ASSESSMENT REPORT

BC Geological Survey Assessment Report 32741

#### THE BIG BEAR PROPERTY

Claims

694084, 694086, 694046, 694085, 694123, 694083, 694143, 694183, 694045, 694144, 694185, 694066, 694087, 694088, 694146, 694147,694148, 694163, 694064, 694044, 694063, 694065, 694187, 694184, 694186, 694287, 694103, 694089, 694090, 694145,694043

53° 16' N and 124° 57' W

NTS Sheet: 093E/02, 03, 06, 07.

Mining Zone: Omineca Mining Division

For Parlane Resource Corp 750 - 580 Hornby St Vancouver BC V6C 3B6

By

Derrick Strickland P.Geo. September 20<sup>th</sup>, 2011

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## 1 Summary

The Big Bear Property is situated on the Nechako Plateau of central British Columbia, approximately 125 kilometres southwest of Vanderhoof and 160 kilometres west of Quesnel. The claims are located within the Omineca Mining Division, centered at 53° 16' north latitude and 124° 57' west longitude on NTS Sheet: 093E/02, 03, 06, and 07. The property consists of 31 mineral claim totalling 14,366.42 ha.

The Big Bear Property is located in the forested rolling hills of the southern Nechako Plateau of central British Columbia, approximately 125 kilometres southwest of Vanderhoof, which is situated on provincial highway 16 and the main railway line to the ocean port at Prince Rupert. Access to the property is by the all season Kluskus-Malaput forest service road, which crosses the southern portion of the property. Secondary logging roads provide access to other parts of the property. Elevations on the Nechako Gold property range from 1100 to 1739 metres.

The property is situated along the eastern margin of the Stikine Terrane, west of the structural contact with the Cache Creek Terrane and immediately south of the Skeena Arch. Strata of the Stikine Terrane in central and east-central British Columbia comprise superposed island and continental margin arc assemblages and epicontinental sedimentary sequences.

Parlane Resources Corp. undertook a stream silt and rock sampling program from June 14th to June 25th 2011 the Big Bear property which consisted of 65 silt samples and 5 rock samples on the western half of the property for a total costs of \$17,093.03.

The silt sampling has given rise to areas of elevated gold and copper values that require additional sampling on a detailed grid to verify these anomalies. The other areas of the property require some detailed exploration to evaluate the geological potential. Parlane Resources Corp. continued to under take mineral exploration on the property during the summer of 2011 that is subsequent to the notice of work filed for this report.



## 2 Terms of References

This report has been written to fulfill the requirements for filing assessment work under the British Columbia Mineral Tenure Act. It describes the exploration undertaken on the Big Bear Property July 2011. This report is not compliant with National Instrument 43-101 and Form 43-101F1, and should not be used as a "Technical Report" under National Instrument 43-101.

The authors understanding of the regional geology and property geology are a direct result of the work from Diakow, L. J. and Levson V.M., 1997. The geology section of this report is taken directly from Diakow (1997).

## **3** Property Description and Location

The Big Bear Property is located within the Omineca Mining District approximately 125 km southwest of Vanderhoof, British Columbia. The property consists 31 contiguous mineral claim totaling 14,366.42 ha on NTS Sheet 93F02, 03, 06, and 07 (Figure 2 and Table 1)

Figures 1 shows the general location of the Property, and Figure 2 illustrates the mineral claims.

Total expenditures for the 2011 Exploration Program, that qualify as assessment work, is \$17,093.03, in the name of Parlane Resources Corp. A detailed breakdown of the expenditures is contained in Appendix 1.

## 4 Access, Local Resources, Infrastructure and Physiography

The Big Bear Property is situated on the Nechako Plateau of central British Columbia, approximately 125 kilometres southwest of Vanderhoof and 160 kilometres west of Quesnel. The claims are located within the Omineca Mining Division, centered at 53° 16' north latitude and 124° 57' west longitude, NTS Sheet: 093E/02, 03, 06, 07.



#### Table 1 Claim List

Claim No	Area (ha)	Owner	Good to date
694084	464.185	Derrick Strickland (100%) 144547	Oct-11-2011
694086	464.212	Derrick Strickland (100%) 144547	Oct-11-2011
694046	464.567	Derrick Strickland (100%) 144547	Oct-11-2011
694085	483.627	Derrick Strickland (100%) 144547	Oct-11-2011
694123	464.132	Derrick Strickland (100%) 144547	Oct-11-2011
694083	483.572	Derrick Strickland (100%) 144547	Oct-11-2011
694143	444.579	Derrick Strickland (100%) 144547	Oct-11-2011
694183	463.603	Derrick Strickland (100%) 144547	Oct-11-2011
694045	483.764	Derrick Strickland (100%) 144547	Oct-11-2011
694144	464.177	Derrick Strickland (100%) 144547	Oct-11-2011
694185	463.647	Derrick Strickland (100%) 144547	Oct-11-2011
694066	464.14	Derrick Strickland (100%) 144547	Oct-11-2011
694087	463.872	Derrick Strickland (100%) 144547	Oct-11-2011
694088	464.046	Derrick Strickland (100%) 144547	Oct-11-2011
694146	425.373	Derrick Strickland (100%) 144547	Oct-11-2011
694147	463.834	Derrick Strickland (100%) 144547	Oct-11-2011
694148	482.981	Derrick Strickland (100%) 144547	Oct-11-2011
694163	347.966	Derrick Strickland (100%) 144547	Oct-11-2011
694064	483.772	Derrick Strickland (100%) 144547	Oct-11-2011
694044	483.854	Derrick Strickland (100%) 144547	Oct-11-2011
694063	445.04	Derrick Strickland (100%) 144547	Oct-11-2011
694065	483.746	Derrick Strickland (100%) 144547	Oct-11-2011
694187	463.646	Derrick Strickland (100%) 144547	Oct-11-2011
694184	463.648	Derrick Strickland (100%) 144547	Oct-11-2011
694186	463.646	Derrick Strickland (100%) 144547	Oct-11-2011
694287	483.036	Derrick Strickland (100%) 144547	Oct-11-2011
694103	483.221	Derrick Strickland (100%) 144547	Oct-11-2011
694089	464.093	Derrick Strickland (100%) 144547	Oct-11-2011
694090	463.917	Derrick Strickland (100%) 144547	Oct-11-2011
694145	463.868	Derrick Strickland (100%) 144547	Oct-11-2011
694043	464.656	Derrick Strickland (100%) 144547	Oct-11-2011
Total	14,366.42		









Figure 2: Big Bear Property





#### ACCESS

The Big Bear Property is located in the forested rolling hills of the southern Nechako Plateau of central British Columbia, approximately 120 kilometres southwest of Vanderhoof, which is situated on provincial highway 16 and the main railway line to the ocean port at Prince Rupert. Access to the property is by the all season Kluskus-Malaput forest service road, which crosses the southern portion of the property. Secondary logging roads provide access to other parts of the property. Elevations on the Nechako Gold property range from 1100 to 1739 metres.

Recent pine beetle infestations have severely damaged the forests in the area resulting in increased activity aimed at timber salvage and economic diversification for the region.

An extensive veneer of glacial debris covers the project area with bedrock exposures being rare and generally restricted to higher elevations. However, clear-cut logging has been recently conducted on several blocks within the claim boundary and a combination of this with the road cuts has resulted in new exposures.

#### CLIMATE

The climate is characterized by brief warm summers and long cold winters. The area receives on average 30 cm of precipitation per annum and temperatures range from a minimum of -40°C in winter to a maximum of 32°C in summer. Snowfall can attain 2 meters at higher elevations. The exploration period is between mid–June and late–October. Year round diamond drilling is possible given a suitable supply of water and a winterized camp.

Vegetation in the project area is balsam fir and white spruce with lodgepole pine. At higher elevations vegetation is less dense and dominated by subalpine fir and whitebark pine.

#### INFRASTRUCTURE & LOCAL RESOURCES

Local accommodation is available at the logging camps of Canfor Corporation. These camps are located along the Kluskus forest service road at the 142.5 km marker (Malaput Camp) and at the 102 km marker (Kluskus Camp). Local accommodation is also available at some ranches and tourist camps in the area. Labour, contractors, fuel and other supplies are available at Vanderhoof, which has a population of 4000 and is located on the CN railroad and a paved highway. Prince George, located 100 kilometres east of Vanderhoof, has several daily flights to Vancouver and other points. The nearest available grid electrical power is 19 kilometres north at Kenney Dam.

## 5 Regional Geology

After Diakow 1997

The property is situated along the eastern margin of the Stikine Terrane, west of the structural contact with the Cache Creek Terrane and immediately south of the Skeena



Arch. Strata of the Stikine Terrane in central and east-central British Columbia comprise superposed island and continental margin arc assemblages and epicontinental sedimentary sequences.

Island arc volcanism and associated sedimentation in central Stikine Terrane spans Late Triassic to Middle Jurassic time. Elsewhere in Stikinia, remnants of Early Devonian to Permian arc volcanic rocks are known (Monger, 1977). The oldest strata exposed in eastcentral Stikinia are fossiliferous Upper Triassic sediments, sporadically exposed in the Smithers (Tipper and Richards, 1976b; MacIntyre et al., 1996) that closely resemble flows of the Stuhini Group, crop out near fine-grained marine sediments containing the Carnian to early Norian bivalve Halobia in the Fulton Lake map area. These rocks are possibly coextensive with fossil-bearing Upper Triassic marine sediments mapped along the western margin of the Stikine Terrane in the Whitesail Lake (van der Heyden, 1982) and Terrace (Mihalynuk, 1987) map areas, where they crop out in close proximity to Lower Permian carbonates (van der Heyden, 1982). Early and Middle Jurassic rocks of the Hazelton Group stratigraphically overlie the Stuhini Group throughout much of Stikinia. The Hazelton Group is a lithologically varied island arc succession composed of subaerial and submarine volcanics locally inter-layered with marine sediments (Tipper and Richards, 1976a).

Island arc volcanism commenced in Middle Jurassic time, broadly coincident with a protracted event of terrane accretion and the subsequent overlap of older arc strata by widespread Upper Jurassic and Lower and mid-Cretaceous flysch and molasse deposits. Terrane accretion began possibly as early as Bajocian time, resulting in structural juxtaposition of oceanic Cache Creek Terrane onto Stikinia, and led to early development of the Bowser Basin and shale deposited in a starved marine environment (Ricketts and Evenchick, 1991; Tipper and Richards, 1976a). Overlying coarser elastic rocks, consisting largely of conglomerate shed from the uplifted Cache Creek Terrane, record fluvatile transport and progradation of deltaic deposits along the periphery of the basin. The Skeena Arch became an uplifted area and sediment source for northerly flowing drainages into the southern part of the Bowser Basin from mid-Oxfordian to earliest Early Cretaceous times. During parts of the Early and Late Cretaceous, sediments sourced from the northeast and east record initial deposition of nonmarine and shallow marine sediments of the Sustut and Skeena groups. In south and south-central Stikinia, contemporaneous deposits of sandstone, siltstone and conglomerate are widespread and suggest that anumber of smaller sedimentary basins may have been connected (e.g., Nazko Basin; Hunt, 1992).

Regional contractional deformation, documented in widely separated areas of the Stikine Terrane in the TasekoPemberton (Garver, 1995), and the Spatsizi (Evenchick, 1991; Evenchick and McNicoll, 1993) map areas was a middle and Late Cretaceous event. This orogenic event coincides with the transition from sedimentary deposition to continental margin arc volcanism. Definitive evidence of Cretaceous contractional deformation in the intervening region of central Stikinia, particularly in the Nechako River map area, has not yet been recognized. However, a domain of cleaved rocks with local zones of mylonite in the Nechako Range may be the record of this event.

Continent margin arc volcanism began in south and central Stikine Terrane in Late Cretaceous time and continued episodically into the Eocene with eruption of the Kasalka, Ootsa Lake and Endako groups. The Upper Cretaceous Kasalka Group unconformably overlies the Skeena Group. The Kasalka Group records construction of isolated volcanic centres as the magmatic front apparently migrated from the Coast Belt eastward across the Stikine Terrane over a period of nearly 30 million years, ending in latest Cretaceous



time. Robust continental arc magmatism was re-established during Middle and late Eocene time with eruption of the Ootsa Lake and Endako groups. This volcanism appears to be closely linked to regional crustal transtension in central British Columbia, manifest in up-welling of high-grade metamorphic rocks in core com¬plexes (Ewing, 1980) and major strike-slip faults, such as the Tatla Lake Metamorphic Complex adjacent to the Yalakom fault in the Anahim Lake map area (Friedman and Armstrong, 1988).

