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1992 EXPLORATION

GEOLOGICAL AND PROSPECTING EVALUATION, MOUNT DILWORTH (UNIT 3) AND SALMON RIVER (UNIT 2) FORMATIONS, BIG MISSOURI PROPERTY

STEWART, BRITISH COLUMBIA
SKEENA MINING DIVISION

NTS 104B/1

LATITUDE 56° 05' N
LONGITUDE 130° 00' W

CLAIM OWNER/OPERATOR
WESTMIN RESOURCES LIMITED

REPORT BY

CHRISTOPHER T. S. HOOD AND PAUL G. LHOTKA
WESTMIN RESOURCES LIMITED

DECEMBER 1, 1992

RPT/92-019

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1.0 SUMMARY

A program of mapping and sampling of the Salmon River and Dilworth formations in the Big Missouri area has evaluated both the geology and potential for significant mineralization within the Lower Volcanic Sequence of the Hazelton Group north of Premier Mine. Mapping at 1:5,000 scale revealed that Dilworth and Salmon River rocks may be divided into a number of distinct subunits, with the apparently oldest rocks (Salmon River) occurring in the easternmost position of the volcaniclastic sequence. Locally, the volcanic package is overturned by north-south and east-west trending faulting and cut by Tertiary dykes.

Mineralization consists of discontinuous Tertiary quartz-sulphide veining localized near the Portland Canal dyke swarm, gossanous pyritic tuffaceous rocks of the lower part of the Dilworth Formation, and pyritic argillites and tuffs of the Salmon River Formation. Systematic sampling (totalling 105 samples) for both fire assay and whole rock defined low to moderate gold grades for Tertiary vein material and universally low precious and base metal values for the remaining styles of mineralization. A number of sites, however, had slightly anomalous (0.5 to 0.7 g/t Au) precious metal assays which may be symptomatic of proximity to a larger mineralizing system. Tertiary veins, while having occasionally elevated precious metal contents, are discontinuous and quite limited in terms of tonnage potential.

Recommendations for further work on the Dilworth and Salmon River formations at Big Missouri are centred around a slightly anomalous (0.62 g/t Au) carbonaceous pyritic tuff located between the Silver Tip mine and Fetter Lake. This occurrence should be explored with a stratabound deposit in mind. Trenching and closely-spaced soil sampling of the unit should be undertaken in order to closely examine any geochemical trends that may be associated with a potential deposit.

Consideration should be given to exploring the western slopes of the Big Missouri Ridge, especially in the area below the upper Granduc Road, where relatively little systematic exploration has been done and several large gossans exist.

2.0 INTRODUCTION

2.1 Location and Access

The Big Missouri map area is approximately 25 kilometres north of the town of Stewart, British Columbia at approximately 56° 10' N, 130° 05' W (Figure 1). Access to the study area is provided by the Granduc Road on the west, and by the Big Missouri Road to Fetter Lake in the southern part of area. A number of roads navigable by a four-wheel drive vehicle provide marginal access to the interior of the study area.

2.2 Physiography and Climate

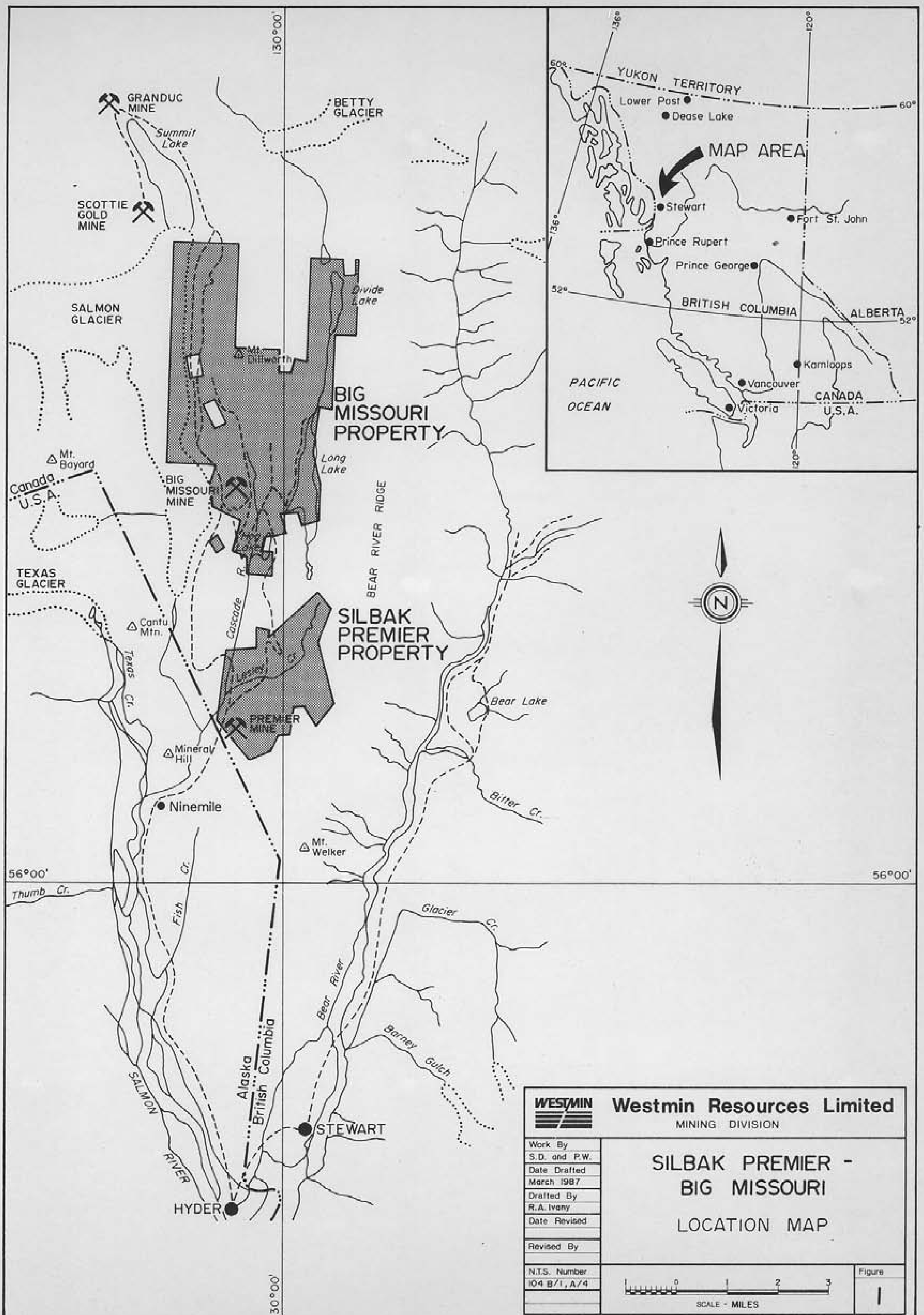
The study area is located above or near treeline, with a high degree of outcrop exposure at higher elevations. The southern segment is characterized by rolling, heather-covered ridges dissected by the canyons of Williams and Silver creeks. To the north, topography is steeper and is dominated by the snow dome of Mount Dilworth (1,600 m) and its abrupt north-south trending west ridge. Ice tongues from the snowfield are flanked by large moraine and alluvial flats with limited outcrop exposure and vegetation cover.

During the summer, the map area experiences relatively cool coastal wet-belt climatic conditions. The summer of 1992 was, in fact, exceptional for the large number of sunny days recorded. Most non-permanent snowfields have melted by the end of July.

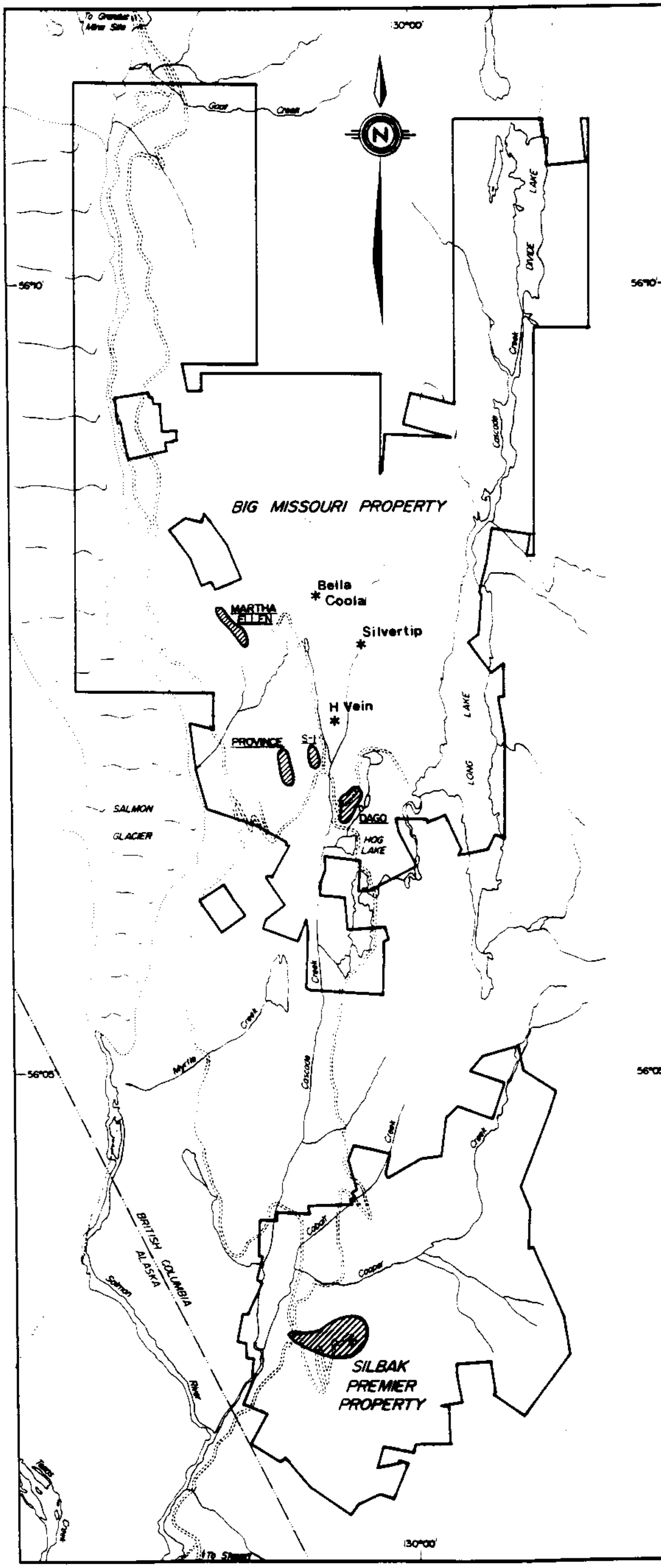
2.3 Property Status and Ownership

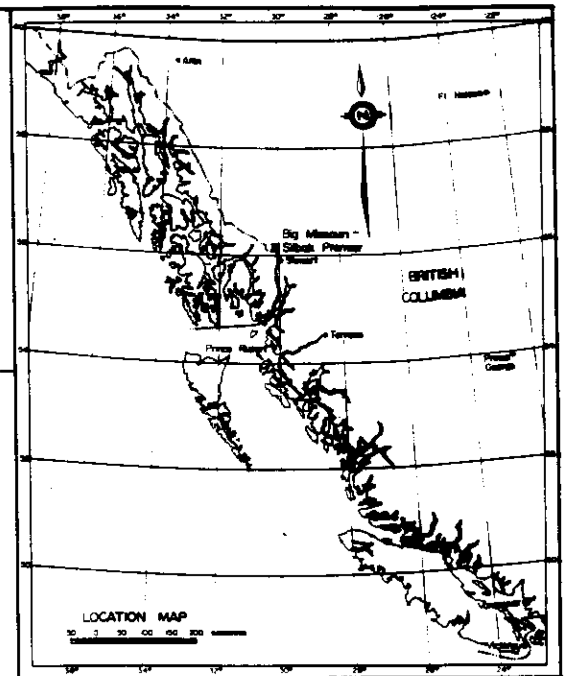
The Big Missouri property (Figure 2) is comprised of 28 Crown-granted, 63 reverted Crown-granted and 25 recently staked claims (totalling 191 units) located on the south and west slopes of Mount Dilworth. Work in 1992 was concentrated in the central and eastern parts of the claim group.

Previous work on the Big Missouri claim group has been concentrated around the southern and western parts of the property, within green volcanic rocks (Unit 9) associated with the Province, Martha Ellen, Dago Hill and S1 deposits. A discussion of the history of these deposits will not be given here, but may be found in Dykes (1990) and Grove (1971). Evaluation of mineralization potential within the Dilworth and Salmon River formations has principally centred around development of the many small quartz-sulphide veins within the Portland Canal dyke swarm, with the most important example being the Silver Tip mine north of Fetter Lake. Development of Silver Tip commenced in 1917, two years after its discovery. Two long adits and numerous open cuts resulted from development by Silver Tip Mining Co. Ltd., followed by a long period of inactivity. In the period from 1946 to 1957, work on the mine resumed under the auspices of Silver Tip Gold Mines Ltd. Work included extension of underground workings to intersect zones exposed on surface, construction of a tractor road to a camp on Silver Creek, and eventual shipment of a small (29 tons) quantity of ore. A number of other small veins in the Bella Coola area were also evaluated by trenching and several small adits prior to closure of the Silver Tip mine. Detailed developmental history for the Silver Tip mine may be found in Grove (1971) and Plumb (1957).



GRANDUC MINE
BETTY GLACIER
Summit Lake
SCOTTIE GOLD MINE
SALMON GLACIER
Divide Lake
Mt. Dillworth
BIG MISSOURI PROPERTY
Mt. Bayard
Canada
U.S.A.
BIG MISSOURI MINE
Long Lake
BEAR RIVER RIDGE
TEXAS GLACIER
Cantu Mtn.
Cascade R.
SILBAK PREMIER PROPERTY
Lesley Cr.
Texas Cr.
PREMIER MINE
Bear Lake
Mineral Hill
Ninemile
Bitter Cr.
Mt. Welker
56°00'
Thumb Cr.
Fish Cr.
Glacier Cr.
Bear River
Barney Gulch
SALMON RIVER
Alaska
British Columbia
STEWART
HYDER
130°00'
YUKON TERRITORY
Lower Post
Dease Lake
MAP AREA
Stewart
Fort St. John
Prince Rupert
Prince George
BRITISH COLUMBIA
ALBERTA
PACIFIC OCEAN
Kamloops
Vancouver
Victoria
CANADA
U.S.A.
60°
52°
136°
120°
WESTMIN
Westmin Resources Limited
MINING DIVISION
Work By S.D. and P.W.
Date Drafted March 1987
Drafted By R.A. Iveny
Date Revised
Revised By
N.T.S. Number 104 B/1, A/4
SILBAK PREMIER - BIG MISSOURI
LOCATION MAP
SCALE - MILES
0 1 2 3
Figure 1





Westmin Resources Limited

MINING DIVISION

Work By	
Date Drafted	Oct '92
Drafted By	
Date Revised	
Revised By	
N.T.S. Number	104 B/1

LOCATION MAP

640 320 0 640 1280 1920m

SCALE 1:32,000

Figure 2

In addition to mineral exploration carried out on the Big Missouri claim group, a number of regional studies have also contributed to knowledge of the geology of the Big Missouri area, including those by Alldrick (1985), Anderson and Thorkelson (1990) and Galley (1981).

2.4 Objectives of 1992 Study

Geological mapping and sampling was carried out in the period from July 23 to September 4, 1992, in order to systematically evaluate the mineral resource potential of the Dilworth (Unit 3) and Salmon River (Unit 2) formations. These units are apparently correlative with stratigraphies associated with the rich deposit at Eskay Creek to the north of the study area. Supplemental mapping at 1:5,000 scale was completed to define the limits of exposure of the two units, most importantly in the vicinity of the receding Mount Dilworth snowfield. Several old workings located within the study area were also examined in order to determine the potential for a small tonnage deposit or to uncover evidence of a larger buried deposit. Samples were also taken for whole rock analysis in order to understand the primary volcanic rock compositions and subsequent alteration.

2.5 Expenditures and Personnel

Expenditures on the 1992 fieldwork are estimated to be in excess of $20,900 (Table 1). Personnel employed and the dates worked on the project are included in Table 2.

3.0 GEOLOGY

3.1 Introduction

The Lower to Middle Jurassic Dilworth and Salmon River formations covered by this study are included within a belt of deformed volcanic, sedimentary and metamorphic rocks ("Stewart Complex", Grove, 1971) situated between the Coast Crystalline Belt to the west and Bowser Basinal rocks to the east (Grove, 1971). Both formations (included in the Hazelton Group) are extensive, with the Dilworth Formation forming a lithologically distinctive marker unit throughout much of the Iskut and Stewart regions. A number of important mineral deposits (e.g. Eskay Creek, Premier, Sulphurets) are included within the belt, forming an important metallogenic province extending from the Stewart area to north of the Iskut River valley. In the vicinity of the Big Missouri claim block, the Hazelton Group is intruded

TABLE 1 EXPENDITURES	Cost
Fuel	$ 450.00
Base maps, printing	500.00
Consumables (flagging, Sample bags, etc.)	250.00
Assaying 116 soil samples (Chemex) at $17.07 each 114 rock samples (Premier mine lab) at $16.50 each 21 whole rock samples (Chemex) at $29.85 each	 1,980.12 1,881.00 626.85
Camp (food, cook, fuel) 28.5 field person days at $50 per day	 1,425.00
Shipping (materials and samples)	250.00
Salaries (field) Paul Lhotka, 4.5 days at $250 per day Chris Hood/Terry Tucker, 24 days at $200 per day	 1,125.00 4,800.00
Truck 1 month at $1,350 per month	 1,350.00
Travel 2 return trips at $400 each	 800.00
	15,437.97
Reporting Paul Lhotka, 2 days at $250 per day Chris Hood, 20 days at $200 per day	 500.00 4,000.00
Drafting, 4 days at $250 per day	1,000.00
	5,500.97
Total	**$20,937.62**

TABLE 2

PERSONNEL

	Days Worked	Field Person Days
Paul G. Lhotka, Project Geologist Westmin Resources Limited	July 12, 13, 21 August 30 September 4 (0.5)	4.5
Christopher T. S. Hood, Geologist Westmin Resources Limited	July 12, 21, 23, 27, 28, 29, 30, 31 August 3 (0.5), 4, 5, 6, 8, 9, 10, 11, 12, 13, 26, 27 (0.5), 28, 29, 30, 31 September 1, 2, 3, 4	19
Terry L. Tucker, Geologist Westmin Resources Limited	July 12, 13, 17, 21, 22	5
Total		**28.5**

by a number of Early Jurassic plutons, with a large exposure of gently folded Bowser Group sediments to the east. Individual units trend approximately north or northwest.

A major problem with interpretation of the geology in the vicinity of Big Missouri and Premier is that of the age relationships of the individual units within the Hazelton Group. Most specifically, the problem of west (e.g. Payne and Sisson, 1988) versus east (e.g. Anderson, 1989) dipping stratigraphies has yet to be resolved. Uncertainty in correlations between the stratigraphy on the property and regionally defined stratigraphic models results in use of a model herein that places rocks which appear to correlate with the Salmon River Formation below the Dilworth Formation opposite to that of regional mapping (Anderson, 1988). Determination of stratigraphic tops is complicated by locally intense deformation associated with major north-south and east-west trending faults.

Details of the geological mapping are included as Figures 3a and 3b.

3.2 Observed Lithologies

3.2.1 Unit 2

Rocks of Unit 2 (herein assumed to correlate with the "Salmon River Formation"), can be divided into two principle subgroups within the map area. In the north, Unit 2 is dominated by thin bedded tuffaceous sediments, but to the south, the stratigraphy consists mostly of volcaniclastic rocks. The transition from one group to another is difficult to document due to moraine and alluvial cover within the critical area, but the presence of minor argillaceous horizons within the volcaniclastic rocks is suggestive of a gradation from north to south.

