark green volcanic breccias are intercalated with lapilli to block tuff, and lesser amounts of epiclastic sandstone and wacke. Volcanic breccias are monolithologic to slightly poly lithic, commonly contain vesicular clasts, and have a plagioclase rich volcanic matrix. At Salmon Glacier, two distinct members are: a lower porphyritic andesitic volcanic breccia to block tuff (Unuk River formation of Alldrick, 1991), separated by plagioclase-hornblende-potassium feldspar megacrystic flows or sills from an upper, maroon, well bedded epiclastic conglomerate to sandstone member (Betty Creek Formation of Alldrick, 1991).

Unit 2: Age

The age of Unit 2 is constrained by fossil collections from bounding units, and by isotopic age determination of volcanic flows at Johnny Mountain. An older age of Upper Hettangian to Lower Sinemurian is provided by fossil collections from underlying Unit 1 (described above). Strata overlying Unit 2 contain Upper Pliensbachian ammonites at Eskay Creek and near John Peaks (see Unit 4 description), bracketing the age of Unit 2 to Sinemurian or Pliensbachian. U-Pb zircon ages at Johnny Mountain corroborate this timing. Plagioclase phyric dikes cutting Unit 2 have a zircon U-Pb age of 192 ± 3 Ma, while samples of Unit 2 flows yield U-Pb zircon ages of 193 ± 1 Ma. Overlying felsic tuffs provide a further bracketing constraint of 194 ± 3 Ma (M.L. Bevier, pers. comm. to P. Lewis, 1994).

Unit 3: Felsic pyroclastic rocks and rhyolite flows

Stratigraphic correlations above Unit 2 have traditionally been more problematic than in older rocks, leading to contradictory and confusing application of existing nomenclature. A common approach to lithologic mapping in the Iskut River area has been to use a felsic pyroclastic unit overlying Unit 2 volcanic rocks as a marker. This method has resulted in inconsistencies in the assigned stratigraphic position and ages of both the datum felsic unit and bounding units, a problem which was partially resolved by the recent recognition that felsic volcanic rock occur at more than one stratigraphic level (Anderson, 1993; Lewis et al., 1993). Still, assigning a particular felsic volcanic succession to one of these two units on the basis of lithological

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characteristics alone is difficult, making geochronological and biochronologic age control particularly useful.

Present geological constraints indicate that the oldest rocks overlying Unit 2 consist of regionally discontinuous felsic flows and pyroclastic rocks (Unit 3) which are common in the southern and western portion of the Iskut River area (Johnny Mountain), but are thin to nonexistent in the northeast. Twenty kilometers west-northwest of Salmon Glacier near Granduc Mountain, Unit 3 comprises a megaclastic breccia and laterally equivalent lapilli tuff which overlies bedded crystal to dust tuff and volcanic conglomerate. To the north, water lain crystal and ash tuffs just south of John Peaks, and multiple thin cooling units of crystal rich welded lapilli tuff at Treaty Creek are likely equivalents. Possible vent areas for eastern Unit 3 rocks at Brucejack Lake (Sulphurets area) comprise massive, flow banded dacite domes which grade outward into autobreccia and massive, hematitic mud matrix volcanic breccia (MacDonald et al. 1992), and potassium feldspar megacrystic flow banded flows. In the western Iskut River area at Johnny Mountain, dacitic to rhyolitic flows and welded lapilli tuff which overlie the lower Hazelton andesite-dacite sequence form Unit 3.

Unit 3: Age

Numerous new U-Pb ages indicate that the early pulse of felsic volcanism in the Hazelton Group near Iskut River spanned a 5-10 million year period. The oldest age of 194 ± 3 Ma was obtained from flow rocks interlayered with lapilli tuff at Johnny Mountain (M.L. Bevier, pers. comm. to P. Lewis, 1994). This section also has the most felsic rocks included in Unit 3. Zircon extracted from bedded ash tuffs at John Peaks yielded a slightly younger U-Pb age of 190 ± 1 Ma (R. Anderson, pers. comm. to P Lewis, 1994). Several other Unit 3 isotopic ages fall within the 185-188 Ma range. Vent related dacite at Brucejack Lake yield U-Pb ages of 185.6 ± 1.0 Ma and 185.8 ± 1 Ma. Laterally equivalent potassium feldspar megacrystic dacite flows yield overlapping ages of $187.7 \pm 5.8/-1.5$ Ma. Welded tuff at Treaty Creek has an age of 183-185 Ma (R.G. Anderson, personal communication). In the Granduc Mountain area, the dacite breccia is nearly identical in age to Brucejack samples at 186.6 ± 15.6 Ma.

Unit 4: Upper sedimentary sequence

Heterogeneous sedimentary strata including sandstone, conglomerate, turbiditic siltstone, and limestone characterize Unit 4. Many of the rock types of Unit 1 are present in Unit 4, but the occurrence of clasts derived from Unit 2 volcanic rocks, and the absence of the distinctive granitic clast conglomerate serve to differentiate the two units. In areas lacking strata of Units 2

and 3, such as near the Bruce Glacier, the division between Units 1 and 4 is difficult to establish and often must be defined on the basis of local stratigraphic characteristics.

Unit 4 varies from a few meters to several hundreds of meters thick. Thickest measured sections are present at Treaty Creek, and at Eskay Creek, while at Johnny Mountain the unit is nonexistent. The most distinctive rock type within Unit 4 consists of rusty brown to tan weathering, bioclastic sandstone and intercalated siltstone or argillite. At Salmon Glacier this lithology forms a layer 2-3 meters thick and represents the total thickness of Unit 4. To the north at Treaty Ridge, the bioclastic unit is succeeded by a several hundred meter thick turbiditic mudstone to sandstone section. Bioclastic sandstones are also present in Unit 4 at Eskay Creek and John Peaks where they are interstratified with siltstone, arenitic sandstone, and heterolithic rounded cobble conglomerate. West of these areas, a thick, grey weathering, medium bedded limestone and siltstone sequence is a probable stratigraphic equivalent to Unit 4.

Unit 4: Age

Abundant and diverse fauna within Unit 4 which span Late Pliensbachian to Late Aalenian stages suggest that the unit records a long period of volcanic quiescence (Nadaraju, 1993). Late Pliensbachian ammonite collections provide age constraints at three locations: at Eskay Creek, bioclastic sandstones contain ammonites *Tiltonicerous* cf. *propinquum* and *Protogrammoceras*; a lithologically similar section at John Peaks and interstratified limestone and siltstone sections to the west at Lyons Creek both yield the Kunae Zone (Upper Pliensbachian) ammonite *Arietoceras* cf. *algovianum*; at Treaty Creek the base of Unit 4 is slightly younger where diverse faunal collections from the bioclastic sandstone includes Toarcian belemnites. Higher in this same section, ammonites, *Timetoceras* cf. *Kirki*, *Leioceras*, and *Pseudolioceros* constrain an Upper Aalenian age for turbiditic mudstone and siltstone. Together, these fossil occurrences suggest that Unit 4 sedimentation spans the Upper Pliensbachian, the Toarcian, and most of the Aalenian stages, although no single section includes fauna diagnostic of all three stages. Isotopic ages in the Iskut River area are consistent with a magmatic gap in this time period. Clusters of ages at around 185 Ma and 177 Ma are associated with Unit 3 and Unit 5 volcanism respectively.

