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GEOLOGICAL REPORT

on the

BOOTLEG PROPERTY

Fort Steele Mining Division, Southeastern British Columbia

N.T.S. 82F/09E

Latitude 49° 40' N, Longitude 116° 08 W

Prepared for :

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GEOLOGICAL SURVEY BRANCH
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25,872

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SUMMARY

The **Bootleg Claim Group**, consisting of 126 MSG and 2P claim units were staked beginning in January 1996 to cover prospective Aldridge Formation stratigraphy proximal to the Sullivan Deposit. The claims overlie Lower-Middle-Upper Aldridge sediments on the south-west and north-east side of Matthew Creek and were covered by a 1995 B.C. Government sponsored Airborne Geophysical Survey. The claims are held by a 50:50 joint venture between Miner River Resources and Eagle Plains Resources, both based in Cranbrook, B.C.

A two day geological reconnaissance program consisting of stream sediment sampling and prospecting was undertaken on the **Bootleg Claims** in August 1996. The \$6300.00 program outlined a Cu-Zn stream silt anomaly in a drainage located on the Boot 2 claim block and a follow up program of geological mapping, prospecting and soil sampling was recommended.

Field work on the Bootleg Claims during the 1997 and 1998 field seasons totalled \$12,101.65. Prospecting, soil sampling, silt sampling and minor geological mapping were carried out with a total of 62 samples collected. Geochemical results confirmed the presence of elevated base metal levels within prospective Aldridge Formation stratigraphy. Mapping also located a fragmental unit within the claim boundaries, which can be indicative of proximity to a hydrothermal vent facies. Further work is recommended to evaluate the Bootleg Claims for Sullivan type sedimentary-exhalitive mineralization.

LOCATION AND ACCESS

The **Bootleg** property is located within the Fort Steele Mining Division, within NTS mapsheet 82F/09E at 49° 40' North Latitude and 116° 08' West longitude (UTM 5503000N/562650E). (see Location Map; Figure 1, following). It is situated 13 km by road from Kimberley, B.C. and is accessed by seasonally-maintained Forest Service roads.

The southwest-northeast trending claim group consists of 126 MGS and 2P units which straddle the east-west oriented Bootleg Mountain with the center of the claims located 6.8 km north of the St. Mary River and west of Matthew Creek. Drainages on the eastern and north eastern part of the property drain into Matthew Creek, while drainages on the south-western part of the property flow south into the St. Mary River. Four Wheel drive-ATV access to the Boot 2 claim is provided via the Bootleg Forest Service road which branches off the main, paved surface, St. Mary River road 7.5 km east of St. Mary Lake. The north-eastern part of the claims are bisected by the Matthew Creek Forest Service Road.

Elevations within the property range from 1100m (3600') to 2600m (8500'). The property is subjected to moderate precipitation, and is free of snow from June to October. The lower parts of the property are forested with largely second growth Pine and Hemlock, with approximately 2/3 of the Boot 3 claim block logged within the last 4 years. The upper elevations on the property have sparse stands of mature Larch. The Boot 6 claim block has been approximately 1/3 denuded by a forest fire.

The **Bootleg** Claim group has an excellent location with respect to mining infrastructure. Cominco LTD.'s Sullivan Mine and concentrator facility (including concentrate loading and shipping via rail to the Cominco smelter in Trail, B.C.) are located approximately 7km north east of the claims. A paved road and hydroelectric powerline are located approximately 3.5 km south of the claim group. There also exists local well established mining support industries in both

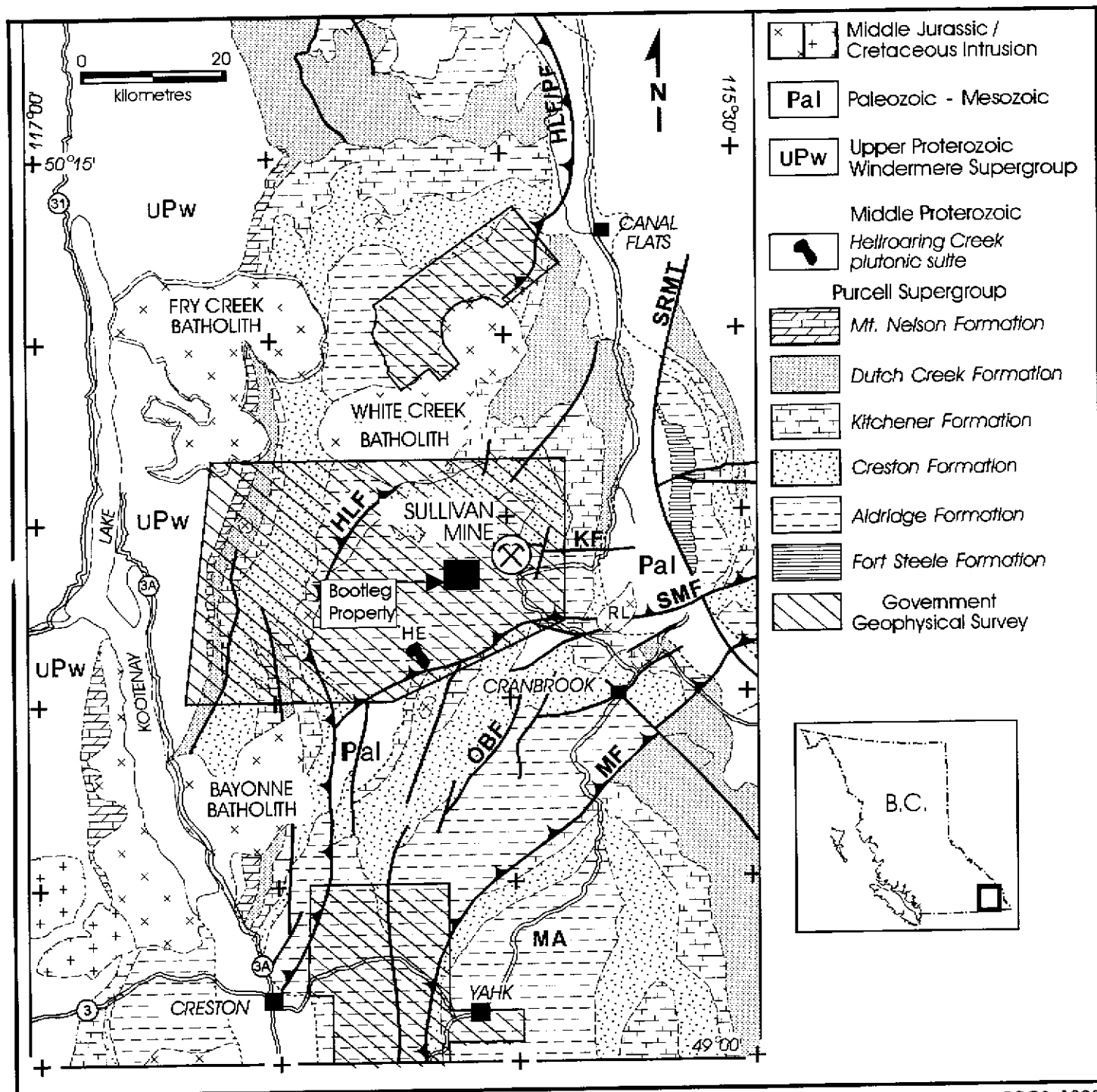


Figure 1 - Bootleg Project- Regional Geology and Property Location Map

BCGS, 1998

Cranbrook and Kimberley.

PROPERTY TENURE

The **Bootleg Claim Group** consists of four 20-unit MGS claim blocks named the **Boot 1, 2, 5, 6** and 46 1- unit 2 post claim blocks ,named the **BL 1 - 46**, for a total of 126 units. The initial claims were located in January, 1996. Claim boundaries and post locations are shown on Fig. 2, in pocket. The claims are held 50:50 under the Miner River Resources and Eagle Plains Resources Joint Venture.

