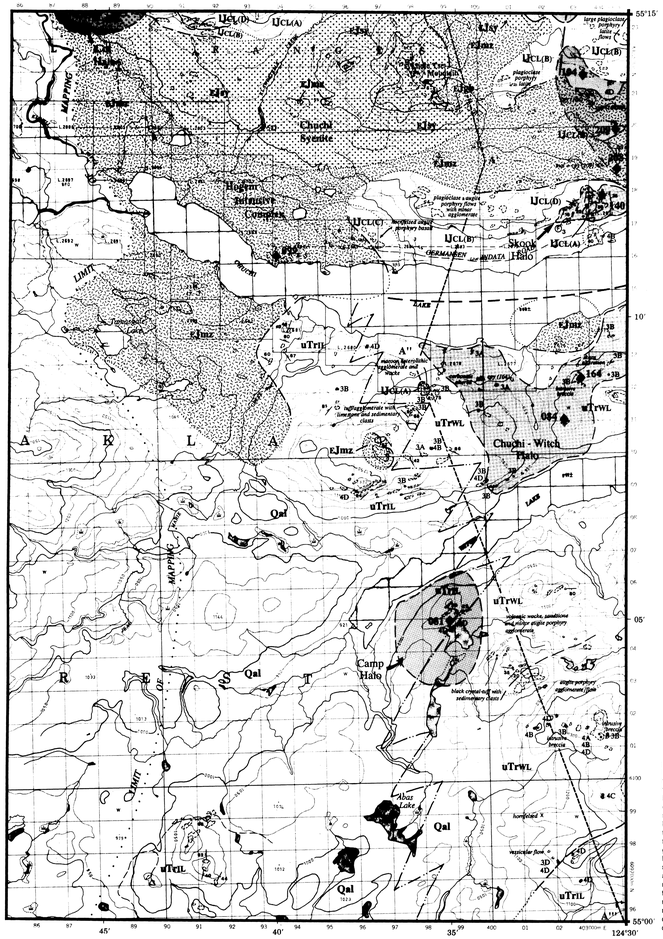
GEOLOGY MAP



BC Ministry of Energy, Mines and Petroleum Resources

Geological Survey Branch

OPEN FILE 1992-4

GEOLOGY AND MINERAL POTENTIAL OF THE CHUCHI LAKE (EAST HALF) AND KLAWLI LAKE (EAST HALF) MAP AREAS

NTS 93N/2E AND 93N/7E

J.L. NELSON, K.A. BELLEFONTAINE, M.E. MACLEAN AND C.J. REES

SCALE 1:50,000

SHEET 1 OF 2

LEGEND

LAYERED ROCKS

QUATERNARY

Qal	UNCONSOLIDATED GLACIAL TILL AND ALLUVIUM

UPPER TRIASSIC - LOWER JURASSIC

TAKLA GROUP

UCL	CHUCHI LAKE FORMATION: (A) HETEROLITHIC AGGLOMERATE; (B) PLAGIOCLASE ± AUGITE AND AUGITE ± PLAGIOCLASE PORPHYRY ANDESITE, LATITE AND DACITE FLOWS UNDIFFERENTIATED; (C) AUGITE/HORNBLENDE ± PLAGIOCLASE ± OLIVINE BASALT FLOWS; (D) INTERVOLCANIC SEDIMENTS: SANDSTONE, SILTSTONE, SHALE, CHERTY TUFF; (E) HETEROLITHIC CONGLOMERATE
uTrWL	WITCH LAKE FORMATION: AUGITE ± PLAGIOCLASE ± HORNBLENDE) PORPHYRY AGGLOMERATE, LAPILLI TUFF AND EPICLASTIC SEDIMENTS
uTriL	INZANA LAKE FORMATION: VOLCANIC SANDSTONE, SILTSTONE, CHERTY TUFF, MUDSTONE, ARGILLITE, LAPILLI TUFF AND AUGITE PORPHYRY AGGLOMERATE

INTRUSIVE ROCKS

MIDDLE TO LATE CRETACEOUS

GERMANSEN BATHOLITH AND KLAWLI STOCK

Kgr	COARSE-GRAINED GRANITE, EQUIGRANULAR TO ORTHOCLASE-MEGACRYSTIC

EARLY JURASSIC

HOGEM INTRUSIVE COMPLEX

EJsy	(Chuchi Syenite): MEDIUM-GRAINED SYENITE ± QUARTZ
EJmz	COARSE-GRAINED EQUIGRANULAR MONZONITE AND MINOR SYENITE
EJgb	COARSE-GRAINED GABBRO AND PYROXENITE

EARLY JURASSIC?

