Kennecott Canada Exploration Inc.

1997 GEOLOGICAL, GEOCHEMICAL, GEOPHYSICAL, AND DIAMOND DRILLING ASSESSMENT REPORT on the LEWIS CREEK OPTION

Statement of Work Event Numbers:
3114685, 3114489, 3114492, 3114494

NTS SHEET: 082F/08E and 082G/05W

Fort Steele Mining Division, British Columbia

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- Date of report -
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1.0 INTRODUCTION

1.1 Project Description

The Lewis Creek claims were staked between 1994 and 1997 by Sedex Mining Corp. to cover Lower and Middle Aldridge Formation stratigraphy considered prospective for "Sullivan–type" zinc-lead mineralization. Kennecott optioned the claims in early 1997 and conducted an exploration program of soil sampling, geological mapping, gravity and magnetic geophysical surveying, and diamond drilling. The results of the 1997 work are described in this report. This report also describes work done on the adjacent Henny 1 to 8 claims owned by Sedex Mining Corp. (Statement of Work Event No. 3114685).

1.2 Location, Access, and Physiography

The project area encompasses 6,251 hectares at the headwaters of Moyie River in southeastern British Columbia. The claims are centred at geographic coordinates 49° 18' north latitude by 116° 02' west longitude on NTS map sheets 82F/08 and 082G/05 (Figure 1).

Road access to the property is excellent with logging roads up Moyie River and its tributaries; Ridgeway, Lewis, and McNeil creeks. Access to the eastern side of the property is via logging roads up Lamb Creek. The closest community is Cranbrook, about 35 kilometres by gravel and paved roads northeast of the property.

The project area lies within the Moyie Range at the southern end of the Purcell Mountains, a sub-range of the Columbia Mountains of British Columbia. Topography is moderate with broad glacier formed valleys and steep sided, round-topped hills with local north facing cirques. Elevations range from 1,350 metres in the Ridgeway Creek valley to 2,100 metres on a peak east of the head of McNeil Creek. A thin layer of glacial till covers most of the property. Tree line is at about 2,000 metres.

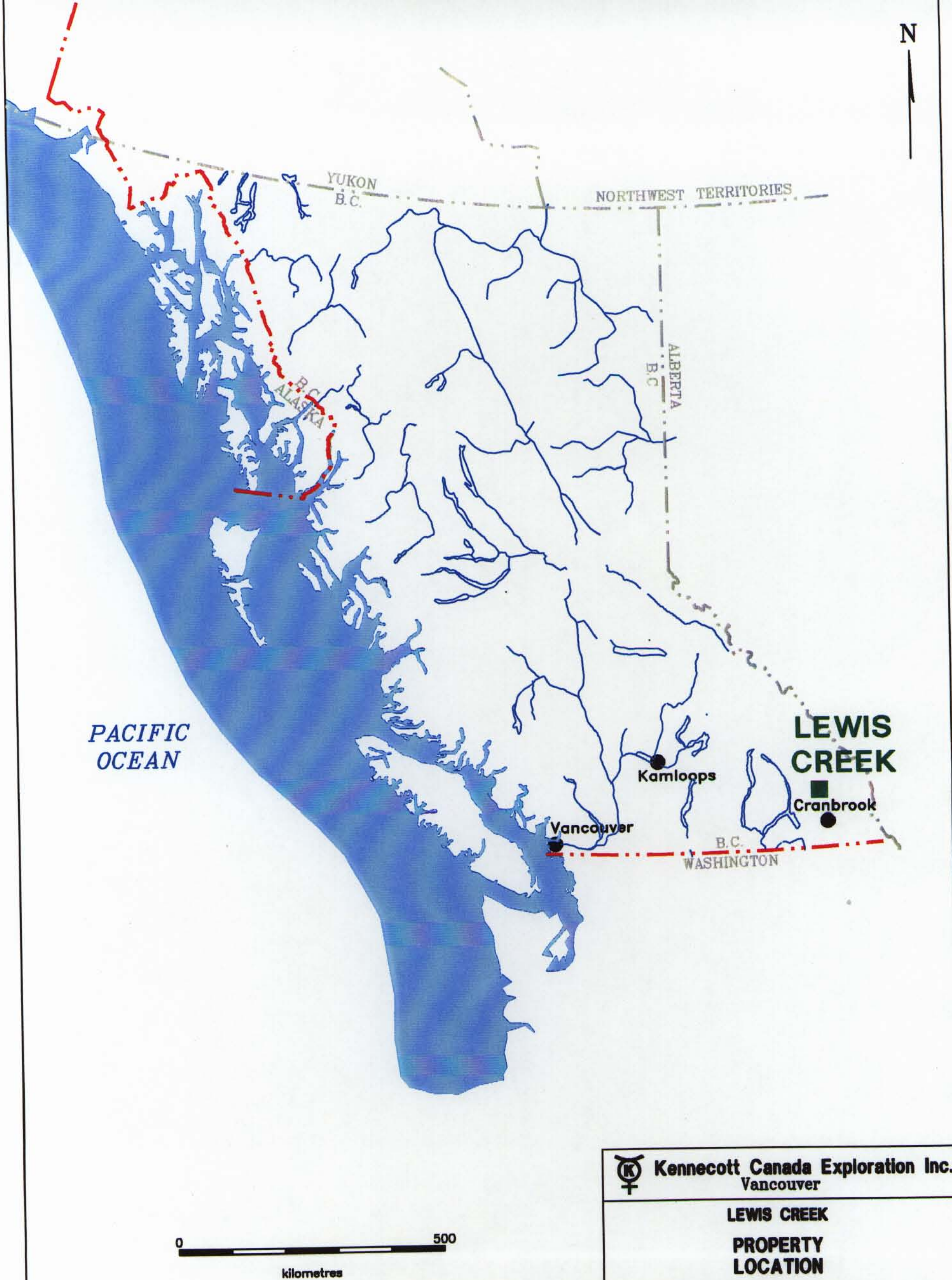
The climate is continental and is characterized by low to moderate precipitation and a wide temperature range. Temperatures range from about -30°C in the winter to over 30°C in the summer months. The field season for most of the project area is from late May to late October although snow cover in the higher regions can last well into June.

1.3 Claim Status

The Lewis Creek property consists of 51 two-post mineral claims and 11 modified grid mineral claims comprising 260 units that encompass 6,251 hectares (Figure 2). The claims are owned by Sedex Mining Corp. but were held under option by Kennecott Canada Exploration Inc. during the 1997 field season. A full list of the claims is attached as Appendix I.

1.4 Exploration History

Mineral exploration in the region began with placer gold mining on Wildhorse River beginning in the mid-1860's. Activity focused on placer gold deposits until the late 1800's when lead



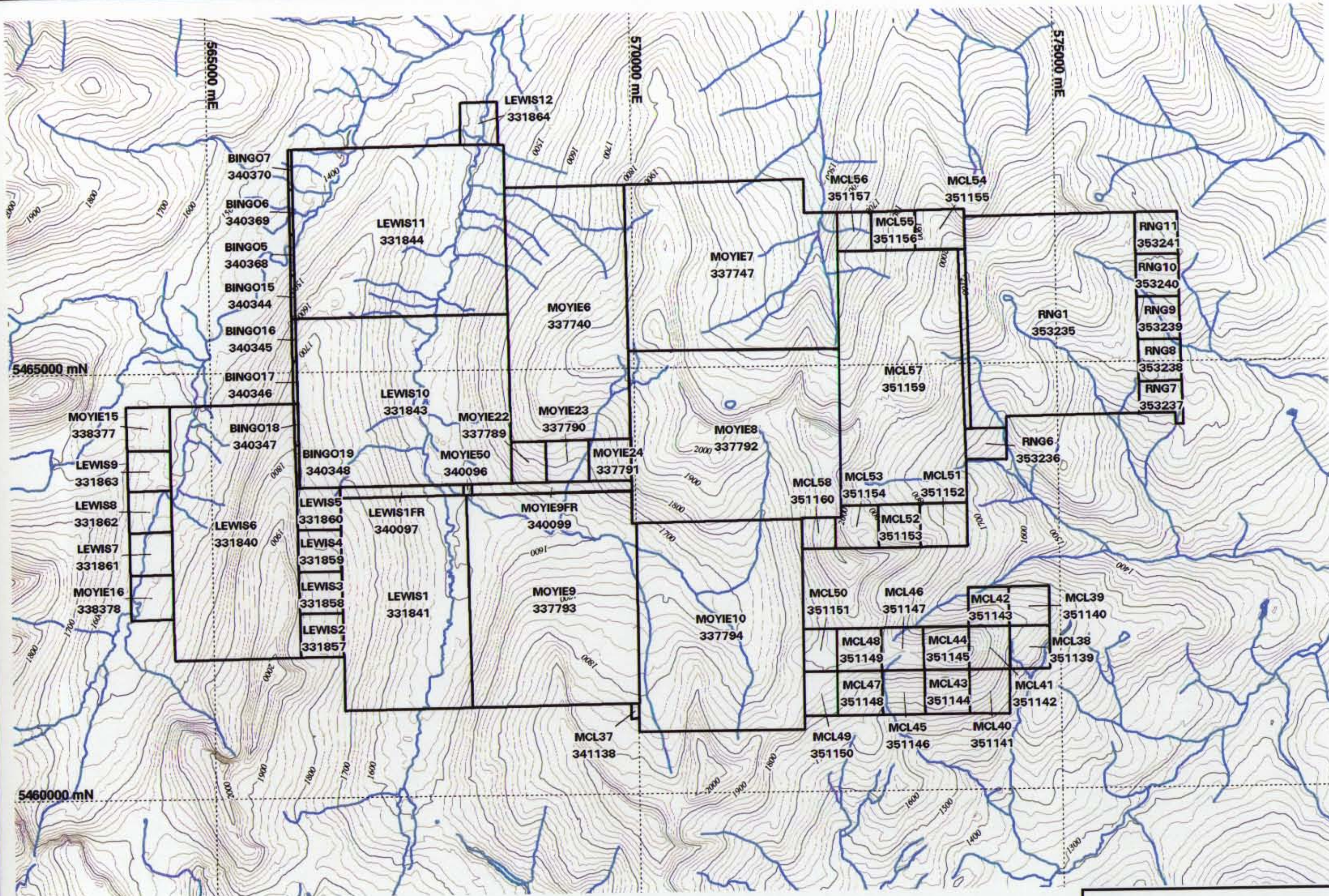
Kennecott Canada Exploration Inc.
Vancouver

LEWIS CREEK

PROPERTY LOCATION

BRITISH COLUMBIA, CANADA

Date:	11/021/98	Author:		Figure 1
File:	BCLOC	PS:	1 = 10	



0 2 4
kilometers

KENNECOTT CANADA EXPLORATION INC.
VANCOUVER

LEWIS CREEK

CLAIM MAP

BRITISH COLUMBIA, CANADA

Date: 21/02/98	Author: SC	NTS: 82 F, G
File: lewis_claims_assessment_march98.wor		Figure 2

deposits at St. Eugene and Sullivan were discovered. The region has been actively explored, primarily for lead and zinc, ever since.

The project area has seen little documented exploration in recent years. Government assessment reports indicate exploration programs by Cominco during the 1970's and 1980's and by South Kootenay Goldfields Inc. in the late 1980's. One drill hole (M89-01) was drilled on the present Lewis Creek property by South Kootenay Goldfields in 1989 (Klewchuk and Bapty, 1989). A hole drilled by Cominco in 1980 (L80-1) is on the southern boundary of the claims.

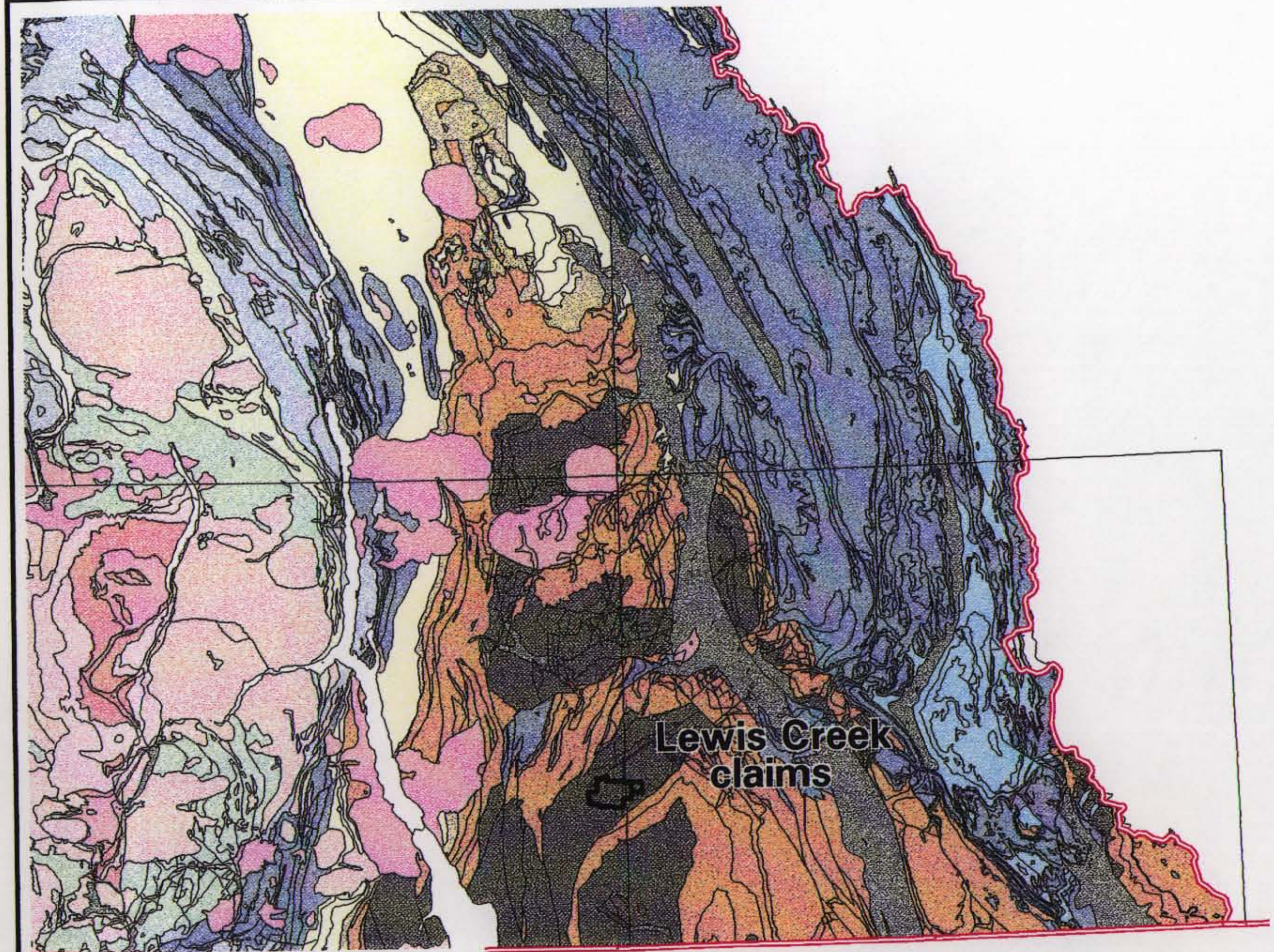
Work by Sedex Mining Corp./Kennecott Canada Exploration Inc. in 1996 consisted of reconnaissance mapping, prospecting, a gravity survey, an airborne magnetics survey, and soil, rock and stream sediment sampling.