Exposure of Salmon River rocks in the immediate vicinity of Mount Dilworth is somewhat limited due to extensive glacial cover; however, the formation is exposed in a narrow wedge between the buried Troy Canyon-Cascade thrust fault and rocks of the Dilworth Formation to the west. The sediment-dominated package (Unit 2c) is also truncated by the same fault to the north, while the (exposed) southern extent abuts a large gossanous cliff at the head of Williams Creek. The lithologies consist primarily of finely bedded black to dark grey argillites, tuffaceous argillites and carbonate rocks, with lesser greywacke, calcareous sandstone and conglomeratic horizons (to 10 cm thick). Limestone is present as discontinuous pods up to 50 cm thick, with a more continuous 40 to 100 cm thick layer marking the contact with Dilworth Formation rocks to the west. The latter is also notable in that it is fossiliferous, containing abundant belemnoid, pelecypod, corallian and bryozoan fossils with a suggested Toarcian age (Anderson, 1989). An extensive evaluation of the fossiliferous bed for stratigraphic "tops" indicators was inconclusive (Figure 4); however, the relatively undeformed nature of the limestone marker makes it a useful target in evaluating the stratigraphy.

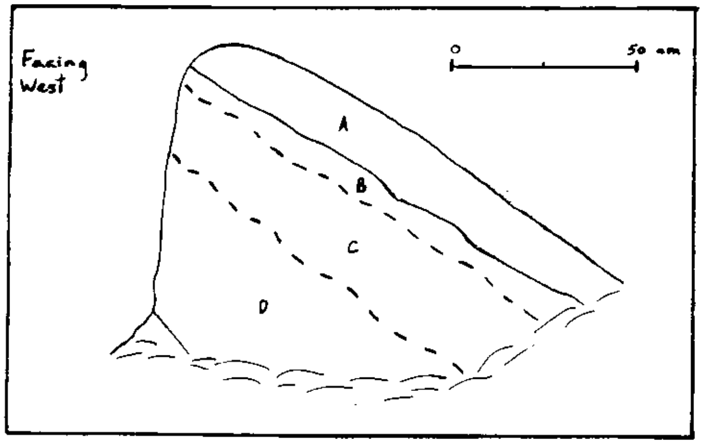
The contact between Subunit 2c rocks and Dilworth Formation tuffs is relatively irregular over a few centimetres, but is somewhat rectiplanar when viewed on a scale of tens of metres. The contact is marked by a brownish to greyish-brown weathering recrystallized carbonate that in some locales appears to surround lapilli from the Dilworth tuffs. Carbonate clasts occur within the tuffaceous rocks as well, suggesting that the Salmon River rocks predate the Dilworth Formation. An important point of note is the high density of fossils within 5 cm of the Units 2/3 contact, indicating that a sudden die-off occurred at that particular time [perhaps due to volcanic activity, as suggested by Payne and Sisson (1988)].

Unit 2 rocks to the south of Mount Dilworth (in the Silver Creek drainage basin) are mostly tuffaceous, with the eastern extent controlled by the contact with younger Bowser Group sediments. The tuffaceous rocks have been previously subdivided into two units, with the more carbonaceous component ("2a") showing greater similarity to the sediments on the west flank of Mount Dilworth. Typically, Unit 2a consists of dark grey to black carbonaceous ash tuff to tuff breccia, with fragment size in the latter up to 15 cm across. Minor interbeds of argillaceous rocks and limestone (e.g. lower Silver Creek canyon) are also present, and layering is occasionally visible between ash and lapilli beds. Throughout much of the Silver Tip mine area, Unit 2a also includes lapilli crystal tuffs containing abundant plagioclase fragments (to 6 mm) in a black carbonaceous matrix. An unusual black pyritic subunit ("2ap") outcrops south of Silver Tip mine, east of the Silver Tip Road and on the west side of the contact with younger Bowser (Unit 11) sediments; this northeast dipping subunit contains coarse-grained (to 5 mm) cubic to framboidal pyrite in amounts up to 5%, with carbonate also pervasive within the matrix. Exposures of the subunit are limited by sedimentary cover.

A second sequence (Unit 2b) of tuffaceous rocks forms much of the western exposure of Unit 2, consisting predominantly of pale brown to brownish-grey weathering lapilli tuff to tuff breccia. Fragments are typically pumice (some altered in the lapilli tuffs) with lesser ashy fragments and crystals (dominantly plagioclase) in a fine-grained grey to greenish-grey matrix. Rare quartz phenocrysts were also noted.

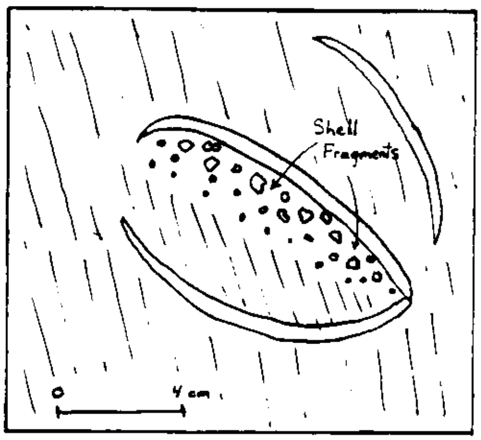
FIGURE 4: FEATURES ASSOCIATED WITH CONTACT OF UNITS 2 AND 3

(1.)



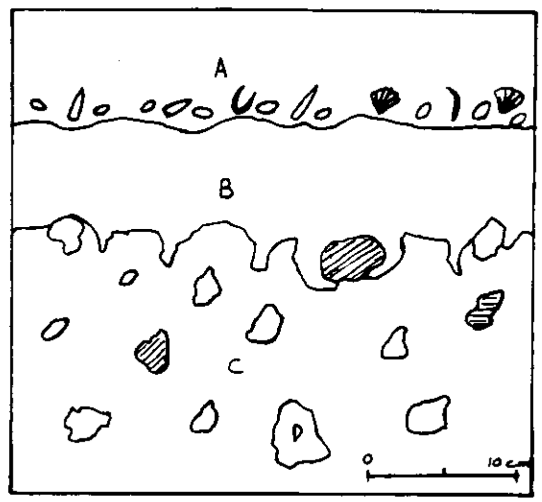
1.) Outcrop of limestone subunit at contact between units 2 and 3, southwest flank of Mt. Dilworth
A: grey reworked tuff
B: Packed greyish-brn limestone, mostly belem.
C: Mod. packed; belem+corals +bival+bryoz
D: Sparse; mostly bival+belem

(2.)



2.) Fossil pelecypod with possible geopetal structure. Tops interp. to be at bottom of picture (unit dips west, therfore stratigraphy would be inverted)

(3.)



3.) Cross section of typical contact between units 3a(z) and 2c.
A: Fossiliferous limestone, abundant belemnoids
B: Brownish recrystallized (?) carbonate- no fossils. Note irreg. contact with partially surrounded clasts from unit 3a
C: Rhyodacitic lapilli tuff (3a) to tuff breccia, abundant py. Clasts are pumice or welded tuff
D: Brownish limestone clast, altered and pyritic margin.

3.2.2 Unit 3

The Dilworth Formation at Big Missouri is well defined for much of its length, forming a prominent north-south trending ridge on the west flank of Mount Dilworth. The unit retains a relatively uniform thickness throughout the northern part of the map area, with definition in the south complicated by poor exposure or fault repetition.

A massive lapilli tuff to tuff breccia (Unit 3a) occurs in the easternmost position of units within the Dilworth Formation, in direct contact with sediments of the Salmon River Formation. The unit is characterized by angular fragments of pumice, argillaceous tuff and aphanitic felsite in a grey, commonly pyritic matrix. Individual fragments may be up to 30 cm in length, with concentrations of the largest clasts occurring on the southwest flank of Mount Dilworth and west of the head of Troy Canyon. These sites may be representative of close proximity to a volcanic vent. Narrow (<40 cm), discontinuous greyish-brown carbonate beds are also present within Unit 3a, or in the adjacent lapilli tuff unit to the west.

The most important feature in Unit 3a, however, is a visually arresting, highly gossanous subunit ("3az") located near the contact with the Salmon River Formation. As with Unit 3a, Subunit 3az is dominantly lapilli tuff to tuff breccia with minor intercalated carbonate, but the greyish, highly altered matrix (quartz-sericite, lesser carbonate) may contain up to 15% fine-grained pyrite as disseminations, pods or stringers. Carbonate is also abundant as irregular veinlets up to several centimetres across, rarely with narrow cores of jasperoidal silica. Contacts with the less altered lapilli tuff are somewhat gradational and very irregular, with the most gossanous material frequently localized along fractures. Areal distribution of the subunit is also irregular, with the largest gossans located at the head of Dumas Creek and on the southwest flank of Mount Dilworth. The subunit is not exposed in the Silver and Williams Creek drainages.

A pale greenish-grey to buff weathering lapilli tuff (Unit 3b) borders Unit 3a on the west and forms perhaps the most extensive of the lithologies within the Dilworth Formation. Lapilli are generally black and chloritic, consisting of altered pumice fragments (Payne, 1989) and lesser hornblende phenocrysts in an grey aphanitic matrix. Lapilli size is locally variable, with occasional ashy beds appearing towards the western contact. Rare carbonate clasts are also present; in one locale, clasts appear to contain belemnoid fossils similar to those present in Unit 2 limestones. The presence of thin, discontinuous carbonate pods within Unit 3b may, however, provide an alternate source for these clasts.

Unit 3b is strongly altered to a deep red, hematitic subunit ("3br") with increasing proximity to the contact with Unit 5. Alteration is usually gradational into unaltered rocks, with occasional patches located several metres from the contact. Alteration (quartz-sericite) is also associated with Tertiary veining activity in the vicinity of the Portland Canal dyke swarm.

The blocky weathering lapilli tuffs of Unit 3b are exposed throughout the map area, with the best exposures located in the central and northern parts where overburden thicknesses are minimized. In the Silver Creek drainage basin, Unit 3b interfingers with Unit 3c and develops a darker, more carbonaceous matrix, but weathered surfaces are still quite pale coloured.

The westernmost of the three major units (Unit 3c) within the Dilworth Formation consists of a pale greenish weathering dust to ash tuff containing widely scattered lapilli. Visible bedding is commonly present in the better exposures, and the unit apparently grades into the adjacent lapilli tuffs of Unit 3b. As with Unit 3b, Unit 3c is altered to a deep reddish-brown, hematitic phase ("3cr") near the contact with Unit 5, and the two hematitic subunits are difficult to distinguish due to the intensity of the alteration. A 20 to 40 cm thick greyish-white, mottled siliceous zone (mylonite?) marks the 3/5 contact over much of the exposed interface in the northern half of the map area, though on occasion Unit 3c rocks occur in the footwall (west) block.

Unit 3c is somewhat limited in extent in the northern part of the map area, generally forming a narrow discontinuous layer less than 10 m in true thickness (although this thickness is controlled by a low angle fault on the west). In the south, the dust tuff is the most widely distributed of the Dilworth units, extending from a broad exposure on the southwest flank of Mount Dilworth to a number of scattered outcrops south of Fetter Lake and in the vicinity of the H vein.

3.2.3 Unit 5

Rocks of Unit 5 are exposed on the western margin of the area mapped, where they form a broad belt of mostly volcaniclastic origin. Mapping of Unit 5 was concentrated in the vicinity of the contact with the Dilworth Formation, forming a marked visual contrast between dark maroon weathering Unit 5 rocks and pale blocky weathering tuffs of Units 3c and 3b. On the highest exposures of Unit 5 on Mount Dilworth, the unit consists of a maroon andesitic feldspar porphyritic mega-breccia with minor ash to lapilli beds near the contact. The contact is frequently difficult to locate due to intense hematitic alteration on either side of the pale mottled zone described earlier, but faint breccia and porphyritic textures can be discerned within rocks in the footwall of the east dipping structure. At the heads of Dumas and Williams creeks, Unit 5 is characterized by maroon to dark greenish lapilli tuffs to tuff breccias, again with minor intercalated ashy horizons. A point of note is the occurrence of easterly dipping ash beds throughout the northern exposures of Unit 5, while much of adjacent Unit 2 and 3 rocks across the faulted contact show westerly dipping beds.

3.2.4 Unit 11

The eastern half of the map area is dominated by a gently deformed east dipping sedimentary package that is correlated with the Mid- to Upper Jurassic Bowser Group (Payne, 1989). Rocks of Unit 11 are predominantly well bedded greywackes, argillites and siltstones, with narrow (but well defined) conglomeratic beds. Clasts within conglomerate horizons are heterolithic, with the most common types dark grey argillites, porphyry and chert pebbles. Pyritic clasts were also noted in one locality on the south slope of Mount Dilworth. Tops were found to be upright to the east, as determined from load casts within siltstone beds.

Rocks classified as Unit 11 are similar in many respects to lithologies present in Unit 2c. Dark grey to black argillaceous rocks are present in both sequences; however, Unit 2c is dominated by thin discontinuous beds with a more intense degree of foliation and higher carbonate content. In Unit 11, beds are commonly up to one metre or more in thickness and traceable over 100 m or more.

Previous mapping by Alldrick (1985) concluded the area mapped herein as Unit 11 (Bowser Group) is the upper part of Unit 2 (Salmon River Formation).

3.2.5 Units 21 and 22 Dykes

A Tertiary dyke system (including the Portland Canal dyke swarm) cuts the volcanosedimentary sequence on the south and western slopes of Mount Dilworth. The main body of the swarm crosses the middle and upper parts of Silver and Williams creeks, showing little deviation as it crosses the major Troy Canyon-Mount Dilworth fault. Dyke widths are up to tens of metres across, with many dykes narrowing or pinching out entirely along strike. A leucocratic, quartz porphyritic rhyodacite ("21c") was perhaps the most prevalent of the types observed. Dykes of Unit 21c are generally cream to pale brown in colour, frequently with a large amount of associated quartz veining. Along strike or in the centre of the Unit 21c dykes, small (<4 mm) hornblende and biotite phenocrysts are commonly developed, and in some examples 21c is gradational into a plagioclase porphyritic granodiorite phase ("21b").

A slightly younger group of dykes, predominantly plagioclase glomeroporphyritic andesite (Unit 22), cuts the leucocratic 21c and 21b dyke suite in scattered locales; however, in one site on the west flank of Mount Dilworth, a narrow Unit 22 dyke was found to be cut by 21c dykes. This would suggest a broad period of magmatic activity associated with Unit 21c, with the latter stages postdating Unit 22 emplacement.

The youngest dyke set observed within the mapped area consists of rare, narrow basic dykes ("22d"), locally termed "lamprophyres", which cut the Unit 21c dyke set. Unit 22d dykes are generally dark grey to greyish-brown in colour, with a fine-grained felted groundmass containing scattered plagioclase crystals. Minor post-emplacement faulting seems to have been localized along these dykes.

Most of the dykes observed within the map area follow the regionally defined east-west trend of the Portland Canal dyke swarm, although on a smaller scale individual dykes may be highly irregular along strike. Dips range from subvertical down to 10° to 15°, and the resistant nature of the swarm produces a series of prominent ridges in the headwaters of Silver Creek. On the southwest flank of Mount Dilworth, dykes display a more northwesterly strike, changing to a more north-south orientation with increasing proximity to the Troy Canyon-Mount Dilworth fault. A number of smaller dykes also follow the contacts of Units 2/3 and 3/5.

3.3 Structure and Stratigraphy

The Dilworth and Salmon River formations outcrop in a roughly north-south trend, bounded on the east by younger rocks of the Bowser Group and on the west by the maroon volcaniclastic sequences of Unit 5. Dips within Units 2 and 3 rocks are highly variable, reflecting (to a certain extent) the effects of deformation proximal to the major north-south faults. In Unit 2c rocks near the projected surface expression of the fault (generally snow covered), sediments are isoclinally folded, with steeply dipping to subvertical fold axes and a trend of decreasing compression away from the fault trace. Least deformed of the members within the Salmon River Formation is the fossiliferous limestone at the contact with the Dilworth Formation. In the northern part of the map area, in the vicinity of Troy Canyon, the contact dips steeply (70° to 90°) to the east. Conglomerate layers within the Unit 2c sequence, also relatively undeformed, display less steeply (64°) east dipping beds, but no tops are evident. Payne and Sisson (1988), however, noted west dipping orientations within the Dilworth Formation to the northwest, suggesting either an unconformity between or significant large scale deformation of the two formations. East of Troy Canyon, less deformed Unit 11 sediments display easterly dips, leading to a possible comparison with relatively similar Unit 2 lithologies, discussed below. In the volcaniclastic rocks of Unit 5, ash beds show moderately steep dips (50° to 60°) to the east.

Farther south, on the southwest flank of Mount Dilworth, Unit 2 displays a wider degree of variation within parts that were less deformed in the north. The limestone marker contact with Unit 3 varies from shallow east to moderate (30° to 35°) southwest dipping orientations, with bedding tops indicative of both east and west younging stratigraphies (Figures 5 and 6). Limestone beds within the Dilworth Formation also have moderate west dips, suggesting a contact conformable with Dilworth units. Near the 5/3 contact, however, ash beds show moderate east dips, often in close agreement with orientations for the narrow bleached zone described earlier. Unit 11 rocks to the east again display moderate to moderately steep dips to the east, with tops to the east.

Tuffaceous lithologies in the Silver Creek drainage and the vicinity of Fetter Lake also display a wide variation in orientations. Unit 2 tuffs in the Silver Tip mine environs show moderately steep (50° to 70°) north to northeast dips, but folding in the vicinity of the contact with Unit 11 sediments produces an inherent difficulty in determining an overall trend to the stratigraphy. In the vicinity of Fetter Lake, ash horizons show moderately shallow dips to the south, with little deformation present. Bowser Group sediments vary from shallow north to shallow southeast dips. Tops for both tuffaceous and sedimentary packages could not be determined.

Distribution of Salmon River and Dilworth stratigraphies in the Big Missouri area is in part controlled by a series of roughly north-south trending faults, including the major Troy Canyon-Mount Dilworth structure. The Troy Canyon fault has been interpreted (e.g. Payne, 1989) to represent a west dipping thrust which juxtaposed older volcanic rocks against Unit 11 sediments. Rotation of stratigraphies in the hanging wall rocks occurred to varying degrees, enabled by major east-west trending faults (such as the Dumas and No. 49 Creek faults). A small dextral strike-slip component is also implied for the Troy Canyon-Mount Dilworth fault by the offset of vertical Unit 21 dykes by subparallel structures on the southwest flank. A more important, north-northwest fault set, on the southwest ridge of Mount Dilworth, has apparently offset (dextrally) Units 2 and 3 and in the process truncated surface exposures of Units 3a/3az and 2c.

A number of smaller east-west trending structures are exposed in outcrop in the Silver Creek drainage and on the west slopes of Mount Dilworth. In general, these faults are small, with only a minor amount of accompanying gouge; many are associated with small limonitic zones on surface. Most commonly, the east-west trending faults will closely associate with Unit 21 dyke sets, although in several locales on the southwest side of Mount Dilworth, Unit 21 dykes are offset (some rotation?) by the faults. These faults are apparently related to major structures noted in Dumas and No. 49 creeks by Payne and Sisson (1988) and appear to be of similar age to the north-south trending fault system.

