# Assessment Report On Exploration Program On:

## Mineral Claim # 508899

**Statement of exploration# 5399120**

**Located**
**47 kilometres Northwest of**
**Stewart, British Columbia in**
**Skeena Mining Division**

**NTS 104B/8E**
**LATITUDE 56 17' 55" N**
**LONGITUDE 130 07' 15" W**

**On Behalf of**
**Rotation Minerals Ltd**
**Stewart, BC**

**by**

**Edward Kruchkowski, B.Sc., P. Geo.**

**10 October 2012**

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## SUMMARY

The 4-J property is located about 47 kilometers northwest of Stewart, British Columbia in the Skeena Mining Division. It covers an area of Jurassic Hazelton pyroclastic volcanic rocks and sediments intruded by later feldspar porphyry dykes.

The property contains approximately 2050.60 hectares in 5 separate claims.

The property lies within a belt of Jurassic volcanic rocks extending from the Kitsault area, south of Stewart, to north of the Stikine River. This belt is host to numerous gold and gold-silver deposits, in a variety of geological settings, including the former Eskay Creek Mine and past producing Snip, Premier-Big Missouri, Granduc, Scottie Gold and SB properties.

The property is underlain by at least 3 different styles of mineralization outlined by sampling and diamond drilling in the past. Gold mineralization is associated with brecciated volcanic rocks hosting strong pyrite and arsenopyrite underlying an N-S trending 800 m long soil anomaly containing gold values up to 6.75 g/t. Drilling of this structure in 1990 returned maximum values within 2 holes that indicated 2.48 g/t gold over 15.22 m and 1.82 g/t gold over 13.06 m. *The Company reports that the above assay results have not been confirmed and should be used for reference purposes only.*

Another style is related to a NW trending zone of stratiform copper-lead-zinc-silver - gold mineralization. Where exposed, trenching in the past has shown massive mineralization consisting of bouronite (copper-lead-antimony sulphide), tetrahedrite (copper-antimony-sulphide), sphalerite (zinc sulphide) and galena (lead sulphide) over 6 m of width and 30 m of length that is poorly exposed in glacial till. This mineralization is underlain by a strong coincident NW trending EM anomaly at least 700 m long indicated by several airborne EM surveys completed by previous operators on the property.

The third style of mineralization consists of quartz carbonate breccia veins that are located along E-W trending structures in the hanging wall to the above massive style mineralization. These breccia zones which are up to 2 m wide contain bournonite, tetrahedrite, and galena and sphalerite mineralization. Higher gold values are associated with this later style of mineralization.

During the period August 16 to November 30, 2011 a total of 13 rock samples; both outcrop and float were collected. The sampling indicated gold values varying from 0.27 to 5.1 g/t, silver values varying from 2 to 1231.4 g/t, copper values varying from 113 ppm to 2.38 %, lead values varying from 258 to 18.28 %, zinc values varying from 752 ppm to 28.24 % and antimony values from 100 ppm to 4.20 %.

It is recommended that the next exploration phase consist of diamond drilling to define the massive stratiform type mineralization.

Estimated cost of the program is $500,000.00.

## INTRODUCTION

Rotation can earn a 50% interest in the property by making payments of $180,000.00 and incurring exploration expenditures of $1,800,000.00 by 2014. The Company can earn an additional 20 % interest by performing and paying for such additional exploration expenditures as may be necessary in order to deliver a feasibility study to Teuton within 4 years commencing after the first earn.

This report is being prepared in order to summarize the 2011 sampling results on the property.

### Location and Access

The claims in the property are contiguous and are located about 47 kilometers northwest of Stewart, British Columbia and about 8 kilometers north of the Granduc Millsite in the Skeena Mining Division. It is located along the west side of the Bowser River near its headwaters and just south of the Frank Mackie glacier... The claim area is approximately 56 degrees 17 minutes 55 seconds latitude and 130 degrees 07 minutes 15 seconds longitude on NTS sheet 104B/8E. Figure 1 shows the location of the claim area.

Access to the Granduc Millsite area is by an all-weather road from Stewart about 40 kilometers to the southeast of the claim area. A mine access trail has been constructed from the Granduc Millsite along the west side of the Bowser River north 5 km to the site of the former East Gold property.

Access to the property is presently by helicopter based in Stewart.

### Physiography and Topography

The area of the 4-J property claims encompasses steep mountain slopes typical of the Coast Range region of British Columbia. The 4-J property lies along the valley slopes immediately south of the west-east trending Frank Mackie Glacier and just west of the north trending Bowser River. The Smalles icefield encroaches on to the western portion of the claims, occupying the height of land. Elevations vary from about 600m in the valley of the Bowser River east of the 4-J's to 2275rn on the peaks to the west. Spruce and hemlock trees as well as small patches of tag spruce are present along the lower slopes of the property, particularly the north facing valley edges. Alders grow along avalanche slopes and moraines. Alpine grasses, heather and arctic willow grows in patches along the talus, moraine and outcrops in the upper regions of the property.

The Smalles Icefield and several smaller adjacent snow icefields have retreated substantially in the last 30 years due to an accelerating rate of ablation throughout the Stewart region. The upland portion of the claims features gently sloping to flat terrain and is easily traversable on foot. Outcrop is interspersed with heavy to moderate glacial debris cover and maximum exposure is in late September when the winter snows have melted.

The exploration season is from late July to early October, with higher elevations having a shorter span. In general, winter months are severe with heavy snowfall.

**PROPERTY OWNERSHIP**

The property consists of 5 modified grid claims totaling 2050.60 ha. Relevant claim information is summarized below:

| **Name** | **Tenure #** | **Area (ha)** | **Expiry Date** |
|---|---|---|---|
| John | 409053 | 400.00 | 15 August 2013 |
| Jim-KM | 409058 | 323.06 | 15 August 2013 |
| Frank-KM | 409063 | 71.78 | 15 August 2013 |
| | 508807 | 1040.38 | 15 August 2013 |
| | 508899 | 215.38 | 15 August 2013 |
| | **Total** | **2050.60** | |

Claims location is shown in Figure 2 copied from MINFILE database. All the claims are situated in the Skeena Mining Division in the Province of British Columbia.

Rotation can earn a 50% interest in the property by making payments of $180,000.00 and incurring exploration expenditures of $1,800,000.00 by 2014. The Company can earn an additional 20 % interest by performing and paying for such additional exploration expenditures as may be necessary in order to deliver a feasibility study to Teuton within 4 years commencing after the first earn.

**PREVIOUS WORK**

The first exploration activity in the 4-5 area probably occurred during early gold exploration work on the nearby old Portland claim (Haida) and East Gold property.

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The East Gold property was staked in or about 1926 when free gold was found in several large shear zones. During 1929-1930, the Consolidated Mining and Smelting Company of Canada Limited under an option agreement put down 10 diamond drill holes to check these discoveries.

With the exception of one hole, which intersected five feet carrying 8.72 oz gold and 8.78 oz silver per ton, the results of the drilling were disappointing and the option was relinquished. In 1931and subsequent years, an adit was driven to intersect the vein with the high assay. From 1939-1945, 14 shipments of sorted ore totaling 16.25 tons was sent to the smelter. Total production in this period was 39.25 tons yielding 1533 oz Au and 4024 oz Ag.

The original 16 claims called t h e Portland Group were staked by Alphonse Thomas in 1934.

The property was optioned to the Premier Gold Mining Company which completed an adit and ten open cuts along veins and s i l i c i f i e d zones containing p y r i t e and arsenopyrite which assayed as high as 0.98 oz Au/t and 0.7 oz Ag/t.

A summary of the more recent activity is excerpted from a report by Orequest Consultants Ltd for Maple Resources Corporation Ltd and is as follows:.

