Industrial Mineral Endowment and Development Opportunities

Northeast-Central British Columbia

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INTRODUCTION

The industrial mineral endowment of northeast-central British Columbia is rich, varied and relatively untapped. There are 390 industrial mineral occurrences recorded in the Ministry of Energy and Mines electronic database (MINFILE) located within the administrative boundary of the region. A review of these occurrences, with respect to physiography, tectonic terrane, deposit type, character and resource potential is presented below.

Selected commodities of interest include sand and gravel, diatomite, limestone, clay and shale, REE, volcanic material, silica, barite, dimension stone, and jade. Broad glaciated areas of central BC make sand and gravel (aggregate), the most economically important commodity in the region. Primary sources include terraces along the Nechako and Fraser rivers, major meltwater channels, raised shorelines of former glacial lakes and, to a lesser extent, esker systems. Sand and gravel although sometimes considered an industrial mineral commodity, generally has a structural end use and, therefore, is not discussed further.

The region is serviced by a well-developed network of road and rail. The city of Prince George, central to the region, is the transportation hub for the northern two-thirds of the province. Major transport routes radiate east to markets in Alberta, south through the province to markets in the Lower Mainland and the USA, and west to the port of Prince Rupert (Figure 1). Other routes extend northward and access resource-rich areas. Most industrial mineral development is proximal to transportation corridors, including highways 16 and 97, and a large number of logging arteries that span the region.

Summaries of selected mineral commodities highlight the economic significance of past producers and introduce the importance of potential deposits. MINFILE reference numbers follow deposit names where applicable.

REGIONAL GEOLOGIC SETTING

The Canadian Cordillera can be divided into five, orogen-parallel belts of continental and oceanic affinities. Three of the belts, Foreland, Omineca and Intermontane, trend north-westerly across northeast-central BC (Figure 1). The Foreland Belt is comprised of folded and thrusted sedimentary rocks derived from the North American craton. The Omineca Belt is made up of complexly deformed and metamorphosed sedimentary, volcanic and granitic rocks of the pericratonic Kootenay (Barkerville and Cariboo subterranes) and Cassiar terranes, and the oceanic Slide Mountain terrane. The Intermontane Belt is an amalgamation of two major island arc assemblages, the Quesnel and Stikine terranes, that sandwich the accretionary (or subduction) complex of the Cache Creek terrane. The Overlap Assemblage, a package of younger sedimentary and volcanic rocks, was emplaced across all major terranes. Some industrial mineral commodities are restricted to, or concentrated in, particular terranes. The variability of depositional environments has resulted in a diverse number of industrial mineral commodities, many of which are underexplored.

DIATOMITE

There are ten recorded diatomite occurrences, including four past producers: Crownite (093B 023), Buck Ridge (093B 042), Quesnel (093B 059) and Big Bend (093G 039), concentrated mainly in the Quesnel area. The occurrences are mainly stratiform lacustrine deposits that formed within Tertiary volcanic and sedimentary rocks that crop out along a 40 km belt that parallels the Fraser River from Big Bend (12 km north of Quesnel) to Alexandria. The diatomite ranges in colour from white to grey to buff and consists almost exclusively of various sizes of Melosira granulata diatoms, usually very small, with variable amounts of clay, silt and volcanic ash.

Diatomite at the Crownite deposit, 3 km southwest of Quesnel, occurs in beds up to about 31 m thick with interbeds of clay, silt and ash. Recorded production is 22,074 tonnes. Proven and probable reserves are a conservative 750,000 tonnes. The Buck Ridge deposit is located on the west side of the Fraser River, 27 kilometres south of Quesnel. It encompasses a number of separate diatomite showings that crop out over a distance of about 6 kilometres along the west bank of the Fraser River. At the Quesnel occurrence, 2 km north of Buck Ridge, recorded diatomite production for 1987-93 totaled 15.2 tonnes. The Big Bend deposit is located along the east side of the Fraser River, 13 km north of Quesnel. Three major exposures of diatomite occur close to water level at the downstream end of the big bend. Diatomite was mined in limited batches and periodically shipped to Vancouver. A 3 to 6 metre bed of white stoneware clay underlies the diatomite.

The Upper Blackwater area, of the southern Nechako Plateau, is also prospective for diatomite, but few industrial mineral occurrences are reported. The Tsacha showing (093F 041) occurs within volcanic and intercalated sedimentary rocks of the Eocene Ootsa Lake Group. Accumulations of diatomite and pumice may represent rocks preserved in a fault depression. Another diatomite locality of note is reported near Chilako (MINFILE 093G 034) on the Canadian National Railway.

LIMESTONE

A total of 52 limestone occurrences, including 2 producers and 5 developed prospects, are recorded for the region in the database. The occurrences are mainly stratiform deposits in the Ancestral North American, Cariboo and Cache Creek terranes of the Foreland, Omineca, and Intermontane Belts, respectively. Variable uses, locations, deposit types and characteristics coupled with present and future infrastructure make limestone a key future asset.

The Giscome limestone quarry (093J 025) is located 90 km northeast of Prince George near BC Rail facilities. Dark grey fossiliferous limestone of the Mississippian to Triassic Slide Mountain Group crops out over a 100 m by 200 m area and grades 98% CaCO₃. Intermittent quarrying since 1990 has produced calcium-rich limestone primarily for Interior pulp mills.

The Dahl Lake quarry (093G 032), 35 km southwest of Prince George, occurs in Upper Permian fossiliferous limestone of the Carboniferous to Jurassic Cache Creek Complex (Group). Since 1968, a total of about 550,000 tonnes of limestone has been extracted for local pulp mills and recently 20,000 tonnes of decorative aggregate was processed from waste rock.

CLAY and SHALE

A total of 22 clay and shale occurrences of primarily stratiform fireclay deposits are recorded in Quesnel Terrane rocks or in Cache Creek Terrane overlap assemblages. Kaolinitic claystones are the weathered products of crystalline feldspar-rich rocks deposited in low-energy, freshwater basins. Kaolin clay is mainly used in the paper industry, although ceramic and refractory clays have specific end uses.

There are 4 reported stratiform deposit-type occurrences in terranes of the Foreland Belt. The most prospective areas are Upper Cretaceous to Eocene sedimentary basins along the Fraser River from Williams Lake to Prince George. Bentonite, or montmorillonite clay forms when volcanic ash is deposited in low-energy shallow marine or lacustrine environments in continental, continental platform or island arc settings. Bentonite has a wide variety of applications and end uses, including foundry sands, drilling mud and absorbents.

The Burnt Shale deposit (093B 047), near Quesnel has seen limited quarrying and is thought to have originally been a clay that was baked. The material is predominantly pale beige, hard, vitreous to porcelaneous, and is regarded as a pozzolan.

The Giscome Rapids deposit (093J 020) is located on the west bank of the Fraser River. The deposit has a variety of clay-types in a thick Tertiary bed exposed for about 800 m. Development work in the 1940's included the extraction of 18 tonnes of clay.

A showing of bentonitic clay occurs near Bednesti (093G 033) adjacent to CNR rail facilities. The showing consists of cream to grey bentonite of unknown age exposed in 3 to 4 m thick exposures along cutslopes.

RARE EARTH and HIGH-TECH ELEMENTS

Rare-earth elements (REE) and yttrium are associated with carbonatites and alkaline rocks in the Foreland and Omineca Belts in northeast-central BC. The presence of several very notable occurrences makes the region highly prospective.

The Aley property (094B 027), located 140 km north-northwest of Mackenzie, has an extensive exploration history. A Mississippian alkaline-carbonatite complex intrudes miogeoclinal rocks of the Foreland Belt. Exploration identified possible open-pit niobium-bearing zones that grade from 0.66 to 0.75% Nb.

The Mount Bisson alkaline complex is situated 64 km northwest of the town of Mackenzie. Light REE are enriched in allanite pegmatities and syenite dykes within the Wolverine metamorphic suite belonging to the Omineca crystalline Belt.

A group of REE-enriched carbonatites occur in the Monashee Mountains north of Blue River. The Howard Creek (083D 023 and 043), Paradise (083D 006 and 022) and Verity (083D 005) prospects occur as sills that intrude mainly amphibolite-grade rocks of the Hadrynian Horsethief Creek Group.

Carbonatite-syenite complexes and volatile-rich granites are also good exploration targets for many high tech metals and non-metals (Table 2). Regionally, these rocks occur in two areas along the western edge of the Foreland Belt and east of the Rocky Mountain Trench. Specialty metals, such as gallium and germanium are extremely anomalous in carbonate-hosted lead-zinc deposits such as Cay (094G 017) in the Robb Lake Belt.