A summary of tenure information is provided below:

<u>Claim Name</u>	<u>Record No.</u>	<u>Claim Type</u>	<u>No of Units</u>	<u>Recording Date</u>	<u>Expiry Date*</u>
BOOT 1	342999	MGS	20	January 16, 1996	January 16, 2000
BOOT 2	343000	MGS	20	January 16, 1996	January 16, 2000
BOOT 5	366826	MGS	20	October 24, 1998	October 24, 2000
BOOT 6	366827	MGS	20	October 25, 1998	October 25, 2000
BL1	366828	2P	1	October 22, 1998	October 22, 2000
BL2	366829	2P	1	October 22, 1998	October 22, 2000
BL3	366830	2P	1	October 22, 1998	October 22, 2000
BL4	366831	2P	1	October 22, 1998	October 22, 2000
BL5	366832	2P	1	October 22, 1998	October 22, 2000
BL6	366833	2P	1	October 22, 1998	October 22, 2000
BL7	366834	2P	1	October 22, 1998	October 22, 2000
BL8	366835	2P	1	October 22, 1998	October 22, 2000
BL9	366836	2P	1	October 22, 1998	October 22, 2000
BL10	366837	2P	1	October 22, 1998	October 22, 2000
BL11	366838	2P	1	October 22, 1998	October 22, 2000
BL12	366839	2P	1	October 22, 1998	October 22, 2000
BL13	366840	2P	1	October 22, 1998	October 22, 2000
BL14	366841	2P	1	October 22, 1998	October 22, 2000
BL15	366842	2P	1	October 22, 1998	October 22, 2000
BL16	366843	2P	1	October 22, 1998	October 22, 2000
BL17	366844	2P	1	October 24, 1998	October 24, 2000
BL18	366845	2P	1	October 24, 1998	October 24, 2000
BL19	366846	2P	1	October 24, 1998	October 24, 2000
BL20	366847	2P	1	October 24, 1998	October 24, 2000
BL21	366848	2P	1	October 24, 1998	October 24, 2000
BL22	366849	2P	1	October 24, 1998	October 24, 2000
BL23	366850	2P	1	October 24, 1998	October 24, 2000

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BL24	366851	2P	1	October 24, 1998October 24, 2000
BL25	366852	2P	1	October 24, 1998October 24, 2000
BL26	366853	2P	1	October 24, 1998October 24, 2000
BL27	366854	2P	1	October 24, 1998October 24, 2000
BL28	366855	2P	1	October 24, 1998October 24, 2000
BL29	366856	2P	1	October 24, 1998October 24, 2000
BL30	366857	2P	1	October 24, 1998October 24, 2000
BL31	366858	2P	1	October 24, 1998October 24, 2000
BL32	366859	2P	1	October 24, 1998October 24, 2000
BL33	366860	2P	1	October 24, 1998October 24, 2000
BL34	366861	2P	1	October 24, 1998October 24, 2000
BL35	366862	2P	1	October 24, 1998October 24, 2000
BL36	366863	2P	1	October 24, 1998October 24, 2000
BL37	366864	2P	1	October 24, 1998October 24, 2000
BL38	366865	2P	1	October 24, 1998October 24, 2000
BL39	366866	2P	1	October 24, 1998October 24, 2000
BL40	366867	2P	1	October 25, 1998October 25, 2000
BL41	366868	2P	1	October 25, 1998October 25, 2000
BL42	366869	2P	1	October 25, 1998October 25, 2000
BL43	366870	2P	1	October 25, 1998October 25, 2000
BL44	366871	2P	1	October 25, 1998October 25, 2000
BL45	366872	2P	1	October 25, 1998October 25, 2000
BL46	366873	2P	1	October 25, 1998October 25, 2000

TOTAL :126 units

*expiry date after assessment filed

REGIONAL ECONOMIC HISTORY

The East Kootenay area has long been known as a mineral resource-rich area, with numerous mineral showings documented over the years. The turn of the century discovery of Cominco's world-class Sullivan deposit near the present city of Kimberley, put the area into focus with mineral explorationists world-wide. The Sullivan massive sulphide ore body hosted 180,000,000 tons of ore averaging 6.5% zinc, 6.4% lead and 1.90 oz/t silver, with a mineable lifetime of over 100 years, and a contained metal value in present dollars estimated to be in excess of 25 billion dollars. The Sullivan Mine is scheduled to close in January, 2001.

Numerous other past-producers in the area reflect the excellent mineralogic potential of the region. These include:

- 1) St. Eugene Mine (1899-1929) - 1.63 million tons grading approximately 8% lead, 1% zinc, 4.4 oz/t silver.
- 2) Estella Mine (1951-1967) - 120,000 tons grading 4.8% lead, 9.0% zinc, 6.4 oz/t silver
- 3) Kootenay King Mine (1952-1953) - 14,616 tons grading 5.3% lead, 15.1% zinc, 1.94 oz/t silver.

The area is also well known for the presence of once-rich placer gold deposits, though no economic hard-rock gold concentrations have yet been located. The Wildhorse River, located approximately 30 km east of the **Bootleg** Group, saw frenzied placer mining activity beginning in 1864, with over 1,500,000 ounces of gold extracted from its gravels. Placer mining operations are still in place along the river.

GEOLOGY

REGIONAL GEOLOGY AND SULLIVAN DEPOSIT OVERVIEW (Schroeter, 1997)

The Proterozoic Purcell Supergroup in southeastern British Columbia constitutes a thick prism of dominantly clastic sediments exceeding 10,000 metres in thickness with the base unexposed. Earliest known sedimentation are Fort Steele Formation fluvial/deltaic sequences of quartz arenite, quartz wacke and mudstone at least 200 metres thick. Fine-grained elastic beds at the top of the formation grade into very rusty-weathering, fine-grained quartz wacke and mudstone of the Aldridge Formation (1433 Ma +/- 10 Ma), at least 5000 metres thick in the Purcell Mountains. The Aldridge Formation grades upward over 300 metres through a sequence of carbonaceous mudstone with minor beds of grey and green mudstone and fine-grained quartz wacke to the 1800 metre thick Creston Formation, composed of grey, green and maroon quartz wacke and mudstone with minor white arenite. Conformably overlying the Creston Formation are 1200 metres of green and grey dolomitic mudstone, buff-weathering dolomite and minor quartz arenite of the Kitchener Formation. The Kitchener is in turn overlain by 200 to 400 metres of green, slightly dolomitic and calcareous mudstone of the Siyeh Formation. Although poorly defined in the Purcell Mountains west of the Rocky Mountain Trench, the Siyeh is readily recognized in the Rocky Mountains and is conformably and locally unconformably overlain by 0 to 500 metres of basaltic to andesitic flows of the Purcell Lava (1075 Ma) which are taken to mark the close of Lower Purcell sedimentation (1075 to 1500 Ma). To the northwest and west in the Purcell Mountains, the Purcell Lava is only sparsely represented by weathered tuffaceous beds.

Resting with apparent conformity on the Lower Purcell rocks are about 1200 metres of grey to dark grey, calcareous and dolomitic mudstone and minor quartz wacke of the Dutch Creek Formation. This formation is overlain by about 1000 metres of grey, green and maroon mudstone and calcareous mudstone of the Mount Nelson Formation. The close of Purcell sedimentation is marked by folding during the East Kootenay Orogeny (825 to 900 Ma) and

disruption of the basin by large-scale vertical faults concurrent with deposition of basal sedimentary rocks of the Windermere Supergroup.

Middle Proterozoic igneous activity in the Purcell sedimentary basin is dominated by intrusion of gabbroic sills of two ages. The oldest are the Moyie Intrusions which are most common in the Aldridge Formation. Sills and slightly discordant sheets predominate; locally, however, dykes and step-like discordant sheets are abundant near Kimberley. Gabbroic sills can aggregate 2000 metres of thickness in a typical Aldridge section and are most abundant in the lower part of the section. The youngest event of gabbro intrusion is thought to be comagmatic with the Purcell Lavas, and is represented by abundant sills in the upper part of the Creston Formation, and in the Kitchener and Siyeh formations. The pegmatitic Hellroaring Creek stock (Middle Proterozoic) and related satellites intrude metamorphosed and deformed Aldridge sedimentary rocks and Moyie Intrusions sills, in an area about 15 kilometres southwest of the Sullivan mine. A pair of major sills, commonly separated by a hornfelsed, iron-sulfide rich package of sediment termed "granophyre", occurs regionally at the top of the Lower Aldridge from Perma, Montana (Buckley and Sears, in press) to the Sullivan area (Hamilton et al., 1983).

A group of two major and several smaller sills comprises the upper Moyie sill complex within the middle of the Middle Aldridge, separated from the sills marking the Lower-Middle contact by up to 1200 m of stratigraphy (Hoy et al., in prep.). These sills may be indications of a second pulse of magmatic and hydrothermal activity that affected the Middle Aldridge sediments regionally.

Lower Purcell sedimentary rocks have undergone metamorphism to at least greenschist facies. There is a general increase in metamorphic grade with depth in the stratigraphic pile; minor areas of amphibolite facies are restricted to the cores of fold structures displaying large magnitude structural relief.