Miocene and younger volcanism, represented by the Chilcotin Group, is dominated by transitional basalts that formed flat-lying lava fields, mainly in southern Stikinia. The Chilcotin Group is interpreted to have erupted in a back-arc setting, east of the Pemberton-Garibaldi arc (Souther, 1991, Bevier, 1983a,b). Shield volcanoes, comprising the Anahim Belt, are locally perched on the plateau-forming Chilcotin lavas. They consist of distinctive peralkaline volcanoes erupted between 8.7 and 1.1 Ma above a mantle hotspot (Bevier et al., 1979; Souther, 1986; Souther and Souther, 1994).





<del>4</del> **Regional Legend** 

> PARL >Z Π



## 6 Property Geology

after Diakow 1997

## 6.1 Nagloico Formation

The Naglico formation is dominated by augite-phyric mafic flows, lesser tuffs and scarce intervolcanic marine sediments.

The internal lithologic variability in rocks of the Naglico formation, no single section is representative, however, certain lithological features persist over broad areas. The primary lithologies include dark green and sometimes maroon, massive weathered flows of basalt and andesite. Augite phenocrysts are a diagnostic feature of these flows, commonly comprising 1 to 3 volume percent as vitreous prisms averaging between 1 and 2 millimetres long (in rare instances, 5 to 15 millimetres in length). Despite partial to complete replacement of augite by chlorite, epidote, carbonate and opaque granules, they generally retain their prismatic habit. Plagioclase is the primary constituent in all flows that include a number of textural varieties such as sparsely porphyritic, fine-grained crowded plagioclase porphyry to coarse-grained porphyry. Plagioclase is slender, less than 2 millimetres long, in amounts up to 35 volume percent in the crowded varieties.

Dense aphanitic basalts are commonly interlayered with the more voluminous porphyritic flow varieties. They are lava flows with a fine granular aphanitic texture that sometimes display millimetre-thick resistant laminae protruding from smooth weathered surfaces. Thin sections of these rocks reveal olivine and augite grains occupying interstices between plagioclase microlites. A representative suite, comprised of both pyroxene-bearing and aphanitic lavas, has a compositional range of basalt to basaltic andesite. Major and trace elements indicate they are subalkaline with a low-potassium tholeiitic to calcalkaline trend of island arc affinity.

Generally, sedimentary rocks tend to comprise thin recessive beds that rarely crop out and are commonly found as angular sedimentary debris churned up in roadcuts and logging cutblocks, near more diagnostic lithologies of the Naglico formation. The main feature of these intervolcanic sediments is their immaturity, characterized by the high proportion of angular plagioclase and volcanic-lithic detritus. The dominant lithologies include feldspathic sandstone and silts tone, tuffaceous argillite, locally prominent volcanic conglomerate and scarce limestone. Fossils are nearly always present, varying in abundance from a few indeterminate belemnites and bivalves to zones containing a rich and varied fauna. A solitary sonninid ammonite extracted from limestone suggests a probable early Bajocian age for the Naglico formation underlying much of the Entiako Spur (Collection GSC C-143394; H.W. Tipper, Report 72-1994-HWT).



## 6.2 Ootsa Lake Group

The Ootsa volcanic field in map area is against older basement of the Nechako uplift. South of the fault, Ootsa Lake volcanic strata form outliers that cap high-standing Jurassic rocks along the Fawnie Range and Entiako Spur.

Ootsa Lake strata unconformably overlie Upper Cretaceous volcanics and have an estimated minimum composite thickness of 450 metres. The lowermost unit consists of dark grey, massive and amygdaloidal andesite flows with amygdules infilled by silica, calcite and epidote. These flows are minor members within a gradationally overlying bladed-feldspar porphyritic andesite section that is locally up to 100 metres thick. Typically these rocks are dark grey-green and contain diagnostic plagioclase laths between 5 and 15 millimetres long (20-40% by volume) and pyroxene (5-10% by volume). These units generally appear beneath an upper, conformable section of felsic rocks made up of volumetrically minor dacite flows and more prevalent rhyolite flows and tuffs. The dacitic rocks, which commonly weather to flaggy porcellaneous fragments, are light green or grey and contain tabular feldspar phenocrysts 2 to 3 millimetres long (5-10% by volume) and slender hornblende phenocrysts 1 to 3 millimetres long. Rhyolitic rocks occupy the stratigraphic top of the Eocene sequence north of the Natalkuz fault. The flows are typically chalky white and pink coloured and display a variety of textures that includes porphyritic and thinly laminated flows, massive flows and flow breccias, and rare interlayered pitchstones. Spherulites are common in rocks that have undergone varying degrees of devitrification. Phenocrysts up to 3 millimetres in diameter comprise up to 20% of the rhyolite flows and include, in order of abundance, plagioclase, potassium feldspar, guartz (<3%) and biotite (1-2%). Air-fall tuffs, sometimes inter-layered with the rhyolite flows, consist of white and light green, massive to well bedded ash, crystal, crystal-lapilli and lapilli-block tuffs. A section of graded crystal-lapilli tuffs more than 200 metres thick crops out along the north side of Natalkuz Lake.

The tuffs contain a phenocryst assemblage of feldspar, quartz and biotite. Lithic fragments are fine grained, subangular to angular and predominantly felsic volcanic rocks. Carbonized wood fragments and rare upright tree trunks observed in the rhyolitic tuff unit attest to subaerial deposition. A massive aphanitic rhyolite, with conspicuous parallel joints, is exposed in the canyon walls along the Entiako River near its confluence with the Nechako Reservoir.

Stratigraphy in the Mount Davidson outlier consists of two lithologically distinct rhyolite flow and pyroclastic members that bound an intervening andesite flow member. The lower rhyolite bears a close lithologic resemblance to rocks forming the top of the Eocene sequence north of the Natalkuz fault. It consists of off-white, mauve and pale green flows, interflow breccia, and scarce lapilli tuff. Typically these rhyolitic rocks have thinly laminated and aphyric textures, however, some are sparsely porphyritic and contain plagioclase, guartz and biotite phenocrysts. Fine laminae in the flows are commonly overgrown in part by spherulites, which coalesce and form discontinuous layers that obscure the primary textures. Scarce lithophysae are also present. The middle andesite member is mainly composed of massive flows, with lesser flow breccia and some laharic deposits that conformably overlie rhyolitic rocks. The flows contain slender plagioclase phenocrysts up to 6 millimetres long and sometimes rounded amygdules, filled with chlorite and opalescent and crystalline silica, set in a dark green groundmass. The lithologic similarity of these rocks to those of the Naglico formation and Nechako volcanics makes separating the successions difficult. In general, Eocene andesites in the area are relatively unaltered and vitreous pyroxene, although present, is more abundant in the



Jurassic rocks. The upper rhyolite member consists of pyroclastic flows and related tuffs that thicken locally to 250 metres within a small volcanic subsidence structure centred on Mount Davidson. The rocks thin outward from the main area of subsidence, with the farthest outcrops north of Top Lake and south of Tsacha Mountain forming isolated exposures that rest directly on Jurassic rocks. The main lithology is massive, blocky weathered, uniformly welded ash-flow tuff that forms resistant benches, some dominated by cooling features resembling columnal joints. The ash-flows typically contain up to 35% broken crystals, usually less than 3 millimetres in diameter, and lithic fragments within a grey indurated matrix. Quartz is very diagnostic (3-10%), commonly occurring as clear euhedra between 1 and 4 millimetres in diameter. The lithic fragments are mainly porphyritic lapilli and fewer blocks of andesitic composition. Thin discontinuous volcaniclastic-epiclastic deposits locally cap the upper rhyolitic member along the Mount Davidson ridge. These deposits are only a few to 10 metres thick and consist of poorly sorted blocks and lapilli beds, and less common mudstone and siltstone interbeds. The fragments are subangular to subrounded and consist of coarse-grained plagioclase and pyroxene that resemble andesitic flows characteristic of the Naglico formation. Quartz and some biotite grains are found with plagioclase in the matrix of the coarse deposit and some of the finer grained beds. These remnants are interpreted as post-subsidence fill, derived in part from high-standing Jurassic rocks and deposited with thin lacustrine mudstone and siltstone over locally subsided ash-flow tuff.

## 6.3 Chilcotin Group

Basalt lava flows of the Chilcotin Group are the youngest rocks mapped in the area. Chilcotin lavas exposed in the area mark the northern margin of the extensive Neogene volcanic field that underlies much of the southern Interior Plateau (Mathews, 1989). The Blackwater River coincides with a profound physiographic change from a highland underlain by Mesozoic rocks of the Nechako uplift in the north, to a plateau comprised of thick, flat-lying basaltic lavas of the Chilcotin Group to the south (Bevier, 1983a, Mathews, 1989), on which late-Miocene and younger shield volcanoes of the Anahirn volcanic belt (Souther and Souther, 1994) are perched. South of Tsacha Lake and the Blackwater River, the plateau is rimmed by an escarpment that exposes more than 150 metres of basaltic flows. North of the Blackwater River, the Chilcotin Group crops out between 1000 and 1400 metres elevation.

Basalt of the Chilcotin Group is massive and commonly columnar jointed. Individual flows commonly grade through massive into vesicular and oxidized scoriacous and brecciated flow tops. They weather light brown and fresh surfaces are black with a dense aphanitic texture. Unaltered olivine phenocrysts are conspicuous in a dark black aphanitic groundmass; plagioclase laths between 1 and 1.5 centimetres long are present, only rarely. Chilcotin Group to the south indicate a broad Miocene-Pliocene range (Mathews, 1989). differentiated porphyritic phases. Rocks in contact with these equigranular intrusions are generally thermally metamorphosed to biotite hornfels.