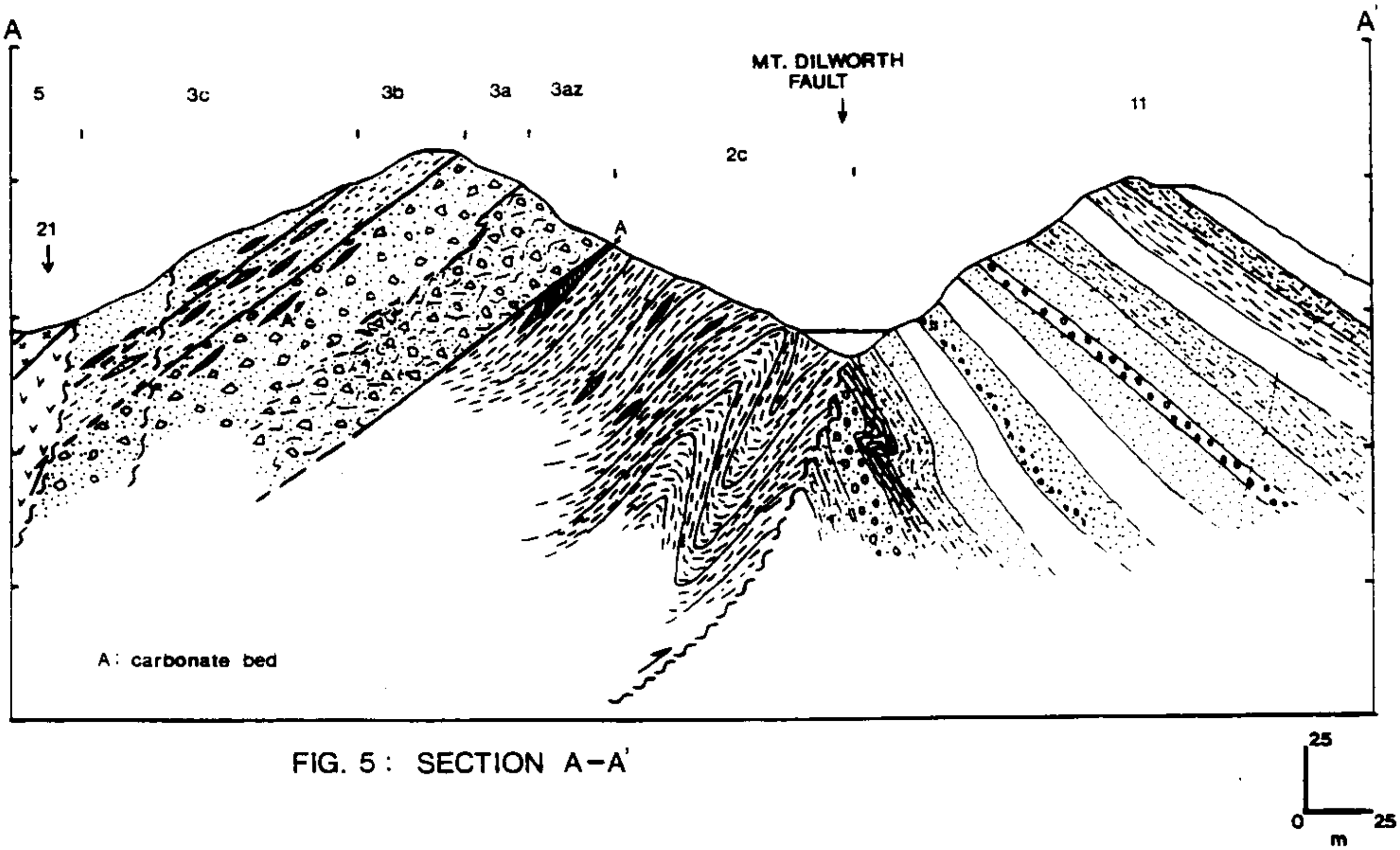


FIG. 5: SECTION A–A'

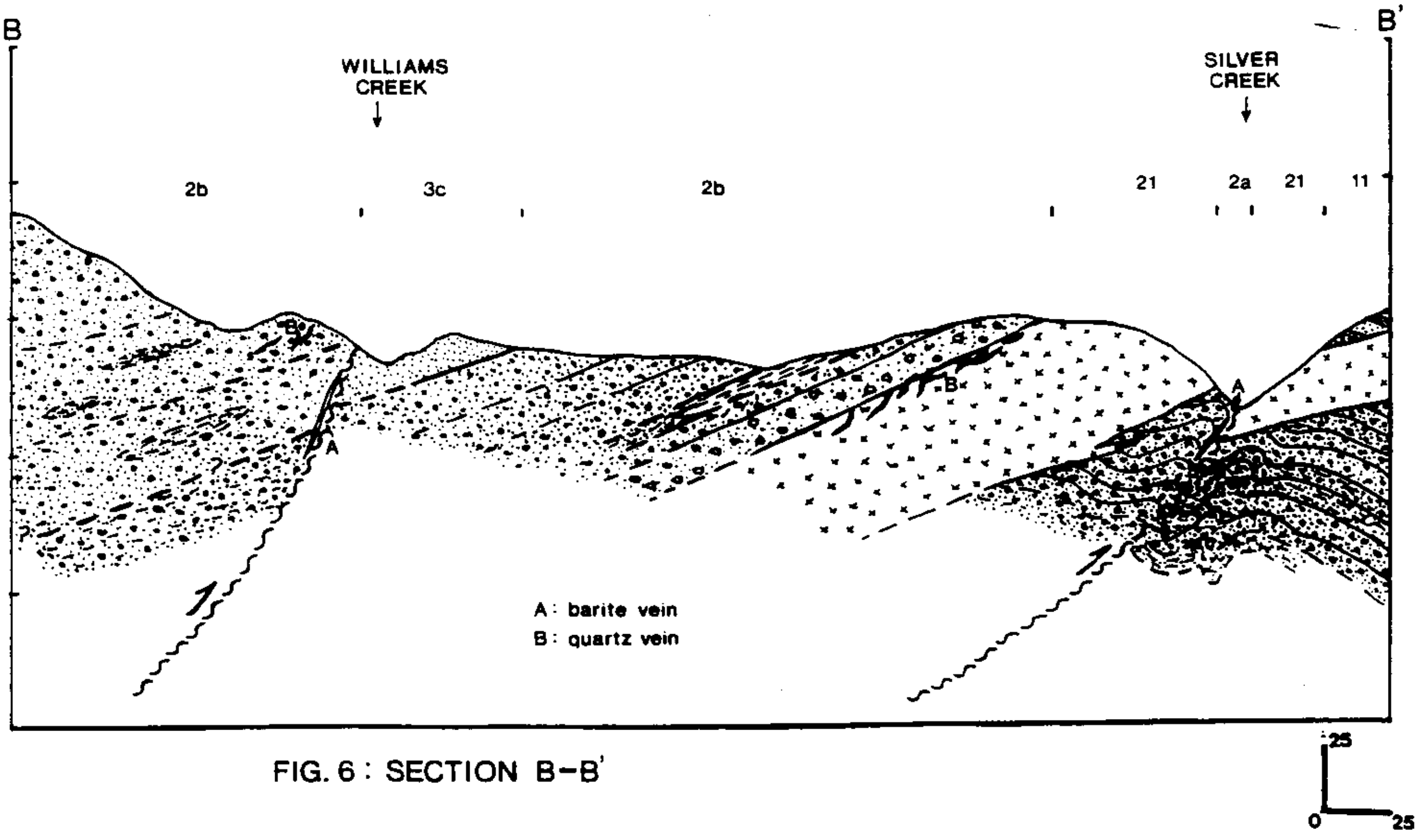


FIG. 6: SECTION B–B'

A moderately shallow to steeply east dipping fault associated with the bleached siliceous zone marking the contact between Units 3 and 5 is of less certain origin. The fault ranges from 5 to 30 cm in width and is associated with minor quartz-carbonate veining over much of its length. Movement essentially appears to have been dip-slip in nature, with minor offset of Unit 21 dykes noted. A possibility exists that this fault is a normal fault developed during rotation of stratigraphies by north-south and east-west trending faulting (e.g. Figure 3a).

The overall age relationships within the areas mapped are summarized in Figures 5 and 6 and appear to support conclusions reached by Payne and Sisson (1988) for rocks to the west of the map area. Salmon River (Unit 2) lithologies represent the oldest exposed rocks, with progressively younger sequences encountered as one moves from east to west. Younger Unit 11 sediments are juxtaposed by faulting, and the entire volcanosedimentary package is cut by a series of Tertiary dykes and associated quartz veining. East dipping sections within Units 2 and 3 represent blocks overturned by later faulting. Regional stratigraphic compilations by Anderson (1989), however, suggest an overall east-dipping volcanosedimentary package, with the Salmon River Formation as the youngest member in the sequence. The younging eastward trend would allow rocks on the east side of the Mount Dilworth fault to be classified as Salmon River, an important possibility when the similarity of Units 11 and 2c is considered. The difficulty in obtaining stratigraphic tops may account for the discrepancy in stratigraphic models; there is a possibility that the contact between the volcanosedimentary sequence and the younger sediments is not conformable as suggested by the Anderson (1989) model, but instead is marked by a fault or major unconformity. The contact at Big Missouri is marked by the Troy Canyon-Mount Dilworth fault, and the differences in bedding attitudes, degree of deformation and stratigraphic tops are thus suggestive of an overall younging westward trend.

3.4 Mineralization

Several styles of mineralization were identified within the Salmon River and Dilworth formations:

1. Pyritic lapilli tuff (Subunit 3az).
2. Pyritic carbonaceous tuff (Subunit 2ap).
3. Tertiary quartz-sulphide veins.
4. Pyritic pods in argillaceous rocks (Unit 2c).
5. Tertiary barite veins.
6. Pyritic limestone/ash tuff (Unit 2a).

Pyritic Lapilli Tuff (Subunit 3az)

The largest area of altered and mineralized rock exposed within the map area is associated with the pyrite-bearing rhyodacitic lapilli tuff to tuff breccia forming a prominent ridge on the west and northwest flanks of Mount Dilworth. Outlines of the mineralized rock are irregular, with the largest sulphidic bodies located west of the head of Troy Canyon and on the southwest ridge of Mount Dilworth. Fine-grained pyrite is essentially the only sulphide present (one sample contained two small grains of galena), occurring in amounts up to 15% of the total volume, in a quartz-sericite altered matrix.

Carbonate is pervasive, both as veinlets and as alteration, but carbonate bodies contained little or no sulphide. Pyrite may also occur as pods up to 2 cm in length, or as narrow stringers.

Pyrite is also present in small amounts throughout the Dilworth Formation, although limonitic gossan is only developed on Subunit 3az and in the vicinity of the Portland Canal dyke swarm. The latter occurrence may in part be associated with Tertiary veining activity.

Pyritic Carbonaceous Tuff (Subunit 2ap)

A black, pyritic carbonaceous tuff occurs near the contact with younger Bowser sediments in the area between Fetter Lake and the Silver Tip mine. Outcrops of the subunit are few, but the tuff appears to be continuous for over one hundred metres along strike. Fresh surfaces show the unit to be a black lapilli tuff to tuff breccia containing up to 5% coarse-grained pyrite, as cubes or as framboidal forms, commonly in association with whitish carbonate. A 2 cm ashy bed in a less heavily mineralized part indicates a northeast dip to the subunit.

Tertiary Quartz-Sulphide Veins

A number of small tonnage vein deposits (e.g. Silver Tip, Bella Coola) are located within the drainage basin of Silver Creek in close spatial and temporal association with the main body of Tertiary dykes. Veins are dominantly vuggy, cockscomb to massive quartz bodies forming siliceous stockworks along the margins of, or within, the Unit 21 dykes. Host rocks for the vein-dyke systems are typically carbonaceous Unit 2 tuffs, although a number of barren white quartz veins have been noted within Unit 11 sediments. Widths and strike lengths are highly variable, with the largest veins approaching 1.5 m in width and over one hundred metres in length. Mineralization consists predominantly of pod-like sulphide bodies, generally less than 20 m in length and containing a coarse-grained assemblage of sphalerite, galena, pyrite and chalcopyrite. At Silver Tip mine, a surface exposure of the largest sulphide pod also contains visible pyrargyrite, argentian tetrahedrite and native silver in amounts up to 3% of the mineral assemblage, within a graphitic base metal sulphide body. Veins in the Bella Coola and Silver Crest vein groups also contain minor amounts of tetrahedrite and pyrargyrite. Frequently, coarse-grained sulphides will occur as scattered blebs within quartz (noted both as clasts and as vug infillings) in the vicinity of the main sulphide body.

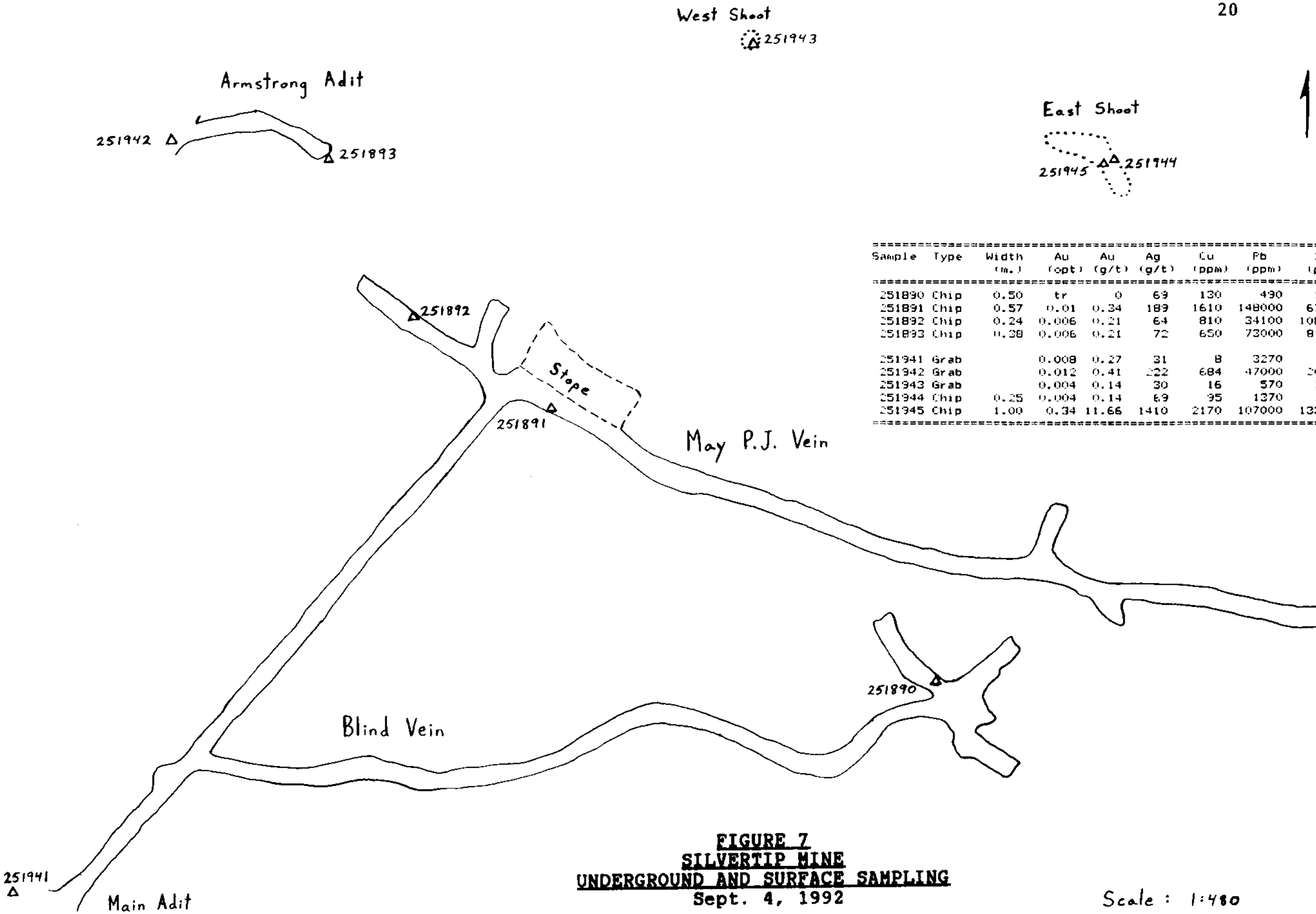
Development of the Tertiary vein groups has been extensive, with most of the major veins exposed by widespread trenching. Adits have also been driven to intersect sulphide bodies on the H vein, Silver Tip, Silver Crest and Bella Coola groups. In particular, two small sulphide bodies at the Silver Tip mine were defined by several hundred feet of drifting and one small stope. Sampling of the individual veins included representative samples from the dumps and chip sampling on surface exposures (four chip samples were also taken from mineralized sections of the May PJ and Blind veins at Silver Tip--see Figure 7).

Pyritic Pods in Argillaceous Rocks (Unit 2c)

Argillaceous rocks of Unit 2c located near the contact with the Dilworth Formation frequently contain pyritic pods up to 10 cm thick and 30 cm in length. The pods are bedding parallel and consist of up to 60% fine-grained pyrite in a matrix of yellowish to yellowish-white carbonate and clay minerals. The pods are distinguished by their association with small amounts of sulphate and malachite staining on weathered surfaces, though no hypogene copper minerals were positively identified. Minor amounts of very fine-grained pyrite are also disseminated within the associated argillites.

Tertiary Barite Veins

Two small barite-quartz veins are exposed within the canyons of Williams and Silver creeks in Unit 21 rocks. Each vein is highly variable in width along strike, attaining maximum widths of 1.5 m and lengths of less than 50 m. Both veins parallel major faults and display siliceous stockworks within their footwall. Mineralogically, these veins consist of up to 80% coarse-bladed to massive barite, with lesser fine-grained quartz as pods up to 20 cm in length. Sulphide content is poor, with a maximum of 2% disseminated fine-grained pyrite and sphalerite noted within the vein in Williams Creek.



Sample	Type	Width (m.)	Au (opt)	Au (g/t)	Ag (g/t)	Cu (ppm)	Pb (ppm)	Zn (ppm)
251890	Chip	0.50	tr	0	69	130	490	1750
251891	Chip	0.57	0.01	0.34	189	1610	148000	67000
251892	Chip	0.24	0.006	0.21	64	810	34100	108000
251893	Chip	0.38	0.006	0.21	72	650	73000	81000
251941	Grab		0.008	0.27	31	8	3270	400
251942	Grab		0.012	0.41	222	684	47000	20600
251943	Grab		0.004	0.14	30	16	570	1720
251944	Chip	0.25	0.004	0.14	69	95	1370	1480
251945	Chip	1.00	0.34	11.66	1410	2170	107000	133000

FIGURE 7
SILVERTIP MINE
UNDERGROUND AND SURFACE SAMPLING
Sept. 4, 1992

Pyritic Limestone and Ash Tuff (Unit 2a)

Small amounts of pyrite are disseminated in a small carbonate bed and associated ash tuffs in the lower canyon of Silver Creek. Carbonate veining, possibly from metamorphism of the carbonate bed, is widespread in the immediate vicinity of the unit. Pyrite occurs as very fine-grained disseminations associated with areas of carbonate veining, forming up to 2 to 3% of the rock.

3.5 Economic Potential

In terms of historical development, mineralization associated with Tertiary veining (quartz and barite) has received the most attention due to sporadic high silver grades and visibility of the veins. The discontinuous nature of the veins and the contained sulphide bodies, however, limits the size of Tertiary vein deposits and thus potential exists only for small tonnage (<10,000 t) deposits in this category. Furthermore, gold contents rarely exceed 2.5 g/t and are limited to the sulphide-rich parts of the veins. A possibility does exist for expansion (and higher Au/Ag ratios) of the mineralizing system at depth.

The other described mineralization styles represent better opportunities to identify a potential target. Pyritic tuffaceous rocks (Unit 3az) may be symptomatic of a much larger mineralizing system; the position of Unit 3az near the Troy Canyon fault suggests that the same unit may be present in the buried footwall. Locating the continuation of the unit would be difficult. A similar situation exists with pyrite mineralization found in Unit 2c--the presence of small pyritic pods is perhaps indicative of favourable conditions for mineralization elsewhere in the sequence. The small discontinuous nature of the pods, however, results in little potential on surface. The greatest economic potential within the Units 2/3 sequence probably occurs in association with the black pyritic tuff located between the Silver Tip mine and Fetter Lake. Pyrite mineralization within the tuff is suggestive of a syngenetic (or nearly so) origin, and the subunit outcrops over more than one hundred metres of strike length. Potential is present not only in down dip and along strike extensions of the subunit, but also at surface where a moderate overburden cover results in sparse exposure of the rock. The most likely target would be a stratiform massive sulphide or replacement deposit.

4.0 RESULTS OF SAMPLING PROGRAM

4.1 Program

Sampling was carried out in conjunction with supplementary geologic mapping in order to systematically evaluate the economic potential of the Dilworth and Salmon River formations where exposed in the Big Missouri area. A total of 116 samples were taken of mineralized volcanics/sediments, Tertiary veins and fresh rocks (for whole rock analysis). Lithologic changes were taken into account when sampling for whole rock. Sample locations are included on the 1:5,000 scale map of additions to the geology of the area. A number of representative samples of each unit were also taken for lithogeochemical analysis.

A small (134 samples) program of grid controlled soil sampling was also carried out in the area immediately south of Fetter Lake, where a small gossanous zone (and corresponding facies change within the tuffaceous rocks) is located (Figure 8). The majority of samples taken were from B-horizon within the soil profile.