Purcell rocks are folded about north trending axes to form the Purcell Anticlinorium. Folds comprising the large structure are open and gentle with north plunging axes. Some folds are overturned to the east and some display axial plane schistosity. Large areas within the anticlinorium have nearly flat-lying strata. Major faults with a history of complex movement disrupt the Purcell terrain and separate large regions further disrupted by block faulting. Two of these major faults, the Moyie and St. Mary faults, pass south of Kimberley and throughout much of their extent have a northerly trend, but then abruptly arc to the east into the Rocky Mountain Trench. Both of these faults repeat Lower Purcell strata on their north and west, upthrown sides. The Sullivan orebody occurs on the east side of this regional structure, on the east limb of an open anticline. The Middle Proterozoic Aldridge Formation (Purcell Supergroup- Lower Purcell Group), has the characteristics of a flysch sequence at least 3800 metres thick. It is composed of a monotonous and repetitious sequence of alternating beds of very fine-grained quartz wacke and mudstone and lesser amounts of very fine- to coarse-grained quartz arenite. The Aldridge Formation is metamorphosed to middle to upper greenschist facies. The Aldridge Formation in the Purcell Mountains has been divided into three map units; the Lower, Middle and Upper Aldridge. Lower Aldridge sedimentary rocks (at least 1500 metres thick - base not exposed) are composed of a rhythmic succession of thin to medium-bedded, typically graded beds of very fine-grained quartz wacke. Interbedded with the rhythmic sequence of graded beds are laminated sequences of mudstone ranging from a few millimetres to several metres thick. Laminae and discontinuous blebs of pyrrhotite emphasize layering in the laminated mudstone and weathering of the pyrrhotite imparts a conspicuous rusty colour to outcrops. Massive to poorly bedded, elongate lenses of intraformational conglomerate occur locally near the top of the Lower Aldridge. The Middle Aldridge (2000 metres thick) is marked by the appearance of distinctive graded arenaceous beds whose lighter weathering colours contrast sharply with the rusty weathering Lower Aldridge.

Thinly bedded, rusty weathering rocks similar to those in Lower Aldridge sequences are inter-bedded with thicker, graded arenites but are definitely subordinate. The graded arenaceous rocks are mostly turbidites. Thin bedded to laminated carbonaceous mudstone becomes the

dominant lithology of the 300 metre thick Upper Aldridge. The contact between the Middle and Upper Aldridge is gradational over stratigraphic thicknesses ranging from a few to tens of metres. Disseminated grains and blebs of pyrrhotite aligned along bedding occur in places in carbonaceous mudstone of the Upper Aldridge and here the rock is rusty weathering.

SULLIVAN DEPOSIT

The Sullivan orebody is located at the western edge of the Rocky Mountain Trench and on the eastern flank of the Purcell Mountains. The orebody is a conformable iron-lead-zinc sulphide lens enclosed by clastic metasedimentary rocks of the Middle Proterozoic (Helikian) Aldridge Formation, the basal formation of the Purcell Supergroup (further subdivided into the Lower Purcell Group). Regional metamorphism is upper greenschist facies. The orebody occurs near the top of the Lower Aldridge Formation and has the shape of an inverted and tilted saucer. The maximum north-south dimension is about 2000 metres and the east-west dimension is about 1600 metres. It has flat to gentle east dips in the west, moderate east to northeast dips in the centre, and gentle east to northeast dips in the east. The footwall rocks are composed of intraformational conglomerate and massive lithic wacke overlain by quartz wacke and pyrrhotite-laminated mudstone. The ore zone is overlain by several upward-fining sequences of quartz wacke and mudstone. The orebody attains a maximum thickness of 100 metres approximately 100 metres northwest of its geographic centre, and thins outward in all directions (averages 21 metres in thickness). To the east, it thins gradually to a sequence of pyrrhotite-laminated mudstone 3 to 5 metres thick that persists laterally for some distance. To the north, the orebody thins less gradually and is truncated by the Kimberley fault. To the west, the orebody thins abruptly and is cut by dyke-like apophyses of the footwall gabbro. The gabbro (of the Middle Proterozoic Moyie Intrusions) lies beneath the orebody and is typically concordant about 500 metres below its eastern edge. To the west, the gabbro rapidly transgresses upward to meet the footwall of the orebody near its western margin but, continuing westward it transgresses downward to resume its sill-like form at approximately its original stratigraphic position. To the south, within the limit of economic mineralization, thickness changes are generally irregular and abrupt.

The Sullivan orebody lies on the folded and faulted eastern limb of a broad north trending anticline. The structure plunges gently to the north and is locally asymmetric and overturned to the east. Detailed structural mapping has revealed three phases of folding. Phase 1 is characterized by isoclinal folds with axial planes parallel to bedding planes and north trending fold axes. Phase 2 is characterized by relatively open folds with gentle north or south plunges and with moderately west dipping axial planes. Both Phase 1 and 2 folds indicate easterly vergence. Phase 3 folds are associated with east dipping thrusts; axial planes have steep dips and folds have variable plunges to northwest and southeast.

The Kimberley, Ryot and Hidden Hand fault systems, the 010 degree trending Sullivan-type faults and other minor faults form an intricate mosaic disrupting the fold limb. The Kimberley and Hidden Hand faults lie across the regional structure and are generally parallel to east trending segments of the Moyie and St. Mary faults. The Kimberley fault dips 45 to 55 degrees north and truncates the ore zone to the north. With over 3000 metres of stratigraphic displacement, the fault juxtaposes rocks of the Creston and Kitchener formations against rocks of the Lower Aldridge. Displacement on the north dipping Hidden Hand fault is of the order of a few hundred metres of apparent normal dip-slip movement. The Sullivan-type faults cut the orebody with a consistent west side down normal displacement ranging from a few metres to 30 metres. The largest member of the group, the Sullivan fault, occurs near the western margin of the orebody. At the northwestern margin of the orebody, a northeast trending fault apparently truncates the westward extension of the Kimberley fault although earlier phases of movement along the Sullivan-type faults may have occurred.

The Sullivan orebody consists of sulphide rock composed of more than 70 per cent sulphides in thick, gently dipping conformable units enclosed by unaltered or altered quartz wacke and mudstone. In the western part, massive pyrrhotite containing occasional wispy layers of galena is overlain by sulphide rock in which conformable layering consists of pyrrhotite, sphalerite, galena and pyrite intercalated with beds of clastic sedimentary rock. The ore passes

outward on the north, east and south to delicately-bedded sulphide rock interbedded with fine-grained clastic sedimentary rocks. Eastward across a transition zone, the orebody is composed of five distinct conformable units of well-bedded sulphide rock interbedded with clastic sedimentary rock. Each bed of sulphide rock thins eastward from the transition zone. The transition zone is commonly only a few metres or tens of metres wide. Three bedded sulphide sequences occur above the main orebody, particularly in the area of the transition zone. Locally, these are ore. Sulphide vein mineralization is present in the footwall in and adjacent to a zone of tourmalinite and very rare elsewhere. Irregular veins commonly form networks composed dominantly of pyrrhotite, galena and sphalerite. Generally minor amounts of quartz, arsenopyrite, chalcopyrite, cassiterite, tourmaline or scheelite occur in some veins. Major differences exist in footwall rocks, ore zone and hanging wall rocks in different areas of the mine.

Much of the orebody is underlain by locally derived intraformational conglomerate which is more than 80 metres thick in the west and thins to the east. Footwall rocks are cut by tabular bodies of chaotic breccia containing blocks of conglomerate and bedded sedimentary rock; these extend downward unknown distances from the sulphide footwall in the west. Footwall mineralization consisting of thin conformable laminae, veins and locally intense fracture-filling is common in the west and very rare in the east.

The footwall and hanging wall rocks and locally the orebody in the west have been extensively altered by hydrothermal solutions. A crosscutting zone of tourmalinite underlying the sulphide lens in the west is 1000 by 1500 metres across at the sulphide footwall and extends at least 500 metres beneath the orebody. Albite-chlorite-pyrite alteration occurs in crosscutting zones in the footwall tourmalinite and extends more than 100 metres into the hanging wall over the western part of the orebody. A zone of pyrite-chlorite alteration 300 metres in diameter crosscuts massive sulphide rock immediately overlying footwall albite-chlorite-pyrite alteration zones.

Extensive volumes of altered rock occur below, within and above the ore zone in the western part of the mine. Tourmalinite is included with wallrock alteration because most of the tourmalinite, except for that near the sulphide footwall, has crosscutting relations. Altered rocks unusually rich in chlorite, albite, pyrite, biotite, garnet and calcite occur in restricted crosscutting footwall structures, in a zone which crosscuts the orebody, and also occupy an extensive volume of rock in the hanging wall. Accessory minerals in altered hanging wall rocks include tourmaline, sphene, subordinate white mica, zircon, scapolite, calcite and quartz. Although minerals in altered rock have a metamorphic texture, their occurrence is interpreted as reflecting pre-metamorphic chemical modifications.