2.0 REGIONAL GEOLOGY (after Franklin, 1996)

The region falls within the easternmost physiographic belt of the Canadian Cordillera, the Foreland fold and thrust belt. All strata are allochthonous and are thought to have been transported northeastward by low angle thrust faults on the order of 120 km from their original site of deposition. The dominant regional structural feature is the northward plunging Purcell Anticlinorium, which extends from northwestern Montana into southeastern British Columbia. The Anticlinorium is cored by Aldridge Formation strata and flanked by younger Proterozoic strata. A broad northeast trending structural zone cuts the northern portion of the Anticlinorium and marks a conspicuous change in the structural grain to the north. The Lewis Creek property lies along the western flank of the Purcell Anticlinorium and just north of the southern part of the northeast trending structural zone (Figure 3).

Rocks within the region have undergone several tectonic-thermal events. These include an early compressive event known as the East Kootenay Orogeny (approx. 1350 MA), an extensional event known as the Goat River Orogeny (approx. 800 MA), a later compressional event known as the Laramide Orogeny (approx. 100-60 MA), and recent extension. All of the Proterozoic rocks on the property have undergone greenschist facies rank regional metamorphism above the garnet and biotite isograds, presumably during the East Kootenay Orogeny.

The Lewis Creek property is underlain by strata belonging to the Proterozoic Aldridge Formation, part of the Purcell Supergroup. These rocks comprise a mafic sill-turbidite complex that was deposited in a rapidly subsiding intracontinental rift basin. Strata consists dominantly of turbidite packages ranging from thick-bedded quartzite-silty quartzite sequences to thin-bedded silty quartzite-siltite sequences. Intermittent laminite packages occur throughout the sequence which consist of alternating dark and light banded units to thinly laminated dark gray to black argillite-siltite packages. Nearly all of these laminite units contain strongly disseminated to laminated pyrite and/or pyrrhotite. The Aldridge Formation has been subdivided into three members, the lower, middle, and upper Aldridge. The lower Aldridge is composed of thin-bedded dark gray to black pyrrhotitic siltites (distal turbidites) with thick intercalations of mafic sills. The base of this member is not exposed and therefore its thickness is unknown. The middle Aldridge is characterized by medium to thick-bedded quartzites, silty quartzites, and siltites (medial to proximal turbidites) with fewer and generally thinner intercalated mafic sills. The unit averages a little more than 2 km in thickness. The



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Purcell Supergroup
Tectono-stratigraphic Legend

Syn to post accretionary
- Quaternary
- Cretaceous to Tertiary sediments and volcanics
- Eocene intrusions
- Cretaceous intrusions
- Jurassic intrusions

Intermontain Superterrane
- Quesnelia
- gneissic rocks
- Slide Mountain

Ancestral North America
- Kootenay terrane (Paleozoic to Mesozoic)
- Devonian plutons
- Foreland basin (Middle Jurassic to Tertiary)
- Miogeocline (Proterozoic to Mesozoic)
- Rift succession

Windermere (Late Proterozoic)
- Purcell Supergroup; Mount Nelson (Middle Proterozoic)
- Purcell Supergroup; post rift
- Middle Proterozoic plutons
- Purcell Supergroup; syn rift
- Basement; Early Proterozoic

0 25 50
Kilometers

KENNECOTT CANADA EXPLORATION INC.
VANCOUVER

LEWIS CREEK

REGIONAL GEOLOGY

BRITISH COLUMBIA, CANADA

Date: 12/1/98	Author:	NTS: 82 G,H,J,K
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upper Aldridge consists of thin-bedded dark gray to black siltites and is similar in appearance to the Lower Aldridge but lacking the thick sills. This unit averages about 500 m in thickness.

The most significant mineral deposit in the region is the world class Sullivan mine owned by Cominco Ltd. at Kimberley, B.C., 40 kilometres north of the Lewis Creek property. The Sullivan contained an estimated 170 million tonnes grading 5.5% zinc, 5.8% lead and 59 g/T silver. The Sullivan is a stratiform deposit hosted by siltstone and argillite of the lower Aldridge Formation immediately below the contact with the middle Aldridge formation. Sullivan is interpreted to be a sedimentary exhalitive (sedex) deposit formed in a fault-controlled sub-basin. The lower-middle Aldridge contact ("LMC") is commonly anomalous in zinc and lead and has been the focus of most zinc-lead exploration in the region.

3.0 1997 EXPLORATION PROGRAM

The 1997 exploration program on the Lewis Creek property was conducted between July 15, 1997 and November 30, 1997 in conjunction with work at the adjacent Irishman Creek property. Work consisted of 1:10,000 scale geological mapping, soil sampling, a gravity survey, a ground magnetics survey, and one diamond drill hole. Exploration was supervised by Steven Coombes, P.Geo., senior geologist for Kennecott Canada Exploration Inc. Fieldwork was by Steven Coombes; James Ryley, contract geologist; Martine Bedard, contract geologist; and Chris Roach, contract field assistant. The gravity survey was conducted by Quadra Surveys of Richmond, British Columbia.

Geological mapping was done at 1:10,000 scale in conjunction with the soil sampling and in areas with good outcrop exposure as determined from air photos. Mapping results are plotted on Figures 5a and 5b and compiled on Figure 4 at 1:20,000 scale.

Seventy three (73) soil samples were collected over selected 1996 gravity anomalies (Figure 6). Sample descriptions are attached as Appendix III. Chemex Labs of North Vancouver analyzed all samples using 32 element I.C.P. techniques. Soil sample results are attached as appendix IV.

The gravity survey consisted of forty (40) stations to provide in-fill data to better define four anomalies identified in a 1996 gravity survey. Station locations are shown on Figure 7. Equipment specifications and raw data are attached as Appendix V. The magnetics survey was a single line with 20 metre stations along a road for 2,000 metres using an EDA Omni Plus proton magnetometer. The line location is shown on Figure 5a. Raw data and a profile are attached as Appendix VI.

One diamond drill hole was drilled for 79 metres to evaluate a magnetic anomaly. The hole location is shown on Figures 4 and 5a and the drill log is attached as Appendix VII. Fourteen (14) core samples were collected and analyzed at Chemex Labs by 32 element ICP plus gold by Fire assay. Sample results are attached to the drill logs.

The total cost of exploration being applied for assessment purposes is $81,500.00.

4.0 EXPLORATION RESULTS

4.1 Geological Mapping

Rock Types

Rocks exposed on the property include medial and proximal turbidite packages of the lower and middle Aldridge Formation. Lithologies range from thick bedded coarse-grained clean quartzites fining upward into medium grained silty quartzites, to thin bedded silty quartzites grading upward into siltites. The typical turbidite package consists of medium bedded coarse-grained silty quartzite grading into fine-grained silty quartzite or siltite. Occasional inter-beds of laminated argillites occur throughout the sequence marking periods of depositional quiescence. These laminite packages consist of thinly laminated dark gray to black, commonly pyrrhotitic and/or pyritic siltites and argillites.

Fragmental rocks occur locally on the property and range from clast-supported breccias to matrix-supported breccias. The clast-supported variety can be both polylithic and monolithic. The monolithic type generally contains angular clasts of siltite whereas the polylithic type can consist of both angular and/or rounded clasts of quartzite to siltite. The matrix-supported fragmentals generally consist of small angular to sub-angular clasts of siltite and silty quartzite set in a dark gray silty or sandy matrix. The clast-supported fragmentals are typically discordant whereas the matrix-supported fragmentals are typically sub-concordant to concordant.

The sedimentary sequence is intruded by a series of tholeiitic to gabbroic dykes and sills thought to have been generated by a mantle plume beneath continental crust. These have been dated from 1467 MA to about 1433 MA. Field relationships including fluidization of sediments and shrinkage cracks suggest the sills were intruded into wet sediments. Generally, radiometric age dates indicate that the sills young upwards suggesting igneous activity continued throughout the depositional cycle of the Aldridge Formation.

Stratigraphy

Aldridge Formation strata range from the top of the lower Aldridge in the southeast corner of the claims to the middle to top of the middle Aldridge in the central part of the claims. This represents a stratigraphic interval of about 2000 metres (excluding sills). About 1600 metres of strata is middle Aldridge Formation. Sills expand the stratigraphic interval by another 700+ metres (see section on Figure 4).

Stratigraphic control is established through identification of "marker" units by Peter Klewchuk and Dave Pighin. The markers are laminite sequences in the middle Aldridge with alternating light and dark bands that can be correlated band for band throughout much of the region. The markers were originally identified and named by Cominco during work around the Sullivan deposit. Three of the markers are particularly useful on the Lewis property; Hiawatha, Sundown and Meadowbrook.

The distribution of thick mafic sills can also be used as a rough stratigraphic reference. This is a very useful mapping tool since the sills are very distinct, easily traced, and are resistant to weathering and erosion. There appear to be at least five sills of significant thickness (>50 m) that are persistent across the property. These are generally fairly uniform in terms of stratigraphic position within a given structural block. Discordance and the "jumping" of stratigraphy by sills does occur locally.

The lowermost sill in the sequence occurs from approximately 100 m below the Sullivan Horizon to perhaps 100 m above the Sullivan Horizon. It ranges from 50 m to more than 250 m in thickness. It is well exposed along the southeastern portion of the property just north of the Moyie Fault. It was also intersected below the Sullivan Horizon in core hole SMC95-1.

The next significant sill up-section ranges from approximately 500 to 700 m above the Sullivan Horizon and is 50 to 260 m thick. This sill is exposed along the southeastern portion of the property where it ranges from 50 to 75 m in thickness. It was also intersected in SMC95-1 with a minimum thickness of 185 m, and in Cominco's L80-1 drill hole where it was 200 m thick.

Further up-section are two sills known as the Sundown sills. These are exposed in the central part of the property. The base of the lowermost sill ranges from 700 to 800 m above the previous sill. Its average thickness is approximately 100 m. The Sundown marker is, at least locally, split by the lower Sundown sill. The upper Sundown sill has its base approximately 130 m above the lower sill and has a minimum thickness of 50 m.

The uppermost sill within the Middle Aldridge Formation is the Meadowbrook sill. The top of this sill averages approximately 20 to 50 m below the Meadowbrook marker. Its thickness ranges from 60 to 90 m.

Alteration

Several forms of hydrothermal alteration have been observed locally throughout the property. These include tourmaline alteration, biotite alteration, albitization, chlorite-albite alteration, muscovite alteration, and silicification. Two areas with significant alteration are Active Ridge near drill hole SMC95-01 (muscovite, albite-chlorite), and at the head of McNeil Creek (muscovite-chlorite, tourmaline).

Tourmaline Alteration

There are two types of tourmaline alteration, massive aphanitic replacement (tourmalinization) and selective replacement of beds by euhedral tourmaline needles. Tourmaline plus quartz veins are commonly found associated with both types of tourmaline alteration.

Biotite Alteration

Biotite alteration is commonly found in association with tourmaline needle alteration and consists of coarse crystalline flakes disseminated throughout the rock and locally as thin massive beds of biotite books. Biotite also occurs as isolated porphyroblasts associated with massive silty beds disrupted by sill emplacement.

Albite Alteration

Albite alteration occurs as massive replacement bodies, as spotty replacements and breccia matrix fillings with sericite along brittle structures, and as massive aphanitic albite-chlorite hornfels adjacent to mafic intrusions. Large bodies of massive albite replacement tend to occur immediately above discordant mafic intrusions, particularly where a concordant body becomes locally discordant.

Muscovite Alteration

Muscovite alteration consists of clusters of creamy to honey colored masses found pervasively replacing detrital feldspars and phyllosilicates. Locally it is represented by greenish colored larger crystalline flakes pervasively replacing siltites and argillites. The latter is generally in association with disseminated pyrrhotite. Both forms of muscovite alteration are widespread and generally occur near large structures.

Silicification

Silicification is typically associated with late brittle structures, veins, and locally, dewatering fragmentals.

Structure

Generally the structural block in which the property sits consists of gently inclined strata with dominant westward dips reflecting its regional position on the western flank of the Purcell Anticlinorium. The property itself is on a gentle, open, upright anticlinal flexure that plunges gently to the south-southwest. Axial planar cleavage is subtle but distinct in the finer grained rocks throughout the property.

Mapping has tentatively identified at least five major fault trends. The oldest appears to be a northwest trending (310-335°) set linked to syn-sedimentary or diagenetic processes. One of these structures links the Active Ridge fragmentals with a large area of fragmentals on the west side of the Moyie River and another cuts through the "Big Lewis fragmentals" immediately south of the southwest corner of the claims. Gabbro dykes locally intrude these structures.

The oldest structures are cut by a set of prominent north-northeast trending normal faults that define a series of half-grabens with west side down geometry. The most prominent fault of this group is the McNeil Fault exposed on the east side of the property. This fault has a large magnitude displacement of perhaps as much as 2000 m, juxtaposing Lower Aldridge against Middle Aldridge strata along the southeast corner of the property. The "Ridgeway Lineament" is a parallel north trending feature prominently shown on airborne magnetics images that is locally intruded by a gabbro dyke. The Rabbit Foot Fault has a northwest trend but shows similar west side down geometry and may be related to the same extensional event.

Locally, this group of structures is cut by west-northwest trending (280-300°) sub-vertical faults. These faults appear to be largely strike-slip with a net sinistral and north side down displacement. The most prominent example is the Ice Fault.

All of the above faults are cut by a series of northeast trending (050-060°) faults that are prominent in the north-central part of the property. These structures belong to the regionally important Moyie Fault system, a Laramide-aged right-lateral reverse fault with as much as 12 km of estimated displacement (Hoy, 1992). The main Moyie Fault traverses the southeastern corner of the property and juxtaposes Kitchener Formation on the south against Aldridge

Formation on the north. All of the faults belonging to this group which have been mapped on the property are southeast dipping reverse faults and are therefore antithetic to the main Moyie Fault.

The youngest sets of faults on the property are north trending (345-355°) high angle normal faults that are prominent throughout the region. These are a product of Late Tertiary extension.

4.2 Soil Geochemistry

Soil sampling (Figure 6) failed to identify any notable lead or zinc anomalies. The highest zinc value was 196 ppm from a single station anomaly (VR81554A). The second highest zinc value was 154 ppm, also a single station anomaly (VR81590A) that may be caused by contamination from a nearby road. Lead values are generally low with the highest values (both 72 ppm) from two consecutive stations (VR81710A, VR81711A) near the head of McNeil Creek.

4.3 Geophysical Surveys

Gravity

The gravity survey detailed four broad gravity anomalies identified during 1996 exploration work. In general the gravity survey showed slightly higher densities spatially related to gabbro bodies. The magnitude of anomalies corresponds with expected results based on specific gravity measurements from rocks in the area. Gabbro typically has an S.G. of 3.0 to 3.1 and middle Aldridge sediments range from 2.75 to 2.85.

Magnetics

The ground magnetics survey detailed a portion of a large magnetic high identified during a 1996 airborne magnetics survey. The ground survey was successful in resolving individual peaks within the broad high. Some of the responses, specifically from stations 200 to 260 and 420 to 600, are anomalously high because of proximity to a power-line and should be disregarded.

4.4 Diamond Drilling

Diamond drill hole K97-01 tested a discreet peak within the broad magnetic high described above. The hole was collared in relatively altered middle Aldridge quartz wacke and intercepted an albitized shear zone with magnetite from 51 to 57 metres and an albitized fault breccia with magnetite from 65.5 to 66.3 metres. From 66.3 to 77 metres the hole cut a gabbro sill containing 5 to 10% magnetite in stringers and disseminations throughout. The hole ended at 79 metres in granophyric altered quartz wacke.

The magnetite in the core explains the high magnetic response in the area. Fourteen core samples were collected and analyzed for gold and 32 element ICP. No economic mineralization was encountered in the hole.

5.0 CONCLUSIONS

The 1997 exploration program successfully defined the lithology, general stratigraphy and major structures on the property. It located areas of exploration interest for sedex deposits by identifying potential syn-sedimentary structures through mapping of alteration and fragmental units. It also defined and tested a significant magnetic anomaly.

Magnetic highs are attributed to magnetite (± pyrrhotite) concentrations where faults intersect gabbro bodies. They are considered to be a relatively late stage event unrelated to syn-genetic mineralizing events. One magnetic high occurs along a Moyie Fault parallel structure suggesting the magnetite may be as late as Laramide age, perhaps related to the Cretaceous intrusions in the region.