4.2 Results

Complete assay data for the Big Missouri rock samples is summarized in Appendix A; whole rock data is summarized in Appendix B and Fetter Lake soil geochemistry in Appendix C. Overall, samples anomalous in either precious or base metals are rare, with the majority taken from Tertiary vein exposures. The highest gold assay (11.66 g/t) occurred in a sulphide-rich pod at the Silver Tip mine; similar material from an underground and less sulphide-rich vein nearby produced much lower values and thus limited the continuity of economic mineralization. Another sample of a sulphide-rich vein from trenches below northwest of Silver Tip assayed 7.68 g/t Au and 1,380 g/t Ag, although a nearby sample of similar material was much less encouraging. Samples from the H vein and veins at Silver Crest and Bella Coola also tended to assay only moderate (1 to 5 g/t) gold and high amounts (200 to 1,500 g/t) of Ag. In general, gold content in the veins paralleled sulphide content, while the highest silver assays were associated with the occurrence of coarse-grained sphalerite and galena. A slightly anomalous (0.55 g/t Au) sample was also found in a sulphide-bearing barite-quartz vein.

Samples from the gossanous units within Unit 3 were universally at or near detection limits for precious metals, despite the amount of visible sulphide present. One slightly anomalous (0.69 g/t Au, 1,260 ppm Pb) sample was taken from Unit 3az near the head of Dumas Creek, but resampling of the vicinity did not duplicate the analysis (no unusual features were associated with the sample site). The remainder of Unit 3 was also quite gold poor.

Samples from Unit 2 sediments and tuffs were also low in precious and base metals, though two sites were slightly anomalous (0.69 g/t Au). The anomalous sites were associated with a small pyritic pod in foliated argillites, and a folded shaley rock with a minor amount of surface sulphate staining, with the latter possibly containing very fine-grained pyrite. In the southern part of the map area, samples from the black pyritic tuff subunit (2ap) and recrystallized carbonate bed (2a) were also somewhat anomalous (0.62 g/t each).

Whole rock lithogeochemical analysis of samples taken from each of the major units exposed in the vicinity of Mount Dilworth appears to correlate well with sample suites included in studies by Galley (1981) and Alldrick (1991) (Figures 9A to 9C). When plotted on the AFM diagram described by Irvine and Baragar (1971), samples from the Dilworth and Salmon River formations tend to cluster near the calc-alkaline/tholeiitic transition, in agreement with an island arc environment proposed by numerous earlier studies. Notable exceptions are samples taken of the pyritic rhyodacite subunit ("3az") of the Dilworth Formation, which show an enrichment in total iron while being somewhat depleted in silica (Figure 9B). This characteristic is probably controlled by the intense pyritization of the subunit. When total silica is compared to an "immobile" element ratio, most samples are observed to cluster in the rhyodacite/dacite field (Figure 9B). As before, the major exceptions are samples from Subunit 3az; samples from this subunit display much lower silica contents that may be constrained by the amount of pyrite and/or carbonate that has been introduced at the expense of quartz. In general, rocks from Subunit 3az were also probably of an initial rhyodacite composition.

A second ternary diagram (Figure 9C), described by Jensen (1976), once again shows a relatively tight cluster of sample compositions, suggesting a near continuous cycle of volcanic activity controlled by differentiation trends within a single magma chamber. Rocks vary in composition from tholeiitic rhyolite to tholeiitic andesite, with most samples again plotted near the calc-alkaline/tholeiitic transition. A slight skew from the results of Galley (1981) is probably the result of rocks of more basic compositions being included in the aforementioned study.

Geochemical anomalies (Figure 8) present in soils covered by the Fetter Lake grid are highly erratic in distribution (for gold, silver and zinc). Gold contents were generally highly localized and do not appear to correspond with any particular geological feature. Silver anomalies are more widespread, but appear to correspond with known Tertiary vein mineralization. A sample (251856) taken from the most sulphide-rich of these veins produced low assays for both base and

FIGURE 9A

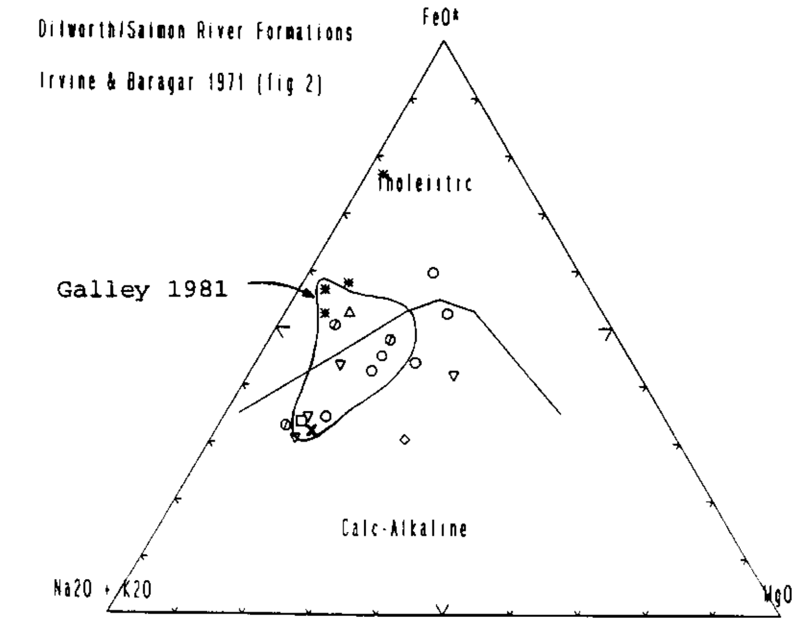


FIGURE 9B

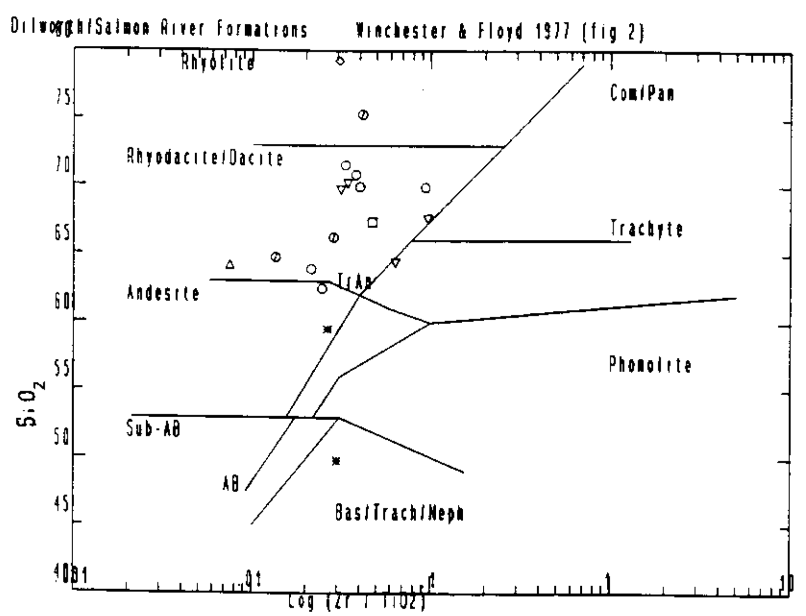
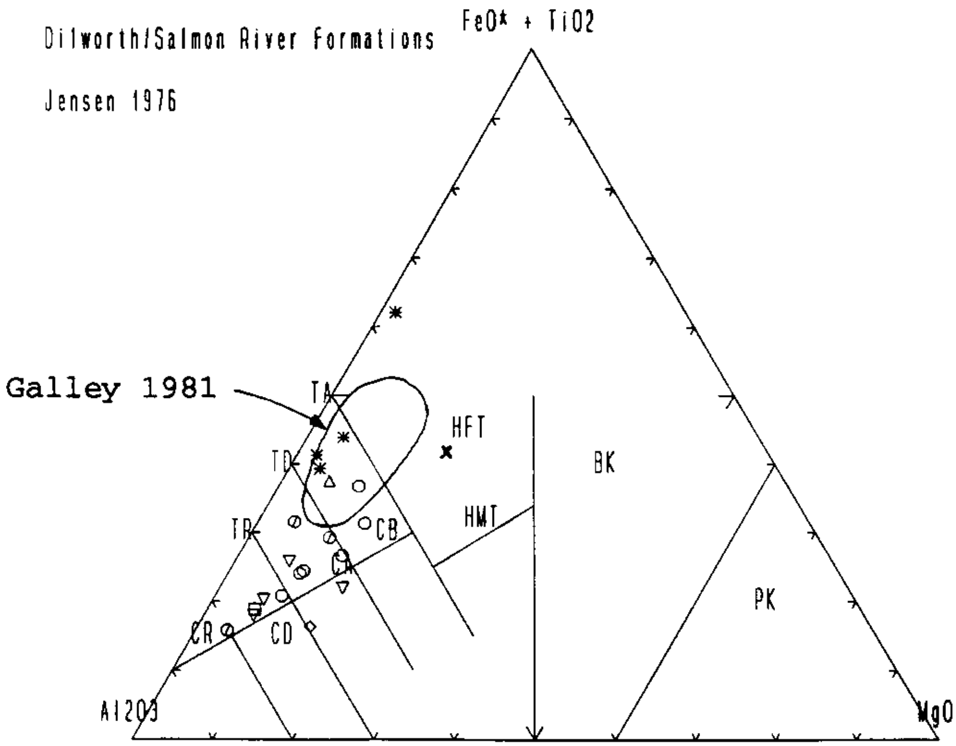


FIGURE 9C

Dilworth/Salmon River Formations

Jensen 1976



TR- THOLEIITIC RHYOLITE
TD- THOLEIITIC DACITE
TA- THOLEIITIC ANDESITE
CR- CALC-ALKALINE RHYOLITE
CD- CALC-ALKALINE DACITE
CA- CALC-ALKALINE ANDESITE
CB- CALC-ALKALINE BASALT
HFT- HIGH-FE THOLEIITE
HMT- HIGH-MG THOLEIITE
BK- BASALTIC KOMATIITE
PK- PERIDOTITIC KOMATIITE

KEY

UNIT	SYMBOL
1	EMPTY SQUARE
2A	EMPTY CIRCLE
2B	EMPTY CIRCLE
2C	HALVED CIRCLE
3A	EMPTY TRIANGLE
3AZ	ASTERISK
3B	INVERTED TRIANGLE
3C	INVERTED TRIANGLE
3/5 CONTACT BLEACHED ZN	DIAMOND
ALLDRICK, 1991 AVG. (3)	"X"

precious metals. Zinc distribution was found to be very erratic as well. One small area anomalous in both gold and silver occurs in the southernmost part of the grid, in an area of relatively poor outcrop. The area is underlain by Units 1, 3 and 5, with surface expression of a possible source not evident.

5.0 CONCLUSIONS

Surface exploration of the Units 2/3 contact (Salmon River/Mount Dilworth Formation) did not produce anomalous precious or base metal results despite the favourable geological environment and presence of stratigraphically controlled alteration and large amounts of pyrite mineralization.

A slightly anomalous (0.62 g/t Au) carbonaceous pyritic tuff located between the Silver Tip mine and Fetter Lake with unusual pyrite textures and relatively poor exposure warrants further examination for possible stratabound mineralization.

Tertiary quartz veins such as Silver Tip and Bella Coola have potential for very small tonnages (a few thousand tonnes) of silver-rich mineralization with generally low gold values. Exploration of targets such as this is probably uneconomic at present.

6.0 RECOMMENDATIONS

The carbonaceous pyritic tuff located between the Silver Tip mine and Fetter Lake should be trenched and tested with closely-spaced soil samples.

Consideration should be given to exploring the western slopes of the Big Missouri ridge, especially in the area below the upper Granduc Road, where relatively little systematic exploration has been done and several large gossans exist.

No further work is recommended on the Salmon River/Mount Dilworth contact until additional information is published on detailed geology of the Eskay Creek Deposit.

No further work is warranted on the known Tertiary vein deposits such as Silver Tip and Bella Coola at present.

7.0 STATEMENT OF QUALIFICATIONS

I, Christopher T. S. Hood, of 3060 East 2nd Avenue, Vancouver, B.C., V5M 1E8, hereby certify that:

1. I graduated with a B.Sc. (Honours) in Geological Sciences obtained from the University of British Columbia in 1989, and with a M.Sc in Geological Sciences obtained from the University of British Columbia in 1991.

2. I am eligible for registration in the Association of Professional Engineers and Geoscientists of British Columbia.

3. I have practised my profession for four field seasons working in British Columbia and the Yukon Territory.

4. I have no financial interest in this property.

DATED this _______ day of ______________________, 1992 at Vancouver, British Columbia.

Christopher T. S. Hood, M.Sc.

7.0 STATEMENT OF QUALIFICATIONS

I, Paul G. Lhotka, of 254 East 18th Street, North Vancouver, B.C., V7L 2X6, hereby certify that:

1. I graduated with a B.Sc. in Geology obtained from the University of Manitoba in 1981, and with a Ph.D. in Geology obtained from the University of Alberta in 1988.

2. I am registered as a professional geologist with the Association of Professional Engineers and Geoscientists of the Province of British Columbia.

3. I am a member of the Canadian Institute of Mining, Metallurgy and Petroleum and an associate of the Geological Association of Canada.

4. I have practised my profession continuously for twelve years working in Canada.

5. I have no direct financial interest in this property; however, I do own shares and have stock options in Westmin Resources Limited.

6. Christopher Hood worked under my direct supervision on the Big Missouri project.

DATED this 1st day of December, 1992 at Vancouver, British Columbia.

PROFESSIONAL PROVINCE OF P. G. LHOTKA BRITISH COLUMBIA GEOSCIENTIST

Paul G. Lhotka, Ph.D., P. Geo.

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APPENDIX A

ROCK SAMPLE ANALYTICAL RESULTS

APPENDIX A

ROCK SAMPLE ANALYTICAL RESULTS

Sample No.	Who	Location	Date	Type	Width (m)	Au (g/t)	Ag (g/t)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Sample Description
251798	TLT	Fetter Lake	17-Jul-92	Grab		0.21	3	25	40	140	Rusty zone of conglomerate (ferricrete) found in soil hole.
251799	TLT	Fetter Lake	17-Jul-92	Grab		0.14	13	22	80	70	Light grey felsic volcanic lapilli to 1 cm, pyrite matrix in part.
251800	TLT	Fetter Lake	17-Jul-92	Grab		0.07	19	33	340	420	Light grey felsic volcanic lapilli to 1 cm, pyrite matrix in part.
251814	PGL		21-Jul-92	Grab		0.14	2	42	370	280	Unit 2. Grey tuff, 3% fg dissem py, subcrop.
251851	TLT		17-Jul-92	Chip	1.20	0.07	42	26	780	780	Dark black lapilli tuff with 5% py in matrix, several s'dary qtz veins.
251852	TLT		17-Jul-92	Grab		0.14	13	5	150	20	Dark black lapilli tuff, tr py, tr hydrozincite.
251853	TLT		18-Jul-92	Chip	0.24	1.23	9	18	560	340	Quartz vein? with trace diss py, several fragments found in vein.
251854	TLT		18-Jul-92	Grab		0.07	6	9	40	80	Silicified tuff with trace diss py, 4 m N of 251853.
251855	TLT		18-Jul-92	Chip	0.50	0.07	6	16	50	150	Unit 5t. Hanging wall of 251853.
251856	TLT		21-Jul-92	Grab		0.41	400	123	5,080	14,200	Vuggy qtz vein, silic. frags to 10%, to 2% py + sl, gn
251857	TLT	On Pipeline	21-Jul-92			0.14	3	94	860	680	Rusty weathered fine grain grey lapilli ash tuff, tr py.
251858	TLT		21-Jul-92			0.00	1	11	120	90	Massive bull quartz on Cascade Creek.
251888	CH	Mount Dilworth	03-Sep-92	Grab		0.14	1	15	60	270	Grey lap. tuff, alt'd to qtz-ser along fault.
251889	CH	Mount Dilworth	03-Sep-92	Grab		0.21	1	20	40	110	Alt'd lap tuff, to 5% dissem py in matrix.
251890	CH	Silver Tip	04-Sep-92	Chip	0.50	0.00	69	130	490	1,750	Qtz-sulphide vein (underground), sl + py + gn main sx.
251891	CH	Silver Tip	04-Sep-92	Chip	0.57	0.34	189	1,610	148,000	67,000	Same as 251890.
251892	CH	Silver Tip	04-Sep-92	Chip	0.24	0.21	64	810	34,100	108,000	Same as 251890.
251893	CH	Silver Tip	04-Sep-92	Chip	0.38	0.21	72	650	73,000	81,000	Same as 251890.
251901	CH	Silver Tip	10-Aug-92	Grab		0.14	7	19	200	270	Foliated blk lap. tuff (Unit 2), carbonaceous matrix, below 2/11 contact.
251902	CH	Mount Dilworth	09-Aug-92	Grab		0.07	3	19	70	130	Gossanous Unit 3 grey tuff-brx, to 10% fg py as dissems and/or pods.
251903	CH	Mount Dilworth	09-Aug-92	Grab		0.00	2	18	60	170	Gossanous gey tuff-brx (Unit 3), to 5% vfg dissem py, perv. cb in fracs.
251904	CH	Mount Dilworth	09-Aug-92	Chip	0.40	0.07	1	21	20	90	Grey to white mylonitic zone along 5/3 contact.

APPENDIX A

ROCK SAMPLE ANALYTICAL RESULTS

Sample No.	Who	Location	Date	Type	Width (m)	Au (g/t)	Ag (g/t)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Sample Description
251905	CH	Mount Dilworth	09-Aug-92	Grab		0.21	4	20	70	180	C.g. qtz-cb vein along fault contact between Units 5 and 3, 20 cm width.
251906	CH	Mount Dilworth	09-Aug-92	Grab		0.14	4	90	40	100	Grey to maroon lap. tuff (Unit 3), near 5/3 contact.
251907	CH	Mount Dilworth	09-Aug-92	Grab		0.14	5	15	26	160	Grey lap. tuff to tuff-brx., stretched pumice frags, cb on fracs.
251908	CH	Mount Dilworth	09-Aug-92	Grab		0.07	4	20	42	130	Grey Unit 3 tuff-brx, ab't. grey cb on fracs, minor lim.
251909	CH	Fetter Lake	08-Aug-92	Grab		0.21	1	3	31	40	Unit 2 tuff-brx, fg blk matrix with minor dissem py, includes 1 cm ash bed.
251910	CH	Fetter Lake	08-Aug-92	Grab		0.62	1	10	100	50	Black pyritic vein (?), to 5% py as cubes or irreg. aggs. with cb.
251911	CH		04-Aug-92	Grab		0.07	2	3	40	70	Hematitic tuffaceous horizon in Unit 5 ANDS, nr. 5/3 contact.
251912	CH		04-Aug-92	Grab		0.14	4	92	190	300	Py/cb pods in gossanous Unit 3, up to 20 cm in thick., ± qtz.
251913	CH		04-Aug-92	Chip	1.60	0.14	5	13	90	140	Slightly gossanous lap. tuffs (Unit 3), to 5-8% cb in matrix, locally as pods.
251914	CH		04-Aug-92	Chip	1.40	0.21	4	12	50	60	Unit 3 brx, fewer clasts than 915, dissem to blebby py to 10%, ab't. cb.
251915	CH		04-Aug-92	Chip	1.50	0.14	4	13	50	40	Densely packed gossanous Unit 3 brx, many rd granitic clasts, dissem py to 8%.
251917	CH		03-Aug-92	Grab		0.34	2	38	410	600	Pyritic ash tuff (Unit 3), qtz-ser alt'n--may be subcrop.
251918	CH		03-Aug-92	Grab		1.17	17	197	590	550	Siliceous pod in folt'd (Unit 2) lapilli tuffs, 3% dissem py, minor qtz-cb strs.
251919	CH		03-Aug-92	Chip	0.30	0.21	3	39	300	360	Qtz vein breccia,m inor white cb, tr py, in Unit 3 tuffs.
251920	CH		31-Jul-92	Grab		3.09	1790	770	64,000	157,000	Sx-rich dump sample, sl-py-gn-pr-pyg-cpy stringers in QZMO to 10 cm thick.
251921	CH		31-Jul-92	Grab		0.48	753	190	4,910	63,200	Dump sample of vuggy qtz-sulphide vein, veins <20 cm thick, c.g. sl-gn-py core.
251922	CH		31-Jul-92	Grab		5.55	1170	1,620	41,400	65,500	Sulphide-rich material from vuggy qtz vein brx, sl>py>gn.
251923	CH		31-Jul-92	Chip	0.90	0.07	11	12	160	370	Massive white qtz vein in Unit 21 dyke, local poddy sl, py, tr gn to 5%.
251924	CH		31-Jul-92	Grab		0.48	267	8	4,260	3,740	Vuggy qtz stringer in Unit 21 QZMO, c.g. sl + py to 3%, tr gn, pr-pyg.
251925	CH		30-Jul-92	Grab		0.07	2	11	20	120	Rusty weather. Unit 3 tuffs, somewhat sheared with tr py.
251926	CH		30-Jul-92	Chip	0.20	2.06	512	194	4,070	1,780	Qtz vein brx in Unit 3 tuffs, dissem py to 3%, minor sl.
251927	CH		30-Jul-92	Grab		0.14	2	2	90	30	Strongly pyritized welded lapilli tuffs (Unit 3), dissem py to 5%.