## Figure 6: Property Geology Legend

	VOLCANIC AND SEDIMENTARY ROCKS		
	ATERNARY Fluvial/glaciofluvial sand and gravel, lacustrine/glaciolacustrine sediments, and organic deposits: geochemical signature generally regional and difficult to trace to source; includes floodplain, terrace, delta, alluvial fan, outwash, esker, kame, peat bog, swamp and marsh deposits. Note: See 1:50 000 scale Open File maps for	LOWER A HAZEL	ND MIDDLE JURASSIC (continued) TON GROUP (continued) NAGLICO FORMATION Limestone: white and grey: recrystallized: fossiliferous: 3 metre thick exposure
12	internal subdivisions of this unit. Morainal diamicton: dominantly basal tills; some glacially-derived debris flow deposits; geochemical signature generally local and traceable; diamicton massive or crudely stratified, dense, unsorted to very poorly sorted; matrix sandy to silty clay; clasts up to boulder size; flutings and crag-and-tail features common; deposits thin (<1 m thick) on steep upper slopes and thicker on lower slopes.	3as	along the van Tine road. Sandstone, siltstone, mudstone and subordinate granule-pebble conglomerate as recessive intervals between Unit 3a flows: green, angular feldspar and volcanic lithic clasts are the major detrital components, the clasts are generally off white an composed of aphanitic rhyolite; rare conglomerate composed of clasts up to 30 cm that are derived locally from Units 2c and 3a. Abundant bivalves and rare
12a	Resedimented glacial debris: sandy diamicton, gravel and sand; dominantly glacial debris flow deposits with interbedded and/or overlying sands and gravels; common	3at	ammonites. ] Mainly lapilli tuff and lesser breccia dominated by fragments of Unit 3a.
12b	Thin till and colluvial deposits: unsorted or very poorly sorted diamicton with abundant angular clasts of local bedrock; occurs mainly as veneers less than 1 metre thick over bedrock in upland areas; locally includes thicker colluvial fan and talus deposits at the base of steep slopes.	3b	J Lapilli tuff, ash tuff and crystal-ash tuff, rare accretionary lapilli tuff. maroon and light green; minute (generally ≤1.5 mm) broken quartz grains are diagnostic but scarce (1-2%); faint to distinctly layered fine grained interbeds, local internal grading; similar bedded tuffs recur upsection in Unit 5 in the northern Fawnie Range.
NEOGEN	E - MIOCENE TO PLIOCENE	3c	Dacitic porphyry flows: maroon, local faint flow laminae.
CHILCO	DTIN GROUP Olivine basalt lava flows: weather brown, crudely layered and columnar jointed, massive to vasicular, braically aphanilic or cliving physic	28	ENTIAKO FORMATION (EARLY TOARCIAN TO AALENIAN (?)) Rhyolitic lapilli tuff and rare accretionary lapilli tuff: light pink or off white,
11a	Rare friable black mudstone and sandstone; may contain plant debris.		characterized by up to 5% angular quartz, and potassium-bearing lithic fragments. Exposed best in the vicinity of Kuyakuz Mountain.
PALEOGE	ENE - UPPER EOCENE	2as	Sandstone and siltstone composed mainly of angular plagioclase and subordinate quartz grains: gradational above and laterally with tuffs of Unit 2a.
ENDAK 10	O GROUP Basaltic andesite and andesitic lava flows: weather buff grey-green, fresh surface lustrous black, aphanitic to sparsely porphyritic, contain plagioclase and microscopic augite and hypersthene, rarely amygdaloidal with scarce amygdules	2b	Waterlain mafic ash and lapilli tuff: well bedded, dominated by finely vesicular and amygdaloidal basaltic lapilli. Locally underlies units 2a and 2as at Kuyakuz Mountain.
10a	infilled with opalescent silica; minor hematized interflow breccia. Rare andisitic flow member characterized by plagioclase megacrysts up to 1 cm.	20	moderately welded, diagnostic subrounded to elliptical resorbed quartz phenocryst up to 3 mm (1-7%), lithic pyroclasts include flow-laminated rhyolite, porphyritic andesite and rare granodiorite. Scarce rhyolitic lava flows with white or black flow laminae_Subaerjal volcanic facies confined mainly to the central and southem
MIDDLE E OOTSA	EOCENE A LAKE GROUP	200	Fawnie Range. May be comagmatic with Unit 2a.
9a	Andesitic lava flows and volcaniclastic rocks: dark green to maroon, coarsely porphyritic flows and tuff breccia; minor interbedded ash-tuff; rare block tuff and laminated black siltstone on the summit of Mount Davidson.	265	Interlayered lapilli tuff and ash tuff: maroon or grey green, well bedded, graded and cross laminated; quartz grains and quartz-bearing clasts are apparently derived from Unit 2c.
9b	Rhyolitic ash-flow tuff: grey green, unwelded to weakly welded, crystal fragments (25-30%) characterized by resorbed and prismatic quartz (5-15%, avg. Zmm diameter), plagioclase, potassium feldspar (2-7%) and rare sericitized biotite, lithic fragments (5-20%) typically of lapilli size consist of cognate quartz phyric rhyolite. flow banded and aphanitic rhyolite, and porphyritic andesite; the groundmass when stained indicates weak to moderate potassium feldspar; minor block-lapill utf; rare bedded sections of quartz-bearing sandstone derived from the underlying ashflows.	2d	Feldspathic siltstones, sandstones and volcanic-lithic pebble conglomerate: dominated by plagioclase grains and angular off-white aphanitic rhyolitic fragments minor black mudstone and lesser reworked felsic tuff interbeds; locally contains Toarcian ammonites. Difficult to distinguish from Unit 3as with certainty. Mapped mainly along the west side of the southern Nechako Range and interpreted as a shallow marine facies.
9c	Dacitic lava flows: light grey, flaggy weathering, sparse plagioclase, quartz and biotite phenocrysts.	2e	Black mudstone, locally with discrete white ash-tuff laminae and minor disseminated pyrite; limy sittstone containing scarce grey and brownish impure limestone lavers and concretions, minor feldisanthis sittstone and sandstone.
9d	Andesitic lava flows: maroon and dark green, typically porphyritic with 20-30% slender plagioclase up to 5 millimetres and sparse pyroxene phenocrysts, minor amygdaloidal flows with quartz, epidote and chlorite amygdules; Subunit 9di is a local andesitic flow member that contains plagioclase laths up to 1.2 cm, resembling		Locally contains Toarcian ammonites (Kanense zone) and the small delicate Locally contains Toarcian ammonites (Kanense zone) and the small delicate bivalve, Bositra. Recessive unit mapped intermittantly along the eastern flank of the Nechako Range and interpreted as a relatively deep marine facies.
9e	Rhyolitic lava flows (ca. 49.2 ±1 to 49.9 ± 1.7 Ma): mauve, cream, light green or grey, aphanitic to sparsely porphyritic, flow laminated textures predominate but are commonly overprinted by solitary and coalescing spherulites, porphyritic flows contain plagioclase, up to 5% quartz and traces of rare sericitized biotite; autobrecciated flows. Basal conglomerate, dominated by homblende-biotite quartz morantine tobbles and builders: occurrs in a creak exposure at the Wolf	UPPER I	RIASSIC Siltstone and mudstone: black and tan brown, laminated, contains the bivalve, Habbia. Solitary exposure along the Red Road, just outside of the map area in mapsheet 93F/10.
_	mineral prospect, east of Entiako Lake.	TERTIAR	Y - PROBABLY EOCENE
9et	phenocrysts; well bedded, minor lacustrine tuffaceous sandstone and sittstone interbeds may contain plant fragments.	J	Gabbroic dikes or small plugs: grey to dark green, fine to medium grained, plagioclase, clinopyroxene and olivine phyric.
UPPER C	RETACEOUS Andesitic lapilli tuff and tuff breccia (ca. 64.5 ± 1.8 and 70.3± 3 Ma): grey-green or purple, monolithic homblende phyric fragments; white aphanitic rhyolite lava flows (cr 21 0.020/0.2 Multi-theraperior)		Biotite-fieldspar porphyty dikes or small plugs: most are too narrow to represent at the current map scale. Phenocrysts include <20% subhedral plagioclase (2-7mm diameter) and up to 7% vitreous and chloritized biotite in a light grey groundmass. They cut rhyolitic ash-flow tuffs of Unit 9b.
LOWERC	gamet-bearing thyolife dikes and sills in the immediate vicinity of the Capoose prospect (MINFILE 040).	Н	Granodiorite and granite stocks (ca. 51.8 1 Ma): Undeformed granodiorite in the central Nechako is off white, coarse grained and equigranular with up to 25% combined, fresh biotite and lesser hornblende. Granite south of Tatelkuz Lake is distinguished by its relative absence of mafic minerals, which consist of between trace and 3% vitreous biotite. These plutons cut penetratively cleaved country rocks in the Nechako Ranoe.
	black mustone and sandstone with min carbonaceous layers containing Albian palynomorphs, minor conglomerate: sporadic exposures found only along the shoreline at the mouth of the Entiako River.	G	Quartz-feldspar porphyry plugs and dikes: light grey, pink and cream colored, quartz phenocrysts (5-15%), locally 5% combined homblende and lesser biotite
UPPER JI	JRASSIC TO LOWER CRETACEOUS Dacitic lava flows containing sparse biotite (ca. 144 ± 4 Ma), lapilli tuff containing aphanitic off-white rhyolitic fragments, laminated ash tuff, minor welded tuff.	F	Rhyolite subvolcanic dome: bone white, aphanitic to sparsely plagioclase phyric, massive with up to 20% disseminated pyrite. Small body located at the mouth of the Entiako River.
MIDDLE A	AND UPPER JURASSIC ER LAKE GROUP	POSSIBL	Y LATE CRETACEOUS Dioritic plugs, sills and dikes: mottled green and off white, medium-grained
5	NECHAKO VOLCANICS Pyroxene phyric basaltic flows and andesitic to rhyolitic tuffs: dark green, a rare homblende phyric andesite flow is dated near the base of the succession in the northern Nechako Range (ca. 152 $\pm$ 2 Ma); tentatively correlative stratigraphy in the northern Fawnie Range has a dacitic flow near the top of the succession (ca.		undeformed and cut mapped in organized country rocks, similar plutons are also mapped in the Chedakuz River valley where they apparently intrude and alter Middle Jurassic rocks of Units 4 and 5. Two bodies adjacent to the Kluskus-Ootsa road have unmapped minor pegmatitic monzonite and pyroxene-rich intrusive phases.
	for , 543, 243, 344, and any state consist mainly or pyroxene phyric basatt flows, variegated green and maroon andesitic ash tiff with scarce interbeds of accretionary lapili, thin rhyolitic ash-flow tuff at the base conformably overlies units 4a and 4b. Immediately to the north of Top Lake, pyroxene phyric basalt flows contain rare interbeds of accretionary lapilii tuff. Feldspathic sandstone locally interlayered with the volcanic rocks may contain bivalves.	LATE CRI	ETACEOUS Rhyolite sills (ca. 70 Ma) too narrow to represent at the current map scale. Off- white, aphanitic or contain sparse brownish garnet phenocrysts. Exposed near the Capoose prospect in the northern Fawnie Range, where they are lithologically indistinguishable from older, Early Cretaceous garnet-bearing rhyolitic sills.
-	ASHMAN FORMATION (EARLY CALLOVIAN TO OXFORDIAN Conglomerate, sandstone, siltstone and minor mudstone: planar bedded conglomerate, which is dominant in the northern Nechako Range, is characterized by off white to light grey chert and lesser black argillite pebbles and cobbles, interlayered grey or light green siltstone and sandstone, lesser dark green and	D	Felsite sills (ca. 73.8+2.9/-0.1 Ma): greyish green, fine grained and equigranular, contain sparse plagioclase phenocrysts up to 4 millimetres long and up to 5% fine grained biotite flakes, weather to distinctive clinkery, conchoidal fractured fragments. Small widely scattered exposures in the vicinity of the Tsacha prospect where they locally cut mineralized quartz veins.
4b	black mudstone. Similar to Unit 4a except conglomeratic layers are minor or absent. In the central and southern Nechako Range, the proportion of conglomerate decreases and sandstones interlayered with black siltstone and mudstone increases. The chert- bearing succession thins dramatically to the west across the Chedakuz Creek valley towards the northern Fawmie Range, where conglomeratic layers comprise	LATE JUF	RASSIC TO EARLY CRETACEOUS Garnetiferous rhyolite sills (ca. 142 0.6 Ma): too narrow to represent at the current map scale. Off white, aphanitic sucrosic texture, locally flow laminated, up to 3% brownish gamet and trace to 2% disseminated pyrite. Exposed immediately to the south of the Capoose prospect in the northern Fawnie Range.
	discontinuous thin interbeds within drab olive green sandstones and siltstones that contain abundant plagioclase and lesser pyroxene grains. Mudstones may contain recessive limy concretions. Bivalves and ammonites are moderately abundant.	C	Quartz diorite plugs: grey-green, medium-grained equigranular texture, hornblende dominant ( $\ll 20\%$ ) over biotite ( $\ll 3\%$ ); locally contains xenoliths of augite porphyry or fine grained diorite. Small bodies mapped near the margin, and locally intruded by Unit B.
	blocks up to 8 cm, fragments are composed mainly of andesite; laminated and graded ash tuff, and interbeds rich in feldspars are possibly derived by reworking these tuffs.	В	Quartz monzonite and granodiorite (ca. 148.1 ± 0.6 Ma): Capoose batholith; pink, medium to coarse grained and equigranular; up to 15% combined fresh biotite and homblende; numerous fine-grained grey dioritic xenoliths. South of Capoose Lake a probable unmapped granodiorite or quartz monzonite pluton, separate from the Capoose batholith, yields a potassium-argon age of 67.1 ± 2.3 Ma.

HAZELTON GROUP

3a

NAGLICO FORMATION (BAJOCIAN)

Basalt and andesitic lava flows: dark green and maroon, characterized by vitreous pyroxene phenocrysts (trace to 15%), textural varieties include dense aphanitic flows, crowded plagioclase (~30-40% equant subhedral plagioclase ≤3 mm in diameter) to coarse grained porphyries (plagioclase to 6 mm), and amygdaloidal porphyry: minor flow breccia: rare hyaloclastite Encidete quartz calcite and

Bp Porphyritic granodiorite and monzonite found locally along the border of the Capoose batholith in the Naglico Hills.

MIDDLE JURASSIC

Augite porphyry plugs: dark green, ≤ 20% augite phenocrysts (2-6mm) and randomly oriented plagioclase averaging 1-2 mm; rare laths up to 1 cm. Probable subvolcanic feeders to Unit 3a.



## 7 Exploration History

In the late 1960's Rio Tinto Canadian Exploration Ltd. carried out stream and lake sediment sampling surveys throughout the Nechako Plateau.

The BC Geological Survey undertook a regional lake sediment sampling program throughout portions of the 93F map sheet in 1993.

## 8 Big Bear Property 2011 Exploration

Parlane Resources undertook a stream silt and rock sampling program from June 14<sup>th</sup> to June 25<sup>th</sup> 2011 the Big Bear property which consisted of 65 silt samples and 5 rock samples on the western half of the property. See appendix 2 sample descriptions and assay results and appendix 3 for maps of the results.

