



Ministry of Energy, Mines & Petroleum Resources  
 Mining & Minerals Division  
 BC Geological Survey

ASSESSMENT REPORT  
 TITLE PAGE AND SUMMARY

TITLE OF REPORT [type of survey(s)] 2008 Geological and Geochemical Report on the Kizmet Property	TOTAL COST \$16,181.03
--	---------------------------

AUTHOR(S) Robert Duncan SIGNATURE(S) \_\_\_\_\_

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S) \_\_\_\_\_ YEAR OF WORK 2007

STATEMENT OF WORK - CASH PAYMENT EVENT NUMBER(S)/DATE(S) 4188011; January 4, 2008

PROPERTY NAME Kizmet

CLAIM NAME(S) (on which work was done) Tenure No. ID 502815; 502803

COMMODITIES SOUGHT Au, Ag, Pb

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN 63598; 63643; 63655

MINING DIVISION Atlin NTS 104K/064, 065, 066, 074, 075, 076

LATITUDE 58 ° 44 ' \_\_\_\_\_ " LONGITUDE 133 ° 12 ' \_\_\_\_\_ " (at centre of work)

OWNER(S)

1) Rimfire Minerals Corporation 2) \_\_\_\_\_

MAILING ADDRESS

700 - 700 W. Pender St, Vancouver, BC, V5C 1G8

OPERATOR(S) [who paid for the work]

1) Rimfire Minerals Corporation 2) \_\_\_\_\_

MAILING ADDRESS

700 - 700 W. Pender St, Vancouver, BC, V5C 1G8

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):

mid-Paleozoic and Triassic island arc successions, late-Triassic and Jurassic sedimentary rocks of Whitehorse Trough, late-Cretaceous to Eocene bimodal volcanics. Upper Triassic Stuhini Group. Lower to Middle Jurassic Laberge Group. Sloko diorite.

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS 2537; 9048; 9495; 15477; 17517; 20433; 21435; 21522; 22384; 25458; 25460; 27589

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
<b>GEOLOGICAL (scale, area)</b>			
Ground, mapping _____			
Photo interpretation _____			
<b>GEOPHYSICAL (line-kilometres)</b>			
Ground			
Magnetic _____			
Electromagnetic _____			
Induced Polarization _____			
Radiometric _____			
Seismic _____			
Other _____			
Airborne _____			
<b>GEOCHEMICAL</b>			
(number of samples analysed for ...)			
Soil _____			
Silt _____			
Rock <u>Geochemical Assays</u>	19 samples over 38 m	Tenure No. ID 502815; 502803	\$768.00
Other _____			
<b>DRILLING</b>			
(total metres; number of holes, size)			
Core _____			
Non-core _____			
<b>RELATED TECHNICAL</b>			
Sampling/assaying <u>Rock Chip Sampling</u>	19 samples over 38 m	Tenure No. ID 502815; 502803	\$15, 413.03
Petrographic _____			
Mineralographic _____			
Metallurgic _____			
<b>PROSPECTING (scale, area) _____</b>			
<b>PREPARATORY/PHYSICAL</b>			
Line/grid (kilometres) _____			
Topographic/Photogrammetric (scale, area) _____			
Legal surveys (scale, area) _____			
Road, local access (kilometres)/trail _____			
Trench (metres) _____			
Underground dev. (metres) _____			
Other _____			
<b>TOTAL COST</b>			<b>\$16, 181.03</b>

**Rimfire Minerals Corporation**  
**2008 GEOLOGICAL AND**  
**GEOCHEMICAL REPORT ON THE**  
**KIZMET PROPERTY**

Located between the Sutlahine River & Taku River Area  
Atlin Mining Division  
NTS 104K/064, 065, 066, 074, 075, 076  
58° 44' North Latitude  
133° 12' West Longitude

-prepared for-  
**RIMFIRE MINERALS CORPORATION**  
Suite 700, 700 West Pender Street  
Vancouver, British Columbia, Canada  
V6C 1G8

-prepared by-  
Rob Duncan

March, 2008

## SUMMARY

The Kizmet property consists of 32 mineral tenures, covering approximately 188 km<sup>2</sup> of mountainous terrain in northwestern British Columbia, 95 km southeast of Atlin. Access to the property is by float-plane and helicopter, with the nearest road 70 km to the southeast. Rimfire Minerals Corporation (Rimfire) has 100% interest in the property.

Geologically, the properties are located on the eastern flank of the Stikine Terrane. This part of the Stikine Terrane is comprised of the Upper Triassic Stuhini Group submarine mafic volcanic and sedimentary rocks, overlain by Upper Triassic Sinwa Formation limestone and lesser argillitic rocks, all of which is unconformably overlain by Lower to Middle Jurassic Laberge Group clastic sedimentary rocks. Plutonic rocks are known to intrude these strata in three distinct time periods, ca. 165Ma, ca. 81-93Ma and ca. 55Ma. The Late Cretaceous (81-93Ma) magmatic event comprises the majority of the intrusive rocks in the area, and is locally comagmatic with subaerial volcanic rocks. These rocks form a northwest trending volcano-plutonic arc which runs through the properties. Hydrothermal alteration associated with Late Cretaceous magmatism is known from the Golden Bear Mine 65 km to the southeast and the Red Cap and Zohini showings to the west of the Kizmet property.

During the 2007 field program a total of 19 rock chip and channel samples were taken to systematically evaluate encouraging reconnaissance rock grab samples from a zone of silicified vein breccia discovered in 2004 on mineral tenures 502803 and 502815 south of King Salmon lake.

This zone covers an approximate area of 400m x 50m of patchy silicified sedimentary rock. Silicified zones are hosted in Laberge Group clastic sedimentary rocks and are spatially associated with quartz-feldspar-biotite porphyritic dykes. Outwards of the core silicified area, silicified vein breccia occurs in narrow fault zones trending 110°. Porphyritic dykes trend 340°, dip steeply and range from 3-15 m wide; it is unclear if the dykes serve as brittle conduits for mineralizing fluids to pass or if they supply the fluids hydrothermally altering/mineralizing the host rocks. Sulphide minerals occur in veins and as disseminations in brecciated host rock and include pyrite, arsenopyrite, sphalerite, galena and trace sulphosalt. Several grab samples collected from this zone in 2004 returned assays between 0.8g/t and 4g/t Au, while one returned 13.35g/t Au and another 1255g/t Ag. The best chip and channel samples from the two areas respectively are; 0.39 g/t Au over 4 metres, 0.30 g/t Au over 12 metres and 0.11 g/t Au over 4 metres.

## TABLE OF CONTENTS

SUMMARY.....	I
TABLE OF CONTENTS.....	II
APPENDICES.....	II
LIST OF TABLES.....	III
LIST OF FIGURES.....	III
1.0 INTRODUCTION.....	1
2.0 PROPERTY TITLE.....	1
3.0 LOCATION, ACCESS AND GEOGRAPHY.....	3
4.0 PROPERTY EXPLORATION HISTORY.....	3
4.1 Previous Work.....	3
4.2 2007 Exploration Program.....	7
5.0 REGIONAL GEOLOGY.....	8
6.0 PROPERTY GEOLOGY.....	9
6.1 Lithology.....	9
6.2 Structure.....	11
6.3 Alteration and Mineralization.....	11
6.3.1 South King Salmon Lake Area Mineralization.....	12
7.0 2007 CHIP AND CHANNEL SAMPLING.....	13
8.0 DISCUSSION AND CONCLUSIONS.....	14

## APPENDICES

- Appendix A: Bibliography
- Appendix B: Statement Of Expenditures
- Appendix C: Rock Sample Locations
- Appendix D: Certificates Of Analysis (Rock Samples)
- Appendix E: Cd-Rom
- Appendix G: Geologist's Certificate

## LIST OF TABLES

Table 1. Claim Data.....	2
Table 2. Kizmet Exploration Programs.....	5
Table 3. Kizmet Lithologic Units.....	10
Table 4. Silicified Vein Breccia.....	13
Table 5. Summary of 2007 chip sample results.....	14

## LIST OF FIGURES

Figure 1. Location map of Kizmet Project.....	15
Figure 2. Kizmet Project claim map.....	16
Figure 3. Regional geology map of Kizmet Project area.....	17
Figure 4. Geological map of Kizmet property and 2007 rock chip sampling results.....	18
Figure 5. Picture of 2007 rock chip sampling at site 1.....	19
Figure 6. Picture of 2007 rock chip sampling at site 2.....	20
Figure 7. Picture of 2007 rock chip sampling at site 3.....	21

## **1.0 INTRODUCTION**

The Kizmet property covers a region of prospective geology and geochemistry as defined by the federal-provincial RGS program in the King Salmon Lake area of northwestern British Columbia (Figure 1,2), which has been sporadically explored since 1970 for a wide range of targets. The property was staked based upon geological similarities to the Thorn property (located 24km to the southeast), and RGS geochemistry along a belt of Late Cretaceous volcanic and subvolcanic intrusive rocks. Rimfire Minerals Corporation acquired the property in 2003 and early 2004 aiming to explore for similar mineralizing styles observed on the Thorn property, including high sulphidation epithermal gold-silver-copper mineralization and breccia hosted silver-gold-lead mineralization. In 2004, Rimfire carried out a regional mapping, prospecting and soil-silt geochemical survey over the property. In 2005 the Kizmet project was optioned to Barrick Gold Corporation who expanded the property and conducted more regional mapping, prospecting and soil-silt geochemical surveys. Barrick terminated the option at the beginning of 2006. The 2007 exploration program consisted of chip and channel sampling to systematically evaluate encouraging reconnaissance rock grab samples from a zone of silicified vein breccia discovered in 2004 south of King Salmon lake.

## **2.0 PROPERTY TITLE**

The Kizmet property (Figure 2) comprises 32 mineral tenures, covering approximately 188 km<sup>2</sup> (Table 1). The property is located within the Atlin Mining Division of British Columbia. Records of the British Columbia Ministry of Energy and Mines indicate all claims are owned by Rimfire Minerals Corporation. The claims are subject to a 1% NSR to Barrick Gold Corporation that can be purchased for \$1,000,000 (USD).

**Table 1. Claim Data.**

Claim No.	District	Owner	Record Date	Expiry Date	Area (ha)
501336	Atlin	Rimfire	02-Nov-03	31-Dec-08	973.27
501640	Atlin	Rimfire	12-Jan-05	31-Dec-09	202.03
501791	Atlin	Rimfire	02-Nov-03	31-Dec-08	923.46
501894	Atlin	Rimfire	12-Jan-05	31-Dec-09	421.071
501920	Atlin	Rimfire	12-Jan-05	31-Dec-09	421.069
502012	Atlin	Rimfire	12-Jan-05	31-Dec-09	134.686
502779	Atlin	Rimfire	31-Oct-03	31-Dec-10	1010.602
502792	Atlin	Rimfire	04-May-04	31-Dec-08	118.011
502801	Atlin	Rimfire	31-Oct-03	31-Dec-10	1010.129
502803	Atlin	Rimfire	31-Oct-03	31-Dec-10	1009.638
502812	Atlin	Rimfire	04-May-04	31-Dec-08	269.625
502815	Atlin	Rimfire	31-Oct-03	31-Dec-10	1261.375
502834	Atlin	Rimfire	01-Nov-03	31-Dec-08	706.709
502840	Atlin	Rimfire	01-Nov-03	31-Dec-08	706.711
502841	Atlin	Rimfire	01-Nov-03	31-Dec-08	504.439
502848	Atlin	Rimfire	01-Nov-03	31-Dec-08	504.438
502926	Atlin	Rimfire	01-Nov-03	31-Dec-08	605.365
502964	Atlin	Rimfire	01-Nov-03	31-Dec-08	605.01
502966	Atlin	Rimfire	01-Nov-03	31-Dec-08	504.475
502967	Atlin	Rimfire	01-Nov-03	31-Dec-08	705.766
502968	Atlin	Rimfire	01-Nov-03	31-Dec-08	504.123
502971	Atlin	Rimfire	01-Nov-03	31-Dec-08	588.168
502972	Atlin	Rimfire	01-Nov-03	31-Dec-08	504.502
502973	Atlin	Rimfire	01-Nov-03	31-Dec-08	420.416
502975	Atlin	Rimfire	02-Nov-03	31-Dec-08	184.554
502984	Atlin	Rimfire	05-May-04	31-Dec-08	302.104
502988	Atlin	Rimfire	05-May-04	31-Dec-08	704.945
502989	Atlin	Rimfire	05-May-04	31-Dec-08	302.304
502991	Atlin	Rimfire	06-May-04	31-Dec-08	587.459
502992	Atlin	Rimfire	06-May-04	31-Dec-08	621.057
502997	Atlin	Rimfire	06-May-04	31-Dec-08	554.236
504171	Atlin	Rimfire	04-May-04	31-Dec-08	539.237



### 3.0 LOCATION, ACCESS AND GEOGRAPHY

The Kizmet property lies in the Coast Range Mountains of northwestern British Columbia, approximately 95 km southeast of Atlin, 155 km northwest of Telegraph Creek and 170 km west of Dease Lake (Figure 1). The property lies within the Atlin Mining Division, centred at 58°44' north latitude and 133°12' west longitude.