APPENDIX A

ROCK SAMPLE ANALYTICAL RESULTS

Sample No.	Who	Location	Date	Type	Width (m)	Au (g/t)	Ag (g/t)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Sample Description
251928	CH		30-Jul-92	Grab		0.07	1	1	10	30	Welded lapilli tuffs, vfg dissem py to 2% (Unit 3).
251929	CH		30-Jul-92	Chip	0.20	0.07	2	4	10	40	Fg siliceous pod, greenish and quite hard-in tuffs.
251930	CH		30-Jul-92	Grab		0.00	1	9	40	70	Dark greyish-green fsp porph, phenos gone to cb, Unit 3?
251931	CH	H Vein	30-Jul-92	Grab		1.71	286	74	1,400	13,200	Black pyritic vein, to 20% massive fg py, also white vuggy qtz.
251932	CH		29-Jul-92	Grab		7.68	1380	328	14,300	13,700	Vuggy qtz vein, 5% m.g.-c.g. euh sl + gn + py + pr-pyg.
251933	CH	Bella Coola	29-Jul-92	Grab		1.30	42	37	320	370	Fg black qtz-py vein in Unit 21 (lamp. and QZMO) dykes.
251934	CH		29-Jul-92	Chip	0.35	0.55	1490	453	10,900	16,500	Vuggy qtz vein, abundant c.g euh sl, gn and pr-pyg! to 8%.
251935	CH	Bella Coola	28-Jul-92	Grab		0.34	166	7	2,190	1,500	Qtz-vein brx, 2-3% euh sl, gn in vuggy cockscomb qtz.
251936	CH	Bella Coola	28-Jul-92	Grab		0.21	10	6	130	140	Black, sheared lamprophyre dyke, to 10% dissem fg py.
251937	CH	Bella Coola	28-Jul-92	Grab		0.48	1310	108	8,800	29,100	Vuggy qtz vein brx, minor dissem py.
251938	CH		28-Jul-92	Chip	1.20	0.07	2	27	130	70	Barren qtz vein brx-abundant cockscomb textures.
251939	CH	Silver Tip	27-Jul-92	Grab		0.21	3	16	250	320	Strongly pyritized and sheared LAMP dyke (Unit 21?).
251940	CH	Silver Tip	27-Jul-92	Grab		0.07	1230	5,360	39,600	70,000	Vuggy qtz vein brx with c.g. euh sl, gn, py to 10-15%.
251941	CH	Silver Tip	27-Jul-92	Grab		0.27	31	8	3,270	400	Vuggy qtz vein brx with up to 5% c.g. py, sl and gn.
251942	CH	Silver Tip	27-Jul-92	Grab		0.41	222	684	47,000	20,600	Vuggy qtz vein with up to 20% c.g. sx (py>sl>gn>pr-pyg), local vn brx.
251943	CH	Silver Tip	27-Jul-92	Grab		0.14	30	16	570	1,720	Qtz vein breccia, locally c.g. and vuggy with up to 3% py, sl, gn.
251944	CH	Silver Tip	27-Jul-92	Chip	0.25	0.14	69	95	1,370	1,480	Qtz vein breccia, some sl, gn clasts with cockscomb qtz rims.
251945	CH	Silver Tip	27-Jul-92	Chip	1.00	11.66	1410	2,170	107,000	133,000	Mass. sx. pod-cores wider vein, sl>20%, gn, py, pr-pyg, Ag, cpy.
251946	CH	Mount Dilworth	23-Jul-92	Chip	0.30	0.21	6	10	110	120	Qtz-Cc vein, some chl seams--no sx visible.
251947	CH	Mount Dilworth	23-Jul-92	Chip	0.30	0.69	1	52	520	310	Py (+cpy?) pods in argillaceous Unit 2 seds., some mal.
251948	CH	Mount Dilworth	23-Jul-92	Grab		0.14	2	19	260	310	MnOx stained Unit 3 brx., siliceous with perv. FeCb veins.
251949	CH	Mount Dilworth	23-Jul-92	Grab		0.14	2	6	40	90	Unit 3 brx, py to 5% with local silic., matrix darker than 251950.

APPENDIX A ROCK SAMPLE ANALYTICAL RESULTS											
Sample No.	Who	Location	Date	Type	Width (m)	Au (g/t)	Ag (g/t)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Sample Description
251950	CH	Mount Dilworth	23-Jul-92	Grab		0.69	2	21	1,260	740	Unit 3 brx., Gossanous (lim.), fg py to 5% in qtz-ser alt'n.
81251	CTH	Silver Creek	10-Aug-92			2.95	720	421	15,100	26,700	Qtz vn brx., to 15% sx: sl = py>gn>cpy in Unit 21.
81252	CTH	Silver Creek	10-Aug-92			0.27	4	7	38	100	Grey ash to lap. tuffs (Unit 2), ab't carbon. material.
81253	CTH	Silver Creek	10-Aug-92			0.62	6	19	89	90	Rextal. carb. pod with rare dissem py, cut by rare <10 cm cb veins.
81254	CTH	Silver Creek	10-Aug-92			0.34	54	40	927	1,050	Grey to black pyritic ash tuffs, HW to 81253.
81255	CTH	Silver Creek	10-Aug-92			0.07	4	40	150	310	Black folt'd argillite (Unit 2) with up to 10% py, perv. cb.
81256	CTH	Silver Creek	10-Aug-92			0.14	3	90	190	400	Gossanous Unit 3 tuff-brx, up to 5% dissem py.
81257	CTH	Mount Dilworth	11-Aug-92			0.00	1	93	20	100	Grey lap tuff (Unit 3), ab't fiamme about 5 m from 3/5 contact.
81258	CTH	Mount Dilworth	11-Aug-92			0.00	1	19	20	130	Slightly lim. tuff-brx (Unit 3), 1-2% dissem py with some cb.
81259	CTH	Mount Dilworth	11-Aug-92			0.00	1	24	50	60	Gossanous tuf-brx (Unit 3) with perv. cb, up to 10% dissem py.
81260	CTH	Mount Dilworth	11-Aug-92			0.00	2	14	20	110	Well bedded argillites (Unit 2), ab't cb stringers.
81261	CTH	Mount Dilworth	11-Aug-92			0.00	2	42	70	90	Bedded pyritic argillites, local limestone pods to 30 cm thick.
81262	CTH	Mount Dilworth	11-Aug-92			0.07	1	40	40	90	Argillites and limestones, to 5% dissem py--intensely folt'd.
81263	CTH	Mount Dilworth	11-Aug-92			0.14	2	16	90	100	Gossanous tuff-brx (Unit 3), ab't fg py in matrix.
81264	CTH	Silver Tip	27-Aug-92	Grab		0.00	1	6	80	160	Unit 2 lap. tuffs, alt'd to qtz-ser, minor cb.
81265	CTH	Silver Tip	27-Aug-92	Grab		0.07	2	18	100	290	Blk. carbonac. lap. to xtal tuff (1?), rare dissem py.
81266	CTH	Silver Tip	27-Aug-92	Grab		0.07	1	10	100	230	Grey to blk. tuff-brx, some clasts are rd to subrd.
81267	CTH	Silver Tip	27-Aug-92	Grab		0.07	1	41	60	160	Grey dust tuff (Unit 2?), local lapilli-rich bands.
81268	CTH	Silver Tip	28-Aug-92	Grab		0.00	3	27	140	250	Folt'd grey tuffac. argillites (Unit 2).
81269	CTH	Bella Coola	28-Aug-92	Grab		0.55	4	172	260	2,350	Ba-qtz vein, minor dissem fg py and sl.
81270	CTH	Bella Coola	28-Aug-92	Grab		Not Assayed--Whole Rock Only					Folt'd green dust tuff-Unit 3c.
81271	CTH	Mount Dilworth	29-Aug-92	Grab		0.00	4	28	120	300	Green folt'd lap. tuffs, up to 5% fg dissem py-local dark patches.

APPENDIX A ROCK SAMPLE ANALYTICAL RESULTS											
Sample No.	Who	Location	Date	Type	Width (m)	Au (g/t)	Ag (g/t)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Sample Description
81272	CTH	Mount Dilworth	29-Aug-92	Grab		0.14	4	53	240	570	Blk. weathering carbonac. lap tuff (Unit 2), minor qtz + cb veining.
81273	CTH	Mount Dilworth	29-Aug-92	Grab		0.00	2	32	150	370	Broken greyish-grn lap. tuff.
81274	CTH	Silver Tip	30-Aug-92	Grab		0.00	1	12	50	110	Qtz-ba vein, approx. 1.5 m across, qtz pods to 20 cm long.
81275	CTH	Bella Coola	30-Aug-92	Grab		0.00	14	42	260	510	Blk. tuff with perv. qtz-cb strs., hydrozn? + dissem py, sl to 2%.
81276	CTH	Bella Coola	30-Aug-92	Grab		2.13	1,080	173	16,100	32700	Qtz-sulphide (py>sl>gn>cpy) vein from trench.
81277	CTH	Troy Canyon	31-Aug-92	Grab		0.48	2	41	320	720	Alt'd Unit 3 tuff-brx, ab't dissem py, perv. cb.
81278	CTH	Troy Canyon	31-Aug-92	Grab		0.27	2	19	130	290	Same as 81277. Py often as cm long pods.
81279	CTH	Troy Canyon	31-Aug-92	Grab		0.69	1	46	80	220	Folded Unit 2 argillites--minor sulphate on fracs.
81280	CTH	Troy Canyon	31-Aug-92	Grab		0.07	2	18	60	130	Small pyritic zone in folt'd Unit 3 tuff-brx, grey matrix.
81281	CTH	Troy Canyon	31-Aug-92	Grab		0.07	2	12	30	150	Same as 81281. Several small cb veins.
81282	CTH	Troy Canyon	31-Aug-92	Grab		0.00	3	9	40	90	Pyritic tuff-brx, nearby less alt'd, has bombs to 50 cm.
81283	CTH	Troy Canyon	31-Aug-92	Grab		0.21	2	55	50	230	Slightly rusty weath. black shales, vfg py?
81284	CTH	Troy Canyon	31-Aug-92	Grab		0.00	4	15	10	130	Pyritic Unit 3 tuff-brx, to 3% dissem py.
81285	CTH	Troy Canyon	31-Aug-92	Grab		0.00	3	15	20	120	Strongly alt'd pyritic tuff-brx (3), to 10% vis. py.
81286	CTH	Troy Canyon	31-Aug-92	Grab		0.07	3	18	30	170	Grey siliceous lap tuff (3), flattened blk. frags.
81287	CTH	Troy Canyon	31-Aug-92	Grab		0.00	4	20	60	160	Pyritic lap. tuff to tuff-brx, perv. cb.
81288	CTH	Troy Canyon	31-Aug-92	Grab		0.07	3	14	30	90	Same as 81287. Grey matrix with ab't dissem py.
81289	CTH	Troy Canyon	31-Aug-92	Grab		0.00	5	13	30	100	Pyritic Unit 3 lap. tuff to tuff-brx--no cb veinlets.
81290	CTH	Troy Canyon	31-Aug-92	Grab		0.07	5	21	20	160	Same as 81289, but with 20 cm long py-cb pod.
81291	CTH	Mount Dilworth	01-Sep-92	Grab		0.00	1	12	40	60	Pyritic tuff-brx, ab't cb on fracs and in matrix.
81292	CTH	Mount Dilworth	01-Sep-92	Grab		0.00	1	44	30	100	Intensely folt'd Unit 2 shales, vfg py and cb on fracs.
81293	CTH	Mount Dilworth	01-Sep-92	Grab		0.00	3	23	60	130	Similar to 81291, near fossilifeous Unit 2 lst.

APPENDIX A

ROCK SAMPLE ANALYTICAL RESULTS

Sample No.	Who	Location	Date	Type	Width (m)	Au (g/t)	Ag (g/t)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Sample Description
81294	CTH	Fetter Lake	02-Sep-92	Grab		0.00	1	13	20	60	Blk. ash to lap. tuff, minor grey-green patches.
81295	CTH	Fetter Lake	02-Sep-92	Grab		0.00	2	18	60	130	Gossanous lap. tuff, blk matrix with up to 3% dissem py.
81296	CTH	Fetter Lake	02-Sep-92	Grab		Not Assayed--Whole Rock Only					Dark grey felsic ash tuffs, no obvious alt'n.
81297	CTH	Fetter Lake	02-Sep-92	Grab		Not Assayed--Whole Rock Only					Grey Unit 1 lapilli to xtal tuffs, minor K-Spar (?) alt'n.
81298	CTH	Fetter Lake	02-Sep-92	Grab		0.14	1	6	10	40	Light grey-green dust tuff (Unit 3).
81299	CTH	Mount Dilworth	03-Sep-92	Grab		0.21	1	22	310	740	Gossanous pyritic tuff-brx, local py in pods to 2 cm.
81300	CTH	Mount Dilworth	03-Sep-92	Grab		0.07	2	18	60	110	Felsic tuff brx in grey cb matrix, grey weathering.

APPENDIX B

WHOLE ROCK ANALYSES

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: WESTMIN MINES LTD.

P.O. Box 49066, The Bentall Centre
VANCOUVER, BC
V7X 1C4

A9221128

Comments: ATTN: TERRY L. TUCKER

CERTIFICATE A9221128

WESTMIN MINES LTD.

Project: 6307
P.O. # :

Samples submitted to our lab in Vancouver, BC.
This report was printed on 17-SEP-92.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
299	25	Pulp; prepped on other workorder
200	25	Whole rock fusion

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
594	25	Al2O3 %: Whole rock	ICP-AES	0.01	99.99
588	25	CaO %: Whole rock	ICP-AES	0.01	99.99
590	25	Cr2O3 %: Whole Rock	ICP-AES	0.01	100.00
586	25	Fe2O3(total) %: Whole rock	ICP-AES	0.01	99.99
821	25	K2O %: Whole rock	ICP-AES	0.01	99.99
593	25	MgO %: Whole rock	ICP-AES	0.01	99.99
596	25	MnO %: Whole rock	ICP-AES	0.01	99.99
599	25	Na2O %: Whole rock	ICP-AES	0.01	99.99
597	25	P2O5 %: Whole rock	ICP-AES	0.01	99.99
592	25	SiO2 %: Whole rock	ICP-AES	0.01	99.99
595	25	TiO2 %: Whole rock	ICP-AES	0.01	99.99
475	25	L.O.I. %: Loss on ignition	FURNACE	0.01	99.99
540	25	Total %	CALCULATION	0.01	105.00
891	25	Ba ppm		10	10000
973	25	Nb ppm	ICP	10	10000
1067	25	Rb ppm		10	10000
898	25	Sr ppm		10	10000
974	25	Y ppm	ICP	10	10000
978	25	Zr ppm	ICP	10	10000

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To: WESTMIN MINES LTD.
P.O. Box 49066, The Bentall Centre
VANCOUVER, BC
V7X 1C4

Project : 6307
Comments: ATTN: TERRY L. TUCKER

Certificate Date: 17-SEP-92
Invoice No. : I9221128
P.O. Number :
Account : GP

CERTIFICATE OF ANALYSIS A9221128

SAMPLE	PREP CODE		Al203 %	CaO %	Cr203 %	Fe203 %	K20 %	MgO %	MnO %	Na20 %	P205 %	SiO2 %	TiO2 %	LOI %	TOTAL %	Ba ppm	Nb ppm	Rb ppm	Sr ppm	Y ppm	Zr ppm
81253	299	200	16.86	2.10	0.08	7.36	3.01	3.59	0.07	1.83	0.18	58.41	0.81	6.53	100.85	1280	10	72	240	20	120
81257	299	200	16.20	1.13	0.02	5.90	2.91	3.93	0.13	0.63	0.12	64.05	0.38	4.38	99.78	1740	10	70	100	60	220
81261	299	200	16.88	0.34	0.02	8.07	3.05	1.21	0.06	2.84	0.17	60.43	1.11	6.43	100.60	1440	< 10	66	160	30	90
81262	299	200	15.08	0.27	0.04	2.75	2.88	0.75	0.02	1.40	0.19	72.06	0.52	4.55	100.50	1650	< 10	71	110	40	130
81265	299	200	14.45	2.53	0.01	4.28	2.27	1.69	0.10	3.33	0.14	66.84	0.41	4.16	100.20	680	10	69	230	60	230
81266	299	200	15.54	0.22	0.01	5.69	4.02	2.06	0.10	0.13	0.02	67.24	0.48	3.78	99.28	1220	< 10	123	20	20	110
81267	299	200	15.19	0.13	0.05	5.57	4.54	2.11	0.07	0.11	0.02	69.94	0.60	3.14	101.45	1280	< 10	120	10	20	120
81278	299	200	12.44	1.12	0.01	22.62	2.77	0.66	0.01	2.73	0.26	41.08	1.06	13.34	98.10	1310	< 10	62	80	40	190
81279	299	200	15.96	0.36	0.06	7.78	2.51	2.63	0.03	2.45	0.15	62.29	0.70	5.50	100.40	970	10	62	140	20	120
81289	299	200	11.35	9.83	< 0.01	8.20	2.24	0.50	0.10	2.87	0.30	52.15	0.94	9.23	97.73	960	10	42	370	40	150
81294	299	200	13.13	1.75	0.04	7.62	2.83	3.18	0.07	0.20	0.02	66.64	0.58	5.32	101.40	980	10	78	130	20	140
81295	299	200	15.25	5.36	0.02	5.76	2.78	1.53	0.10	2.44	0.23	60.63	0.68	6.25	101.00	1080	20	77	320	60	260
81296	299	200	15.83	0.91	0.04	10.57	3.15	2.96	0.06	0.31	0.13	60.71	1.40	4.24	100.30	1250	10	94	100	50	180
81297	299	200	16.66	3.22	0.04	4.16	3.60	1.31	0.07	2.41	0.17	65.24	0.46	4.40	101.75	2010	10	99	360	10	130
81298A	299	200	17.13	0.15	0.10	4.46	5.72	1.47	0.01	0.46	0.02	68.40	0.74	3.04	101.70	1020	10	262	10	20	140
81298B	299	200	17.13	0.12	0.04	3.84	5.97	1.40	< 0.01	0.41	0.01	68.48	0.63	3.09	101.10	1050	10	276	10	20	130
81318	299	200	17.80	3.98	0.01	7.86	5.01	1.39	0.21	0.19	0.33	56.56	0.92	5.86	100.10	2620	10	143	120	20	100
81319	299	200	11.92	2.54	0.04	5.40	4.10	0.52	0.13	0.14	0.25	67.87	0.60	5.26	98.76	3180	< 10	114	140	20	60
81320	299	200	12.85	1.77	0.04	5.56	3.91	1.00	0.18	0.14	0.27	70.97	0.65	3.77	101.10	4530	< 10	108	90	10	70
81321	299	200	17.68	0.57	0.09	6.35	5.36	0.90	0.08	0.18	0.34	64.12	0.95	3.57	100.20	4000	10	158	30	30	100
81322	299	200	13.59	0.71	0.07	3.48	4.38	0.51	0.03	0.20	0.31	74.04	0.72	3.25	101.30	6690	10	135	100	70	20
251904	299	200	11.53	0.43	0.08	2.73	2.51	2.32	0.04	0.73	0.13	78.00	0.27	2.59	101.35	1100	10	55	60	100	50
251908	299	200	13.33	3.95	0.02	8.61	1.41	1.38	0.07	4.11	0.34	59.96	1.11	5.97	100.25	890	10	37	240	230	50
251913A	299	200	6.36	36.04	< 0.01	5.37	0.77	0.56	0.45	2.17	0.17	18.34	0.57	23.46	94.27	290	< 10	15	440	100	50
251913B	299	200	7.38	34.17	< 0.01	4.97	0.86	0.51	0.42	2.67	0.19	21.69	0.64	22.37	95.87	310	< 10	15	470	110	60

CERTIFICATION: [signature]

APPENDIX C

SOIL GEOCHEMISTRY DATA

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: WESTMIN MINES LTD.