SYN-TAKLA INTRUSIONS*

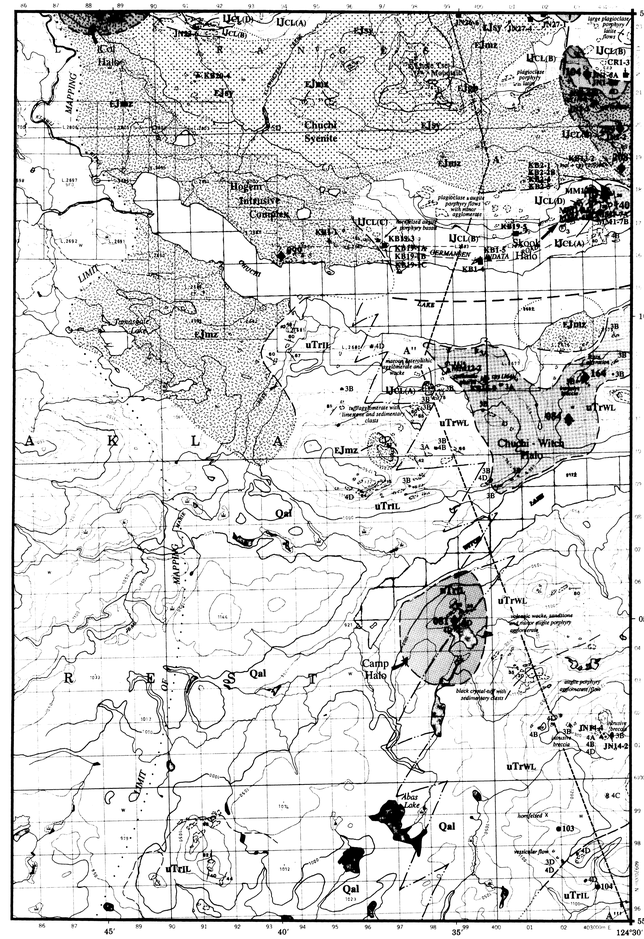
1	GRANITE SUITE: (1A) COARSE TO MEDIUM-GRAINED, EQUIGRANULAR GRANITE; (1B) RHYOLOGITE/DACITE
2	SYENITE SUITE: (2A) COARSE TO MEDIUM-GRAINED, EQUIGRANULAR SYENITE; (2B) CROWDED PLAGIOCLASE-PORPHYRITIC SYENITE; (2C) MEGACRYSTIC SYENITE
3	MONZONITE SUITE: (3A) COARSE TO MEDIUM-GRAINED, EQUIGRANULAR MONZONITE; (3B) CROWDED PLAGIOCLASE-PORPHYRITIC MONZONITE; (3C) MEGACRYSTIC PLAGIOCLASE MONZONITE; (3D)SPARSELY PORPHYRITIC LATITE
4	DIORITE/MONZODIORITE SUITE: (4A) COARSE TO MEDIUM-GRAINED, EQUIGRANULAR DIORITE/MONZODIORITE; (4B) CROWDED PLAGIOCLASE-PORPHYRITIC DIORITE; (4C) MEGACRYSTIC PLAGIOCLASE (± AUGITE) PORPHYRITIC DIORITE; (4D) SPARSELY PORPHYRITIC ANDESITE
5	GABBRO/MONZOGABBRO SUITE: (5A) COARSE TO MEDIUM-GRAINED, EQUIGRANULAR GABBRO/MONZOGABBRO; (5D) SPARSELY PORPHYRITIC DIABASE/BASALT
6	ULTRAMAFIC SUITE: (6A) COARSE-GRAINED EQUIGRANULAR LAMPROPHYRE

* Not all lithologic types are present in the map area; however the complete listing is retained for consistency with Nelson et al., 1991a and 1991b.