***1980-82*** *The Catspaw claim [adjoining due east of Jolm claim] was staked by Elan Exploration Ltd. of Calgary and optioned to E & B Exploration. E & B undertook minor prospecting, sampling and geological mapping before returning the property to Elan. Several of the streams draining the Catspaw and Jim claims were noted to carry gold colors when panned by prospectors.*

***1983*** *The Catspaw claim was optioned to Teuton Resources Corp.; the property was enlarged by staking the Four-J's claims and the Ganuna claim. A stratiform lead-zinc-antimony (gold-silver) occurrence and a boulder train of argentiferous quartz sulfide mineralization was discovered on the John claim. This latter work was undertaken by Billikin Resources under option (the option was relinquished the following year).*

***1984*** *The Four-J's claims were optioned to Canadian United Minerals Inc. An airborne EM and Mag survey disclosed two EM anomalies under ice cover proximate to the stratiform mineralization noted on the John claim.*

***1985*** *Noranda Exploration Company sub-optioned the Four-J's from Canadian United exploration expenditures in a deal that required Noranda to spend $3,000,000 to earn a 51% interest in the property. The Noranda crew mobilized to the property too early in the field season and could not locate the Main Zone due to snow cover. A short program consisting of prospecting, sampling and geophysical surveys was carried out on exposed portions of the property identifying several types of mineralization. Noranda returned the property to Teuton/Canadian United before the start of the second year of the option.*

***1987*** *Property optioned by Teuton to Wedgewood Resources. Field program supervised by Kruchkowski Consultants of Calgary concentrated on prospecting, trenching, sampling and geochemical surveys on the Four-J's and surrounding claims.*

***1988*** *Wedgewood carried out further rock sampling and mapping on the Four J's, Catspaw and Gamma claims before discontinuing the*

*option.*

***1989*** *Maple Resource Corporation Exploration entered into an agreement with Teuton to earn a 60% interest in the Four-J's claims by spending $1.2 million on the property. A field program was carried out by Maple concentrating on the Main, Centre and, South zones.*

In 2006, Teuton used Aeoquest Limited to fly an aeroTEM EM and magnetic survey over the property area. An EM anomaly was detected near the fine grained stratiform mineralization within the main 4-J showing.

**Personnel and Operations**

During the sampling program, all personnel were accommodated in Stewart, BC. An A-Star helicopter owned by Mustang Helicopters was used to transport personnel to and from the property area.

## GEOLOGICAL SURVEYS

### Regional Geology

The 4-J property lies along the eastern edge of the Coast Crystalline Complex within the western boundary of the Bowser Basin. Rocks in the area belong to the Mesozoic Stuhini Group, Hazelton Group and Bowser Lake Group that have been intruded by plugs of both Cenozoic and Mesozoic age. Portions of the Stewart area are underlain by Triassic age Stuhini Group (Greig, C.F, 1994). The Stuhini Group rocks are either underlying or in fault contact with the Hazelton Group. These Triassic age rocks consist of dark gray, laminated to thickly bedded silty mudstone, and fine to medium grained and locally coarse-grained sandstone. Local heterolitic pebble to cobble conglomerate, massive tuffaceous mudstone and thick-bedded sedimentary breccia and conglomerate also form part of the Stuhini Group.

At the base of the Hazelton Group is the lower Lower Jurassic Marine (submergent) and non-marine (emergent) volcaniclastic Unuk River Formation. This is overlain at steep discordant angles by a second, lithologically similar, middle Lower Jurassic volcanic cycle (Betty Creek Formation), in turn overlain by an upper Lower Jurassic tuff horizon (Mt. Dilworth Formation). Middle Jurassic non-marine sediments with minor volcanics of the Salmon River Formation unconformably overlie the above sequence.

The lower Lower Jurassic Unuk River Formation forms a north-northwesterly trending belt extending from Alice Arm to the Iskut River, BC. Grove describes this formation as being green, red and purple volcanic breccia, volcanic conglomerate, sandstone and siltstone with minor crystal and lithic tuff, limestone, chert and minor coal. Also included in the sequence are pillow lavas and volcanic flows.

Alldrick has divided the Unuk River Formation into six members as follows:

1. Lower Andesite Member: >500 metres of massive to well-bedded ash tuff.
2. Lower Siltstone Member: 50 to >200 metres of thin-bedded dark grey to black argillite and siltstone.
3. Middle Andesite Member: >1500 metres of dust tuff, ash tuff, lapilli tuff and minor tuff breccia with interbedded graded sandstone and siltstone; massive pyroxene-phyric flows near the top of the member.
4. Upper Siltstone Member: 50 to >1000 metres of carbonaceous thin-bedded argillite, siltstone, sandstone; local basal conglomerate and coralline limestone.
5. Upper Andesite Member: 2000 metres of massive tuff with minor flows and local lenses of sediments.
6. Premier Porphyry Member: Orthoclase-megacrystic, plagioclase-hornblende-phyric andesite flows and tuff-breccia.

In the property area, the Unuk River Formation is unconformably overlain by middle Lower Jurassic rocks from the Betty Creek Formation. The Betty Creek Formation is another cycle of trough filling sub-marine pillow lavas, broken pillow breccias, andesitic and basaltic flows, green, red, purple and black volcanic breccia, with self erosional conglomerate, sandstone and siltstone and minor crystal and lithic tuffs, chert, limestone and lava.

The upper Lower Jurassic Mt. Dilworth Formation consists of a thin sequence varying from black carbonaceous tuffs to siliceous massive tuffs and felsic ash flows. Minor sediments and limestone are present in the sequence. Locally pyritic varieties form strong gossans.

The Middle Jurassic Salmon River Formation is a late to post volcanic episode of banded, predominantly dark colored siltstone, greywacke, sandstone, intercalated calcarenite rocks, minor limestone, argillite, conglomerate, littoral deposits, volcanic sediments and minor flows. Overlying the above sequences are the Upper Jurassic Bowser Lake Group rocks. These rocks mark the western edge of the Bowser Basin and are also located as remnants on mountaintops in the Stewart area. These rocks consist of dark gray to black clastic rocks including silty mudstone and thick beds of massive, dark green to dark gray, fine to medium grained arkosic litharenite.

According to E.W. Grove, the majority of the rocks from the Hazelton Group were derived from the erosion of andesitic volcanoes subsequently deposited as overlapping lenticular beds varying laterally in grain size from breccia to siltstone. Alldrick's work to the north of Stewart has shown several volcanic centers in the surveyed area. Lower Jurassic volcanic centers in the Unuk River Formation are located in the Big Missouri Premier area and in the Brucejack Lake area. Volcanic centers within the Lower Jurassic Betty Creek Formation are located in the Mitchell Glacier and Knipple Glacier areas.

The granodiorites of the Coast Plutonic Complex largely engulf the Mesozoic volcanic terrain to the west. East of these (in the property area), smaller intrusive plugs range from quartz monzonite to granite to highly felsic. Some are likely related to the late

phase offshoots of the Coast plutonism, others are synvolcanic and Tertiary. Double plunging, northwesterly - trending synclinal folds of the Salmon River and underlying Betty Creek Formations dominate the structural setting of the area. These folds are locally disrupted by small east-over thrusts on strikes parallel to the major fold axis, cross-axis steep angled faults which locally turn beds, selective tectonization of tuff units and major northwest faults which turn beds. Figure 3 shows the regional geology of the Tennyson property.

This belt of Hazelton Group rocks is a host to numerous precious and base metal deposits in a variety of geological settings including past producers Anyox, Snip, Scotty Gold, Granduc and Premier-Big Missouri mines as well as the recently closed Eskay Creek mine. In addition, ore reserves have been reported from a number of other properties including Silver Coin, Red Mountain, and Brucejack Lake – Suphurets Creek-Mitchell Creek, Homestake Ridge area and Georgia River. Deposits within the belt have been divided into two main distinct groups on the basis of metal suites and age. The first group includes the numerous Au-Ag±Cu vein and porphyry deposits that are associated with 193-198 Ma porphyritic intrusives of the Texas Plutonic Suite. The second includes Ag-rich galena-sphalerite vein systems related to biotite granodiorite intrusions of Middle Eocene age. Massive sulphide deposits are also present in different ages of the Jurassic volcanic rocks including Anyox and Granduc which are Besshi type VMS deposits in the Unuk River Formation. The Eskay Creek mine was a VMS deposit with epithermal gold-silver over printing in Salmon River Formation just at the contact with the Mount Dilworth Formation . The BA project is a Kuroko type VMS deposit that is currently being explored in Salmon River Formation just above felsic rocks analogous with the Mount Dilworth Formation.