VOLCANIC MATERIAL

Pleistocene lava, associated tuffs and breccia overlie till in the south-central part of the region. Tephra is mined seasonally from the Nazko lava rock quarry (093B 060), 90 km west of Quesnel, by Canada Pumice Corporation. Each year they produce between 15,000 and 25,000 m³ of scoriacious lava for the agricultural, horticultural, landscaping and lightweight aggregate sectors.

Perlite and volcanic glass occurrences outcrop primarily in the central BC region know as the Nechako Plateau. This low-lying area is underlain by Eocene Ootsa Lake rhyolitic and dacitic flows, tuffs and breccias, with lesser andesites, basalts and conglomerates. Several recorded occurrences in the region include: Uncha Lake (093F 026), Ootsa Lake (093F 028) and Cheslatta Lake (093F 028). All perlite now being used in BC is imported from the USA, but ongoing development of resource roads may contribute to discoveries of economic perlite deposits in the Nechako Plateau.

SILICA

Hardrock silica occurrences in BC are divided into three deposit types: quartzite, vein and pegmatite. Quartzite has good economic silica potential with the Lower Silurian Nonda quartzite being the best source in the region. This unit occurs east of the Rocky Mountain Trench in rocks of the Ancestral North American terrane.

The Longworth prospect (093H 038), 80 km east of Prince George, is hosted by a folded sequence of sedimentary and volcanic rock. The quartzite is essentially the Lower Silurian equivalent to the Nonda Formation and is fine-grained, massive and well-sorted. During 1985, a property evaluation produced 28 samples grading 98.84% - 99.80% SiO₂.

The Win quartzite occurrence (093O 014) at Mount Chingee is hosted by Lower Cambrian Gog Group or Upper Proterozoic Misinchinka Group. The unit contains a drill inferred reserve of 4.5 million tonnes grading 98.03% SiO₂. The An quartzite prospect (093O 013) near Mount Kinney, further to the southeast, occurs in equivalent strata. Limited drilling suggests that there is potential for a large tonnage of high grade silica.

Alroy is an early stage quartzite prospect located 160 km east of Prince George. Several prominent exposures of quartzite, probably of Cambrian Yanks Peak Formation, crop out in the Fraser River valley immediately north of Highway 16.

BARITE

Barite occurrences, including 3 developed prospects, are found principally in rocks of the Ancestral North American terrane. Occurrences are mainly stratiform or stratabound having either a carbonate or sediment host. Barite is widely used as oil-drilling mud and filler for paper and cloth.

The BV prospect (94N 002) is a large carbonate-hosted, high grade stratiform deposit in the Sentinel Range near Muncho Lake on the Alaska Highway. The region is underlain by Proterozoic to Middle Devonian sedimentary rocks belonging to Ancestral North America. The basal barite deposit is hosted in the Stone Formation. An inferred resource estimate totals 100 million tonnes grading 65% BaSO₄.

The Nonda Creek developed prospect (094K 001) is situated 14 km east-northeast of the settlement of Muncho Lake. It may represent hydrothermal vein replacement in carbonates of the Middle Devonian

Dunedin Formation. The upper section of the deposit, measuring 120 m long, 45 m wide and 30 m thick, contains an estimated 450,000 tonnes grading 92% barite.

DIMENSION STONE

Although only seven dimension stone occurrences are recorded in northeast-central BC, the development potential is good especially in the eastern region where quartzite and marble are prevalent. Stone from several granite, marble, slate and quartzite prospects have physical characteristics comparable to material mined in southern BC.

The Wishaw quartzite prospect (093H 131) near McGregor is underlain by 300-350m of pale grey, beige, pink and maroon quartzite beds from the Mahto Formation. The unit displays intricate cross-bedded, banded and swirled patterns making it desirable for dimension stone.

The Dome Creek slate prospect (093H 028) straddles highway 16 and occurs in Hadrynian Yankee Belle Formation of the Cariboo Group. The slate is marketable because of its green color, good cleavage and strength properties. The near surface deposit covers an area approximately 3 km² with depth estimates between 500 and 750 metres.

Marble was briefly quarried at Maeford Lake (093A 081) located 100 km east-southeast of Quesnel. The area is underlain by continental margin sediments of the Cunningham Formation of the Cariboo Group. During 1990, about 150 tonnes of the medium grained milky white marble was extracted and sold locally as dimension stone.

The Aspen claims (0930 049), located west of Mackenzie, cover pale pink, coarse-grained granite of an Early Tertiary pluton. This is one of a number of small post-accretionary plutons that make for attractive targets in the Omineca Belt.

JADE (and other semi-precious commodities)

The region has demonstrated potential for jade, semi-precious gemstones and ornamental silica, such as opal, jasper, agate, and rhodonite. In addition, favourable areas for soapstone exist southwest of Hixon, at the Trust prospect, and near Fort St. James in the Stuart Lake - Trembleur Lake and Fleming areas.

Jade deposits are hosted by metamorphosed, mafic and ultramafic rocks associated with ancient volcanic arcs. There are two types of jade, jadeitite¹ and nephrite² but all of the known jade deposits in BC are of the nephrite variety. However, high-pressure blueschist and eclogite-grade metamorphic rocks that are favourable for jadeitite formation, outcrop in the Pinchi Lake area. There are seven recorded nephrite occurrences in the region, located mainly in the Mount Ogden and Mount Sidney Williams areas.

The Ogden Mountain (093N 165) occurrence is approximately 40 km north-northeast of Takla Landing. Variably metamorphosed sedimentary and volcanic rocks of the Carboniferous to Jurassic Cache Creek Group are intruded by sill-like serpentinite bodies of Mississippian to Triassic Oceanic Ultramafites. Total production of nephrite up to 1992 is about 1441 tonnes; estimated reserves are 472 tonnes.

The Genesis deposit (093K 005) is located on O'Ne-ell Creek. The pre-Upper Triassic ultramafic Trembleur Intrusions are of probable ophiolitic affinity and are related to the Cache Creek Group. The jade deposit occurs at the contact between serpentinite and a quartz monzonite intrusion. A total of 34.2 tonnes were mined in 1968. Present data suggests that about 2800 tonnes of nephrite jade and tremolite remain.

Common opal and agate occur in Triassic and younger volcanic sequences in the northern Chilcotin and southern Nechako Plateau areas. Precious opal is typically associated with Miocene volcanic sequences where porous, pyroclastic or lacustrine rocks are interbedded with lava flows.

¹ Jadeitite is a rock that consists essentially of the mineral jadeite, a sodium-rich, high-pressure pyroxene.

² Nephrite consists of prismatic to acicular amphiboles of the tremolite-actinolite series that form bundles of randomly oriented and interlocking crystals.

MISCELLANEOUS MINERALS

Other industrial mineral commodities that warrant further investigation include asbestos, magnesite, graphite, phosphate, fluorite, gypsum, and mica.

Eight ultramafic-hosted asbestos and two magnesite showings are hosted in Cache Creek Group rocks. Crystalline flake graphite showings are recorded from highly metamorphosed Cassiar terrane rocks. Phosphate occurrences are stratabound, upwelling-type deposits in miogeoclinal rocks of the Ancestral North American terrane.

Fluorite occurs mainly as stratabound carbonate-hosted deposits within the Ancestral North American rocks of the Foreland Belt. The Eaglet developed prospect (093A 046) is located near Quesnel Lake. Mineralization is contained in quartz-feldspar-mica gneiss of the Hadrynian-Paleozoic Snowshoe Group of the Barkerville terrane. The mineralized zone measures 1500 m by 900 m and has indicated probable reserves of 24 million tonnes grading 11.5% CaF₂.

The Forgetmenot gypsum prospect (083E 001), near McBride, is hosted in Ancestral North American rocks. Gypsum is intercalated with dolomite and minor limestone in the Upper Triassic Starlight Evaporite member of the Whitehorse Formation. The tabular gypsum body measures 100 m by 500 m by up to 26 m thick. The deposit has probable drill indicated reserves of 2.3 million tonnes, within a geological resource of 25-30 million tonnes, grading 75-90% gypsum.

Mica (muscovite) occurrences are principally hosted in pegmatite veins in Cassiar or Kootenay terrane rocks. However, two former producers are recorded from kyanite-sillimanite schists of the Upper Proterozoic Windermere Supergroup of the Cariboo terrane. The Canoe North Mica deposit near Valemount (083D 012), is on the northwestern margin of the Shuswap Metamorphic Complex and is underlain by pelitic schists of the Hadrynian Lower Kaza Group. A total of 225 tonnes of mica product was produced in 1960-61. An estimated reserve of 2.29 million tonnes grading 60.5% mica remains.