SYMBOLS

geologic contact (approximate, inferred)
lithologic contact (approximate, inferred)
facies contact (inferred)
fault (approximate)
limit of mapping
outcrop
subcrop
bedding (tops known, tops unknown, overturned) 45 25 45
foliation
fracture
glacial striation
large intrusion
small intrusion
area of alteration
mineral occurrence and MINFILE number 210
fossil locality 21
minor mineral showing (MINFILE number) 103
malachite
chalcocyrite
cross section A - A'

MINERAL POTENTIAL MAP



GEOCHEMISTRY

ROCK GEOCHEMISTRY

SAMPLE NUMBER	MINERAL SHOWING/ SAMPLE DESCRIPTION	UTM EAST	UTM NORTH	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppb
91JN1-6A	SRM: quartz breccia float with cpy + mal + py	405890	6121600	130	7	1.55%	<3	290	28	2	155
91JN1-6B	SRM: quartz breccia vein	405890	6121600	<5	<0.6	6	<3	17	11	2	170
91JN1-6BDup	SRM: quartz breccia vein	405890	6121600	<5	<0.6	4	<3	24	9	1	485
91JN2-2	GG: quartz vein with cpy + sl +gn + py	404175	6119900	<5	<0.6	140	4	178	6	1	30
91JN2-3	SRM: fault zone in diorite with quartz + cpy veinlets	405380	6120050	485	4	1.73%	121	410	29	20	210
91JN2-4	SRM: altered diorite with quartz + cpy veinlets	405400	6121000	1050	5	0.80%	12	107	53	5	595
91JN1-2	altered monzonite intrusive? bx with 10% py + po	403650	6101350	<5	<0.6	60	7	58	5	<0.5	<20
91JN1-2Dup	altered monzonite intrusive? bx with 10% py + po	403650	6101350	<5	<0.6	60	9	58	5	<0.5	<20
91JN1-4	altered intrusive? breccia with pyrrhotite	403350	6101290	<5	<0.6	49	5	91	3	<0.5	40
91JN2-6	COL: hfd sed with 10% disp po + py vfrs <0.5m wide	391250	6123300	<5	<0.6	89	14	35	1100	2	<20
91JN3-1**	hornfelsed and altered breccia	380525	6098550	<5	<0.6	109	7	86	2	0.9	<20
91KS1-1	altered monzonite with 5% pyrite	395250	6116500	<5	<0.6	226	51	77	7	1	<20
91KS1-4	gossan in silicified volcanic with <2% pyrite	399875	6116000	<5	<0.6	5	3	43	20	4	<20
91KS1-5	altered volcanic with secondary biotite + 5% pyrite	400125	6116025	<5	4	129	61	112	109	9	75
91KS2-1	SKOOK: altered sediments with 10% py + po	403860	6117900	<5	<0.6	67	4	35	71	2	<20
91KS2-2B	SKOOK: quartz-carb veinv0.5m wide with py + po	403775	6117870	420	15	167	143	0.19%	16	20	20
91KS2-4	SKOOK: alt sed with 5% py + po + trace bo + cpy	403625	6117775	<5	<0.6	121	<3	47	9	0.6	20
91KS2-5	SKOOK: quartz-carb breccia zone in monzonite	403725	6117775	75	<0.6	44	19	37	98	3.5	<20
91KS13-2	GG: <2% disseminated cpy in leucocratic gabbro	403600	6118820	<5	<0.6	810	<3	100	3	0.7	<20
91KS16-9	WITCH: carb altered augite porphyry with py + cpy	399900	6112980	<5	<0.6	57	14	95	5	4	<20
91KS19-3	augite porphyry with secondary biotite + py + po?	398750	6116625	<5	<0.6	164	15	72	32	3	<20
91KS20-4	1 cm magnetite vein in coarse grained syenite	391340	6121825	<5	<0.6	10	7	19	2	<0.5	<20
91MM1-4A	SKOOK: altered sediments with py + po	403375	6117700	<5	<0.6	109	3	24	13	1	30
91MM1-4B	SKOOK: skarn altered metasediments	403375	6117700	<5	<0.6	4	<3	26	9	0.6	<20
91MM1-7A	SKOOK: altered crystal tuff with py + po	403550	6117775	<5	<0.6	123	<3	36	4	0.9	<20
91MM1-7B	SKOOK: qtz vein <0.5m wide with cpy + gn + sl + py	403550	6117775	740	3	410	80	2.46%	0.12%	69	480
91MM1-9	SKOOK: altered sediments with pyrrhotite	403425	6117985	<5	<0.6	53	3	54	9	0.8	25
91MM12-2	WITCH: augite porphyry with cpy + py + po	399810	6112600	<5	<0.6	188	8	60	5	0.7	<20