All rock sample sites were marked with flagging tape. Samples and tags were placed in poly-ore bags and sealed with flagging tap. Sample locations were recorded by GPS, given a UTM grid designation using the NAD 83 datum. All rock samples were taken directly to Acme to Vancouver, BC where they were analyzed for 36-element ICP-MS with a Group 1DX1 analysis for details on analytical methods and procedures see appendix 4.

Silt samples locations were recorded by GPS, and given a UTM grid designation using the NAD 83 datum. Silt samples were taken in the stream and placed in to craft paper bags then taken directly to Acme Analytical Laboratories Vancouver, BC where they were analyzed for 36-element ICP-MS with a Group 1DX2 analysis for details on analytical methods and procedures see appendix 4.



## 9 DEPOSIT TYPES

The Interior Plateau contains a number of present and past-producing mines, including Blackdome, Gibraltar, Endako and Equity Silver, all of which lay outside the current project area. A survey of mineral occurrences in the northern part of the Interior Plateau was carried out by Lane and Schroeter in order to document their characteristics and to establish local geologic setting and controls. These data are integrated in a conceptual model, repeated below in both graphical and table form (see table 2 and table 3).



#### Figure 7: Schematic section showing location of mineral occurrences and spatially and/or geneticallyrelated intrusions (Lane and Schroeter, 1997)

Analogies to mineralization surrounding (e.g., Mount Davidson, Capoose and Chu) suggest that any mineralization on the Nechako property may be related to the emplacement of Cretaceous intrusives into the Jurassic Hazelton and the Bowser Lake Groups. Sulphide mineralization as exists on the property may likely be associated with phyllic to potassic or kaolinite alteration of felsic and intermediate volcanic rocks, with secondary quartz. Specific mineralization is anticipated to consist of pyrite, sphalerite, tetrahedrite, and arsenopyrite; gold and silver mineralization zones are not expected to be necessarily confined to a particular lithologic unit.



#### Table 2: Characteristic Features of Mineral Occurrences in the Interior Plateau

Characteristic Features of Mineral Occurrences in the Interior Plateau (Lane and Schroeter, 1997)									
Deposit Type									
Occurrence Minfile		Metallic Minerals	Gangue Minerals	Style of Mineralization	Alteration	Age of Mineralization	Hostrock Group: lithologies		
Epithermal Au-	Ag								
Baez (Oboy)	093C 015	py, aspy	K-fld, ser, qtz, calc, chl	fine-grained disseminations in, and peripheral, to veinlets and breccias	potassic, phyllic, silicic, argillic	Eocene	Ootsa Lake: rhyolitic flows, breccias		
Bob	093B 054	py, aspy, sb	qtz, K-fld, clay, chl, calc	disseminations in altered horizons	silicic, argillic, potassic, propylitic	Eocene	Skeena: sandstone, conglomerate, siltstone and argillite cut by gfp dikes		
Clisbako	093C 016	py, marc, aspy	qtz, chal	fine-grained whisps and disseminations in stockwork and breccia zones	silicic	Eocene	Ootsa Lake: rhyolite flows, tuffs, breccias; andesite flows and breccias		
Holy Cross	093F 029	ру	qtz, ba	sparsely disseminated in intensely silicified zones	silicic, argillic, hematitic	Eocene	Ootsa Lake: rhyolite dome complexes		
Loon	093F 061	ру	qtz, chal	disseminated, drusy in-fillings in stockwork and breccia zones	silicic	Eocene	Ootsa Lake: felsic and intermediate flows, tuffs and breccias		
Trout	093F 044	py, Au, el	qtz, ad	rhythmically banded quartz-adularia veins and silica-flooded zones	silicic	Eocene	Kasalka(?): polymictic conglomerate and andesitic breccia		
Uduk Lake	093F 057	ру	qtz, chal	fine- and coarse-grained disseminations in stockwork and breccia zones	silicic, argillic	Eocene	Ootsa Lake: rhyolite flows, tuffs and breccias		
Wolf	093F 045	Au, Ag, el, py, cpy	qtz, calc, chal	disseminations in banded and bladed veinlets; microscopic inclusions of Au in py	silicic, argillic	Eocene	Ootsa Lake: rhyolite and high- level intrusions		
Yellow Moose	093F 058	sb, aspy, py, marc, cnb, Au	qtz, chal	fine-grained disseminations and blebs in stockworks and breccias	silicic, argillic	Eocene	Ootsa Lake: rhyolite tuffs, breccias, sandstone		
Tsacha	093F 055	py, cpy, agl, Au, gln, el, sief	qtz, calc, chal, amih, hem	fine-grained disseminations, colloform banded and bladed veins	silicic, argillic, phyllic	pre-Late Cretaceous	Hazelton: rhyolite flows, ash-flow tuffs		



Occurrence	Minfile	Metallic Minerals	Gangue Minerals	Style of Mineralization	Alteration	Age of Mineralization	Hostrock Group: lithologies
Fawn	093F 043	py, aspy, pyg	qtz, chal, ba, dol, calc, ser	disseminated in silica-flooded breccia and stockwork zones	silicic, argillic	Jurassic (?)	Hazelton: andesitic flows; limy ash, lapilli and block tuffs
Malaput	n/a	py, sph, gln	qtz, ser, calc	weakly developed stockworks in broad alteration zone	silicic, argillic	Jurassic (?)	Hazelton: felsic tuffs and/or flows
Au-Ag Base Metal	-						
April	093F 060	sph, gln, py, po, aspy, cpy	qtz, chl, calc	coarse-grained disseminations to semi-massive, crudely banded veins/shears	phyllic, propyllitic	Jurassic (?)	Hazelton: tuffaceous/limy siltstones
Ben	093F 059	aspy, py, po, cpy, gln, sph, mo	qtz, bio	semi-massive veins, layered to laminated or foliated	phyllic, potassic	Jurassic (?)	Hazelton: intermediate flows, tuffs
Blackwater- Davidson	093F 037	sph, py, po, gln, aspy, cpy, lei, bou, marc	qtz, ser, bio	disseminated and fracture-controlled; replacements	phyllic, potassic	Late-Cretaceous (?)	Hazelton: felsic and intermediate flows and tuffs; siltstone and argillite
Buck - Xmas Cake	093F 050	sp, py, po, ga, cp	qtz, carb	massive to semi-massive sulphide breccia	argillic	Late-Cretaceous (?)	Hazelton: rhyolite flows, breccias
Buck-Rutt	093F 050	sph, py, po	qtz, ser, chl, clay	disseminated, laminated to layered, stratabound	argillic, phyllic, silcic	Late-Cretaceous (?)	Hazelton: tuffaceous siltstones, argillites
Capoose	093F 040	sph, gln, py, aspy, cpy, tel, po, pyg, el, Au	qtz, gnl, mus	disseminated, replacement and fracture-controlled	phyllic, hornfels	Late-Cretaceous	Hazelton: garnetiferous rhyolite sills, hornfels
Au-Cu (-Fe) Skarn	1						
Fawn 5	093F 053	mag, po, py, cpy, aspy, gln	bio, chal, ep, dp, calc	massive to semi-massive magnetite; disseminated sulphides in metasomatized andesite tuffs	hornfels, calc-silicate; metasomatism	Jurassic	Hazelton: andesitic flows, tuffs, fragmentals
Porphyry Mo-Cu	-		·				
CH, C	093F 004	py, cpy, po, mo	qtz, K-fld, bio, mag	disseminated in veinlets and weakly developed stockworks	silicic, hornfels, potassic, propyllitic, phyllic	Eocene (?)	Hazelton: andesite flows, siltstones. Crowded feldspar porphyry, granodiorite and diorite
Paw	093F 052	py, mo, cpy		disseminated and fracture-controlled	silicic	Jurassic	Capoose batholith: diorite to granodiorite
Chu	093F 001	mo, py, po, cpy	qtz, bio	disseminated and fracture-controlled	hornfels, potassic	Jurassic (?)	Hazelton: pyrroclastic andesite and siltstone; granodiorite dikes related to the Capoose batholith(?)
Ned	093F 039	то, ру, сру	qtz	disseminated and fracture-controlled	silicic	Late-Cretaceous (?)	Late Cretaceous(?) quartz monzonite



#### Table 3: Discovery Methods for Selected Prospects in the Interior Plateau Project Area, BC

Discovery Methods for Selected Prospects in the Interior Plateau Project Area, BC (Lane and Schroeter, 1997)									
Property	Deposit Type	Discovered By:	Year	Discovery Method	Current Owner				
April	Mesothermal vein?	Granges Expl. Ab.	1982	Regional geochemical stream sediment sampling: Zn-Ag anomalies followed by prospecting and grid-based soil sampling	Placer Dome				
Baez	Epithermal Au	Phelps Dodge	1992	Reconnaissance stream sediment and soil sampling, rock sampling, geophysics, diamond drilling	Phelps Dodge				
Ben	Mesothermal vein	BHP-Utah		Reconnaissance exploration for volcanogenic massive sulphide mineralization in Hazelton Group rocks	BHP - Utah				
Blackwater- Davidson (Pem)	Porphyry-related Au-Ag	Granges Expl. Ab.	1973	Reconnaissance silt sampling: Pb-Zn-Ag stream sediment anomalies led to subsequent soil sampling and staking of the Pem claim	Granges				
Buck (Range)	Mesothermal vein?	BP Minerals Ltd.	1981	Reconnaissance geochemical sampling and prospecting outlined several base metal - silver anomalies; trenching and rock sampling followed	Western Keltic Mines Ltd.				
Capoose	Porphyry-related Ag-Au	Rio Tinto Canadian Expl. Ltd.	<1969	Reconnaissance stream and lake sediment sampling; follow-up prospecting, soil and rock sampling, trenching and diamond drilling	Granges				
СН (С)	Porphyry Cu-Au	Rio Tinto Canadian Expl. Ltd.	<1969	Reconnaissance lake sediment sampling (and interpretation of federal government regional aeromagnetic survey); follow-up IP/Resistivity and magnetometer surveys in conjunction with bedrock mapping over favourable geology of Jurassic Hazelton Group intruded by Chutanli Lake monzonitic stocks	Placer Dome				
Chu	Porphyry Cu	ASARCO Inc.	1969	Reconnaissance stream sediment anomalies led to the discovery of copper and molybdenum mineralization in outcrop	Orvana				
Clisbako	Epithermal Au	Eighty-Eight Res.	1990	Prospecting and rock sampling; trenching and diamond drilling; biogeochemistry	Eighty-Eight				



Property Deposit Type D		Discovered By:	Year	Discovery Method	Current Owner
Fawn (Gran)	Epithermal Au-Ag	BP Minerals Ltd.	1982	Reconnaissance geochemical sampling and prospecting in an area of favourable garnet alteration, and Pb lake sediment anomaly, outlined a broad base metal-silver anomaly; trenching, geophysics and diamond drilling confirmed orientation and width	Western Keltic Mines Ltd.
Fawn 5	Skarn Fe, Skarn Cu-Au	BP Minerals Ltd. BC Geological Survey	1983 1993	Reconnaissance mapping and sampling on the margin of the Capoose batholith	Western Keltic Mines Ltd.
Holy Cross	Epithermal Au	Noranda	1987	Prospecting and rock chip sampling of silica-flooded rhyolite followed by trenching	Kennecott
Loon	Epithermal Au	Mingold Resources Inc.	1988	Reconnaissance exploration; prospecting; traced mineralized float boulders up-ice to their source	Hudson Bay
Ned	Porphyry Mo-Cu	Granges Expl. Ab. Rio Algom	1975	Reconnaissance stream and lake sediment sampling; follow-up soil sampling outlined an area of anomalous Mo-Cu	none
Oboy	Epithermal Au	Exploration Inc.	1985	Reconnaissance soil and stream sediment Ag-As anomalies	Phelps Dodge
Paw	Porphyry Mo-Cu	Perry Grunenberg	1993	Prospecting new logging roads	Perry Grunenberg
Tsacha (Tommy)	Epithermal Au	BC Geological Survey	1993	Regional mapping crew discovered and sampled auriferous epithermal quartz vein and stockwork mineralization	Teck
Trout	Epithermal Au	Kerr Addison Mines Ltd.	1984	Reconnaissance exploration; prospecting, mapping and sampling	Phelps Dodge
Uduk Lake	Epithermal Au	Amax Exploration	1980	Reconnaissance mapping; soil and rock geochemistry, geophysics and trenching	Pacific Comox Pioneer Metals
Wolf	Epithermal Au	Rio Algom Expl. Inc.	1983	Anomalous silver lake-sediment anomaly followed by soil and rock sampling, biogeochemistry, geophysics, trenching and diamond drilling	Lucero
Yellow Moose	Epithermal Au	Newmont Expl. of Canada Ltd.	1987	Structural interpretation of Landsat image data followed by reconnaissance prospecting; traced stibuite-bearing float up-ice to bedrock source	Phelps Dodge