Pyrrhotite and pyrite (ratio of 7:3) are the most abundant sulphides in the Sullivan orebody. Galena and sphalerite (marmatite is the iron-rich variety) are the principal ore minerals. Minor but economically important minerals include tetrahedrite, pyrargyrite, boulangerite and arsenopyrite (deleterious). Cassiterite is an important minor constituent in the western part of the orebody. Minerals constituting less than 1 per cent include chalcopyrite, jamesonite, magnetite and less abundant scheelite and stannite. Trace or small amounts of chalcostibite and gudmundite have also been identified along with cerussite and pyromorphite. Principal non-sulphide minerals are quartz and calcite with abundant tourmaline, chlorite, muscovite, albite, pale brown to reddish-brown mica, garnet, tremolite, epidote, actinolite, cordierite and hornblende. Either quartz or calcite may make up 50 to 70 per cent of the non-sulphide suite, chlorite 30 per cent and the other minerals up to about 20 per cent.

In 1945 a pink mineral occurring as open-space fracture-fillings was found in a development raise in the southwest part of the orebody in an area where both ore and enclosing sedimentary rocks are highly manganiferous. This area is now an open pit and the pink mineral, tentatively identified as friedelite, is no longer to be found. Thirty-one years later a routine X-ray check was made from one of many hand specimens stored. Further work identified the mineral as a new mineral, mcgillite, the fifth member of the pyrosmalite group. McGillite is most often

associated with very dark sphalerite and small amounts of boulangerite, galena, jamesonite and milky quartz.

Processing of Sullivan ore include recoverable amounts of cadmium, gold, bismuth, indium, iron, sulphur and antimonial lead and tin concentrate.

The Sullivan orebody is interpreted as a hydrothermal synsedimentary deposit which formed in a sub-basin on the Aldridge marine floor. It is located directly over conduits through which mineralizing fluids passed. Cross-strata permeability developed along synsedimentary faults and fractures; fluid escape along these led to development of chaotic breccia zones. Footwall conglomerate was extruded from breccia pipes or was laid down when locally oversteepened sediments collapsed. Boron-rich fluids percolated up the zones of cross-strata permeability, soaking adjoining footwall sediments and discharging onto the sea floor. Fluid composition and/or conditions in the sub-basin changed, and sulphides were deposited. Initial sulphide deposition over the vent area was rapid, as evidenced by lack of included clastic sedimentary rock. These features are felt to be consistent with deposition of sulphide particles which issued from the vent area. Waning stages of sulphide deposition were much less violent, and well-layered sulphides intercalated with intermittent clastic sediments became the dominant depositional style. In the upper part of both the eastern and western portions of the orebody, delicate sulphide lamellae consistent with chemical precipitation are widespread. Post-ore sodium-rich hydrothermal fluids altered tourmalinite, sulphide rocks, and hanging wall and footwall rocks over the vent area (Geological Association of Canada Special Paper 25).

Showings of sulphide mineralization were discovered in 1892. Beginning in 1900, the Sullivan mine has been a continuous producer from an original ore reserve of 160 million tons. Reserves in 1997 are estimated at 6,349,700 tonnes grading 41.1 grams per tonne silver, 6.8 per cent lead and 12.1 per cent zinc; the mine is scheduled to close on December 31, 2001.

PROPERTY GEOLOGY

The south and central part of the **Bootleg claims** cover a shallow dipping package of siltites, quartzites and wackes assigned to the Lower Aldridge Formation which are conformably overlain by Middle Aldridge Formation sediments in the northern part of the property. Within this sedimentary package are a number of intrusive Moyie sills. A fragmental unit has been mapped by Miner River- Eagle Plains geologists near the northern boundary of the Boot 2 Claims. This unit appears to occur stratigraphically near the Lower-Middle Aldridge Contact(LMC), similar to the LMC-fragmental relationship at the Sullivan Mine.

Bedding throughout the property area is generally shallow in the 10 - 30° W range, with strikes roughly orientated south-east/north-west. Distinct structural relationships have not yet been ascertained. No significant folding or faulting has been recognised on the property.

1997 - 1998 PROGRAM (Fig.2 in pocket)

The focus of the 1997-1998 exploration program on the **Bootleg Claim Group** was to continue evaluation for the presence of Sullivan-type sedex mineralization and indicators. Prospecting, stream sediment sampling, soil sampling and rock sampling were carried out along with reconnaissance scale geological mapping. A total of 8 silt, 17 soil and 37 rock samples were collected. The samples were shipped to Eco-Tech Labs at Kamloops, BC. where they were dried, sieved to -80 mesh and analyzed for 30 element ICP using aqua-regia digestion. High-grade samples were further fire-assayed. All samples were collected, handled, catalogued and prepared for shipment by Miner River/ Eagle Plains consultants.

1997-1998 RESULTS (Fig. 2 in pocket)

Results from the 1997-1998 field program confirmed the presence of Sullivan type base metal geochemistry within the **Bootleg claims** and also identified a stratigraphic package similar to that occurring at the world class Sullivan deposit.

Seven of the thirty seven rock samples collected returned enriched geochemical values. Results include CDBL97R01, a float boulder of thin bedded blue-grey quartzite with strong pervasive bleaching and chert flooding which returned a value of 300 ppm Ba. Sample CDBL97R11 had a geochemical value of 224 ppm Pb from an in situ sample of fine grained quartzite with pervasive bleaching and moderate silicification and chert flooding. CDBL97R13 and R14 were both collected from a 1.5m width bedding parallel quartz shear within thin bedded quartzite. Both samples returned elevated arsenic and chromium values; R13 had values of 310 ppm As and 518 ppm Cr from the strongly sheared, strongly silicified quartzite-phyllite matrix while R14 had values of 210 ppm As and 290 ppm Cr from rusty quartz with quartzite clasts. CDBL97R-16 returned values of 8.0 gm/T Ag and 5144 ppm Pb from a float boulder of quartz flooded, chert replaced quartzite with trace pyrite. CDBL98R04 had a significant anomalous base metal value of 5482 ppm Zn and 1281 ppm Mn from an in situ sample of medium to thin bedded quartzite with a distinct rusty weathering stain.

Six of the seven stream silt samples returned significant geochemical values. CDBL97S-01 returned a value of 2021 ppm Mn; TTBL98S01 returned values of 222 ppm Pb and 175 ppm Zn; TTBL98S02 had a value of 2044 Mn; TTBL98S04 had a geochemical value of 181 Zn; CDBL98S01 had values of 384 ppm Zn, 155 ppm As, 115 ppm Co and 2548 ppm Mn; CDBL98S02 had a value of 227 ppm Zn.

One of the soil samples collected returned anomalous values indicative of possible sedex type enrichment; TTBL98D03, collected along the claim line between the BL3-BL4 and BL5-BL6 claims returned values of 145 ppm As and 1988 ppm Mn.

Mapping by Eagle Plains and Miner River staff on the Bootleg Claim Group defined a fragmental unit located near the northern boundary of the Boot 2 and Boot 5 claims. Field observations also defined changes in the locations of sill contacts as indicated on existing geological maps (Hoy, T. and Carter, G. 1988).

CONCLUSIONS and RECOMMENDATIONS

The **Bootleg Claim Group** is underlain by the same stratigraphic package that hosts the world class Sullivan Sedex base metal deposit located approximately 6 km northeast of the property boundary. Geochemical results from rock, soil and silt samples collected during the 1997-1998 field program, as well as results from the 1996 field program, indicate that many of the metals considered to be Sullivan indicators (Pb, Zn, Ag, Bi, Cr, As, Cu, Mn) occur at anomalous levels within the property boundary. Nine of the ten silt samples collected in the main drainage on the northern part of the Boot 2 claims returned anomalous values with an average Zn value of 293 ppm. Other high values from silts collected in this drainage include 1.0 gm/T Ag and 106 ppm Pb. Two anomalous rock samples of Aldridge Formation sediments have also been collected within this drainage. CDBL97R16 had a value of 5144 ppm Pb and 393 ppm Zn, and CDBL98R04 had a geochemical value of 5482 Zn. 1998 geological mapping places this basin near both the LMC, the stratigraphic location of the Sullivan deposit, and a fragmental unit considered to be similar to the fragmental that underlies the main sulphide lens at the Sullivan deposit.

