DIAMOND DRILL REPORT

ON THE

WHIT CLAIMS

OMINECA MINING DIVISION

Mapsheet: 93 E/11 and 14

Location: 53 degrees 45' N 127 degrees 13' W

NTS: 619000 E 5956000 N

Owner: Kennco Explorations (Western) Limited
138-200 Granville St.
Vancouver, BC
V6C 1S4

Operator: Kennecott Canada Inc.
138-200 Granville St.
Vancouver, BC
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Date: January 14, 1992

SUMMARY:

The Whiting property is located in the Thatsa Lake region, 115 kilometres south of Smithers, BC. It covers a large prominent gossan on the south slope of Sibola Mountain and the mostly overburden covered area below it down to Sweeney Lake.

The property was originally staked by Kennco Explorations (Western) Ltd. in 1963. Kennco worked the property in 1964 and 1965. It was optioned to Quintana Minerals Corp. in 1972 and to SMD Mining Co. Ltd. in 1981 and 1982. The property was operated by Kennecott Canada Ltd. in 1991.

The property is presently comprised of 117 units in 17 claims (Whit 1 to 17) owned by Kennco Explorations (Western Ltd.).

Work on the property prior to 1991 included geological mapping, soil and rock geochemical surveys, IP and resistivity surveys over most of the property, bulldozer trenching (5700 m), percussion drilling (2800 m in 38 holes), and diamond drilling (7297 in 44 holes).

The property is underlain by Jurassic Hazelton Group volcanics which have been intruded by four main intrusive phases and assorted later dykes. The earliest and most extensive intrusives are two granodiorite stocks. The Whiting Creek stock underlies the southeast part of the property and the Sibola stock touches the northwest corner of the property. In places the granodiorites host copper and lesser molybdenum mineralization.

An aplitic quartz porphyry intrudes along the northwest margin of the Whiting Creek stock. It is the main host for molybdenum mineralization on the property.

West of the aplitic quartz porphyry, a quartz monzonite porphyry occurs. It contains minor copper but postdates molybdenum mineralization.

Monzonite occurs in the center of the main gossan as an irregular plug and in intrusion breccias in the central part of the property. As well, monzonite has been found intruding granodiorite along Whiting Creek. Minor copper mineralization is found with monzonite.

A number of dykes of different age and composition occur on the property. Most trend northwest. The most important are feldspar-hornblende-biotite porphyry and related porphyritic andesite dykes which contain chalcopyrite-pyrite veinlets.

K-Ar age dating gives an age of approximately 81 m.y. for the main intrusives, indicating intrusions and mineralization occurred within a relatively short time period.

An extensive five kilometre north-south by 2 km east-west sulphide system occurs on the Whiting property. Within this system, mineralization can be broken down into four zones.

The Ridge zone contains molybdenum mineralization associated with the aplitic quartz porphyry and surrounding volcanic rocks. Molybdenum occurs with quartz stockwork and flooding and phyllic alteration. The zone is approximately 1700 metres north-south by 800 metres east-west. It is asymmetrical because it is not well developed in the granodiorite on the east side of the aplite. Copper is not abundant in the zone, except for where later dykes cut the aplitic quartz porphyry.

Up to 252 metres of 0.11% molybdenite have been encountered in drill holes, though grades are generally lower. It has been estimated that the zone contains reserves of 40 mT grading 0.06% molybdenum and 0.17% copper.

The Rusty zone is west of the Ridge zone and is probably part of the same larger system. It contains widepread chalcopyrite and lesser bornite in fractures, disseminated and in sulphide stringers associated with potassic alteration. It is at least 1700 metres north-south by 900 metres east-west. Grades are typically in the 0.1 to 0.25% copper range. Minor molybdenum mineralization occurs associated with quartz stockwork.

Copper mineralization is associated with feldspar-biotite-hornblende porphyry and andesite dykes which post-date molybdenum mineralization. Therefore, there is a negative correlation between copper and molybdenum grades.

The Creek zone occurs along Whiting Creek within the granodiorite. Chalcopyrite and lesser bornite plus minor molybdenite occur within fractures associated with potassic alteration. The extent of the zone is not known, but it is at least 700 metres east-west by 600 metres north-south. The best grades in this zone have been in the 0.25% copper range over widths of 200 metres.

The fourth zone, the Sweeney zone, occurs in the overburden covered area south of Whiting Creek. A greater than 1.5 kilometre long arcuate IP anomaly was obtained over the zone. However, percussion drilling in the zone intersected pyritized volcanics with only occasional minor copper and no molybdenum mineralization. Prospecting east of the anomaly in 1991 discounted the possibility that the anomaly represented a pyrite halo around a mineralized porphyry.

In all zones, copper and molybdenum grades tend to be quite uniform within individual drill holes and no major zones of high grade mineralization have been found to date. Gold and silver values are generally trace to very low.

Work in 1991 involved two diamond drill holes totaling 110.6 metres. Both holes were drilled in the Creek zone.

DDH 91-1 intersected weakly mineralized granodiorite averaging 507 ppm copper and 11 ppm molybdenum.

DDH 91-2 failed to reach bedrock due to problems triconing mixed sand, pebbles and boulders in an old stream channel.