## 10 ADJACENT PROPERTIES

The Nechako Gold property is directly northeast of Silver Quest Resource's Capoose Deposit. Silver Quest Resources recently announced on January 20<sup>th</sup>, 2010 a new resources estimate for the Capoose:

"The resource estimate at a gold equivalent ("AuEq") cut-off grade of 0.40 grams per tonne ("g/t") is 31.22 million tonnes grading 0.38 g/t gold and 26.5 g/t silver for 383,823 contained ounces of gold and 26,593,915 contained ounces of silver in an Indicated category and 37.23 million tonnes grading 0.37 g/t gold and 24.6 g/t silver for 443,206 contained ounces of gold and 29,517,933 contained ounces of silver in an Inferred category"

The Nechako Gold property is also directly northwest of the recent Blackwater gold discovery of Richfield Ventures Ltd., which announced on March 2<sup>nd</sup> 2011:

"At a base case cut-off grade of 0.40 g/t Au, the estimated global Indicated resource is 53.46 million tonnes at an average grade of 1.06 g/t Au containing 1.83 million ounces gold, with an additional 75.45 million tonnes at an average grade of 0.96 g/t Au containing 2.34 million ounces gold in the Inferred category. The table below summarizes the Geosim resource estimates at selected cut-off grades: "

		INDICA	ATED		INFERRED				
CUT-OFF		GRADE CO		CONTAINED	TONNES	GRADE		CONTAINE	
G/T AU	TONNES 000'S	AU G/T	AG G/T	AU M OZ	000'S	AU G/T	AG G/T	D AUMOZ	
0.3	54,136	1.06	5.6	1.84	78,653	0.94	4.0	2.38	
0.4	53,460	1.06	5.6	1.83	75,452	0.96	4.0	2.34	
0.5	49,914	1.11	5.7	1.78	68,001	1.02	4.2	2.23	

Blackwater Deposit - Indicated and Inferred Resource Estimates

Cautionary statement: that the potential quantity indicated above has not been verified by the author and may not be indicative of the Necachako Property the subject of this report. It has been provided only for illustration purposes.

## **11 Conclusions and Recommendations**

The silt sampling has given rise to areas of elevated gold and copper values that require additional sampling on a detailed grid to verify these anomalies. The other areas of the property require some detailed exploration to evaluate the geological potential of the property. Parlane Resources Corp. continued to under take mineral exploration on the property during the summer of 2011 that is subsequent to the notice of work filed for this report. A report will be filled when that work is completed.



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## **13 Certificates**

I Derrick Strickland, of 910-475 West Georgia Street, in the City of Vancouver in the Province of British Columbia do hereby certify that:

- 1. I am a Consulting Geologist working in Vancouver, British Columbia.
- 2. I hold a Bachelor of Science in Geology (1993)
- 3. I have been employed in the mineral exploration industry since 1987 and have practiced my profession since graduation.
- 4. The information for this report has been taken from government and old geological reports and work undertaken by Parlane Resources Corp
- 5. I am a member in good standing with Association of Professional Engineers, Geoscientist of British Columbia.
- 6. The assessment costs presented in this report are true and accurate to the best of my knowledge.

DATED at Vancouver, British Columbia, this 20th day of September 2011

200met T

Derrick Strickland, P.Geo.



## **Appendix 1**



Statement of Expenditure for Big Bear Project: June 15 - 24, 2011						
Labour-Contract	Rate		Number of Units	Cost		
Ian Webster P.Geo. Geologist	\$ 500.00	June 15 - 24, 2011	9	\$ 4,500.00		
Adrian Smith G.I.T. Geologist in Training	\$ 350.00	June 15 - 24, 2011	9	\$ 3,150.00		
Allan Stevenson - Sampler	\$ 200.00	June 15 - 24, 2011	9	\$ 1,800.00		
Matthew Eagles - Sampler	\$ 200.00	June 15 - 24, 2011	1	\$ 200.00		
Handheld radio rental	\$ 3.67	June 15 - 24, 2011	9	\$ 33.03		
Accommodation and meals	\$ 254.00	June 15 - 24, 2011	9	\$ 2,286.00		
Airfare/Taxi/Transportation	\$ 125.00	June 15 - 24, 2011	9	\$ 1,125.00		
Field Supplies	\$ 20.00	June 15 - 24, 2011	9	\$ 180.00		
				\$-		
Assays Soils 1DX2	\$ 18.05	June 15 - 24, 2011	65	\$ 1,173.25		
Assays Rock 1DX1	\$ 29.15	June 15 - 24, 2011	5	\$ 145.75		
Assessment Reports and maps	\$-	June 15 - 24, 2011	9	\$ 2,500.00		
Sub Total	\$-			\$ 17,093.03		
Field Program Expenses				\$ 17,093.03		