In the Brucejack - Sulpurets region, there are two types of intrusions related to mineralization. These rocks would belong to the Texas Creek Plutonic suite of intrusives. The most common intrusive rock in the area consists of plagioclase- and hornblende phyric to porphyritic rock of diorite to tonalite composition. These intrusions have been referred to as “Sulphurets-type” intrusions and are considered to be broadly coeval with the andesite volcanics of the Unuk River Member in the Hazelton Group. The second type is best described as potassium feldspar-plagioclase-hornblende porphyry and it has been referred to as a “two-feldspar” or “Premier-type” porphyry. Based on contact relationships, it would appear that this intrusion is younger than the Sulphurets-type intrusions. The granodiorite rocks of the Summit Lake stock have been identified as being part of the Texas Creek plutonic suite similar to those in the Brucejack - Sulphurets area.

A portion of Alldrick’s mapping for the BC Geological Survey which covers the property and adjacent areas is presented in Figure 3.

**Local Geology**

Figure 4 shows the general property geology after a 1991 private report by Orequest Consultants prepared for Maple Resources Ltd.

*"The Main Zone is bounded to the west by an alpine glacier and to the east by a blanket of talus debris. The westenunost unit exposed on the zone is a massive deformed black argillite containing <1% fine siltstone interbeds. The unit is exposed over 70m but may be as much as 200m thick.*

*Adjacent to the argillite lies the southern extension of the felsic to intermediate crystal tuff, locally up to 80m wide. It is pervasively silicified and has local fracture controlled carbonization associated with <1% pyrite. Less than 1% fracture controlled galena and trace blebby sphalerite also occur.*

*The crystal tuff is intruded by a 25m wide concordant hornblende-feldspar porphyry in the northern section of the Main Zone. To the south the porphyry narrows to <10m wide and changes orientation as it intrudes the rock units lying to the southeast. Only traces of pyrite were noted.*

*To the east is an interbedded argillite/siltstone unit with a distinct banded appearance. Bedding and foliation are parallel at 025 to 030/85 to 35W in the north, but variable in the south. Bedding is typically <5cm wide and consists of 70% argillite and 30% siltstone. The unit is moderately to strongly carbonatized and locally silicified, resulting in some cherty argillite development. Locally limonitic, it contains <1% blebby and fine grained disseminated pyrite.*

*The eastern third of the Main Zone contains intermediate volcanic flows intercalated with argillite and cherty argillite bands, typically less than 1Ocm wide. The flows are massive, bleached and locally silicified. Mesocratic siliceous bands and cherty argillite bands make up 35 to 40% of the rock and are oriented at 030/30NW in the north, but gradually shift to 004/82-75W in the south. Trace pyrite occurs throughout the unit, although scattered strongly limonitic and silicified zones occur which contain approximately 2% fracture controlled pyrite.*

*Seven distinctive geologic units, forming three broad genetic categories underlie the FM Zone: an andesitic volcanic sequence, a distal basin argillite sequence and a porphyritic intrusive. The zone is dominated by the andesitic volcanic complex which consists of intermediate ash tuffs to the southwest, a central belt of mafic to intermediate flows, and intermediate flows intercalated with cherty bands to the northeast. The ash tuff is bounded to the east by a strong but poorly mineralized graphitic fault oriented at 010 to -065/60 to 75W. To the north, talus cover becomes excessive and masks unit contacts. An alpine glacier cuts off exposure of the sequence to the west.*

*The volcanic sequence hosts at least four east-west striking, south dipping shear zones, and a series of north-south striking, west dipping faults in an area of sharp relief toward the north.*

*An aerially restricted and irregular pocket of heterogeneous units including*

*hornblende feldspar porphyry, banded argillite and felsic to intermediate crystal tuff occurs along the central portion of the western margin of the volcanics adjacent to the glacier.*

*The mafic to intermediate volcanic flows are grey green to dark green in color and are massive and fine grained with local clusters of acicular black hornblende crystals. The contact between the flows and ash tuffs occupies a strong 080 trending shear zone. Discontinuous, strongly limonitic horizons are abundant immediately north of the contact shear. Zone orientations range from N-NE trending with a vertical dip, to SE trending with a moderate south dip.*

*East of the volcanics lies an argillite sequence consisting of massive deformed argillite with minor fine siltstone interbeds and a sequence of intercalated argillite, siltstone, chert and greywacke. Bedding and foliation are parallel to subparallel in the massive argillite and strike N-NE, dipping steeply to the west. In the interbedded facies, bedding strikes E-W and dips steeply to the south. Thickness of the unit varies on surface from 1OOm to less than 20m.*

*Due to a shift in foliation and decreasing elevation northward, the surface trend of the sedimentary sequence wraps to the northwest around the volcanic sequence. The black argillite is very finely interbedded with <10% siltstone. It shows strong irregular deformation and shearing defined by abundant discontinuous and boudinaged quartz carbonate veinlets. The unit is moderately to strongly silicified and carbonatized throughout and its weathered surface is commonly limonitic. Sulfide mineralization is very fine grained and consists of less than 1% blebby, fracture controlled and disseminated pyrite with metre scale zones containing up to 3%. The heterogeneous banded argillite, siltstone, cherty argillite, greywacke facies consist of beds ranging from 1 to 11em thick, with textures ranging from aphanitic to gritty and earthy. Bedding is typically 090 to 130/80S. Sulfide mineralization is sparse with <1% fine grained pyrite.*

*The eastern extents of the North and FM Zones are underlain by a fine to medium grained hornblende/feldspar porphyry. It is a light blue color, massive and contains clusters of millimetre scale randomly oriented feldspar phenocrysts and < 1em sale hornblende megacrysts in a fine grained groundmass. The concentration of hornblende decreases to the north".*

Figure 4 shows property geology relative to the original 4J's claim boundaries based on the work during 1989-90 by Maple Resources.

**Mineralization**

The property is underlain by at least 6 different styles of mineralization outlined by sampling and diamond drilling in the past. These include narrow quartz veins with minor amounts of tetrahedrite, sphalerite and galena with local minor bournonite, disseminated

pyrite in felsic tuffs and argillite as well as altered argillite with sphalerite, bournonite and native antimony. The three main types of mineralization include gold mineralization associated with brecciated volcanic rocks hosting strong pyrite and arsenopyrite underlying an N-S trending 800 m long soil anomaly containing gold values up to 6.75 g/t. Drilling of this structure in 1990 returned maximum values within 2 holes that indicated 2.48 g/t gold over 15.22 m and 1.82 g/t gold over 13.06 m. *The Company reports that the above assay results have not been confirmed and should be used for reference purposes only.*

Another style is related to a NW trending zone of stratiform copper-lead-zinc-silver - gold mineralization. Where exposed, trenching in the past has shown massive mineralization consisting of bouronite (copper-lead-antimony sulphide), tetrahedrite (copper-antimony-sulphide), sphalerite (zinc sulphide) and galena (lead sulphide) over 6 m of width and 30 m of length that is poorly exposed in glacial till. This mineralization is underlain by a strong coincident NW trending EM anomaly at least 700 m long indicated by several airborne EM surveys completed by previous operators on the property.

The third style of mineralization consists of quartz carbonate breccia veins that are located along E-W trending structures in the hanging wall to the above massive style mineralization. These breccia zones which are up to 2 m wide contain bouronite, tetrahedrite, and galena and sphalerite mineralization. Higher gold values are associated with this later style of mineralization. Float boulders have identified this type of mineralization over 200 m of strike length.

## GEOCHEMICAL SAMPLING

### Introduction

During the period August 16 to November 30, 2011 a total of 13 rock samples; both outcrop and float were collected. The location of the samples are shown in figure 5 relative to the claim boundaries and figure 6 shows the geochemical sampling at a scale of 1: 200. Samples 4-J- 1 to 10 were float samples of quartz breccia with varying amounts of sphalerite, galena and bournonite forming up to 15 % of the rock. Samples 4-J-11 to 13 consisted of thinly bedded sphalerite and bournonite within thinly bedded argillite. Sulphides form up to 50-60 % of the bedded mineralization.