P.O. Box 49066, The Bentall Centre
VANCOUVER, BC
V7X 1C4

A9218435

Comments: ATTN: B. JANG CC: TERRY L. TUCKER

CERTIFICATE A9218435

WESTMIN MINES LTD.

Project: 6306 #1
P.O. # :

Samples submitted to our lab in Vancouver, BC.
This report was printed on 7-AUG-92.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	116	Dry, sieve to -80 mesh
203	11	Dry, sieve to -35 mesh
205	11	Geochem ring to approx 150 mesh
229	127	ICP - AQ Digestion charge
* NOTE	1:	

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
983	127	Au ppb: Fuse 30 g sample	FA-AAS	5	10000
2118	127	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	200
2119	127	Al %: 32 element, soil & rock	ICP-AES	0.01	15.00
2120	127	As ppm: 32 element, soil & rock	ICP-AES	2	10000
2121	127	Ba ppm: 32 element, soil & rock	ICP-AES	10	10000
2122	127	Be ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
2123	127	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
2124	127	Ca %: 32 element, soil & rock	ICP-AES	0.01	15.00
2125	127	Cd ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
2126	127	Co ppm: 32 element, soil & rock	ICP-AES	1	10000
2127	127	Cr ppm: 32 element, soil & rock	ICP-AES	1	10000
2128	127	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
2150	127	Fe %: 32 element, soil & rock	ICP-AES	0.01	15.00
2130	127	Ga ppm: 32 element, soil & rock	ICP-AES	10	10000
2131	127	Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
2132	127	K %: 32 element, soil & rock	ICP-AES	0.01	10.00
2151	127	La ppm: 32 element, soil & rock	ICP-AES	10	10000
2134	127	Mg %: 32 element, soil & rock	ICP-AES	0.01	15.00
2135	127	Mn ppm: 32 element, soil & rock	ICP-AES	5	10000
2136	127	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
2137	127	Na %: 32 element, soil & rock	ICP-AES	0.01	5.00
2138	127	Ni ppm: 32 element, soil & rock	ICP-AES	1	10000
2139	127	P ppm: 32 element, soil & rock	ICP-AES	10	10000
2140	127	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
2141	127	Sb ppm: 32 element, soil & rock	ICP-AES	2	10000
2142	127	Sc ppm: 32 elements, soil & rock	ICP-AES	1	10000
2143	127	Sr ppm: 32 element, soil & rock	ICP-AES	1	10000
2144	127	Ti %: 32 element, soil & rock	ICP-AES	0.01	5.00
2145	127	Tl ppm: 32 element, soil & rock	ICP-AES	10	10000
2146	127	U ppm: 32 element, soil & rock	ICP-AES	10	10000
2147	127	V ppm: 32 element, soil & rock	ICP-AES	1	10000
2148	127	W ppm: 32 element, soil & rock	ICP-AES	10	10000
2149	127	Zn ppm: 32 element, soil & rock	ICP-AES	2	10000

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
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PHONE: 604-984-0221

o: WESTMIN MINES LTD.

P.O. Box 49066, The Bentall Centre
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Comments: ATTN: B. JANG CC: TERRY L. TUCKER

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SAMPLE	PREP CODE		Au ppb FA+AA	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	Mg %	Mn ppm
0+00S 3+25E	201	229	20	0.2	3.09	6	40	< 0.5	< 2	0.03	< 0.5	4	54	35	7.45	< 10	< 1	0.04	< 10	0.44	145
0+00S 3+50E	201	229	10	1.2	2.11	24	70	< 0.5	< 2	0.02	< 0.5	3	10	17	4.84	10	< 1	0.08	20	0.06	230
0+00S 3+75E	201	229	125	9.0	2.49	304	110	< 0.5	< 2	0.03	< 0.5	72	4	70	9.52	< 10	5	0.14	20	0.05	5440
0+00S 4+00E	201	229	10	2.6	2.10	102	60	< 0.5	< 2	0.02	< 0.5	3	7	28	12.10	< 10	1	0.07	10	0.01	510
0+00S 4+25E	201	229	15	4.0	3.92	108	30	< 0.5	< 2	0.03	< 0.5	2	9	18	10.55	10	5	0.04	10	0.04	165
0+00S 4+50E	201	229	< 5	1.2	1.70	66	100	< 0.5	< 2	0.04	< 0.5	1	20	17	10.35	20	< 1	0.06	10	0.07	90
0+00S 4+75E	201	229	30	0.4	1.93	128	20	< 0.5	< 2	0.05	< 0.5	3	28	13	9.73	10	< 1	0.04	10	0.22	80
0+00S 5+00E	201	229	5	1.0	0.51	16	60	< 0.5	2	0.01	< 0.5	< 1	1	1	0.53	< 10	1	0.08	30	0.01	5
0+00S 5+20E	201	229	< 5	0.2	0.40	46	30	< 0.5	< 2	0.01	< 0.5	< 1	1	3	1.25	< 10	< 1	0.06	20	0.01	20
0+00S 5+50E	201	229	< 5	0.4	1.78	10	90	< 0.5	< 2	0.02	< 0.5	5	4	12	5.18	< 10	< 1	0.10	20	0.04	670
0+00S 5+75E	201	229	80	0.8	1.27	130	120	< 0.5	< 2	0.02	< 0.5	3	3	10	6.14	< 10	< 1	0.09	10	0.01	480
0+00S 6+00E	201	229	< 5	< 0.2	1.33	< 2	110	< 0.5	2	0.03	< 0.5	5	2	9	6.24	< 10	< 1	0.13	10	0.02	600
0+00S 6+25E	201	229	< 5	0.2	1.27	86	60	< 0.5	< 2	0.01	< 0.5	3	5	7	2.02	10	< 1	0.05	30	0.03	65
0+00S 6+50E	201	229	< 5	0.4	2.78	22	30	< 0.5	< 2	0.10	< 0.5	28	41	28	4.56	< 10	< 1	0.04	10	0.29	1075
0+00S 6+75E	201	229	< 5	0.4	2.63	24	20	< 0.5	< 2	0.04	< 0.5	3	30	28	6.49	10	1	0.03	10	0.08	265
0+00S 7+00E	201	229	< 5	0.4	2.82	< 2	30	< 0.5	< 2	0.06	< 0.5	6	31	25	4.66	10	< 1	0.04	10	0.18	730
0+50S 3+25E	201	229	< 5	< 0.2	1.77	18	120	< 0.5	< 2	0.02	< 0.5	15	3	10	6.16	< 10	< 1	0.12	20	0.06	355
0+50S 3+50E	201	229	< 5	0.2	1.93	48	150	< 0.5	< 2	0.09	< 0.5	16	10	14	10.15	10	< 1	0.07	20	0.15	2190
0+50S 3+75E	201	229	< 5	< 0.2	2.02	8	100	< 0.5	< 2	0.06	< 0.5	9	9	15	7.49	< 10	< 1	0.09	10	0.10	420
0+50S 4+00E	201	229	< 5	0.4	3.30	14	100	< 0.5	< 2	0.02	< 0.5	4	17	15	7.51	10	< 1	0.10	20	0.09	335
0+50S 4+25E	201	229	< 5	< 0.2	1.91	12	90	< 0.5	< 2	0.01	< 0.5	4	2	8	2.73	< 10	< 1	0.14	20	0.03	355
0+50S 4+50E	201	229	65	4.4	1.95	76	40	< 0.5	< 2	0.03	< 0.5	4	16	28	9.58	10	< 1	0.06	20	0.08	430
0+50S 4+75E	201	229	10	< 0.2	1.39	52	50	< 0.5	< 2	0.06	< 0.5	2	15	22	>15.00	< 10	< 1	0.02	< 10	0.01	205
0+50S 5+00E	201	229	< 5	< 0.2	0.44	< 2	160	< 0.5	< 2	0.06	0.5	4	2	20	9.31	< 10	< 1	0.14	10	0.01	180
0+50S 5+25E	201	229	< 5	0.6	0.48	14	110	< 0.5	< 2	0.05	< 0.5	4	1	14	6.22	< 10	< 1	0.06	10	< 0.01	325
0+50S 5+50E	201	229	< 5	< 0.2	1.98	< 2	90	< 0.5	< 2	0.02	< 0.5	< 1	7	8	3.93	< 10	< 1	0.08	10	0.03	505
0+50S 5+75E	201	229	< 5	1.2	1.67	24	100	< 0.5	< 2	0.02	< 0.5	3	10	14	5.50	< 10	< 1	0.09	10	0.03	370
0+50S 6+00E	201	229	< 5	< 0.2	2.82	28	30	< 0.5	< 2	0.05	< 0.5	5	48	37	7.86	10	< 1	0.03	10	0.50	155
0+50S 6+25E	201	229	< 5	0.4	2.17	42	40	< 0.5	< 2	0.07	< 0.5	5	30	17	6.30	10	< 1	0.05	10	0.27	120
0+50S 6+50E	201	229	< 5	0.6	3.95	10	20	< 0.5	< 2	0.03	< 0.5	9	60	55	8.02	10	< 1	0.04	10	0.18	500
0+50S 6+75E	201	229	< 5	0.6	2.88	< 2	50	< 0.5	< 2	0.07	< 0.5	7	52	30	3.64	10	1	0.06	10	0.61	210
0+50S 7+00E	201	229	115	0.2	2.13	10	50	< 0.5	< 2	0.04	< 0.5	6	50	23	5.59	10	5	0.07	10	0.29	325
1+00S 2+75E	201	229	10	0.8	1.73	14	120	< 0.5	< 2	0.05	< 0.5	3	19	20	4.96	10	2	0.07	10	0.09	115
1+00S 3+00E	201	229	< 5	< 0.2	1.63	4	100	< 0.5	2	0.04	< 0.5	3	13	13	3.20	10	1	0.08	10	0.09	80
1+00S 3+25E	201	229	15	< 0.2	1.77	12	50	< 0.5	< 2	0.04	0.5	5	28	28	9.90	20	1	0.07	10	0.06	190
1+00S 3+50E	203	205	10	0.4	2.42	16	380	< 0.5	< 2	0.17	< 0.5	19	25	40	6.47	10	< 1	0.35	10	0.36	2020
1+00S 3+75E	201	229	45	0.8	2.54	< 2	510	< 0.5	< 2	0.22	< 0.5	43	14	30	8.84	10	< 1	0.15	40	0.26	>10000
1+00S 4+00E	201	229	< 5	2.4	1.44	44	150	< 0.5	< 2	0.06	< 0.5	11	5	21	6.25	< 10	< 1	0.15	20	0.04	1730
1+00S 4+25E	201	229	< 5	2.6	3.57	8	120	< 0.5	< 2	0.38	< 0.5	9	44	26	4.31	20	< 1	0.07	50	0.61	170
1+00S 4+50E	201	229	< 5	0.2	0.75	14	60	< 0.5	< 2	0.12	< 0.5	2	4	8	0.93	< 10	< 1	0.07	20	0.04	100

CERTIFICATION: [signature]

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SAMPLE	PREP CODE		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
0+00S 3+25E	201	229	< 1	< 0.01	34	640	14	2	5	6	0.01	< 10	< 10	64	< 10	80
0+00S 3+50E	201	229	1	< 0.01	4	600	16	< 2	3	4	0.02	< 10	< 10	51	< 10	72
0+00S 3+75E	201	229	6	< 0.01	12	1670	54	2	27	2	< 0.01	< 10	< 10	40	< 10	612
0+00S 4+00E	201	229	1	< 0.01	2	1860	16	12	7	2	< 0.01	< 10	< 10	13	< 10	82
0+00S 4+25E	201	229	1	< 0.01	< 1	960	22	10	4	2	0.02	< 10	< 10	28	< 10	40
0+00S 4+50E	201	229	1	< 0.01	7	930	14	6	2	7	0.04	< 10	< 10	60	< 10	42
0+00S 4+75E	201	229	2	< 0.01	11	1060	10	8	2	6	0.04	< 10	< 10	44	< 10	34
0+00S 5+00E	201	229	< 1	< 0.01	< 1	570	2	4	< 1	4	< 0.01	< 10	< 10	10	< 10	18
0+00S 5+20E	201	229	1	< 0.01	< 1	380	< 2	2	< 1	4	< 0.01	< 10	< 10	19	< 10	34
0+00S 5+50E	201	229	< 1	< 0.01	1	1200	6	< 2	7	2	< 0.01	< 10	< 10	33	< 10	86
0+00S 5+75E	201	229	2	< 0.01	< 1	1940	76	4	2	16	< 0.01	< 10	< 10	19	< 10	50
0+00S 6+00E	201	229	< 1	< 0.01	1	1080	12	< 2	7	4	< 0.01	< 10	< 10	18	< 10	88
0+00S 6+25E	201	229	31	< 0.01	7	660	2	2	3	5	< 0.01	< 10	< 10	60	< 10	100
0+00S 6+50E	201	229	< 1	< 0.01	39	1280	14	< 2	1	15	0.01	< 10	< 10	31	< 10	78
0+00S 6+75E	201	229	3	< 0.01	14	1030	20	< 2	2	6	0.02	< 10	< 10	46	< 10	50
0+00S 7+00E	201	229	2	0.01	20	930	22	< 2	1	10	0.04	< 10	< 10	28	< 10	60
0+50S 3+25E	201	229	< 1	< 0.01	4	460	8	2	7	2	< 0.01	< 10	< 10	30	< 10	112
0+50S 3+50E	201	229	< 1	< 0.01	3	1100	36	2	6	10	0.01	< 10	< 10	59	< 10	110
0+50S 3+75E	201	229	< 1	< 0.01	4	1040	26	2	5	8	< 0.01	< 10	< 10	43	< 10	100
0+50S 4+00E	201	229	1	< 0.01	2	1350	< 2	2	8	3	0.01	< 10	< 10	95	< 10	56
0+50S 4+25E	201	229	< 1	< 0.01	1	390	< 2	< 2	3	2	< 0.01	< 10	< 10	30	< 10	64
0+50S 4+50E	201	229	2	< 0.01	5	960	166	6	4	4	0.02	< 10	< 10	29	< 10	130
0+50S 4+75E	201	229	< 1	< 0.01	< 1	2380	24	8	3	2	0.02	< 10	< 10	15	< 10	36
0+50S 5+00E	201	229	2	< 0.01	< 1	2300	12	4	4	16	< 0.01	< 10	< 10	16	< 10	78
0+50S 5+25E	201	229	< 1	< 0.01	1	2650	64	2	3	15	< 0.01	< 10	< 10	13	< 10	80
0+50S 5+50E	201	229	1	< 0.01	< 1	840	10	2	3	3	< 0.01	< 10	< 10	18	< 10	48
0+50S 5+75E	201	229	1	< 0.01	4	1390	12	< 2	4	4	< 0.01	< 10	< 10	43	< 10	62
0+50S 6+00E	201	229	< 1	< 0.01	41	870	12	2	4	7	0.02	< 10	< 10	36	< 10	106
0+50S 6+25E	201	229	7	< 0.01	24	1210	6	2	2	13	0.02	< 10	< 10	35	< 10	94
0+50S 6+50E	201	229	1	< 0.01	28	1290	16	< 2	4	4	0.02	< 10	< 10	33	< 10	98
0+50S 6+75E	201	229	2	0.01	56	960	16	< 2	3	14	0.03	< 10	< 10	41	< 10	104
0+50S 7+00E	201	229	3	< 0.01	21	530	6	< 2	4	5	0.08	< 10	< 10	62	< 10	56
1+00S 2+75E	201	229	3	< 0.01	7	850	16	< 2	2	11	0.01	< 10	< 10	103	< 10	36
1+00S 3+00E	201	229	3	< 0.01	6	430	8	2	3	12	0.01	< 10	< 10	131	< 10	32
1+00S 3+25E	201	229	8	< 0.01	7	660	< 2	< 2	3	6	0.02	< 10	< 10	121	< 10	48
1+00S 3+50E	203	205	< 1	0.01	6	2270	22	< 2	5	16	< 0.01	< 10	< 10	64	< 10	110
1+00S 3+75E	201	229	3	< 0.01	5	3530	112	< 2	5	21	0.01	< 10	10	68	< 10	200
1+00S 4+00E	201	229	1	< 0.01	3	1270	16	2	6	10	< 0.01	< 10	< 10	17	< 10	164
1+00S 4+25E	201	229	1	0.01	53	1960	42	< 2	9	38	0.03	< 10	< 10	31	< 10	250
1+00S 4+50E	201	229	1	< 0.01	2	860	8	< 2	1	10	< 0.01	< 10	< 10	15	< 10	26