Access to the Kizmet property is by helicopter from bases in Atlin or Dease Lake. Float planes can land on King Salmon Lake, situated just north of the Kizmet property. An airstrip located at the Tulsequah Chief Mine (10 km northwest of the Kizmet property) provides access by plane on wheels. The decommissioned Golden Bear Mine, 85 km to the southeast, provides the closest road access.

The eastern portions of the Kizmet property covers two mountains between King Salmon Lake to the north and the Sutlahine River to the south, while the western portion of the property covers Mount Lester Jones and adjacent drainages. All major bodies of water on the properties are tributaries of the Sutlahine, Inklin and Taku Rivers. Elevations range from 60 m on the Taku River flood-plain to over 2380 m at the peak of Mount Lester Jones (Figure 2).

Most of the property is below treeline, which lies at about 1200 m, and is covered by mature hemlock and spruce and locally fir with open patches of devil's club and tag alder. The southern part of the Kizmet claims has recently been burnt. Both summer and winter temperatures are moderate although annual rainfall may exceed 200 cm and several metres of snow commonly fall at higher elevations. The property can be worked from early June until late October.

### 4.0 PROPERTY EXPLORATION HISTORY

#### 4.1 Previous Work

Table 2 summarizes all known exploration work carried out on the ground currently comprising the Kizmet property. The earliest recorded work on the Kizmet property was carried out in 1969 by the Taku Syndicate, a 5-company joint venture. No data is available from this program, but White (1970) reported Cu and Mo silt anomalies in creeks "radiating from slopes of the cirque valley". Taku carried out a ground magnetic survey over this area the following year, distinguishing vertical, northeast-trending magnetic lineations corresponding to magnetic feldspar porphyry dykes.

In 1980, Anglo-Canadian Mining (Payne, 1980) discovered the Joly showing, a broad zone of carbonate alteration hosting a number of 5-10cm calcite-quartz-sulphide veins trending 090°. Their best sample from the Joly showing assayed 1.7 g/t Au, 271 g/t Ag, 1.0% Pb and 9.6% Zn. The Jak showing, 600m to the southeast, consists of an intensely fractured (main sets at 090° and 150°) and altered zone, with 1-2mm pyritic veins along most fractures of both sets. A few veins contain sphalerite, stibnite, chalcopyrite and galena. The best sample reported by Anglo-Canadian from the Jak showing assayed 17.8 g/t Au, 579 g/t Ag, 6.23% Pb, 2.55% Zn, 2.53% Sb, 0.65% As and 0.42% Cu.

Payne also describes the "Red Crater" where two small plugs of partly sericitized biotite-hornblende diorite intrude flat-lying (Cretaceous?) conglomerate and felsic volcanic rocks. A sample of the most strongly altered dacite returned <5 ppb Au and 0.2 ppm Ag.

Also in 1980, Complex Resources International and Redfern Resources collected regional silt samples over much of the Tulsequah map-sheet, identified an anomaly immediately west of Anglo-Canadian's ground and discovered Au-bearing arsenopyrite veining there. In the Go showing, a porphyry stock is cut by east-west faulting and carbonate alteration over a 100m width. Conjugate fractures to the faulting are mineralized with arsenopyrite, pyrite, pyrrhotite, chalcopyrite, galena, sphalerite and stibnite. Drilling in 1981 confirmed the mineralizing system continues along a strike length of >205 metres and a down-dip length of >150 metres. Precious metal mineralization was narrow and spotty (best intersection: 0.13m @ 7.1 g/t Au and 514 g/t Ag (Lintott, 1981).

Noranda carried out a one-day reconnaissance of the same ground as the Taku Syndicate in 1986 (Reid, 1987). They reported bleached and silicified zones flanking felsic dykes with maximum values of 70 ppb Au, 13.2 ppm Ag, 1.3% Pb and 6200 ppm As.

Georgia Resources Inc. worked the LIS 2 mineral claim in 1988. This program worked the showings known as the Jak and Joly (described above) and extended the limits of the veins further to the east. Several soil samples were taken along two north trending grid lines. These soil samples defined a broad area of anomalous Au, Ag, As, Sb, Cu, Pb and Zn to the east of the Jak and Joly showings in heavily a forested area with sparse outcrop. Maximum values reported in the anomalous soils from a single sample were 452 ppb Au, 19.2 ppm Ag, 9082 ppm As, 84 ppm Sb, 959 ppm Cu, 470 ppm Pb and 562 ppm Zn (Lambert 1988).

Cominco Limited conducted a regional reconnaissance program in 1988. It is not known how many samples and from where sampling was conducted, however a sample of quartz-arsenopyrite vein was collected on the Bryar property, which assayed 17.043 g/t Au (Smith, 1989). The ground was staked one year later, in order to follow up the aforementioned sample. During the 1989 program Smith (1989) described several thin quartz-arsenopyrite-pyrite veins that were predominantly hosted in quartz-biotite-feldspar porphyry, which itself intruded into and hornfelsed Lower to Middle Jurassic Laberge Group clastic sedimentary rocks. Smith (1989) notes that these veins are less abundant in the sedimentary rocks, but that soil anomalies were recorded outside of the known mineralized gossans.

**Table 2. Kizmet Exploration Programs.**

<b>Program/Zones</b>	<b>Geochemistry</b>	<b>Geophysics</b>	<b>Drilling</b>	<b>Reference</b>
<b>Taku (1969)</b>	Silts			White (1970)
<b>Taku (1970)</b>		Ground: 64 km magnetics		White (1970)
<b>Anglo-Canadian (1980)</b>	soils, silts, >23 rocks			Payne (1980)
<b>Comaplex (1980)</b>	Silts, rocks			Lintott (1981)
<b>Comaplex (1981)</b>			6 trenches, 9 DDH: 973m	Lintott (1981)
<b>Noranda (1986)</b>	14 silts, 12 talus fines, 22 rocks, 4 panned concentrates			Reid (1987)
<b>Georgia (1988)</b>	61 soils			Lambert (1988)
<b>Cominco (1988)</b>				Smith (1989)
<b>Cominco (1989)</b>	10 silts, 56 soils, 11 rocks			Smith (1989)
<b>Solomon (1990)</b>	167 soils, 2 silts, 25 rocks			Strain and Aspinall (1990)
<b>Solomon (1990)</b>	13 silts, 250 soils, 57 rocks			Aspinall (1991)
<b>Georgia (1991)</b>		2.7 km VLF-EM		Terry (1991)
<b>Solomon (1991)</b>	89 soils, 36 rocks			Aspinall (1991)
<b>Omega (1991)</b>	23 silts, 84 soils, 43 rocks			Chapman (1991)
<b>Georgia (1992)</b>	70 soils, 22 silts, 22 rocks			Terry (1992)
<b>Xplorer (1998)</b>		5.075 km total magnetic field and HLEM		Lee (1998)
<b>Xplorer (1998)</b>		1.575 km total magnetic field and HLEM		Lee (1998b)
<b>Xplorer (1998)</b>		1 km total magnetic field and HLEM		Lee (1998c)
<b>Rimfire (2004)</b>	92 silts, 504 soils, 85 rocks			Simmons (2004)
<b>Barrick (2005)</b>	46 silts, 31 soils, 848 rocks			Mann & Newton (2005)
<b>Totals</b>	>222 silts, 1324 soils, >1172 rocks, 4 panned concentrates	Ground: 2.7 km VLF-EM, 7.65 km HLEWM, 64 km magnetics	6 trenches, 9 DDH: 973 m (3192 ft)	

Solomon staked a package of King claims in 1990 corresponding to the eastern half of the current Kizmet property. They concentrated on two gossans [NOTE: Gossan B is on the current area covered by the Thorn property to the southeast]: Zone C in the same cirque where Taku and Noranda did their work; and Zone A. In Zone A, Solomon recognized a highly silicified and pyritic hornblende granodiorite, with traces of molybdenite, intruding sediments and andesitic pyroclastics rocks, themselves silicified near the contacts. Several styles of mineralization were recognized in Zone A, including a 1m fault zone (max. 100 ppb Au, 416 ppm Ag, 7.1% Cu) and skarn (max. 210 ppb Au, 103 ppm Ag, 0.87% Cu, 1.52% Pb and 4.36% Zn). A silt sample with 1220 ppb Au was taken from the projected strike of a lineament hosting a 5m chalcedonic quartz-carbonate breccia. One-sixth of the soil samples from Zone A exceeded 50 ppb Au, with maximum values of 490 ppb Au, 130.6 ppm Ag, 20632 ppm Cu, 3556 ppm Pb and 5691 ppm Zn. In Zone C, Solomon mapped hornfelsed pelitic rocks intruded by locally sericitized hornblende granodiorite, quartz-feldspar porphyry, quartz porphyry and monzonite. The more leucocratic varieties contain disseminated molybdenite. The most spectacular gossans are in creek gullies, exposed for up to 100m; exposures are fractured, sheared, silicified and locally argillized. Solomon described three 15cm quartz-carbonate veins from Zone C, the best of which returned 4121 ppm Cu, 1918 ppm Pb, 7627 ppm Zn, 167 ppm As, 9 ppb Au and 38 ppm Ag (Aspinall, 1991).

Solomon optioned the LJ mineral claim from Cominco Ltd. in 1990. Cominco previously reported grades from chip samples of quartz-arsenopyrite veins of 22,400 ppb Au over 1 m, 40,000 ppb Au over 0.2 m and 10,400 ppb Au over 0.25 m. These grades were not reproduced by Solomon. However, Solomon did identify two zones of mineralization. Zone 1 is hosted in a 150 m long fault zone trending 178° and consists of 2-5% pyrite-arsenopyrite veins. An average of 16 grab samples returned grades of 139 ppb Au, 0.78 ppm Ag and 6296 ppm As from zone 1 (Strain and Aspinall 1990). Zone 2, located 750 m to the northeast of zone 1, is characterized by quartz-arsenopyrite-pyrite veins hosted in shears and fault zones trending 110°-140°. Five grab samples from this zone returned average grades of 901 ppb Au, 1.46 ppm Ag and 3130 ppm As (Strain and Aspinall 1990). Soil samples from this programme suggest that these mineralized zones have limited widths and that perhaps the most prospective ground is located to the west of the area worked (Strain and Aspinall 1990).