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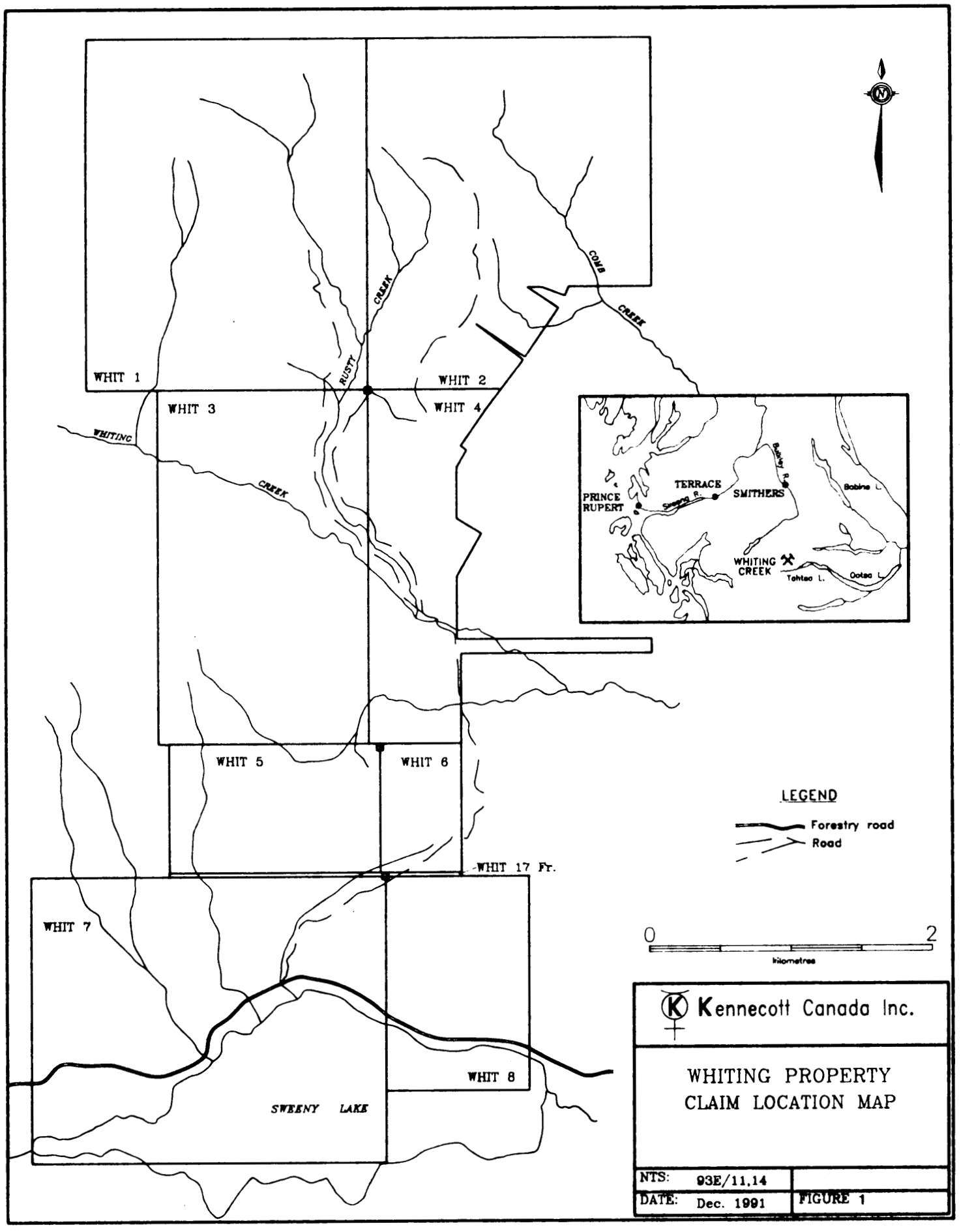
WHIT 1
WHIT 2
WHIT 3
WHIT 4
WHIT 5
WHIT 6
WHIT 7
WHIT 8
WHIT 17 Fr.
RUSTY CREEK
COMB CREEK
WHITING CREEK
SWEENY LAKE
PRINCE RUPERT
TERRACE
SMITHERS
Babine L.
WHITING CREEK
Tahtsa L.
Ootsa L.
LEGEND
Forestry road
Road
0
2
kilometres
Kennecott Canada Inc.
WHITING PROPERTY
CLAIM LOCATION MAP
NTS: 93E/11,14
DATE: Dec. 1991
FIGURE 1

1.0 INTRODUCTION:

1.1 Location and Access

The Whit 1-8 claims are located in the Thatsa Lake region, 115 kilometres south of Smithers, BC. They cover part of the south slope of Sibola Mountain, from the peak down to Sweeny Lake.

Access to the property is via the Morice River, Morice-Owen, Morice-Nadina and then Morice-Thatsa forestry roads. From the junction of the Morice River road with Highway 16, four kilometres west of Houston, to the property is a distance of 125 kilometres on good gravel roads.

Final access into the property is by a four-wheel drive road that continues to above treeline. The road is in fairly good shape except for the crossing of Whiting Creek where a ford of the creek is required because the bridge has been washed out.

1.2 Physiography

The property lies at the east end of the Sibola range, in a transition zone between the Coast mountains and the Nechako Plateau. Topography is rugged, especially in the north half of the claims. Elevations range from 2,190 metres on Sibola Mountain to 940 metres by Sweeny lake.

Treeline occurs at approximately 1,500 metres. Below this elevation, Alpine Fir, Lodgepole Pine, Balsam Fir, and minor Spruce and Hemlock occur. The area above treeline is characterized by talus with spectacular red to yellow gossan. Small icefields occupy cirques on the north side of Sibola Mountain.

1.3 Claim Status

The property was originally staked by Kennco Explorations (Western) Ltd. as the Whit 1-40 claims in 1963. In 1979, SMD Mining Co. Ltd. entered into an option agreement with Kennco and in the same year the claims were abandoned and restaked as the Whit 1-6 claims. In 1981 the Whit 7 and 8 claims were added to the south end of the property, and one fractional and eight two-post claims were added (Whit 9-17).

The east margin of the property is irregular due to overstaking of the original claim block by competitors prior to the staking of the Whit 2, 4 and 6 claims.

All claims are currently owned by Kennco Explorations (Western) Ltd.

TABLE 1

KENNECOTT CANADA INC
WHITING PROJECT
CLAIM STATUS

CLAIM	RECORD #	UNITS	RECORDED	EXPIRY
Whit 1	2375	20	1979/11/29	1992
Whit 2	2376	20	1979/11/29	1993
Whit 3	2377	15	1979/11/29	1992
Whit 4	2378	15	1979/11/29	1992
Whit 5	2379	6	1979/11/29	1992
Whit 6	2380	6	1979/11/29	1992
Whit 7	3580	20	1981/02/11	1992
Whit 8	3581	6	1981/02/11	1992
Whit 9	3582	1	1981/02/11	1992
Whit 10	3583	1	1981/02/11	1992
Whit 11	3584	1	1981/02/11	1992
Whit 12	3585	1	1981/02/11	1992
Whit 13	3586	1	1981/02/11	1992
Whit 14	3587	1	1981/02/11	1992
Whit 15	3588	1	1981/02/11	1992
Whit 16	3589	1	1981/02/11	1992
Whit 17FR.	4035	1	1981/08/07	1992

1.4 Summary of Work

The 1991 diamond drill program consisted of two BQ drill holes totaling 110.6 metres. The drill was mobilized onto the property on October 19, 1991 and moved off the property on October 26, 1991.