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1+00S 4+75E	201	229	< 5	1.2	1.71	12	50	< 0.5	2	0.04	< 0.5	5	14	15	4.47	10	1	0.06	10	0.05	385
1+00S 5+00E	201	229	< 5	0.4	1.33	10	50	< 0.5	< 2	0.05	< 0.5	4	15	13	2.18	10	1	0.07	10	0.08	150
1+00S 5+25E	201	229	30	5.8	4.49	26	90	< 0.5	< 2	0.03	< 0.5	31	11	39	8.18	< 10	4	0.10	20	0.11	1945
1+00S 5+50E	201	229	< 5	0.4	2.59	12	160	< 0.5	< 2	0.05	< 0.5	3	3	91	5.45	< 10	1	0.14	10	0.03	770
1+00S 5+75E	201	229	< 5	< 0.2	2.61	66	30	< 0.5	< 2	0.03	< 0.5	10	26	34	>15.00	< 10	< 1	0.04	< 10	0.01	220
1+00S 6+00E	201	229	< 5	< 0.2	2.77	< 2	90	< 0.5	4	0.10	< 0.5	6	41	19	4.73	10	< 1	0.11	10	0.62	345
1+00S 6+25E	201	229	< 5	< 0.2	3.10	28	50	< 0.5	< 2	0.05	< 0.5	9	67	37	9.24	10	< 1	0.06	< 10	0.62	310
1+00S 6+50E	201	229	< 5	1.0	2.48	34	30	< 0.5	< 2	0.04	0.5	2	37	33	11.15	10	< 1	0.05	10	0.09	135
1+00S 6+75E	201	229	< 5	1.4	3.79	12	40	< 0.5	< 2	0.11	< 0.5	12	44	55	7.62	20	< 1	0.08	10	0.48	595
1+00S 7+00E	201	229	10	0.8	4.32	12	20	< 0.5	< 2	0.04	< 0.5	17	62	48	9.40	< 10	6	0.04	< 10	0.20	670
1+50S 3+25E	201	229	< 5	2.4	2.91	6	90	< 0.5	< 2	0.11	< 0.5	10	32	18	4.70	10	3	0.05	10	0.44	570
1+50S 3+50E	203	205	< 5	5.0	4.35	48	590	< 0.5	< 2	0.78	9.0	35	71	72	5.09	10	8	0.30	30	0.72	6750
1+50S 3+75E	201	229	< 5	4.2	2.99	6	70	< 0.5	< 2	0.05	0.5	2	26	22	4.31	10	< 1	0.05	20	0.14	265
1+50S 4+00E	201	229	< 5	0.6	3.35	12	80	< 0.5	< 2	0.05	< 0.5	13	37	25	6.22	10	< 1	0.08	10	0.37	1970
1+50S 4+25E	201	229	< 5	0.6	1.79	16	60	< 0.5	< 2	0.03	< 0.5	3	18	14	2.94	10	1	0.04	10	0.15	135
1+50S 4+50E	201	229	< 5	1.0	2.71	4	70	< 0.5	< 2	0.08	< 0.5	22	30	27	6.58	10	1	0.08	10	0.32	4530
1+50S 4+75E	201	229	< 5	0.8	3.66	30	100	< 0.5	< 2	0.25	< 0.5	6	45	26	6.55	10	2	0.04	10	0.51	195
1+50S 5+00E	201	229	< 5	< 0.2	3.35	22	50	< 0.5	< 2	0.05	< 0.5	7	75	30	8.68	10	5	0.03	< 10	0.56	215
1+50S 5+25E	201	229	< 5	2.4	2.07	18	40	< 0.5	< 2	0.06	< 0.5	3	27	15	4.63	10	1	0.05	10	0.17	145
1+50S 5+50E	201	229	< 5	3.4	3.39	16	130	< 0.5	< 2	0.04	< 0.5	5	7	22	9.39	10	1	0.04	10	0.04	435
1+50S 5+75E	201	229	< 5	< 0.2	2.73	10	50	< 0.5	< 2	0.07	< 0.5	6	58	25	7.78	10	< 1	0.06	< 10	0.71	285
1+50S 6+00E	201	229	30	0.4	3.41	20	60	< 0.5	< 2	0.05	< 0.5	5	58	25	9.66	10	4	0.04	< 10	0.32	420
1+50S 6+25E	201	229	< 5	0.4	3.02	20	60	< 0.5	< 2	0.12	< 0.5	12	58	27	4.70	10	< 1	0.05	10	0.92	475
1+50S 6+50E	201	229	< 5	0.2	1.80	< 2	40	< 0.5	< 2	0.06	0.5	3	30	12	4.59	10	2	0.06	< 10	0.13	70
1+50S 6+75E	201	229	< 5	0.2	3.57	20	40	< 0.5	< 2	0.04	< 0.5	5	57	29	7.50	10	< 1	0.03	10	0.60	225
1+50S 7+00E	201	229	10	1.0	3.41	20	20	< 0.5	< 2	0.02	0.5	5	50	37	6.95	< 10	< 1	0.03	< 10	0.13	85
1+85S 5+40E	201	229	< 5	0.6	2.36	44	50	< 0.5	< 2	0.02	< 0.5	5	14	25	7.89	< 10	< 1	0.04	10	0.11	390
2+00S 2+50E	203	205	< 5	1.6	2.51	10	160	< 0.5	< 2	0.05	< 0.5	3	64	15	3.62	10	< 1	0.19	10	0.32	185
2+00S 2+75E	203	205	< 5	0.4	2.37	18	130	< 0.5	< 2	0.06	< 0.5	4	55	16	4.33	10	< 1	0.16	20	0.28	530
2+00S 3+00E	201	229	< 5	1.2	5.50	16	180	< 0.5	< 2	0.40	< 0.5	60	37	27	5.42	10	< 1	0.06	10	0.60	6370
2+00S 3+25E	201	229	35	0.2	1.37	6	240	< 0.5	< 2	0.16	< 0.5	2	11	5	1.42	10	< 1	0.08	10	0.09	130
2+00S 3+50E	203	205	< 5	5.4	5.58	2	240	< 0.5	< 2	0.54	< 0.5	49	33	15	5.43	10	< 1	0.10	10	0.22	>10000
2+00S 3+75E	201	229	< 5	0.4	1.86	4	90	< 0.5	< 2	0.05	< 0.5	3	13	11	3.22	10	1	0.06	10	0.11	240
2+00S 4+00E	201	229	40	0.2	1.86	4	300	< 0.5	< 2	0.02	< 0.5	3	4	10	1.30	10	< 1	0.15	20	0.14	195
2+00S 4+25E	201	229	< 5	8.8	3.95	6	50	< 0.5	< 2	0.07	0.5	2	27	34	5.62	10	5	0.05	10	0.17	150
2+00S 4+50E	201	229	< 5	0.4	1.45	20	110	< 0.5	2	0.01	< 0.5	3	2	7	1.62	< 10	< 1	0.08	30	0.07	50
2+00S 4+75E	201	229	< 5	0.8	1.74	< 2	40	< 0.5	< 2	0.03	< 0.5	2	14	11	2.59	10	< 1	0.06	10	0.05	110
2+00S 5+00E	201	229	< 5	< 0.2	2.26	24	50	< 0.5	< 2	0.08	< 0.5	2	43	12	3.54	10	1	0.07	10	0.59	135
2+00S 5+25E	201	229	< 5	< 0.2	2.25	36	90	< 0.5	< 2	0.03	< 0.5	14	6	45	8.94	10	1	0.05	30	0.14	3530
2+00S 5+50E	201	229	< 5	0.2	0.96	16	30	< 0.5	< 2	0.02	< 0.5	12	2	22	8.07	< 10	1	0.06	20	0.02	1710

CERTIFICATION: Hart Bichler

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: WESTMIN MINES LTD.
P.O. Box 49066, The Bentall Centre
VANCOUVER, BC
V7X 1C4

Project : 6306 #1
Comments: ATTN: B. JANG CC: TERRY L. TUCKER

Page Number :2-B
Total Pages :4
Certificate Date: 07-AUG-92
Invoice No. : I9218435
P.O. Number :
Account :GP

CERTIFICATE OF ANALYSIS A9218435

SAMPLE	PREP CODE		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
1+00S 4+75E	201	229	4	< 0.01	5	870	24	< 2	1	7	0.03	< 10	< 10	48	< 10	44
1+00S 5+00E	201	229	1	< 0.01	8	960	14	< 2	< 1	12	0.01	< 10	< 10	48	< 10	36
1+00S 5+25E	201	229	< 1	< 0.01	5	1600	108	2	8	2	< 0.01	< 10	< 10	26	< 10	310
1+00S 5+50E	201	229	< 1	< 0.01	4	1350	42	< 2	10	7	< 0.01	< 10	< 10	23	< 10	112
1+00S 5+75E	201	229	4	< 0.01	4	1620	14	12	8	1	0.01	< 10	< 10	9	< 50	366
1+00S 6+00E	201	229	3	0.01	36	700	< 2	< 2	3	23	0.02	< 10	< 10	54	< 10	84
1+00S 6+25E	201	229	5	< 0.01	48	780	12	< 2	4	11	0.04	< 10	< 10	55	< 10	98
1+00S 6+50E	201	229	6	< 0.01	12	930	22	2	3	5	0.03	< 10	< 10	41	< 10	62
1+00S 6+75E	201	229	2	0.01	75	2030	12	2	5	18	0.05	< 10	< 10	42	< 10	204
1+00S 7+00E	201	229	2	< 0.01	26	1350	2	< 2	6	4	0.01	< 10	< 10	47	< 10	86
1+50S 3+25E	201	229	5	< 0.01	21	1190	52	< 2	3	17	0.02	< 10	< 10	35	< 10	118
1+50S 3+50E	203	205	23	0.03	99	2280	34	< 2	13	117	0.03	< 10	20	49	10	944
1+50S 3+75E	201	229	5	0.01	10	1040	20	< 2	2	10	0.04	< 10	< 10	35	< 10	96
1+50S 4+00E	201	229	2	0.01	19	1630	24	< 2	2	9	0.04	< 10	< 10	54	< 10	138
1+50S 4+25E	201	229	2	< 0.01	12	530	8	2	1	9	0.01	< 10	< 10	50	< 10	40
1+50S 4+50E	201	229	4	< 0.01	20	2190	40	< 2	2	11	0.03	< 10	< 10	46	< 10	112
1+50S 4+75E	201	229	3	< 0.01	31	1280	14	< 2	3	34	0.02	< 10	< 10	76	< 10	74
1+50S 5+00E	201	229	1	< 0.01	35	820	14	2	5	10	0.04	< 10	< 10	74	< 10	62
1+50S 5+25E	201	229	1	< 0.01	10	940	18	< 2	2	12	0.03	< 10	< 10	61	< 10	58
1+50S 5+50E	201	229	3	0.01	< 1	1180	146	4	6	5	< 0.01	< 10	< 10	27	< 10	110
1+50S 5+75E	201	229	3	< 0.01	38	1120	16	2	4	15	0.06	< 10	< 10	97	< 10	76
1+50S 6+00E	201	229	3	< 0.01	20	1390	6	< 2	4	8	0.05	< 10	< 10	61	< 10	78
1+50S 6+25E	201	229	< 1	< 0.01	53	680	12	2	4	17	0.03	< 10	< 10	47	< 10	92
1+50S 6+50E	201	229	1	< 0.01	11	610	2	< 2	2	11	0.02	< 10	< 10	85	< 10	34
1+50S 6+75E	201	229	1	< 0.01	37	540	24	< 2	5	9	0.05	< 10	< 10	54	< 10	68
1+50S 7+00E	201	229	3	< 0.01	16	820	34	< 2	4	4	0.01	< 10	< 10	46	< 10	38
1+85S 5+40E	201	229	8	< 0.01	5	880	10	2	5	2	0.01	< 10	< 10	33	< 10	84
2+00S 2+50E	203	205	2	0.01	15	650	10	< 2	2	15	0.01	< 10	< 10	52	< 10	46
2+00S 2+75E	203	205	5	0.02	8	790	22	< 2	3	12	0.05	< 10	< 10	95	< 10	68
2+00S 3+00E	201	229	10	0.01	33	2560	44	8	3	40	0.06	< 10	10	53	10	174
2+00S 3+25E	201	229	3	< 0.01	4	500	20	< 2	1	28	0.01	< 10	< 10	37	< 10	32
2+00S 3+50E	203	205	32	0.01	6	3290	94	2	1	78	0.03	< 10	30	46	10	114
2+00S 3+75E	201	229	1	< 0.01	6	700	2	< 2	1	10	0.01	< 10	< 10	52	< 10	44
2+00S 4+00E	201	229	< 1	< 0.01	2	1200	10	< 2	2	7	< 0.01	< 10	< 10	28	< 10	32
2+00S 4+25E	201	229	3	< 0.01	8	1540	16	< 2	2	12	0.03	< 10	< 10	40	< 10	44
2+00S 4+50E	201	229	1	< 0.01	< 1	610	6	< 2	1	4	< 0.01	< 10	< 10	31	< 10	26
2+00S 4+75E	201	229	1	< 0.01	3	700	10	< 2	1	9	0.04	< 10	< 10	60	< 10	32
2+00S 5+00E	201	229	1	< 0.01	31	610	8	< 2	3	20	0.02	< 10	< 10	61	< 10	48
2+00S 5+25E	201	229	10	< 0.01	2	1540	12	2	17	2	< 0.01	< 10	< 10	19	< 10	150
2+00S 5+50E	201	229	< 1	0.01	3	1910	20	< 2	9	1	< 0.01	< 10	< 10	5	< 10	82

CERTIFICATION: Thai D Ma

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: WESTMIN MINES LTD.

P.O. Box 49066, The Bentall Centre
VANCOUVER, BC
V7X 1C4

Project : 6306 #1
Comments: ATTN: B. JANG CC: TERRY L. TUCKER

Certificate Date: 07-AUG-92
Invoice No. : I9218435
P.O. Number :
Account :GP

CERTIFICATE OF ANALYSIS A9218435

SAMPLE	PREP CODE		Au ppb FA+AA	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	Mg %	Mn ppm
2+00S 5+75E	201	229	< 5	0.4	2.79	30	20	< 0.5	< 2	0.03	0.5	6	19	24	10.20	10	< 1	0.02	< 10	0.05	610
2+00S 6+15E	203	205	< 5	0.2	1.77	14	120	< 0.5	< 2	0.04	< 0.5	7	55	35	4.37	10	< 1	0.24	10	0.22	370
2+00S 6+25E	201	229	< 5	< 0.2	3.57	14	40	< 0.5	< 2	0.04	< 0.5	5	53	25	5.86	< 10	< 1	0.04	< 10	0.47	120
2+00S 6+50E	201	229	< 5	0.8	3.82	10	40	< 0.5	< 2	0.07	< 0.5	10	57	30	6.39	< 10	< 1	0.04	< 10	0.55	370
2+00S 6+75E	201	229	< 5	< 0.2	3.53	20	30	< 0.5	< 2	0.04	< 0.5	2	58	22	7.39	10	< 1	0.03	10	0.09	80
2+00S 7+00E	201	229	< 5	< 0.2	2.10	30	40	< 0.5	< 2	0.02	< 0.5	9	48	19	4.94	10	< 1	0.03	< 10	0.26	370
2+50S 2+50E	201	229	< 5	< 0.2	1.07	6	60	< 0.5	2	0.04	< 0.5	< 1	11	4	1.34	10	< 1	0.06	10	0.06	35
2+50S 2+75E	201	229	< 5	< 0.2	2.96	22	60	< 0.5	4	0.05	< 0.5	7	49	19	6.80	10	1	0.05	10	0.62	200
2+50S 3+00E	201	229	< 5	0.6	2.69	< 2	100	< 0.5	< 2	0.04	< 0.5	20	10	36	6.57	10	< 1	0.08	20	0.21	4860
2+50S 3+25E	201	229	25	3.4	3.35	20	100	< 0.5	< 2	0.05	< 0.5	10	18	32	9.62	10	< 1	0.09	10	0.23	1305
2+50S 3+50E	203	205	< 5	1.6	1.17	2	320	< 0.5	< 2	0.03	< 0.5	2	32	8	0.61	< 10	< 1	0.23	10	0.07	45
2+50S 3+75E	201	229	< 5	5.6	3.29	8	100	< 0.5	< 2	0.01	< 0.5	3	5	8	4.28	< 10	< 1	0.03	10	0.28	150
2+50S 4+00E	201	229	< 5	0.2	1.93	20	30	< 0.5	< 2	0.02	< 0.5	8	48	26	6.13	10	< 1	0.03	< 10	0.42	370
2+50S 4+25E	201	229	< 5	0.2	0.79	4	30	< 0.5	< 2	0.02	< 0.5	2	4	4	1.12	10	< 1	0.04	10	0.03	100
2+50S 4+50E	201	229	5	0.8	0.89	18	30	< 0.5	< 2	0.03	< 0.5	< 1	5	4	0.94	10	1	0.05	20	0.05	130
2+50S 4+75E	201	229	< 5	0.2	2.91	14	30	< 0.5	< 2	0.04	< 0.5	6	37	29	8.74	< 10	< 1	0.03	10	0.49	640
2+50S 5+25E	203	205	< 5	0.4	3.52	6	110	< 0.5	< 2	0.04	< 0.5	6	33	26	6.87	< 10	< 1	0.12	10	0.09	420
2+50S 5+50E	201	229	< 5	< 0.2	3.42	54	10	< 0.5	< 2	0.07	< 0.5	8	19	31	10.60	< 10	< 1	0.01	< 10	0.02	355
2+50S 5+75E	201	229	< 5	0.4	1.83	116	30	< 0.5	< 2	0.03	< 0.5	6	10	36	9.25	< 10	< 1	0.04	10	0.02	415
2+50S 6+00E	201	229	< 5	1.4	1.24	14	100	< 0.5	< 2	0.03	< 0.5	12	6	40	8.37	< 10	< 1	0.02	10	0.05	>10000
2+50S 6+25E	201	229	5	0.6	3.64	22	20	< 0.5	< 2	0.03	< 0.5	6	74	44	10.35	< 10	< 1	0.02	< 10	0.15	405
2+50S 6+50E	201	229	10	0.8	3.87	40	20	< 0.5	< 2	0.02	< 0.5	3	79	41	7.85	< 10	< 1	0.02	< 10	0.14	55
2+50S 6+75E	201	229	< 5	0.4	1.73	4	30	< 0.5	< 2	0.05	< 0.5	2	26	18	2.87	20	< 1	0.06	10	0.21	130
2+50S 7+00E	201	229	< 5	0.6	3.18	32	30	< 0.5	< 2	0.06	< 0.5	8	64	27	8.11	20	< 1	0.03	10	0.45	905
3+00S 2+25E	201	229	< 5	0.6	1.08	< 2	50	< 0.5	< 2	0.03	< 0.5	1	6	5	1.59	10	< 1	0.05	10	0.05	40
3+00S 2+50E	201	229	125	1.4	2.23	14	50	< 0.5	< 2	0.04	< 0.5	5	7	22	4.83	< 10	< 1	0.06	20	0.09	210
3+00S 2+75E	201	229	150	0.4	1.34	< 2	30	< 0.5	< 2	0.03	< 0.5	< 1	17	10	3.06	< 10	< 1	0.03	< 10	0.09	48
3+00S 3+00E	201	229	15	0.4	1.21	< 2	40	< 0.5	< 2	0.03	< 0.5	3	21	10	2.21	< 10	< 1	0.05	< 10	0.24	80
3+00S 3+25E	201	229	< 5	< 0.2	1.59	2	50	< 0.5	< 2	0.03	< 0.5	11	46	25	4.68	< 10	< 1	0.03	< 10	0.36	205
3+00S 3+50E	201	229	< 5	1.4	1.12	8	50	< 0.5	4	0.02	< 0.5	1	11	6	1.35	20	< 1	0.04	20	0.08	65
3+00S 3+75E	201	229	< 5	< 0.2	3.76	20	40	< 0.5	2	0.06	< 0.5	6	40	22	4.44	10	< 1	0.03	20	0.51	240
3+00S 4+00E	201	229	< 5	1.4	2.62	14	30	< 0.5	< 2	0.04	< 0.5	3	39	17	5.12	10	< 1	0.03	10	0.43	330
3+00S 4+25E	201	229	< 5	0.4	1.00	8	20	< 0.5	< 2	0.02	< 0.5	2	14	6	1.47	< 10	< 1	0.04	< 10	0.09	90
3+00S 4+50E	201	229	< 5	< 0.2	2.88	12	30	< 0.5	< 2	0.06	< 0.5	5	41	13	3.84	< 10	< 1	0.03	< 10	0.59	200
3+00S 4+75E	201	229	< 5	< 0.2	2.64	< 2	40	< 0.5	< 2	0.06	< 0.5	4	38	8	3.06	10	< 1	0.04	< 10	0.61	135
3+00S 5+00E	203	205	< 5	< 0.2	2.51	44	160	< 0.5	< 2	0.04	< 0.5	2	29	23	10.20	10	< 1	0.22	10	0.14	390
3+00S 5+25E	201	229	< 5	0.6	3.98	14	30	< 0.5	6	0.03	< 0.5	3	18	17	6.35	< 10	< 1	0.03	< 10	0.26	175
3+00S 5+50E	201	229	20	0.8	3.95	38	40	< 0.5	< 2	0.05	< 0.5	7	34	62	8.41	10	< 1	0.05	10	0.14	295
3+00S 5+75E	201	229	< 5	< 0.2	3.59	22	80	< 0.5	< 2	0.06	< 0.5	15	64	44	5.79	< 10	< 1	0.06	10	0.94	650
3+00S 6+00E	201	229	< 5	0.4	3.47	8	50	< 0.5	< 2	0.05	< 0.5	7	60	32	5.87	10	< 1	0.04	10	0.73	235

CERTIFICATION: [signature]

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
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To: WESTMIN MINES LTD.