In 1991 Georgia Resources Ltd. conducted a geophysical programme as follow-up to the mapping and sampling the previous year. 2.7 km of VLF-EM were surveyed to the southeast of the Joly and Jak showings. This survey defined a weak east-west trending anomaly which coincides with the known Joly showing (Terry, 1991).

Solomon Resource Ltd. conducted a geological mapping and geochemical program in 1991 on the Wahb property. Aspinall (1991) describes two main mineralized zones at the top of Mount Lester Jones just north of the main peak. Zone 1 is a 250 m long by 5 m wide shear/fault zone which contains several thin massive arsenopyrite-stibnite veins (maximum width 0.25 m). These steeply dipping, NW trending veins returned maximum assays of 1.5 ppm Au and 309 ppm Ag (Aspinall 1991). A second zone trending the same directions as zone one is located 300 m to the NE of zone 1 and is exposed for 50 m, with maximum assays of 2.7 ppm Au and 309 ppm Ag (Aspinall 1991). Both of these zones are covered by a large glacier at the top of Mount Lester Jones along strike of the exposures.

In 1991, Omega carried out limited mapping and geochemical sampling on their claim group immediately east of Solomon's King property. Results were generally low, with maximum soil values of 70 ppb Au, although a base metal anomaly (max. 1215 ppm Zn, 3253 ppm Pb,

535 ppm Cu and >2000 ppm As) was reported within a gossan straddling the contact zone between granodiorite, quartz-feldspar porphyry and volcanic rocks (Chapman, 1991).

Georgia Resources returned to the Jak and Joly showings in 1992 and conducted a mapping and geochemical program. During this program Terry (1992) confirmed the presence of precious metal mineralization in Jak Creek with a maximum assay of 5.9 ppm Au and 351 ppm Ag. During this program the mountain directly south of the Jak and Joly showing was prospected. Due to rugged terrain on this mountain the main gossan was not mapped or sampled, however, anomalous silt samples were found to drain the gossanous area (Terry 1992).

In 1998 Xplorer Gold Corp. surveyed a total of 7.65 line km of horizontal loop-EM and total magnetic field on three areas on the western portions of the Kizmet claims. The purpose of these surveys were to identify potential VMS targets, however none of the data returned anything that would indicate potential for extensive VMS style mineralization (Lee 1998a, 1998b, 1998c).

During 2004 Rimfire initiated a regional reconnaissance prospecting, geological mapping and soil sampling program out of four consecutive four man fly camps. A total of 85 rock samples, 92 stream sediment samples and 504 soil samples were taken. Geological highlights include discovery of several precious metal rich base metal veins, a zone of precious metal rich silicified sedimentary rock, Fe-Zn skarn and sedimentary hosted Au bearing disseminated sulphide. Precious metal rich base metal quartz veins are typically hosted by steeply dipping normal faults in Stuhini and Laberge Group strata. Most of these veins occur around the previously explored Joly and Jak showings, however exploration in 2004 discovered new veins and also extended the known showings along an east-west trending lineament that extends at least as far as King Salmon Lake to the east. Typical sulphide mineralogy includes pyrite, arsenopyrite, galena, sphalerite and lesser chalcopyrite. These veins return assays of up to 3.3g/t Au, 158g/t Ag, 5.88% Pb and 3.32% Zn. On the south eastern corner of the Kizmet, a zone of silicified vein breccia was discovered. This zone covers an approximate area of 400m x 50m of patchy silicified sedimentary rock. Outwards of the core silicified area, silicified vein breccia occurs in narrow fault zones trending 110°. Sulphide minerals occur in veins and as disseminations in brecciated host rock and include pyrite, arsenopyrite, sphalerite, galena and trace sulphosalt. Several samples from this zone returned assays between 0.8g/t and 4g/t Au, while one returned 13.35g/t Au and another 1255g/t Ag.

In 2005, Barrick conducted reconnaissance/evaluation style exploration on portions of the Kizmet not previously explored by Rimfire in 2004. The work was successful in identifying areas of low temperature clay alteration consistent with epithermal mineralizing systems as well as finding occurrences of base metal sulphide veins, quartz +/- arsenopyrite – sphalerite veins and quartz – chalcopyrite veining.

## **4.2 2007 Exploration Program**

During the 2007 field program a total of 19 rock chip and channel samples were taken to systematically evaluate encouraging reconnaissance rock grab samples from a zone of silicified vein breccia discovered in 2004 on mineral tenures 502803 and 502815 south of King Salmon lake. The field program mobilized out of Stewart B.C. and consisted of a single day of sampling carried out by a four person field crew. Sample sites were flagged and metal tagged..

Rock chip samples were analyzed by Eco Tech Laboratory Ltd. of Kamloops, BC for Au and 28 trace elements. Au was analysed for by fire assay with a aqua-regia digestion, AA finish from a nominal 30 g pulverized sample screened at -140 mesh. Trace elements were analysed for by ICP-AES from a nominal 0.5 g pulverized sample dissolved by aqua-regia digestion.

## 5.0 REGIONAL GEOLOGY

The area around the Kizmet property is underlain by mid-Paleozoic and Triassic island arc successions, Late Triassic and Jurassic sedimentary rocks of the Whitehorse Trough and bimodal Late Cretaceous to Eocene volcanic, and associated intrusive rocks (Figure 3). The Late Cretaceous volcanic and co-magmatic, subvolcanic intrusive rocks form a distinct northwest trending belt on the eastern margin of the Coast Plutonic Complex (Mihalynuk et al. 2003, Simmons et al. 2003). The most recent regional mapping around the Kizmet property was carried out during 1958-60 at a scale of 1:250,000 (Souther, 1971). Mihalynuk et al. (1995) of the BCGS mapped the adjacent 1:50,000 sheet to the west, providing additional insight into stratigraphic relationships and ages through Ar/Ar and U/Pb geochronology.

Souther (1971) mapped a broad band of Upper Triassic Stuhini Group rocks in the vicinity of the Kizmet property, comprising mainly submarine basaltic volcanic rocks with minor volcanic sandstone, wacke and siltstone. It should be noted that on the NTS sheet west of the Sutlahine and LJ, the subaerial portion of Souther's Stuhini Group was reassigned to the Sloko Group by Mihalynuk et al (1995). Souther differentiates a "King Salmon Formation" dominated by well-bedded clastic sediments within the Stuhini Group; the formational designation has since been abandoned.

The Stuhini Group is unconformably overlain by Upper Triassic limestone and lesser sandstone, argillite and chert of the Sinwa Formation, which is regarded as the top of the Stuhini Group. The Sinwa Formation, in turn, is disconformably overlain by the Lower to Middle Jurassic clastic sedimentary rocks of the Laberge Group (e.g. Mihalynuk, 1999, Mihalynuk et al., 1994, 1995, and Simmons et al., 2005). Souther subdivided the Laberge Group into coarse clastic rocks of a near-shore facies (Takwahoni Formation) and finer clastic rocks of an off-shore facies (Inklin Formation).

In the Late Jurassic, the northwesterly-trending King Salmon Fault was active along the Sinwa Formation, thrusting it southward over the Laberge Group. South of the King Salmon Fault, this was accompanied by broad, symmetrical, northwesterly-trending folds, many of which are doubly plunging. North of the Kizmet property, near Atlin, B.C., Mihalynuk (1999) pins the age of accretion of Stikinia and deformation prior to 175 Ma, where Fourth of July suite intrusive rocks are not deformed and intrude deformed Laberge Group clastic sedimentary rocks.

The late Mesozoic was also marked by the intrusion of the Central Plutonic Complex, and stocks and dykes of hornblende-biotite granodiorite, biotite-hornblende quartz diorite, hornblende diorite and augite diorite (Souther, 1971). The Central Plutonic Complex includes a wide variety of intrusive phases of differing ages, along with minor migmatite and gneiss pendants. The closest known example of Jurassic intrusive rock along this belt is located at the Thorn property where  $168.1 \pm 0.7$  Ma (Simmons et al., 2005) rhyodacite dykes intrude Stuhini Group clastic sedimentary rocks at the Outlaw showing.

Souther mapped a series of high-level, multiphase Late Cretaceous quartz monzonite, diorite and granite stocks and plutons and felsite and quartz-feldspar porphyry intrusions in a northwesterly-trending band through the Kizmet property. This belt can be traced from as far

north as the Tagish Lake area (Mihalynuk, 1999) to the Golden Bear Mine area to the southeast (Oliver, 1996, Simmons et al., in press). Recent geochronology data produced by Mihalynuk (2003) and Simmons et al. (2003, 2004) have shown that two distinct magmatic events can be differentiated. An older event of largely tholeiitic diorite porphyry intrusions has been dated by Mihalynuk (2003), examples of these are found at the Thorn property ( $93.3 \pm 2.4$  Ma) to the southeast and the Red Cap porphyry ( $87.3 \pm 0.9$  Ma) to the west. These intrusions are aphanitic to fine-grained and are commonly porphyritic, with feldspar, quartz and biotite phenocrysts. To the southeast of the Kizmet property at the Thorn a later magmatic event is defined by 81-85 Ma subaerial volcanic rocks and co-magmatic intrusive rocks. A weakly welded crystal tuff taken directly above the unconformity yielded an age of  $84.7 \pm 0.8$  Ma (Simmons, et al., 2005) and marks the onset of the later magmatic event. Intrusive rocks of this age are typically more calc-alkaline, biotite and hornblende bearing equigranular monzonites to granodiorites. Souther (1971) originally mapped this later magmatic event as Tertiary Sloko Group rocks but it is now assigned to the Windy Table Suite volcanic and intrusive rocks (e.g. Mihalynuk 2003).

The only known Tertiary Sloko Group rock in the area directly around the Kizmet property was dated at the north of Lisadele Lake. This rock is characterized as being a quartz, feldspar, biotite porphyritic intrusive rock similar to the 93.3 Ma Thorn Stock. Simmons et al. (2005) dated this rock and reported an age of  $55.3 \pm 0.9$  Ma. Several bodies of similar looking intrusive rock crop out along this belt making it very difficult to distinguish between Sloko and Late Cretaceous intrusive rocks in the field.

## **6.0 PROPERTY GEOLOGY**

The Kizmet regional/property geology is summarized in Figure 3, which is a compilation from several sources. The property geology around the area of 2007 chip and channel sampling south of King Salmon Lake is compiled from 2004 mapping by Simmons.

### **6.1 Lithology**

Table 3 summarizes the characteristics of rock units on the Kizmet property. The Kizmet property are underlain by a package of Triassic and Jurassic mafic volcanic rocks and marine sedimentary rocks (Figure 3, 4). In the northwest and southeast parts of the map area, mafic and sedimentary rocks of the Upper Triassic Stuhini Group core a series of doubly plunging anticlines trending NNE. Flanking and overlying these strata are clastic sedimentary rocks of the Lower to Middle Jurassic Laberge Group, which cover the majority of properties. Late Cretaceous (ca. 93 Ma and 81 to 85 Ma) small stocks and dykes intruded the country rock and form a NNE trending belt of subvolcanic intrusive rocks. In the Lisadele Lake area Late Cretaceous subaerial volcanic rocks (ca. 81 to 85 Ma) overlie Triassic and Jurassic strata. A small stock of Sloko diorite (ca. 55 Ma) intrudes into the Late Cretaceous volcanic rocks at Lisadele Lake. All of the above are intruded by a series of northeast trending basaltic and andesitic dykes. Absolute ages of late Cretaceous rocks in this report are inferred from what is known at the Thorn property (e.g. Mihalynuk et al. 2003 & Simmons et al., 2005).