## Statement of Expenditures

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## Appendix 2

Silt Samples Data

								AuP Ac	ıP	AsP BP	P BaP B	iP Ca	CdP	CoP Cr	P CuP	GaP H	ıP	LaP Mo	MnP N	oP Na		Pb	P	SbP S	ScP SeP S	SrP Te	P ThP	TIP	VPP	WP ZnP
Sample No.	Type	Station	Date	Easting	Northing	Width (m)	Depth (m) Comments	PB PI	у. И /	AI% PM M	PM P	M %	PM	PM PM	1 PM Fe	% PM PI	л. И К%	PM %	PM P	M %	NiPPM P	% PN	1 S%	PM F	PM PM F	PM PN	I PM	Ti% PM	M	PM PM
1179701	Silt	AS11-02	19-Jun-11	366603	5910017	.2-2	med energy, lots of organic debris, iron stained bed	1.7 (	).3 1	1.81 3.6	0 160	0.2 0.6	6 0.4	7.1 1	8 18.3 2.3	32 4 0.	09 0.06	12 0.4	1 ###	1.2 ###	12.0	0.072 6	.0 0.08	0.2	3.8 0.5	47 0	0 0.9	0.045 0.1	1 45	0.0 45
1179702	Moss	AS11-02	19-Jun-11	366603	5910017	.2-2	med energy, lots of organic debris, iron stained bed	2.2 0	).4 2	2.19 2.6	2 179	0.2 0.9	7 0.6	7.8 1	9 18.8 2.5	i9 5 0.	13 0.09	14 0.4	7 ###	1.6 ###	12.1	0.089 6	.8 0.11	0.3	3.5 0.6	81 0	0 0.7	0.040 0.1	1 45	0.0 48
							Shallow, slow moving, lots of organic debris, few sub ang to																							
1179703	Silt	AS11-03	19-Jun-11	366875	5909681	.5-1	rounded cobbles in bed	1.5 0	).7 3	3.14 16.8	1 252	0.2 0.8	5 0.8	12.1 2	26 36.2 5.2	.9 6 0.	17 0.09	17 0.4	3 ###	2.5 ###	17.4	0.120 7	.3 0.12	0.4	6.6 0.7	71 0	0 1.0	0.030 0.1	I 62	0.0 57
							Shallow, slow moving, lots of organic debris, few sub ang to																							
1179704	Moss	AS11-03	19-Jun-11	366875	5909681	.5-1	rounded cobbles in bed	1.8 0	).6 2	2.87 5.0	1 225	0.2 1.2	1 0.8	10.8 2	21 21.9 3.1	7 6 0.	15 0.13	15 0.5	2 ###	1.6 ###	15.8	0.097 7	.4 0.10	0.3	4.4 < 0.5	109 0	0 0.7	0.033 0.2	2 47	0.0 54
1179705	Silt	AS11-05	19-Jun-11	366485	5909096	boggy	very slow moving, almost all organics	1.5 1	.1 3	3.79 4.7	0 231	0.2 0.9	4 0.7	9.0 2	27 32.1 2.1	8 6 0.	24 0.07	17 0.3	9 682	2.5 ###	17.3	0.153 6	.1 0.19	0.3	3.4 0.6	87 0	0 0.5	0.022 0.2	2 49	0.0 53
1179706	Moss	AS11-05	19-Jun-11	366485	5909096	boggy	very slow moving, almost all organics	1.0 0	).3 1	1.60 3.5	2 155	0.0 1.4	0 1.3	25.9 1	0 14.0 3.0	9 3 0.	17 0.25	11 0.2	2 0000	2.6 ###	7.1	0.140 2	.7 0.18	0.2	1.4 < 0.5	145 0	0 0.3	0.012 0.2	2 32	0.0 43
1179707	Silt	AS11-06	19-Jun-11	366369	5908735	.5-2	good silt, several large sub rounded cobbles in bed of stream	0.8 0	).8 3	3.82 4.6	0 272	0.1 0.8	0.7	9.9 2	22 20.3 2.7	5 6 0.	14 0.09	13 0.4	6 ###	1.1 ###	16.1	0.105 6	.1 <0.05	0.2	4.2 < 0.5	86 0	0.0	0.032 0.2	2 54	0.0 73
1179708	Moss	AS11-06	19-Jun-11	366369	5908735	.5-2	good silt, several large sub rounded cobbles in bed of stream	0 0	).6 3	3.25 1.9	0 227	0.1 0.7	1 0.7	8.9 1	9 16.3 2.4	2 6 0.	13 0.10	11 0.5	2 ###	0.8 ###	15.2	0.095 6	.3 <0.05	0.3	3.1 < 0.5	85 0	0 0.6	0.036 0.2	2 48	0.0 70
							med energy, lots of sub ang to sub rounded cobbles on bottom	,																						
1179709	Silt	AS11-08	19-Jun-11	366238	5908314	.5-1.5	few boulders	0.8 0	).5 2	2.30 3.5	1 165	0.1 0.8	2 0.3	7.9 1	9 15.7 1.9	6 5 0.	09 0.06	14 0.4	2 677	0.9 ###	11.0	0.087 6	.0 0.07	0.3	3.2 < 0.5	73 0	0 0.4	0.043 0.1	1 45	0.0 47
							med energy, lots of sub ang to sub rounded cobbles on bottom	,																						
1179710	Moss	AS11-08	19-Jun-11	366238	5908314	.5-1.6	few boulders	1.0 0	).3 2	2.09 1.0	2 139	0.1 0.7	2 0.3	7.7 1	9 12.7 1.9	0 50.	80.0 80	12 0.4	8 695	0.6 ###	11.6	0.081 6	.2 <0.05	0.2	2.7 <0.5	75 0	0 0.4	0.055 0.1	1 42	0.0 46
1179711	Silt	AS11-09	19-Jun-11	366317	5908005	.3-1	low energy, sub ang to sub rounded cobbles	1.1 0	).7 2	2.87 6.0	1 192	0.1 1.2	3 0.6	10.6 2	24 20.1 3.6	5 5 0.	15 0.06	11 0.3	8 ###	1.7 ###	13.0	0.178 4	.4 0.16	0.2	2.4 < 0.5	101 0	0 0.3	0.023 0.1	1 94	0.0 43
	1		1																											
1179712	Silt	AS11-10	19-Jun-11	366288	5907754	.2-1	low energy, very few cobbles in bed, mostly organics and silts	0.7 0	).4 2	2.61 5.8	1 193	0.1 1.0	2 0.4	7.4 2	26 21.2 2.5	5 0.	09 0.07	9 0.4	5 ###	1.1 ###	14.3	0.108 4	.6 0.09	0.3	3.5 < 0.5	89 0	0 0.5	0.040 0.0	51	0.0 45
	1		1		1								1																	
1179713	Moss	AS11-10	19-Jun-11	366288	5907754	.2-1	low energy, very few cobbles in bed, mostly organics and silts	2.3 (	).4 2	2.45 3.2	2 170	0.1 1.1	2 0.5	6.8 2	3 15.7 2.3	5 0.	13 0.11	9 0.5	0 ###	1.1 ###	13.5	).120 5	.1 0.06	0.2	3.0 < 0.5	109 0	0 0.4	0.042 0.0	47	0.0 46
1179714	Silt	AS11-11	19-Jun-11	366441	5907510	.5-1	low energy, sub round to rounded cobbles in stream bed	1.2 (	).4 2	2.07 6.3	0 138	0.0 1.0	6 0.4	6.8 2	2 27.8 2.0	8 4 0.	10 0.05	13 0.4	2 457	1.5 ###	10.6	0.102 4	.9 0.11	0.3	2.8 0.7	81 0	0 0.3	0.033 0.0	) 52	0.0 42
																-														
1179715	Silt	AS11-14	20-Jun-11	365092	5906751	.2-1	med energy, few rounded cobbles, almost all organic debris	0.9 0	).9 3	3.62 5.6	0 230	0.1 1.0	6 0.4	7.3 3	35 17.0 1.5	6 0.	16 0.06	14 0.4	5 416	2.2 ###	16.1	).174 6	.2 0.17	0.3	2.1 0.8	98 0	0 0.4	0.025 0.1	36	0.0 82
	<u> </u>			000002				0.0		0.02 0.0						0 0.								0.0			0	0.020 0.		0.0 02
1179716	Silt	AS11-15	20-Jun-11	364806	5906978	3-3	med energy, lots of sub rounded clasts, mod organic debris	27 1	4 2	2 35 5 1	0 128	0 1 1 0	7 0 5	63 2	8 50 1 1 3	2 4 0	17 0 06	43 0 4	4 299	n 9 ###	11.5	) 136 8	7 0 16	0.5	33 14	77 0	0 03	0.027 0.0	38	0.0 38
	0			00.000	0000010		med energy lots of rounded cobble size clasts (above						. 0.0	0.0 -										0.0	0.0		0.0	01021 011		
1179717	Silt	AS11-16	20-Jun-11	364769	5907035	5-3	convergence from last sample site	22 (	99	2 66 12 2	0 179	0 1 0 5	2 0.2	93 2	9 34 0 2 8	50	09 0 07	29 0 4	7 764	1 1 ###	13.4	0.094 8	6 <0.05	0.6	59 07	48 0	0 13	0.060 0.0	72	0 1 41
1179718	Silt	AS11-17	20-Jun-11	364489	5907367	.0 0	med energy silt to cobble size material minimal organic	44 (	152	273 53	3 105	0209	3 0.8	84 2	23 21 9 1 8	<u>4</u> 30	15 0 04	23 0 2	4 ###	2 1 ###	13.1	122 5	0 0 15	0.0	25 06	80 0	0 0.3	0.025 0.1	45	0.1 40
1110110		/	20 0011 11	001100	0001001	.0 1				2.10 0.0		0.2 0.0	0.0	0.1 2				20 0.2			10.1		.0 0.10		2.0 0.0	00 0	0.0	0.020 0.		
1179719	Silt	AS11-19	20-Jun-11	365120	5908220	1-1	low energy few sub and cobble clasts, lots of organics debris	17 (	152	210 52	2 157	0 1 1 1	3 04	68 2	0 18 0 2 0	9 50	12 0 07	10 0 4	1 672	1 2 ###	10.4	102 4	6 0 12	0.3	25 07	70 0	0 03	0.033 0.1	50	0.0 39
1179720	Silt	AS11-20	20-Jun-11	365400	5907815	4-1	med energy silt-cobble size material little organic debris	36 0	) 5 1	1 91 4 2	0 123	0204	6 0.3	7.8 1	9 15 2 2 3	3 4 0	10 0 04	14 0 4	3 878	1 1 ###	10.1	0.081 6	4 <0.05	0.3	29<05	39 0	0 0.6	0.039 0.0	52	0.0 49
1179721	Silt	AS11-21	20-Jun-11	365403	5907805	5-2	med energy, silt to cobble size material, minimal organic	3.5 (	) 3 '	1.67 6.9	0 111	0105	4 0 4	7.9 1	6 11 7 2 4	5 30	08 0 04	15 0 4	2 ###	13 ###	82	0.085 5	0 0.07	0.3	25<05	47 0	0 0.6	0.033 0.0	) 46	0 1 42
	<u> </u>			000.00	0001000	.0 _	······································	0.0			<u> </u>	0.1 0.0			<u> </u>	0 0.	00 010 1				0.2				2.0 10.0		0.0	01000 01		
1179722	Silt	AS11-22	20-Jun-11	365474	5907553	3-2	med-low energy, lots of organics, very little silt to cobble fractio	n 40 (	151	198 33	2 174	0 1 1 2	04	83 2	20 25 5 1 8	7 40	16 0 05	10 0 3	6 ###	10 ###	11 1	126 4	6 0 15	0.3	17<05	93 0	0 02	0.022 0.0	39	0.0 43
1179723	Silt	AS11-25	22-Jun-11	365435	5904787	.0 2	0.3 moss covered silt to cobble sub angular clasts	26 (	) 5	1 24 6 7	2 223	0 1 1 7	1 0.6	6.8 4	15 44 2 1 8	30	13 0 05	10 0.0	7 853	0.6 ###	11.6	) 129 6	0 0.10	0.7	26 27	46 0	0 0.2	0.025 0.0	37	0.0 10
1179724	Silt	AS11-26	22-Jun-11	365842	5904986	3-1 5	0.4 silt to cobble sub and to sub rounded clasts	58.0 0	) 1	1.08 5.8	0 79	0 1 0 4	6 0 2	81 2	6 15 3 2 5	6 30	04 0 05	7 0 4	4 982	07 ###	12.4	070 6	0 0.06	0.5	27<05	27 0	0 07	0.064 0.0	58	0 1 46
1179725	Silt	AS11-27	22-Jun-11	366002	5904855	0 1-1	0.5 gravel to cobble sub ang to sub rounded clasts	6.2 1	6	1.00 3.8	1 342	0213	1 0.6	86 3	30 33 0 2 1	1 30	14 0 05	13 0 5	6 951	0.4 ###	14.3	) 130 6	9 0 11	0.5	38 06	41 0	0 0.3	0.019 0.0	34	0.3 51
1110120	Ont	///////////////////////////////////////	22 001111	000002	0001000	0.1 1		0.2		1.00 0.0	1 012	0.2 1.0	0.0	0.0 0	2.1	. 0 0.	11 0.00	10 0.0	001	0.1 /////	11.0		.0 0.11	0.0	0.0 0.0		0.0	0.010 0.0		0.0 01
1179726	Silt	AS11-28	22-Jun-11	366023	5904888	3-1	0.5 little silt mostly sub and to sub rounded dravels and cobbles	48 1	13	2 38 6 5	0 392	0210	1 07	10.2 3	1 31 8 2 8	4 0	12 0 09	15 0 7	0 ###	ng ###	18.9	124 10	0 0.08	0.8	51<05	50 0	0 05	0.020 0.1	1 49	0 2 65
1110120	Ont	//011/20	22 001111	000020	0001000	.0 1	0.0	1.0		2.00 0.0	0 002	0.2 1.0	0.7	10.2 0	/ 01.0 2.0	.0 10.	12 0.00	10 0.1	• """	0.0	10.0		0.00	0.0	0.1 0.0	00 0	0.0	0.020 0.		0.2 00
1179727	Moss	AS11-28	22- lun-11	366023	5904888	3-2	0.5 little silt mostly sub and to sub rounded dravels and cobbles	33 1	1 3	231 37	2 348	0212	5 09	90 2	26924	6 4 0	16 0 12	17 0 6	4 ###	7 ###	16.0	142 9	7 0 10	0.8	40 07	68 0	0 03	0.022 0.4	45	0.2 66
1179728	Silt	AS11-29	22-Jun-11	366762	5906224	25-3	1 sub and to rounded gravel and cobble bed	2.5 (	0.0	1 13 10 3	1 99	0 0 0 4	2 0.2	9.2 3	1 15 3 2 7	7 30	02 0 04	7 0 5	5 912	15 ###	15.9	077 5	2 <0.05	0.0	27<05	26 0	0 1 0	0.068 0.0	63	0.1 49
1179729	Silt	AS11-30	22-Jun-11	367211	5906823	2.5 5	2 sub and to rounded gravel and cobble bed	33 (	121	1.00 7.1	0 75	0 0 0 5	1 0.2	6.5 2	24 17 5 2 1	0 30	04 0 05	15 0 4	1 402	7 ###	10.2	076 4	4 <0.05	0.4	30<05	33 0	0 0.6	0.056 0.0	48	0.1 36
1179730	Silt	AS11-31	22-Jun-11	367570	5907352	2.5 4	0.4 gravels silt and organics	26 0	) 2 1	1 12 2 3	0 64	0.0 0.5	7 0 1	4.8 1	7 12 6 1 5	5 30	04 0.00	7 0 3	4 237	0.7 ### 0.4 ###	7.5	077 4	9 <0.05	0.4	17<05	41 0	0 0.3	0.040 0.0	38	0.0 31
1179731	Silt	AS11-32	22-Jun-11	367598	5907349	2 5-5	1 silt to boulder sub rounded clasts (main river)	9.8 (	) 0 (	0.98 9.0	0 79	0403	9 0.1	8.5 3	1 12.0 1.0	30	02 0 04	7 0 4	7 660	1 1 ###	14.7	0.067 4	9 <0.05	0.5	27<05	23 0	0 1 4	0.088 0.2	79	0.0 01
1179732	Silt	AS11-33	22-Jun-11	367788	5908085	2.3 5	0.8 gravel and larger 15-20cm clasts with little organics	31 (		0.99 7.2	0 75	0.1 0.3	7 0.0	74 2	3 11 3 2 4	0 30	03 0 04	7 0 4	7 533		10.9	063 4	3 <0.05	0.3	24 < 0.5	23 0	0 1 1	0.066 0.0	58	0.0 42
1110102		/1011-00	22 001111	001100	0000000	2 0.0		0.1		0.00 1.2		0.1 0.0	. 0.0			0 0.	00 0.01				10.0		.0	0.0	2.1 0.0	20 0		0.000 0.0		0.0 12
1179733	Silt	AS11-34	22-Jun-11	367749	5908236	2-1.2	0.89 large boulders creating small pools with silts and organics	30 0	11	1 21 84	1 126	0 0 0 5	9 01	74 4	2 17 5 2 0	6 3 0	04 0 04	703	9 826	25 ###	16.8	074 3	6 <0.05	0.3	20 09	46 0	0 05	0.039 0.0	1 48	0.0 54
1179734	Silt	AS11-35	23-Jun-11	369729	5905164	1- 6	0.25 organics and silt (sample within cut block, trees ~12ft)	34 (	9 :	3 50 21 4	0 445	0 1 1 5	9 0.8	11.8 2	7 ### 3.2	3 6 0	11 0 08	33 0 8	7 ###	12 ###	18.3	) 103 12	7 0.07	0.9	68 0.9	71 0	0 0.8	0.017 0.0	) 54	0.0 72
1179735	Silt	AS11-37	23-Jun-11	369441	5905419	1-7	0.3 organics and silts	0.1 0	) 3 1	1 29 47 7	2 171	0 0 1 0	7 0.4	8.8 2	26 20 4 2 3	4 3 0	06 0 06	10 0 5	5 ###	2 0 ###	92	0.092 5	9 0 12	11	33 17	39 0	0 0.6	0.037 0.0	50	0.1 58
1110100	Ont	1.011.07	20 0011 11	000111	0000110			0.0 0	/.0			0.0 1.0	0.1	0.0 2	20.1 2.0	/ 0 0.	00 0.00	10 0.0			0.2		.0 0.12	+	0.0 1.1	00 0	0.0	0.001 0.0		0.1 00
1179736	Silt	AS11-41	23-Jun-11	368785	5905834	2-1 5	0.4 organics and silts, cobble size and clast exposed at "steps"	2.6 1	.0 :	2.74 84	0 515	0.1 1 5	4 0.8	7.4 2	2 45 8 2 4	9 5 0	13 0 12	24 0 4	5 ###	0.9 ###	13.9	0.097 10	2 0.07	0.5	5.7 < 0.5	67 0	0 0 8	0.008 0.0	30	0.1 70
1179737	Silt	AS11-44	24-Jun-11	365724	5905660	3-2	0.9 main river. ~30m high v-shaped gullv	1.0 0	0 0	1 45 18 2	2 112	0 0 0 6	6 0.3	9.5 2	9 13 6 3 1	5 4 0	04 0 05	7 0 5	1 ###	13 ###	12.8	090 5	2 0.08	0.5	23 10	39 0	0 07	0.056 0.0	79	0.0 54
1179738	Silt	AS11-46	24-Jun-11	364192	5905083	.3-1.5	0.4 few cobbles, mostly silt and organics	1,1 (	).5	3.19 46.3	1 184	0.0 1.0	1 0.6	10.9 4	1 23.4 2 4	9 6 0	09 0.06	11 0.7	1 ###	1.6 ###	18.4	0.120 3	.9 0.13	0.3	2.8 1.5	51 0	0 0.3	0.040 1 1	64	0.0 68
				20.102		.5 1.0		+ , C					3.5			- <b>J J</b>														
1179730	Silt	AS11-48	24lun-11	364388	5905747	1_1	0.4 silt and organics covering gravel-cobble size sub rounded clast	s ne r	).3 :	2.28 46 9	2 172	0.0 1 2	4 06	10.4	5 16 1 3 6	<u>9</u> 4 0	10 0 05	8 0 4	7 ###	2.3 ###	16.6	).126 3	.6 0 15	0.3	2.4 0.9	58 0	0 03	0.031 04	5 66	0.0 49
1113133	Ont	7.011 40	24 001111	00+000	3303141			0.0 0		2.20 40.0	2 112	0.0 1.2	+ 0.0	10.4 0	10.1 0.0	/J + U.	10 0.00	0 0.4	1 1111	2.0 ###	10.0	.120 0	.0 0.10	0.0	2.4 0.5	00 0	0 0.0	0.001 0.0		0.0 +5
1179740	Silt	AS11-49	24-Jun-11	364368	5905762	4-2	0.4 gravel to cobble sub ang to sub rounded clasts, very little silt	3.6 0	).3 :	2.06 12 8	1 113	0.2 1 1	0 07	11.1	6 19.2 2 6	7 4 0	10 0 06	9 0 5	5 ###	2.4 ###	17 7	).132 4	1 0 12	02	2.3 0.6	56 0	0 02	0.035 0.3	3 65	0.0 49
1179741	Silt	AS11-50	24- Jun-11	364397	5905824	7-2	0.3 gravel and silt bottom	29 0		1 82 57 4	0 174	0.0.0.5	5 04	14.9 3	8 19 9 4 7	6 50	02 0 07	807	0 ###	37 ###	22.1	104 6	7 <0.05	0.2	32-05	42 0	0 1 2	0.060 0.3	84	0.0 1 76
11707/2	Silt	AS11-50	24-Jun-11	363881	5905854	.1-2 8-1 5	0.6 vegetation growing in bed of stream	1.8 0	121	1 50 16 3		0.0 0.0	8 0.4	6.8 3	1 13 1 2 2	3 40	02 0.07	0 0.7	2 663	1 2 ###	9.5	107 6	2 0.07	0.4	16 07	34 0	0 0.2	0.000 0.2	52	0.1 70
1173742		7.011.01	24 001111	000001	000004	.0 1.0	large sub and boulder to cobble size clasts covered with silt an	d 1.0 C		1.00 10.0	0 34	0.010	0.2	0.0 0	71 10.4 2.2	.5 - 0.	00 0.04	5 0.4	2 000	1.2 111	0.0		.2 0.01	0.0	1.0 0.7	0- 0	0.2	0.020 0.		0.1 40
11707/3	Silt	AS11-52	24-Jun-11	363857	5905721	1- 6		30 0	121	199 86	0 107	0000	5 04	87 2	3 11 6 2 4	1 40	09 0 03	8 0 4	4 ###	7 ###	10.0	) 114 2	8 0 10	0.2	22 06	39 0	0 03	0.036 0.1	56	0.0 46
11707//	Silt	AS11-52	24-Jun-11	364425	5906584	05- 5	0.3 silt and organics	22 0		1 58 24 4	1 147	0 0 0 5	6 0.4	15.2 1	6 9 8 5 1	6 30	10 0 03	7 0 2	3 ###	19 ###	70	) 151 4	5 0.10	0.2	14 06	47 0	0 0 2	0.010 0.0	82	0.0 54
1170001	cilt	1011-00	20- lup 11	365020	5000072	1 1 5	0.75 Well defined banks mosely cabble bottom with some weady			1.00 24.4		5.0 0.0	. 0.4	10.2	5 5.6 5.1	5 5 0.		1 0.2			7.0		.5 0.15	0.0			0.2	5.013 0.0		
11/9901	ISIIL	14411-1	20-3011-11	202930	0909913	I-1.5	debris Photo	0.8	12	130 8 9	1 220	0 0 0 5	4 05	97 1	7 11 6 2 2	7 30	04 0 05	000	7 ###	27 ###	10.1	1 068 5	1 -0.05	03	27 06	40 0	0 1 1	0.045 0.4	1 10	0.0 55
1170002	silt	I\\/11-3	20- lun-11	368126	5010071	<u>с</u>	0.50 Good sample site - minor coarse and some organic content				. 223	5.5 0.5	. 0.0	<u></u>		., 30.		3 0.3		###	10.1		~0.05	0.0	0.0			J.J-J U.		0.0 00
11/9902	JIL	10011-3	20-Juli-11	500120	0010071	2	0.00 0000 sample site - minor coarse and some organic content.	15 0	10	2 28 56	0 100	0006	7 0 4	72 0	0 18 7 2 2	1 5 0		13 0 4	2 ###	28 ###	12.1	1073 4	6 -0 05	0.2	36 06	48 0	0 06	0.033 0.4	1 11	0.0 12
1170003	cil+	I\\\/11 A	20 lun 14	360040	5000010		25. 75 Partly braided Woody dobria Pouldar to cobble bottom		/.+ 2 ) 0 /	1.05 9.1	2 0/	0.0 0.0	0.4 6 0.2	81 2	2 17 2 2 0		02 0.05	705	2 710	1 9 ###	10.1	1 064 4	3 -0.05	0.2	27 00	27 0	0 1 2	0.000 0.0	61	0.0 42
1170004	oilt	10011-4	20-Jun 11	360064	5000600	0 5	0.30 Stream disappearing in places times. High eraphic content			1.00 0.1	2 34	5.0 0.4	0.2	0.4 3	11.3 2.8	<u>, 3</u> 0.	02 0.05	1 0.5	- 110		13.0		.0.00	0.4	2.1 0.9	21 0	0 1.2	0.000 0.0		0.1 03
11/9904	ວາາເ	G-11 M	20-Jun-11	309904	0909000	0.5	0.00 Stream usappearing in places times. Fligh organic content.																							
							Rounded basallic boulders in bollom. Disrupted by logging.	10 0		244 26	5 214	0122		70 0	0 22 2 2 2		12 0 10	005	A ###	10	20.1	116 2	7 0 10		20 00	122 0	0 05	0.016 0.4	1 22	0.0 40
4470005		INA/4.4 C	20 1 41	07000 1	5040050	0.75		1.3	1.4 2	2.44 3.0	0 214	0.1 2.3	0.0	1.2 Z	0 22 0 2 0	.9 3 0.		9 0.5	+ ### 6 ###	1.0 ### 1.5 ###	20.1		.1 0.10	0.4	3.0 0.9	122 0	0 0.5	0.010 0.		0.0 46
11/9905	SIIT		20-Jun-11	370264	5910258	0.75	. 120 Sample taken from slit in roots of tree.		<i>.</i>	1.22 4.4	<u>        </u>	0.0 0.7	0.2	0.1	3 23.0 2.0	30.	00 0.04	0 0.3	u ###	1.5 ###	12.1	J.000 4	.0 <0.05	0.2	3.2 0.1	++ 0	0.5	0.034 0.0	41	0.0 31
1179906	SIIT	10011-8	20-Jun-11	370691	5909294	1.25	0.25 partially disturbed by logging. cobble - boulder bottom. Sample	100		1 06 0 5	2 140	0110	- 00	000	1 22 2 2 5				0 620	سيبر ه	15 7	060 5	1 -0.05		10 05	60 0	0 07	0.044 0.4		00 44
l			1				mixed med. Grey fines, dark brown organics.	1.010	J.Z	1.90 3.5	2 140	v. i   1.0	J U.2	0.U 2	23.2 2.5	ວ 0.	80.0 C	9 0.4	9 039	J.0 ###	15./	5 600.	.1  <0.05	0.3	4.0 0.5	0 00	U.1	0.044 0.0	40	0.0  44