The 13 rock samples were taken with locations for the all samples referenced by GPS readings.

### Field Procedure and Laboratory Technique

Rock samples were taken in the field with a prospector’s pick and collected in standard plastic sample bag. Grab samples were taken to ascertain character of mineralization at any specific locality. These samples consisted generally of three to ten representative pieces with total sample weight ranging between 0.5 to 2.0 kgs.

All rock were analyzed at the Loring laboratories in Calgary, Alberta. Rock samples were first crushed to minus 10 mesh (70 % of sample) using jaw and cone crushers. Then 250 grams of the minus 10-mesh material was pulverized to minus 150 mesh using a ring pulverizer. Method of analysis is reported on the assay certificates. Appendix I has the analysis for the rock samples collected.

**Anomalous Zones**

Rock geochemical sampling was principally restricted to float sampling of any identified mineralized rocks, either in float and bedrock. Sampling concentrated in the area of the massive sphalerite-bounonite and quartz breccia-sulphide mineralization.

The sampling indicated gold values varying from 0.27 to 5.1 g/t, silver values varying from 2 to 1231.4 g/t, copper values varying from 113 ppm to 2.38 %, lead values varying from 258 to 18.28 %, zinc values varying from 752 ppm to 28.24 % and antimony values from 100 ppm to 4.20 %.

Further geochemical surveys are recommended to extend the area of quartz-breccia-sulphide boulders in the area of the massive sphalerite-bounonite mineralization.

Figures 6 at a scale of 1:200 shows the location plots for all sampling conducted.

## INTERPRETATION AND CONCLUSIONS

1. The 4-J property is located about 47 kilometers northwest of Stewart, British Columbia in the Skeena Mining Division. It covers an area of Jurassic Hazelton pyroclastic volcanic rocks and sediments intruded by later feldspar porphyry dykes.

2. The property contains approximately 2050.60 hectares in 5 separate claims.

3. The property is underlain by at least 3 different styles of mineralization outlined by sampling and diamond drilling in the past.

4. Gold mineralization is associated with brecciated volcanic rocks hosting strong pyrite and arsenopyrite underlying an N-S trending 800 m long soil anomaly containing gold values up to 6.75 g/t. Drilling of this structure in 1990 returned maximum values within 2 holes that indicated 2.48 g/t gold over 15.22 m and 1.82 g/t gold over 13.06 m. *The Company reports that the above assay results have not been confirmed and should be used for reference purposes only.*

5. Another style is related to a NW trending zone of stratiform copper-lead-zinc-silver - gold mineralization. Where exposed, trenching in the past has shown massive mineralization consisting of bouronite (copper-lead-antimony sulphide), tetrahedrite (copper-antimony-sulphide), sphalerite (zinc sulphide) and galena

(lead sulphide) over 6 m of width and 30 m of length that is poorly exposed in glacial till. This mineralization is underlain by a strong coincident NW trending EM anomaly at least 700 m long indicated by several airborne EM surveys completed by previous operators on the property.

6. The third style of mineralization consists of quartz carbonate breccia veins that are located along E-W trending structures in the hanging wall to the above massive style mineralization. These breccia zones which are up to 2 m wide contain bouronite, tetrahedrite, and galena and sphalerite mineralization. Higher gold values are associated with this later style of mineralization.

7. During the period August 16 to November 30, 2011 a total of 13 rock samples; both outcrop and float were collected. The sampling indicated gold values varying from 0.27 to 5.1 g/t, silver values varying from 2 to 1231.4 g/t, copper values varying from 113 ppm to 2.38 %, lead values varying from 258 to 18.28 %, zinc values varying from 752 ppm to 28.24 % and antimony values from 100 ppm to 4.20 %.

8. It is recommended that the next exploration phase consist of diamond drilling and geochemical surveys to define the massive stratiform type mineralization.

9. Estimated cost of the program is $500,000.00.

## RECOMMENDATIONS AND BUDGET

It is recommended that the next exploration phase consist of drilling and sampling.
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**Estimated Cost of the Program**

| | |
|---|---|
| Geochemical assays, 200 samples @ $25/sample | $5,000.00 |
| 1 Geologists, 60 days @ $700.00/ day | $42,000.00 |
| 1 Field assistants, 60 days @ $300.00/day | $6,000.00 |
| Accommodation and food (in Stewart) | $10,000.00 |
| Vehicle rental | $10,000.00 |
| Freight | $5,000.00 |
| Report | $10,000.00 |
| Drafting | $10,000.00 |
| Diamond Drilling 2000 m @ $150.00/m | $300,000.00 |
| Heavy equipment to move drills, etc. | $75,000.00 |
| Contingency | $27,000.00 |
| **Total** | **$500,000.00** |

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7. GROVE, E.W. (1982); "Unuk River, Salmon River, Anyox Map Areas. Ministry of Energy, Mines and Petroleum Resources, B.C.

8. GROVE, E.W. (1987); Geology and Mineral Deposits of the Unuk, River-Salmon, River-Anyox, Bulletin 63, B.C.M.E.M.P.R.

9. KRUCHKOWSKI, E.R, and CREMONESE, D. (1984) Geological and Geochemical Report on the 4-J property. ARIS 12,387.


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**CERTIFICATE of AUTHORS'QUALIFICATIONS**

I, Edward R. Kruchkowski, geologist, residing at 23 Templeside Bay, N.E., in the City of Calgary, in the Province of Alberta, hereby certify that:

1. I received a Bachelor of Science degree in Geology from the University of Alberta in 1972.
2. I have been practicing my profession continuously since graduation.
3. I am a member of the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
4. I am a member of the Association of Professional Engineers and Geoscientists of British Columbia.
5. I am a consulting geologist working on behalf of Rotation Minerals Ltd.
6. This report is based on the sampling as well as conducting the geochemical survey.
7. This report is based on a review of reports, documents, maps and other technical data on the property area.
8. I am familiar with these types of deposits having conducted exploration programs on these types of occurrences in the Stewart region.