Drilling was performed by Britton Bros. Diamond Drilling Ltd. of Smithers, BC using a Longyear 38 drill. Core was brought to Telkwa where it was logged and split. All core was sent for copper, molybdenum and gold geochemical analysis and a 31 element ICP to Min-En Laboratories in Smithers.

The core is presently being stored on Hislop Road near Telkwa.

Hole 91-1 was drilled on the Whit 3 claim and hole 91-2 was drilled on the Whit 4 claim.

Table 2
Drill Hole Summary

Hole	Length	Dip	Zone	Rock-type
DDH 91-1	75.3	-90	Creek	Granodiorite
DDH 91-2	23.2	-90	Creek	Overburden

1.5 Property History

The Whit property was first staked by Kennco Explorations (Western) Ltd. in 1963 as a follow-up to a regional stream sediment survey. Work that year included additional geochemistry and prospecting.

In 1964, Kennco carried out a program of bulldozer trenching (2,900 metres), chip sampling, geological mapping, soil geochemistry, and geophysics (26.1 kilometres of Mag and IP). As well, six NQ drill holes (320 metres) and four winkie holes were drilled.

Work was concentrated in the area of the prominent gossan on Sibola Mountain (Rusty zone). A 1.7 by 1.0 kilometre zone of greater than 0.01% molybdenum mineralization associated with a quartz aplite was outlined east of Rusty Creek by this work. Grades up to 0.1% molybdenum were obtained from chip sampling, but generally samples assayed less than ore grade. All drilling was done within this zone. Results from drill holes were similar to those from surface sampling.

To the west of the molybdenum zone, a broad, indistinct area of copper mineralization was found. The original Rusty zone was subsequently divided into the Ridge zone containing the main molybdenum mineralization east of Rusty Creek and the Rusty zone containing copper mineralization to the west of the creek.

Along Whiting Creek, an 800 metre long zone of copper mineralization (Creek or Whiting zone) was outlined with copper grades in the 0.1% to 0.3% range.

The IP survey covered an area from treeline down to Whiting Creek on the east side of Rusty Creek and the area a few hundred metres on either side of Whiting Creek. IP results were hampered by the dry, porous nature of the soils. However, a number of anomalies were located.

Kennco continued exploration on the property in 1965. Work included additional mapping, sampling, bulldozer trenching (2800 metres) and 11 NQ diamond drill holes (630 metres). Exploration was targeted on the area west of Rusty Creek and in overburden covered areas.

This work outlined a poorly defined north-south trending area of copper mineralization 2100 metres long by up to 600 metres wide along the west side of Rusty Creek and along the both sides of Whiting Creek. Average copper grades in the 0.15% to 0.3% range were obtained from drill holes, but higher grade results were rare. Few significant molybdenum assays were obtained in this area.

Large parts of the mineralized zones remained untested at the end of 1965, but no further work was done on the property until it was optioned to Quintana Minerals in 1972. Quintana did a rock geochemical survey over the property (144 samples) and drilled one 456 metre long HQ diamond drill hole.

The rock geochemistry showed a strongly anomalous molybdenum zone over the known molybdenum mineralization associated with the quartz aplite. Anomalous copper values formed an arcuate zone peripheral to the molybdenum on the south, west and north sides. Silver, lead and zinc zones were outlined to the northwest of the copper, indicating classic porphyry zoning. Results showed a general low response over the monzonite plug west of Rusty Creek. Scattered high copper values were found along Whiting Creek, but sample density was too low to allow any zoning conclusions. The survey showed an overall inverse relationship between copper and molybdenum mineralization.

The drill hole was drilled to test for vertical zoning in the molybdenum zone. It intersected weakly mineralized tuffs and flows. Molybdenum values were low throughout the hole. However, there was a general increase in silica grade and in tungsten and fluorite content down the hole, indicating the possibility of a deeper molybdenum deposit.

Quintana dropped their option on the property and it again lay idle until it was optioned by SMD Mining Co. Ltd. in 1980. In 1980, SMD remapped the property and did a soil survey (464 samples) and geophysical surveys (20 km IP; 36.4 km Mag) in the area south of Whiting Creek. In addition, 22 percussion holes (1784 metres) and eight diamond drill holes (2412 metres) were drilled.

Soil sampling did not indicate any major zones of anomalous soils south of Whiting Creek. The IP survey extended previous work done by Kennco and outlined a new zone (Sweeny zone) in the south-central part of Whit 5 and 6 claims. This anomaly continued to the south, off the claims. No outcrop was found in the area of the anomaly.

Percussion holes were drilled in a number of areas to test for copper and molybdenum mineralization. The best copper and molybdenum grades were obtained in PDH 019 and 020 which were drilled in the Creek zone along Whiting Creek (0.233% Cu, 0.067% Mo over 76m and 0.244% Cu, 0.031%Mo over 89m respectively).

Drill holes in the Rusty zone west of Rusty Creek indicated that some supergene enrichment was present.

The eight diamond drill holes were drilled in the Rusty and Ridge (molybdenum) zones. The best hole was DDH 25 drilled at the south end of the quartz aplite which averaged 0.111% molybdenum and 0.057% Cu over 285 metres. The average grade is highly influenced by a one metre interval of sheared quartz vein that averaged 3.633% molybdenum.

The best copper grade was from DDH 24 which collared in the quartz aplite but went into younger copper-rich felsite intrusives. It averaged 0.124% copper over 280 metres.

Gold and silver analysis of core failed to return any significant precious metal assays.

SMD did another multi-element lithogeochemical survey over the property in 1980. Analysis were done on the +3.3 specific gravity fractions of 90 samples taken from surface and drill core. Plotted results include metal and hydrothermal element contents in addition to pyrite content. This study suggests that mineralization north of Whiting Creek is related to a single sulphide system covering the area around the quartz aplite and monzonite intrusions. It indicates the potential for additional copper and molybdenum mineralization at depth below the pyritic rock north and west of known mineralization.