Two areas of sedex exploration interest are high-lighted by the program. One is on Active Ridge near the western margin of the claims and features syn-sedimentary conglomerates, albite alteration and muscovite and chlorite alteration. The target appears to straddle one of the early 310° to 335° fault sets. The target was drill tested by Sedex Mining Corp. in 1995-96 with disappointing results.

The second target is near the headwaters of McNeil Creek with widespread tourmaline alteration and muscovite-chlorite alteration. The target occupies a structural block defined by the McNeil, Rabbit Foot, Ice, and Moyie faults that has not been drill tested. The alteration is of interest but the lack of significant supportive geochemistry downgrades the potential for a "world-class" lead-zinc deposit.

The option on the claims was terminated after evaluating the results of the 1997 program.

6.0 BIBLIOGRAPHY

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Klewchuk, P. and Bapty, M. (1989): Property Development Report – McNeil. Report for South Kootenay Goldfields Inc., 45 p.

7.0 STATEMENT OF QUALIFICATIONS

I, Steven Coombes, of the village of Invermere, Province of British Columbia, DO HEREBY CERTIFY THAT:

1) I am a project geologist employed by Kennecott Canada Exploration Inc. with a business office at 354–200 Granville Street, Vancouver, British Columbia, Canada, V6C 1S4.

2) I am a graduate in Geology with a Bachelor of Science degree from the University of British Columbia in 1983.

3) I am a registered member of the Association of Professional Engineers and Geoscientists of the Province of British Columbia (No. 19713).

4) I am a Fellow of the Geological Association of Canada (No. F5457).

5) I have practiced my profession as a geologist for the past fifteen years.

    Four years pre-graduate field experience in geology, geochemistry, and geophysics with Noranda Exploration Co. Ltd. (seasonal, 1979 to 1982).

    Two years as exploration geologist with Rhyolite Resources Inc. (1983 to 1985).

    Five years as exploration geologist with Searchlight Consultants Inc. (1985 to 1990).

    Five years as consulting geologist and proprietor of Summit Geological (1990 to 1995).

    Three years as project geologist for Kennecott Canada Exploration Inc. (1995 to 1998).

6) I directly supervised the field work on the Lewis Creek property during the 1997 field season and wrote this report to document the results.

Dated:

February 28, 1998

Steven Coombes, P.Geo.
Project Geologist

Appendix I

List of Mineral Claims

Claim Name	Record Number	Location Year	Current Expiry Date	Units	New Expiry Date *
LEWIS 6	331840	1994	10/17/1998	18	10/17/2001
LEWIS 1	331841	1994	10/18/2001	15	10/18/2003
LEWIS 10	331843	1994	10/16/1999	20	10/16/2001
LEWIS 11	331844	1994	10/15/1998	20	10/15/2001
LEWIS 2	331857	1994	10/17/1998	1	10/17/2001
LEWIS 3	331858	1994	10/17/1998	1	10/17/2001
LEWIS 4	331859	1994	10/17/1998	1	10/17/2001
LEWIS 5	331860	1994	10/17/1998	1	10/17/2001
LEWIS 7	331861	1994	10/17/1998	1	10/17/2001
LEWIS 8	331862	1994	10/17/1998	1	10/17/2001
LEWIS 9	331863	1994	10/17/1998	1	10/17/2001
LEWIS 12	331864	1994	10/16/1999	1	10/16/2001
MOYIE 6	337740	1995	07/08/1999	18	07/08/2000
MOYIE 7	337747	1995	07/08/1999	20	07/08/2000
MOYIE 22	337789	1995	07/07/2001	1	07/07/2002
MOYIE 23	337790	1995	07/07/2001	1	07/07/2002
MOYIE 24	337791	1995	07/07/2001	1	07/07/2002
MOYIE 8	337792	1995	07/08/2000	20	07/08/2001
MOYIE 9	337793	1995	07/09/2001	20	07/09/2002
MOYIE 10	337794	1995	07/09/1999	20	07/09/2000
MOYIE 15	338377	1995	07/18/1998	1	07/18/2001
MOYIE 16	338378	1995	07/18/1998	1	07/18/2001
MOYIE 50	340096	1995	09/14/2001	1	09/14/2002
LEWIS 1 FR	340097	1995	09/14/2001	1	09/14/2002
MOYIE 9 FR	340099	1995	09/14/2001	1	09/14/2002
BINGO 15	340344	1995	09/23/1998	1	09/23/2001
BINGO 16	340345	1995	09/23/1998	1	09/23/2001
BINGO 17	340346	1995	09/23/1998	1	09/23/2001
BINGO 18	340347	1995	09/23/1998	1	09/23/2001
BINGO 19	340348	1995	09/23/1998	1	09/23/2001
BINGO 5	340368	1995	09/12/1998	1	09/12/2001
BINGO 6	340369	1995	09/12/1998	1	09/12/2001
BINGO 7	340370	1995	09/12/1998	1	09/12/2001
MCL 37	351138	1996	09/16/1998	1	09/16/2000
MCL 38	351139	1996	09/14/1998	1	09/14/2000
MCL 39	351140	1996	09/14/1998	1	09/14/2000
MCL 40	351141	1996	09/14/1998	1	09/14/2000
MCL 41	351142	1996	09/14/1998	1	09/14/2000
MCL 42	351143	1996	09/14/1998	1	09/14/2000
MCL 43	351144	1996	09/15/1998	1	09/15/2000
MCL 44	351145	1996	09/15/1998	1	09/15/2000
MCL 45	351146	1996	09/15/1998	1	09/15/2000
MCL 46	351147	1996	09/15/1998	1	09/15/2000
MCL 47	351148	1996	09/15/1998	1	09/15/2000
MCL 48	351149	1996	09/15/1998	1	09/15/2000
MCL 49	351150	1996	09/15/1998	1	09/15/2000
MCL 50	351151	1996	09/15/1998	1	09/15/2000
MCL 51	351152	1996	09/16/1998	1	09/16/2000
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MCL 57	351159	1996	09/17/1998	18	09/17/2000
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RNG 1	353235	1997	01/06/1998	20	01/06/2000
RNG 6	353236	1997	01/06/1998	1	01/06/2000
RNG 7	353237	1997	01/06/1998	1	01/06/2000
RNG 8	353238	1996	12/21/1997	1	12/21/2000
RNG 9	353239	1996	12/21/1997	1	12/21/2000
RNG 10	353240	1996	12/21/1997	1	12/21/2000
RNG 11	353241	1996	12/21/1997	1	12/21/2000

* Upon acceptance of the work described in this report

Appendix II

1997 Expenditures

Wages:			
S. Coombes	25 days @ $300.00	7,500.00	
J. Ryley	32 days @ $275.00	8,800.00	
M. Bedard	20 days @ $200.00	4,000.00	
C. Roach	31 days @ $150.00	4,650.00	
Total Wages			24,950.00
Geochemical analysis:			
73 soil (@ $9.85/sample)		720.00	
14 drill core (@ $21.40/sample)		300.00	
Total geochemical analysis			1,020.00
Diamond Drilling (79 metres @ $85.00/m, incl. transport)			6,730.00
Gravity Survey (gravimeter, GPS, crew)			9,500.00
Magnetometer rental			300.00
Truck rental			6,000.00
ATV rental			4,300.00
Fuel			1,100.00
Communications			2,000.00
Supplies			3,500.00
Freight/Courier			650.00
Travel expenses			2,500.00
Room and board			3,300.00
Topographic base maps (TRIM)			2,000.00
Report (writing, drafting, and reproduction)			6,250.00
Management fee (10%)			7,400.00
TOTAL EXPENDITURES			**81,500.00**

Appendix III

Soil Sample Descriptions

SAMPLE	GEOL	CLAIM	UTM_EAST	UTM_NRTH	COLOUR	DPTH_CM	HORIZON	%_ORG	CLAY	MOIST
VR 81501 A	MB	Lewis 1	567252	5461133	TA	20	B	5	L	Dry
VR 81552 A	CR	Moyie 6	569125	5467000	BN	35	B	10	L	Wet
VR 81553 A	CR	Moyie 6	569327	5467004	BN	25	B	15	M	Wet
VR 81554 A	CR	Moyie 6	569528	5467000	LTBN	40	B	15	L	Wet
VR 81555 A	CR	Moyie 6	569734	5467004	LTBN	5	B	20	L	Dry
VR 81556 A	CR	Moyie 7	569931	5467000	LTBN	25	B	15	L	Dry
VR 81557 A	CR	Moyie 7	570075	5467005	LTBN	35	B	15	L	Dry
VR 81558 A	CR	Moyie 7	570133	5467004	LTBN	15	B	10	L	Dry
VR 81559 A	CR	Moyie 7	570227	5467004	LTBN	15	B	10	L	Dry
VR 81560 A	CR	Moyie 7	570334	5467000	LTBN	20	B	10	L	Dry
VR 81561 A	CR	Moyie 7	570433	5466996	LTBN	30	B	5	L	Dry
VR 81562 A	CR	Moyie 7	570532	5467000	LTBN	20	B	10	L	Dry
VR 81563 A	CR	Moyie 7	570626	5467004	LTBN	35	B	10	L	Dry
VR 81564 A	CR	Moyie 7	570729	5467000	BN	45	B	10	L	Dry
VR 81565 A	CR	Moyie 7	570832	5467000	LTBN	25	B	10	L	Dry
VR 81566 A	CR	Moyie 7	570935	5467004	LTBN	25	B	10	L	Dry
VR 81567 A	CR	Moyie 7	571128	5467000	LTBN	15	B	10	L	Dry
VR 81568 A	CR	Moyie 7	571333	5467000	BN	35	B	10	M	Wet
VR 81569 A	CR	Moyie 7	571535	5467004	LTBN	20	B	10	L	Dry
VR 81570 A	CR	Moyie 7	571295	5466502	LTBN	30	B	20	L	Wet
VR 81571 A	CR	Moyie 7	571089	5466498	BN	25	B	15	L	Dry
VR 81572 A	CR	Moyie 7	570990	5466498	BN	15	B	20	M	Dry
VR 81573 A	CR	Moyie 7	570892	5466502	BN	15	A	25	L	Dry
VR 81574 A	CR	Moyie 7	570789	5466498	BN	10	B	15	L	Dry
VR 81575 A	CR	Moyie 7	570690	5466502	LTBN	30	B	10	L	Wet
VR 81576 A	CR	Moyie 7	570592	5466502	BN	10	B	10	L	Dry
VR 81577 A	CR	Moyie 7	570493	5466498	LTBN	15	B	10	L	Dry
VR 81578 A	CR	Moyie 7	570386	5466502	LTBN	5	B	10	L	Dry
VR 81579 A	CR	Moyie 7	570291	5466502	LTBN	45	B	10	L	Dry
VR 81580 A	CR	Moyie 7	570193	5466502	LTBN	10	B	15	L	Dry
VR 81581 A	CR	Moyie 7	570090	5466502	LTBN	30	B	5	L	Dry
VR 81582 A	CR	Moyie 6	569893	5466502	LTBN	20	B	10	L	Dry
VR 81583 A	CR	Moyie 6	569687	5466502	BN	45	B	10	L	Wet
VR 81584 A	CR	Moyie 6	569481	5466502	BN	30	B	15	L	Wet
VR 81585 A	CR	Moyie 6	569288	5466502	BN	40	B	5	L	Wet
VR 81586 A	CR	Moyie 6	569091	5466502	BN	50	B	5	L	Dry
VR 81587 A	CR	MCL 57	573438	5465971	LTBN	40	B	5	L	Dry
VR 81588 A	CR	MCL 57	573405	5465860	BN	10	B	15	L	Dry
VR 81589 A	CR	MCL 57	573367	5465769	LTBN	30	B	10	L	Wet
VR 81590 A	CR	MCL 57	573197	5465630	LTBN	25	B	10	L	Dry
VR 81591 A	CR	MCL 57	573106	5465575	BN	20	B	10	L	Dry
VR 81592 A	CR	MCL 57	573064	5465486	LTBN	15	B	10	L	Dry

SAMPLE	GEOL	CLAIM	UTM_EAST	UTM_NRTH	COLOUR	DPTH_CM	HORIZON	%_ORG	CLAY	MOIST
VR 81593 A	CR	MCL 57	573062	5465384	BN	15	B	10	L	Dry
VR 81594 A	CR	MCL 57	573047	5465284	BN	20	B	10	L	Wet
VR 81595 A	CR	MCL 57	573034	5465195	BN	10	B	10	L	Wet
VR 81596 A	CR	MCL 57	573019	5465092	BN	25	B	10	L	Wet
VR 81597 A	CR	MCL 57	572989	5465014	BN	30	B	10	L	Wet
VR 81598 A	CR	MCL 57	572970	5464930	YWBN	30	B	5	L	Dry
VR 81599 A	CR	MCL 57	572940	5464845	BN	30	B	5	L	Dry
VR 81600 A	CR	MCL 57	573293	5465704	LTBN	25	B	10	L	Dry
VR 81634 A	SC	Henny 4	573379	5462446	BN	40	B	2	M	Dry
VR 81635 A	SC	Henny 2	573513	5462551	BN	30	B	5	L	Dry
VR 81636 A	SC	Henny 2	573689	5462671	BNBK	40	B	10	L	Wet
VR 81637 A	SC	Henny 2	573850	5462767	RDBN	20	B	10	L	Dry
VR 81638 A	SC	MCL 51	573927	5462977	RDBN	30	B	5	L	Dry
VR 81639 A	SC		573979	5463140	ORBN	30	B	5	L	Dry
VR 81640 A	SC	MCL 51	573905	5463375	BN	30	B	2	L	Dry
VR 81641 A	SC		574035	5463549	YWBN	30	B	0	L	Dry
VR 81642 A	SC		574025	5463648	BN	30	B	0	L	Dry
VR 81643 A	SC	RNG 6	573931	5463884	DKBN	30	B	5	L	Wet
VR 81667 A	JR	Lewis 1	567266	5461100	TN	40	B	5	L	Dry
VR 81701 A	CR	MCL 57	572679	5464992	LTBN	30	B	10	L	Dry
VR 81702 A	CR	MCL 57	572715	5465067	BN	10	B	10	L	Wet
VR 81703 A	CR	MCL 57	572741	5465167	LTBN	10	B	15	L	Dry
VR 81704 A	CR	MCL 57	572761	5465263	LTBN	30	B	5	L	Dry
VR 81705 A	CR	MCL 57	572781	5465355	LTBN	5	B	15	L	Dry
VR 81706 A	CR	MCL 57	572811	5465450	LTBN	25	B	10	L	Dry
VR 81707 A	CR	MCL 57	572868	5465538	LTBN	10	B	10	L	Dry
VR 81708 A	CR	MCL 57	572901	5465632	LTBN	30	B	5	L	Dry
VR 81709 A	CR	MCL 57	572935	5465735	BN	20	B	10	L	Dry
VR 81710 A	CR	MCL 57	572993	5465817	DKBN	20	B	20	L	Dry
VR 81711 A	CR	MCL 57	573076	5465884	BN	30	B	10	L	Wet
VR 81712 A	CR	MCL 57	573155	5465957	YWBN	10	B	5	L	Wet