Unit 5: Bimodal volcanic unit

The upper part of the Hazelton Group in the Iskut River camp comprises dacitic to rhyolitic flows and tuffs, localized interlayered basaltic flows, and intercalated volcanoclastic intervals. Although these different rock types can easily be mapped separately on a property scale, their interfingering nature and lack of continuity dictate that they be grouped into a single unit for regional mapping purposes. This part of the Hazelton Group has attracted the most attention of geologists due to its association with mineralization at Eskay Creek, but at the same time its distribution, internal stratigraphy, and age are poorly understood. Previous workers have mapped felsic volcanic components as a distinct facies of the Salmon River Formation. These assignments become problematic with new work which demonstrates that locally more than one horizon exists, and that mafic volcanic rocks occur both above and below these felsic intervals.

In most locations Unit 5 conformably succeeds Unit 4 sedimentary strata. Condensed sections on the northern part of the McTagg anticlinorium feature disconformable relationships between Unit 5 and Unit 1. Unit 5 felsic volcanic rocks are ubiquitous in the northern Iskut River area. Most sections feature a single layer of felsic strata which varies in thickness from a few tens of meters to a few hundred meters. Lithofacies within the felsic intervals are highly variable both regionally and vertically in a given section. Deposits proximal to extrusive centers include banded flows, massive domes with carapace breccias, autoclastic megabreccias, and block tuffs. Extrusive centers have been identified at several locations in the Iskut River area, including Eskay Creek, Brucejack Lake, and Bruce Glacier. These felsic extrusive centers are characterized by thick, dome shaped porphyritic centers, grading outward to flow breccias and talus piles. Slightly to densely welded lapilli to ash tuffs characterize more distal equivalents. Reworked tuffs locally form thick epiclastic accumulations, and may fill in paleobasins adjacent to extrusive centers. At Salmon Glacier, Unit 5 comprises well stratified, variably welded dacitic ash and lapilli tuff which forms the type section of the Mount Dilworth Formation (Alldrick, 1991). Overlying thinly interbedded turbiditic siltstone/argillite and tuff form distinctive black and white striped strata ('pyjama beds') at Salmon River, and to a lesser extent, in northern parts of the area. At Troy Ridge, this is the only rock type present in Unit 5.

Mafic components of Unit 5 are more localized in their distribution and are missing from much of the Iskut River camp. Generally they occur above the felsic volcanic rocks, but at Treaty Creek thick sections of mafic flows and breccias lie below felsic welded tuffs. Mafic sections are thickest at Mount Shirley and near the mouth of Sulphurets Creek, and form intermediate

thicknesses at Eskay Creek and Johnny Mountain. Rocks present include massive flows, pillowed flows, broken pillow breccias, and volcanic breccias. Plagioclase phenocrysts up to two centimeters long are characteristic of the pillowed sequence south of John Peaks. At Treaty Glacier the mafic component grades upward from pillowed and massive flows into broken pillow breccia, and finally, hyaloclastite matrix supporting abundant irregular globular volcanic fragments.

Unit 5: Age

Flows across the Unuk River from Eskay Creek, near the Bruce Glacier, yielded an age of 176.2 ± 2.2 Ma. Faunal assemblages from strata underlying Unit 5 are as young as Late Aalenian (Treaty Creek). At Eskay Creek fossil control is available within Unit 5 itself: radiolarians removed from the mineralized 'contact' argillite, which occurs between the felsic and mafic volcanic intervals constrain an Aalenian age. Numerous Bajocian fossil collections from sedimentary successions overlying Unit 5 constrain the youngest biostratigraphic age for the unit.

Bowser Lake Group

The Middle and Upper Jurassic Bowser Lake Group contain the youngest Mesozoic strata in the claim area. In general, the Bowser Lake Group consists of a thick succession of shale and greywacke, with lesser amounts of interbedded chert rich conglomerate. It conformably or paraconformably overlies Hazelton Group rocks. In many areas the boundary between Bowser Lake and Hazelton rocks is unclear and is not defined.

Bowser Lake Group strata in the northern part of the claim area consists primarily of thinly bedded turbiditic siltstone and mudstone, and subordinate conglomerate and sandstone. These coarser clastic components are useful markers for deciphering local structural and stratigraphic problems, but their discontinuity precludes usage as regional markers.

Rich faunal collections from Bowser Lake Group turbiditic mudstones from the Prout Plateau define a Bathonian to Callovian age for lowest exposed stratigraphic levels (G. Nadaraju,

personal communication to P. Lewis, 1992). Outside of the Iskut River map area, Kimmeridgian faunas are characteristic of higher stratigraphic levels.

Intrusive Rocks

Anderson (1989, 1993) suggests that Triassic and Jurassic intrusive activity in the Iskut River area can be divided into 5 cycles. He defines four distinct plutonic suites, three of which he relates to cospatial and coeval volcanic suites. Plutonic rocks other than mafic dikes intrude Jurassic Hazelton Group or Bowser Lake Group strata. With the exception of the feldspar porphyry unit at Eskay Creek (U-Pb zircon age of 186 ± 2 Ma, MacDonald et al., 1992; Ghosh, 1992), reliable radiometric ages for plutons are lacking in the area. Undated plutons are assumed, on the basis of intrusive relationships and composition, to be members of the Jurassic Texas Creek or Three Sisters plutonic suites (Anderson and Bevier, 1990), with extrusive equivalents within the Hazelton Group.

PROPERTY GEOLOGY

Geologic Setting

The area mapped is underlain by north to northwest trending, easterly dipping units of volcanic rock, predominantly of basaltic andesite composition, and lesser intercalated units of sedimentary rock, mainly black and carbonaceous in composition. Narrow units of dacite and rhyolite and/or variably silicified basaltic andesite, and grey sediment are subordinate.

These rocks form the TV Anticline, TV Syncline and Unuk River Synclines. The TV zone occurs on the west limb of the TV Syncline.

Structure

Foliation and bedding are dominantly northerly trending and dip easterly at moderate angles (40 to 70 degrees). Foliation was the most commonly measured structure, and the angle between local, coincident bedding and foliation generally is low (10 to 20 degrees). An easterly

trending contact intersected by northerly trending foliation at L 2+20S 6+45W is a rare exception.

The map pattern affords no evidence for major thrust faults or late high angle faults. Highly deformed zones occur mainly in relatively susceptible black mudstone and sericitic volcanoclastic basaltic andesite, and locally in more competent rocks, such as basaltic andesite, dacite and rhyolite flows.