### **Table 3. Kizmet Lithologic Units.**

#### ***TERTIARY***

##### **uTIN –INTRUSIVE ROCKS**

uTIN<sub>1</sub> Basalt/andesite dykes: fine-grained, dark green to brown, weakly magnetic, aphyric or feldspar-phyric, calcite amygdules common

##### ***Sloko Suite Intrusive Rocks***

uTIN<sub>2</sub> Coarse-grained quartz-feldspar-biotite porphyry: 15–40% anhedral 1–5mm feldspar (plagioclase) , 5-10% euhedral equant 2-4mm glassy quartz and 5–15% euhedral equant 3–6mm biotite phenocrysts, in a fine grained matrix

#### ***LATE CRETACEOUS***

##### ***Windy Table Suite Intrusive Rocks***

uKIN<sub>1</sub> Monzonite and diorite: feldspar porphyritic, biotite and hornblende are both present, quartz forms irregular shaped crystals between feldspar grains

uKIN<sub>2</sub> Biotite-hornblende granodiorite: fine- to coarse-grained, equigranular, local miarolitic cavities

##### ***Windy Table Suite Volcanic and Related Sedimentary Rocks***

##### **uKSV – SUBAERIAL VOLCANIC ROCKS**

uKSV<sub>1</sub> Dacitic/andesitic tuff, lapilli tuff and block tuff: Maroon to grey-brown, matrix-supported

uKSV<sub>2</sub> Unwelded rhyolitic tuff and agglomerate: lithic clasts comprise 10-35% of the rock ranging from lapilli to block size and dominated by granitic intrusive rocks and felsic volcanic rocks

uKSV<sub>3</sub> Welded lapilli tuff or crystal tuff: dominantly rhyodacitic with 5-15% chlorite replaced pumice fragments and variable amounts of lithic fragments (up to 40%), crystal tuff dominated by 1-4mm euhedral feldspar phenocrysts and 1-3mm rounded quartz eyes

uKSV<sub>4</sub> Dacite to andesite flow

uKSV<sub>5</sub> Rhyolite flow

uKSV<sub>6</sub> Volcaniclastic rocks: finely bedded, rounded silt to sand sized particles and commonly associated with accretionary lapilli horizons

##### **uKPO – DIORITE TO QUARTZ DIORITE PORPHYRY**

uKPO<sub>1</sub> Coarse-grained feldspar-quartz-biotite porphyry: 15–40% anhedral 1–5mm feldspar, 15–30% euhedral equant 3-6mm glassy quartz and 5–15% euhedral equant 3–6mm biotite phenocrysts

uKPO<sub>2</sub> Fine-grained feldspar-quartz-biotite porphyry: 30% anhedral 0.5–2mm feldspar, 0–5% subhedral 2–4mm quartz and 5% euhedral equant 4mm biotite phenocrysts

#### ***LOWER TO MIDDLE JURASSIC***

##### ***Laberge Group***

##### **IJTF – CLASTIC SEDIMENTARY ROCK**

IJTF<sub>1</sub> Cobble conglomerate: clasts range in size from pebble to boulder, but is generally cobble sized, commonly matrix supported, and clasts types are dominated by either mafic volcanic rocks or felsic granitic rocks, which typically don't occur together

IJTF<sub>2</sub> Siltstone, shale and argillite: finely bedded and often preserve primary sedimentary features and contain abundant fossils (mainly ammonites and bivalves)

IJTF<sub>3</sub> Sandstone: typically feldspathic arenite, but may contain variable amounts of quartz and lithic fragments, most often silica cemented with lesser carbonate cement



IJTF<sub>4</sub> Limestone: typically skarned, dolomitized and recrystallized, clastic sedimentary input is evident by the “dirty” nature of the strata, rare fossils occur away from recrystallized and skarned areas

### **UPPER TRIASSIC**

#### ***Sinwa Formation***

##### **uTSF – LIMESTONE AND LESSER CLASTIC ROCKS**

uTSF<sub>1</sub> Limestone

uTSF<sub>2</sub> Argillite

uTSF<sub>3</sub> Boulder conglomerate containing volcanic and intrusive rocks

#### ***Stuhini Group***

##### **uTMV – MAFIC VOLCANIC ROCKS**

uTMV<sub>1</sub> Pillow basalt

uTMV<sub>2</sub> Andesitic lapilli tuff

uTMV<sub>3</sub> Massive andesite: dark green, aphyric, aphanitic to fine-grained

uTMV<sub>4</sub> Feldspar-augite porphyry: dark green, fine- to medium-grained, sparse <1mm feldspar and augite phenocrysts

##### **uTMS – MARINE SEDIMENTARY ROCK**

uTMS<sub>1</sub> Interbedded siltstone, feldspathic arenite and wacke: well-bedded

uTMS<sub>2</sub> Argillite

## **6.2 Structure**

Triassic and Jurassic strata are variably deformed in the map area. Typically, these rocks are open to close folded and trend NNW. These folds are doubly plunging in the map area, creating small NE trending basins along which Laberge Group strata dominate and Late Cretaceous subaerial volcanic rocks are exposed. This folding event is related regional compression during the accretion of the Stikine Terrane onto the western margin of North America. This compressional event ceased by ca. 175Ma, as evidence by undeformed plutons which have intruded the deformed strata. The Late Cretaceous volcanic rocks have a spatial association with the area where anticlines plunge towards each other creating basins. It is unclear if the basins are a result of later folding or faulting.

Several later steeply dipping normal faults offset Late Cretaceous rocks. Two prominent sets of steeply dipping normal faults trending 240° and 270° create major physiographic lineaments that may extend for several 10's of kilometers. At the Jak and Joly showings the E-W trending faults are important hosts to mineralizing veins. Additionally NE-SW trending structural corridors at the Thorn property to the southeast are known to be important controls on mineralization. Tertiary basaltic/andesitic dykes locally intrude along these faults.

## **6.3 Alteration and Mineralization**

Magmatic-hydrothermal mineralization and alteration are spatially and temporally associated with specific volcanic and plutonic rocks emplaced during the formation of long-lived magmatic arcs formed along convergent plate boundaries (e.g. Sillitoe, 1972; Sutherland-Brown, 1976; Titley, 1982; Sawkins, 1990). In the map area, a Late Cretaceous magmatic arc is exposed and has associated hydrothermal alteration. Several types of mineralization were encountered along the arc, including Au-Ag bearing quartz-galena-sphalerite-arsenopyrite veins, Au-Ag bearing silicified veins breccia & silicified host rock, sedimentary hosted Au bearing disseminated pyrite, base metal rich carbonate veins, Cu skarn, and Fe-Zn skarn. The

2007 field program focused on evaluating the occurrence of Au-Ag bearing silicified veins breccia & silicified host rock discovered in 2004. Significant mineralization along the belt is known at the Golden Bear mine where Carlin-like mineralization (Poulsen, 2000) appears to be associated with Late Cretaceous magmatic rocks and at the Thorn Property where high sulphidation veins and breccia hosted Ag-Pb-Zn-(Au-Cu) is known to be associated with Late Cretaceous hydrothermal alteration.

### **6.3.1 South King Salmon Lake Area Mineralization**

The 2007 field program focused on systematic chip and channel sampling of mineralization discovered in the South King Salmon Lake Area during Rimfire's 2004 field program (Figure 4). The following description of mineralization is from Simmons 2004.

Two gossanous zones dominate the alteration in the south King Salmon Lake area: one in the north-south trending valley covering the SUTL 9 & 10 claims and the other on the ridge and valley (east trending) covering the northern half of the SUTL 12 claim. The majority of attention was focused on the latter because the gossan covering the SUTL 9 & 10 claims was previously explored and turned up little significant mineralization. Mineralization in the south King Salmon Lake area is hosted in sandstone and conglomerate of the Jurassic Laberge Group. These rocks have been intruded by Late Cretaceous dykes trending NW that appear similar to the 93.3 Ma stock at the Thorn property (Thorn Stock), which are also mineralized. Mineralized zones are spatially related to the intrusive dykes, where zones of patchy silicification crop out covering an approximate 50 by 200 m area. This style of mineralization is described in more detail below.

#### **Au-Ag Bearing Silicified Vein Breccia & Silicified Host Rock**

In the South King Salmon area only two of 27 samples assayed below 100 ppb Au. The main zone of mineralization is hosted in silicified vein breccia directly around Late Cretaceous dykes (Figure 4c). Silicified vein breccia is present at the margins of the dykes and extends some 5-8 m into the country rock. Silicified vein breccia is dominantly composed of brecciated sandstone and conglomerate of the Jurassic Laberge Group with chalcedonic quartz-pyrite-galena-sphalerite and trace sulphosalt and chalcopryrite filling the matrix to the breccia. Typically when the breccia is Ag rich it is accompanied by an increase in base metals and a decrease in Au (e.g. 276529 & 276532), however two samples are rich in both Au and Ag (276528 & 276619). Samples of apparently unmineralized host sedimentary rock were taken and were found to carry grades greater than 300 ppb Au including assays of up to 1.31 g/t Au (276572). Away from the main silicified zone vein breccia is focused along WNW trending narrow (up to 5 m wide) structures. Alteration in the area is characterized by strong silica-clay ( $\pm$ biotite) alteration directly surrounding the main silicified zone for approximately 15-20 m. This zone is flanked by a zone of weak to medium clay-chlorite alteration, which pervasively alters the rock throughout the whole of the South King Salmon Lake area.

This style of mineralization is considered significant because grade was observed to carry into both the host sedimentary rocks and the intrusive rocks. Follow up work should be done to observe how far grade carries onto the apparently unmineralized host rock. Where this type of rock carried grade it is described as being a coarse silicified lithic wacke with approximately 1-3% disseminated pyrite. Table 4 outlines the highlights from this area.

**Table 4. Silicified Vein Breccia.**

Sample Number	Year	Width (cm)	Au (ppb)	Ag (ppm)	As (ppm)	Cu (ppm)	Pb (ppm)	Sb (ppm)	Zn (ppm)
276523 <sup>1</sup>	2004	20	4.22g/t	5.5	>10000	45	30	883	162
276524 <sup>1</sup>	2004	Grab	2.13g/t	2.5	>10000	20	38	125	63
276525 <sup>2</sup>	2004	8	1.26g/t	2.6	>10000	38	29	73	120
276526 <sup>1</sup>	2004	Grab	1.51g/t	3.7	>10000	31	24	106	23
276527 <sup>2</sup>	2004	Grab	1.31g/t	2.4	>10000	24	113	83	45
276528 <sup>1</sup>	2004	20	13.35g/t	324g/t	8630	152	5220	152	3400
276529 <sup>1</sup>	2004	10	885	1255g/t	1360	1455	1.09%	586	5.07%
276532 <sup>1</sup>	2004	50	540	1225g/t	7390	407	7890	250	9030
276619 <sup>1</sup>	2004	40	2.53g/t	498g/t	>10000	444	408	177	5590
276624 <sup>3</sup>	2004	Float	2.85g/t	0.6	>10000	7	72	83	31
276710 <sup>1</sup>	2004	10	1.18g/t	4.7	5620	83	589	34	1450
276641 <sup>1</sup>	2004	Float	3.96g/t	3.7	1145	7	48	6	92
276642 <sup>1</sup>	2004	Float	1.10g/t	49	>10000	137	2.04%	75	6690
276643 <sup>1</sup>	2004	Float	270	19.7	4250	498	1840	48	1.18%

<sup>1</sup>Sample of chalcedonic vein breccia

<sup>2</sup>Sample weakly silicified sandstone with 1-3% disseminated pyrite

<sup>3</sup>Sample of mineralized intrusive dyke

## 7.0 2007 CHIP AND CHANNEL SAMPLING

Two areas of anomalous gold and/or silver mineralization described above were systematically chip and channel sampled during the 2007 field program (Table 5; Figure 5, 6, 7). Uniform two metre samples were taken to evaluate the bulk distribution of gold and silver mineralization. The best chip and channel samples from the two areas respectively are; 0.39 g/t Au over 4 metres from Sample site one, 0.30 g/t Au over 12 metres from sample site two and 0.11 g/t Au over 4 metres from sample site three. The results indicate that anomalous gold mineralization is present over moderate width's, but that the 2004 grab sampling that averaged well above 1 g/t gold is restricted to specific structures and areas of intense silicification within the broader zone of silicification.