Appendix IV

Soil Sample Results

Lewis Creek Project

Soil sample results

Sample	Ag_ppm	Al_%	As_ppm	Ba_ppm	Be_ppm	Bi_ppm	Ca_%	Cd_ppm	Co_ppm	Cr_ppm	Cu_ppm	Fe_%	Ga_ppm	Hg_ppm	K_%	La_ppm
VR81501A	0.2	1.59	2	60	-0.5	-2	0.04	-0.5	6	13	14	3.21	-10	-1	0.22	10
VR81552A	0.2	2.38	-2	90	0.5	-2	0.26	-0.5	14	24	30	2.67	-10	-1	0.15	10
VR81553A	-0.2	4.06	2	160	1.5	-2	0.1	-0.5	14	26	49	3.29	10	-1	0.18	30
VR81554A	0.2	3.57	6	70	0.5	-2	0.09	-0.5	13	16	17	2.76	-10	-1	0.07	-10
VR81555A	-0.2	3.88	6	70	0.5	-2	0.05	-0.5	5	11	14	2.84	10	-1	0.05	-10
VR81556A	-0.2	4.94	2	60	0.5	-2	0.04	-0.5	10	8	40	1.95	-10	-1	0.03	-10
VR81557A	-0.2	3.37	-2	120	0.5	-2	0.12	-0.5	10	10	60	2.33	-10	-1	0.08	-10
VR81558A	-0.2	3.56	4	60	-0.5	-2	0.09	-0.5	6	16	77	3.58	-10	-1	0.08	-10
VR81559A	-0.2	5.37	-2	50	0.5	-2	0.03	-0.5	5	14	20	3.38	-10	-1	0.06	-10
VR81560A	-0.2	3.09	2	40	-0.5	-2	0.04	-0.5	4	14	15	3.55	-10	-1	0.08	10
VR81561A	0.2	3.72	8	40	-0.5	-2	0.03	-0.5	4	15	13	3.55	10	-1	0.07	-10
VR81562A	-0.2	2.07	-2	60	0.5	-2	0.05	-0.5	5	13	17	2.6	-10	-1	0.11	10
VR81563A	-0.2	3.04	4	60	0.5	-2	0.08	-0.5	8	14	15	2.82	-10	-1	0.1	10
VR81564A	0.2	2.57	-2	60	1	-2	0.12	-0.5	16	16	28	3.6	-10	-1	0.16	20
VR81565A	-0.2	2.45	6	50	0.5	-2	0.07	-0.5	8	13	22	2.97	-10	-1	0.13	20
VR81566A	-0.2	4.56	2	60	0.5	-2	0.07	-0.5	9	11	25	2.35	-10	-1	0.07	-10
VR81567A	-0.2	2.19	-2	30	-0.5	-2	0.12	-0.5	6	12	24	2.97	-10	-1	0.12	10
VR81568A	-0.2	2.07	-2	50	0.5	-2	0.18	-0.5	7	9	25	2.83	-10	-1	0.1	10
VR81569A	-0.2	1.41	-2	40	-0.5	-2	0.1	-0.5	6	9	18	2.28	-10	-1	0.12	10
VR81570A	-0.2	2.27	2	50	-0.5	-2	0.07	-0.5	5	12	17	2.83	-10	-1	0.1	10
VR81571A	-0.2	5.72	4	40	0.5	-2	0.08	-0.5	6	18	14	2.88	-10	1	0.05	-10
VR81572A	-0.2	2.04	6	50	-0.5	-2	0.09	-0.5	3	23	12	3.56	10	-1	0.17	10
VR81573A	-0.2	1.72	-2	50	1	-2	0.08	-0.5	18	11	40	2.02	-10	-1	0.1	10
VR81574A	-0.2	1.83	-2	50	0.5	-2	0.06	-0.5	9	15	20	2.8	-10	1	0.19	20
VR81575A	-0.2	2.85	-2	50	0.5	-2	0.05	-0.5	6	16	17	3.66	-10	-1	0.14	10
VR81576A	-0.2	2.25	2	40	0.5	-2	0.05	-0.5	4	11	16	2.85	10	-1	0.09	10
VR81577A	-0.2	4.15	-2	40	-0.5	-2	0.04	-0.5	4	16	16	3.27	-10	-1	0.09	-10
VR81578A	-0.2	4.68	2	50	-0.5	-2	0.03	-0.5	4	12	14	3.14	-10	-1	0.06	-10
VR81579A	-0.2	3.47	2	80	0.5	-2	0.06	-0.5	7	14	20	2.89	-10	-1	0.1	10
VR81580A	0.4	1.74	-2	80	-0.5	-2	0.05	-0.5	4	11	28	3.29	10	-1	0.07	-10
VR81581A	0.2	3.65	8	80	0.5	-2	0.08	-0.5	8	11	36	2.81	-10	1	0.08	-10

Soil sample results

Sample	Mg_%	Mn_ppm	Mo_ppm	Na_%	Ni_ppm	P_ppm	Pb_ppm	Sb_ppm	Sc_ppm	Sr_ppm	Ti_%	Tl_ppm	U_ppm	V_ppm	W_ppm	Zn_ppm
VR81501A	0.29	175	-1	-0.01	11	300	22	2	1	7	0.14	-10	-10	35	-10	58
VR81552A	0.45	230	-1	-0.01	17	150	30	-2	3	19	0.09	-10	-10	42	-10	64
VR81553A	0.5	175	-1	-0.01	23	190	38	-2	4	14	0.14	-10	-10	54	-10	58
VR81554A	0.43	245	-1	-0.01	12	1220	26	-2	3	7	0.11	-10	-10	35	-10	196
VR81555A	0.17	210	-1	-0.01	8	1110	18	-2	2	7	0.16	-10	-10	39	-10	62
VR81556A	0.13	310	1	-0.01	8	1400	10	-2	5	7	0.13	-10	-10	29	-10	94
VR81557A	0.31	190	-1	-0.01	12	470	12	-2	2	10	0.1	-10	-10	35	-10	80
VR81558A	0.28	430	1	-0.01	11	690	18	-2	3	7	0.1	-10	-10	48	-10	76
VR81559A	0.2	180	1	-0.01	8	670	14	-2	3	5	0.12	-10	-10	36	-10	58
VR81560A	0.23	160	-1	-0.01	9	450	14	-2	2	6	0.1	-10	-10	39	-10	58
VR81561A	0.24	155	1	-0.01	9	450	18	-2	2	5	0.12	-10	-10	43	-10	82
VR81562A	0.38	195	-1	-0.01	11	330	14	-2	2	7	0.07	-10	-10	25	-10	66
VR81563A	0.34	195	-1	-0.01	13	720	16	-2	2	7	0.09	-10	-10	30	-10	88
VR81564A	0.5	470	-1	-0.01	16	460	34	-2	3	11	0.1	-10	-10	43	-10	116
VR81565A	0.4	175	-1	-0.01	12	410	16	-2	2	6	0.08	-10	-10	30	-10	64
VR81566A	0.22	175	-1	-0.01	11	800	10	-2	4	5	0.09	-10	-10	32	-10	66
VR81567A	0.31	150	-1	-0.01	11	510	10	-2	3	5	0.08	-10	-10	43	-10	44
VR81568A	0.37	175	-1	-0.01	11	230	14	-2	4	9	0.1	-10	-10	46	-10	62
VR81569A	0.35	180	-1	-0.01	9	240	14	-2	1	8	0.07	-10	-10	24	-10	52
VR81570A	0.32	175	-1	-0.01	10	370	14	-2	2	5	0.07	-10	-10	34	-10	70
VR81571A	0.34	325	1	-0.01	9	620	14	-2	4	8	0.11	-10	-10	33	-10	98
VR81572A	0.69	230	-1	-0.01	9	380	16	-2	4	7	0.16	-10	-10	62	-10	58
VR81573A	0.24	620	-1	-0.01	10	570	22	-2	1	9	0.04	-10	-10	29	-10	36
VR81574A	0.44	240	-1	-0.01	12	470	18	-2	2	8	0.09	-10	-10	27	-10	62
VR81575A	0.36	160	-1	-0.01	12	360	20	-2	3	6	0.12	-10	-10	42	-10	72
VR81576A	0.24	115	-1	-0.01	9	490	18	-2	1	7	0.12	-10	-10	37	-10	46
VR81577A	0.24	155	-1	-0.01	9	1050	14	-2	2	5	0.09	-10	-10	34	-10	54
VR81578A	0.19	225	1	-0.01	7	750	10	-2	3	5	0.12	-10	-10	37	-10	60
VR81579A	0.35	170	-1	-0.01	13	370	16	-2	3	6	0.09	-10	-10	33	-10	74
VR81580A	0.2	270	-1	-0.01	8	600	16	-2	1	5	0.13	-10	-10	43	-10	76
VR81581A	0.22	200	-1	-0.01	11	1080	16	-2	2	8	0.11	-10	-10	37	-10	92

Soil sample results

Sample	Ag_ppm	Al_%	As_ppm	Ba_ppm	Be_ppm	Bi_ppm	Ca_%	Cd_ppm	Co_ppm	Cr_ppm	Cu_ppm	Fe_%	Ga_ppm	Hg_ppm	K_%	La_ppm
VR81582A	-0.2	2.61	-2	50	-0.5	-2	0.11	-0.5	9	12	54	3.01	-10	-1	0.12	10
VR81583A	0.2	2.37	-2	70	0.5	-2	0.16	-0.5	7	13	25	2.66	-10	-1	0.12	10
VR81584A	0.2	3.37	-2	120	1	-2	0.26	-0.5	10	23	40	3.48	10	-1	0.2	30
VR81585A	-0.2	2.27	-2	60	-0.5	-2	0.17	-0.5	8	29	20	2.86	-10	1	0.19	10
VR81586A	0.2	3.51	2	70	0.5	-2	0.25	-0.5	14	25	65	3.33	-10	-1	0.13	20
VR81587A	0.2	3	8	50	-0.5	-2	0.19	-0.5	8	18	39	4.28	10	-1	0.12	-10
VR81588A	-0.2	1.82	6	50	-0.5	-2	0.12	-0.5	4	13	17	2.66	-10	-1	0.17	-10
VR81589A	0.2	2.97	4	70	1	-2	0.16	0.5	8	16	21	3.47	10	-1	0.25	10
VR81590A	0.6	2.94	10	70	0.5	-2	0.13	-0.5	18	12	83	3.26	-10	-1	0.11	10
VR81591A	-0.2	2.95	10	40	-0.5	-2	0.09	-0.5	5	13	63	4.63	10	-1	0.08	-10
VR81592A	-0.2	4.17	2	80	-0.5	-2	0.22	-0.5	14	11	236	2.81	-10	-1	0.12	-10
VR81593A	0.2	3.39	-2	40	-0.5	-2	0.14	-0.5	8	10	62	2.47	-10	-1	0.06	-10
VR81594A	0.2	3.17	4	50	-0.5	-2	0.26	-0.5	23	12	155	2.69	-10	-1	0.08	-10
VR81595A	0.2	2.67	2	40	0.5	-2	0.34	-0.5	48	14	89	2.89	-10	-1	0.07	-10
VR81596A	0.2	3.02	2	50	-0.5	-2	0.15	-0.5	10	12	35	2.72	10	-1	0.06	-10
VR81597A	0.2	3.71	8	60	0.5	-2	0.22	-0.5	13	21	51	3.5	10	-1	0.1	-10
VR81598A	-0.2	3.78	-2	100	-0.5	-2	0.33	-0.5	11	32	70	2.99	-10	-1	0.1	-10
VR81599A	-0.2	2.21	2	50	0.5	-2	0.09	-0.5	5	17	18	3.53	10	-1	0.08	10
VR81600A	0.6	3.95	2	90	-0.5	-2	0.13	-0.5	11	16	81	4.36	10	-1	0.19	-10
VR81634A	-0.2	2	2	60	-0.5	-2	0.24	-0.5	9	16	52	2.45	-10	-1	0.34	10
VR81635A	-0.2	3.25	2	80	0.5	-2	0.11	-0.5	12	18	34	2.81	-10	-1	0.18	10
VR81636A	-0.2	2.42	14	80	0.5	-2	0.22	-0.5	8	18	34	2.66	-10	-1	0.24	20
VR81637A	0.2	4.6	2	70	0.5	-2	0.04	-0.5	8	13	18	2.46	10	-1	0.07	-10
VR81638A	0.2	2.54	6	60	1	-2	0.07	-0.5	8	15	18	2.84	-10	-1	0.13	10
VR81639A	0.2	4.84	4	50	0.5	-2	0.03	-0.5	9	14	20	2.79	10	-1	0.08	10
VR81640A	-0.2	1.55	-2	50	0.5	-2	0.11	-0.5	7	14	23	2	-10	-1	0.27	10
VR81641A	-0.2	1.41	-2	60	0.5	-2	0.11	-0.5	6	12	33	1.9	-10	-1	0.29	20
VR81642A	-0.2	2.08	4	50	0.5	-2	0.14	-0.5	8	18	30	2.48	-10	-1	0.23	10
VR81643A	-0.2	2.95	2	100	0.5	-2	0.17	-0.5	12	19	47	2.79	-10	-1	0.25	20
VR81667A	-0.2	1.75	2	60	-0.5	-2	0.05	-0.5	5	14	13	2.16	-10	-1	0.26	10
VR81701A	-0.2	1.97	-2	60	0.5	-2	0.14	-0.5	11	14	18	2.77	-10	-1	0.16	10

Sample	Mg_%	Mn_ppm	Mo_ppm	Na_%	Ni_ppm	P_ppm	Pb_ppm	Sb_ppm	Sc_ppm	Sr_ppm	Ti_%	Tl_ppm	U_ppm	V_ppm	W_ppm	Zn_ppm
VR81582A	0.39	185	-1	-0.01	13	440	16	-2	3	6	0.1	-10	-10	43	-10	82
VR81583A	0.44	165	-1	-0.01	13	330	18	-2	2	12	0.12	-10	-10	32	-10	86
VR81584A	0.94	340	-1	-0.01	14	200	26	-2	4	20	0.15	-10	-10	48	-10	100
VR81585A	0.67	235	-1	-0.01	16	440	14	-2	3	7	0.09	-10	-10	40	-10	70
VR81586A	0.54	255	-1	-0.01	19	300	18	-2	4	18	0.12	-10	-10	52	-10	92
VR81587A	0.33	315	-1	-0.01	13	550	34	-2	4	6	0.16	-10	-10	84	-10	70
VR81588A	0.25	250	-1	-0.01	7	320	24	-2	3	5	0.12	-10	-10	38	-10	56
VR81589A	0.47	315	-1	-0.01	11	280	64	-2	4	9	0.16	-10	-10	37	-10	152
VR81590A	0.29	400	-1	-0.01	11	370	62	-2	3	8	0.13	-10	-10	53	-10	154
VR81591A	0.24	135	-1	-0.01	9	460	26	-2	3	5	0.13	-10	-10	79	-10	56
VR81592A	0.38	190	-1	-0.01	31	260	32	-2	4	6	0.12	-10	-10	51	-10	70
VR81593A	0.18	105	-1	0.01	8	530	22	-2	3	9	0.12	-10	-10	45	-10	56
VR81594A	0.42	190	-1	-0.01	20	190	26	-2	4	19	0.13	-10	-10	54	-10	66
VR81595A	0.38	725	-1	0.01	18	290	24	-2	4	16	0.13	-10	-10	59	-10	66
VR81596A	0.26	325	-1	-0.01	12	410	16	-2	3	8	0.14	-10	-10	48	-10	68
VR81597A	0.44	375	-1	-0.01	19	320	24	-2	4	18	0.15	-10	-10	70	-10	84
VR81598A	0.59	215	-1	-0.01	30	230	18	-2	4	19	0.12	-10	-10	54	-10	68
VR81599A	0.29	145	-1	-0.01	10	240	20	-2	2	6	0.14	-10	-10	54	-10	60
VR81600A	0.38	185	-1	-0.01	20	430	14	-2	6	7	0.14	-10	-10	86	-10	68
VR81634A	0.47	230	-1	0.01	13	200	24	-2	5	7	0.13	-10	-10	46	-10	58
VR81635A	0.38	285	-1	-0.01	14	690	30	-2	4	8	0.11	-10	-10	38	-10	124
VR81636A	0.41	290	-1	0.01	13	310	36	2	4	13	0.12	-10	-10	36	-10	62
VR81637A	0.17	250	-1	0.01	9	640	16	-2	4	6	0.15	-10	-10	38	-10	84
VR81638A	0.23	230	-1	0.01	9	530	30	-2	2	8	0.13	-10	-10	32	-10	90
VR81639A	0.2	170	-1	-0.01	12	810	24	-2	4	6	0.15	-10	-10	37	-10	98
VR81640A	0.37	215	-1	-0.01	10	130	32	-2	3	6	0.1	-10	-10	26	-10	60
VR81641A	0.34	195	-1	-0.01	11	200	28	-2	3	6	0.09	-10	-10	22	-10	50
VR81642A	0.45	205	-1	-0.01	13	210	24	-2	3	8	0.11	-10	-10	32	-10	66
VR81643A	0.41	300	-1	0.01	16	390	34	2	4	15	0.11	-10	-10	34	-10	88
VR81667A	0.33	255	-1	-0.01	11	240	12	-2	2	5	0.09	-10	-10	23	-10	58
VR81701A	0.35	205	-1	-0.01	12	180	32	-2	3	9	0.13	-10	-10	33	-10	82