A possible fault located is at L 8+00S 9+00W where shallow dipping, northwest striking, siltstones are in contact with steeply dipping, northeast striking massive siltstone. Sense and degree of displacement are unknown. Small folds (cm scale) in well laminated siltstone occur at L 10+00S 10+94W.

Location of the axial surface trace of the TV Syncline is approximate. It is located in the vicinity of L 20+00S 1+50E, on the basis of local top determinations (Peter Lewis, personal communication, 1995). The axial surface of the TV Syncline passes through the central part of a sedimentary unit where it widens, north of L 4+00S near TL 6+50W, and near an area of L 7+00S where distribution of lithologies suggest a fold closure. Several top determinations from graded bedding in trench TR-95-05, west of the proposed axial surface trace, indicate tops to the east.

An open northerly plunging syncline is located at the Bench zone (Van Damme and Mosher, 1994). The axial surface trace of this fold projects northerly along the trace of the Unuk River flood plain near the west side of the TV grid. Graded bedding, showing fining and tops to the west; at L 4+00N 15+30W, support this observation.

Location of the axial surface trace of the TV Anticline is assumed. It is based on top determinations at L 4+00N 15+30W, and on the assumption that an anticline would be located relatively close to the mid point between the TV and Unuk River Synclines.

Lithologies

Black to Dark Grey Sediments (Unit 1)

Unit 1 consists of black to locally grey siltstone and mudstone and sandstone laminations in relatively thin layers of conglomerate. It forms numerous relatively narrow intercalated units with basaltic andesite flows and volcanoclastic rocks. Thicker layers occur along the axial trace of the TV Syncline, and along the east side of Unuk River near the axial trace of the Unuk River Syncline. Siltstone and mudstone predominate volumetrically over sandstone, pebble conglomerate, and lesser conglomeratic sandstone and pebble conglomerate within unit 1. Coarser rock types are absent in the north central area of the unit.

Siltstone and mudstone are massive and often strongly deformed. In places, fresh surfaces of siltstone and sheared, fine grained, dark grey basaltic andesite appear similar. Basaltic andesite is distinguished by its green weathered surfaces and/or greenish fresh surfaces.

Laminated siltstone, with black and white (sometimes grey or light green) alternating layers occur locally and resemble Pyjama Beds of the Troy Ridge facies, described in Anderson and Thorkelson (1990). They commonly occur in a northwesterly trending zone, between TL 10+00W L 8+00S and L 10+00S 5+00W, and along L 6+00S east of 2+00W.

Conglomerate is characterized by up to 15% subrounded to subangular, very fine grained siliceous white clasts in a very fine grained black matrix. Light grey and black sedimentary clasts occur infrequently.

Mudstone, siltstone, sandstone and conglomeratic sandstone likely represent deposits from turbidity currents, whereas conglomerates mark debris flow deposits.

Light Grey to Medium Grey Sediments (Unit 2)

Unit 2 occurs in narrow units and is best exposed along a north trending brook, between L 3+00S and L 0+00NS. Siltstone and sandstone predominate volumetrically over rare conglomeratic sandstone, and granule and pebble conglomerate.

Unit 2 is light grey to medium grey, variably soft to hard, and typically massive. Sandstone is fine to medium grained and is composed of feldspar and minor quartz. Its gritty texture permits

distinction from fine grained dacitic volcanic rock. Conglomerates are characterized by up to 15% subangular to subrounded siliceous, white and light grey clasts in a fine grained gritty matrix.

Mudstone, siltstone, sandstone and conglomeratic sandstone likely represent deposits from turbidity currents, whereas conglomerates suggest debris flow deposits.

Basaltic Andesite and Volcaniclastic Rocks (Unit 3)

The term basaltic andesite is applied loosely (as a field term), to volcanic and volcaniclastic rocks that range compositionally from basalt to andesite. Basaltic andesite flows are the predominant lithology in most areas. They appear subordinate to basaltic andesitic volcaniclastic rock in a broad north trending zone in the vicinity of TL 10+00W between L 4+00S and L 4+00N. Basaltic andesite flows are absent within the wide sedimentary unit centered along the axial surface of the TV Syncline north of L 2+00S.

Dacitic Volcanic and Volcaniclastic Rocks (Unit 4)

Dacitic rocks are light to medium grey, moderately hard to hard, and weather dull white. Trace to 10 % grey fine grained disseminated quartz, evident on weathered surfaces is common. Flow rocks are very fine to fine grained and massive, with local feldspar phyric and amygdaloidal textures. Amygdules are most common in TR-95-02 and TR-95-04. Volcaniclastic dacitic conglomerate is characterized by volcanic clasts, similar to an intercalated flow observed in trench TR-95-02, or white cherty clasts similar to those in carbonaceous and basaltic andesite conglomerate, as observed in TR-95-06.

A vague transition from dark grey basaltic andesite to massive dacite was observed at several locations, as volcanic-sediment contacts were approached. Many dacite units bounded by basaltic andesite and sediment may be weakly silicified and/or sericitized basaltic andesite. The local spatial association of feldspar phyric basaltic andesite and dacite supports this interpretation.

Rhyolitic Volcanic and Volcaniclastic Rocks (Unit 5)

Rust rhyolite outcrops at several locations on both limbs of the TV Syncline. Fresh rhyolites are light grey to white and weather white. Most occurrences are very fine to fine grained and appear to be flows. Amygdaloidal rhyolite at the TV zone occurs locally in the rhyolitic unit near TL 10+00W. Strongly deformed amygdaloidal textures resemble flow banding. Volcaniclastic varieties of Unit 5 are similar to those in Unit 4.

The rhyolite is interpreted by others as a silicified basaltic andesite. The common association of this rock type with other alteration including pyrite, chlorite, sericite and grey quartz veinlets is consistent with this interpretation.

Correlation of Mapped Geology to Hazelton Group Reference Sections

Basaltic andesite at the TV grid correlates best lithologically with Lewis' Upper Member of Unit 5 for the Eskay Creek and John Peaks reference sections (Lewis, 1995). Rhyolitic and dacitic volcanic rock could also be grouped with this member on the basis of intercalation.

A 350 meter wide unit of dacitic volcanic rock, exposed along the eastern edge of the grid is assigned to the Lower Member of Unit 5 (P. Lewis, personal communication, 1995). This rock type was not mapped during the 1995 program.

Hematitic basaltic andesite volcaniclastic rock near TL 10+00W is interlayered with rock assigned to Lewis Unit 5, and is best included in that unit. Units 1 to 4 of Lewis (1995) were not observed within the area mapped but are exposed immediately east of the grid.

Alteration

Silica (Quartz) and Sericite

Pervasive silicification occurs widely and is most evident in dacitic and rhyolitic rock at the TV Zone and near TL 10+00W 4+00S. Silicified rocks are characterized locally by up to 30 % very fine grained replacement silica and quartz filled vesicles. Minor grey quartz veinlets occur locally in rhyolite and dacite and rarely in black and grey sediments. These veinlets are most abundant at the TV zone and locally form irregular stockworks.