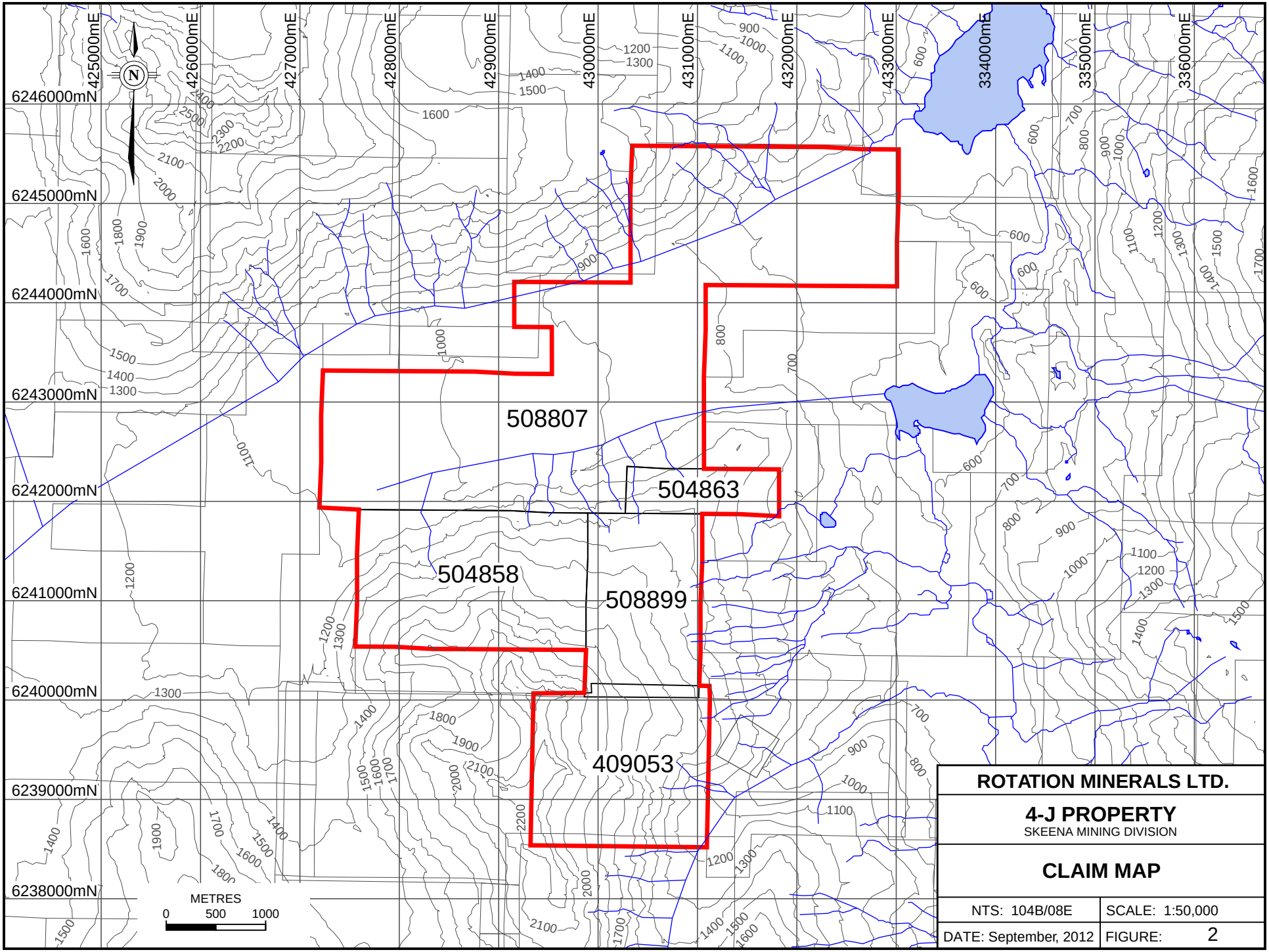
_____ _____

Date: E.R. Kruchkowski, B.Sc.

**STATEMENT OF EXPLORATION COSTS**

| | |
|---|---|
| E Kruchkowski - geologist 4 days @ $700.00/day | $2,800.00 |
| Hopi Kamermans - 2 days @ $300.00/day | $600.00 |
| Report Writing | $2,000.00 |
| Drafting | $2,200.00 |
| Sample analysis – 13 geochemical samples @ $26.00 | $338.00 |
| Truck use 4 days @ $100.00/day | $400.00 |
| Hotel and Meal Expenses 6 man days @ $150.00/day | $600.00 |
| Personnel mob/demob to Stewart | $2,000.00 |
| Helicopter - 2 hours @ $1,754.00/hour | $3,508.00 |
| **Total** | **$14,446.00** |


| ROTATION MINERALS LTD. | |
|---|---|
| **4-J PROPERTY**<br>SKEENA MINING DIVISION | |
| **LOCATION MAP** | |
| NTS: 104B/08E | SCALE: As shown |
| DATE: September, 2012 | FIGURE: 1 |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6240000mN
6239000mN
6238000mN
508807
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504858
508899
409053
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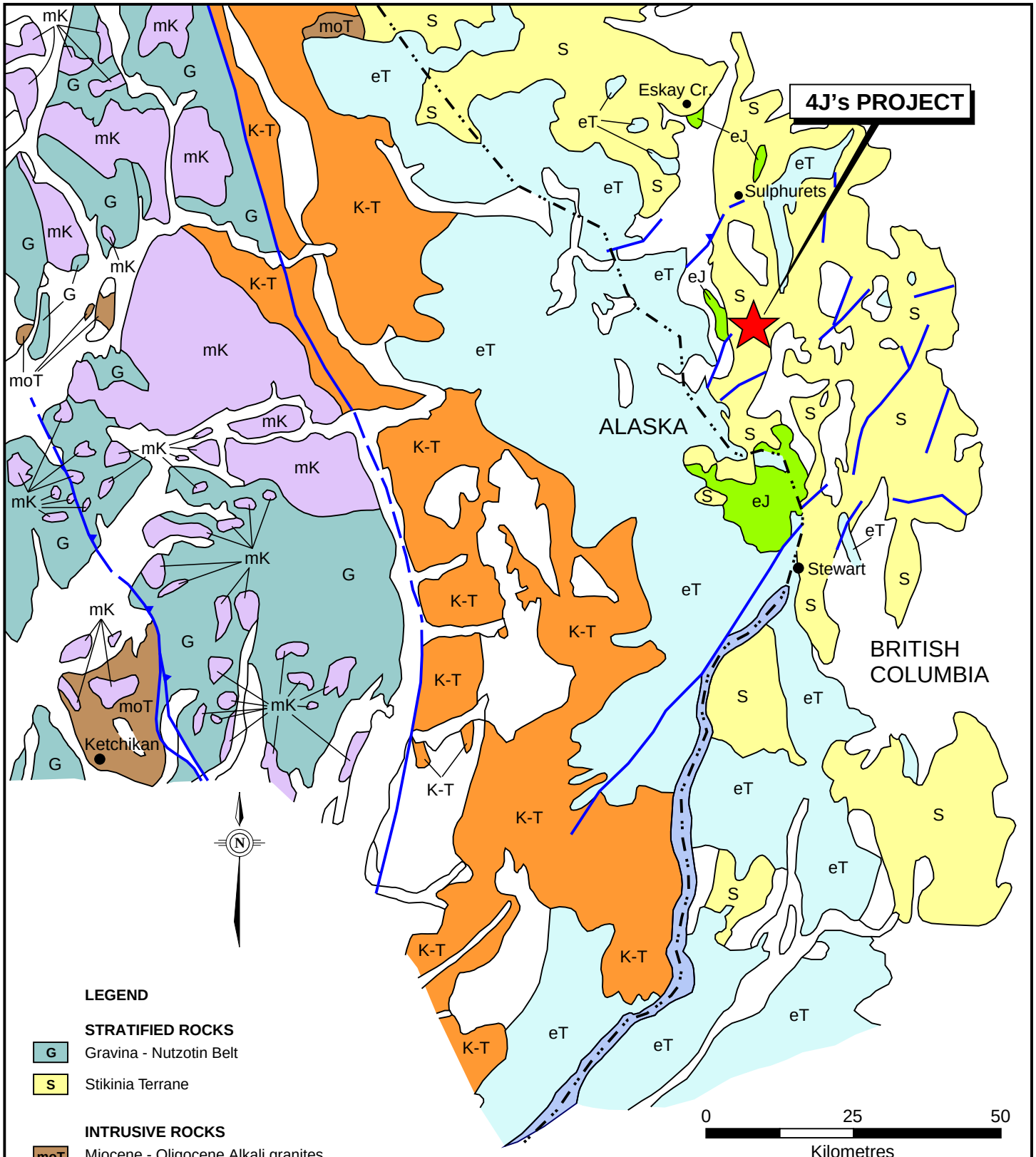
0 500 1000
ROTATION MINERALS LTD.
4-J PROPERTY
SKEENA MINING DIVISION
CLAIM MAP
NTS: 104B/08E
SCALE: 1:50,000
DATE: September, 2012
FIGURE: 2