**values in ppm or percent where indicated
**sample located outside present map area

Abbreviations:
alt = altered, bo = bornite, bx = breccia, carb = carbonate, cm = centimetre, cpy = chalcopyrite, hfd = hornfelsed, gn = galena, m = metre, mal = malachite, po = pyrrhotite, py = pyrite, qtz = quartz, sed = sediments, sl = sphalerite, vfrs = veinlets

STREAM SEDIMENT GEOCHEMISTRY

SAMPLE NUMBER	UTM EAST	UTM NORTH	Au ppb	Cu ppm	Mo ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Th ppm	Sb ppm	Cr ppm	W ppm	Hg ppb
103	401925	6099475	<5	38	1	6	78	0.6	47	12	226	2.43	6	2.1	3.7	0.9	47	<2	130
104	403100	6096675	<5	70	1	5	79	0.5	53	14	650	3	7	<0.5	3.6	1.4	67	<2	105

The following elements have been analysed but returned values below detection limits: Se, Sn.
Geochemistry for the following elements is available upon request: Ba, Br, Ca, Ce, Cs, Eu, Hf, Ir, La, Lu, Na, Nd, Rb, Sc, Sm, Ta, Th, Yb.

GEOCHEMICAL SAMPLES

Stream Sediment
Geochemistry
Whole Rock

ANALYTICAL PROCEDURES FOR GEOCHEMISTRY

ANALYTICAL PROCEDURES FOR ROCK GEOCHEMISTRY

1. GOLD (Au) *Determined by Chemex Labs Ltd., 212 Brooksbank Ave., North Vancouver, B.C. V7J 2C1*

Fire Assay/Atomic Absorption A 30 gram aliquot sample is subjected to a fire assay technique to generate a Au/Ag bead. The bead is dissolved in nitricacid and the solution is analysed for gold by flameatomic absorption. Detection limit is 5 ppb.

2. BASE METALS (Cu, Pb, Zn, Ag) *Determined by B.C. Geological Survey Branch - Analytical Sciences Laboratory, Victoria, B.C., V8V 1X4*

Atomic Absorption Samples are digested in hot, concentrated nitric-perchloric-hydrofluoric-hydrochloric acids. The acid solution is diluted to a specific volume and the elements are measured by flame atomic absorption. Detection limits: Cu - 2 ppm, Pb - 3 ppm, Zn - 2 ppm, Ag - 0.6 ppm.

3. ELEMENTS AS, Sb, HG *Determined by B.C. Geological Survey Branch - Analytical Sciences Laboratory, Victoria, B.C., V8V 1X4*

Atomic Absorption/Hydride Generation or Cold Vapour A 1 gram sample is digested in hot nitric-perchloric-hydrofluoric-hydrochloric acids followed by hydride vapour generation atomic absorption (As, Sb) or cold vapour atomic absorption (Hg). Detection limits: As - 1ppm, Sb - 0.5 ppm, Hg - 20 ppb.

ANALYTICAL PROCEDURES FOR STREAM SEDIMENT GEOCHEMISTRY

1. ELEMENTS Cu, Mo, Pb, Zn, Ag, Ni, Co, Mn, Fe, W, As, Cd *Determined by Acme Analytical Laboratories Ltd., 852 E Hastings St., Vancouver, B.C., V6A 1R6*

ICP-ES A 0.5 gram aliquot of the sample is digested in aqua regia at 95°C(Aliss for one hour and is diluted to 10 ml with water. Metals are determined by inductively coupled plasma emission spectroscopy (ICP-ES). Detection limits: Cu - 1 ppm, Mo - 1 ppm, Pb - 2 ppm, Zn - 1 ppm, Ag - 0.1 ppm, Ni - 1 ppm, Co - 1 ppm, Fe - 0.01%, Mn - 1 ppm, W - 1 ppm, As - 2 ppm, Cr - 1 ppm.