Sericite occurs widely and is most common in dacitic and rhyolitic rocks at the TV zone and in strongly sheared basaltic andesite near TL 10+00W. Variably sericitized basaltic andesite occurs locally and shows a wide colour variation ranging from white to light green through to dark grey. The white colour of some rocks mapped as rhyolite are thought to reflect strong sericitization and silicification of basaltic andesite. Weak to moderate silicification and sericitization appears to impart a light grey colour to basaltic andesite, hence, resembling fresh dacite.

White Quartz Veins and Veinlets

White quartz veins and veinlets occur locally in all rock types and are independent of other forms of alteration. They locally show cross-cutting relationships with earlier alteration types. These veins are in low abundance. White quartz veins are associated with sericitic patches at L 8+00S, 14+25W and with common dark green chloritic patches near TL 6+50W, 3+00S.

Chlorite and Carbonate

Most chloritization occurs in dacitic and rhyolitic rocks. It occurs in weakly pervasive to patchy zones as local chloritic veinlets and amygdule fillings. Hornblende in basaltic andesite and dacite is locally chloritized.

The most intense chloritization is in rhyolite at TR-95-04 and in rubble at the base of cliffs immediately northwest of it in association with intense bleaching. Patchy, weak chloritization occurs in rhyolitic rock at L 8+00S 5+15W and L 8+95S 4+64W on the east limb of the TV Syncline. On the west limb in the vicinity of TL 10+00W, L 4+00S to L 2+00S what have patchy and weak chloritization. Minor blue-green chlorite is present near L 4+00N 8+25W in sheared basaltic andesites.

Weak to strong pervasive carbonatization along with calcified feldspar phenocrysts and calcite coated fracture surfaces occurs locally in basaltic andesite, dacite and some sedimentary rock.

Epidote and Pyrolusite

Soft, black, earthy pyrolusite occurs rarely as clots, fracture surface coatings, and patchy massive zones in sericitized rocks or silicified dacitic and rhyolitic rocks at the TV zone. Trace fine epidote occurs in silicified dacitic flow rubble at L 6+00S 14+75W. It is also found in the rhyolite near TL 10+00W. Pyrolusite is most strongly developed in trench TR-95-01 and the eastern part of trench TR-95-02.

Hematite

Hematite occurs locally in a 200 meter wide, northeast trending, zone of strongly sheared basaltic andesites extending from L 6+00S to L 4+00N along TL 10+00W. Hematization imparts a dramatic maroon, often red colour and likely marks oxidation during subaerial exposure.

Mineralization

Disseminated pyrite is ubiquitous at the TV grid. It occurs locally, up to 30 percent, as coarse patches and 1 to 3 cm wide veins. Pyrrhotite occurs locally up to 10 percent as disseminations and < 1 cm wide veins. Where pyrrhotite and pyrite occur together gold values are low in the 5 to 50 ppb range. Minor pyrrhotite is observed 250 meters west of the baseline between L 6+00S and L 8+00S. Trace to 1 percent honey coloured sphalerite and galena occur in trench TR-95-04 in intensely silicified volcanic rocks.

Significant gold and silver values are reported from Trench TR-95-04. Three consecutive rock chip samples reported 19.9 grams gold per tonne (0.550 oz. gold per ton) and 86.7 grams silver per tonne (2.53 oz. silver per ton) over a width of 3.4 m (11.15 ft.), including 31.9 grams gold per tonne (0.930 oz. gold per ton) and 97.8 grams silver per tonne (2.85 oz. silver per ton) over 1.4 meters (4.59 ft.). The gold appears to be associated with pyrite within a strongly silicified and weakly stockworked rhyolite. A second area of trench TR-95-04 with significant gold values reported 2.28 grams gold per tonne over 2.7 meters in weakly silicified rhyolitic volcanoclastic rocks.

A 4 meter section of massive black mudstone in trench TR-95-05 reported 1.74 grams gold per tonne. Here, pyrite occurs as 1 to 2 cm wide veins and beds in the mudstone with 10 to 15 percent pyrite.

Trench TR-95-01 averaged approximately 213 ppb gold over 9 meters. Gold values in trench TR-95-02 were mostly in the 5-30 ppb range. However, three discontinuous one meter samples returned 355, 580 and 755 ppb gold. Trench TR-95-03 averaged 483 ppb gold over a width of 12 meters. All other trenches reported values for gold (5 to 50 ppb) and silver (10-20 ppm).

A 1 meter chip sample (7397) containing 3-5 % disseminated pyrite approximately 100 meters north of the TV zone assayed 5.10 grams gold per tonne and 32.7 grams silver per tonnes in silicified basaltic andesite. Although similar, adjacent rocks do not contain significant gold or silver values. Outcrop and trench sample locations are shown on Map 1a. Geochemical results for rock chip samples are located in Appendix 3.

Trenching and Chip Sampling

Results of trench sampling and outcrop chip sampling are shown on plans contained in Appendix 2. Each plan shows the sample locations relative to the cut grid, sample numbers and geochemical values for gold, silver, arsenic, antimony, copper, lead and zinc. Gold assay values are included where geochemical values exceeded 1000 ppb gold and 30 ppm silver. Geologic features of the trenches and outcrop sampling are given below.

Trench TR-95-02, TR-95-03, TR-95-04 and TR-95-05

Trenches at the TV zone (TR-95-02, 03, 04 & 05) extended a 25 meter wide cross section of mineralization exposed in Kenrich trenches TR-93-04, 05, 06 & 07 (Van Damme & Mosher, 1994), east and west along a break in topography. An exposure of approximately 80 % rock, was trenched along a 175 meter section. Trenching was limited by a cliff to the west and deep overburden and coarse talus to the east. One attempt to expose rock south of TR-95-02 on the north facing slope at L 5+93S 6+65W failed to reach bed rock due to deep overburden.

Black massive siltstone exposed in trenches TR-95-03 and TR-95-05 overlies dacitic volcanic flows and volcanoclastics exposed in trench TR-95-02. The contact between the siltstone and

volcaniclastics trends northwest (330 degrees) and dips 70 degrees east. Rhyolitic flows, volcaniclastic rocks and siliceous light grey siltstone occur in TR-95-04.

Dacitic and rhyolitic flows are massive to brecciated and locally amygdaloidal. Volcaniclastic rocks are characterized by up to 20% subangular granule to pebble sized siliceous volcanic clasts in a very fine grained siliceous matrix. Amygdaloidal clasts are common.

Most volcanic and sedimentary rocks are moderately silicified, and most volcanic rock are also weakly sericitized. Silicified volcanic rock is weakly to strongly foliated. Weakly silicified volcanic rock in the eastern part of TR-95-02 is strongly sheared. Weak pervasive chloritization occurs in TR-95-04.