**Table 5. Summary of 2007 chip sample results.**

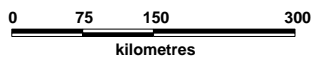
Sample No.	Sample Type	Length (m)	Au ppb	Ag ppm	As ppm	Cu ppm	Pb ppm	Sb ppm	Zn ppm
232976	Rock Chip	2	30	0.25	57.5	32.5	38	7.5	70.5
232977	Rock Chip	2	40	0.2	85	30	38	15	69
232978	Rock Chip	2	510.5	1.5	3745	17	40	35	29
232979	Rock Chip	2	260	1.8	1680	17	34	10	28
232980	Rock Chip	2	40	-0.2	30	35	30	15	75
232981	Rock Chip	2	380	1.5	3740	47	36	30	43
232982	Rock Chip	2	30	0.8	145	49	38	15	75
232983	Rock Chip	2	100	0.6	575	44	38	20	68
232984	Rock Chip	2	70	0.5	425	29	36	15	63
232986	Rock Chip	2	780	1.1	5925	31	38	45	42
232987	Rock Chip	2	460	1	3660	31	32	30	54
232988	Rock Chip	2	-30	-0.2	20	150	38	15	90
232989	Rock Chip	2	90	-0.2	2060	7	26	15	48
232990	Rock Chip	2	70	-0.2	1875	8	30	15	89
232991	Rock Chip	2	70	0.5	1890	5	30	15	50
232992	Rock Chip	2	30	-0.2	765	6	26	5	51
232993	Rock Chip	2	-30	-0.2	45	8	30	10	67
232994	Rock Chip	2	120	0.4	290	9	78	10	67
232995	Rock Chip	2	95	0.2	2840	10	32	40	47

## 8.0 DISCUSSION AND CONCLUSIONS

The 2007 field program successfully determined the distribution of gold and silver mineralization discovered in an area of silicification associated with Late Cretaceous dykes. The area of silicification is significant along with other associated alteration products. However, economic gold +/- silver mineralization discovered to date is restricted to narrow vein breccias and structures within the silicified zone. The area warrants further evaluation in determining if there are any additional areas of anomalous gold mineralization within the broader area of silicification and hydrothermal alteration.

Respectfully submitted,

Rob Duncan  
Rimfire Minerals Corporation  
Vancouver, British Columbia  
March, 2008



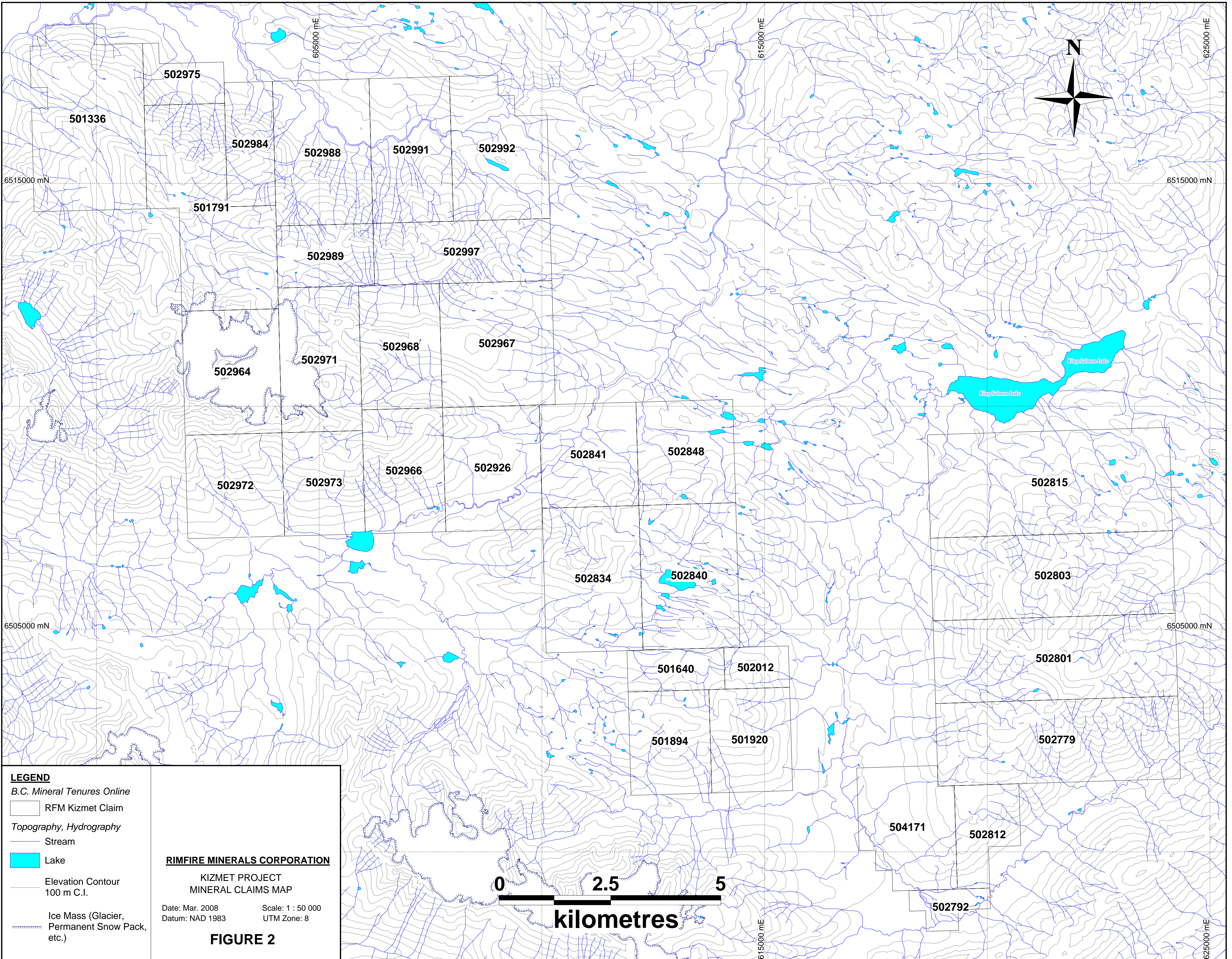
**RIMFIRE MINERALS CORPORATION**

**KIZMET PROJECT**

**LOCATION MAP**

Date:	DEC 2004	Scale:	1:8,000,000	Figure
U.T.M. Zone	UTM8 - NAD83	Mining District	ATLIN	<b>1</b>
N.T.S.	104K/10	State/Province	BC	





**LEGEND**  
*B.C. Mineral Tenures Online*

- RFM Kizmet Claim

*Topography, Hydrography*

- Stream
- Lake
- Elevation Contour  
100 m C.I.
- Ice Mass (Glacier, Permanent Snow Pack, etc.)