Further work is recommended to evaluate the **Bootleg Claim Group** for the presence of Sullivan type sedimentary exhalative indicators. A two phase program is proposed. The first phase should consist of geological mapping, prospecting, soil sampling and silt sampling. Geological mapping and prospecting should focus on accurately defining the position of the Lower Middle Aldridge Contact, the extent and nature of the fragmental unit, and locating areas with sedex style alteration including albitization, tourmalinization, chloritization, and sericitization. Contour and grid geochemical sampling could be used to better define the source of the stream geochemical anomaly on the northern part of the Boot 2 claims, as well as to locate similar anomalies throughout the rest of the property. Silt sampling appears to be very effective thus far in defining base metal anomalies and any untested drainages on the property should be sampled.

The second stage of the program should be diamond drill testing of high priority targets defined by mapping and geochemistry in the first part of the program. A 1000m program using a heli-portable BTW core drill is recommended. The proximity of the Bootleg Claim Group to Cominco Ltd.'s Sullivan concentrator and related in situ mining infrastructure could make the exploitation of a small orebody in the order of 5-10 million tons feasible.

A budget for proposed initial follow-up work is included following:

PROPOSED BUDGET

PHASE 1

Personnel.....	\$15,000.00
Analytical.....	\$4,000.00
Meals/Grocery.....	\$1,000.00
Truck and Equipment Rentals.....	\$2,000.00
Fuel.....	\$1,000.00
Supplies	\$1,500.00
Miscellaneous	<u>\$500.00</u>
	Sub-Total : \$25,000.00
	10% Contingency : <u>\$2,500.00</u>
	TOTAL Phase 1 : \$27,500.00

PHASE 2

Diamond Drilling: 1000m x \$75.00/m	\$75,000.00
Personnel.....	\$15,000.00
Helicopter Support	\$15,000.00

Mob/Demob.....	\$2,500.00
Analytical.....	\$5,000.00
Meals/Grocery.....	\$2,000.00
Accommodation.....	\$1,000.00
Truck/Equipment Rentals.....	\$2,000.00
Fuel (Diesel, Gasoline, Propane).....	\$2,000.00
Supplies	\$1,500.00
Miscellaneous	\$1,000.00
Report/Reproduction.....	<u>\$3,000.00</u>

Sub-Total : \$125,000.00

10% Contingency : \$12,500.00

TOTAL Phase 2 : **\$137,500.00**

TOTAL Phase 1, Phase 2 : \$165,000.00

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- Brown and Smith (1998) Geoscience Map #1998-4; Geological Compilation of the Dewar Creek and Findlay Map areas, southeastern British Columbia.

APPENDIX I

Certificate of Qualification

STATEMENT OF QUALIFICATIONS

I, Charles C. Downie of 122 13th Ave. S. in the City of Cranbrook, in the Province of British Columbia, hereby certify that:

- 1) I am a Professional Geoscientist registered with the Association of Professional Engineers and Geoscientists of British Columbia (#20137).
- 2) I am a graduate of the University of Alberta (1988) with a B.Sc. degree and have practiced my profession as a geologist continuously since graduation.
- 3) This report is supported by data collected by myself during fieldwork conducted between October 15, 1997 and October 15, 1998 as well as information gathered through research.
- 5) I hold 87,000 shares of Eagle Plains Resources; I Hold an option to purchase 25,000 common shares of Eagle Plains at \$0.55 per share.

Dated this 03rd day of March, 1999 in Cranbrook, British Columbia.



Charles C. Downie, P.Geo.

APPENDIX II

Statement of Expenditures

STATEMENT OF EXPENDITURES-BOOTLEG CLAIM GROUP WORK PROGRAM

The following expenses were incurred on the **BOOTLEG GROUP** of mineral titles for the purpose of mineral exploration between the dates of October 15, 1997 and October 15, 1998.

PERSONNEL:

Tim J. Termuende, P.Geo.: 5.5 days x \$425.00/day	\$2,337.50
C.C. Downie, P.Geo.: 7.5 days x \$425/day	\$3,187.50
Brad Robison, Technician: 2.0 days x \$250.00/day	\$500.00

EQUIPMENT RENTAL:

Truck Rentals(4WD pickups) : 9 days x \$50.00/day	\$450.00
4WD ATVs: 8.0 days x \$75.00/day	\$600.00
Hand-held Radios : 9.0 man days x \$10.00/day.....	\$90.00
2.0 man days x \$8.55/day	\$17.10
Chainsaws: 9.0 man days x \$10.00/day(wet)	\$90.00

EXPENDITURES:

Field Supply: 14.0 man-days x \$25/man/day:.....	\$350.00
Handling Fees:	\$679.65
Analytical (Eco-Tech Labs):	\$578.25
Meals/Grocery:	\$106.23
Fuel: Gasoline:	\$184.75
Air Photos/Orthophotos:	\$174.45
Drafting:	\$714.22
Shipping:	\$42.00
Report (data compilation, report writing, reproduction – est.):	<u>\$2,000.00</u>

TOTAL :\$12,101.65

Unit Cost For Geochemical Sampling: 62 samples @ \$195.19/sample

APPENDIX III

Analytical Results

16-Sep-98

ECO-TECH LABORATORIES LTD.
10041 East Trans Canada HWY
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V2C 8T4

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Fax 604-573-4557

ICP CERTIFICATE OF ANALYSIS AK98-532

TOKLAT RESOURCES INC.
2720-17th STREET SOUTH
CRANBROOK, B.C.
V1C 4H4

ATTENTION: TIM TERMUENDE

No. of samples received: 6
Sample Type: Soil
PROJECT #: BL98/GC98
SHIPMENT #: BL98-01/GC98-07
Samples submitted by: T. Termuende

Values in ppm unless otherwise reported

Et #.	Tag #	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Br	Ti %	U	V	W	Y	Zn
1	CDBL98S01	0.4	2.95	155	120	<5	0.54	1	115	50	152	4.20	130	0.53	2548	4	0.02	79	1110	48	<5	<20	35	0.08	<10	36	<10	82	384
2	CDBL98S02	0.2	1.95	55	80	<5	0.42	2	55	35	86	2.94	80	0.50	1313	1	0.02	52	900	40	<5	<20	22	0.07	<10	28	<10	89	227
3	CDBL98D01	<0.2	2.86	35	55	<5	0.12	<1	19	36	88	5.08	<10	0.80	247	<1	0.02	34	350	30	<5	<20	12	0.15	<10	70	<10	<1	123
4	TTBL98S01	0.2	2.58	65	85	<5	0.44	<1	47	71	112	3.13	40	0.56	2044	2	0.02	34	1230	222	<5	<20	27	0.07	<10	47	<10	24	175
5	TTGC98S28	0.8	3.80	240	170	<5	0.46	<1	81	27	355	7.45	<10	1.23	801	<1	0.04	42	1330	178	<5	<20	53	0.16	<10	109	110	16	124
6	TTGC98D03	0.2	2.58	10	35	<5	0.04	<1	11	9	173	5.99	<10	0.86	140	8	0.01	9	710	22	<5	<20	2	<0.01	<10	15	<10	<1	32

QC/DATA:

Repeat:																													
1	CDBL98S01	0.4	2.97	160	130	<5	0.52	1	119	54	150	4.50	130	0.54	2608	3	0.02	81	1090	52	<5	<20	30	0.08	<10	38	<10	79	387
Standard:																													
GEO98		1.2	1.76	85	160	10	1.73	<1	20	59	82	4.06	<10	0.96	694	<1	0.03	25	670	24	<5	<20	59	0.11	<10	77	<10	5	74

dt/529
XLS/98Toklat
fax: 250-426-6699

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17-Sep-98

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V2C 6T4

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Fax: 804-573-4557

ICP CERTIFICATE OF ANALYSIS AK98-553

TOKLAT RESOURCES INC.
2720-17th STREET SOUTH
CRANBROOK, B.C.
V1C 4H4

ATTENTION: TIM TERMUENDE

No. of samples received: 14
Sample Type: Rock
PROJECT #: BL98
SHIPMENT #: BL98-01
Samples submitted by: T. Termuende