Pyritic mineralization is ubiquitous over the entire 175 meter section section of trench. Up to 15 % disseminated and veinlet pyrite occur widely in volcanic rocks, except in the eastern part of TR-95-02 where pyrrhotite occurs. Thirty three 1 meter chip samples (7351 - 7375, 7386 - 7394) from trench TR-95-02 average 98 ppb gold and 9.4 ppm silver. Locally, siltstone hosts up to 10% disseminated pyrite and conformable very thin massive pyrite layers. Highest sulphide concentrations occur locally in TR-95-04 as east trending massive pyrite veins (5 cm) where gold values of 19.9 grams per tonne silver values of and 87.7 grams per tonne occur over a width of 3.4 meters, including 1.4 meters of 55.9 grams gold per tonne and 170.1 grams silver per tonne. Thin (1-2 cm) pyrite beds occur in black mudstone in trench TR-95-05. Of sixteen one meter samples (7463-7478) collected from this mineralization, 4 meters averaged 1.7 grams gold per tonne and 50.6 grams silver per tonne.

Twelve 1 meter chip samples (7451-7462) of moderately to strongly silicified siltstones were taken from trench TR-95-03. Gold and silver values from this trench average 484 ppb gold and 35.5 ppm silver.

Trench TR-95-06 and TR-95-07

Interlayered dacitic volcaniclastic sandstone, and granule and pebble conglomerate with up to thirty percent cherty, white, subrounded to angular rhyolitic clasts occur in trenches TR-95-07. Mineralization consists of 5% disseminated and veinlet pyrrhotite in the central part of TR-95-06, with locally developed trace to 2 % pyrrhotite. The site was initially thought to mark the south extension of TV zone mineralization, but subsequent mapping puts the geology

stratigraphically lower. Eighteen samples (7505 - 7522) returned gold values ranging from 6 to 15 ppb and silver values averaging <.2 ppm.

Trench TR-95-08 and TR-95-10

Trenches TR-95-08 and TR-95-10 were located on existing outcrops, up-slope of a gold in soil anomaly (105 ppb gold; Kenrich, 1993). These sites were thought to mark the northly extension of mineralization of the TV zone. Later soil sampling revealed anomalous zinc and arsenic approximately 25 meters southeast of this outcrop.

Black mudstone and siltstone interlayered with subordinate medium grey sandstone, conglomeratic sandstone and dark grey to black sandstone are exposed in trench TR-95-10. They locally host up to 5% disseminated pyrite and thin pyritic layers. Trench TR-95-08 exposed light to medium grey sandstone and dark grey to black siltstone and mudstone. They locally contain trace to 5% pyrite and pyrrhotite as disseminations and veinlets.

In general, sulphide concentration in these sediments is slightly higher than most mineralized sediments in the area. However, twenty-three samples (7561-7565, 7666-7683) returned averages of 5 ppb gold and <.2 ppm silver.

Trench TR-95-11

Trench TR-95-11 tested a narrow northwest trending outcrop of mineralized black siltstone exposed along the west side of a small northwest trending creek. The site is 10 meters east of a 1993 soil sample reporting anomalous zinc and arsenic values.

Locally up to 1 % disseminated pyrite and discontinuous very thin conformable pyrite layers resemble auriferous mineralization in TR-95-05. Four rock chip samples (7684-7687) returned values of <5 ppb gold and 5 ppm silver.

Outcrop Sample Sites TL 6+50W L 7+00S

Outcrops at L 6+75S 6+50W, L 6+47S 6+50W, L 6+50S 6+40W and L 7+00S 6+00W approximately 200 meters southeast of the TV zone, were sampled to provide a better geological across the trend of the TV zone.

Light grey dacite, locally with up to 5% pyrite, occurs at L 6+75S 6+50W and marks the best mineralization along this section. Ten chip samples (7619-7621, 7751-7757) averaged < 5 ppb gold and < .2 ppm silver.

Massive black siltstone with rare trace pyrite at L 6+47S 6+71W and L 6+50 6+40W is similar to rocks in TR-95-03, and returned gold values up to 705 ppb. However, only background values of < 5 ppb gold and < .2 to 2.6 ppm silver were reported in samples 7758-7769 and 7771- 7778.

Black mudstones interlayered with basaltic andesite and pyritic dacite at L 7+00S 6+00W reported gold values of < 5 to 160 ppb and silver values of < .2 to 4.4 ppm from fifteen samples (7779-7793).

Outcrop Sample Site L 7+30S 4+50W

Rhyolites sampled above the west face of the north trending cliff overlooking the TV zone on the east limb of the TV Syncline are weakly chloritized with trace to minor pyrite. Ten rock chip samples (7551-7560) returned background values of 5 ppb gold and < . 2 ppm silver.

Outcrop Sample Site L 2+00S 10+30W

The vertical northwest face of a large, northeast trending rhyolite outcrop was sampled. The site marks the northernmost exposure of a rhyolite unit near TL 10+00W and is 100 meters southeast and up slope of a gold in soil anomaly (66 ppb), noted in Van Damme & Mosher (1994). Samples 7344-7346 returned background values ranging from 5 to 10 ppb gold and 1.0 to 8.4 ppm silver.

Outcrop sample Site L 5+00N 9+00W

A large, northeasterly trending outcrop of sheared basaltic andesite flows with rusty foliation planes (020°/40°E) was sampled. The outcrop, typical of the wide zone of sheared basaltic andesite to the south, is located up-slope from several gold in soil anomalies outlined in Van Damme & Mosher (1994), at L 5+00N 9+25W (109 ppb) and L 5+00N 9+50W (113 ppb).

Barren black siltstone outcrops in a creek, at L 5+00N 9+60W, down-slope and west of the soil anomalies.

Seventeen 1 meter chip samples (7310-7326) of basaltic andesite flows and volcanoclastic rocks were analysed. Gold values average 5 ppb and silver values average < .2 ppm.

GEOCHEMICAL SURVEYS

Program

During the summer of 1993 Kenrich Mining Corporation conducted a reconnaissance geochemical stream sediment and soil sampling program in the area immediately east of the Unuk River and north of Sulphurets Creek. Follow up prospecting and trenching lead to the discovery of significant gold mineralization in bedrock. The 1995 geochemical soil sampling program was designed to provide greater detail with lines spaced at 100 meters intervals. Previous lines were spaced 500 meters apart. Odd numbered lines excluding L 5+00N and L 5+00S (sampled by Kenrich in 1993) were located at 100 meters intervals by compass and slope corrected hip chain methods. Pickets were placed at sample sites 25 meters apart. Even numbered lines, excluding L 0+00S and L 10+00S (sampled by Kenrich in 1993) were located by professional line cutters who used slope corrected chain and compass methods. In all, 1955 soil samples were collected from three zones, 1346 from the TV zone, 376 from the Bench zone and 233 from the Battlement zone.