SUMMARY

It has been demonstated that at present the region has several industrial mineral occurrences in a wide range of deposit types and geologic settings. The region is widely blanketed by Quaternary sediments that mask the majority of rocks. Although a hindrance to some, it may be argued that this reflects the existing potential for new discoveries. With renewed exploration resolve and technological advances coupled with the areas diverse infrastructure network more discoveries and producing operations are anticipated.

Distribution of Select Industrial Mineral Occurrences in Northeast-Central BC

COMMODITY	STATUS & NUMBER OF OCCURRENCES		DEPOSIT TYPE	DEPOSIT CHARACTER	TECTONIC BELT	TERRANE	
Asbestos	Showing		Ultramafic-host. Asbestos - 10	Vein - 9 Stockwork - 1	Intermontane - 9 Omineca - 1	Cache Creek - 8 Barkerville - 1 Slide Mtn 1	
Barite	Developed Prospect 3 Prospect 5 Showing 40		Sediment-hosted - 13 Carbonatehosted - 12 Other/Unknown - 10 Sedex Zn-Pb-Ag - 8 Vein - 5	Stratiform - 23 Stratabound - 11 Vein - 7 Massive - 5 Other - 2	Foreland - 43 Omineca - 4 Intermontane - 1	Ancestral NA - 43 Barkerville - 2 Cariboo - 1 Cassiar - 1 Slide Mtn 1	
Bentonite	Showing	4	Unknown - 4	Stratiform - 4	Foreland - 3 Omineca - 1	Ancestral NA - 2 Overlap Assemblage - 1 Slide Mtn 1	
Building Stone Dimension Stone Granite/Marble Slate	Developed Prospect Prospect Past Producer Showing	2 1 2 2	Sandstone - 2 Marble - 2 Granite - 1 Flagstone - 1 Unknown - 1	Massive - 4 Stratiform - 3	Omineca - 3 Foreland - 2 Intermontane - 1 Unknown - 1	Ancestral NA - 2 Cache Creek - 1 Cassiar - 1 Cariboo - 1 Other - 2	
Clay Shale	Prospect Past Producer Showing	1 4 17	Fireclay - 18 Expanding Clay - 1 Unknown - 3	Stratiform - 21 Unknown - 1	Intermontane - 17 Foreland - 5	Overlap Assemblage - 8 Quesnel - 7 Ancestral NA - 4 Other - 3	
Diatomite	Past Producer Showing	4 6	Lacustrine - 7 Volcanic Ash - 1 Unknown - 2	Stratiform - 8 Stratabound - 2	Intermontane - 10	Overlap Assemblage - 5 Cache Creek - 4 Stikine - 1	
Dolomite	Past Producer Showing	1 3	Dolomite - 2 Limestone - 2	Stratiform - 4	Foreland - 3 Omineca - 1	Ancestral NA - 4	
Fluorite	Developed Prospect Prospect Showing	1 6 12	Carbonate-hosted - 16 Barite-fluorite vein - 2 Unknown - 1	Stratabound - 10 Vein - 4 Stratiform - 3 Other - 2	Foreland - 19	Ancestral NA - 19	
Graphite	Showing	4	Crystalline Flake - 2 Unknown - 2	Disseminated - 2 Other - 2	Omineca - 3 Intermontane - 1	Cassiar - 2 Other - 2	
Gypsum	Developed Prospect Showing	1 1	Bedded - 2	Layered - 1 Unknown - 1	Foreland - 1 Intermontane - 1	Ancestral NA - 1 Quesnel - 1	
Jade/Nephrite	Past Producer Showing	6 1	Jade - 7	Podiform - 3 Massive- 2 Unconsolidated - 2	Intermontane - 7	Cache Creek - 4 Plutonic Rocks - 3	
Kyanite	Showing	3	Kyanite-Sillimanite Schists - 3	Layered - 3 Omineca Foreland		Ancestral NA - 3	
Limestone	Producer Developed Prospect Prospect Past Producer Showing	2 5 6 10 29	Limestone - 52	Stratiform - 47 Stratabound - 4 Massive - 1	Omineca - 25 Intermontane - 17 Foreland - 10	Ancestral NA - 17 Cache Creek - 13 Cariboo - 10 Slide Mtn 6 Cassiar - 3 Quesnel - 3	
Magnesite	Showing	3	Umafic-host Talc-Magnesite- 2 Unknown - 1	Stratiform - 1 Stratabound - 1 Vein - 1	Intermontane - 2 Foreland - 1	Cache Creek - 2 Ancestral NA - 1	
Magnetite	Prospect Showing	1 1	Magmatic Oxide - 1 Unknown - 1	Massive - 2	Foreland - 1 Intermontane - 1	Ancestral NA - 1 Quesnel - 1	
Manganese	Showing	7	Mn Vein / Replacements - 3 Unknown - 4	Vein - 2 Layered - 1 Unknown - 4	Intermontane - 6 Omineca - 1	Cache Creek - 5 Cariboo - 1 Stikine - 1	
Mica	Past Producer Showing	3 13	Pegmatite - 10 Kyanite-Sillimanite Schists - 2 Unknown/Other - 4	Vein - 6 Concordant - 3 Massive - 3 Unknown - 4	Omineca - 14 Foreland - 1 Intermontane - 1	Cassiar - 9 Kootenay - 5 Other - 2	
Perlite	Showing	1	Volcanic Glass	Stratabound	Intermontane	Overlap Assemblage	
	Showing	17	Unknown - 1			Ancestral NA - 18	
Silica	Developed Prospect Prospect Past Producer Showing	2 1 1 6	Silica Sandstone - 4 Silica Veins - 3 Other - 3	Stratiform - 5 Vein - 4 Other - 1	Foreland - 4 Intermontane - 4 Omineca - 2	Ancestral NA - 4 Barkerville - 3 Other - 3	
Sulphur	Showing	4	Gypsum-hosted - 4	Stratiform - 2 Massive - 2	Foreland - 4	Ancestral NA - 4	
Talc	Developed Prospect Showing	1 2	Umafic-host Talc-Magnesite- 2 Other - 1	Massive - 2 Vein - 1	Intermontane - 3	Other - 3	
Travertine	Past Producer Showing	1	Unknown - 2	Massive - 2	Foreland - 2	Ancestral NA - 2	
Vermiculite	Prospect	2	Vermiculite - 2	Disseminated - 2	Intermontane - 2	Stikine - 2	

MINFILE	NAME	STATUS	COMMODITY	DEPOSIT TYPE	CHARACTER	TECTONIC BELT	TERRANE
094B 027	ALEY	Developed Prospect	Nb, Pp, Rs	Carbonatite-hosted	Disseminated	Foreland	Ancestral NA
094B 028	ALEY DYKES	Showing	Rs, Ce, Nd, La, Th, Sr	Carbonatite-hosted	Disseminated	Foreland	Ancestral NA
093J 014	PRINCE	Showing	Nb, Rs, La, Ce, Pp	Carbonatite-hosted	Disseminated	Foreland	Plutonic Rocks
093N 012	LONNIE	Developed Prospect	Nb, Zr, Ti, Ur, Th, Rs	Carbonatite-hosted	Podiform	Omineca	Cassiar
093N 174	VIRGIL	Prospect	Nb, Zr, Ti, Ur, La, Nd	Carbonatite-hosted	Podiform	Omineca	Cassiar
083D 023	HOWARD CK. SYENITE	Showing	Ns, Sx, Nb, Ta, Ur	Carbonatite-hosted	Stratiform	Omineca	Kootenay
083D 043	HOWARD CK. CARBONATITE	Showing	Sr, Ph, Pp, Ta, La, Ce	Carbonatite-hosted	Stratiform	Omineca	Kootenay
094D 114	MCCONNELL BERYL	Showing	Ве	REE pegmatite	Concordant	Intermontane	Quesnel
093O 021	LAURA	Showing	Th, Rs, La, Ce, Pr, Nd	REE pegmatite	Disseminated	Omineca	Ancestral NA
093N 201	WILL	Showing	Th, La, Ce, Nd, Yr, Ta	REE pegmatite	Layered	Omineca	Cassiar
093O 041	URSA	Showing	Th, Rs, La, Ce, Pr, Nd	REE pegmatite	Disseminated	Omineca	Cassiar
094M 022	LIARD HOTSPRINGS	Showing	Rd, Rn, Hs	Travertine	Unconsolidated	Foreland	Ancestral NA
094N 001	WISHING WELL	Showing	Rd, Ra, Ur, Rn, Hs	Travertine	Unconsolidated	Foreland	Ancestral NA
094E 038	TOR	Showing	Hf	Unknown	Disseminated	Omineca	Cassiar