**LEGEND**

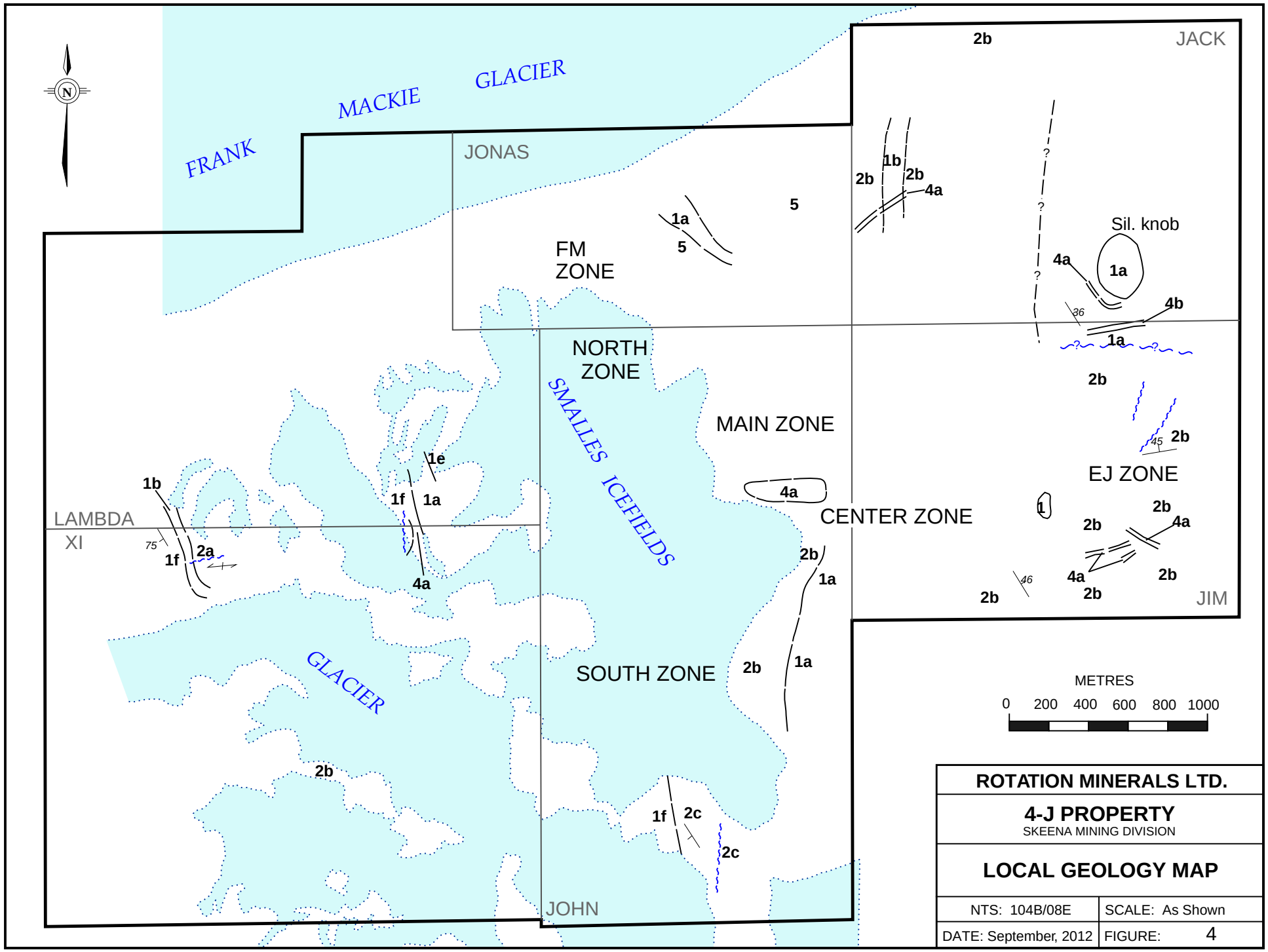
**STRATIFIED ROCKS**

- G — Gravina - Nutzotin Belt
- S — Stikinia Terrane

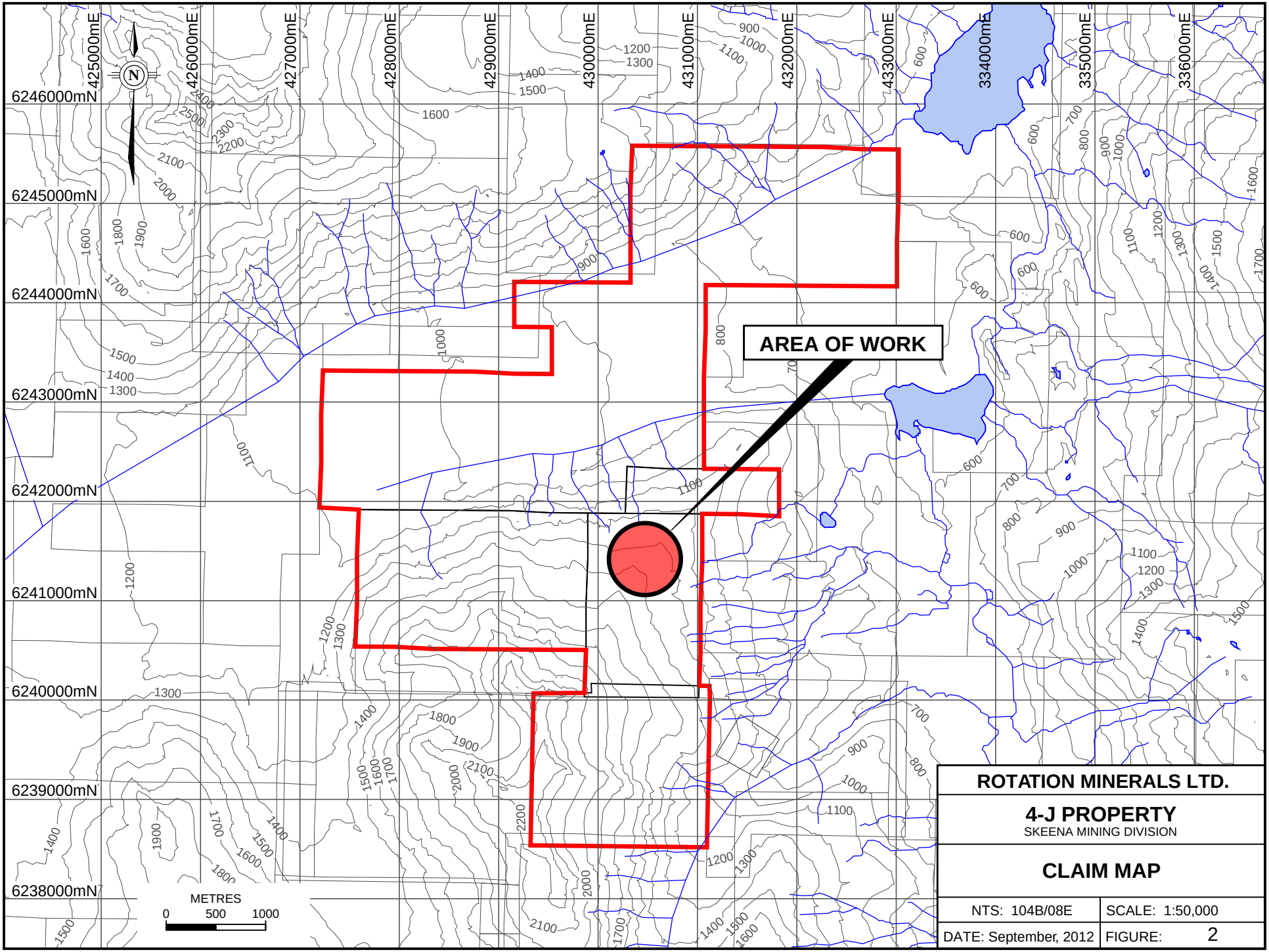
**INTRUSIVE ROCKS**

- moT — Miocene - Oligocene Alkali granites
- eT — Early Tertiary granites
- K-T — Cretaceous - Tertiary Coast Plutonic Complex
- mK — Mid Cretaceous granite to diorite
- eJ — Early Jurassic granodiotes
- Fault

| ROTATION MINERALS LTD. | |
|---|---|
| **4-J PROPERTY**<br>SKEENA MINING DIVISION | |
| **REGIONAL GEOLOGY MAP** | |
| NTS: 104B/08E | SCALE: As shown |
| DATE: September, 2012 | FIGURE: 3 |