Sample	Ag_ppm	Al_%	As_ppm	Ba_ppm	Be_ppm	Bi_ppm	Ca_%	Cd_ppm	Co_ppm	Cr_ppm	Cu_ppm	Fe_%	Ga_ppm	Hg_ppm	K_%	La_ppm
VR81702A	-0.2	1.97	2	70	1	-2	0.22	-0.5	13	15	17	2.59	-10	-1	0.17	40
VR81703A	0.2	5.46	12	40	0.5	-2	0.05	-0.5	4	12	17	2.66	-10	-1	0.06	-10
VR81704A	-0.2	1.75	2	60	-0.5	-2	0.15	-0.5	8	13	22	1.99	-10	-1	0.15	-10
VR81705A	-0.2	4.38	6	70	1.5	-2	0.08	-0.5	10	19	38	3.29	-10	1	0.14	10
VR81706A	-0.2	2.32	6	50	0.5	-2	0.16	-0.5	6	14	26	2.4	-10	-1	0.11	-10
VR81707A	-0.2	3.75	2	30	0.5	-2	0.08	-0.5	5	18	30	3.28	-10	1	0.05	-10
VR81708A	-0.2	2.15	2	50	-0.5	-2	0.32	-0.5	7	15	31	2.32	-10	-1	0.1	10
VR81709A	-0.2	2.81	4	80	0.5	-2	0.18	-0.5	10	13	35	2.23	-10	-1	0.07	-10
VR81710A	0.6	3.92	-2	50	0.5	-2	0.3	0.5	42	19	92	3.78	10	-1	0.09	20
VR81711A	0.2	3.22	2	50	0.5	-2	0.39	-0.5	16	13	104	3.18	-10	-1	0.09	10
VR81712A	-0.2	3	10	50	-0.5	-2	0.57	-0.5	20	9	150	3.21	-10	-1	0.21	10

Sample	Mg_%	Mn_ppm	Mo_ppm	Na_%	Ni_ppm	P_ppm	Pb_ppm	Sb_ppm	Sc_ppm	Sr_ppm	Ti_%	Tl_ppm	U_ppm	V_ppm	W_ppm	Zn_ppm
VR81702A	0.36	635	-1	-0.01	12	230	22	-2	3	18	0.11	-10	-10	30	-10	80
VR81703A	0.14	95	-1	-0.01	7	640	18	-2	4	4	0.11	-10	-10	29	-10	58
VR81704A	0.36	165	-1	-0.01	12	120	22	-2	3	4	0.1	-10	-10	28	-10	78
VR81705A	0.34	160	-1	-0.01	18	330	42	-2	4	5	0.1	-10	-10	39	-10	104
VR81706A	0.31	145	-1	-0.01	10	300	26	-2	3	7	0.09	-10	-10	34	-10	58
VR81707A	0.19	145	-1	-0.01	8	590	48	-2	5	3	0.1	-10	-10	51	-10	54
VR81708A	0.38	170	-1	-0.01	13	160	40	-2	3	13	0.1	-10	-10	39	-10	64
VR81709A	0.22	115	-1	-0.01	11	200	72	-2	3	8	0.11	-10	-10	41	-10	50
VR81710A	0.36	1370	-1	-0.01	23	310	72	-2	11	22	0.14	-10	-10	84	-10	100
VR81711A	0.4	385	-1	0.01	16	220	50	-2	7	18	0.16	-10	-10	68	-10	84
VR81712A	0.53	465	-1	0.01	23	190	62	-2	9	22	0.14	-10	-10	79	-10	66

Appendix V

Gravity Survey Procedures and Raw Data

SURVEY PROCEDURE

All gravity readings were tied to the National Gravity Net by a gravity base station established in a 1996 gravity survey. The base is located at the Cranbrook field office at 3380 Wilks Road and is marked by a steel spike and identified by a wooden stake with an aluminum tag reading: "**Gravity Base –101**". Geographic coordinates for the station were derived by GPS measurements as **49° 32' 48.07384" N** and **115° 48' 44.86830" W** (see figure 2). The station has a **National Gravity Net value of 980688.13 ±0.02 mgal**. Field ties were also made to the nearest field base used for the GPS base station. A small calibration factor had to be applied to match the Scintrex gravity meter being used in the survey with the L&R gravity meters used in the 1996 survey, see appendix I.

All Survey locations were referenced to existing control points set in 1996 and the Real Time Kinematic GPS mode was used to define station locations.

Tam Mitchell, AScT, of Richmond BC, with the assistance of Jessie Campbell of Kimberly BC acquired the field data. A total of 90 stations were acquired during the 12 days of the survey.

Stations were accessible by 4 wheel drive, quad runner, and for the most part, on uncut lines. The survey was hampered by inclement weather conditions, with one day in three having heavy rain and hail.

Inclinometer readings were taken on each gravity station with a Suunto inclinometer to provide inner zone terrain corrections in accordance with the Hammer Chart method. Zone B inclinometer readings were taken at 0, 90, 180 and 270 at a distance of 9.3 meters from the station. Zones C and D were shot at 0, 60, 120, 180, 240, and 300 degrees at distances of 35 and 112 meters respectively. Distances and angles were estimated.

INSTRUMENTATION

GRAVITY

The gravity readings were taken with a Scintrex CG-3 gravity meter (serial no. 10345) manufactured in Concord Ontario. The instrument has a world wide calibration range of over 7,000 mgal and a reading resolution of 0.005 mgal. This instrument features a sensor based on a fused quartz elastic system. The proof mass is balanced by a spring and a relatively small electrostatic restoring force. The position of the mass, which is sensed by a capacitative displacement transducer, is altered by a change in gravity. The inherent strength and elastic properties of the fused quartz together with stop limits around the proof mass permit the instrument to be operated without clamping. Instrument drift is considerably reduced by precise thermostatic control of the unit and software correction for residual effects. The instrument's tilt sensors are analog as well as electronic with a resolution of 1 arc second. Real time corrections for tilt errors can be automatically made for a range of ± 200 arc seconds. The entire gravity sensing mechanism is enclosed in a vacuum chamber to provide isolation from variations in atmospheric pressure. This extremely stable operating environment allows the long term drift of the sensor to be accurately predicted, and real time software correction reduces it to less than 0.02 mGals/day in theory. The unit can also automatically compensate for earth tides. The ETC is generated using the Longman formula (gravimetric factor 1.16).

SURVEYING

Station locations were surveyed using the Trimble Site Surveyor 4400 system with a Pacific Crest radio link. The system used was capable of post-processing rapid static measurements with an accuracy of ±5 mm +1ppm horizontal and ±1 cm + 1ppm vertical or real time data acquisition with an accuracy rating of ±1 cm +2ppm horizontal and ±2 cm + 2ppm vertical.

The Site Surveyor 4400 is based on Trimble's fourth generation real-time survey technology. Incorporating the latest Trimble real-time GPS engine code and solution alogrithms, the system provides very fast on-the-fly (OTF) initializations with the industry's most reliable position results. With this technology, average initialization times are cut in half. With advanced satellite signal acquisition and tracking, the ability to survey near trees is enhanced and downtime due to loss of signal minimized.

DATA REDUCTION and FORMULAE

The gravity data was processed by computer in the following manner:

g_o **Observed Gravity-** field observations corrected for earth tides and long term instrument drift were downloaded from electronic storage in the gravity meter and corrections made for instrument height and residual instrument drift. These values were then tied to the National Gravity Net.

g_{fa} **Free Air Effect-** Correction for relative distances of observation points from the centre of mass(earth). This calculation moves all stations to a common elevation datum and corrects for relative distances in distance from the source mass. The elevation datum used was CGVD 28 mean sea level. The formulae used was:

$$g_{fa} = -0.3086 \text{ mgal/m}$$

g_{bs} **Bouger Slab Effect -** Correction for the relative differences in amounts of surface rock below gravity stations. This calculation requires that a mean density or rock type between the lowest and highest grid elevations be established. All stations are shifted to a common datum as in the free air effect except that the vertical change is through an assumed slab of the derived density. The elevation datum used was CGVD 28 mean sea level.

$$g_{bs} = 2*PI*.00667*\sigma \text{ mgal/m}$$

Where σ = slab density (gm/cc)

g_l **Theoretical Gravity -** Yields correction for change of observed gravity with change in latitude which is due primarily to the rotation of the earth and the difference in earth's radius between the poles and the equator.

$$g_l = g_e(1 + \alpha \sin^2 \theta + \beta \sin^2 2\theta)$$

Where g_e = equatorial gravity = 978,031.85 mgal.

$\alpha = 0.005278895$

$\beta = -0.000023462$

θ = Latitude

g_t **Terrain Correction-** corrections for variations caused by local terrain. The vertical component of the gravitational effect exerted by nearby hills, or not exerted by nearby valleys or gullies, will effect the net reading obtained on any one station. The overall effect on a given line profile or area will be a function of the station spacing relative to the frequency of terrain undulations. Areas were segmented using circular sectors in zones developed by Hammer (1939). Corrections were made for zones B, C, and D (covering an area from 2 to 170 meters from the station).

g_t was calculated from the following expression:

$$g_t = \Sigma\Phi\tau\sigma[r_o - r_i + (r_i^2 + z^2)^{1/2} - (r_o^2 + z^2)^{1/2}]$$

Where Φ = Sector angle (B = 90°, C & D = 60 °)

τ = gravitational constant = 0.00667

σ = average density (gm/cc)

r_o = outer sector radius (B=16.6, C=53.3, D=170)

r_i = inner sector radius (B=2, C=16.6, D=53.3)

z = elevation difference between sector and station.

g_{faa} **Free Air Anomaly:** is derived from the following formulae:

$$g_{faa} = g_o - (g_l - 0.3086*E) = \text{Free Air Anomaly}$$

Where g_o = observed gravity

g_l = theoretical gravity

E = CGVD 28 elevation

g_{ba} **Bouguer Anomaly:** was derived from the following formulae:

$$g_{ba} = g_b + g_{faa} + g_t = \text{Bouguer Gravity}$$

Where g_b = Bouguer gravity

g_{faa} = free air anomaly

g_t = terrain corrections

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Longman, I. M.; *Journal of Geophysical Research, Volume 64, No. 12; Formulas for Computing the Tidal Accelerations Due to the Moon and Sun*, December 1959

Hammer, 1939; (Terrain Correction Model)

KENNECOTT CANADA EXPLORATION INC.

1997 Moyie Gravity Infill Survey

Partial Bouguer Anomaly Gravity Data Listing

Surveyed by: Quadra Surveys

Simple Bouguer Density 2.67

Stn	NAD 83 Northing	NAD 83 Easting	NAD 83 Latitude	NAD 83 Longitude	CGVD28 Elev	Calibrated to match 1996 Observed G	Theoretical Gravity	Terrain to 170m	Free Air Anomaly	Bouguer Anomaly
9715=22502	5461539.410	572537.390	49.3022876	-116.0022136	1901.729	980495.37	981007.12	0.63	75.12	-137.05
9716	5461554.850	572741.490	49.3024022	-115.9994038	1896.599	980496.70	981007.13	0.58	74.87	-136.78
9717	5461579.620	572940.680	49.3026012	-115.9966597	1887.229	980499.58	981007.15	0.32	74.83	-136.02
9718	5461763.090	572971.450	49.3042476	-115.9962031	1872.983	980503.02	981007.29	0.63	73.72	-135.23
9719	5461955.520	573027.390	49.3059716	-115.9953984	1856.492	980506.12	981007.45	0.83	71.58	-135.32
9720	5462132.280	573127.790	49.3075494	-115.9939852	1845.885	980508.94	981007.59	0.49	70.99	-135.07
9721=22503	5462342.710	573152.920	49.3094389	-115.9936010	1833.239	980511.40	981007.76	0.28	69.38	-135.47
9722	5462448.630	573379.540	49.3103643	-115.9904642	1814.598	980515.05	981007.84	0.39	67.19	-135.47
9723	5462552.820	573514.500	49.3112851	-115.9885886	1799.788	980518.03	981007.92	0.75	65.52	-135.12
9724	5462674.420	573689.530	49.3123577	-115.9861586	1779.371	980522.60	981008.02	0.51	63.69	-134.91
9725	5462768.780	573851.510	49.3131867	-115.9839130	1766.827	980525.25	981008.10	0.41	62.40	-134.89
9726	5463377.320	573908.880	49.3186529	-115.9830110	1714.078	980536.32	981008.58	0.21	56.70	-134.89
9727	5463651.590	574025.270	49.3211055	-115.9813588	1689.407	980541.19	981008.80	0.36	53.73	-134.95
9740	5467089.44	568771.42	49.3526396	-116.0530518	1524.698	980573.41	981011.63	0.33	32.31	-137.97
9741	5467152.65	569081.12	49.3531730	-116.0487770	1581.205	980562.56	981011.68	0.37	38.84	-137.72
9742	5467122.46	569296.75	49.3528770	-116.0458135	1638.196	980551.63	981011.65	0.31	45.53	-137.47
9743	5467092.607	571449.874	49.3523599	-116.0161759	1634.777	980554.88	981011.60	0.22	47.77	-134.94
9744	5466699.17	571452.48	49.3488212	-116.0162105	1676.463	980546.66	981011.29	0.19	52.73	-134.67
9745	5467122.006	569325.497	49.3528695	-116.0454179	1644.869	980550.08	981011.65	0.27	46.04	-137.75
9746	5467102.924	569437.489	49.3526852	-116.0438794	1676.303	980543.71	981011.63	0.44	49.38	-137.74
9747	5467130.964	570588.258	49.3528052	-116.0280312	1873.491	980505.18	981011.64	0.56	71.69	-137.38
9748	5467110.284	570923.643	49.3525803	-116.0234175	1760.255	980529.90	981011.62	0.22	61.49	-135.25
9749	5467076.575	571649.732	49.3521923	-116.0134273	1614.430	980559.01	981011.59	0.20	45.63	-134.82
9750	5466934.212	571982.707	49.3508768	-116.0088649	1564.110	980567.40	981011.47	0.45	38.61	-135.96
9751	5466233.658	570972.079	49.3446905	-116.0229068	1802.740	980521.40	981010.92	0.57	66.81	-134.34
9752	5466488.95	571316.454	49.3469464	-116.0181208	1721.096	980537.76	981011.12	0.43	57.77	-134.39
9753	5465384.665	572991.473	49.3368166	-115.9952652	1923.537	980493.52	981010.21	0.86	76.91	-137.46
9754	5465224.22	572827.215	49.3353932	-115.9975551	1881.742	980502.11	981010.08	0.59	72.73	-137.24
9755	5464955.995	572555.744	49.3330132	-116.0013401	1815.170	980516.33	981009.87	0.41	66.62	-136.09
9756	5464697.914	572272.381	49.3307257	-116.0052864	1852.161	980508.82	981009.67	0.31	70.73	-136.21

KENNECOTT CANADA EXPLORATION INC.