In 1981, SMD continued exploring the property with 16 percussion drill holes (1021 metres) and 17 NQ diamond drill holes (3,479 metres). In addition, two new claims (Whit 7 and 8) were staked to cover the south end of the Sweeney zone IP anomaly. An IP survey was carried out over these claims. This survey extended the anomaly to the south in an arcuate pattern curving to the east down slope.

The percussion holes were drilled in the Sweeney IP anomaly. All intersected weakly to moderately pyritized volcanics or minor granodiorite. No significant molybdenum and only very minor copper mineralization was encountered.

Most of the diamond drill holes were drilled in the Ridge molybdenum zone. The best hole in this area, DDH 35, averaged 0.082% molybdenite over 163 metres.

Five of the holes were drilled in the Creek zone along Whiting Creek. Two did not penetrate overburden. Two of the other holes, DDH 26 and 43 averaged 0.26% copper over 180 and 200 metres respectively.

As in 1980, no significant precious metal values were returned in 1980 drilling.

SMD terminated their option with Kennco and no further work was done on the property until this year. Kennecott Canada Inc. operated the property for Kennco in 1991. One day was spent prospecting the area east of the Sweeney IP anomaly to investigate whether the anomaly represented a pyrite halo around a mineralized porphyry zone. Sufficient outcrop of unmineralized volcanics was found in the area to discount this possibility.

Two diamond drill holes were then drilled in the Creek zone. This drilling is covered in later sections of this report.

2.0 GEOLOGY:

2.1 Regional Geology

The area around the Whiting property is underlain by Jurassic and younger volcanic and sedimentary rocks which have been intruded by a number of different aged intrusions.

The oldest rocks in the area are volcanic and lesser sedimentary rocks belonging to the Mid to Late Jurassic Hazelton Group. The Hazelton Group is comprised of island arc related subaerial and subaqueous volcaniclastic and flow rocks and lesser fine to coarse grain sediments.

Overlying the Hazelton are Mid Jurassic shales, siltstones and sandstones of the Bowser Lake Group. These are in turn overlain by generally coarser sediments of the Late Cretaceous Skeena Group.

Upper Cretaceous volcanics of the Kasalka Group occur throughout the area, especially in a large fault-bounded zone just south of the property (a caldera?). The Kasalka volcanics are mostly subaerial andesitic to rhyolitic flows, breccias, tuffs and lahars.

Cretaceous to Tertiary rhyolite to andesite flows and lesser volcaniclastic of the Ootsa Lake Group are common east of the property.

The earliest intrusives in the area are Jurassic granites, monzonites and syenites of the Topley suite. These rocks are intrusive equivalents to the Hazelton volcanics.

The most common intrusives in the area are Upper Cretaceous Bulkley intrusions. They range in composition from granodiorite to quartz-diorite to monzonite. These intrusives and Late Cretaceous diorites, gabbros and syno-diorites are intrusive equivalents to the Kasalka volcanics.

Later intrusions include Tertiary Nanika suite granites, quartz monzonites, and quartz porphyries and Tertiary dykes of various composition. Tertiary Coast Plutons occur west of the property area.

There are a large number of mineral deposits in the area around the Whiting property. Other porphyry deposits include the Huckleberry (87 mT of 0.42% Cu, 0.025% Mo); the Berg (400 mT of 0.4% Cu, 0.05%Mo) and the Ox Lake (27 mT of 0.3% Cu, 0.07% Mo). The Huckleberry and Ox Lake deposits are of the same age as the Whiting deposit (+/- 81 million years) while the Berg deposit is younger.

Shear and vein hosted silver, lead, zinc and lesser gold showings are common in the area. Just west of the Whiting property, on the Emerald Glacier property, there has been sporadic production on a shear zone hosting lead-zinc-silver mineralization.

2.2 Property Geology

2.2.1 Lithology

The Whiting Property is underlain by Jurassic Hazelton volcanic rocks which have been intruded by a number of different intrusions.

The Hazelton rocks are comprised of green to purple volcanic breccias, lappilli tuffs and minor flows and grey to brown crystal tuffs. They generally strike north to northwest and dip 50 to 80 degrees to the west.

Intrusive rocks can be divided into four main phases and a number of later dykes.

The earliest intrusions are two stocks of granodiorite composition. The Whiting Creek stock underlies the southeast part of the property. The Sibola stock touches the northwest edge of the property, but mostly lies to the northwest of the claims.

Rock from these intrusions is medium grained and most commonly sub-porphyritic. One to six millimetre feldspar pheoncrysts occur in a matrix of plagioclase, orthoclase and quartz. Biotite is common in one to three millimetre plates. Hornblende occurs in up to six millimetre euhedral crystals. The rock is weakly to moderately magnetic due to disseminated magnetite.

Some of the granodiorite contains considerable quartz and orthoclase and approaches a granite to quartz monzonite in composition. In fact, in old reports on the property it is called a quartz monzonite.

The Whiting Creek stock contains copper and minor molybdenum mineralization in the Creek zone along Whiting Creek.

Aplitic quartz porphyry occurs along the northwest margin of the Whiting Creek stock in a 900 metre north-south by 200 metre east-west plug. It is comprised of an aplitic buff to orange matrix of quartz-orthoclase-muscovite with 10% up to four millimetre rounded quartz phenocrysts and minor plagioclase phenocrysts.

Fragments of granodiorite are common along its contact with the Whiting Creek stock. The quartz porphyry is the main host for molybdenum mineralization on the property in the Ridge zone.

Quartz monzonite porphyry occurs in a poorly defined, approximately one kilometre diameter, plug in the west-central part of the property. It is light grey and contains 30% two to five millimetre plagioclase phenocrysts, 15% one to three millimetre quartz phenocrysts and lesser biotite phenocrysts in an aphanitic quartz-orthoclase matrix.

No quartz veining and only minor copper mineralization occurs within this unit.

The fourth intrusive phase is monzonitic in composition and occurs in three different forms. A central plug of crowded monzonite porphyry occurs in an irregular zone in the center of the main gossan. It is comprised of 25% one to three millimetre plagioclase phenocrysts in an aphanitic pink to grey matrix with variable biotite and hornblende content.

Related intrusion breccias occur in the central part of the property and around the aplitic quartz porphyry. They contain monzonite and variable amounts of quartz porphyry fragments in a quartz-muscovite matrix. The breccias are often vuggy and contain abundant limonite within vugs. Sulphides may have been remobilized from surrounding rock and deposited within the vugs.