Soil samples were taken from 30 cm diameter holes dug by shovel and/or mattock. In all cases an attempt was made to sample the B horizon. If B horizon was not present samples were taken from the A horizon. Samples depths ranged from 10 cm to 60 cm. Each soil sample, consisting of approximately 500 grams of soil, was placed in a numbered kraft paper sample bag. The corresponding sample number was written on or affixed to a wooden lath or picket placed in the ground at the sample site. Details of the physical nature of each soil sample were recorded systematically in note form. Soil colour, depth of sample, nature of soil (clay, mud, sand, gravel, etc.) and other pertinent features such as proximity to known mineralization, swampy conditions or alteration were recorded.

Prior to shipment, soil samples were hung to air dry. Samples were packed in 20 liter plastic pails and shipped by bus or truck to Eco-Tech Laboratories in Kamloops, B.C. for geochemical

analysis. Samples reporting gold values exceeding 1000 parts per billion (ppb) or silver values exceeding 30 parts per million (ppm) were fire assayed.

The most common pathfinder metals for the presence of gold mineralization in the Eskay Creek area are Au, Ag, As, Sb, Cu, Pb, Zn, Ba and Hg. Mercury analyses were conducted on the Bench and Battlement zone samples.

Analytical results of the geochemical survey are plotted on 1:5000 scale topographic base map No. 5 to 33 and (TV zone 5-13, Bench zone 14-23 and Battlement zone 24-33). Sample results below geochemical detection limits were not plotted.

Statistical analyses of the geochemical results are summarized in Appendix 4. The arithmetic mean, standard deviation and correlation coefficients for the various metal pairs are listed. Correlation coefficients between gold and 28 trace elements and between silver and 28 trace elements are of particular interest. Coefficients above 0.30 can be considered as a moderate correlation, coefficients less than 0.30 but greater than 0.20 can be considered as a weak correlation. Negative coefficients, with similar numerical value, may also be of significance and may suggest depletion or replacement of one metal by another.

Results

TV Zone

Analytical results for gold show ten samples above the statistical threshold (mean + one standard deviation), and six samples considered anomalous (mean + two standard deviations). Of these six anomalous samples, two lie within the area of mineralization discovered in 1993. Three samples, located in the area of L 6+00S and TL 6+50W, overlie the contact between auriferous mudstones and hydrothermally altered basaltic andesite. A sample at L 2+50N and TL 6+50W has 620 ppb Au. Follow up soil sampling, prospecting, rock sampling and diamond drilling in the immediate area did not discover the source of the gold anomaly.

Trace elements having significant correlation coefficients with gold are silver (0.4068), copper (0.3270) and lead (0.4082). Barium has a weak correlation coefficient (0.2380) with gold. Trace elements having weak correlation coefficients with silver are barium (0.2202), cadmium (0.2271), copper (0.2181), manganese (0.2457), molybdenum (0.2551), nickel (0.2269), lead

(0.2214), and zinc (0.2495). Copper and lead are considered indicators for gold or silver mineralization in this zone.

Arsenic is extremely high in four samples, three of which occur along TL 6+50W between L 1+50S and L 3+00S. Arsenic appears to be associated with iron rich slimy seeps which have iron values greater than 10000 ppm, Zinc values in the 500 to 1000 ppm range and elevated barium. The seeps emanate from coarse talus. It is probable that the metal source is much further upslope and is obscured by talus. None of the three As anomalies along the tie line have significant gold or silver values. Areas around the high As values were followed up with detailed soil sampling, prospecting and diamond drilling.

Zinc, although anomalous in several areas of the TV grid, has a weak correlation with gold and silver. An area in the southeast corner of the TV grid has coincident Zinc and Copper anomalies in four consecutive samples. Zinc values range from 566 ppm to 1069 ppm and Copper values range from "X" to 147 ppm. Gold and silver values are well below mean values in this area.

Bench Zone

Trace elements having moderate correlation coefficients with gold are, copper (0.4438), mercury (-0.3316) and phosphorous (0.5240). Barium (0.2519) and magnesium (0.2780) have lower coefficients with gold. Mercury (0.3290) has a moderate correlation with silver. Elements with a weak correlation with silver are aluminum (0.2860), molybdenum (0.2281) and lead (0.2181).

Anomalous gold samples at the Bench zone occur in water sorted river gravels from an area within the river flood plain. Close examination of the immediate flood plain and flood plains downstream suggest a placer source for these gold values. Less than one kilometer downstream are the remains of a placer gold operation, operated by prospectors in the early 1900's. Detailed examination of soil sample sites indicate gravel or sand was sampled as opposed to an actual soil horizon. Excluding these samples just two soil samples report threshold values (in fact without the placer sites the value for an anomaly is much lower). Both of these samples are on L 42+50S. These anomalies do not correlate with any of the other metals, although samples adjacent to these are anomalous in zinc.

On the Bench zone there are very few samples which have anomalous values in more than one metal. Of particular interest is the area east of L 16+00W and south of L 39+25S. Here, a number of samples have anomalous values in one of Pb, Hg, As, Cu, Ag, Au and Zn. Very few of these samples are anomalous in other metals. This area has a significant degree of metal enrichment and therefore requires further evaluation.

Battlement Zone

Copper (0.3570) is the only metal of the major trace elements that has a moderate correlation with gold. Mercury (0.1652) has a very low correlation coefficient with gold. However, one of the two samples anomalous in mercury is coincident with a sample anomalous in gold. The distribution of gold in soil values is erratic.

Molybdenum (0.4366) is the only metal with a moderate correlation with silver. Other metals with a weak correlation with silver are, titanium (0.2982), vanadium (-0.2060) and zinc (0.2954). One of the six samples anomalous in silver is anomalous in gold.

Although not correlating well with gold or silver, some samples anomalous in copper, zinc and barium occur in proximity to each other. The distribution of these three metals is erratic.

INDUCED POLARIZATION SURVEY

An induced polarization survey was conducted by Peter Walcott and Associates Ltd. A total of 16.5 kilometers (cut lines) were surveyed. Survey methods including instrumentation and electrode arrays are outlined by Peter E. Walcott and Associates Ltd. and are contained in Appendix 6.

DIAMOND DRILLING

Program

Twenty two NQ wireline surface diamond drill holes numbered 95-01 to 95-22 and totaling 3863.63 meters were drilled between September 5, 1995 and October 27, 1995. The drilling program was directed toward systematically testing for down dip extensions of gold-silver mineralization discovered on the TV zone by Kenrich Mining Corporation in 1993. Drilling also

tested the potential for Eskay Creek style mineralization as the geological environment of the TV and Bench zones is similar to that of Eskay Creek. Drill targets were selected using a combination geology, geochemistry (1993 and 1995) and induced polarization (1995).

Drill holes 95-05, 06, 07 were drilled on the Corey 20 mineral claim. All other diamond drill holes were drilled on the Corey 23 mineral claim.

Water for drilling was taken from surface drainages including creeks and ponds. Settling ponds downslope of the drill sites were placed so as to collect drill cuttings to minimize their release into the environment. Drill casing was left in all holes except 95-01 and 95-02. One hole, DDH 95-17 was abundant before its target depth at 57.91 meter due to caving and squeezing ground conditions. Core recoveries for the drilling program are excellent with most holes reporting 100 percent recovery throughout.