TABLE 2: Select Specialty Mineral Occurrences in Northeast-Central BC

			Commodity	1: NE-B	C INDL		AL MIN	IERAL Commodity	INVENTORY	Deposit	Deposit	Deposit		_
MINFILE # 094K 001 094N 002	MINFILE Name NONDA CREEK I BV I	Status Developed Prospect Developed Prospect	1 Barite Barite	Commodity 2	3	4	5	6	Deposit Type Vein barite Carbonate-hosted barite	Character Vein Stratiform	Class Hydrothermal Replacement	Class Replacement Hydrothermal	Foreland Foreland	t Terrane Ancestral North America Ancestral North America
094N 008 093H 131 093B 042	MO [] WISHAW [] BUCK RIDGE []	Developed Prospect Developed Prospect Developed Prospect	Barite Building Stone Diatomite	Dimension Stone					Carbonate-hosted barite Dimension stone - sandstone Lacustrine diatomite	Stratabound Stratiform Stratiform	Replacement Sedimentary Sedimentary	Hydrothermal Metamorphic Industrial Mineral	Foreland Foreland Intermontane	Ancestral North America Ancestral North America Overlap Assemblage
093I 005 093A 046 083E 001	BABETTE LAKE	Developed Prospect Developed Prospect Developed Prospect Developed Prospect	Dimension Stone Fluorite Gypsum	Building Stone Silver	Silica Zinc	Lead	Molybdenum	Strontium	Silica sandstone Barite-fluorite veins Bedded gypsum	Stratiform Vein Layered	Sedimentary Hydrothermal Evaporite	Metamorphic Epigenetic Sedimentary	Foreland Omineca Foreland	Ancestral North America Barkerville Ancestral North America
093G 008 093J 019 093O 047	TACHEEDA LAKES LIMESTONE	Developed Prospect Developed Prospect Developed Prospect Developed Prospect Developed Prospect	Limestone Limestone	Railroad Ballast	Aggregate				Limestone Limestone Limestone	Stratiform Stratiform Stratiform	Sedimentary Sedimentary Sedimentary	Evaporite Industrial Mineral	Omineca Intermontane	Ancestral North America Slide Mountain
093P 003 093N 012 094B 027	MOUNT PALSSON	Developed Prospect Developed Prospect Developed Prospect Developed Prospect	Limestone Niobium Niobium	Zirconium Phosphate	Titanium Rare Earths	Uranium	Thorium	Rare Earths	Linestone Carbonatite-hosted deposits Carbonatite-hosted deposits	Stratabound Podiform Disseminated	Sedimentary Sedimentary Magmatic Magmatic	Industrial Mineral Industrial Mineral Hydrothermal	Foreland Omineca Foreland	Ancestral North America Cassiar Ancestral North America
093A 134 093O 014 093A 013	HORSEFLY [WIN [SOVEREIGN CREEK [Developed Prospect Developed Prospect Developed Prospect	Silica Silica Talc	Volcanic Ash Nickel	Silver	Zinc	Gold		Volcanic ash - pumice Silica sandstone Ultramafic-hosted talc-magnesite	Stratiform Stratiform Massive	Volcanogenic Sedimentary Hydrothermal	Industrial Mineral Industrial Mineral Replacement	Intermontane Foreland Intermontane	Overlap Assemblage Ancestral North America Quesnel
093J 016 093B 001 093B 043	MILE 72 F LAYERS F LOT 385 F DDINGE GEORGE	Past Producer Past Producer Past Producer	Aggregate Building Stone Clay	Limestone Aggregate					Limestone Fireclay	Stratiform Stratiform Stratiform	Sedimentary Sedimentary Sedimentary	Evaporite Industrial Mineral Industrial Mineral	Omineca Intermontane Intermontane	Ancestral North America Cache Creek Overlap Assemblage
093G 033 093J 020 093B 023 093B 059	GISCOME RAPIDS F LOT 906 QUESNEL F	Past Producer Past Producer Past Producer Past Producer	Clay Diatomite Diatomite	Kaolinite					Firectay Firectay Lacustrine diatomite	Stratiform Stratabound Stratiform	Sedimentary Sedimentary Sedimentary Sedimentary	Industrial Mineral Industrial Mineral	Intermontane Intermontane Intermontane	Slide Mountain Cache Creek Overlap Assemblage
093G 039 083D 031 093K 005	GRANT BROOK F GENESIS F	Past Producer Past Producer Past Producer Past Producer	Diatomite Dolomite Jade/Nephrite	Clay Dimension Stone Gemstones					Lacustrine diatomite Dolomite Jade	Stratiform Stratiform Massive	Sedimentary Sedimentary Replacement	Industrial Mineral Industrial Mineral Metamorphic	Intermontane Foreland Intermontane	Cache Creek Ancestral North America Cache Creek
093N 064 093N 156 093N 157	VITAL F JADE AND OGDEN CREEKS F LEE F	Past Producer Past Producer Past Producer	Jade/Nephrite Jade/Nephrite Jade/Nephrite	Gemstones Gemstones					Jade Jade	Unconsolidated Unconsolidated Massive	Placer Placer Metamorphic	Industrial Mineral Metamorphic Placer	Intermontane Intermontane Intermontane	Cache Creek Plutonic Rocks Plutonic Rocks
093N 165 093N 222 093G 042	OGDEN MOUNTAIN F FRAN 3 F BEVERLY F DTARMIGAN CREEK OLIARRY F	Past Producer Past Producer Past Producer Past Producer Past Producer	Jade/Nephrite Jade/Nephrite Limestone	Bailroad Ballast	Aggregate				Jade Jade Limestone	Podiform Podiform Stratiform	Placer Metamorphic Sedimentary	Replacement Industrial Mineral Evaporite	Intermontane Intermontane Intermontane	Plutonic Rocks Cache Creek Quesnel
093H 030 093H 030 093I 006 093J 015	PURDEN F HANSARD F REDROCKY CREEK F	Past Producer Past Producer Past Producer Past Producer	Limestone Limestone Limestone						Limestone Limestone Limestone	Stratiform Stratiform	Sedimentary Sedimentary Sedimentary Sedimentary	Industrial Mineral Evaporite Industrial Mineral	Omineca Foreland Omineca	Slide Mountain Ancestral North America Ancestral North America
093K 023 093K 085 093K 092	FORT ST. JAMES NORTH F NECOSLIE RIVER LIMESTONE F FORT ST. JAMES SOUTH F	Past Producer Past Producer Past Producer	Limestone Limestone Limestone						Limestone Limestone Limestone	Stratiform Stratiform Stratiform	Sedimentary Sedimentary Sedimentary	Evaporite Evaporite Evaporite	Intermontane Intermontane Intermontane	Cache Creek Cache Creek Cache Creek
093O 039 093P 023 093A 081	MCKENZIE LIMESTONE F PRIME LIME & MARBLE F MAEFORD LAKE F	Past Producer Past Producer Past Producer Past Producer	Limestone Limestone Marble	Dimension Stone	Building Stone				Limestone Limestone Dimension stone - marble	Stratiform Stratiform Massive	Sedimentary Sedimentary Sedimentary	Industrial Mineral Industrial Mineral Metamorphic	Omineca Foreland Omineca	Slide Mountain Ancestral North America Cariboo
083D 012 083D 017 094C 034 093B 047	CANOE NORTH MICA F CANOE SOUTH MICA F FAMILY FARM F BURNT SHALE	Past Producer Past Producer Past Producer Past Producer	Mica Mica Mica Shale	Gemstones					Muscovite pegmatite	Concordant Concordant Vein Stratiform	Metamorphic Pegmatite Sedimentary	Pegmatite Industrial Mineral Syngenetic	Omineca Omineca Omineca	Kootenay Kootenay Cassiar Overlap Assemblage
083D 016 094A 009 093B 060	VALEMONT F HUDSON HOPE F NAZKO F	Past Producer Past Producer Producer	Silica Travertine Aggregate	Pumice					Sand and Gravel	Unconsolidated Massive Massive	Sedimentary Sedimentary Volcanogenic	Industrial Mineral Evaporite Industrial Mineral	Foreland Foreland Intermontane	Ancestral North America Ancestral North America Overlap Assemblage