2. ELEMENTS AU, U, TH, SB *Determined by Activation Laboratories Limited, 1336 Sandhill Drive, Ancaster, Ontario, L9G 4V5*

Neutron Activation A 30 gram sample is encapsulated in a PVC vial and irradiated thermally in a nuclear reactor. After a decay period element concentrations are measured by counting the gamma-ray emissions. Detection limits: Au - 5 ppb, U - 0.5 ppm, Th - 0.5 ppm, Sb - 0.2 ppm.

3. MERCURY (HG) *Determined by Acme Analytical Laboratories Ld., 852 E Hastings St., Vancouver, B.C., V6A 1R6*

Flameless Atomic Absorption A 5 gram sample is digested with nitric and hydrochloric acids and is analyzed using flameless atomic absorption. Detection limit is 5 ppb.

MINERAL OCCURRENCES

CAMP 093N 081

Hornfelsed fine grained dust tuffs and siltstones of the Inzana Lake formation are intruded by hornblende porphyry dykes similar to those on the TAS property (093K 080). Pyrite, pyrrhotite and chalcopyrite occur as disseminations and malachite is present on some fracture surfaces. Copper values of up to 0.15% have been reported over limited areas. Recent results of trenching and drilling in 1991 are unavailable at present.

MOSS 093N 084

The MOSS showing is hosted within the Triassic Witch Lake formation of the Takla Group. On the Chuchi claims these rocks are intruded by crowded plagioclase ± hornblende porphyry monzonites and monzonite intrusive breccias. At the showing itself, propylitic, potassic and carbonate alteration are so intense that original lithologies are indistinguishable. The gossanous rock contains up to 15% disseminated pyrite and pyrrhotite with minor blebs and fracture coatings of chalcopyrite. Samples from the trenches returned values of up to 1795 ppm copper and 7509 ppb gold (Assessment Report 20899). The outcrops are also coincident with larger magnetic and copper and gold soil anomalies. The MOSS showing is an area of strong alteration and mineralization and is related to the larger porphyry system between Chuchi and Witch Lakes (Chuchi-Witch Halo; see WITCH, 093N 164).

TOP 093N 099

The TOP showing includes several small occurrences of chalcopyrite, pyrite and molybdenite? along fracture surfaces in coarse grained, equigranular monzonite of the Hogem intrusive complex.

COL 093N 101

The Col is located 5 kilometres north of the west end of Chuchi Lake on the Col and Kael claims and straddles the boundary between mapsheets 93N2 and 93N7. The copper-gold showings are situated near the southern end of the Hogem intrusive complex. They are hosted within alkaline intrusive rocks near the contact with volcanic flows of the Chuchi Lake formation of the Takla Group. Medium to coarse grained hornblende monzonifie and lesser pink fine to medium grained syenite with aplite and pegmatite are the main intrusive phases. Copper mineralization including chalcopyrite, bornite and malachite are concentrated along steep parallel fractures trending 140 degrees that have 1 to 4 centimetre salmon pink potassium feldspar alteration envelopes around them. These zones may also contain quartz, minor magnetite, and hairline seams of tremolite/actinolite plus chlorite. Some outcrops are so heavily striped with alteration zones that they take on a gneissic appearance. While some of these zones appear to be late magmatic syenitic injections into the monzonite, most appear to be the result of metasomatic potassic alteration of the monzonite. A later crosscutting set of steep fractures strikes 050 degrees, but contains only minor mineralization. Inferred reserves of 2 million tonnes of 0.6% copper were calculated by Falconbridge Nickel Mines Ltd. in 1972 (Assessment Report 19748) and trenching in 1987 yielded average grades of 2.2 ppm gold and 3.16 % copper over a 3.7 metre interval (Assessment Report 18123).

Extensive copper staining (malachite and chalcopyrite) occurs on a cliff exposure 1.75 kilometres ENE of the main showing. At this locality grey and maroon plagioclase porphyry flows of the Chuchi Lake formation are contact metamorphosed by the Hogem intrusive complex and host the disseminated mineralization.