A monzonitic latite porphyry intrudes granodiorite along Whiting Creek. It consists of one to nine millimetre plagioclase phenocrysts in an aphanitic pink matrix.

There is no quartz veining within the monzonite intrusives. Some contain minor copper mineralization.

A number of northwest trending dykes of varying composition and age occur on the property. Feldspar-hornblende-biotite porphyry dykes and related porphyritic andesite dykes (which do not contain biotite phenocrysts) contain phenocrysts in a medium grey, medium grained granular matrix. These dykes do not contain any quartz veining, but chalcopyrite-pyrite veinlets are common.

Pale grey to cream felsite dykes occur as a dyke swarm cutting northwesterly across the north part of the gossan. They are aphanitic to porphyritic with variable one millimetre plagioclase phenocrysts. These dykes contain minor pyrite.

Minor small andesite, diabase and lamprophyre dykes have been found on the property.

Three age dates determined by K-Ar dating of biotite and hornblende from quartz monzonite porphyry, monzonite porphyry and granodiorite all gave ages in the 81 to 84 +/- 3 m.y. old range. This indicates that the various intrusions and mineralization occurred within a relatively short time period.

2.2.2 Structure

Structure on the property is dominated by a strong northwest trend. Most dykes strike northwest and both mineralized and non-mineralized, steeply dipping fractures are predominately in this direction.

Other directions of veinlets and fractures include 110, 160 and 220 degree steeply dipping structures and 255 and 125 degree moderately to shallowly north dipping structures.

There appears to be a north-south trend to the sulphide system which underlies much of the property.

2.2.3 Alteration

Biotite hornfelsing has affected most of the volcanic rocks in the upper parts of the property. Hornfelsing results in a dark brown sheen on fresh rock surfaces due to fine grained biotite and lesser magnetite.

Potassic alteration is common in the Rusty and Creek zones. It occurs as secondary biotite replacement of hornblende and primary biotite and sometimes as orthoclase envelopes adjacent to fractures and sulphide veinlets.

Phyllic alteration is widespread in the aplitic quartz porphyry. Feldspar phenocrysts and orthoclase in the matrix has been sericitized and there is variable, locally intense, silicification. Phyllic alteration also occurs locally in the volcanics and quartz monzonite. In some areas of the granodiorite it overprints potassic alteration with quartz-muscovite envelopes bordering sulphide veinlets.

Propylitic alteration is common in the volcanics. It is defined by the presence of epidote, calcite and chlorite.

2.2.4 Mineralization

A major sulphide system underlies the Whiting property. An area with greater than 1% pyrite content in rock forms a five kilometre north-south by two kilometre east-west sulphide zone. This system results in a spectacular red, yellow and brown gossan above treeline.

Limonite from the zone results in very high iron content in Rusty Creek and has formed zones of surface ferrocrete up to several metres thick along the north side of Whiting Creek.

Variable copper and molybdenum mineralization is widespread throughout the system. Mineralization can be divided into four zones.

The Ridge zone has been the focus of the majority of work on the property. In this zone, molybdenum mineralization occurs within the aplitic quartz porphyry intrusion and the surrounding volcanic host rocks. Molybdenum occurs within quartz veinlets and occasionally in fractures without quartz or disseminated. It is associated with phyllic alteration. Copper is not abundant in the zone except where younger intrusive rocks have cut the quartz porphyry.

The zone is approximately 1700 metres north-south by 800 metres east-west. It is asymmetrical because it is not well developed within the granodiorite on the east side of the quartz porphyry.

Diamond drilling in the zone has encountered up to 252 metres grading 0.111% molybdenite, but overall values are lower. It has been estimated that the Ridge zone contains 40 million tons grading 0.06% molybdenum and 0.17% copper.

The Rusty zone is west of the Ridge zone and is probably part of the same large zone. Molybdenite occurs in the Rusty zone in a similar manner as the Ridge zone, but grades are generally lower. Copper grades are better in the Rusty zone with up to 0.244% copper over 92.1 metres having been intersected in drill holes.

Copper is associated with the feldspar-biotite-hornblende porphyry and andesite dykes which post-date molybdenum mineralization. This results in a general negative correlation between copper and molybdenum grades. Copper mineralization occurs as fracture controlled, disseminated and sulphide veinlet chalcopyrite and lesser bornite. It is associated with potassic alteration.

The Rusty zone is not well defined but is at least 1200 metres north-south by 900 metres east-west.

The Creek zone occurs along Whiting Creek within the Whiting Creek granodiorite. It consists of fracture controlled chalcopyrite and pyrite and minor bornite and molybdenite associated with potassic alteration. Best grades to date have been in the 0.25% copper range over widths of up to 200 metres.

The extent of the zone is not well defined but it is at least 600 metres north-south by 700 metres east-west.

A fourth zone, the Sweeney zone, occurs in overburden covered area in the south part of the property. A large zone of pyritized volcanics results in a strong IP anomaly over 1.5 kilometres long. However, drilling in the zone has found only minor copper mineralization and no significant molybdenum mineralization.

In all zones copper and molybdenum grades tend to be quite uniform within individual drill holes, with very few, and no major, areas of high grade mineralization found to date. Gold and silver values are generally very low. The highest gold result was 280 ppb in DDH 23, but very few analysis were greater than 25 ppb gold. Silver values are generally in the one to two ppm range.

As outlined previously, mineralization on the property may be due to one event with different pulses which was contemporaneous with intrusive emplacement. A generalized history would begin with the emplacement of the granodiorite followed by the aplitic quartz porphyry. The quartz veining and molybdenum mineralization then occurred, followed by the emplacement of the quartz monzonite porphyry and then the various monzonites. Copper mineralization occurred with the emplacement of these two intrusive types and with the later feldspar-hornblende-biotite porphyry and andesite dykes. Late dykes post date mineralization.

3.0 RESULTS OF 1991 DRILLING:

Two holes were drilled in the Creek zone in 1991 to test for extensions to the mineralized zone outlined by exposures along Whiting Creek and previous drilling.

DDH 91-1 was drilled south of Whiting Creek. It intersected 13.4 metres of overburden and then 61.9 metres of weakly mineralized granodiorite.