**RIMFIRE MINERALS CORPORATION**

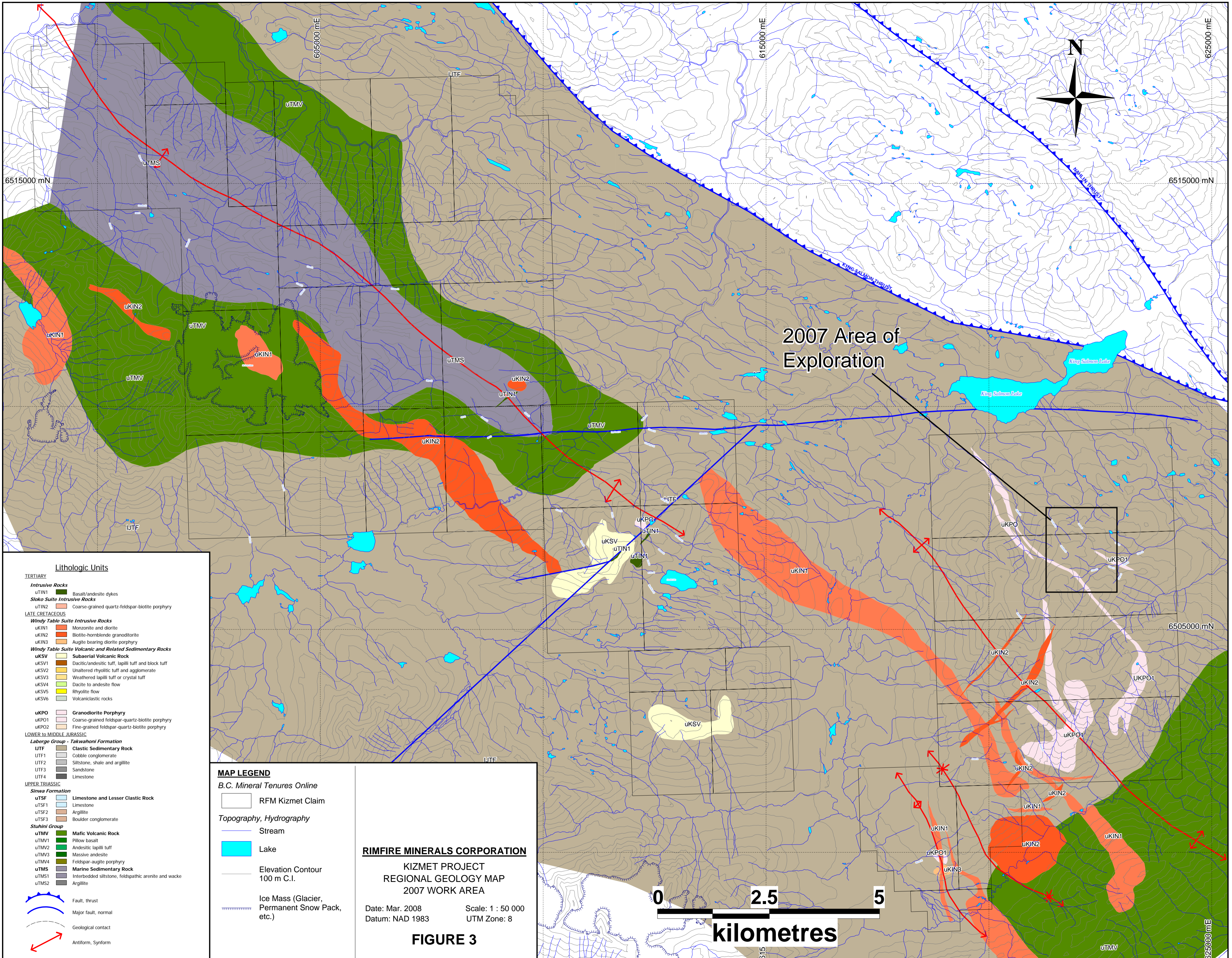
**KIZMET PROJECT  
MINERAL CLAIMS MAP**

Date: Mar. 2008      Scale: 1 : 50 000  
Datum: NAD 1983      UTM Zone: 8

**FIGURE 2**

0      2.5      5  
kilometres





- Lithologic Units**
- TERTIARY**
- Intrusive Rocks**
- uTIN1 Basalt/andesite dykes
- Sloko Suite Intrusive Rocks**
- uTIN2 Coarse-grained quartz-feldspar-biotite porphyry
- LATE CRETACEOUS**
- Windy Table Suite Intrusive Rocks**
- uKIN1 Monzonite and diorite
  - uKIN2 Biotite-hornblende granodiorite
  - uKIN3 Augite bearing diorite porphyry
- Windy Table Suite Volcanic and Related Sedimentary Rocks**
- uKSV Subaerial Volcanic Rock
  - uKSV1 Dacitic/andesitic tuff, lapilli tuff and block tuff
  - uKSV2 Unaltered rhyolitic tuff and agglomerate
  - uKSV3 Weathered lapilli tuff or crystal tuff
  - uKSV4 Dacite to andesite flow
  - uKSV5 Rhyolite flow
  - uKSV6 Volcaniclastic rocks
- uKPO Granodiorite Porphyry**
- uKPO1 Coarse-grained feldspar-quartz-biotite porphyry
  - uKPO2 Fine-grained feldspar-quartz-biotite porphyry
- LOWER to MIDDLE JURASSIC**
- Laberge Group - Takwahoni Formation**
- uJTF Clastic Sedimentary Rock
  - uJTF1 Cobble conglomerate
  - uJTF2 Siltstone, shale and argillite
  - uJTF3 Sandstone
  - uJTF4 Limestone
- UPPER TRIASSIC**
- Sinwa Formation**
- uTSF Limestone and Lesser Clastic Rock
  - uTSF1 Limestone
  - uTSF2 Argillite
  - uTSF3 Boulder conglomerate
- Stuhini Group**
- uTMV Mafic Volcanic Rock
  - uTMV1 Pillow basalt
  - uTMV2 Andesitic lapilli tuff
  - uTMV3 Massive andesite
  - uTMV4 Feldspar-augite porphyry
- Marine Sedimentary Rock**
- uTMS Interbedded siltstone, feldspathic arenite and wacke
  - uTMS1 Argillite
  - uTMS2 Argillite
- Geological Features**
- Fault, thrust
  - Major fault, normal
  - Geological contact
  - Antiform, Synform

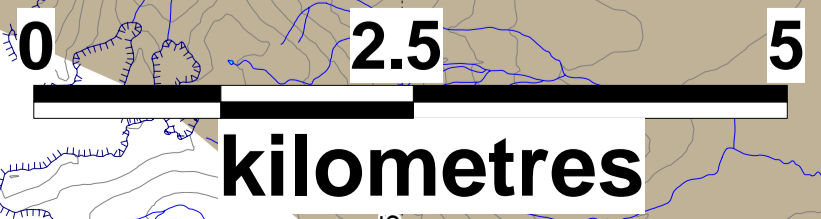
- MAP LEGEND**
- B.C. Mineral Tenures Online**
- RFM Kizmet Claim
- Topography, Hydrography**
- Stream
  - Lake
  - Elevation Contour 100 m C.I.
  - Ice Mass (Glacier, Permanent Snow Pack, etc.)