SRM 093N 164

The SRM MINFILE occurrence covers several small mineral showings straddling the contact between green and maroon augite-plagioclase porphyry flows and agglomerates of the Early Jurassic Chuchi Lake formation (Takla Group) and the Triassic - Jurassic Hogem intrusive complex. Disseminated chalcopyrite, pyrite and pyrrhotite hosted in augite-plagioclase porphyry volcanics have been documented in diamond drilling conducted by Noranda. The best value they attained was 3900 ppm copper over 3.5 metres. Our grab samples (JN2-3 and JN2-4) of fracture controlled mineralization yielded 465 ppb Au, 1.73% Cu and 1050 ppb Au, 0.80% Cu respectively.

Approximately 250 metres southwest, an orange weathering chalcedonic quartz breccia vein is exposed over a 15 metre area. The vein is approximately 2 metres wide and strikes 162 degrees. Silicified and chloritized float in a gully 30 metres east of this contains chalcopyrite, pyrite and malachite. One kilometer due south of the vein, disseminated chalcopyrite occurs in small swarms of quartz veinlets that cross cut equigranular, medium grained salt and pepper diorite and heterogeneous pyroxenite/gabbro of the Hogem intrusive complex. The vein swarms have an average width of 4 metres and strike 110-115 degrees.

This composite MINFILE locality bears resemblance to other disseminated and vein hosted mineralization near the contact between the Hogem intrusive complex and Takla Group volcanics. See also SKOOK, 093N 140; RIG BRECCIA, 093N 208, GG, 093N 209; and COL, 093N 101.

SKOOK 093N 140

The Skook alteration system contains several small showings and occurs primarily within the Late Pleinsbachian sedimentary marker unit of the Chuchi Lake formation near its contact with the Hogem intrusive complex. The CL11 zone is the area of most intense alteration and highest density of crowded porphyry monzonite intrusions. It is exposed in an east-trending gully in a logging cut. The sediments are bleached and hornfelsed; alteration minerals include potassium feldspar, chlorite, pyrite, sericite, epidote, biotite, calcite and minor tourmaline (Assessment Report 18073). These rocks contain disseminated pyrite, pyrrhotite, and minor chalcopyrite and bornite. White-weathering siliceous tuffs with limy nodules are baked and have developed weak skarn alteration minerals such as garnet and diopsite. A polymetallic quartz vein contains sphalerite, galena and chalcopyrite. The best assay results on grab samples from this locality are 13.4 ppm gold, 16.6 ppm silver and 2.3% zinc (Assessment Report 18073). The South zone lies 250 metres south of this vein and consists of a silicified zone in volcanics that contains quartz, calcite, pyrite and chalcopyrite. The GG polymetallic vein (093N 209) and the Rig Breccia zone (093N 208) are also hosted within the overlying flows and are probably part of an epithermal vein system near the Takla-Hogem contact.

WITCH 093N 164

The WITCH MINFILE locality encompasses a large (3kilometres by 5 kilometres) irregular alteration system between Witch and Chuchi Lakes. It is referred to as the Chuchi-Witch Halo and it straddles mapsheets 93N1 and 93N2. It is characterized by widespread biotite hornfelsing and patchy, but often strong potassic and propylitic alteration. Pyrite and pyrrhotite are abundant and minor chalcopyrite occurs in several places. Epidote, garnet, diopside skarn exists in limy tuffaceous sediments.

Volcanic rocks of the Triassic Witch Lake formation, including augite porphyry flows and fragmentals, aphanitic volcanics and minor tuffs are intruded by crowded plagioclase porphyry monzonite and monzonite intrusive breccias. These intrusive rocks are probably responsible for the porphyry style alteration and mineralization. This region is also intruded by several phases of the Hogem intrusive complex including coarse grained equigranular monzonite, aplitic bearing potassium feldspar pegmatite and coarse grained syenite. The strongest area of mineralization in this system is the MOSS showing, 093N 084.

RIG BRECCIA 093N 208

The Rig Breccia showing is exposed in two old trenches 25 metres apart on both sides of a small stream on the north shore of Chuchi Lake. It consists of a 1.2 metre wide steeply dipping gouge zone that strikes 290°. Epithermal vuggy and brecciated quartz veinlets bearing sphalerite, galena and chalcopyrite intrude the gouge zone and carry up to 2.0% zinc, 300 ppm copper, 21 ppm silver, 2.1 ppm mercury, and 0.3 ppm gold. This zone also contains brecciated and altered volcanics and quartz-calcite fragments.