The granodiorite is close to monzonite in composition. It has weak to moderate potassic alteration observed as K-spar envelopes to sulphide stringers and minor K-spar flooding. It contains a very weak to weak stockwork of quartz +/- pyrite +/- epidote +\- minor chalcopyrite stringers and fracture coatings. Pyrite content is 2 to 4% throughout. It occurs within the stringers, fracture coatings and disseminated.

The average copper content is 507 ppm with a high of 1180 ppm. The average molybdenum content is 11 ppm with a high of 37 ppm. Gold and silver values are very low.

DDH 91-2 was drilled north of Whiting Creek and east of Rusty Creek, approximately 300 metres north of the best holes in the Creek zone. It failed to reach bedrock in two attempts. The first attempt went to 12.2 metres and the second to 23.2 metres. In both attempts a mixture of sand, gravel and boulders was encountered. Pebbles became lodged behind the tricone and sheared it off, as well as severely scouring some of the casing.

Similar problems were encountered in DDH 41 and 42, indicating a large area of old stream sediments.

4.0 CONCLUSIONS AND RECOMMENDATIONS:

DDH 91-1 appears to have been drilled in the outer (pyrite halo) part of a porphyry system. This suggests that the area to the south of Whiting Creek is not favourable for exploration.

The area around DDH 91-2 remains untested. A larger diameter tricone or a percussion-type drill is required to penetrate overburden in this area.

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1964: Report on the Induced Polarization and Resistivity Survey on the Whit Claim Group, Whiting River Area; Private Report; Kennco Explorations (Western) Ltd.

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6.0 STATEMENT OF COSTS

KENNECOTT CANADA INC.
WHITING CREEK PROJECT
1991 DRILL PROGRAM
EXPENDITURES

ITEM	REMARKS	COST	
DRILL PROGRAM	OCT. 19 TO 26		
wages	HS x 6 days	$1,500.00	
drilling	all inclusive	$13,239.00	
truck	1542 km x $0.27	$416.34	
gas		$123.63	
Accomodation	Nadina Lodge	$43.20	
food		$11.51	
supplies		$19.34	
maps		$22.60	
		subtotal	$15,375.62
planning	HS x 1 day	$250.00	
core logging	HS x 1day	$250.00	
report	HS x 2 days	$500.00	
drafting		$200.00	
assays	21 x 15	$315.00	
splitting		$100.00	
		subtotal	$1,615.00
		TOTAL	$16,990.62

7.0 STATEMENT OF QUALIFICATIONS:

I, Hans Q. Smit, of Telkwa, British Columbia, do hereby certify that:

I am a graduate from the University of British Columbia with a B.Sc. Honours (Geology).

I have been involved in the mineral exploration and mining industry for eleven years.

I am a fellow of the Geological Association of Canada.

I am employed by Kennecott Canada Inc. of 138-200 Granville St., Vancouver, BC.

I personally supervised and logged the core from the October 1991 drill program on the Whiting property which is described in this report.

I am the author of this report.

GEOLOGICAL ASSOCIATION OF CANADA
HANS Q. SMIT
FELLOW

Hans Q. Smit

14/Feb

Date

APPENDIX 1
DIAMOND DRILL LOGS

KENNECOTT CANADA INC.
WHITING PROJECT

DRILL LOG

Hole: DDH 91-1

Dip: -90 Length: 75.3 M. Zone: Creek

Start: Oct. 21/91 Finish: Oct. 21/91

Metres From	To	Description
0	13.4	OVERBURDEN
13.4	75.3	GRANODIORITE

Medium grained; medium grey; massive; sub-porphyritic; some pinkish color due to iron stain and K-spar alteration in upper part of hole

Composition:
15 to 25% chloritized mafics; up to 4mm euhedral hornblende and anhedral to subhedral pyroxene; 1% biotite up to 3mm, may be in part secondary; 40% pagioclase in up to 6mm sub to anhedral phenocrysts and in groundmass; 20% K-spar and 20% quartz in the groundmass

Alteration:
Weak to rarely moderate K-spar alteration mostly as K-spar replacement along fractures; minor fine to medium grain secondary biotite; minor patches of pervasive K-spar +/- silica; minor pale green sericite replacement of plagioclase phenos

Mineralization:
Weak to very weak stockwork with less than 1mm, rarely to 1cm, quartz+/-pyrite+/-epidote +/-chlorite stringers at varying angles to c.a.; 2 to 4% pyrite, disseminated, along fractures, and in stringers; minor disseminated pyrite; <0.5% chalcopyrite, mostly in fractures, minor disseminated

Core:
Core moderately blocky; mostly in >10cm pieces with zones up to 2m long with <5cm pieces; very hard; recovery 95% or better throughout.

Metres From	To	Description
13.4	75.3	GRANODIORITE (cont.) (13.4-20.0) Rusty fractures; feldspars somewhat weathered to clay; no secondary copper minerals observed 18.4) 3cm massive pyrite stringer at 30 deg. to c.a.; quartz along contacts; epidote in center; K-spar alteration in wall rock (24.9-26.4) Weak pervasive silica + K-spar alteration; partly masks original texture and gives pinkish hue to rock (29.5-34.0) 20% zones of pervasive weak sil + K-spar as above (35.7-38.4) Weak pervasive sil + K-spar (47.7-48.3) Weak pervasive sil + K-spar (50.9-54.9) Patchy zones of weak sil + K-spar (73.2-73.5) Pink; moderate pervasive K-spar; patchy contacts to zone; pyrite in fractures cross-cuts alteration so alteration predates mineralization (73.5-75.3) Minor calcite and clay in fractures; moderately broken core
	75.3	END OF HOLE

KENNECOTT CANADA INC.
WHITING CREEK PROJECT
1991 DRILL PROGRAM
ANALYTICAL RESULTS

HOLE 91-01

SAMPLE	FROM	TO	Cu ppm	Mo ppm
W-01	44	47	300	8
W-02	47	57	328	37
W-03	57	67	665	18
W-04	67	77	630	5
W-05	77	87	327	15
W-06	87	97	347	10
W-07	97	107	760	13
W-08	107	117	451	10
W-09	117	127	615	22
W-10	127	137	685	3
W-11	137	147	444	7
W-12	147	157	630	12
W-13	157	167	435	8
W-14	167	177	412	7
W-15	177	187	339	10
W-16	187	197	510	7
W-17	197	207	680	10
W-18	207	217	475	15
W-19	217	227	705	5
W-20	227	237	750	10
W-21	237	247	1180	22
		average	507	11

KENNECOTT CANADA INC.
WHITING PROJECT

DRILL LOG

Hole: DDH 91-2

Dip: -90 Length: 23.2 M. Zone: Creek

Start: Oct. 23/91 Finish: Oct. 24/91

Metres From	To	Description
0	13.4	OVERBURDEN Mix of sand, pebbles and boulders; old stream channel
	13.4	END OF HOLE (abandoned)

APPENDIX 2

GEOCHEMICAL CERTIFICATES

• EN LABORATORIES
(DIVISION OF ASSAYERS CORP.)