| ROTATION MINERALS LTD. | |
|---|---|
| **4-J PROPERTY**<br>SKEENA MINING DIVISION | |
| **LOCAL GEOLOGY MAP** | |
| NTS: 104B/08E | SCALE: As Shown |
| DATE: September, 2012 | FIGURE: 4 |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6244000mN
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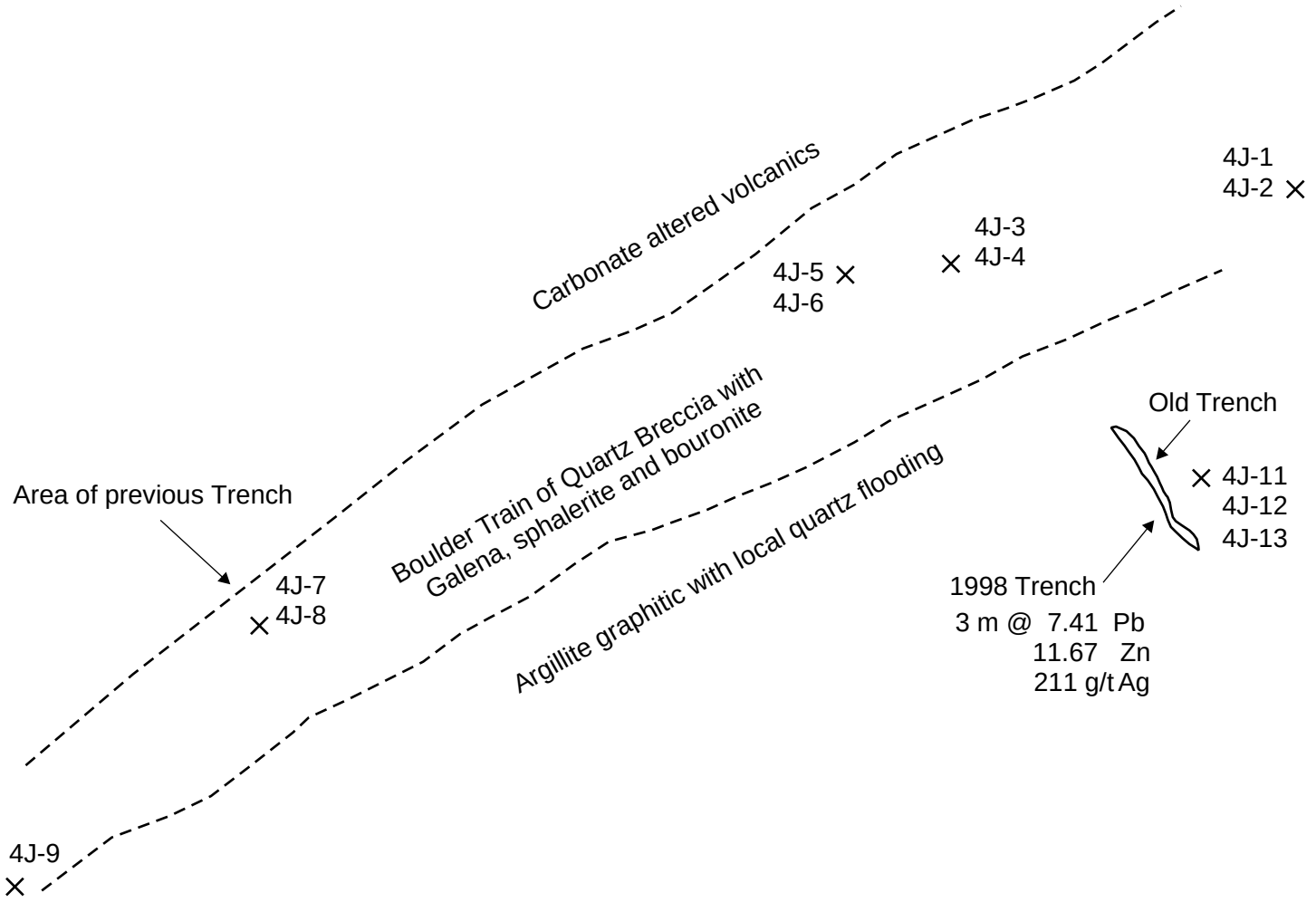
6242000mN
6241000mN
6240000mN
6239000mN
6238000mN
AREA OF WORK
METRES
0 500 1000
ROTATION MINERALS LTD.
4-J PROPERTY
SKEENA MINING DIVISION
CLAIM MAP
NTS: 104B/08E
SCALE: 1:50,000
DATE: September, 2012
FIGURE: 2

**ASSAY TABLE**

| Sample No. | Type of Sample | Au ppb | Ag ppm | Cu % | Pb % | Sb % | Zn % |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| 2011-4J-1 | Float | 2667 | 87.9 | ----- | 9.96 | 3.88 | 3.70 |
| 2011-4J-2 | Float | 2233 | 74.5 | 0.21 | 3.88 | 1.88 | 3.72 |
| 2011-4J-3 | Float | 4100 | 806 | ----- | 13.48 | 2.36 | ----- |
| 2011-4J-4 | Float | 1400 | 25.5 | 0.12 | 1.54 | 0.53 | 1.91 |
| 2011-4J-5 | Float | 1500 | 1231.4 | ----- | 18.28 | 3.39 | ----- |
| 2011-4J-6 | Float | 1567 | 73.5 | ----- | 2.90 | 0.76 | ----- |
| 2011-4J-7 | Float | 2433 | 35.5 | ----- | 1.95 | 0.56 | 6.67 |
| 2011-4J-8 | Float | 700 | 49.0 | 0.14 | 1.37 | 0.33 | 5.48 |
| 2011-4J-9 | Float | 5100 | 109.5 | 0.50 | 4.27 | 0.37 | 1.32 |
| 2011-4J-11 | Bedrock | 267 | 5.0 | 1.16 | 6.57 | 2.03 | 18.80 |
| 2011-4J-12 | Bedrock | 4167 | 2.0 | ----- | ----- | ----- | 28.24 |
| 2011-4J-13 | Bedrock | 1233 | 170.5 | 2.38 | 4.44 | 4.20 | 21.04 |




0 5 10
Metres

**ROTATION MINERALS LTD.**

**4-J PROPERTY**
SKEENA MINING DIVISION

**GEOCHEMICAL SAMPLING MAP**

| NTS: 104B/08E | SCALE: 1 : 200 |
|---|---|
| DATE: September, 2012 | FIGURE: 6 |

LEGEND
(To accompany Figure 4 Local Geology Map)

UNUK RIVER FORMATION
(LOWER & MIDDLE JURASSIC HAZELTON GROUP)

1 ANDESITIC VOLCANICS
a) INTERMEDIATE ASH TUFFS
b) MAFIC TO INTERMEDIATE FLOWS
c) INTERMEDIATE FLOWS AND CHERTY BANDS
d) INTERMEDIATE FLOWS AND CHERTY ARGILLITE BANDS
e) INTERMEDIATE TO FELSIC CRYSTAL TUFF
f) VOLCANIC BRECCIA

2 ARGILLITE SEDIMENTS
a) MASSIVE ARGILLITE
b) BANDED ARGILLITE & SILTSTONE
c) BANDED ARGILLITE & SILTSTONE & CHERTY ARGILLITE + GREYWACKE
d) CHERTY SILTSTONE/SILTSTONE
e) FRAGMENTAL ARGILLITE

3 CHERT

5 BANDED SHALE

4 INTRUSIVE ROCKS
a) FELDSPAR PORPHYRY + HORNBLENDE
b) QUARTZ FELDSPAR PORPHYRY

CONTACT

FAULT

| ROTATION MINERALS LTD. | |
|---|---|
| **4-J PROPERTY**<br>SKEENA MINING DIVISION | |
| **LEGEND FOR LOCAL GEOLOGY MAP** | |
| NTS: 104B/08E | SCALE: As Shown |
| DATE: September, 2012 | FIGURE: 4a |

**Appendix I**
**Analysis Results**

# Loring Laboratories (Alberta) Ltd.

629 Beaverdam Road N.E.,
Calgary Alberta T2K 4W7
Tel: 274-2777 Fax: 275-0541
loringlabs@telus.net

ISO9001:2008 Certified

TO: ROTATION MINERALS LTD.
426 King Street
Stewart BC V0T 1W0

File No : 5 4 8 2 9
Date : Dec. 20, 2011

Attn: ED Kruchkowski

## Certificate of Assay

| Sample No. | Cu % | Pb % | Sb % | Zn % |
|---|---|---|---|---|
| "Assay Analysis" | | | | |
| 2011-4J-1 | ----- | 9.96 | 3.88 | 3.70 |
| 2011-4J-2 | 0.21 | 3.88 | 1.88 | 3.72 |
| 2011-4J-3 | ----- | 13.48 | 2.36 | ----- |
| 2011-4J-4 | 0.12 | 1.54 | 0.53 | 1.91 |
| 2011-4J-5 | ----- | 18.28 | 3.39 | ----- |
| 2011-4J-6 | ----- | 2.90 | 0.76 | ----- |
| 2011-4J-7 | ----- | 1.95 | 0.56 | 6.67 |
| 2011-4J-8 | 0.14 | 1.37 | 0.33 | 5.48 |
| 2011-4J-9 | 0.50 | 4.27 | 0.37 | 1.32 |
| 2011-4J-11 | 1.16 | 6.57 | 2.03 | 18.80 |
| 2011-4J-12 | ----- | ----- | ----- | 28.24 |
| 2011-4J-13 | 2.38 | 4.44 | 4.20 | 21.04 |
| Methodology: | Using multi acids digestion with ICP and AA finish | | | |
| Received Date: | Oct.. 31/2011 | | | |

I HEREBY CERTIFY that the above results are those assays made by me upon the herein described samples:

Assayer

Rejects and pulps are retained for one month unless specific arrangements are made in advance.