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Project : 6306 #1
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CERTIFICATE OF ANALYSIS A9218435

SAMPLE	PREP CODE		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
2+00S 5+75E	201	229	14	< 0.01	13	950	18	4	5	3	0.03	< 10	< 10	23	< 10	64
2+00S 6+15E	203	205	3	0.01	29	830	16	< 2	3	12	0.01	< 10	< 10	61	< 10	60
2+00S 6+25E	201	229	< 1	< 0.01	29	830	10	< 2	3	11	0.02	< 10	< 10	50	< 10	52
2+00S 6+50E	201	229	2	< 0.01	38	720	22	< 2	4	11	0.04	< 10	< 10	37	< 10	66
2+00S 6+75E	201	229	2	< 0.01	9	680	8	< 2	3	7	0.03	< 10	< 10	71	< 10	38
2+00S 7+00E	201	229	< 1	< 0.01	36	880	16	4	2	4	0.02	< 10	< 10	51	< 10	54
2+50S 2+50E	201	229	4	< 0.01	5	230	6	< 2	1	12	0.01	< 10	< 10	57	< 10	20
2+50S 2+75E	201	229	2	< 0.01	35	390	14	< 2	4	12	0.05	< 10	< 10	57	< 10	70
2+50S 3+00E	201	229	6	< 0.01	1	2110	20	2	1	6	0.02	< 10	< 10	62	< 10	54
2+50S 3+25E	201	229	3	< 0.01	4	1310	116	< 2	3	6	< 0.01	< 10	< 10	40	< 10	132
2+50S 3+50E	203	205	1	0.01	4	900	4	< 2	< 1	9	< 0.01	< 10	< 10	19	< 10	32
2+50S 3+75E	201	229	< 1	< 0.01	< 1	530	38	2	3	4	< 0.01	< 10	< 10	45	< 10	52
2+50S 4+00E	201	229	< 1	< 0.01	50	550	8	< 2	4	4	0.01	< 10	< 10	42	< 10	76
2+50S 4+25E	201	229	2	< 0.01	1	200	< 2	< 2	1	5	0.01	< 10	< 10	47	< 10	36
2+50S 4+50E	201	229	< 1	< 0.01	< 1	360	18	< 2	< 1	7	0.06	< 10	< 10	45	< 10	22
2+50S 4+75E	201	229	1	< 0.01	26	790	16	< 2	4	8	0.02	< 10	< 10	39	< 10	144
2+50S 5+25E	203	205	< 1	0.01	5	1620	6	2	7	7	0.01	< 10	< 10	47	< 10	90
2+50S 5+50E	201	229	2	< 0.01	19	3180	2	2	12	9	0.01	< 10	< 10	19	< 10	168
2+50S 5+75E	201	229	3	< 0.01	6	1090	18	10	7	3	0.01	< 10	< 10	31	< 10	92
2+50S 6+00E	201	229	< 1	< 0.01	28	1490	4	4	16	6	< 0.01	< 10	20	30	< 10	172
2+50S 6+25E	201	229	< 1	< 0.01	27	1240	< 2	2	6	3	0.03	< 10	< 10	41	< 10	66
2+50S 6+50E	201	229	1	< 0.01	13	1140	8	< 2	5	2	0.01	< 10	< 10	40	< 10	38
2+50S 6+75E	201	229	1	0.01	10	870	28	< 2	1	8	0.14	< 10	< 10	50	< 10	54
2+50S 7+00E	201	229	1	< 0.01	27	1560	10	2	7	9	0.06	< 10	< 10	52	< 10	68
3+00S 2+25E	201	229	2	< 0.01	1	290	34	< 2	1	9	0.03	< 10	< 10	55	< 10	20
3+00S 2+50E	201	229	1	< 0.01	1	1000	12	< 2	2	8	< 0.01	< 10	< 10	39	< 10	48
3+00S 2+75E	201	229	< 1	< 0.01	3	580	10	< 2	1	6	< 0.01	< 10	< 10	53	< 10	30
3+00S 3+00E	201	229	1	< 0.01	13	560	4	< 2	1	9	0.01	< 10	< 10	44	< 10	34
3+00S 3+25E	201	229	1	< 0.01	41	550	4	< 2	4	8	< 0.01	< 10	< 10	63	< 10	56
3+00S 3+50E	201	229	4	< 0.01	4	200	66	< 2	1	7	0.17	< 10	< 10	62	< 10	26
3+00S 3+75E	201	229	< 1	< 0.01	32	850	14	< 2	4	10	0.03	< 10	< 10	33	< 10	64
3+00S 4+00E	201	229	1	< 0.01	23	480	20	2	3	9	0.05	< 10	< 10	42	< 10	54
3+00S 4+25E	201	229	3	< 0.01	7	450	14	< 2	1	5	0.01	< 10	< 10	35	< 10	20
3+00S 4+50E	201	229	3	< 0.01	29	460	< 2	2	2	13	0.03	< 10	< 10	39	< 10	56
3+00S 4+75E	201	229	1	< 0.01	29	620	10	< 2	2	14	0.02	< 10	< 10	39	< 10	54
3+00S 5+00E	203	205	< 1	0.02	3	1380	2	4	6	7	0.02	< 10	< 10	42	< 10	58
3+00S 5+25E	201	229	< 1	0.01	16	1280	8	2	5	6	0.01	< 10	< 10	25	< 10	46
3+00S 5+50E	201	229	4	< 0.01	19	1470	26	2	6	8	0.02	< 10	< 10	23	< 10	166
3+00S 5+75E	201	229	< 1	< 0.01	67	680	16	< 2	5	14	0.03	< 10	< 10	48	< 10	116
3+00S 6+00E	201	229	1	< 0.01	45	540	12	4	4	12	0.04	< 10	< 10	50	< 10	80

CERTIFICATION: Thai D Ma

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

.o: WESTMIN MINES LTD.

P.O. Box 49066, The Bentall Centre
VANCOUVER, BC
V7X 1C4

Project : 6306 #1
Comments: ATTN: B. JANG CC: TERRY L. TUCKER

Certificate Date: 07-AUG-92
Invoice No. : I9218435
P.O. Number :
Account : GP

CERTIFICATE OF ANALYSIS A9218435

SAMPLE	PREP CODE		Au ppb FA+AA	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	Mg %	Mn ppm
3+00S 6+25E	201	229	< 5	0.4	3.48	2	40	< 0.5	< 2	0.08	< 0.5	4	42	19	4.26	20	< 1	0.04	10	0.40	205
3+00S 6+50E	201	229	10	< 0.2	3.91	16	40	< 0.5	< 2	0.03	< 0.5	5	72	34	7.41	10	< 1	0.03	< 10	0.48	180
3+00S 6+75E	201	229	< 5	0.2	3.40	8	40	< 0.5	< 2	0.04	< 0.5	10	61	33	6.81	10	< 1	0.03	10	0.56	475
3+00S 7+00E	201	229	< 5	1.0	3.94	26	10	< 0.5	< 2	0.03	< 0.5	12	101	69	13.95	< 10	< 1	0.01	< 10	0.39	305
92TTSL002	203	205	10	1.0	2.04	50	240	< 0.5	< 2	0.77	10.0	10	100	106	4.05	< 10	< 1	0.30	10	1.00	1790
92TTLL001	203	205	40	0.2	2.40	< 2	380	< 0.5	< 2	0.55	< 0.5	14	52	14	4.81	< 10	< 1	0.32	10	0.81	1305
92TTSS001	201	229	< 5	1.6	2.61	56	30	< 0.5	6	0.05	< 0.5	4	18	43	9.11	10	< 1	0.03	< 10	0.17	190

CERTIFICATION: ____________

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To: WESTMIN MINES LTD.

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Certificate Date: 07-AUG-92
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P.O. Number :
Account :GP

CERTIFICATE OF ANALYSIS A9218435

SAMPLE	PREP CODE		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
3+00S 6+25E	201	229	2	0.01	30	800	26	< 2	4	13	0.07	< 10	< 10	39	< 10	70
3+00S 6+50E	201	229	1	< 0.01	36	860	24	< 2	3	7	0.02	< 10	< 10	42	< 10	70
3+00S 6+75E	201	229	3	< 0.01	41	620	14	2	5	8	0.04	< 10	< 10	42	< 10	84
3+00S 7+00E	201	229	2	< 0.01	45	1750	24	4	6	2	0.01	< 10	< 10	64	< 10	88
92TTSL002	203	205	5	0.04	31	1010	38	4	5	55	0.09	< 10	< 10	113	< 10	740
92TTLL001	203	205	2	0.04	11	610	22	2	5	83	0.05	< 10	< 10	68	< 10	104
92TTSS001	201	229	4	< 0.01	2	830	50	4	4	8	0.11	< 10	< 10	298	< 10	76

CERTIFICATION: Hai D Ma

REGIONAL STRATIGRAPHY

Map Unit No.	Berol	Description
22	956	**Andesite/Diorite Dike (Tertiary)**--Medium- to dark-green groundmass, massive, generally uniform; larger dikes commonly have finer grained border zones, and some dikes have narrow, baked contacts: commonly parallel to and locally cut dikes of Unit 21; altered to a pale- to medium-brown colour caused by sericite-carbonate along minor, late faults.
21v		**Vuggy quartz vein**, commonly with angular fragments of country rock, minor concentrations of coarse-grained sphalerite and galena, locally with silver-bearing tetrahedrite; cut Eocene dikes and country rock.
21	929	**Portland Canal and Hyder Dike (Eocene)**--Latite to dacite, commonly leucocratic; minor diorite; two main swarms: the Hyder south of the Silbak-Premier mine and the Portland Canal north of the Martha-Ellen deposit.
		MAJOR FAULTING EVENT
		MAJOR METAMORPHIC EVENT
11	944	**Bowser Group (Middle to Upper Jurassic)**--Argillite, siltstone, greywacke, minor limestone/dolomite lenses, and minor quartz-pebble conglomerate (to east of map area); it occurs along eastern border of Silbak-Big Missouri Belt, and is in fault contact with rocks of the Hazelton Group.
		1-9 HAZELTON GROUP (UPPER TRIASSIC TO LOWER JURASSIC)
		MIDDLE VOLCANIC SEQUENCE
5	912	**Andesitic latite to latite flow, flow breccia, breccia, lapilli tuff, tuff and minor epiclastic rocks.**
		LOWER VOLCANIC CYCLE
		(Note: Geolog Codes Not Subdivided Within Units 1, 2 and 3)
3	927	**Mount Dilworth Formation rhyolite-latite.**
3c		Pale green, latite ash tuff to tuffaceous sedimentary rock, locally laminated.
3b		Light green latite lapilli tuff with hornblende phenocrysts and chlorite mottles.
3a		Massive dark grey rhyolite lapilli tuff and tuff-breccia.
2	943	**Salmon River Formation? Latite tuff, lapilli tuff, argillitic latite ash tuff, argillite, limestone.**
2l		Limestone.
2c		Black to dark grey argillite, tuffaceous argillite, calcareous argillite, thinly interbedded siltstone, often strongly contorted.
2b		Grey tuff-breccia, tuff, epiclastic rocks; lithic pumice and crystal fragments.
2a		Black to dark grey, carbonaceous ash flow tuff to tuff-breccia, crystal fragments of plagioclase and biotite.
1	947	**Latite Welded Crystal Tuff**--Dark grey, heterolithic welded latite crystal tuff; occurs south of Long Lake Dam; facies equivalent of Unit 2.

SYMBOLS

- Outcrop
- Geological Contact
- Fault
- 50 Bedding (tops unknown, dip)
- 67 Foliation (dip)
- 76 Vein (dip)
- 35 Lineation/Fold Axis
- Trench
- Portal
- 251921△ Rock Sample Site

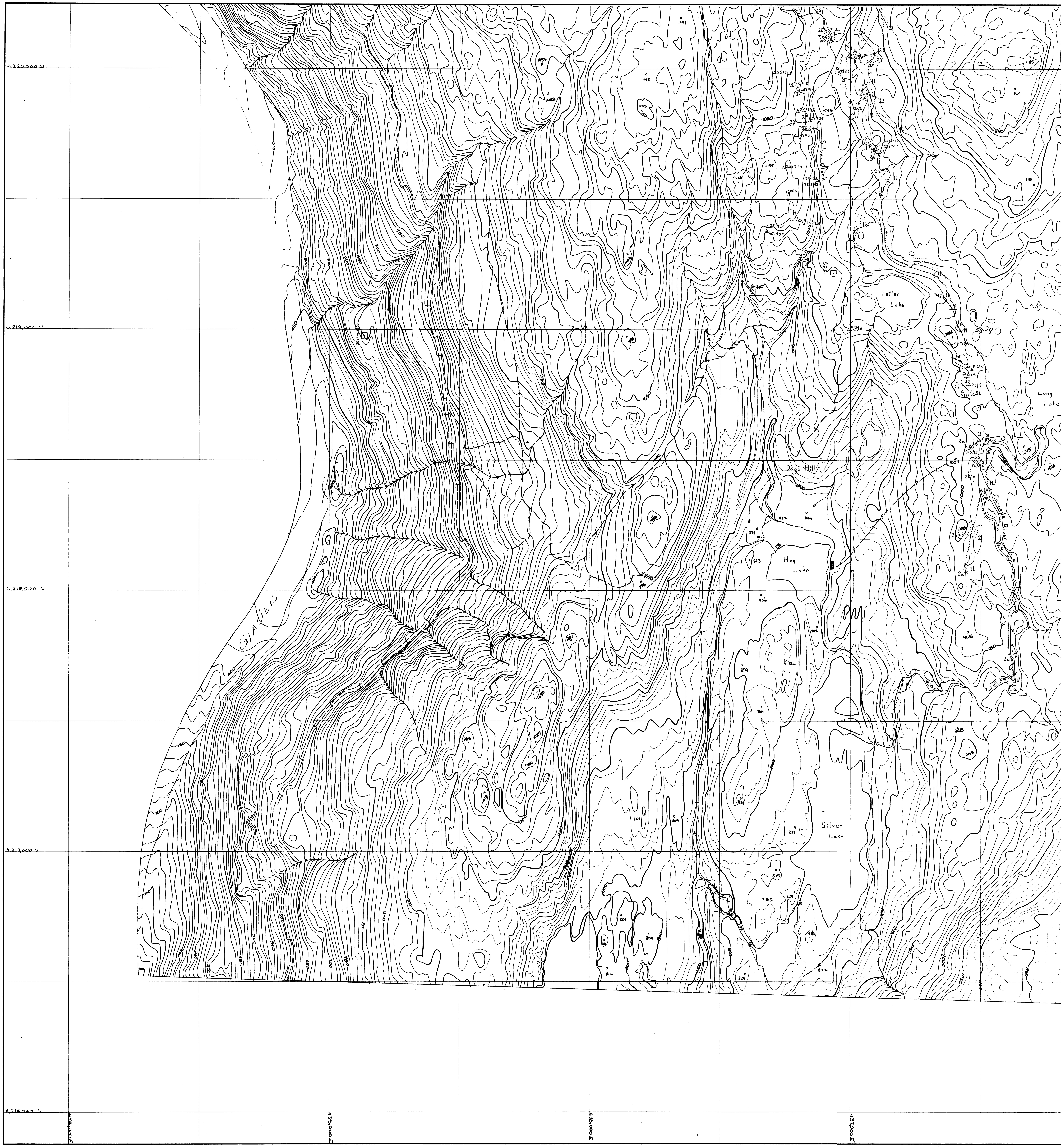
GEOLOGICAL BRANCH ASSESSMENT REPORT

22,698

PROFESSIONAL GEOSCIENTIST PROVINCE OF BRITISH COLUMBIA G. LHOTKA

Westmin Resources Limited
MINING DIVISION

Work By: C.H.	BIG MISSOURI PROPERTY
Date Drafted: Oct. 1992	1992 EXPLORATION
Drafted By: C.H.	GEOLOGICAL MAPPING, SAMPLING
Date Revised:	(North Sheet)
Revised By: 104 B/1	
N.T.S. Number:	SCALE 1:5,000 (100 0 100 200 300m)
Figure	3a



REGIONAL STRATIGRAPHY

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3c		Pale green, latite ash tuff to tuffaceous sedimentary rock, locally laminated.
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2l		Limestone.
2c		Black to dark grey argillite, tuffaceous argillite, calcareous argillite, thinly interbedded siltstone, often strongly contorted.
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SYMBOLS

- Outcrop
- Geological Contact
- Fault
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- Foliation (dip)
- Vein (dip)
- Lineation/Fold Axis
- Trench
- Portal
- 251921△ Rock Sample Site

GEOLOGICAL BRANCH ASSESSMENT REPORT

22,698

PROFESSIONAL GEOSCIENTIST — PROVINCE OF BRITISH COLUMBIA — P. G. LHOTKA

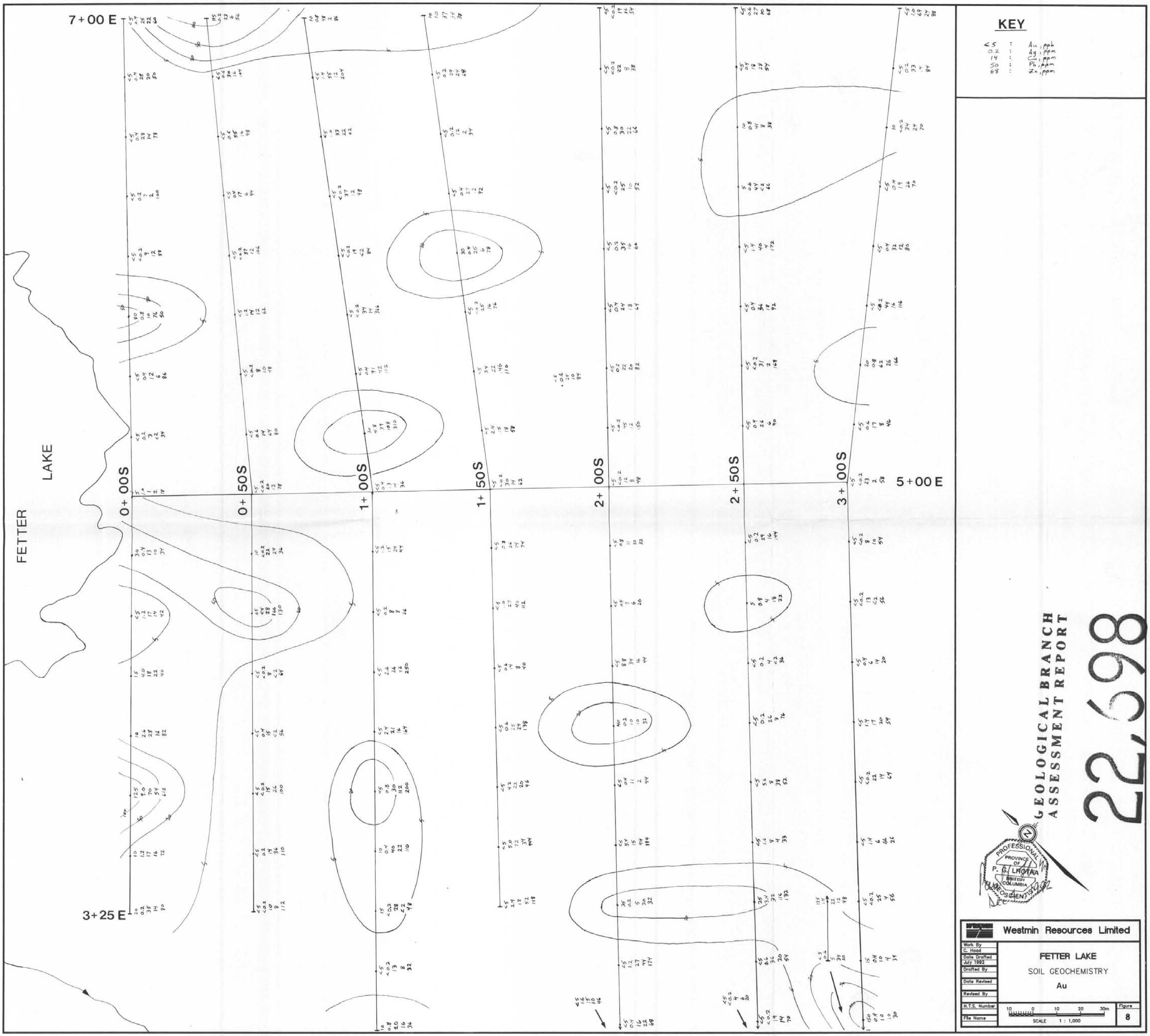
Westmin Resources Limited
MINING DIVISION

Work By	C.H.
Date Drafted	Oct. 1992
Drafted By	C.H.
Date Revised	
Revised By	104 B/1
N.T.S. Number	

BIG MISSOURI PROPERTY
1992 EXPLORATION
GEOLOGICAL MAPPING, SAMPLING
(South Sheet)

SCALE 1:5,000 (100 0 100 200 300 m)

Figure 3b


KEY
<5 : Au, ppb
0.2 : Ag, ppm
14 : Cu, ppm
50 : Pb, ppm
68 : Zn, ppm
FETTER LAKE
7+00 E
3+25 E
5+00 E
0+00S
0+50S
1+00S
1+50S
2+00S
2+50S
3+00S
GEOLOGICAL BRANCH
ASSESSMENT REPORT
22,598
PROFESSIONAL
PROVINCE OF BRITISH COLUMBIA
P. G. LHOTKA
GEOSCIENTIST
Westmin Resources Limited
Work By C. Hood
Date Drafted July 1992
Drafted By
Date Revised
Revised By
N.T.S. Number
File Name
FETTER LAKE
SOIL GEOCHEMISTRY
Au
SCALE 1 : 1,000
10 0 10 20 30m
Figure 8