**RIMFIRE MINERALS CORPORATION**

**KIZMET PROJECT**  
**REGIONAL GEOLOGY MAP**  
**2007 WORK AREA**

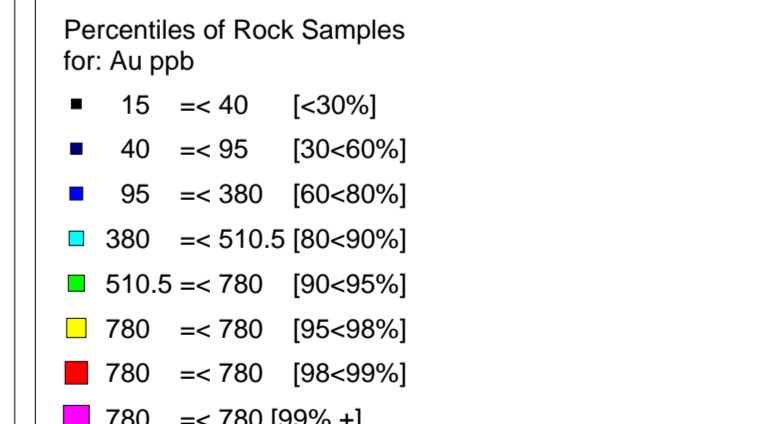
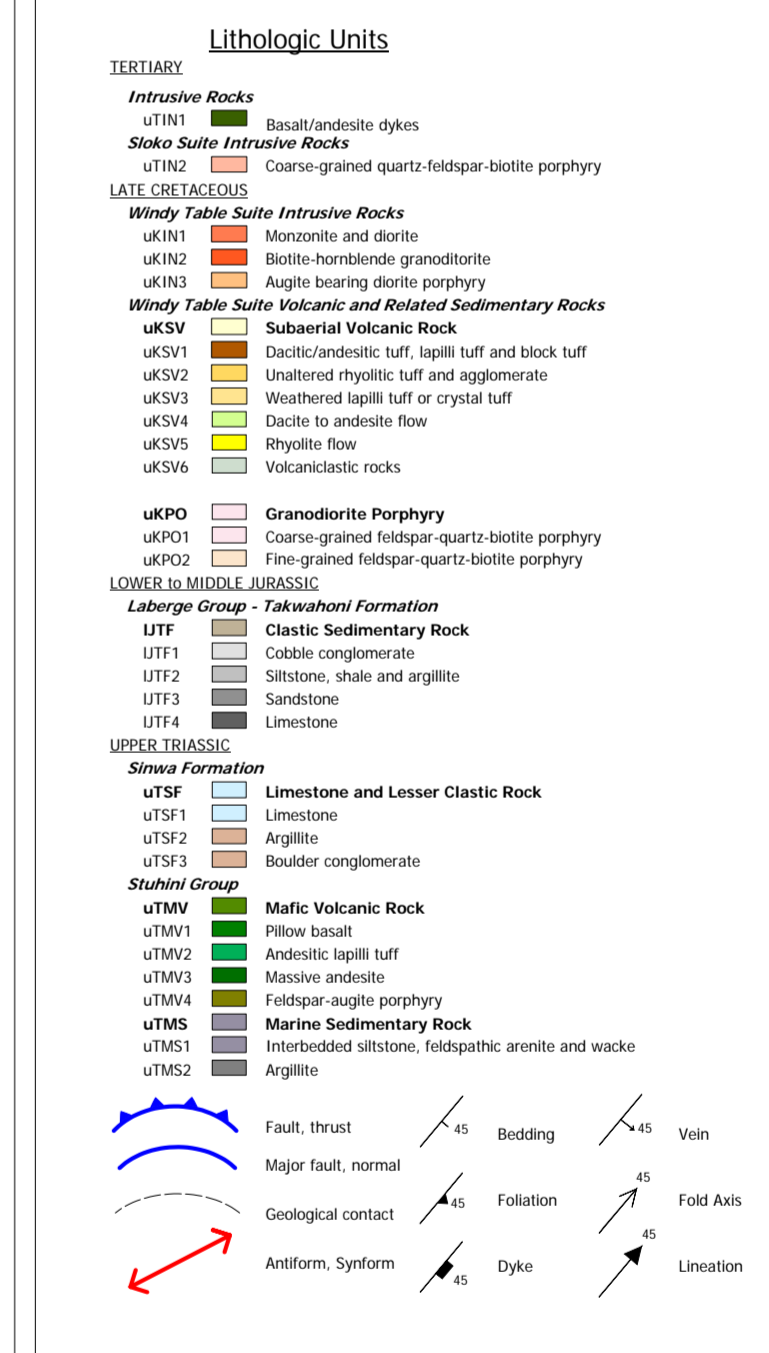
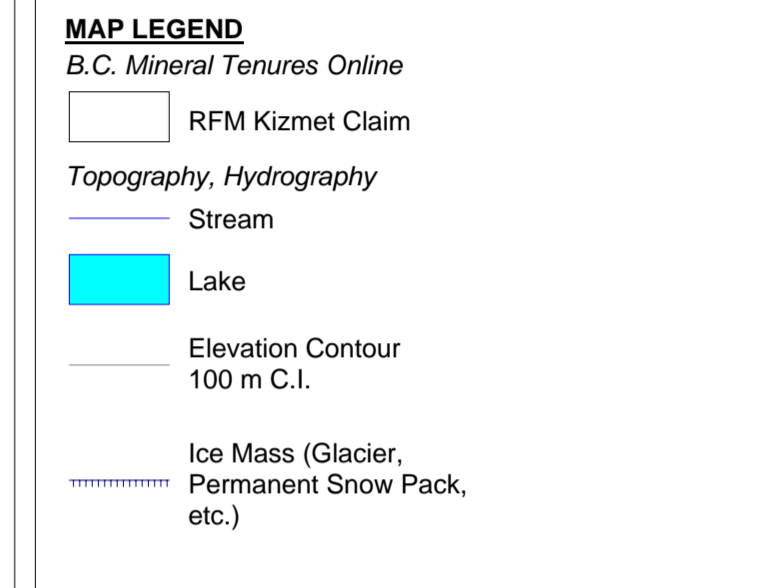
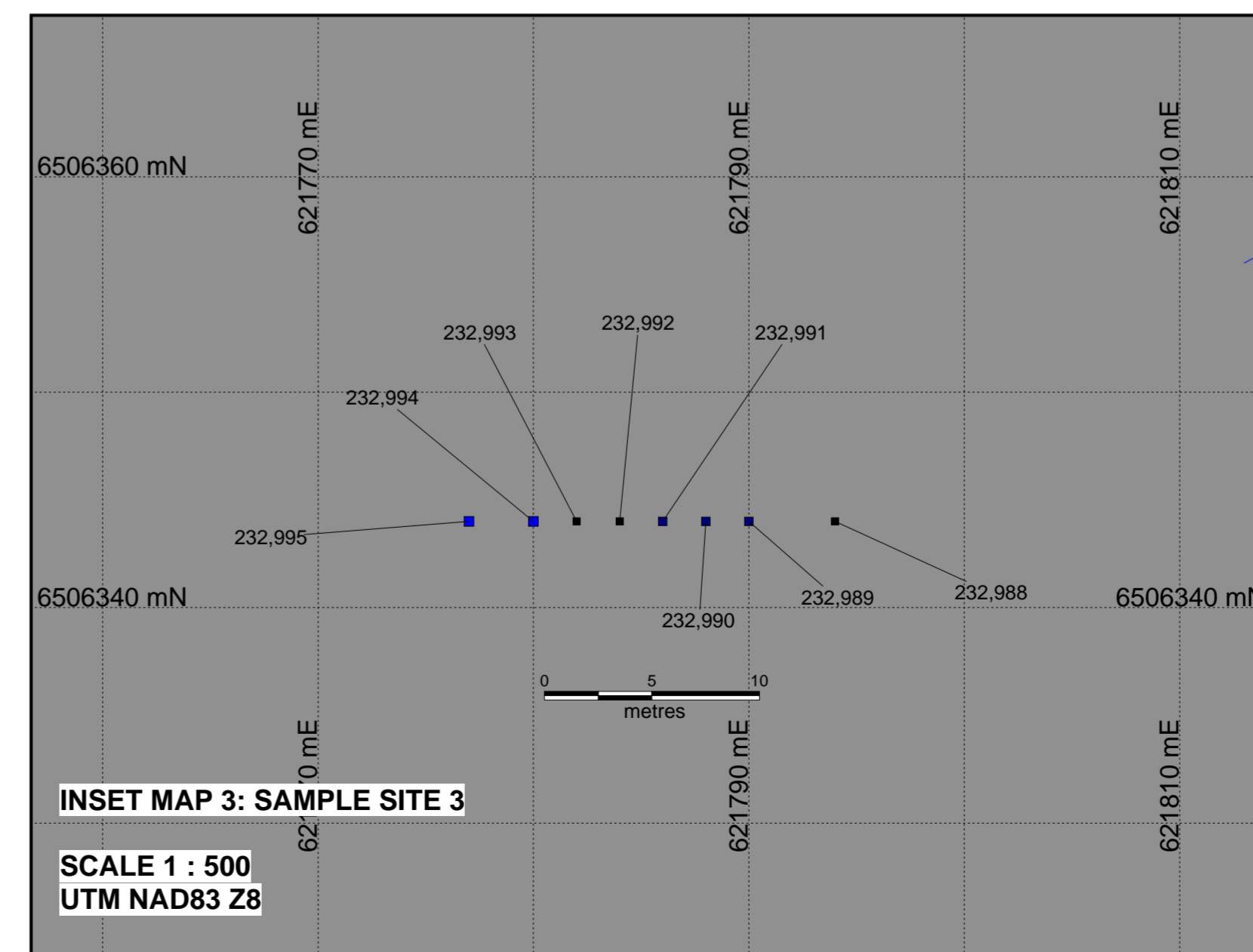
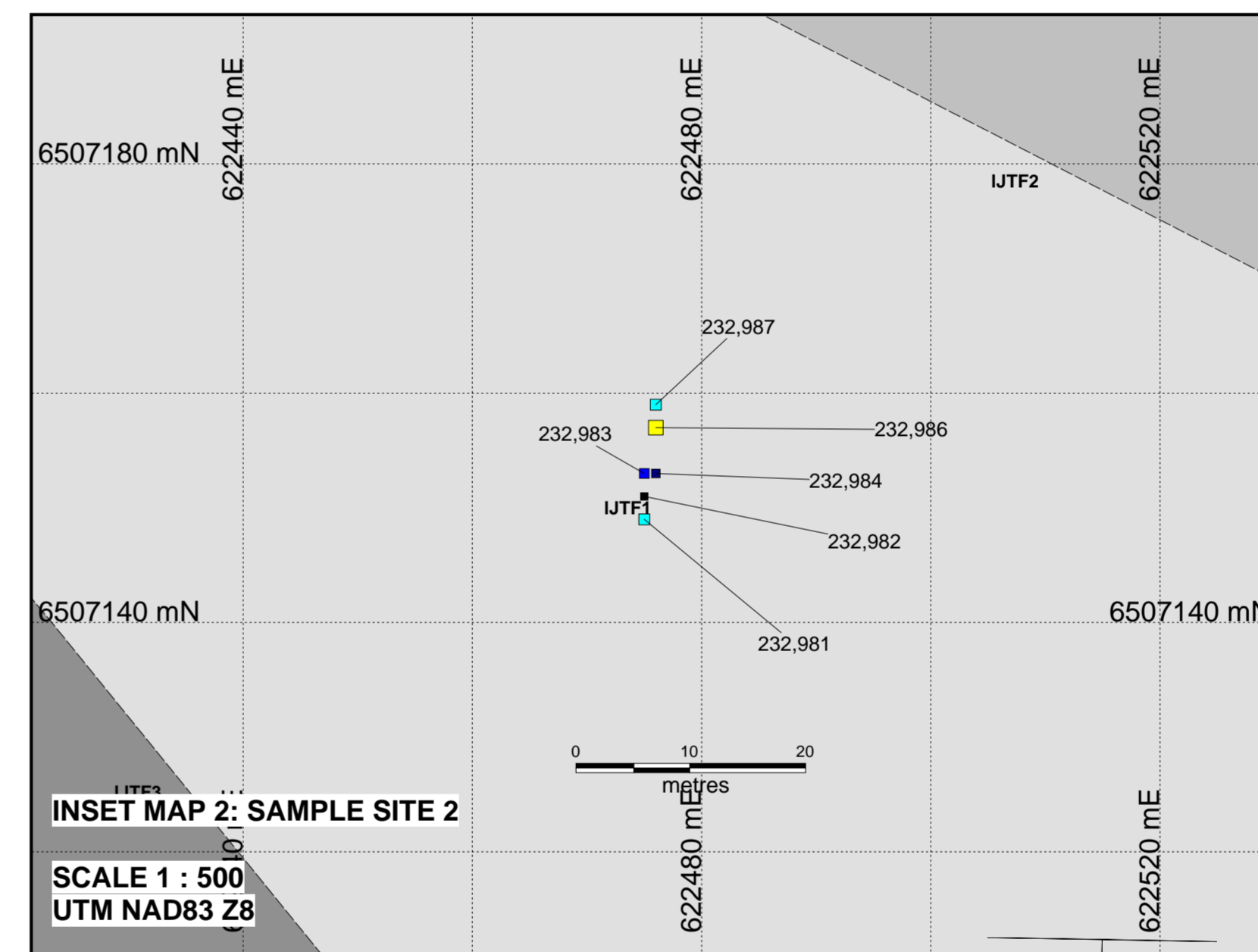
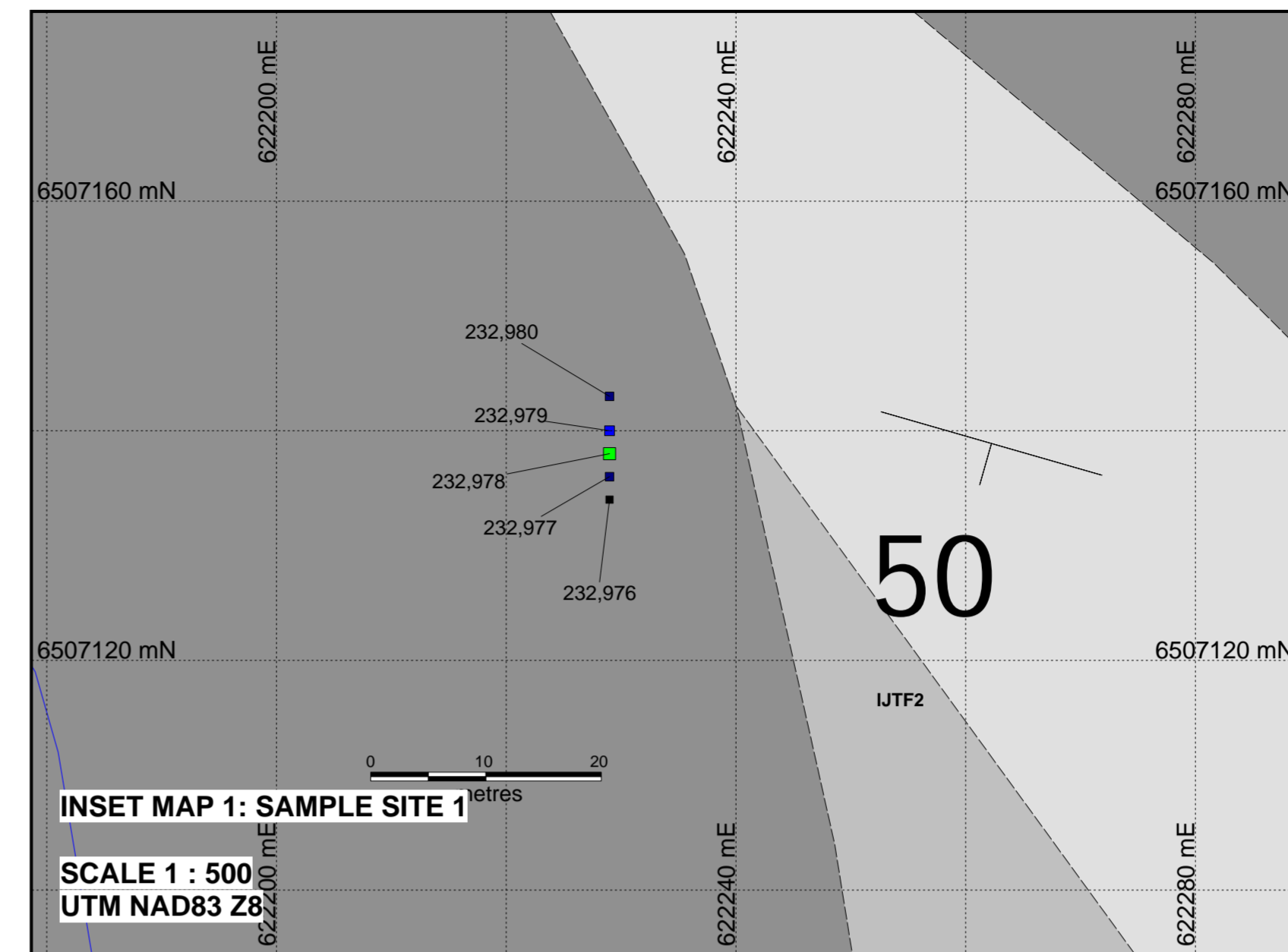
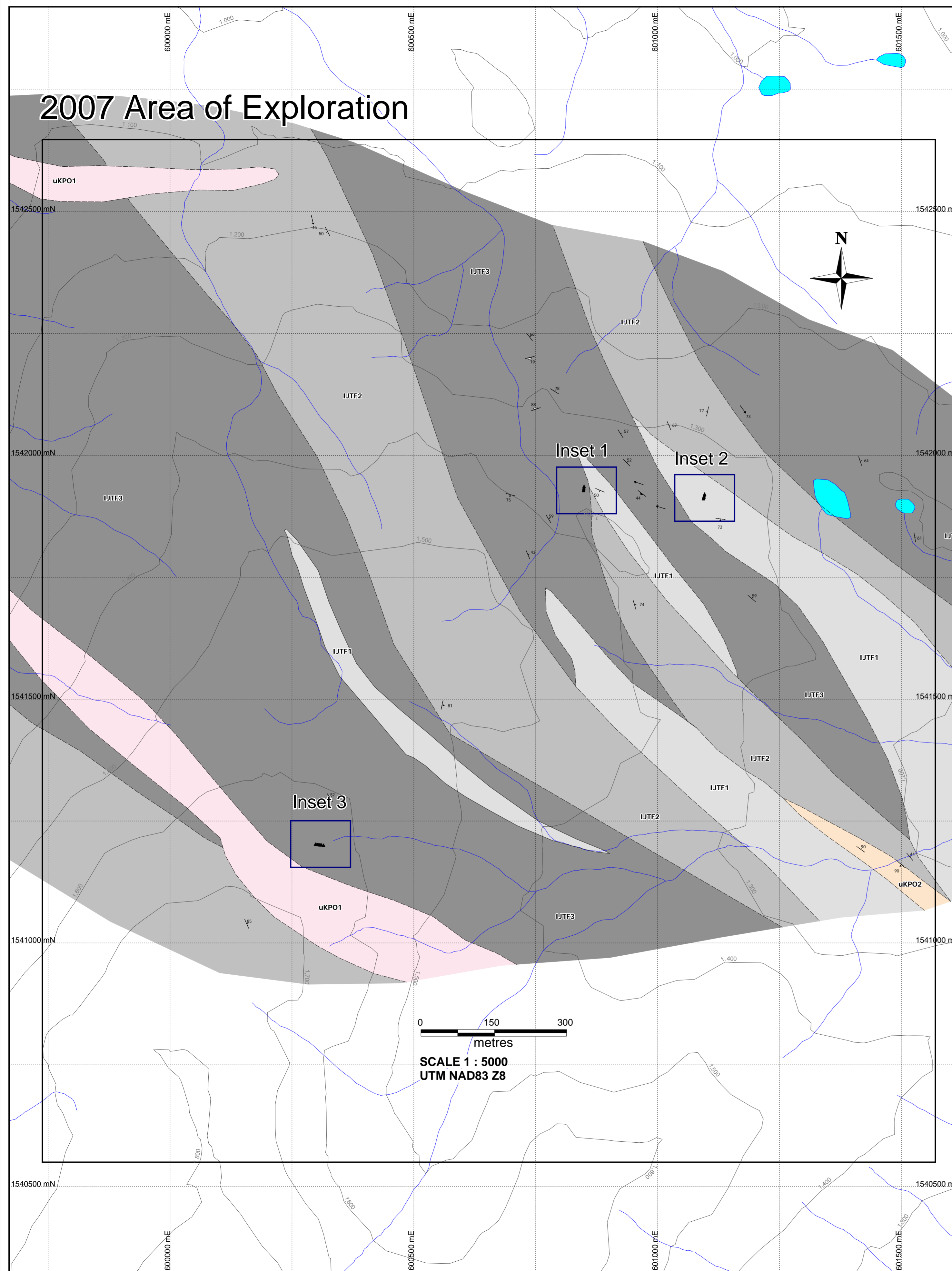
Date: Mar. 2008      Scale: 1 : 50 000  
 Datum: NAD 1983      UTM Zone: 8