Values in ppm unless otherwise reported

El #.	Tag #	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
1	TTBL98R01	<0.2	0.81	<5	85	10	0.04	<1	5	137	28	4.06	<10	0.29	149	8	0.10	4	430	60	<5	<20	17	0.12	<10	14	<10	<1	32
2	TTBL98R02	<0.2	1.07	10	100	10	0.23	<1	3	130	15	1.76	10	0.46	388	<1	0.10	3	440	56	<5	<20	27	0.12	<10	29	<10	4	56
3	TTBL98R03	0.2	2.04	<5	40	10	0.14	<1	9	131	16	5.81	<10	1.32	921	9	0.03	7	320	22	<5	<20	1	0.06	<10	22	<10	2	77
4	TTBL98R04	0.2	0.50	45	55	10	0.02	<1	7	77	35	6.45	<10	0.01	86	14	0.04	10	470	84	<5	<20	12	<0.01	<10	5	<10	<1	38
5	TTBL98R05	<0.2	1.43	5	110	10	0.16	<1	7	75	7	2.88	<10	0.75	311	<1	0.06	8	360	20	<5	<20	2	0.19	<10	18	<10	8	40
6	TTBL98R06	<0.2	1.37	10	70	<5	0.20	<1	10	41	48	3.39	<10	0.45	254	1	0.03	18	890	20	<5	<20	<1	0.07	<10	18	<10	<1	35
7	TTBL98R07	<0.2	1.10	<5	25	20	0.41	<1	8	84	56	7.28	<10	0.02	90	5	0.01	3	520	10	<5	<20	41	0.17	<10	13	<10	18	49
8	TTBL98R08	<0.2	1.42	<5	55	10	0.38	<1	6	90	23	2.85	<10	0.63	231	<1	0.03	2	340	18	<5	<20	24	0.16	<10	30	<10	2	25
9	TTBL98R09	<0.2	1.80	<5	80	10	0.42	<1	9	113	33	3.11	<10	0.98	525	<1	0.05	10	520	18	5	<20	32	0.16	<10	28	<10	2	86
10	TTBL98R10	<0.2	1.11	<5	105	<5	0.22	<1	5	119	8	1.95	<10	0.58	464	<1	0.08	7	600	30	<5	<20	7	0.14	<10	36	<10	3	57
11	CDBL98R01	<0.2	0.97	<5	85	5	0.03	<1	15	43	37	3.08	10	0.42	111	<1	0.02	13	450	10	<5	<20	<1	0.15	<10	10	<10	<1	10
12	CDBL98R02	<0.2	0.56	<5	55	<5	0.02	<1	15	89	65	2.81	30	0.19	82	4	0.02	15	330	8	<5	<20	2	0.12	<10	9	<10	2	10
13	CDBL98R03	<0.2	1.38	5	130	5	0.18	<1	9	55	15	3.00	<10	0.50	347	<1	0.01	10	280	14	<5	<20	<1	0.16	<10	15	<10	6	37
14	CDBL98R04	<0.2	2.30	<5	85	15	0.64	48	28	161	69	6.21	<10	1.42	1281	4	0.02	20	1460	12	<5	<20	6	0.19	<10	41	<10	<1	5482

QC/DATA:

Repost:																													
3	TTBL98R03	0.2	2.07	<5	40	10	0.11	<1	9	132	15	5.87	<10	1.34	939	9	0.03	6	280	18	<5	<20	<1	0.06	<10	20	<10	2	76
12	CDBL98R02	0.2	0.52	<5	45	<5	0.02	<1	16	87	70	2.83	30	0.18	76	3	0.02	16	330	6	<5	<20	<1	0.12	<10	8	<10	2	10
Standard:																													
GEO98		1.2	1.75	65	160	<5	1.75	<1	20	60	81	4.08	<10	0.96	693	<1	0.03	22	710	22	<5	<20	57	0.11	<10	78	<10	5	72

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09-Nov-98

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Fax : 604-573-4557

ICP CERTIFICATE OF ANALYSIS AK98-677

TOKLAT RESOURCES INC.
2720-17th STREET SOUTH
CRANBROOK, B.C.
V1C 4H4

ATTENTION: TIM TERMUENDE

No. of samples received: 20
Sample Type: Soil
PROJECT #: BL-98
SHIPMENT #: BL-98-02
Samples submitted by: T. Termuende

Values in ppm unless otherwise reported

Et #	Tag #	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Z
1	TTBL98S02	0.2	1.19	125	40	<5	3.41	<1	19	86	125	1.64	40	0.34	637	2	0.02	51	900	24	<5	<20	103	0.02	<10	33	<10	34	228
2	TTBL98S03	<0.2	1.47	60	100	<5	0.41	3	17	22	45	2.90	20	0.51	453	11	0.02	37	320	18	65	<20	44	0.03	<10	43	<10	17	107
3	TTBL98S04	<0.2	1.89	20	120	<5	0.84	2	62	33	86	2.44	30	0.67	1988	<1	0.02	29	920	42	<5	<20	57	0.08	<10	36	<10	28	181
4	TTBL98S05	<0.2	2.21	20	115	<5	0.21	<1	17	30	78	2.46	20	0.75	259	<1	0.02	19	900	46	<5	<20	24	0.14	<10	48	<10	7	107
5	TTBL98C01	<0.2	2.07	45	100	15	0.13	3	13	11	20	4.15	<10	0.38	530	10	0.02	17	1340	28	55	<20	15	0.08	<10	38	<10	<1	75
6	TTBL98D02	<0.2	2.07	20	70	<5	0.10	3	12	40	20	2.44	<10	0.45	276	11	0.01	22	470	20	70	<20	23	0.03	<10	39	<10	<1	45
7	TTBL98D03	<0.2	1.18	145	40	5	0.04	<1	4	1	10	2.34	<10	0.15	84	4	<0.01	4	350	112	20	<20	8	0.04	<10	27	<10	<1	36
8	TTBL98D04	<0.2	3.19	10	40	10	0.05	<1	5	<1	13	1.97	<10	0.07	69	<1	0.02	<1	940	28	<5	<20	4	0.14	<10	33	<10	<1	27
9	TTBL98D05	<0.2	1.39	5	100	10	0.07	<1	8	3	14	2.35	<10	0.18	922	<1	0.02	4	860	20	<5	<20	4	0.13	<10	35	<10	<1	74
10	TTBL98D06	<0.2	3.61	15	75	15	0.24	<1	11	<1	12	2.91	<10	0.18	567	<1	0.02	2	2640	26	<5	<20	4	0.15	<10	35	<10	<1	59
11	TTBL98D07	<0.2	2.66	20	190	5	0.11	<1	25	7	38	2.70	<10	0.40	219	<1	0.02	27	410	32	<5	<20	17	0.11	<10	28	<10	3	35
12	TTBL98D08	<0.2	1.71	15	75	10	0.11	<1	10	6	17	3.48	<10	0.66	161	<1	0.01	5	400	26	<5	<20	7	0.12	<10	53	<10	<1	28
13	CDBL98D02	<0.2	1.90	10	160	<5	0.40	2	14	16	20	2.23	<10	0.28	701	5	0.02	16	710	30	40	<20	26	0.06	<10	33	<10	<1	127
14	CDBL98D03	<0.2	0.46	<5	95	<5	0.12	<1	3	<1	9	0.58	<10	0.02	116	<1	0.01	<1	340	18	<5	<20	12	0.04	<10	12	<10	2	15
15	CDBL98D04	0.4	2.83	15	40	10	0.04	<1	6	<1	10	2.04	<10	0.05	212	<1	0.02	<1	730	30	<5	<20	4	0.16	<10	39	<10	<1	26
16	CDBL98D05	0.2	0.22	5	125	<5	0.36	<1	<1	<1	6	0.33	<10	0.03	174	<1	0.01	<1	750	78	<5	<20	22	0.02	<10	6	<10	<1	33
17	CDBL98D06	<0.2	2.15	10	65	5	0.14	<1	9	1	19	2.23	<10	0.16	139	<1	0.02	5	840	22	<5	<20	7	0.11	<10	52	<10	<1	71
18	CDBL98D07	<0.2	2.31	<5	75	10	0.09	<1	9	5	12	2.66	<10	0.22	150	<1	0.01	7	360	20	5	<20	7	0.13	<10	52	<10	<1	55
19	CDBL98D08	<0.2	0.60	5	35	5	0.07	<1	3	<1	6	1.13	<10	0.12	66	<1	<0.01	<1	290	16	<5	<20	8	0.04	<10	17	<10	<1	26
20	CDBL98D09	<0.2	1.05	10	60	<5	0.10	<1	6	<1	8	1.97	<10	0.21	103	<1	0.02	2	260	16	<5	<20	2	0.07	<10	35	<10	<1	33

TOKLAT RESOURCES INC.