This showing is located at the contact between the Hogem Batholith and the Chuchi Lake formation of the Takla Group. It is probably related to other epithermal veins near the edge of the Hogem Batholith: see SKOOK 093N 140, SRM 093N 164 and GG 093N 209.

GG 093N 209

The GG showing is a 5 metre wide float zone of rusty weathering quartz vein material containing sphalerite, galena, chalcopyrite and pyrite. Vein segments are 5 to 10 centimetres wide and are hosted within contact metamorphosed grey and maroon-grey plagioclase porphyry lapilli agglomerate of the Early Jurassic Chuchi Lake formation. The agglomerate contains fragments and large irregular amygdules in a broken crystal matrix.

This showing may in part be related to the SKOOK alteration halo (093N 140) and other sulphide vein occurrences near the contact of the Hogem intrusive complex. See RIG BRECCIA, 093N 208 and SRM, 093N 104.

ADDITIONAL CONTRIBUTIONS TO MAP

Campbell, A.E. and Donaldson, W.S. (1991): Witch Option; Geology, Geophysics and Geochemistry, 1990; *B.C. Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 20899.

Nebocat, J. (1991): Regional Geology, Col Project. Unpublished map, *Kookabura Gold Corporation*, 1:10,000.

Wong, R. (1990): Assessment Report on the 1989 Ground Geophysical and Diamond Drilling Program on the Phil 13 Claim Group; *B.C. Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 20018.

Personal communications from C.T. Barrie and R. Wong, BP Resources Canada Ltd.; J. Nebocat, Kookabura Gold Corporation and David Cook, Dasserat Developments.

*References cited in 'Mineral Occurrences' discussion are listed in:

Nelson, J., Bellefontaine, K., Rees, C., and MacLean, M. (1992): Regional Geological Mapping in the Nation Lakes Area (93N/2 East Half and 93N/7 East Half); *B.C. Ministry of Energy, Mines and Petroleum Resources*, Geological Fieldwork 1991.

FOSSIL IDENTIFICATION

REPORT JT-1991-HWT

Report on three collections of Jurassic fossils, collected in 1991, from the Manson Creek map area (93N), British Columbia, submitted by Joanne Nelson, HWMS-NO Inc.

② Field No.: 91JN1-1b4 GSC Loc. No.: C-189721
Locality: North of Chuchi Lake, Skook claims. In an east-west gully 0.5 km north of main logging road. UTM 403200E 6112500N, 55N2.
Identifications:
Leptolecanites aff. *accuratus* (Fischer)
Leptolecanites sp.
Weyla sp. cf.
Aristarcha cf. *alpersiana* (Oppel)
Age and comments: Late Pleinsbachian, Lower part of the Kunae zone. This is a first occurrence of the late Pleinsbachian in the Fort St. James area. Important new information for Quesnellia Terrane.

② Field No.: 91JN-93NRW GSC Loc. No.: C-189719
Locality: Clearcut north of Chuchi Lake; GR claim group. UTM 410550E 6112375N; 93NRW.
Identifications:
Amaltheus sp.
Fuminoceras? sp.
Leptolecanites aff. *accuratus* (Fischer)
Weyla sp. cf.
Age and comments: Late Pleinsbachian. Lower part of the Kunae zone. Almost certainly equivalent to collection C-189721.

① Field No.: 91CRE-3-3 GSC Loc. No.: C-189720
Locality: 'Adaski Tse Mountain north of Chuchi Lake. UTM 392875E, 6126050N; 93N/7E.
Identifications:
Tropidoceras sp.
Acanthopleuroceras? sp.
Metaderoceras evolutum (Fucini)
Pleuroceras? sp.
Pleuroceras??? sp.
Starfish.
Age and comments: Early Pleinsbachian. Whitecaves zone. Material is compressed but the assemblage is clearly early Pleinsbachian in age and almost certainly Whitecaves zone; i.e., mid-early Pleinsbachian.