093G 032 093J 025 093A 158	DAHL LAKE F GISCOME F CUNNINGHAM CREEK BARITE F	Producer Producer Prospect	Limestone Limestone Barite	Aggregate					Limestone Limestone	Stratabound Massive Massive	Sedimentary Sedimentary Sedimentary	Industrial Mineral Industrial Mineral Industrial Mineral	Intermontane Omineca Omineca	Cache Creek Slide Mountain Barkerville
093A 159 093H 136 093N 087	VIC BARITE F BOW BARITE F OMINECA QUEEN F	Prospect Prospect Prospect	Barite Barite Barite	Silver	Lead	Zinc			Sediment-hosted barite	Massive Massive Stratiform	Sedimentary Sedimentary Sedimentary	Industrial Mineral Industrial Mineral Exhalative	Omineca Omineca Intermontane	Barkerville Slide Mountain Cassiar
094N 009 093K 087 094M 002	MUN F FRASER LAKE F GEM F TAM FLUORITE F	Prospect Prospect Prospect Prospect	Barite Clay Fluorite	Barite	Strontium				Carbonate-hosted barite Fireclay Carbonate-hosted fluorspar Carbonate-hosted fluorspar	Stratabound Stratiform Stratabound	Replacement Sedimentary Replacement	Hydrothermal Industrial Min Hydrothermal	Foreland Intermontane Foreland	Ancestral North America Stikine Ancestral North America
094M 010 094N 004 094N 005	DAN 32 F DAN 6 F	Prospect Prospect Prospect	Fluorite Fluorite Fluorite	Barite					Carbonate-hosted fluorspar Carbonate-hosted fluorspar Carbonate-hosted fluorspar	Stratiform Stratiform	Replacement Replacement Replacement	Hydrothermal Hydrothermal Hydrothermal	Foreland Foreland Foreland	Ancestral North America Ancestral North America Ancestral North America
094N 007 093H 073 093K 051	DAN 48 F BOWRON RIVER F JOHN F	Prospect Prospect Prospect	Fluorite Limestone Limestone						Carbonate-hosted fluorspar Limestone Limestone	Stratiform Stratiform Stratiform	Replacement Sedimentary Sedimentary	Hydrothermal Industrial Mineral Industrial Mineral	Foreland Omineca Intermontane	Ancestral North America Cariboo Cache Creek
093K 057 093N 217 093O 040	THUR F SKL F CHIN F	Prospect Prospect Prospect	Limestone Limestone						Limestone Limestone Limestone	Stratiform Stratiform Stratiform	Sedimentary Sedimentary Sedimentary	Industrial Mineral Industrial Mineral Industrial Mineral	Intermontane Omineca Omineca	Cache Creek Slide Mountain Ancestral North America
093I 028 094C 035 093N 174	BEARPAW RIDGE F WEST MICA MOUNTAIN F VIRGIL F WADITI	Prospect Prospect Prospect Prospect	Magnetite Mica Niobium	Titanium Gemstones Zirconium	Iron Titanium	Uranium	Lanthanum	Neodymium	Magmatic Fe-Ti±V oxide deposits Muscovite pegmatite Carbonatite-hosted deposits Lawelling type phoenbatte	Massive Vein Podiform	Magmatic Pegmatite Magmatic Sedimontary	Industrial Mineral Industrial Mineral Industrial Mineral	Foreland Omineca Omineca	Ancestral North America Cassiar Cassiar
093H 038 093H 028 093K 100	LONGWORTH F DOME CREEK F JOSEPH LAKE	Prospect Prospect Prospect	Silica Slate Vermiculite	Dimension Stone	Flagstone				Silica sandstone Flagstone Vermiculite deposits	Stratiform Massive Disseminated	Sedimentary Sedimentary Magmatic	Industrial Mineral Syngenetic	Foreland Omineca Intermontane	Ancestral North America Cariboo Stikine
093K 101 093A 138 093A 139	SOWCHEA CREEK VERMICULITE F OCHILTREE S FONTAINE CREEK	Prospect Showing Showing	Vermiculite Asbestos Asbestos						Vermiculite deposits Ultramafic-hosted asbestos Ultramafic-hosted asbestos	Disseminated Vein Vein	Magmatic Hydrothermal Hydrothermal	Syngenetic Epigenetic Epigenetic	Intermontane Omineca	Stikine Cache Creek Barkerville
093B 024 093G 002 093G 012	DRD S RAY S TELEGRAPH RANGE S	Showing Showing Showing	Asbestos Asbestos Asbestos	Nickel					Ultramafic-hosted asbestos Ultramafic-hosted asbestos Ultramafic-hosted asbestos	Stockwork Vein Vein	Hydrothermal Hydrothermal Hydrothermal	Epigenetic Epigenetic Epigenetic	Intermontane Intermontane	Cache Creek Cache Creek Cache Creek
093G 016 093G 018 093K 043	SINKUT MOUNTAIN	Showing Showing Showing Showing	Asbestos Asbestos Asbestos	Gold	Silver	Chromium			Ultramafic-hosted asbestos Ultramafic-hosted asbestos Ultramafic-hosted asbestos Ultramafic-hosted asbestos Ultramafic-hosted asbestos	Vein Vein Vein	Hydrothermal Hydrothermal Replacement	Epigenetic Porphyry	Intermontane Intermontane	Cache Creek Cache Creek Cache Creek
093N 115 093H 064 093I 024	GERMANSEN RIVER STUDE ST	Showing Showing Showing Showina	Asbestos Barite Barite	Nickel					Ultramafic-hosted asbestos	Vein Vein Vein	Epigenetic Epigenetic Replacement	Hydrothermal Industrial Mineral Hydrothermal	Intermontane Omineca Foreland	Slide Mountain Cariboo Ancestral North America
093I 025 094A 001 094F 013	JARVIS LAKE BARITE S PACIFIC FT ST JOHN NO.44 WELL S YULE	Showing Showing Showing	Barite Barite Barite						Vein barite	Vein Vein Stratiform	Replacement Industrial Mineral Sedimentary	Hydrothermal Exhalative	Foreland Foreland Foreland	Ancestral North America Ancestral North America Ancestral North America
094F 016 094F 017 094F 018	GNOME S GIN S DEL S	Showing Showing Showing	Barite Barite Barite						Sediment-hosted barite Sediment-hosted barite Sediment-hosted barite	Stratiform Stratiform Stratiform	Sedimentary Sedimentary Sedimentary	Exhalative Exhalative Exhalative	Foreland Foreland Foreland	Ancestral North America Ancestral North America Ancestral North America
094F 020 094F 021 094F 022	KWADACHA S NORTH KWAD S SIKA S	Showing Showing Showing Showing	Barite Barite Barite	Lead	Zinc	Copper			Sediment-hosted barite Sediment-hosted barite Sediment-hosted barite Sedimentary orbitality 7: 51 - 1	Stratiform Podiform Stratiform	Sedimentary Sedimentary Sedimentary	Exhalative Exhalative Exhalative	Foreland Foreland Foreland	Ancestral North America Ancestral North America Ancestral North America Ancestral North America
094F 023 094F 024 094F 025 094F 026	PIE S BEAR S PESIKA DEL EAST	Snowing Showing Showing Showing	Barite Barite Barite	Lead	Zinc	Silver			Sedimentary exhalative Zn-Pb-Ag Sedimentary exhalative Zn-Pb-Ag Sedimentary exhalative Zn-Pb-Ag	Stratiform Stratiform Stratiform	Sedimentary Sedimentary Sedimentary	Exhalative Exhalative Exhalative	Foreland Foreland Foreland	Ancestral North America Ancestral North America Ancestral North America
094G 019 094G 032 094G 035	PETRIE S DUNEDIN S LIMRIC	Showing Showing Showing	Barite Barite Barite	Lead					Sediment-hosted barite Carbonate-hosted barite	Stratiform Massive Stratabound	Sedimentary Replacement Replacement	Exhalative Epigenetic Epigenetic	Foreland Foreland	Ancestral North America Ancestral North America Ancestral North America
094G 036 094I 001 094K 004	COSBURN S IMPERIAL KAHNTAH S MILE 397 S	Showing Showing Showing	Barite Barite Barite	Fluorite Fluorite	Lead				Carbonate-hosted barite Vein barite Vein barite	Massive Vein Vein	Replacement Sedimentary Hydrothermal	Epigenetic Industrial Mineral Replacement	Foreland Foreland Foreland	Ancestral North America Ancestral North America Ancestral North America