ICP CERTIFICATE OF ANALYSIS AK98-677

ECO-TECH LABORATORIES LTD

Et #	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Z	
QC/DATA:																															
Repeat:																															
1	TTBL98S02		<0.2	1.22	125	35	<5	3.63	<1	18	42	129	1.62	40	0.35	615	<1	0.02	35	950	24	<5	<20	105	0.02	<10	33	<10	34	2	
10	TTBL98D06		<0.2	3.59	15	80	10	0.21	<1	11	<1	11	2.90	<10	0.18	557	<1	0.03	2	2610	24	<5	<20	4	0.15	<10	35	<10	<1	5	
19	CDBL98D08		<0.2	0.59	<5	30	<5	0.07	<1	3	<1	6	1.12	<10	0.13	63	<1	<0.01	<1	280	16	<5	<20	<1	0.04	<10	17	<10	<1	2	

09-Nov-98

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ICP CERTIFICATE OF ANALYSIS AK98-678

TOKLAT RESOURCES INC.
2720-17th STREET SOUTH
CRANBROOK, B.C.
V1C 4H4

ATTENTION: TIM TERMUENDE

No. of samples received: 10
Sample Type: Soil
PROJECT #: BL-98
SHIPMENT #: BL-98-02
Samples submitted by: T. Termuende

Values in ppm unless otherwise reported

Et #.	Tag #	u(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
1	TTBL98R11	-	<0.2	1.08	15	90	10	0.06	3	6	64	28	3.92	<10	0.40	147	1	0.02	15	440	14	5	<20	17	0.11	<10	17	<10	<1	22
2	TTBL98R12	-	<0.2	1.47	<5	70	10	1.17	<1	36	78	78	5.53	<10	0.66	452	<1	0.08	<1	1750	8	<5	<20	16	0.30	<10	61	<10	12	31
3	TTBL98R13	-	<0.2	0.98	<5	65	<5	0.12	<1	12	117	67	2.87	10	0.46	240	<1	0.05	8	170	10	<5	<20	<1	0.10	<10	9	<10	4	39
4	TTBL98R14	-	<0.2	0.73	<5	10	<5	1.89	<1	12	97	25	1.75	<10	0.13	483	<1	0.03	21	690	8	<5	<20	36	0.08	<10	7	<10	10	18
5	TTBL98R15	-	<0.2	0.70	<5	25	<5	0.17	<1	6	127	6	1.18	<10	0.34	282	<1	0.07	2	170	14	<5	<20	<1	0.10	<10	16	<10	6	72
6	TTBL98R16	-	<0.2	1.25	<5	80	10	0.05	<1	5	98	11	2.85	20	0.70	242	<1	0.04	<1	200	24	<5	<20	3	0.15	<10	21	<10	8	31
7	TTBL98R17	-	<0.2	1.39	<5	5	10	2.24	<1	16	75	34	2.14	<10	0.29	203	<1	0.01	2	1380	10	<5	<20	328	0.24	<10	66	<10	3	10
8	TTFN98R01	250	>30	0.20	1015	80	115	0.03	<1	10	70	23	>10	<10	<0.01	63	18	0.05	1	80	>10000	10	<20	17	<0.01	10	3	<10	<1	2396
9	TTFN98R02	5	0.6	1.69	<5	75	<5	0.14	<1	15	38	21	3.43	30	0.63	358	2	0.02	12	820	96	<5	<20	8	<0.01	<10	10	<10	3	51
10	TTLK98R01	-	2.4	0.90	15	140	40	0.08	1	409	209	180	>10	<10	0.02	278	25	0.02	141	340	484	<5	<20	13	<0.01	20	10	<10	<1	288

QC/DATA:

Resplit:																															
1	TTBL98R11	-	<0.2	1.12	20	80	15	0.06	<1	6	53	26	3.93	<10	0.43	149	<1	0.02	<1	470	12	<5	<20	12	0.20	<10	17	<10	<1	20	
Repeat:																															
1	TTBL98R11	-	<0.2	1.10	15	80	15	0.08	<1	8	59	26	3.93	<10	0.42	146	<1	0.03	<1	450	12	<5	<20	10	0.20	<10	17	<10	<1	19	
8	TTFN98R01	250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Standard:																															
GEO98		145	1.2	1.80	55	170	<5	1.74	<1	19	55	80	4.10	<10	0.95	677	<1	0.03	22	680	20	<5	<20	62	0.12	<10	78	<10	4	67	

dl/677b
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ECO-TECH LABORATORIES LTD.
Frank J. Pezzotti, A.Sc.T.
B.C. Certified Assayer

31-Oct-97

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10041 East Trans Canada HWY
KAMLOOPS, B.C.
V2C 6T4

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ICP CERTIFICATE OF ANALYSIS AK97- 1241

TOKLAT RESOURCES INC.
2720-17th STREET SOUTH
GRANBROOK, B.C.
V1C 4H4

ATTENTION: TIM TERMUENDE

No. of samples received: 16
Sample Type: Rock
PROJECT #: Not Given
SHIPMENT #: Not Given
Samples submitted by: Toklat Resources

Values in ppm unless otherwise reported

Et #.	Tag #	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
1	CDBL97R 01	<0.2	1.70	<5	330	<5	0.12	<1	9	104	84	5.05	30	0.84	372	<1	0.06	3	500	18	<5	<20	8	0.24	<10	51	<10	<1	61
2	CDBL97R 02	<0.2	1.78	<5	75	<5	0.24	<1	13	97	54	3.81	<10	1.06	437	<1	0.06	12	690	20	<5	<20	3	0.21	<10	32	<10	4	65
3	CDBL97R 03	<0.2	1.02	<5	70	<5	0.20	<1	25	119	125	7.14	20	0.52	265	4	0.06	9	1580	14	<5	<20	7	0.19	<10	28	<10	<1	34
4	CDBL97R 04	<0.2	1.58	<5	70	<5	0.04	<1	20	56	62	4.58	20	0.92	283	<1	0.03	22	280	10	<5	<20	1	0.20	<10	26	<10	3	56
5	CDBL97R 05	<0.2	1.15	<5	85	<5	0.17	<1	18	58	32	3.76	<10	0.55	424	<1	0.03	24	310	8	<5	<20	<1	0.15	<10	14	<10	11	71
6	CDBL97R 06	<0.2	1.13	<5	50	<5	0.27	<1	7	138	31	2.55	<10	0.77	479	<1	0.08	3	620	30	<5	<20	7	0.15	<10	34	<10	9	53
7	CDBL97R 07	<0.2	1.36	<5	90	<5	0.13	<1	16	66	24	3.86	<10	0.71	565	<1	0.03	20	280	18	<5	<20	<1	0.19	<10	24	<10	8	75
8	CDBL97R 08	<0.2	1.18	<5	70	<5	0.28	<1	8	80	27	3.07	<10	0.82	397	<1	0.04	5	720	34	<5	<20	4	0.16	<10	29	<10	6	42
9	CDBL97R 09	<0.2	0.91	<5	50	<5	0.20	<1	17	90	37	3.86	<10	0.82	411	2	0.07	20	530	48	<5	<20	4	0.11	<10	42	<10	6	50
10	CDBL97R 10	<0.2	0.09	<5	40	<5	0.04	2	77	132	223	>10	<10	<0.01	42	17	0.07	84	<10	18	<5	<20	3	<0.01	<10	2	<10	<1	30
11	CDBL97R 11	0.8	0.62	<5	35	5	0.07	<1	5	106	12	2.90	30	0.38	237	<1	0.06	3	420	224	<5	<20	4	0.19	<10	30	<10	2	32
12	CDBL97R 12	<0.2	0.52	25	5	<5	0.12	<1	17	183	36	1.85	10	0.41	235	<1	0.01	39	230	4	<5	<20	<1	<0.01	<10	20	<10	20	42
13	CDBL97R 13	<0.2	3.61	310	15	5	5.01	<1	52	518	31	8.67	<10	8.23	1510	5	<0.01	474	1090	8	<5	<20	103	0.01	<10	187	<10	20	89
14	CDBL97R 14	<0.2	0.69	210	<5	5	2.38	<1	24	290	21	2.53	<10	1.74	495	2	<0.01	221	110	62	10	<20	48	<0.01	<10	41	<10	1	20
15	CDBL97R 15	<0.2	1.10	10	60	<5	0.19	<1	20	71	58	3.24	<10	0.62	190	7	0.03	24	520	18	<5	<20	<1	0.13	<10	12	10	7	39
16	CDBL97R 16	8.0	1.14	10	25	95	0.33	<1	15	106	98	7.72	<10	0.25	387	4	0.02	9	1150	5144	<5	<20	22	0.16	<10	28	<10	<1	393

TOKLAT RESOURCES INC.

ICP CERTIFICATE OF ANALYSIS AK97- 1241

ECO-TECH LABORATORIES LTD.