H.W. Tipper
Research Scientist
R.L Thompson
Subdivision Head
15 November 1991

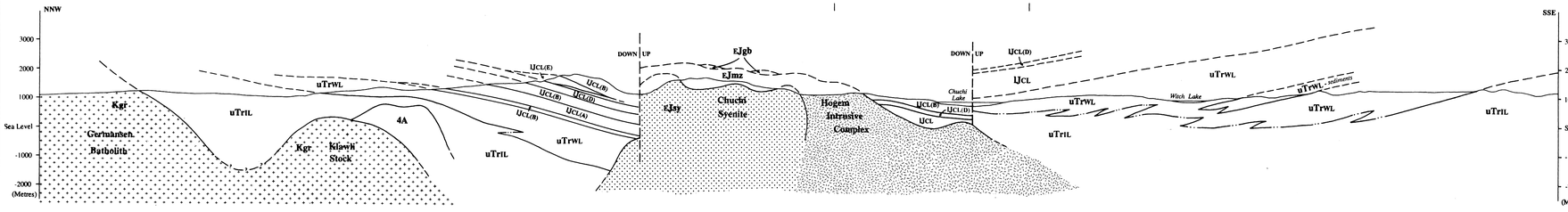
Cordilleran Division
Geological Survey of Canada
100 West Pender Street
Vancouver, B.C. CANADA

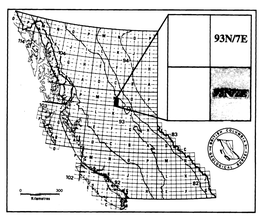
Scale 1:30,000 Echelle

ELEVATIONS IN METRES ABOVE MEAN SEA LEVEL

CONTOUR INTERVAL ..... 50 METRES

SCHEMATIC CROSS-SECTION





SHEET 1 - GEOLOGY AND MINERAL POTENTIAL OF CHUCHI LAKE EAST HALF (93N/2E)

Ministry of Energy, Mines and Petroleum Resources

Geological Survey Branch

OPEN FILE 1992-4

GEOLOGY AND MINERAL POTENTIAL OF THE CHUCHI LAKE (EAST HALF) AND KLAWLI LAKE (EAST HALF) MAP AREAS

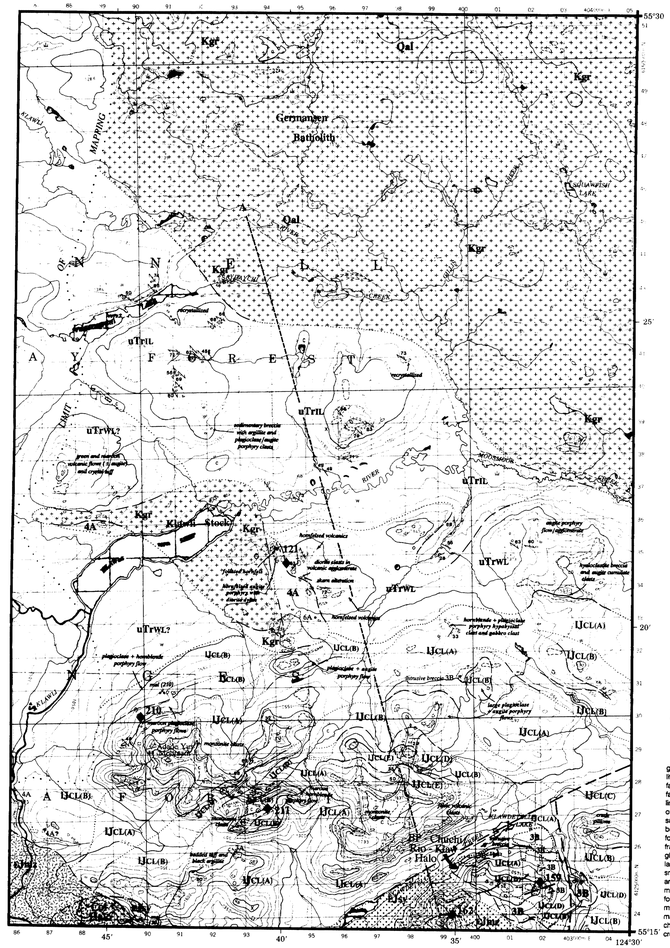
NTS 93N/2E AND 93N/7E

J.L. NELSON, K.A. BELLEFONTAINE, M.E. MACLEAN AND C.J. REES

SCALE 1:50,000

SHEET 2 OF 2

GEOLOGY MAP


Kgr
Qal
Germansen Batholith
Kgr
Kgr
Kgr