All drill core was systematically logged and sampled. Core was sampled at 1.5 to 1.0 meter intervals where alteration and/or mineralization was uniform. Narrower intervals were sampled where lithologic and mineralogic boundaries dictated. Much of the core was split with a Longyear mechanical core splitter, however, some was sawed to preserve particular rock or mineralization textures. Drill core from holes 95-08, 09, 10, 11, 12, 13 is stored at the Mojo camp at kilometer 52.8 of the Eskay Creek Mine road. Core from holes 95-03 and 95-15 is stored at Canamera Geological Ltd. North Vancouver laboratory. Core from the remaining holes is stored at Granmac Industries in Stewart, B.C.

Core samples were shipped to Eco-Tech Laboratories Inc. in Kamloops, B.C. for analysis. Core samples were analyzed for gold and silver plus 28 element trace elements using geochemical analytical techniques and preparation procedures are contained in Appendix 1. Samples containing greater than 1000 parts per billion gold and 30 parts per million silver were fire assayed using one assay ton samples. Some samples were geochemical analyzed for gold directly by fire assay. A total of 1549 core samples were taken. Four hundred and five samples were fire assayed for gold and 112 samples were fire assayed for silver. Gold was determined geochemically in 1220 samples. Drill logs are contained in Appendix 7. Cross sections of diamond drill holes can be found on Map Nos. 34 to 42.

Results

Mineralization

Gold mineralization occurs within two environments. The richest environment, the TV zone occurs in a locally discordant, pyritic, siliceous zone. This zone, up to 60 meters wide, trends northwest (330°) and dips moderately (60°) to the east. The zone occurs within an extensive package of hydrothermally altered rock intersected in 14 of the 22 drill holes. This auriferous zone is marked by moderate to intense silicification of volcanic and volcanoclastic rock and black mudstone. It is bounded by variably sericitized, carbonatized or silicified very fine grained brecciated basaltic andesite flows, lesser fine to medium grained massive basaltic andesite flows, assorted carbonaceous sediments and volcanoclastic sediment (of basaltic andesite composition). Pyrite is the dominant sulphide in this alteration zone. Pyrrhotite and sphalerite are rare within the auriferous zone although common within the alteration zone where gold is absent. Mineralization of this nature is most common in drill holes 95-03, 04, 14, 20, 21, and 15.

The second environment hosting gold mineralization is within rocks of a sedimentary package. Here, gold values occur in the range of 1 to 2 grams per tonne. This mineralization is within black, weakly silicified and carbonatized mudstone. Pyrite, the main sulphide within the mudstone, occurs as massive lenses, stringers and beds (50% pyrite over widths of 1 to 2 meters). Much of the pyrite is conformable to bedding, however, some is definitely cross cutting and is likely remobilized. Gold values in this environment occur where pyrite is most abundant and likely contained within the pyrite. Individual pyrite beds and stringers within mudstone range from 1 to 15 cm in thickness. Drill holes 95-15, 16, 18, 19, and 22 contain this type of gold mineralization. For the most part, these drill holes outline sedimentary horizons immediately east of the intense hydrothermal alteration of the TV zone.

In general the silicified and sericitized alteration of the TV zone is considered to be a hydrothermal center which acted as a conduit for the flow of metal bearing fluids into a submarine basin within which base and precious metals were deposited. The greatest potential for an economic auriferous volcanogenic massive sulphide deposit lies in the pyritic mudstone and associated sediments.

Highlights of mineralized sections from the 1995 diamond drilling program are summarized in Table 2 below:

TABLE 2
HIGHLIGHTS OF 1995 DIAMOND DRILLING

Hole No.	From (m)	To (m)	Au g/T	Ag g/T	Length (m)
95-03	5.50	21.52	1.84	46.91	16.02
includes	17.44	21.52	3.38	68.23	4.08
95-04	0.51	4.00	1.57	21.86	3.49
	12.67	27.38	2.65	44.44	14.71
includes	19.38	25.38	4.54	62.32	6.00
95-14	54.26	56.26	2.07	36.39	2.00
	85.83	89.83	1.74	15.26	4.00
includes	85.83	86.83	5.38	51.80	1.00
95-15	40.11	74.57	1.79	32.09	34.46
includes	61.00	62.00	28.90	70.63	1.00
includes	40.11	45.73	1.86	25.74	5.62
	94.29	98.29	1.29	107.23	4.00
95-16	52.12	71.66	1.28	28.06	19.54
includes	52.12	56.12	2.41	30.35	4.04
	84.28	90.28	1.14	5.44	6.00
95-18	116.23	127.33	1.92	77.51	11.10
includes	123.33	127.33	3.53	49.23	4.00
95-19	152.40	163.50	1.02	59.28	11.10
95-20	125.47	126.97	7.27	93.60	1.50
95-21	17.00	21.40	2.68	13.79	4.40
	29.60	39.80	1.46	69.92	10.20
95-22	38.11	49.46	1.19	29.69	11.35
includes	38.11	42.33	1.80	10.53	4.22

Structure

The TV zone occupies the west limb of a north plunging regional syncline (bedding indicators in drill core show tops consistently to the east). The axial plane trace of the fold trends northerly and is localized 50 to 200 meters east of diamond drill hole 95-14.

DDHs 95-08 to 95-13 tested a much deeper stratigraphic level than rock at the TV zone. It is estimated that these drill holes tested rock at least 500 meters east of a complimentary, north trending, regional anticline.

Generally, rock in the TV zone is weakly deformed. Mudstones and sericitized volcanic rocks are the most highly deformed. Deformation is characterized by one or more of strong elongation, transposition of contacts, disruption, gouge, and 1 cm to 10 meter scale folds.

Abrupt variations in lithologic thickness occur and may reflect irregular paleotopography rather than late deformation.

Alteration

Quartz

Silicification is marked by a significant increase in rock hardness, bleaching of the host rock and the presence of quartz stringers, veins and blebs. Silicification is predominantly pervasive. In conjunction with weak to strong sericitization, silicification imparts a dull light grey colour to basaltic andesite. Fracture controlled grey quartz veinlets in brecciated rock and bedding controlled quartz veins in black siltstone are subordinate. Apart from an increase in hardness the mudstones generally appear unaffected by silicification.

Sericite

Sericitization is the most common and widespread alteration observed in drill holes at the TV zone. It is most intense in the silicified zone and the immediate hanging wall and decreases away from the silicified zone. Sericitization imparts light green-grey, beige and white colours to the basaltic andesite. Sericitization in fine grain sedimentary rocks is characterized by a change in colour from grey to beige.

Carbonate

Pervasive carbonatization (calcite) is restricted to sericitized volcanic and volcanoclastic rocks, external to the silicified zones, and is locally developed in the TV zone.