SPECIALISTS IN MINERAL ENVIRONMENTS
CHEMISTS • ASSAYERS • ANALYSTS • GEOCHEMISTS

705 WEST 15TH STREET
NORTH VANCOUVER, B.C. CANADA V7M 1T2
TELEPHONE (604) 980-5814 OR (604) 988-4524
FAX (604) 980-9621

SMITHERS LAB.:
3176 TATLOW ROAD
SMITHERS, B.C. CANADA V0J 2N0
TELEPHONE (604) 847-3004
FAX (604) 847-3005

Geochemical Analysis Certificate

1S-1241-RG1

Company: KENNECOTT CANADA
Project: WHITING
Attn: S.BISHOP/H.SMIT

Date: NOV-29-91

Copy 1. KENNECOTT CANADA, VANCOUVER, B.C.
2. KENNECOTT CANADA, TELKWA, B.C.
3. KENNECOTT CANADA, C/O MIN-EN LABS.

We hereby certify the following Geochemical Analysis of 21 CORE samples submitted NOV-25-91 by H.SMIT.

Sample Number	CU PPM	MO PPM
W-01	300	8
W-02	328	37
W-03	665	18
W-04	630	5
W-05	327	15
W-06	347	10
W-07	760	13
W-08	451	10
W-09	615	22
W-10	685	3
W-11	444	7
W-12	630	12
W-13	435	8
W-14	412	7
W-15	339	10
W-16	510	7
W-17	680	10
W-18	475	15
W-19	705	5
W-20	750	10
W-21	1180	22

Certified by _____

MIN-EN LABORATORIES

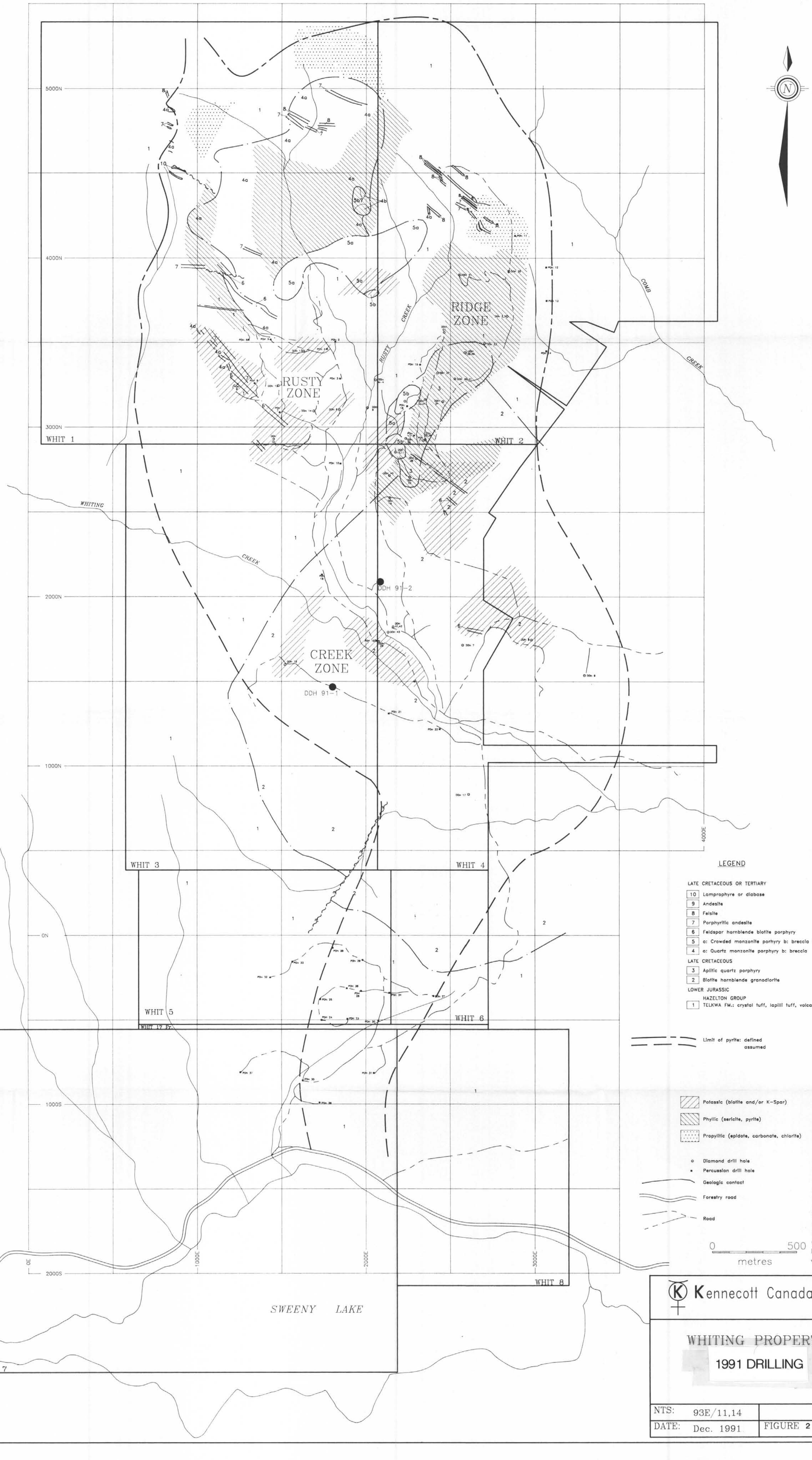
COMP: KENNECOTT CANADA
PROJ: WHITING
ATTN: S.BISHOP/H.SMIT

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 1S-1241-RJ1
DATE: 91/11/29
* CORE * (ACT:F31)