094K 031 094K 058 094K 059	PUCK 5 DODO D-1 5 CTV T-5 5	Showing Showing Showing	Barite Barite Barite	Lead Lead Zinc	Lead				Sedimentary exhalative Zn-Pb-Ag Carbonate-hosted barite Carbonate-hosted barite	Stratiform Stratabound Stratabound	Sedimentary Replacement Replacement	Exhalative Industrial Mineral Industrial Mineral	Foreland Foreland Foreland	Ancestral North America Ancestral North America Ancestral North America
094K 060 094K 061 094K 062 094K 063	CTV T-7 S CTV T-10 S HOPE T-14 S HOPE H-3 S	Showing Showing Showing Showing	Barite Barite Barite	Lead Zinc Lead	Lead	Fluorite			Carbonate-hosted barite Carbonate-hosted barite Carbonate-hosted barite Carbonate-hosted barite	Stratabound Stratabound Stratabound	Industrial Mineral Replacement Replacement Replacement	Replacement Industrial Mineral Industrial Mineral Hydrothermal	Foreland Foreland Foreland Foreland	Ancestral North America Ancestral North America Ancestral North America
094K 063 094K 064 094K 068 094K 074	CBC B-2 SAINT STONE	Showing Showing Showing Showing	Barite Barite Barite	Zinc Zinc Fluorite	Lead				Carbonate-hosted barite Sedimentary exhalative Zn-Pb-Ag	Stratabound Stratiform Unknown	Replacement Sedimentary Unknown	Industrial Mineral Exhalative	Foreland Foreland Foreland	Ancestral North America Ancestral North America Ancestral North America
094K 077 094K 085 094K 086	BOB SEE SEE SEE SEE SEE SEE SEE SEE SEE SE	Showing Showing Showing	Barite Barite Barite	Lead Zinc	Zinc Lead	Fluorite			Sedimentary exhalative Zn-Pb-Ag Sedimentary exhalative Zn-Pb-Ag Carbonate-hosted barite	Stratiform Stratiform Stratabound	Sedimentary Sedimentary Replacement	Exhalative Exhalative Industrial Mineral	Foreland Foreland Foreland	Ancestral North America Ancestral North America Ancestral North America
094L 013 094L 015 094L 020	X SOLO S JN95-4-1 S	Showing Showing Showing	Barite Barite Barite	Zinc Zinc	Iron	Phosphorus			Sediment-hosted barite Sediment-hosted barite Sediment-hosted barite	Stratiform Stratiform Stratiform	Sedimentary Sedimentary Sedimentary	Syngenetic	Foreland Foreland Foreland	Ancestral North America Ancestral North America Ancestral North America
094L 021 094L 026 094L 027	CRE95-9-9 \$ FFE94-29-13 \$ FFE94-18-8 \$ DUDDENLAKE \$	Showing Showing Showing	Barite Barite Barite	Copper	Silver	Strontium			Sediment-hosted barite Cu±Ag quartz veins Sediment-hosted barite	Stratiform Vein Stratiform	Sedimentary Epigenetic Sedimentary	Hydrothermal	Foreland Foreland Foreland	Ancestral North America Ancestral North America Ancestral North America
0930 023 0930 024 094G 020	GETHING CREEK S CRASSIER CREEK S BUCKINGHORSE R	Showing Showing Showing Showing	Bentonite Bentonite Bentonite						Bentonite	Stratiform Stratiform Stratiform	Sedimentary Sedimentary Sedimentary Sedimentary	Industrial Mineral Industrial Mineral Syngenetic	Foreland Foreland Foreland	Overlap Assemblage Overlap Assemblage Ancestral North America
094D 114 093B 033 093B 035	MCCONNELL BERYL S NARCOSLI S WILLIAMS LAKE S	Showing Showing Showing	Beryllium Clay Clay						Rare element pegmatite - LCT family Fireclay Fireclay	Concordant Stratiform Stratiform	Magmatic Sedimentary Sedimentary	Industrial Mineral Syngenetic Industrial Mineral	Intermontane Intermontane	Quesnel Overlap Assemblage Cache Creek
093B 038 093G 033 093G 034	MILE 380.5 S BEDNESTI S CHILAKO S	Showing Showing Showing	Clay Clay Clay	Bentonite Diatomite					Fireclay	Stratiform Stratiform Stratiform	Sedimentary Sedimentary Sedimentary	Industrial Mineral Industrial Mineral Industrial Mineral	Intermontane Intermontane Intermontane	Overlap Assemblage Quesnel Quesnel
093G 036 093G 037 093G 038	WOODPECKER S WHITES LANDING S STRATHNAVER S	Showing Showing Showing	Clay Clay Clay						Fireclay Fireclay Fireclay	Stratiform Stratiform Stratiform	Sedimentary Sedimentary Sedimentary	Industrial Mineral Industrial Mineral Industrial Mineral	Intermontane Intermontane	Quesnel Quesnel Quesnel
093G 040 093H 065 093K 088 093P 002	MILE 83 S VANDERHOOF SOURCE SO	Showing Showing Showing Showing	Clay Clay Clay Clay						Fireclay Fireclay Fireclay	Stratiform Stratiform Unknown	Sedimentary Sedimentary Sedimentary Industrial Mineral	Industrial Mineral Industrial Mineral	Foreland Intermontane	Ancestral North America Overlap Assemblage
093B 044 093B 048 093B 049	QUESNEL DIATOMITE (L.6148) S DIAMOND S WEBSTER (L.8686) S	Showing Showing Showing	Diatomite Diatomite Diatomite						Lacustrine diatomite Lacustrine diatomite Lacustrine diatomite	Stratiform Stratiform Stratiform	Sedimentary Sedimentary Sedimentary	Industrial Mineral Industrial Mineral Industrial Mineral	Intermontane Intermontane	Overlap Assemblage Overlap Assemblage Overlap Assemblage
093F 041 093G 045 093G 046	TSACHA LAKE S BLACKWATER CREEK (L.1469) S QUESNEL (L.12194) S	Showing Showing Showing	Diatomite Diatomite Diatomite	Pumice					Volcanic ash - pumice	Stratabound Stratiform Stratiform	Sedimentary Sedimentary Sedimentary	Industrial Mineral Industrial Mineral Industrial Mineral	Intermontane Intermontane	Stikine Cache Creek Cache Creek
093J 018 094B 020 094K 078	MCLEOD LAKE S HALFWAY RIVER S MACDONALD CREEK S	Showing Showing Showing	Dolomite Dolomite Dolomite						Linestone Linestone Dolomite	Stratiform Stratiform Stratiform	Sedimentary Sedimentary Sedimentary	Syngenetic Industrial Mineral Evaporite	Omineca Foreland Foreland	Ancestral North America Ancestral North America Ancestral North America
093K 094 093F 051 094A 002	CASEY PEGMATITE S OOTSA 1 S IMPERIAL PACIFIC S MUNCHOL AKE	Showing Showing Showing	Feldspar Fluorite Fluorite	Mica Porito	Silica				Parita fluarita vaina	Discordant Vein Disseminated	Pegmatite Hydrothermal Unknown	Industrial Mineral Epigenetic	Intermontane Intermontane Foreland	Cache Creek Overlap Assemblage Ancestral North America
094K 038 094M 006 094M 007 094M 009	FIRE CORAL-CAMP S	Showing Showing Showing Showing	Fluorite Fluorite Fluorite	Barite Barite					Carbonate-hosted fluorspar Carbonate-hosted fluorspar Carbonate-hosted fluorspar	Stratabound Stratabound Stratabound	Replacement Replacement Replacement	Hydrothermal Hydrothermal Hydrothermal	Foreland Foreland Foreland	Ancestral North America Ancestral North America Ancestral North America
094M 011 094M 012 094M 013	STRAP S NICK S BAR S	Showing Showing Showing	Fluorite Fluorite Fluorite	Barite Barite					Carbonate-hosted fluorspar Carbonate-hosted fluorspar Carbonate-hosted fluorspar	Stratabound Stratabound Massive	Replacement Replacement Replacement	Hydrothermal Hydrothermal Hydrothermal	Foreland Foreland Foreland	Ancestral North America Ancestral North America Ancestral North America
094M 014 094N 003 094N 006	HENRY S SNOW S DAN 39 S	Showing Showing Showing	Fluorite Fluorite						Carbonate-hosted fluorspar Carbonate-hosted fluorspar Carbonate-hosted fluorspar	Stratabound Stratabound Vein	Replacement Replacement Hydrothermal	Hydrothermal Hydrothermal Industrial Mineral	Foreland Foreland Foreland	Ancestral North America Ancestral North America Ancestral North America