1997 Moyie Gravity Infill Survey

Partial Bouguer Anomaly Gravity Data Listing

Surveyed by: Quadra Surveys

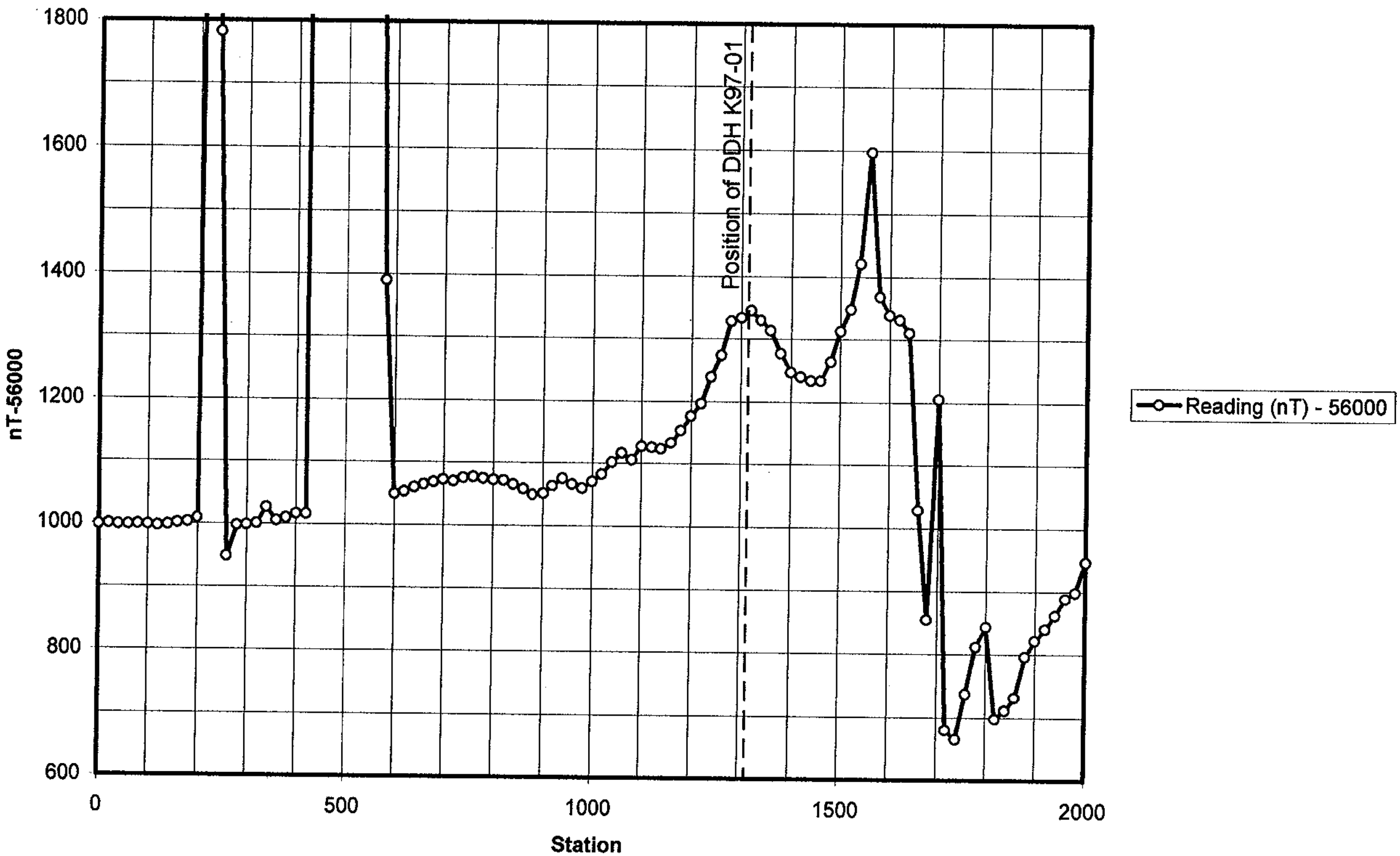
Simple Bouguer Density 2.67

Stn	NAD 83 Northing	NAD 83 Easting	NAD 83 Latitude	NAD 83 Longitude	CGVD28 Elev	Calibrated to match 1996 Observed G	Theoretical Gravity	Terrain to 170m	Free Air Anomaly	Bouguer Anomaly
9757	5466369.224	573794.476	49.3455748	-115.9840313	2029.959	980471.90	981011.00	0.24	87.35	-139.55
9758	5466132.948	573649.232	49.3434673	-115.9860743	2012.042	980476.13	981010.81	0.44	86.24	-138.46
9759	5465816.609	573517.093	49.3406382	-115.9879515	1989.430	980481.51	981010.55	0.42	84.90	-137.29
9760	5463586.863	567514.804	49.3212780	-116.0709455	1488.942	980579.23	981008.82	0.10	29.90	-136.61
9761	5463250.395	568010.579	49.3181968	-116.0641816	1501.747	980576.42	981008.54	0.00	31.32	-136.72
9762	5463033.797	568453.079	49.3161993	-116.0581309	1539.773	980569.34	981008.36	0.17	36.14	-135.98
9763	5462794.3	569297.261	49.3139500	-116.0465588	1612.612	980555.14	981008.16	0.14	44.63	-135.67
9764	5463096.691	569728.739	49.3166206	-116.0405702	1607.745	980555.21	981008.40	0.12	42.96	-136.82
9765	5463283.444	568441.393	49.3184459	-116.0582488	1513.514	980574.16	981008.57	0.00	32.66	-136.70
11103	5467161.815	570276.593	49.3531187	-116.0323166	1923.378	980493.90	981011.67		75.78	-139.44
23703	5465630.8	573204.368	49.3390047	-115.9922899	1960.447	980487.54	981010.41		82.12	-137.24

Appendix VI

Ground Magnetics Profile and Raw Data

Magnetic Profile - Line 1



Station (m)	Reading (nT)	Reading (nT) - 56000
0	56998.4	998.4
20	57000.6	1000.6
40	56998.9	998.9
60	56998.9	998.9
80	56999.2	999.2
100	56999	999
120	56997.2	997.2
140	56998.6	998.6
160	57002.1	1002.1
180	57003.5	1003.5
200	57010.3	1010.3
220	59059.7	3059.7
240	57782.3	1782.3
260	56948.9	948.9
280	56998.1	998.1
300	56998.9	998.9
320	57000.9	1000.9
340	57027.4	1027.4
360	57005.8	1005.8
380	57010.8	1010.8
400	57016.9	1016.9
420	57016.3	1016.3
440	61634.6	5634.6
460	64823.3	8823.3
480	66227	10227
500	59183.7	3183.7
520	58102.7	2102.7
540	58282.3	2282.3
560	59186.8	3186.8
580	57389.7	1389.7
600	57048.8	1048.8
620	57052.8	1052.8
640	57060.1	1060.1
660	57064.2	1064.2
680	57068.9	1068.9
700	57072.6	1072.6
720	57070.3	1070.3
740	57075.7	1075.7
760	57077.2	1077.2
780	57075	1075
800	57072.9	1072.9
820	57071.5	1071.5
840	57065.5	1065.5
860	57059.1	1059.1
880	57049.2	1049.2
900	57051.4	1051.4
920	57063.7	1063.7
940	57076.1	1076.1
960	57066.3	1066.3
980	57060.7	1060.7
1000	57071.1	1071.1
1020	57082.7	1082.7
1040	57102	1102

Station (m)	Reading (nT)	Reading (nT) - 56000
1060	57116.8	1116.8
1080	57106.1	1106.1
1100	57127.8	1127.8
1120	57126.6	1126.6
1140	57123.9	1123.9
1160	57134.1	1134.1
1180	57153.3	1153.3
1200	57176.5	1176.5
1220	57197.4	1197.4
1240	57239.5	1239.5
1260	57273.4	1273.4
1280	57328.1	1328.1
1300	57334.2	1334.2
1320	57345.4	1345.4
1340	57330.1	1330.1
1360	57313.8	1313.8
1380	57277.2	1277.2
1400	57248	1248
1420	57240.2	1240.2
1440	57234.8	1234.8
1460	57234.9	1234.9
1480	57264.7	1264.7
1500	57312.9	1312.9
1520	57347.8	1347.8
1540	57420.7	1420.7
1560	57597.4	1597.4
1580	57368	1368
1600	57338.7	1338.7
1620	57331.3	1331.3
1640	57310.5	1310.5
1660	57028.4	1028.4
1680	56855.1	855.1
1700	57205.6	1205.6
1720	56680.6	680.6
1740	56665.6	665.6
1760	56737.1	737.1
1780	56812.3	812.3
1800	56844	844
1820	56698.8	698.8
1840	56712.3	712.3
1860	56731.5	731.5
1880	56796.5	796.5
1900	56822.2	822.2
1920	56840.7	840.7
1940	56863	863
1960	56889.3	889.3
1980	56899.4	899.4
2000	56947.4	947.4

Appendix VII

Diamond Drill Hole Log, Assay Results,

and RQD Log

KENNECOTT CANADA EXPLORATION INC.
Diamond Drill Hole Record

Hole No.: K97-01

Project: Lewis Creek (V041B)
Location: 565190E 5464540N (NAD83, UTM11)
Elevation: approx. 1,530 m.
Purpose: test magnetic anomaly

Total Depth: 78.94 m.
Collar Azimuth: 0°
Collar dip: -90°
Contractor: Lone Ranger Diamond Drilling
Logged by: J. Ryley

From-To	Description	Structure			Samples			
		Depth	Type	° TCA	Number	From	To	Length
0.00 - 4.90	**Overburden**							
4.90 - 51.20	**Meta-sediments, middle Aldridge Formation:** Light to medium gray, medium grained, medium to thickly bedded (50cm - 1m) quartz wacke. Low angle planar beds rythmically interbedded with 10-50cm thick graded subwacke (siltite to argillaceous siltite) sequences. Intervals are generally concordant to the quartz wacke, intraformationally they display load-casts, cross ripple laminations, recumbant synsedimentary folds and lensoidal bedding. Bedding disruption is dynamic and passive with bedding forms ranging from planar to undulatory. This expression suggests both proximal and distal turbidites. The majority include load-casts and/or lensoidal bedding infering proximal turbidite activity prevalent. Colour range is strongly influenced by metamorphic biotite. Pyrrhotite and pyrite are typically associated with dark gray subwacke, generally bed-parallel. 3-5% 1-2mm subhedral pale pink garnet at 9.8; 16.0, 33.2m. Sequence is not calcareous.							
	Alteration: **4.9-6.7m:** 1-3mm albitized antithetic healed fractures at 10-15° to core axis (TCA). 5-10% by volume.	5.0 5.7	fracture bedding	10 80				

From-To	Description	Structure			Samples			
		Depth	Type	° TCA	Number	From	To	Length
	6.7-8.4m: moderate to locally intense albitization associated with healed brecciation at U & L contacts of 30cm incompetent quartz vein subparallel TCA.	6.7	breccia	10				
	10.8-12.76: 1-3mm albitized healed fractures, 15-20% by volume, 10-15° TCA, opposing 3-5mm quartz-rich chloritic veinlets at 45° TCA, 5% by volume.	10.1 11.2	bedding fracture	80 10				
	17.4; 19.6; 20.4; 22.7: 10-30cm intervals of 1-3mm albite alteration envelopes, locally pervasive with associated strong fracture bound chlorite. Late stage antithetic 1-5mm Fe-chlorite and pyrite fractures, typically are bound within a siliceous selvage.	19.6	fracture	15				
	23.7-24.1: healed breccia, pale gray to buff, strong albitized interval intensely fractured by mm sized silicic fractures to 50% by volume @15-20° TCA. Upper contact diffuse @80° TCA, Lower contact diffuse @20° TCA. Moderate to weak albitization for 30 cm @ lower contact.	24.0	fracture	15				
	27.70-28.55: 0.5cm quartz veinlet at subparallel TCA, rare patch pyrite.	27.7	vein	10				
	29.1: pyrrhotite-biotite rich concretion, paramagnetic, 4cm diameter, weakly albitized.							
	32.3-32.6: moderately strong albitized qtzwacke with mm size chloritic fractures, minor pyrite, 10° TCA.							
	43.30-48.46: moderate to strong fracture controlled albitization, locally pervasive with complete bedding replacement accomplished by euhedral, cubic, and pyritohedron development and strong chloritic alteration. Moderately to strongly magnetic owing to magnetite fracture filling. Increase in silicification with 1-2cm quartz veins typically subparallel TCA with minor <1% coarse pyrite. Healed breccia, strongly albitized; @ 45.73-46.20m.				VR74201A	45.73	46.20	0.47

From-To	Description	Structure			Samples			
		Depth	Type	° TCA	Number	From	To	Length
	48.46-51.20: pale grey-green, weak to moderately chloritic interbedded quartzwacke/siltite, near complete biotite-chlorite alteration, localized 3-5% pyrite. Slickensides: @45° TCA							
51.20 - 57.00	**Albitized shear zone:** Texture-destructive, intensely albitized quartzwacke, extra hard healed breccia to locally friable associated with strong chlorite alteration, multi-stage fractures: primary structure @ 40° TCA, secondary oblique @10-20° TCA with mm to 1.0cm magnetite stringers, tertiary fractures crosscut magnetite stringers @ 35° TCA. Abundant (15-20% by volume) stringer to veinlet fracture filled magnetite with coarse euhedral pyrite at wallrock contact. Volume decreases toward lower contact.	52.0	mag vein	15	VR74202A VR74203A VR74204A VR74205A	51.20 52.60 53.95 55.39	52.60 53.95 55.39 57.00	1.40 1.35 1.44 1.61
57.00 - 65.47	**Meta-sediments, middle Aldridge Formation:** Moderate to locally intense albitized qtzwacke, relict promary bedding , broken and moderately chloritic at upper contact grading into blocky, minor fracture-bound pyrite.				VR74206A VR74207A VR74208A VR74209A	59.35 60.10 63.40 64.80	60.10 61.27 64.45 65.47	0.75 1.17 1.05 0.67
65.47 - 66.32	**Albitized fault breccia:** Healed semi-competent texture-destructive interval, 1-2mm 10-15% by volume grading to net-textured magnetite at lower contact, 3-5% coarse euhedral to locally aggregate pyrite. Fractures: open @ 45° TCA with chlorite selvage. Magnetite @ 10-15° TCA to chaotic.	65.6 65.6	fractures mag vein	45 12	VR74210A	65.47	66.32	0.85
66.32 - 76.94	**Gabbro:** Dark green moderately to strongly chloritized friable gabbro at contact, indistinct primary crustal habit, mottled texture with white to light-green antigorite (serpentine) replacement of magnesium silicates: grades transitionally into medium green with 30-40% 3-5mm subhedral pyroxene with a medium crystalline feldspathic groundmass, local finely disseminated chalcopyrite. Contact: Sed-Gabbro @ 15° TCA. Very finely disseminated (5-10%) to locally stringer to net-textured magnetite which typically contains coarse to patchy pyrite which is often euhedral. Magnetite stringers trend 10-15° TCA.	66.3	contact	15	VR74211A VR74212A VR74213A VR74214A	66.32 68.88 71.93 72.63	67.72 69.78 72.63 73.65	1.40 0.90 0.70 1.02

From-To	Description	Structure			Samples			
		Depth	Type	° TCA	Number	From	To	Length
76.94 - 78.94	**Granophyre:** Granophyric alteration of quartz wacke, subtle intrusive contact, weak foliation approx. normal TCA, moderately silicic. **End of hole @ 78.94m**	77.0	foliation	85				

Kennecott Canada Exploration Inc.