SAMPLE NUMBER	AG PPM	AL PPM	AS PPM	B PPM	BA PPM	BE PPM	BI PPM	CA PPM	CD PPM	CO PPM	CU PPM	FE PPM	K PPM	LI PPM	MG PPM	MN PPM	MO PPM	NA PPM	NI PPM	P PPM	PB PPM	SB PPM	SR PPM	TH PPM	TI PPM	V PPM	ZN PPM	GA PPM	SN PPM	W PPM	CR PPM	AU-FIRE PPB
W-01	.9	8850	15	3	62	.2	8	5440	.1	22	313	26730	1940	9	8780	392	5	470	5	750	21	1	40	1	1172	62.2	47	4	1	6	91	2
W-02	.5	8900	1	3	23	.3	10	4680	.1	53	333	37870	660	9	9160	523	34	180	1	730	17	1	19	1	1086	56.2	55	4	1	6	50	1
W-03	.5	9280	1	1	32	.3	6	5050	.1	32	676	40000	1420	7	9550	360	15	260	2	720	14	1	16	1	1145	61.2	47	5	1	5	61	1
W-04	.9	8600	2	1	45	.2	7	5310	.1	20	650	28680	2240	6	9470	267	6	210	4	710	13	1	11	1	1313	63.0	41	4	1	6	50	1
W-05	.7	9350	2	1	59	.4	5	8210	.1	22	340	31290	1640	6	8760	481	14	220	5	740	62	1	12	1	717	56.8	324	4	1	4	51	1
W-06	.8	8210	5	1	41	.1	8	6040	.1	16	353	26640	1450	5	8540	371	7	410	4	760	16	1	16	1	1195	63.4	50	4	1	5	63	9
W-07	1.0	10280	1	1	34	.3	10	6830	.1	27	823	31890	1050	7	9820	546	13	280	4	710	20	1	16	1	1079	61.0	55	4	1	5	55	1
W-08	.8	8930	1	1	31	.2	9	5980	.1	23	470	27650	970	6	9040	537	11	190	2	720	16	1	11	1	914	60.9	60	5	1	4	44	5
W-09	.5	9260	3	1	62	.4	5	12110	.1	21	652	28010	980	6	9170	876	24	170	6	780	43	1	15	1	387	57.0	101	5	1	4	45	3
W-10	1.0	7320	1	1	44	.2	6	5840	.1	13	730	23900	1710	5	8050	306	6	200	2	750	18	1	13	1	960	62.4	53	4	1	4	45	1
W-11	.7	8440	20	1	65	.2	9	6680	.1	19	480	28700	2710	5	8450	340	7	490	3	780	13	1	16	1	1367	68.0	47	3	1	6	76	4
W-12	.8	8380	1	1	53	.2	6	5880	.1	19	671	28400	2730	5	9090	335	8	300	3	770	12	1	15	1	1209	66.6	47	4	1	4	57	1
W-13	.7	8690	3	1	49	.2	7	8200	.1	13	471	26920	1320	6	8540	482	6	310	4	860	17	1	15	1	1253	70.9	50	4	1	4	59	2
W-14	.2	9160	1	1	45	.3	3	9650	.1	22	449	34520	1610	6	8630	495	5	380	3	750	24	1	19	1	557	59.7	69	4	1	6	74	1
W-15	.8	8850	3	1	43	.2	7	7940	.1	13	356	27010	1660	6	9500	489	6	310	3	760	19	1	12	1	1119	64.9	62	5	1	5	67	1
W-16	1.1	9240	1	1	64	.2	9	6990	.1	14	533	30530	2940	7	10140	368	8	310	3	840	24	1	15	1	1617	76.8	84	5	1	5	64	1
W-17	1.0	9400	1	1	48	.2	9	6600	.1	26	711	32290	2210	7	9260	408	8	460	4	740	13	2	14	1	1518	68.4	40	5	1	6	80	2
W-18	.7	9620	4	1	50	.3	8	6930	.1	26	498	32580	1870	7	9600	490	15	410	1	800	14	1	14	1	1176	66.9	43	5	1	13	82	5
W-19	1.0	9960	2	1	66	.2	9	6760	.1	17	750	33160	2090	7	10120	286	5	260	3	740	13	1	17	1	1466	65.7	34	6	1	6	62	1
W-20	1.1	9760	2	1	57	.2	11	6580	.1	19	797	32160	1930	6	9960	386	8	240	4	740	12	1	10	1	1341	63.2	36	5	1	7	61	2
W-21	1.1	9640	5	1	65	.3	10	7060	.1	13	1229	29580	2300	6	9740	374	17	340	4	720	13	1	11	1	1053	58.4	42	6	1	7	82	1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WHIT 1
WHIT 2
WHIT 3
WHIT 4
WHIT 5
WHIT 6
WHIT 7
WHIT 8
WHIT 17 Fr.
RUSTY ZONE
RIDGE ZONE
CREEK ZONE
DDH 91-1
DDH 91-2
RUSTY CREEK
COMB CREEK
WHITING CREEK
SWEENY LAKE
N
LEGEND
LATE CRETACEOUS OR TERTIARY
10 Lamprophyre or diabase
9 Andesite
8 Felsite
7 Porphyritic andesite
6 Feldspar hornblende biotite porphyry
5 a: Crowded monzonite porhyry b: breccia c: Latite porphyry
4 a: Quartz monzonite porphyry b: breccia
LATE CRETACEOUS
3 Aplitic quartz porphyry
2 Biotite hornblende granodiorite
LOWER JURASSIC
HAZELTON GROUP
1 TELKWA FM.: crystal tuff, lapilli tuff, volcanic breccia
Limit of pyrite: defined
assumed
Potassic (biotite and/or K-Spar)
Phyllic (sericite, pyrite)
Propylitic (epidote, carbonate, chlorite)
Diamond drill hole
Percussion drill hole
Geologic contact
Forestry road
Road
0
500
metres
GEOLOGICAL BRANCH
ASSESSMENT REPORT
22,109
Kennecott Canada Inc.
WHITING PROPERTY
1991 DRILLING
NTS: 93E/11,14
DATE: Dec. 1991
FIGURE 2