Et #.	Tag #	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
QC/DATA:																													
Resplit:																													
R/S 1	CDBL97R 01	<0.2	1.68	<5	345	<5	0.12	<1	9	97	87	4.97	30	0.81	360	<1	0.06	3	530	20	<5	<20	6	0.24	<10	50	<10	<1	59
Repeat:																													
1	CDBL97R 01	<0.2	1.69	<5	305	<5	0.12	<1	9	103	84	4.98	30	0.83	368	<1	0.06	3	530	18	<5	<20	5	0.24	<10	50	<10	<1	60
Standard:																													
GEO97		1.2	1.84	60	145	<5	1.79	<1	20	63	78	4.27	<10	0.98	717	<1	0.03	25	700	22	<5	<20	55	0.12	<10	82	<10	5	68

31-Oct-97

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ICP CERTIFICATE OF ANALYSIS AK97-1242

TOKLAT RESOURCES INC.
2720-17th STREET SOUTH
CRANBROOK, B.C.
V1C 4H4

ATTENTION: TIM TERMUENDE

No. of samples received: 1
Sample Type: SILT
PROJECT #: NONE GIVEN
SHIPMENT #: NONE GIVEN
Samples submitted by: TOKLAT

Values in ppm unless otherwise reported

El #.	Tag #	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
1	CDBL 97S-01	0.2	1.87	10	85	<5	0.75	<1	75	18	31	1.49	70	0.25	2021	<1	0.05	43	1180	54	<5	<20	49	0.02	<10	20	<10	98	93

QC/DATA:

Repeat:

1	CDBL 97S-01	0.2	1.71	15	85	<5	0.77	<1	79	19	30	1.50	80	0.25	2084	<1	0.04	43	1210	56	<5	<20	49	0.02	<10	20	<10	100	94
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Standard:

GEO'97	1.0	1.68	65	165	<5	1.90	<1	19	64	71	3.92	<10	0.92	672	<1	0.03	23	650	18	<5	<20	56	0.11	<10	74	<10	6	64
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APPENDIX IV

Rock Sample Descriptions

ROCK SAMPLE DESCRIPTIONS

1997 OCT. 15-17

- CDBL97R-01 : ROCK/FLOAT/BOULDER 2190m
thin bedded blue-grey to cream qtzite;str.bl;str.sel-perv (along bedding planes) chert
flood;tr.diss.py;
- CDBL97R-02 : ROCK/IN SITU 2280m
slice of Aldridge seds within gabbro sills;well sil'd blue-grey,fine grained, med.bedded
qtzite;tr.diss.py,poss.cpy;locally bleached with x-bedding textures;bedding N-S,shallow
east;
- CDBL97R-03 : ROCK/FLOAT 2300m
str.sil'd blue-grey qtzite;mod.selective biot. hfls-spotting;4-6% f.disspyrite on fractures and
in matrix;
- CDBL97R-04 : ROCK/FLOAT
str.sil'd laminated thin bedded qtz.wacke;weak biot. spotting;local sel-perv bleaching p'll to
bedding;
- CDBL97R-05 : ROCK/IN SITU 2160m
med.bedded qtzite-clean wacke;fine gr;wkly sil'd;tr-0.5% f.diss.pyrite;o/c has deep red-
purple weathering rind;rocks below are cherty;
- CDBL97R-06 : ROCK/IN SITU 2155m
med.-thin bedded,f.gr. clean qtzite;sel-perv chert flood/bl;alt'n is bedding p'll assoc. with
small local fold closures;local crse rusty qtz in vugs;
- CDBL97R-07 : ROCK/IN SITU
med. bedded qtzite(008/22W);bl-grey,mod. sil'd/biot. hfls;tr-0.5% f.diss py+-cpy;distinct
rusty weathering rind;
- CDBL97R-08 : ROCK/IN SITU
above lake at creek headwaters;f.gr. qtzite with mod.-str. perv. sil'n;local chert
repl;tr.f.diss.py;o/c has distinct yellow surface weathering stain;
- CDBL97R-09 : ROCK/IN SITU 2180m
5m below R-08;cherty f.gr. clean qtzite;0.5-1% f.diss py+-po on fractures & matrix;o/c is
med. bedded qtzite and wacke;
- CDBL97R-10 : ROCK/IN SITU
near 8,9;Qtz Vein;160/steep to vert. West;10-20cm width rusty opaque to clear qtz;5%
sulphides py,po,cpy?

CDBL97R-11 : ROCK/IN SITU

2115m

light grey-brn v.f.gr. qtzite;mod. perv bleaching;mod.-str.sil'n with local chert repl;tr.diss py;o/c is thick bedded 005/18E;

CDBL97R-12 : ROCK/FLOAT

in talus; qtz boulder with manganese waad;

CDBL97R-13/R-14 : ROCK/IN SITU

2115m

1.5 m width bedding parallel qtz. shear;bedding 280/30Win thin bedded rusty qtzite-qtz wacke;thicker bedded unit above has strong perv. bleaching; shear is 30% vein qtz +- sheared qtz;60 % str.sheared phyllitic clasts of f/w qtzite;

R-13 : str. shred matrix;f.gr. qtzite;str. sil'n;phyllitic;tr.ea. diss po, py;

R-14 : vein qtz;bull;10% rusty qtz clasts;tr.mn. on fract;

CDBL97R-15 : ROCK/IN SITU

within rusty sed;thick bedded v.f.gr. to sugary qtzite with tr. diss. py;

CDBL97R-16 : ROCK/FLOAT

boulder of qtz. flooded/chert repl. qtzite with tr. py;

SAMPLE DESCRIPTIONS

1998 SEPT 02

CDBL97R-02 : ROCK/IN SITU

2280m

slice of Aldridge seds within gabbro sills; well sil'd blue-grey, fine grained, med. bedded qtzite; tr. diss. py, poss. cpy; locally bleached with x-bedding textures; bedding N-S, shallow east;

CDBL97R-03 : ROCK/FLOAT

2300m

str. sil'd blue-grey qtzite; mod. selective biot. hfls-spotting; 4-6% f. diss pyrite on fractures

CDBL98R-01 : ROCK/IN SITU

bedding 042/22W; med.-thin bedded L. Aldr. qtzite-qtz wacke; weak biot. hfls; some alb'tzd float below; o/c well sil'd-wkly cherty; sample is grey, f.gr. sil'd wacke with 5% f. biot. spots; fractures have f.gr. py;

CDBL98R-02 : ROCK/FLOAT/TALUS

2155m

str. sil'd f.gr qtz wacke; weak fine biot./epidote spotting; weak fine pyrite flood;

CDBL98R-03 : ROCK/IN SITU

o/c is med.-thin bedded qtzite; in places it is massive, typical MPa; bedding 039/22W; fine gr., rusty weathering; poss. tr. po;

CDBL98R-04 : ROCK/IN SITU

1m below R97-07; med-thin bedded qtzite-qtz wacke; rusty weathering stain; sample is from 5cm width f.gr. bed-band with qtz, chl, crse biot., po; looks like bedding p'll alt'n; poss. sill;

TTBL98R01 *Float/2170m: Rusty-weathering biotite hornfels from talus slope.*

TTBL98R02 *Float/2170m: Location as above; ?albite-altered seds.*

TTBL98R03 *In-situ/2210m: Silicified, randomly-chloritized seds. Vuggy, rusty-weathering; oriented 012/50W.*

TTBL98R04 *Float/2240m: Bedding-parallel manganese-oxide over 1cm width. Shows Durchbewegung textures, chlorite stringers.*

TTBL98R05 *Float/2360m: Rythmic-banding of albite and biotite-chlorite.*

TTBL98R06 *In-situ/2385m (along ridge): Turbiditic fragmental over 2-3m thickness. Biotite-chlorite altered. Swirling, contorted fragments with overall fabric oriented 110/34N. Distinctive brown coloration to outcrop. Overlain by medium-bedded, grey-weathering qzite (20cm thick beds), then gabbro.*

- TTBL98R07 Float/2450m: Extremely altered, weathered crumbly material. Faint green coloration with rusty bands. Possibly weathered minette?
- TTBL98R08 Float (location as R06): qz stockwork in seds.
- TTBL98R09 In-situ/2460m: Weakly muscovite-altered seds with infrequent clasts up to 2 cm in length. Beds oriented 020/20W.
- TTBL98R10 Float/2250m: 1.5m x 1.5m boulder of partially albitized seds. Fine-bedded, with mottled appearance.
- TTBL98R11 In-situ: Fault escarpment trending 140/320. Similar to Hidden Hand scarp at ski hill in appearance. Seds 036/20NE
- TTBL98R12 Float/5260' (Robin' Creek): Pyritic qzite.
- TTBL98R13 Float/5260' (Robin' Creek): Pyritic qzitic fragmental. Dark frags to 1cm in felsic groundmass.
- TTBL98R14 Float: Iron-rich silicified seds.
- TTBL98R15 Float: ?Tourmalinite frags within albitized, silicified groundmass.
- TTBL98R16 Float: Rusty, banded wacke with 1% fine disseminated pyrite.
- TTBL98R17 Float: Massive epidote with Py./Po. clusters (<1%).