Drill hole assay data - DDH K97-01

SMPL_NUM	HOLE	FROM	TO	INT (m)	CERT_NUM	Au_ppb	Ag_ppm	Al_%	As_ppm	Ba_ppm	Be_ppm	Bi_ppm	Ca_%	Cd_ppm	Co_ppm	Cr_ppm	Cu_ppm	Fe_%	Ga_ppm
VR74201A	K97-01	45.73	46.20	0.47	A9737505	-5	-0.2	0.28	-2	10	0.5	-2	0.68	-0.5	5	107	2	1.76	-10
VR74202A	K97-01	51.20	52.60	1.40	A9737505	-5	-0.2	0.52	-2	-10	0.5	-2	1.36	-0.5	13	83	5	2.94	-10
VR74203A	K97-01	52.60	53.95	1.35	A9737505	-5	-0.2	0.34	-2	10	-0.5	-2	1.25	-0.5	31	73	1	3.43	-10
VR74204A	K97-01	53.95	55.39	1.44	A9737505	-5	-0.2	0.65	-2	40	-0.5	-2	0.66	-0.5	10	74	8	1.89	-10
VR74205A	K97-01	55.39	57.00	1.61	A9737505	-5	-0.2	0.76	-2	40	0.5	-2	0.64	-0.5	9	56	1	2.48	-10
VR74206A	K97-01	59.35	60.10	0.75	A9737505	-5	-0.2	0.43	-2	20	-0.5	-2	0.42	-0.5	7	71	1	1.56	-10
VR74207A	K97-01	60.10	61.27	1.17	A9737505	-5	-0.2	0.72	-2	40	-0.5	-2	0.31	-0.5	6	103	1	1.83	-10
VR74208A	K97-01	63.40	64.45	1.05	A9737505	-5	-0.2	0.52	-2	40	-0.5	-2	0.47	-0.5	7	110	3	1.89	-10
VR74209A	K97-01	64.80	65.47	0.67	A9737505	-5	-0.2	0.50	-2	40	-0.5	-2	0.53	-0.5	11	97	4	2.17	-10
VR74210A	K97-01	65.47	66.32	0.85	A9737505	-5	-0.2	0.48	-2	10	0.5	-2	1.69	-0.5	43	52	1	5.64	-10
VR74211A	K97-01	66.32	67.72	1.40	A9737505	-5	-0.2	1.16	-2	20	3.0	-2	4.47	-0.5	24	38	4	6.99	-10
VR74212A	K97-01	68.88	69.78	0.90	A9737505	-5	-0.2	0.82	-2	10	0.5	-2	2.78	-0.5	18	23	27	4.91	-10
VR74213A	K97-01	71.93	72.63	0.70	A9737505	-5	-0.2	0.50	-2	-10	0.5	-2	1.71	-0.5	106	19	8	15.00	-10
VR74214A	K97-01	72.63	73.65	1.02	A9737505	-5	-0.2	0.24	-2	-10	-0.5	-2	1.82	-0.5	48	15	4	10.40	-10

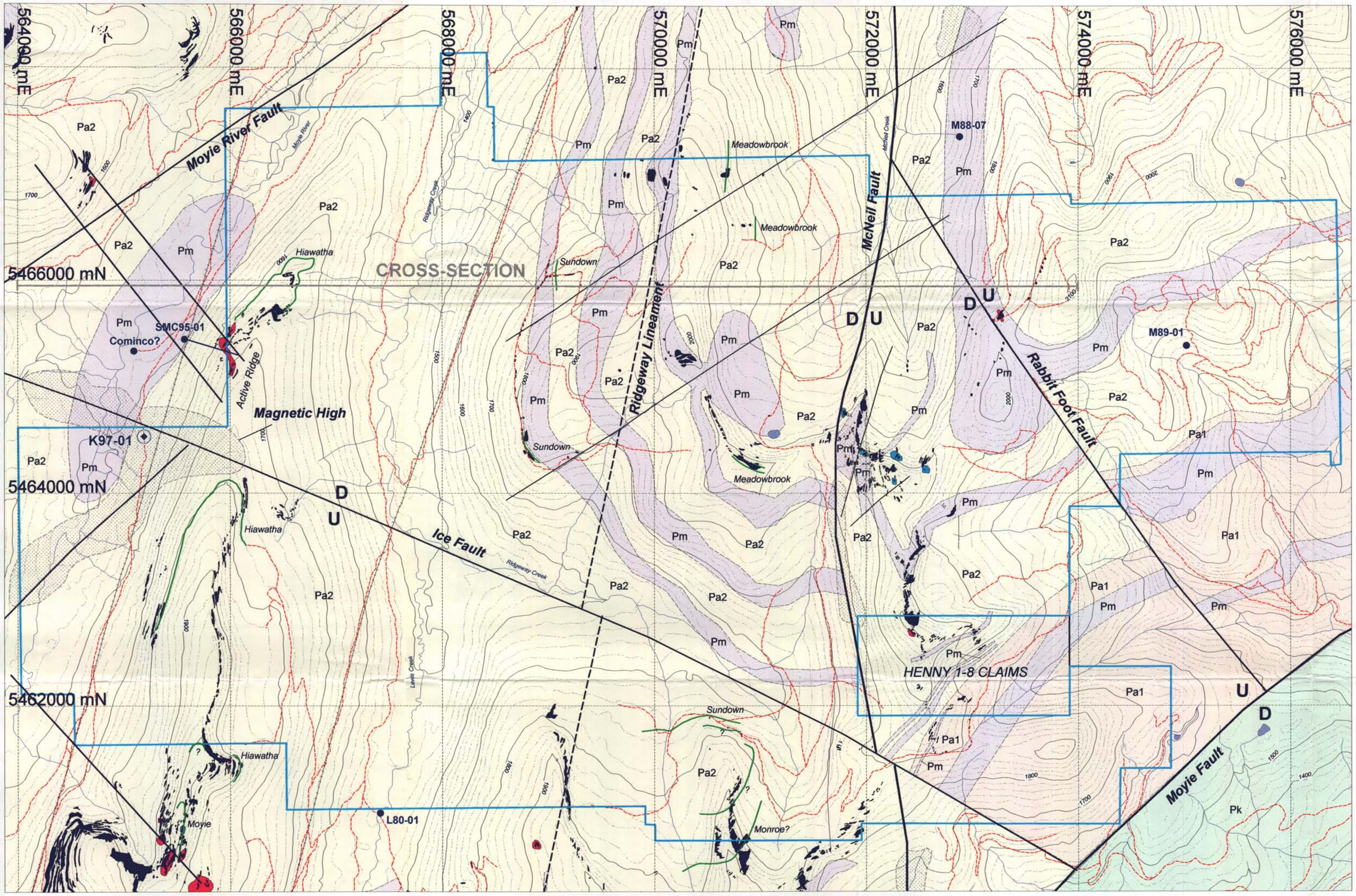
Kennecott Canada Exploration Inc.

Drill hole assay data - DDH K97-01

SMPL_NUM	Hg_ppm	K_%	La_ppm	Mg_%	Mn_ppm	Mo_ppm	Na_%	Ni_ppm	P_ppm	Pb_ppm	Sb_ppm	Sc_ppm	Sr_ppm	Ti_%	Tl_ppm	U_ppm	V_ppm	W_ppm	Zn_ppm
VR74201A	-1	0.08	20	0.12	70	-1	0.10	7	320	4	-2	3	16	0.03	-10	-10	46	-10	8
VR74202A	-1	0.08	-10	0.47	195	-1	0.07	13	160	6	-2	3	43	0.03	-10	-10	24	-10	20
VR74203A	-1	0.09	10	0.20	175	-1	0.11	13	180	8	-2	3	18	0.03	-10	-10	27	-10	14
VR74204A	-1	0.18	10	0.39	110	-1	0.08	13	140	2	-2	3	12	0.03	-10	-10	22	-10	18
VR74205A	-1	0.23	10	0.51	110	-1	0.08	14	180	2	-2	4	19	0.04	-10	-10	30	-10	16
VR74206A	-1	0.10	10	0.22	80	-1	0.07	9	130	2	-2	3	10	0.02	-10	-10	18	-10	10
VR74207A	-1	0.18	20	0.35	115	-1	0.08	10	140	4	-2	3	9	0.04	-10	-10	21	-10	20
VR74208A	-1	0.20	10	0.34	100	-1	0.08	12	130	2	-2	3	12	0.05	-10	-10	24	-10	18
VR74209A	-1	0.12	10	0.34	100	-1	0.09	11	100	-2	-2	3	15	0.03	-10	-10	20	-10	14
VR74210A	-1	0.19	10	0.50	230	-1	0.08	27	920	2	-2	3	56	0.03	-10	-10	19	-10	14
VR74211A	-1	0.81	-10	1.85	750	-1	0.06	19	120	-2	-2	9	99	0.07	-10	-10	148	-10	44
VR74212A	-1	0.32	-10	0.81	565	-1	0.09	14	430	-2	-2	7	21	0.11	-10	-10	136	-10	28
VR74213A	-1	0.21	-10	0.48	330	-1	0.07	13	370	-2	2	3	12	0.06	-10	-10	130	-10	30
VR74214A	-1	0.08	-10	0.25	285	-1	0.06	7	570	2	-2	3	13	0.08	-10	-10	133	-10	16

Kennecott Canada Exploration Inc.
Recovery and rock quality description log ***Hole No.: K97-01***

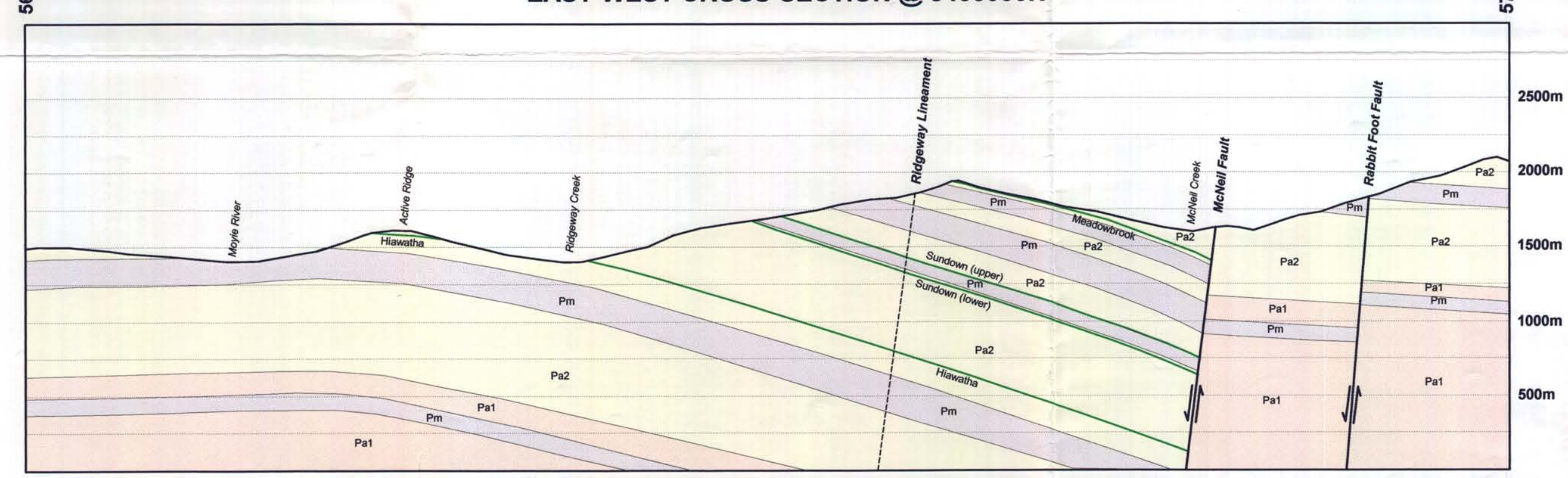
From (m)	To (m)	Width (m)	Actual Length (m)	% Recovery	RQD	No. of Pieces > 2.5X Core Width
4.9	7.9	3.0	2.70	90	21.9	4
7.9	11.1	3.2	3.10	96.9	45.5	9
11.1	14.3	3.2	3.10	96.9	70.3	11
14.3	17.4	3.1	2.91	93.9	70.8	8
17.4	20.4	3.0	3.01	100.3	82.3	14
20.4	23.5	3.1	3.06	98.7	77.7	10
23.5	25.3	1.8	1.90	105.6	78.0	6
25.3	26.5	1.2	1.10	91.7	94.5	5
26.5	27.7	1.2	1.30	108.3	88.7	5
27.7	29.6	1.9	1.70	89.5	55.0	3
29.6	32.6	3.0	2.85	95	70.0	10
32.6	35.7	3.1	2.75	88.7	73.3	9
35.7	38.7	3.0	2.99	99.7	56.3	7
38.7	41.8	3.1	3.00	96.8	82.7	10
41.8	44.8	3.0	3.00	100	30.0	4
44.8	46.2	1.4	1.23	87.9	44.0	5
46.2	47.9	1.7	1.58	92.9	56.0	6
47.9	50.9	3.0	3.00	100	28.0	0
50.9	53.9	3.0	2.98	99.3	49.3	7
53.9	57.0	3.1	2.86	92.3	51.4	7
57.0	57.9	0.9	0.89	98.9	26.9	2
57.9	59.4	1.5	0.41	27.3	0.0	0
59.4	60.0	0.6	0.56	93.3	0.0	0
60.0	63.1	3.1	2.65	85.5	0.0	0
63.1	64.6	1.5	1.41	94	0.0	0
64.6	65.2	0.6	0.43	71.7	0.0	0
65.2	65.8	0.6	0.81	135	48.1	3
65.8	68.9	3.1	3.30	107.1	32.4	6
68.9	71.9	3.1	3.10	101.6	83.5	12
71.9	75.0	3.1	2.98	97.7	68.4	9
75.0	78.0	3.1	2.59	84.9	59.8	7
78.0	78.9	0.9	0.81	89	42.0	2



LEGEND

- Pk — Kitchener Formation: dolomitic siltstone, dolomitic argillite, dolomite
- Pm — Moyie intrusions: tholeiitic to gabbroic
- Pa2 — middle Aldridge Formation: grey quartz wacke, commonly medium to thick bedded.
- Pa1 — lower Aldridge Formation: siltstone and quartz wacke, typically rusty weathering.
- fragmental unit
- tourmaline alteration
- marker sequence
- fault
- geological contact (approx.)
- outcrop
- pre-1997 drill hole
- 1997 drill hole
- magnetic high