0930 049 093H 074 093J 021 093N 203	ASPEN S WILLOW RIVER S SUMMIT S	Snowing Showing Showing Showing	Granite Graphite Graphite Graphite						Dimension stone - granite	Massive Layered Massive Disseminated	Syngenetic Replacement Pegmatite Metamorphic	Industrial Mineral Industrial Mineral Industrial Mineral	Omineca Omineca Intermontane	Cassiar Barkerville Quesnel Cassiar
093N 203 093N 149 094E 038 093A 156	MOOSMOOS TOR 141 MILE HOUSE	Showing Showing Showing Showing	Gypsum Hafnium Hydromagnesite	Magnesium					Plava & Alkaline Lake Evaporite	Unknown Disseminated Unknown	Industrial Mineral Sedimentary Residual	Evaporite	Intermontane Omineca Intermontane	Quesnel Cassiar Cache Creek
093N 126 094C 093 094C 094	MYRINDA S JIM MAY GARNET S DESERTERS RANGE S	Showing Showing Showing	Jade/Nephrite Kyanite Kyanite	Gemstones Garnet Garnet					Jade Kyanite-sillimanite schists Kyanite-sillimanite schists	Podiform Layered Layered	Replacement Metamorphic Metamorphic	Metamorphic Industrial Mineral Industrial Mineral	Intermontane Omineca Foreland	Cache Creek Ancestral North America Ancestral North America
094C 095 093A 144 093A 145	WILLISTON LAKE S ROUNDTOP MTN S MT. KIMBALL S	Showing Showing Showing	Kyanite Limestone Limestone						Kyanite-sillimanite schists Limestone Limestone	Layered Stratiform Stratiform	Metamorphic Sedimentary Sedimentary	Industrial Mineral Industrial Mineral Evaporite	Omineca Omineca Omineca	Ancestral North America Cariboo Cariboo
093A 146 093B 040 093F 042 093H 020	CHIMNEY CREEK S KLUSKOIL LAKE S HIGHWAY 16	Showing Showing Showing Showing	Limestone Limestone						Linestone Linestone Linestone	Stratabound Stratiform Stratiform	Sedimentary Sedimentary Sedimentary Sedimentary	Evaporite Industrial Mineral Industrial Mineral	Intermontane Intermontane Ominece	Cache Creek Quesnel Cariboo
093H 066 093H 067 093H 068	ILTZUL RIDGE S CUNNINGHAM PASS S ISAAC LAKE	Showing Showing Showing	Limestone Limestone	Dolomite Dolomite Dolomite					Limestone Limestone Limestone	Stratiform Stratiform Stratiform	Sedimentary Sedimentary Sedimentary	Evaporite Evaporite	Foreland Omineca Omineca	Ancestral North America Cariboo Cariboo
093H 069 093J 017 093K 022	GRAND CANYON S ANGUSMAC S PINCHI LAKE LIMESTONE	Showing Showing Showing	Limestone Limestone						Limestone Limestone Limestone	Stratiform Stratiform Stratiform	Sedimentary Sedimentary Sedimentary	Industrial Mineral Evaporite Evaporite	Omineca Omineca Intermontane	Cariboo Ancestral North America Cache Creek
093N 186 093N 187 093N 198	INDATA LAKE S KWANIKA CREEK LIMESTONE S BRALORNE LIMESTONE S	Showing Showing Showing	Limestone Limestone Limestone	Dolomite					Limestone	Stratiform Stratiform Stratiform	Sedimentary Sedimentary Sedimentary	Industrial Mineral Industrial Mineral Industrial Mineral	Intermontane Intermontane Intermontane	Cache Creek Cache Creek Cache Creek Cache Creek
0930 017 0930 018 0930 018	MOUNT MURRAY SOLITUDE MOUNTAIN SILVER SANDS	Showing Showing Showing Showing	Limestone Limestone Limestone						Linestone Limestone Limestone	Stratiform Stratiform Stratiform	Sedimentary Sedimentary Sedimentary Sedimentary	Industrial Mineral Industrial Mineral Evaporite	Foreland Foreland Foreland	Ancestral North America Ancestral North America Ancestral North America
093O 020 093O 046 094C 085	PEACE RIVER S GLEN S OSILINKA RIVER	Showing Showing Showing	Limestone Limestone						Limestone Limestone Limestone	Stratiform Stratiform Stratiform	Sedimentary Sedimentary Sedimentary	Evaporite Industrial Mineral Industrial Mineral	Foreland Foreland Omineca	Ancestral North America Ancestral North America Ancestral North America
094C 086 094C 087 094C 088	ILOOKOUT HILL S MOUNT LAY S SWANNELL RIVER S	Showing Showing Showing	Limestone Limestone Limestone						Limestone Limestone Limestone	Stratiform Stratiform Stratiform	Sedimentary Sedimentary Sedimentary	Industrial Mineral Industrial Mineral Industrial Mineral	Omineca Omineca Omineca	Cassiar Cassiar Ancestral North America
094C 089 094K 087 093A 157 0934 000	PENNY ST. JOSEPH'S MISSION	Showing Showing Showing Showing	Limestone Magnesite Magnesite						Linestone Limestone Ultramafic-hosted talc-magnesite Sparry magnesite	Stratiform Stratabound Stratabound	Sedimentary Sedimentary Hydrothermal Replacement	Industrial Mineral Industrial Mineral Epigenetic Hydrothermol	Foreland Intermontane	Ancestral North America Cache Creek Ancestral North America
093K 065 094K 079 093A 084	PINCHI LAKE S CHISCHA S LIKELY MAGNETITE	Showing Showing Showing	Magnesite Magnesite Magnetite	Gold					Ultramafic-hosted talc-magnesite	Vein Stratiform Massive	Replacement Sedimentary Magmatic	Hydrothermal Industrial Mineral Volcanogenic	Intermontane Foreland Intermontane	Cache Creek Ancestral North America Quesnel
093B 032 093G 010 093G 011	BLUESTONE CREEK S CHARLESON CREEK S NAZKO S	Showing Showing Showing	Manganese Manganese Manganese	T					Mn veins and replacements Bog Fe, Mn, U, Cu, Au	Unknown Unknown Unknown	Industrial Mineral Industrial Mineral Industrial Mineral		Intermontane Intermontane	Cache Creek Cache Creek Stikine
093H 043 093K 044 093K 045	BLACK S GODWIN S TEAD S	Showing Showing Showing	Manganese Manganese Manganese	Travertine					Mn veins and replacements	Unknown Vein Layered	Residual Hydrothermal Epigenetic	Epigenetic Replacement	Omineca Intermontane Intermontane	Cariboo Cache Creek Cache Creek
093N 042 093I 029 093P 016 083D 042	STONE SWAN LAKE ALBREDA	Showing Showing Showing Showing	Marble Marl Marl Mica	Dimension Stone Kvanite					NULL VEILIS AND REPLACEMENTS Dimension stone - marble Kyanite-sillimanite schiete	Massive Unconsolidated Concordant	Sedimentary Evaporite	Industrial Mineral Industrial Mineral Industrial Mineral	Foreland	Overlap Assemblage
083D 019 093G 047 093J 022	MICA MOUNTAIN S HIXON MICA S CARP LAKE	Showing Showing Showing	Mica Mica Mica	Kyanite	Beryllium				Muscovite pegmatite Muscovite pegmatite	Vein Stratabound Disseminated	Pegmatite Replacement Syngenetic	Industrial Mineral Industrial Mineral Pegmatite	Omineca Omineca Intermontane	Kootenay Barkerville Kootenay
093N 189 093O 022 094C 036	WOLVERINE RANGE S FALLS S RAVENAL	Showing Showing Showing	Mica Mica Mica	Feldspar Gemstones					Feldspar-quartz pegmatite Muscovite pegmatite	Massive Unknown Vein	Pegmatite Industrial Mineral Pegmatite	Syngenetic Industrial Mineral	Omineca Foreland Omineca	Cassiar Ancestral North America Cassiar
094C 037 094C 092 094C 124	RUBY CREEK S JACKPINE S BIRTHDAY S	Showing Showing Showing	Mica Mica Mica	Silica	Feldspar				Muscovite pegmatite Muscovite pegmatite Muscovite pegmatite	Vein Massive Massive	Pegmatite Pegmatite Pegmatite	Industrial Mineral Magmatic Magmatic	Omineca Omineca Omineca	Cassiar Cassiar Cassiar