Silt Samples Data

									AuP	AgP	A	SP BPF	BaP	BiP C	a Co	dP CoP	CrP C	uP (	GaP	HgP	LaP	Mg Mnl	P MoP	Na		Pt	υP	SbP /	ScP 5	SeP SrP	TeP	ThP	TI	P VPP	VWP	ZnP
Sample No.	Туре	Station	Date	Easting	Northing	Width (m)	Depth (m)	Comments	PB	PM A	AI% P	M M	PM	PM %	5 PN	M PM	PM PI	M Fe% F	PM	PM K%	PM	% PM	PM	% NiF	PM P%	6 PI	√I S%	PM /	PM [	PM PM	PM	PM T	ï% Pl	MM	PM	РM
1179907	silt	IW11-9	22-Jun-11	370906	5909093	0.75	0.50	Disappearing under forest floor in place. Sample mixed coarse																							T					
								sand organics.	1.6	0.3 1	1.81	2.6 2	2 167	0.1 1	.57 0	0.6 6.5	26 27	7.6 2.02	4 (	0.08 0.08	10	0.49 84	1 2.4	###	21.9 0.	.071 4	4.4 0.10	J 0.5	3.8	0.6 8	3 0.0	0.5	0.024 (	J.O 34	4 0.0	46
1179908	silt	IW11-10	22-Jun-11	371244	5909332	1-1.5	1.00	Surrounded boulders on bottom.	0.9	0.2 1	1.73	3.5 3	3 166	0.0 1	.16 0	0.4 6.8	17 22	2.8 2.12	4 (	0.06 0.08	9	0.48 ###	¢ 0.8	###	17.3 0.	.060 4	1.4 0.07	7 0.3	3.7	0.9 6	4 0.0	0.7	0.029 (	J.O 36	3 0.0	57
1179909	silt	IW11-11	22-Jun-11	371262	5909537	0.75	0.75	mossy & horsetail banks. Woody debris.	0	0.2 2	2.06	9.1 3	3 314	0.0 0	.98 0	0.3 12.0	33 24	4.0 4.55	5 (	0.06 0.08	11	0.65 ###	\$ 3.9	###	28.2 0.	.075 4	1.9 <0.05	5 0.2	4.6	0.9 6	7 0.0	1.3	0.045 (	).1 57	/ 0.0	56
1179910	silt	IW11-14	22-Jun-11	367291	5908043	1.5	1.00	pebble bottom with areas of fines. Very little organics. Some																												
								woody debris.	1.3	0.2 1	1.38	6.1 4	4 131	0.0 0	.66 0	0.2 6.5	31 8	8.9 2.15	3 (	0.05 0.04	7	0.39 70	7 1.1	###	9.0 0.	.067 3	.6 <0.05	5 0.3	2.2 -	<0.5 4	3 0.0	0.6	0.044 (	J.O 49	) 0.1	34
1179911	silt	IW11-15	23-Jun-11	371760	5908059	175	0.50	sandy sample.	1.9	0.3 1	1.26	6.3	3 278	0.0 1	.10 0	0.4 8.9	19 38	8.3 2.87	3 (	0.09 0.05	9	0.40 ###	\$ 2.3	###	19.0 0.	.087 3	3.9 0.19	э 0.4	3.5	1.5 6	4 0.0	0.5	0.026 (	J.1 36	0.0 ز	55
1179912	silt	IW11-18	23-Jun-11	372881	5906595	1.5-2	0.75	mossy and somewhat broken banks. Good sample site.	1.7	0.3 1	1.81	8.5 2	2 165	0.1 0	.53 0	).2 8.2	24 24	4.0 2.63	4	0.05 0.06	10	0.50 83	5 0.8	###	16.4 0.	.052 6	j.4 <0.05	5 0.5	5.1 -	<0.5 3/	J 0.0	1.1	0.046 (	J.1 48	3 0.1	58
1179913	silt	IW11-19	24-Jun-11	372376	5908694	1	0.30	bottom is organic rich.	2.0	0.3 1	1.77	4.8 (	0 154	0.2 0	.96 0	).4 12.1	39 69	9.3 3.27	5 (	0.02 0.08	9	0.61 ###	ŧ 1.3	###	41.9 0.	.059 6	0.05   0.ذ	5 0.3	4.9	0.7 59	э 0.0	0.9	0.054 (	J.1 58	3 0.0	62
1179914	silt	IW11-20	24-Jun-11	372675	5908748	1	0.30	bottom is organic rich. This sample taken close to previous to																												
								check if mineralized o.c on road carries down.	3.4	0.3 1	1.19 2	2.5 2	2 418	0.0 1	.18 0	0.5 13.0	22 45	5.0 3.54	3 (	0.07 0.05	10	0.40 000	5.6	###	31.0 0.	.079 3	3.8 0.0f	3 0.4	3.2	1.1 7:	2 0.0	0.5	0.028 (	).2 40	0.0 נ	47
1179915	silt	IW11-21	24-Jun-11	373162	5909138	0.4	0.75	organic rich bottom.	0.8	0.2 1	1.23	3.0 3	3 130	0.0 1	.36 0	0.2 6.3	22 22	2.8 1.72	3 (	0.07 0.06	7	0.46 ###	# 1.1	###	21.0 0.	.069 3	3.2 0.15	i 0.3	3.1	2.2 6	2 0.0	0.5	0.027 (	).0 28	3 0.0	42
1179916	silt	IW11-22	24-Jun-11	373221	5909420	0.75	0.75	organic rich bottom.	1.8	0.3 1	1.35 1	8.5 5	5 186	0.0 1	.20 0	0.2 7.9	24 34	4.1 3.93	3 (	0.07 0.06	9	).44 ###	\$ 2.5	###	23.9 0.	.084 4	4.4 0.13	3 0.4	4.1	1.5 6	4 0.0	0.8	0.028 (	).0 46	0.0 ز	48
1179917	silt	IW11-26	25-Jun-11	371657	5909193	0.5	0.30	heavy organics	4.9	0.6 2	2.15	4.5 2	2 240	0.2 2	.07 1	1.1 8.8	27 58	8.3 2.17	4 (	0.15 0.08	25	0.48 69	3 1.9	###	35.7 0.	.112 5	.2 0.23	3 0.7	5.9	2.4 109	э 0.0	1.0	0.019 (	).2 54	4 0.0	45
1179918	silt	IW11-27	25-Jun-11	372775	590720	0.5	0.25	heavy organics, close to logging. disappearing stream in places																												
								upslope.	0.7	0.5 1	1.94	6.4 2	2 174	0.1 0	.71 0	0.6 8.2	26 34	4.6 2.24	4	0.10 0.07	12	0.52 37	1 1.3	###	20.1 0.	.072 7	′.2 0.0f	3 0.5	5.2 •	<0.5 4/	J 0.0	0.7	0.030 (	J.1 43	3 0.0	72
1179919	silt	IW11-28	25-Jun-11	373310	5907181	1.5-2	1.50	heavily forested, undisturbed.	1.3	0.4 1	1.41	8.1 2	2 140	0.0 0	.75 0	0.5 6.9	23 40	0.1 2.14	4	0.09 0.05	12	0.48 62	7 1.4	###	19.9 0.	.054 6	0.05 ا.ز	0.6 ز	4.9	1.0 39	э 0.0	1.0	0.041 (	).0 44	4 0.0	54
1179920	silt	IW11-29	25-Jun-11	373329	5907215	1.5-2	1.50	heavily forested, undisturbed.	2.1	0.3 1	1.53	5.4 '	1 153	0.1 0	.59 0	0.4 6.1	25 48	8.3 1.61	4	0.10 0.05	13	0.49 23	5 0.8	###	18.5 0.	.052 7	′.2 <0.05	5 0.7	5.6	0.7 3	3 0.0	1.1	0.049 (	).1 47	/ 0.0	60
1179921	silt	IW11-30	25-Jun-11	375659	5907163	0.5	0.25	organic rich bottom.																											1	
									1.3	0.3 1	1.32	2.1 2	2 116	0.0 1	.43 0	).5 7.2	31 19	9.2 1.65	3 (	0.08 0.05	9	0.63 75	5 1.3	###	26.1 0.	.088 3	0.1 <u>7 ا</u> 5.	/ 0.2	3.7	2.1 6	4 0.0	0.5	0.032 (	).0 33	3 0.0	58