Carbonatized basaltic andesites occur more widely in DDHs 95-08 to 95-13 than at the TV zone. Carbonatization for the most part is more extensively developed distally to the hydrothermal center (TV zone) than near it.

Examination of DDH 95-03 some time after logging and splitting indicates the presence of ankerite as evidenced by the creamy-beige weathering of an otherwise white carbonate.

Chlorite

Weak pervasive chloritized rock is restricted to the main silicified zone or as local black chlorite coating fractures and filling vesicles.

Weak chloritized hornblende occurs in some carbonatized, fine to medium grained basaltic andesite.

Blue-green chlorite possibly is rare, trace amounts occur in the auriferous siliceous portion of DDH 95-03.

Epidote

Sparse epidote occurs in association with a bleached conformable zone in basaltic andesite (DDH 95-22; 61.20 - 61.24 meters).

Leucoxene

An as of yet unidentified white, pink, locally beige mineral, probably leucoxene, occurs in fine to medium grained basaltic andesite. This mineral may have formed after magnetite, during hydrothermal activity. Some relatively unaltered basaltic andesite (DDH 95-05, 06, 07) attract

a hand magnet and is presumably magnetite bearing. This unknown mineral occurs in some green (non-hematitic) basaltic andesite in DDH 95-08.

Hematite

Hematitic volcanic rocks encountered in DDH 95-08 to 95-13 form a north trending unit which, if they extend south, may underlie the TV zone at a depth of 400 meters. Rare hematitic clots occur in hanging wall basaltic andesite at the TV zone. The presence of hematite is independent of intensity of sericitization or carbonatization. It also appears to occur in the absence of pyrite.

RECONNAISSANCE SURVEYS

Reconnaissance surveys were conducted at the GFJ and the Cumberland showings. The Cumberland showing which has seen considerable work in the past was examined in light of Eskay Creek style mineralization and host rocks. The GFJ showing was mapped systematically at 1:1000 scale and chip sampled. This work focused on an area where previous grab samples returned high grade gold assays of greater than 30 grams per tonne.

Cumberland Showing

Mapping on the Cumberland was preliminary in extent. However, it is now believed that the volcanic assemblage at the Cumberland is similar to that at Eskay Creek and that the rock types form distinctly mappable rock units. Additional mapping may allow massive sulphide mineralization observed in the Cumberland adit to be correlated stratigraphically. A full description of the mapping program and a proposal for future work is contained in Appendix 8. Geology of the Cumberland showing is found on Map 4.

GFJ Showing

Mapping and sampling on the GFJ showing located three narrow, subhorizontal quartz veins containing significant gold values, Gold in quartz veins with up to 51.92 grams per tonne gold (1.51 oz./ton gold) over 1 meter. Veins have subhorizontal dips and are discontinuous laterally. Although the physical attitude of the veins is not particularly encouraging, gold content of the mineralization is such that further work is definitely warranted. A full description

of the geology and mineralization of the GFJ showing is contained in Appendix 9. Geology of the GFJ showing is found on Map 3.

OBSERVATIONS, CONCLUSIONS AND RECOMMENDATIONS

Geochemistry

The geology and geochemistry of the TV, Bench and Battlement zones are distinct from each other. Copper is the only metal (of the major trace metal indicators) that correlates well with gold in all zones. Zinc and molybdenum correlate weakly with silver in all zones. Mercury on the Bench zone shows a negative correlation with gold and a positive correlation with silver. On the Battlement zone mercury does not correlate with either gold or silver.

Arsenic does not appear to be related to precious metals in any zone. Zinc, although anomalous in all zones, does not correlate spatially with gold. In fact two distinct mineralizing events operated, one for gold and another for silver. This is supported by the apparent lack of correlation between gold and silver, coupled with significant silver values across lithologic boundaries in drill holes.

The source of anomalous gold geochemical values on the Bench, Battlement and at TL 10+00W L 2+50S of the TV zone are yet to be located and thus require further exploration. The very high arsenic anomalies on the TV zone are yet unexplained and also require further exploration.

Geology

Trenching

Several outcrop areas warrant trenching and chip sampling prior to further diamond drilling. These include rhyolite outcrops at L 2+00S 10+30W, L 7+30S 4+50W, TL 10+00W L 4+00S and L 8+00S 0+20E. Relatively highly altered and pyritized outcrops at L 2+00S 15+00W and L 8+00S 14+25W also warrant trenching.

Mapping

In order to correlate the Bench and Battlement zones it will be necessary to geologically map the intervening areas at 1:5000 scale. The gridded area of the TV zone should be remapped at 1:1000 scale. A number of geochemical and geophysical anomalies require further investigation. Further work should focus on:

1. An area west of the TV grid with high silver and arsenic geochemical values occur at an apparent Hazelton volcanic / sediment contact.
2. At TL10+00W, L 2+50N to L 4+00N where unexplained gold in soil anomalies occur.
3. At the southeast corner of the TV grid where high zinc values occur in relative isolation with respect to precious metal values.

Diamond Drilling

Drilling was successful in locating areas of significant gold mineralization. In areas such as those covered with extensive coarse talus and rubble, drilling is the only viable exploration tool. Future drilling should be directed along two fronts. One drill should be utilized for grid drilling of the present trend of bedded mineralization east of TL 6+00W from L 0+00S to L 8+00S and the vein like mineralization of the TV zone. The second drill should test other targets throughout the TV grid the Bench and Battlement zones.

It is recommended that diamond drill logs be computer formatted in the field and that all 1995 drill logs be put into a computer format immediately, for viewing in a 3 D modeling system, prior to future program planning.

Reconnaissance

Cumberland Showing

The area south of Sulphurets Creek centered on the Cumberland showing should be mapped at 1:1000, as outline in the Appendix 1 by Bridge. The purpose of the detailed mapping would be to determine the stratigraphy of the area, relate known or additional mineralization to the

stratigraphy, determine the source of silt geochemical anomalies, and develop drill targets or areas for geophysical surveying.

GFJ Showing

The GFJ showings are geologically very interesting. Although the subhorizontal attitude and wide vertical spacing of the mineralized veins make it difficult to envisage a mining situation the extremely high gold values suggest that further exploration work is warranted.

Exploration in the future should focus on:

1. Prospect outward from the showings for the presence of more closely spaced and/or wider, subhorizontal vein systems.
2. Prospect the area between the GFJ and C-10 with particular regard to them being related genetically. Perhaps a subvertical vein system exists in the intervening area.
3. Prospect the area to the north and northeast, in the direction of the Cumberland showing, keeping in mind the source for the precious metals may be associated with Eskay Creek style volcanism and mineralization (even though this showing is hosted within Triassic Stuhini Group rocks).

Geophysics

The geophysical survey conducted over the TV grid although successful in locating numerous chargeability and resistivity anomalies, has not been evaluated by a geophysicist. It is recommended that a qualified geophysicist be retained to systematically evaluate the IP survey results, prior to further drilling.

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