094C 125 094C 126 083D 023	CARIBOU SUNSET SUNSET SUNSET SUNSET SUNSET SUNSET SUNSET SUNSES S	Showing Showing Showing	Mica Mica Nepheline Syenite	Sodalite Bare Forth	Niobium	Tantalum	Uranium		Muscovite pegmatite Muscovite pegmatite Nepheline syenite Carbonatite best d b	Vein Vein Stratiform	Pegmatite Pegmatite Magmatic	Magmatic Industrial Mineral Industrial Mineral	Omineca Omineca Omineca	Cassiar Cassiar Kootenay
093J 014 093A 122 093G 017 093H 421	OPAL S NAZKO PERLITE	Showing	Opal Perlite	Gemstones		Cerium	r ⊓osphate		Sediment-hosted deposits Sediment-hosted opal Volcanic glass - perlite	Unknown Stratabound	Industrial Mineral Volcanogenic	Industrial Mineral	Intermontane	Cache Creek
093I 020 093I 021 093I 022	MEOSIN MOUNTAIN NORTH MEOSIN MOUNTAIN SOUTH WAPITI EAST	Showing Showing Showing	Phosphate Phosphate Phosphate						Upwelling-type phosphate Upwelling-type phosphate Upwelling-type phosphate	Stratabound Stratabound Stratabound	Sedimentary Sedimentary Sedimentary	Industrial Mineral Industrial Mineral Syngenetic	Foreland Foreland	Ancestral North America Ancestral North America Ancestral North America
093I 026 093I 027 093O 011	NORTH RIDGE-EAST S PHOSPHATE S LEMORAY S	Showing Showing Showing	Phosphate Phosphate Phosphate						Upwelling-type phosphate Upwelling-type phosphate Upwelling-type phosphate	Stratabound Stratabound Stratabound	Sedimentary Sedimentary Sedimentary	Evaporite Evaporite Evaporite	Foreland Foreland Foreland	Ancestral North America Ancestral North America Ancestral North America
0930 038 093P 022 094B 029	BAKER CREEK S MT. PALSSON S MOUNT LUDINGTON S	Showing Showing Showing	Phosphate Phosphate Phosphate						Upwelling-type phosphate Upwelling-type phosphate Upwelling-type phosphate Upwelling-type phosphate	Stratabound Stratabound Stratabound	Sedimentary Sedimentary Sedimentary	Syngenetic Syngenetic Syngenetic	Foreland Foreland Foreland	Ancestral North America Ancestral North America Ancestral North America
094B 030 094F 019 094G 022	GREY PEAK S RICHARDS CREEK S TETSA RIVED	Showing Showing Showing Showing Showing	Phosphate Phosphate Phosphate	Uranium					Upweiling-type phosphate Upweiling-type phosphate Upweiling-type phosphate Upweiling-type phosphate Upweiling-type phosphate	Stratabound Stratabound Stratabound	Sedimentary Sedimentary Sedimentary	Syngenetic Syngenetic Syngenetic	Foreland Foreland Foreland	Ancestral North America Ancestral North America Ancestral North America
094K 080 094K 081 094K 082 094K 082	TETSA RIVER WEST SA RIVER WEST SA ALASKA HIGHWAY SUMMIT LAKF	Showing Showing Showing Showing	Phosphate Phosphate Phosphate Phosphate						Upwelling-type phosphate Upwelling-type phosphate Upwelling-type phosphate Upwelling-type phosphate	Stratabound Stratabound Stratabound	Sedimentary Sedimentary Sedimentary Sedimentary	Syngenetic Syngenetic Industrial Minorel	Foreland Foreland Foreland	Ancestral North America Ancestral North America Ancestral North America Ancestral North America
094C 062 094M 022 094N 001	NITRE SINCE	Showing Showing Showing Showina	Potassium Nitrate Radioactive Material Radioactive Material	Radon Radium	Hotspring Uranium	Radon	Hotspring		Travertine	Unconsolidated Unconsolidated	Industrial Mineral Evaporite Evaporite	Industrial Mineral Epithermal	Omineca Foreland Foreland	Cassiar Ancestral North America Ancestral North America
094B 028 093N 188 093B 034	ALEY DYKES S QUARTZITE CREEK S AUSTRALIAN CREEK SHALE	Showing Showing Showing	Rare Earths Rhodonite Shale	Cerium Jade/Nephrite Clay	Neodymium Gemstones	Lanthanum	Thorium	Strontium	Carbonatite-hosted deposits Surficial placers Expanding shale	Disseminated Unconsolidated Stratiform	Hydrothermal Placer Sedimentarv	Igneous-contact Industrial Mineral Syngenetic	Foreland Intermontane	Ancestral North America Cache Creek Overlap Assemblade
093B 039 094A 003 094A 004	BAKER CK SEAR FLATS STATUS	Showing Showing Showing	Shale Shale Shale	Clay Clay					Fireclay Fireclay Fireclay	Stratiform Stratiform Stratiform	Sedimentary Sedimentary Sedimentary	Industrial Mineral	Intermontane Foreland Foreland	Overlap Assemblage Ancestral North America Ancestral North America
093A 005 093A 006 093A 140	CARIBOO QUARTZITE	Showing Showing Showing Showing	Silica Silica Silica						Silica sandstone	Stratiform Stratiform Vein	Sedimentary Sedimentary Hydrothermal	Industrial Mineral Epigenetic	Omineca	Ancestral North America Barkerville Barkerville
093O 013 094C 083 083D 042	AN S TENAKIHI RANGE S HOWARD CREEK CARRONATITE	Showing Showing Showing Showina	Silica Silica Strontium	Phosphorus	Phosphate	Tantalum	Lanthanum	Cerium	Silica sandstone Carbonatite-hosted denosits	Stratiform Vein Stratiform	Sedimentary Hydrothermal Metamorphic	Industrial Mineral Epigenetic Industrial Mineral	Foreland Omineca Omineca	Ancestral North America Cassiar Kootenay
094G 023 094G 024 094I 002	A-25-D S C-97-D S D-61-K S	Showing Showing Showing	Sulphur Sulphur Sulphur						Gypsum-hosted sulphur Gypsum-hosted sulphur Gypsum-hosted sulphur	Massive Stratiform Massive	Sedimentary Sedimentary Sedimentary	Syngenetic Syngenetic Syngenetic	Foreland Foreland	Ancestral North America Ancestral North America Ancestral North America
094I 003 093K 089 093N 195	A-35-E S BAPTISTE S HUMPHREY S	Showing Showing Showing	Sulphur Talc Talc	Soapstone Chrysotile					Gypsum-hosted sulphur Ultramafic-hosted talc-magnesite	Stratiform Massive Vein	Sedimentary Hydrothermal Hydrothermal	Syngenetic Industrial Mineral Epigenetic	Foreland Intermontane	Ancestral North America Cache Creek Plutonic Rocks
093H 015 093H 022 093N 201	GOLD - I HORIUM S MCBRIDE S WILL S	Showing Showing Showing Showing	Thorium Thorium Thorium	Lanthanum	Cerium	Neodymium	Yttrium	Tantalum	Surricial placers Surficial placers Rare element pegmatite - NYF family Rare element pegmatite - NYF family	Unconsolidated Unconsolidated Layered	Placer Placer Magmatic	Residual Residual Pegmatite	Omineca Foreland Omineca	Cariboo Ancestral North America Cassiar Ancestral North America
0930 021 0930 041 094D 035 094D 110	URSA S AXELGOLD S PGM	Showing Showing Showing Showina	Thorium Titanium Titanium	Rare Earths Copper Copper	Lanthanum	Cerium	Praseodymium	Neodymium	Rare element pegmatite - NYF family Magmatic Fe-Ti±V oxide deposits Magmatic Fe-Ti±V oxide deposits	Disseminated Podiform Podiform	Pegmatite Magmatic Magmatic	Industrial Mineral	Omineca Intermontane	Cassiar Plutonic Rocks Plutonic Rocks
094A 008 093N 175 094E 097	PEACE RIVER TUFA S SMOKE URANIUM S EDOZADELLY MOUNTAIN	Showing Showing Showing	Travertine Uranium Uranium						Volcanic-hosted Uranium	Massive Vein Disseminated	Sedimentary Epigenetic Sedimentary	Evaporite Hydrothermal Syngenetic	Foreland Intermontane	Ancestral North America Quesnel Overlap Assemblage
094E 098 093O 009	LAWYERS PASS S	Showing Showing	Uranium Vanadium						Volcanic-hosted Uranium	Disseminated Disseminated	Sedimentary Industrial Mineral	Syngenetic	Intermontane Foreland	Overlap Assemblage Ancestral North America