FORM ASYC-015

ISO9001:2008 Certified

# Loring Laboratories (Alberta) Ltd.

629 Beaverdam Road N.E.,
Calgary Alberta T2K 4W7
Tel: 403- 274-2777 Fax: 403-275-0541
loringlabs@telus.net

TO: ROTATION MINERALS LTD.
426 King Street
Stewart, BC, V0T 1W0
Ph: 250-636-2264

File No : 5 4 8 2 9
Date :November 03, 2011
Sample : Core

Attn: Ed Kruchkowski

## 30 ELEMENT ICP ANALYSIS

| Sample No. | Ag ppm | Al % | As ppm | Au ppb | B ppm | Ba ppm | Bi ppm | Ca % | Cd ppm | Co ppm | Cr ppm | Cu ppm | Fe % | In ppm | K % | La ppm | Mg % | Mn ppm | Mo ppm | Na % | Ni ppm | P % | Pb ppm | Sb ppm | Sr ppm | Th ppm | Ti % | U ppm | V ppm | W ppm | Zn ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2011-4J-1 | 87.9 | 0.12 | 756 | 2667 | 40 | 10 | <1 | 0.01 | 384 | 1 | 74 | 480 | 0.81 | <1 | 0.02 | <1 | 0.01 | 16 | 3 | <0.01 | <1 | <0.01 | 44650 | 35390 | 4 | <1 | <0.01 | <1 | 2 | 1 | 18960 |
| 2011-4J-2 | 74.5 | 0.15 | 4081 | 2233 | 92 | 10 | <1 | <0.01 | 385 | 2 | 117 | 2000 | 2.36 | <1 | 0.03 | <1 | <0.01 | 19 | 2 | <0.01 | 2 | <0.01 | 35060 | 16580 | 3 | <1 | <0.01 | <1 | 3 | <1 | 18030 |
| 2011-4J-3 | 806.0 | 0.08 | 718 | 4100 | 76 | 15 | <1 | <0.01 | 65 | 1 | 168 | 113 | 1.22 | <1 | <0.01 | <1 | <0.01 | 26 | 7 | <0.01 | 2 | <0.01 | 41810 | 21990 | 38 | <1 | <0.01 | <1 | 1 | <1 | 752 |
| 2011-4J-4 | 25.5 | 0.28 | 2805 | 1400 | 64 | 13 | <1 | 0.02 | 194 | 4 | 468 | 1153 | 1.92 | <1 | 0.05 | <1 | 0.01 | 62 | 2 | <0.01 | 11 | <0.01 | 14440 | 4684 | 3 | <1 | <0.01 | <1 | 5 | <1 | 11570 |
| 2011-4J-5 | 1231.4 | 0.10 | 1002 | 1500 | 73 | 7 | <1 | <0.01 | 220 | 1 | 79 | 351 | 0.57 | <1 | 0.02 | <1 | <0.01 | 13 | <1 | <0.01 | <1 | <0.01 | 37390 | 30360 | 5 | <1 | <0.01 | <1 | 1 | <1 | 7941 |
| 2011-4J-6 | 73.5 | 0.28 | 974 | 1567 | 58 | 18 | <1 | <0.01 | 84 | <1 | 182 | 556 | 1.12 | <1 | 0.06 | <1 | <0.01 | 24 | 1 | <0.01 | 3 | <0.01 | 27490 | 7153 | 4 | <1 | <0.01 | <1 | 3 | <1 | 4137 |
| 2011-4J-7 | 35.5 | 0.21 | 8024 | 2433 | 50 | 15 | <1 | <0.01 | 501 | 1 | 128 | 422 | 1.74 | <1 | 0.04 | <1 | <0.01 | 20 | <1 | <0.01 | <1 | <0.01 | 17050 | 5029 | 2 | <1 | <0.01 | <1 | 2 | <1 | 22450 |
| 2011-4J-8 | 49.0 | 0.13 | 3092 | 700 | 50 | 12 | <1 | <0.01 | 446 | <1 | 143 | 1244 | 1.16 | <1 | 0.03 | <1 | <0.01 | 20 | <1 | <0.01 | 2 | <0.01 | 12970 | 2963 | 3 | <1 | <0.01 | <1 | 1 | <1 | 21630 |
| 2011-4J-9 | 109.5 | 0.51 | 6631 | 5100 | 28 | 22 | <1 | 0.03 | 144 | 1 | 152 | 4353 | 2.10 | <1 | 0.07 | <1 | 0.02 | 31 | 44 | <0.01 | 2 | <0.01 | 41930 | 3315 | 23 | <1 | <0.01 | <1 | 4 | <1 | 7947 |
| 2011-4J-10 | 5.0 | 0.52 | 384 | 267 | 35 | 31 | <1 | 0.04 | 34 | 4 | 163 | 137 | 3.07 | 6 | 0.03 | <1 | 0.63 | 157 | 1 | 0.03 | 4 | <0.01 | 870 | 100 | 9 | <1 | <0.01 | <1 | 52 | <1 | 2113 |
| 2011-4J-11 | 150.8 | 0.28 | 494 | 967 | 21 | 16 | <1 | 0.07 | 2009 | 6 | 62 | 9948 | 1.79 | <1 | 0.07 | <1 | <0.01 | 16 | 1 | <0.01 | 5 | <0.01 | 31550 | 18070 | 12 | <1 | <0.01 | <1 | 4 | <1 | 26810 |
| 2011-4J-12 | 2.0 | 0.07 | 41 | 4167 | 4 | 11 | <1 | <0.01 | 5319 | 40 | 24 | 716 | 10.99 | 128 | <0.01 | <1 | <0.01 | 813 | <1 | 0.01 | 2 | <0.01 | 258 | 78 | <1 | <1 | <0.01 | <1 | 9 | <1 | 25560 |
| 2011-4J-13 | 170.5 | 0.29 | 590 | 1233 | 18 | 10 | <1 | 0.10 | 2225 | 8 | 29 | 18200 | 2.05 | <1 | 0.08 | <1 | <0.01 | 20 | 1 | <0.01 | 6 | <0.01 | 32720 | 33820 | 15 | <1 | <0.01 | <1 | 4 | <1 | 26780 |
| Dup. 2011-4J-1 | 87.3 | 0.14 | 846 | 2700 | 34 | 11 | <1 | 0.01 | 413 | 1 | 80 | 512 | 0.90 | <1 | 0.02 | <1 | 0.02 | 17 | 2 | <0.01 | <1 | <0.01 | 45470 | 37180 | 4 | <1 | <0.01 | <1 | 2 | <1 | 19500 |
| Blank | <0.5 | <0.01 | <1 | <5 | <1 | <1 | <1 | <0.01 | <1 | <1 | <1 | <1 | <0.01 | <1 | <0.01 | <1 | <0.01 | <1 | <1 | <0.01 | <1 | <0.01 | <1 | <1 | <1 | <1 | <0.01 | <1 | <1 | <1 | <1 |

Sample is digested with Aqua Regia at 95C for one hour and bulked to 20 ml with distilled water.
Partial dissolution for Al, B, Ba,Ca, Cr,Fe,K,La,Mg,Mn,Na,P,Sr,Ti and W.
Gold & Ag analyzed using FA/AA
Sample received on October 31, 2011

Certified by: _____