EAST-WEST CROSS-SECTION @ 5466000N



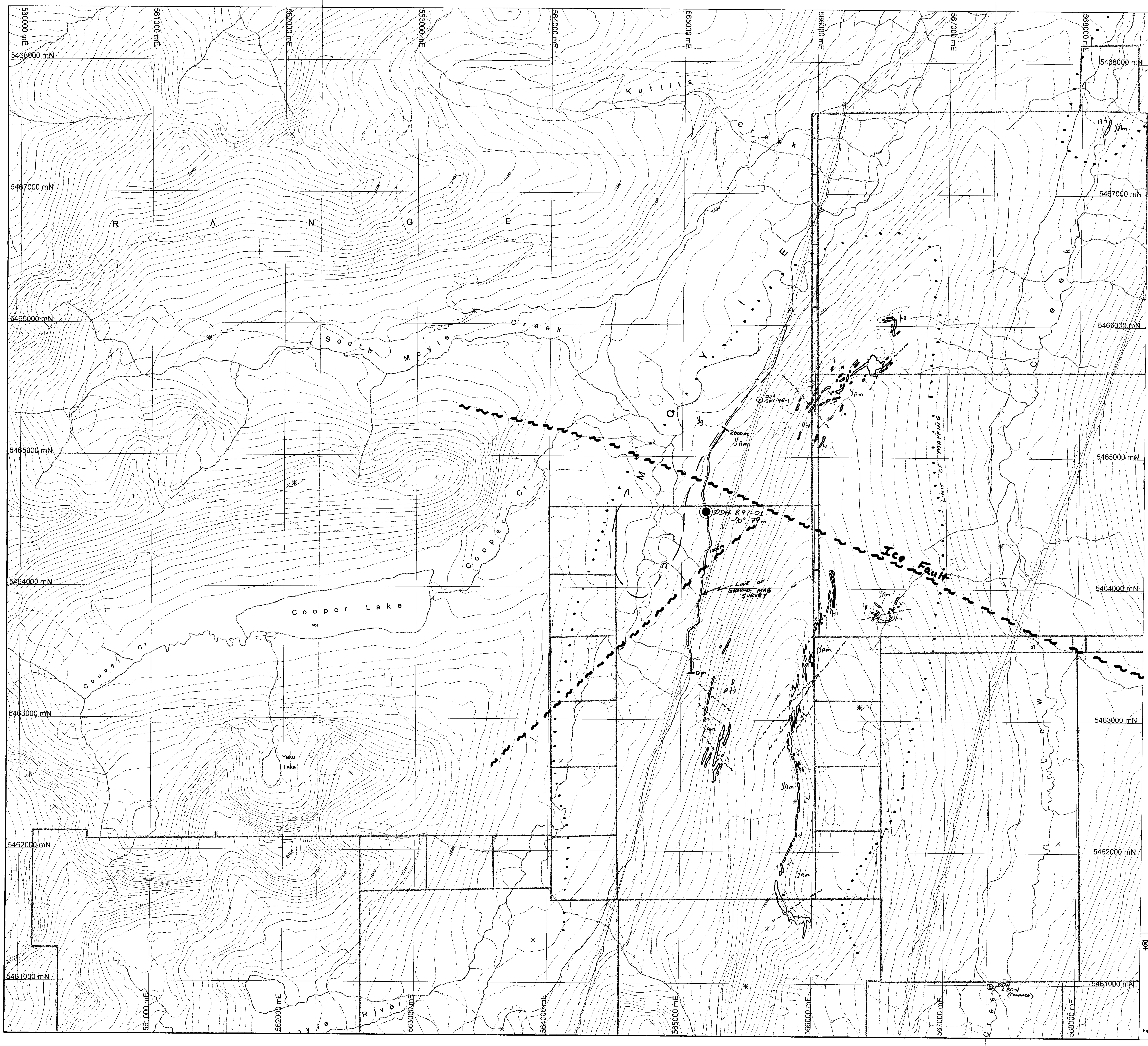
KENNECOTT CANADA EXPLORATION INC.
VANCOUVER

Lewis Creek	Author: SC
Geological Compilation	Date: 24 Feb. 1998
	NTS: 82F, G
British Columbia, Canada	Drawn by: SC
	File: lewis_ppty_geol_compilation_20k.wor
Projection: NAD83 UTM11	Figure: 4

Scale: 1:20,000

0 0.5 1.0 2.0

kilometres



GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

25,441

3	4
2	1

KENNECOTT CANADA EXPLORATION INC.

MOYIE

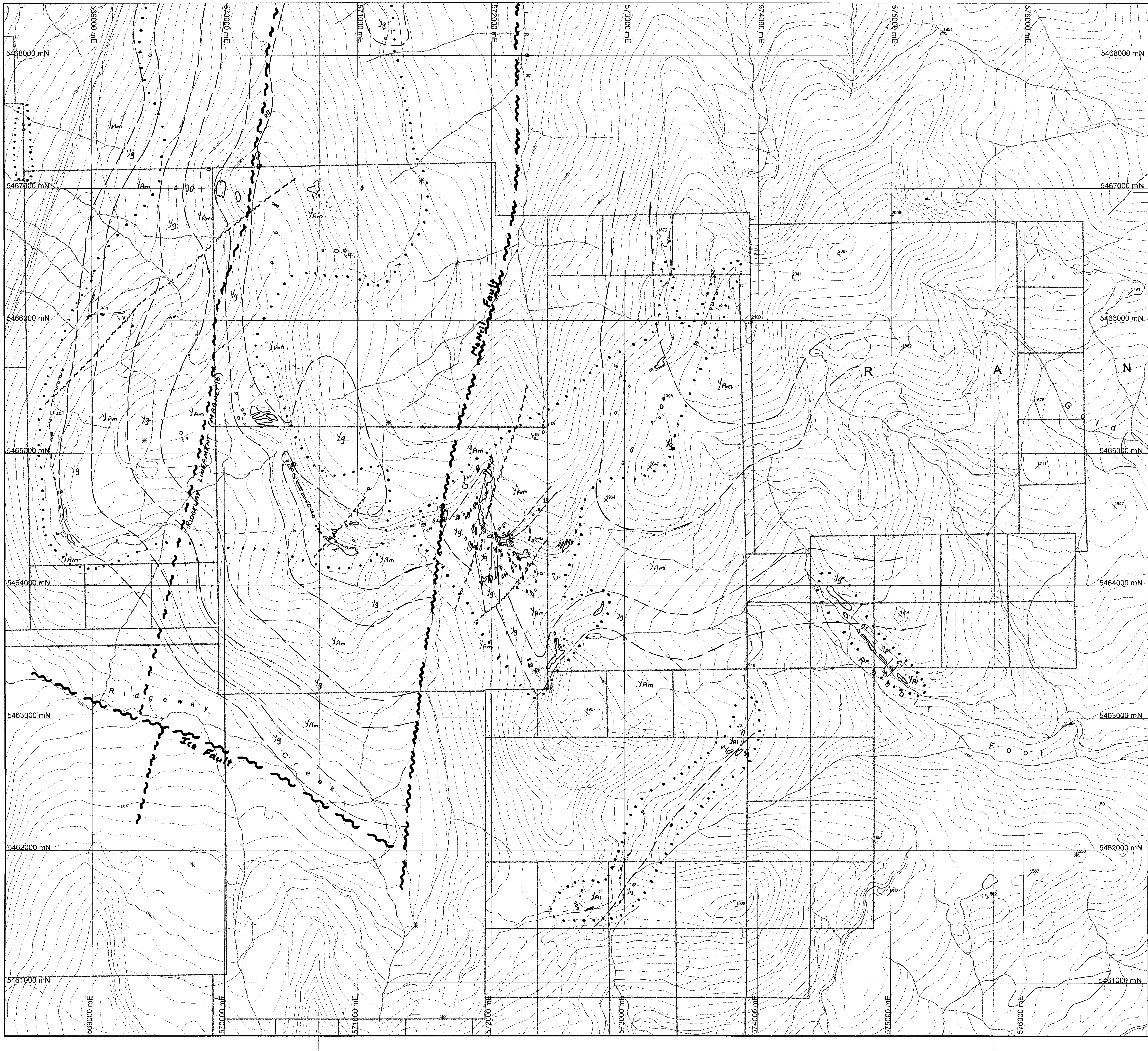
LEWIS CREEK PROPERTY
GEOLOGICAL MAP

(west half)

scale 1:10,000

Figure 5a

TRIMCONT.wor 12/6/97 ho



Yg	Moyie sills
YAm	middle Aldridge Formation
YAl	lower Aldridge Formation
	1997 drill hole
	pre-1997 drill hole
	outcrop
	geological contact
	fault
10	bedding, inclined
	limit of mapping

3	4
2	1

contour interval 20 metres

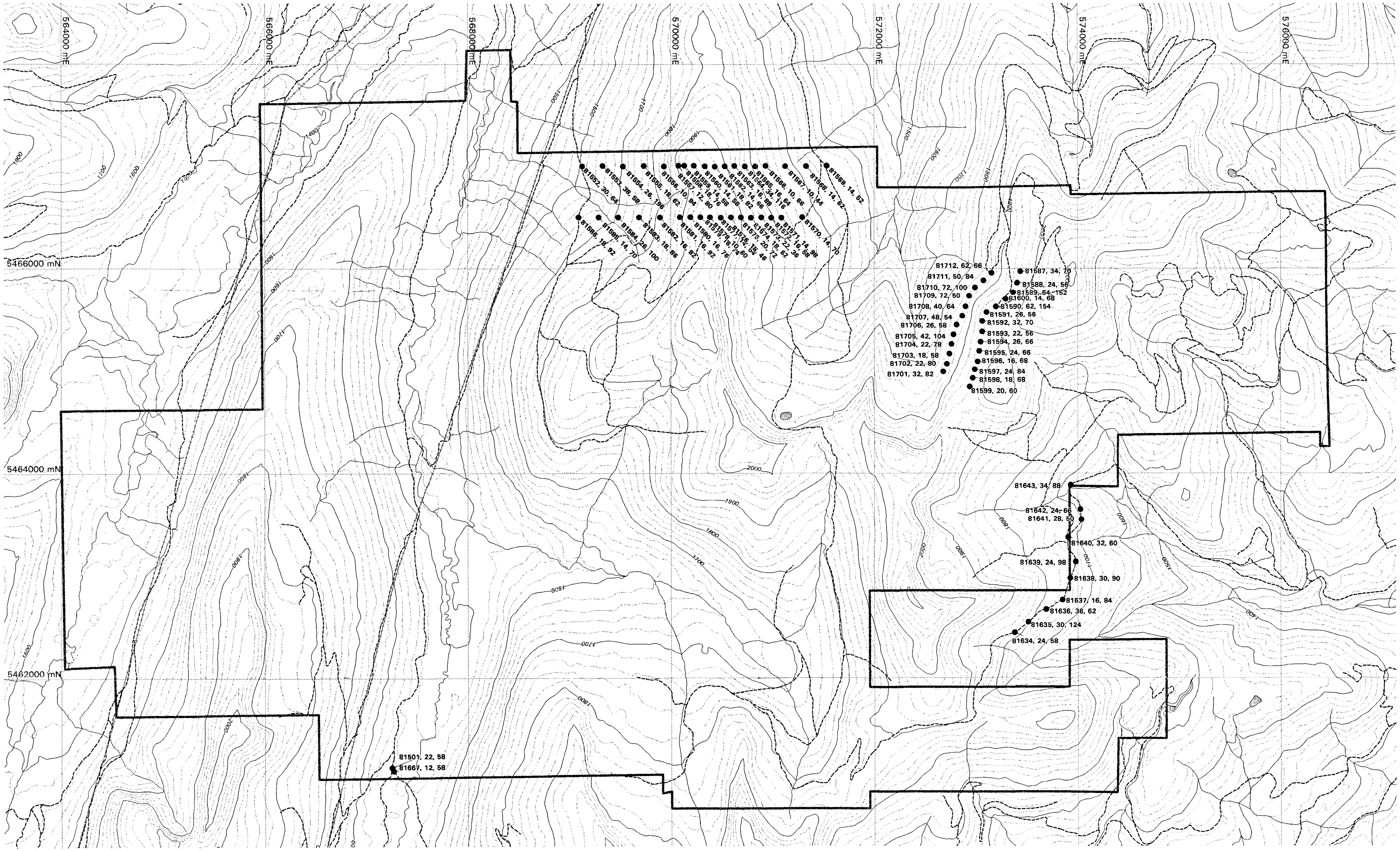
0 0.5 1
Kilometers

KENNECOTT CANADA EXPLORATION INC.

LEWIS CREEK PROPERTY
GEOLOGICAL MAP
(east half)

scale 1:10,000

Figure 5b TRIMCONT.wor 12/6/97 ho



• 81599, 20, 60 sample number, Pb (ppm), Zn (ppm)

claim outline

road

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

25,441

KENNECOTT CANADA EXPLORATION INC.
VANCOUVER

Lewis Creek

Soil Geochemistry

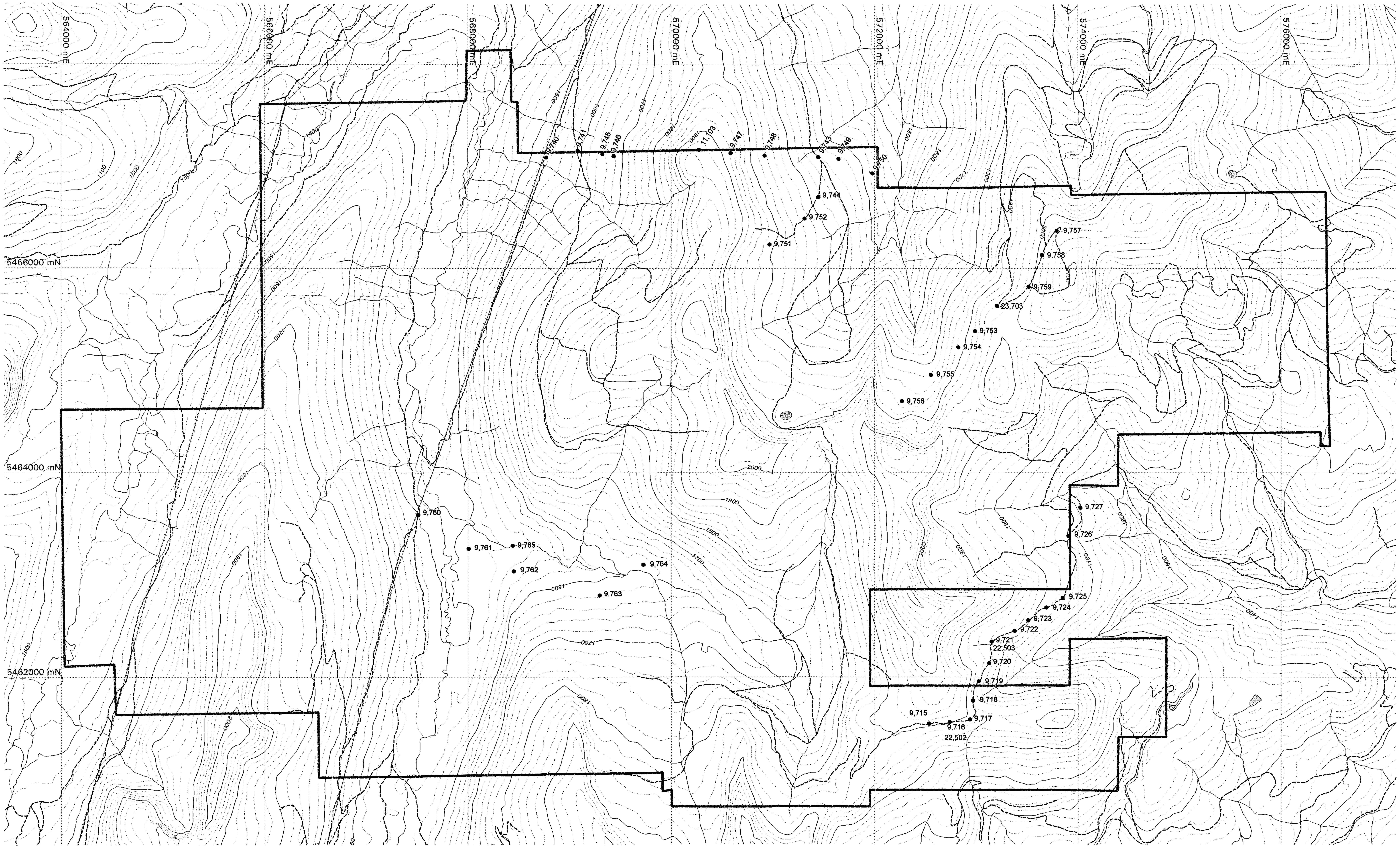
British Columbia, Canada

Author:	SC
Date:	21 Feb. 1998
NTS:	82F, G
Drawn by:	HC
File:	lewis_ppty_soil geochem_20k.wor
Figure:	6

Projection: NAD83 UTM11

Scale: 1:20,000

0 0.5 1 2
kilometres



N

- gravity station
- claim outline
- road

KENNECOTT CANADA EXPLORATION INC.
VANCOUVER

Lewis Creek

Gravity Survey

British Columbia, Canada

Author: SC	
Date: 21 Feb. 1998	
NTS: 82F,G	
Drawn by: HO	
File: lewis_poly_gravity_20k.wor	
Projection: NAD83 UTM11	Figure: 7

Scale: 1:20,000

0 0.5 1 2
kilometres