Rock Smaple data

Sample				1	T	North	in								AuP /	AgP	Asl	р врр	BaP	BiPP	Cd	P Col	P CrP	CuP	(	SaP Hgl	Р	LaP I	lg Mr	P MoP		NiPP	I	PbP	S	bP Sci	P SeP	SrPP 1	TeP TI	P	TIPP	VPP W	P ZnP
No.	Type-s	elected grab	Station	Date	Easting	gg	Desc	ription/	Comments					Wgt	PB	PM AI	% PN	и м	РМ	м	Ca% PN	I PN	I PM	РМ	Fe%	РМ Й	K%	РМ	δ PI	I PM	Na%	М	P%	PM S	% P	M PN	I PM	М	РМ Р	M Ti%	М	M N	I PM
118005	1 Rock-F	loat	AS11-01	18-Jun-1	1 36584	8 5910	033 Sma	l grab sa	mple. Heav	ily silicified	with ~1%	6 pyrite		0.57	4.0	0.2 1.	.74 5	.0 <20	0 110	0.3	0.69 <0	.1 3	.5 2	10.6	1.59	3 <0.	01 0.48	3 (	.59 5	63 1.3	3 0.066	5 1.8	0.021	13.9 1	.16	0.6 0	.9 1.5	27 •	<0.2	3.4 0.01	8 0.9	4 <(	J.1 50
118005	2 Rock-F	loat	AS11-24	22-Jun-1	1 36682	2 5905	379 Large	e angula	float of iro	n stained rh	yolite, ~19	l% dissem	nated pyrite	0.94	1.0	<0.1 0.	.95 3	6.4 <20	0 270	<0.1	0.14 <0	.1 3	.9 1	4.6	2.88	4 <0.	01 0.10	7 (	.86 6	0.5	5 0.051	1 0.9	0.063	7.3 0	.75	0.4 2	.5 0.6	17	0.2	1.1 0.00	5 <0.1	14 <0	J.1 112
118015	1 Rock-fl	oat	IW11-16	23-Jun-1	1 37191	2 5907	995 borro	w pit on	east side o	Chedakuz	road cont	ntains a lot	of mineralized,																														
							subro	ounded l	oulders. Py	rite appear	s the mair	in sulphide	Sample collecte	d 0.50	<.5	<0.1 0.	.20 2	.7 <20	0 45	<0.1	0.02 <0	.1 0	.4 2	3.0	0.34	<1 <0.	01 0.17	17 (	.02	43 <0.1	0.004	4 0.8	0.006	1.6 <0	.05	0.1 0	.6 <0.5	6 •	<0.2	4.2 0.00	1 <0.1	3 <0	J.1 4
118015	2 Rock-o	utcrop	IW11-17	23-Jun-1	1 37165	53 5908	389 two,	low goss	anous outo	ops on eith	ner side of	f Chedaku	z road. Fine grair	ed																													
							diorit	ic intrusi	e with dise	eminated p	yrite (~4%	%, 1-3mm)	throughout. One																														
							samp	ole has 1	cm pyrite s	ubhedral. C	/C ~ 15m	n x 2m. Po	sible contact with	1.26	<.5	0.1 1.	.15 5	.3 <20	0 53	0.8	1.03 0	.3 8	.6 8	18.3	1.73	3 0.	01 0.08	2 (	.54 5	47 0.3	3 0.053	3 5.3	0.072	11.9 <0	.05	0.4 2	.6 <0.5	29 •	<0.2	0.5 0.13	6 <0.1	33 (	J.3 93
118015	3 Rock-o	utcrop	IW11-17	23-Jun-1	1 37165	53 5908	389 two,	low goss	anous outo	ops on eith	ner side of	f Chedaku	z road. Fine to																														
							medi	um grair	ed dioritic i	ntrusive wit	h dissemir	inated pyri	e (1-2%, 1-2mm)																														
							throu	ghout. C	/C ~ 10m x	3m. Possil	ole contact	ct with hor	felsed sediment	or 0.54	0.8	<0.1 1.	.16 4	.4 <20	0 26	2.2	1.40 0	.7 3	.0 6	9.7	1.50	3 <0.	01 0.04	3 (	.30 6	28 0.2	2 <0.001	1 2.6	0.054	3.2 <0	.05	0.5 2	.2 <0.5	44 •	<0.2	0.6 0.11	8 <0.1	21 (	).4 76



## **Appendix 3**











## **Appendix 4**

#### **Sample Preparation and Analyses**





#### METHODS AND SPECIFICATIONS FOR ANALYTICAL PACKAGE GROUP 1D & 1DX – ICP & ICP-MS ANALYSIS – AQUA REGIA



#### Comments

#### Sample Preparation

All samples are dried at 60°C. Soil and sediment are sieved to -80 mesh (-180  $\mu$ m). Moss-mats are disaggregated then sieved to yield -80 mesh sediment. Vegetation is pulverized or ashed (475°C). Rock and drill core is jaw crushed to 70% passing 10 mesh (2 mm), a 250 g riffle split is then pulverized to 85% passing 200 mesh (75  $\mu$ m) in a mild-steel ring-and-puck mill. Pulp splits of 0.5 g are weighed into test tubes, 15 and 30 g splits are weighed into beakers.

#### Sample Digestion

A modified Aqua Regia solution of equal parts concentrated ACS grade HCI and HNO<sub>3</sub> and de-mineralised H<sub>2</sub>O is added to each sample to leach for one hour in a heating block or hot water bath (>95°C). After cooling the solution is made up to final volume with 5% HCI. Sample weight to solution volume is 1 g per 20 mL.

#### Sample Analysis

Group 1D: solutions aspirated into a Spectro Ciros Vision or Varian 735 emission spectrometer are analysed for 30 elements: Ag, Al, As, Au, B, Ba, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Sr, Th, Ti, U, V, W, Zn.

*Group 1DX*: solutions aspirated into a Perkin Elmer Elan 6000/9000 ICP mass spectrometer are analysed for 36 elements: Ag, Al, As, Au, B, Ba, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, Hg, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Se, Π, Sr, Th, Ti, U, V, W, Zn.

#### Quality Control and Data Verification

QA/QC protocol incorporates a sample-prep blank (G-1) as the first sample in the job which is carried through all stages of preparation to analysis. An Analytical Batch comprises 36 client samples and incorporates a pulp duplicate to monitor analytical precision, a -10 mesh rejects duplicate to monitor sub-sampling variation (drill core only), a reagent blank to measure background and aliquots of in-house Reference Material like STD DS7. Data undergoes a final verification by a British Columbia Certified Assayer who then validates results before it is released to the client.

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# Group 1D, 1DX ICP-ES & ICP-MS DETECTION LIMITS Group 1D Group 1DX Upper Detection Detection Limit

	Detection	Detection	Limit
Ag	0.3 ppm	0.1 ppm	100 ppm
Al*	0.01 %	0.01 %	10 %
As	2 ppm	0.5 ppm	10000 ppm
Au	2 ppm	0.5 ppb	100 ppm
B*^	20 ppm	20 ppm	2000 ppm
Ba*	1 ppm	1 ppm	10000 ppm
Bi	3 ppm	0.1 ppm	2000 ppm
Ca*	0.01 %	0.01 %	40 %
Cd	0.5 ppm	0.1 ppm	2000 ppm
Co	1 ppm	0.1 ppm	2000 ppm
Cr*	1 ppm	1 ppm	10000 ppm
Cu	1 ppm	0.1 ppm	10000 ppm
Fe*	0.01 %	0.01 %	40 %
Ga*	-	1 ppm	1000 ppm
Hg	1 ppm	0.01 ppm	100 ppm
K*	0.01 %	0.01 %	10 %
La*	1 ppm	1 ppm	10000 ppm
Mg*	0.01 %	0.01 %	30 %
Mn*	2 ppm	1 ppm	10000 ppm
Mo	1 ppm	0.1 ppm	2000 ppm
Na*	0.01 %	0.001 %	10 %
Ni	1 ppm	0.1 ppm	10000 ppm
P*	0.001 %	0.001 %	5 %
Pb	3 ppm	0.1 ppm	10000 ppm
S	-	0.05 %	10 %
Sb	3 ppm	0.1 ppm	2000 ppm
Sc	-	0.1 ppm	100 ppm
Se	-	0.5 ppm	100 ppm
Sr*	1 ppm	1 ppm	10000 ppm
Th*	2 ppm	0.1 ppm	2000 ppm
Ti*	0.01 %	0.001 %	10 %
TI	5 ppm	0.1 ppm	1000 ppm
U*	8 ppm	0.1 ppm	2000 ppm
V*	1 ppm	2 ppm	10000 ppm
W*	2 ppm	0.1 ppm	100 ppm
Zn	1 ppm	1 ppm	10000 ppm

\* Solubility of some elements will be limited by mineral species present. ^Detection limit = 1 ppm for 15g / 30g analysis.

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