**FIGURE 3**





# 2007 Area of Exploration



**RIMFIRE MINERALS CORPORATION**

**KIZMET PROJECT 2007 CHIP SAMPLE GEOCHEMISTRY AND PROPERTY GEOLOGY FIGURE 4**

Date: Mar 2008  
Author: DKL  
Office: Van  
Drawing:

Projection: UTM NAD 83 Zone 8





**Figure 5. Picture of 2007 rock chip sampling at site 1.**



**Figure 6. Picture of 2007 rock chip sampling at site 2.**



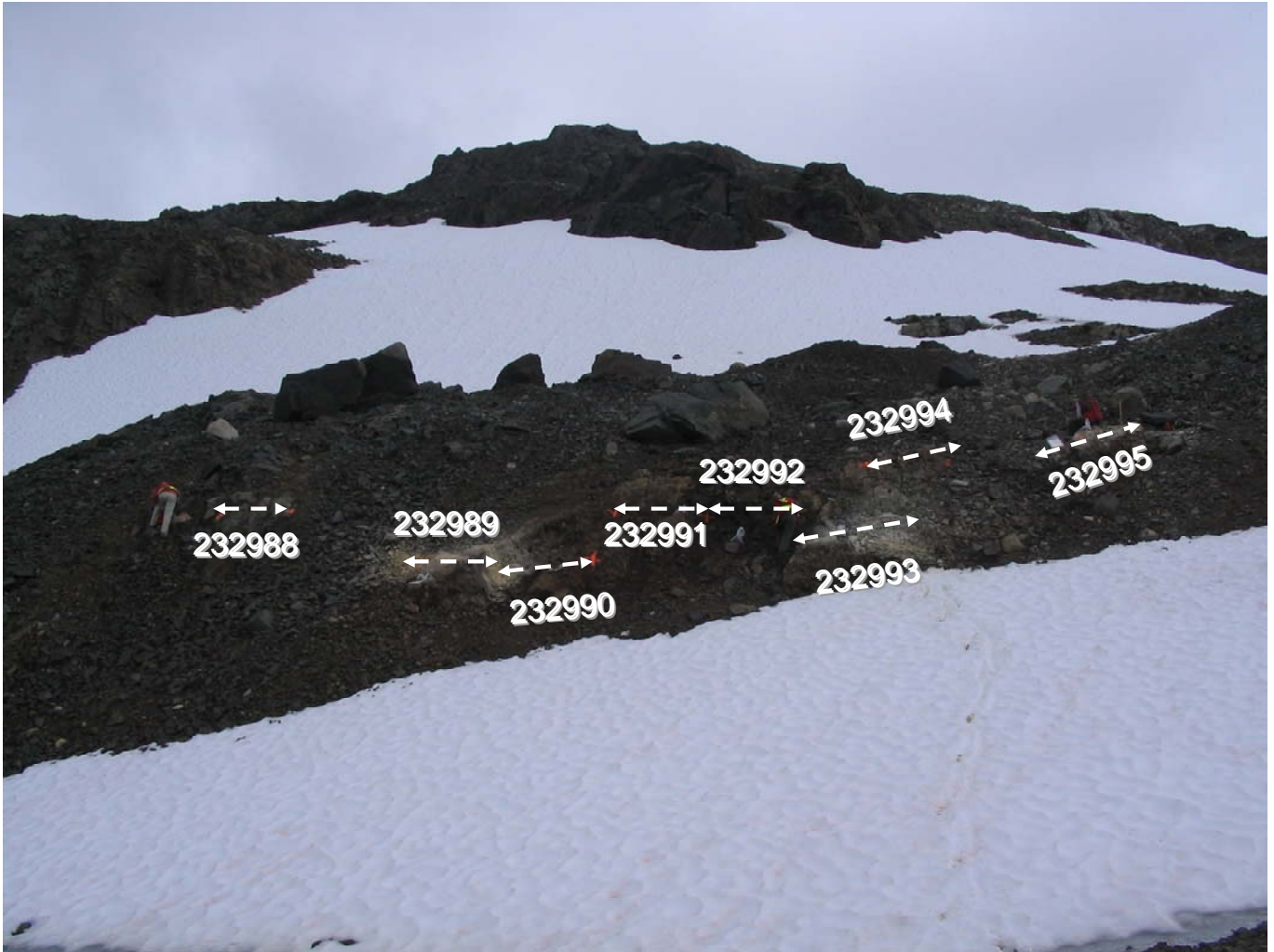


Figure 7. Picture of 2007 rock chip sampling at site 3.

## **Appendix A: Bibliography**

- Aspinall, N.C. (1991a): Geological and Geochemical Report on the Wahb Property, Mount Lester Jones Area, Tulsequah Region, British Columbia Ministry of Energy and Mines Assessment Report #21,522.
- Aspinall, N.C. (1991b): Geological and Geochemical work on the King Claims 2-6, 10-14, Atlin Mining Division, British Columbia, British Columbia Ministry of Energy and Mines Assessment Report #21,530
- Awmack, H.J. (2000): 2000 Geological, Geochemical and Geophysical Report on the Thorn Property; British Columbia Ministry of Energy and Mines Assessment Report #26,433.
- Awmack, H.J. (2003): 2002 Geological, Geochemical and Diamond Drilling Report on the Thorn Property; British Columbia Ministry of Energy and Mines Assessment Report #27,120.
- Baker, D.E.L. (2004): 2003 Geological, Geochemical and Diamond Drilling Report on the Thorn Property; British Columbia Ministry of Energy and Mines Assessment Report #27,379.
- Baker, D.E.L. and Simmons, A. (2004): Thorn Ag-Au Prospect: New Mapping, New Ages, New Discovery; Presentation Abstract for the 2004 Mineral Exploration Roundup, British Columbia & Yukon Chamber of Mines.
- Brown, D. and Hamilton, A. (2000): The Golden Bear Mine: Carlin-type Sediment Hosted disseminated gold deposit in northwestern British Columbia, in Cluer, J.K., Price, J.G., Struhsacker, E.M., Hardyman, R.F. and Morris, C.L., eds., *Geology and Ore Deposits 2000: The Great Basin and Beyond: Geological Society of Nevada Symposium Proceeds*, May 15-18, 200, pages 1002-1020.
- Chapman, J. (1991): Assessment Report on the Tulsequah D Project; British Columbia Ministry of Energy and Mines Assessment Report #21,907.
- Geological Survey of Canada (1988): National Geochemical Reconnaissance 1:250,000 Map Series (Tulsequah); Open File 1647.
- Lambert, E. (1988): Geochemical Report on the LIS 2 Mineral Claim, British Columbia Ministry of Energy and Mines Assessment Report #17,517.
- Lee, C. (1998a): Ground Total Magnetic Survey Field and HLEM Survey at the Lester Jones Block, Red Cap Property, Tulsequah Area, Northwestern British Columbia, British Columbia Ministry of Energy and Mines Assessment Report #25,458.
- Lee, C. (1998b): Ground Total Magnetic Survey Field and HLEM Survey at the Kap Block, Red Cap Property, Tulsequah Area, Northwestern British Columbia, British Columbia Ministry of Energy and Mines Assessment Report #25,459.
- Lee, C. (1998c): Ground Total Magnetic Survey Field and HLEM Survey at the King Salmon Block, Red Cap Property, Tulsequah Area, Northwestern British Columbia, British Columbia Ministry of Energy and Mines Assessment Report #25,460.
- Lintott, K.G. (1981): Assessment Report on Trenching and Drilling GO-1 Claim, British Columbia Ministry of Energy and Mines Assessment Report #9,495.
- Mann, R. and Newton, A., 2006. "2005 Geological and Geochemical Report on the Kizmet, LJ, Sutlahine, EMU, LAW, BS-J, Tunjony and Plum Properties." British

Columbia Ministry of Energy Mines and Petroleum Resources; Assessment Report 28196.

- Mihalynuk, M.G., M.T. Smith, K.D. Hancock and S. Dudka (1994): Regional and Economic Geology of the Tulsequah River and Glacier Areas (104K/12 & 13), in Geological Fieldwork 1993; British Columbia Ministry of Energy and Mines Paper 1994-1, p. 171-197.
- Mihalynuk, M.G., D. Meldrum, S. Sears and G. Johannson (1995): Geology and Mineralization of the Stuhini Creek Area (104K/11), in Geological Fieldwork 1994; British Columbia Ministry of Energy and Mines Paper 1995-1, p. 321-342.
- Mihalynuk, M.G. (1999): Geology and Mineral Resources of the Tagish Lake Area, Northwestern British Columbia; British Columbia Ministry of Energy and Mines Bulletin 105, 201 pages.
- Mihalynuk, M.G., J. Mortensen, R. Friedman, A. Panteleyev and H.J. Awmack (2003): Cangold partnership: regional geologic setting and geochronology of high sulphidation mineralization at the Thorn property. British Columbia Ministry of Energy and Mines Geofile 2003-10.
- Oliver, J.L. (1996): Geology of the Stikine Assemblage Rocks in the Bearskin (Muddy) and Tatsamenie Lake District, 104K/1 and 104K/8, Northwestern British Columbia, Canada and Characteristics of Gold Mineralization, Golden Bear Mine: Northwestern British Columbia, Queen's University, Unpublished Ph.D. Thesis, 242 pages.
- Payne, J.G. (1980): Geology Report, British Columbia Ministry of Energy and Mines Assessment Report #9,048.
- Reid, W. (1987): Geological and Geochemical Report, 1986, on the KS-1 and KS-2 Claim Blocks, British Columbia Ministry of Energy and Mines Assessment Report #15,477
- Sawkins, F.J. (1990): Metal Deposits in Relation to Plate Tectonics, 2<sup>nd</sup> edn., Berlin, Springer-Verlag, 461 pages.
- Sillitoe, R.H. (1972): Relation of Metal Provinces in western Americas to Subduction of Oceanic Lithosphere, Geological Society of America Bulletin, v. 83, pages 813-818.
- Simmons, A., Tosdal, R., Baker, D. and Baknes, M. (2004): Geologic Framework of the Thorn Epithermal Deposit, Northwestern, B.C., Poster Abstract for the 2004 Mineral Exploration Roundup, British Columbia & Yukon Chamber of Mines.
- Simmons, A. T., 2005. "2004 Geological and Geochemical Report on the LJ and Sutlahine Properties." British Columbia Ministry of Energy Mines and Petroleum Resources; Assessment Report 27589.
- Simmons, A.T., Tosdal, R.M., Baker, D.E.L., Friedman, R.M. and Ullrich, T.D. (2005): Late Cretaceous Volcanoplutonic Arcs in Northwestern British Columbia:

- Implications for Porphyry and Epithermal Deposits, in Geological Fieldwork 2004; British Columbia Ministry of Energy and Mines Paper.
- Smith, S.W. (1989): Assessment Report on the Geological and Geochemical Work on the Bryar Mineral Claim, Atlin Mining Division, British Columbia, British Columbia Ministry of Energy and Mines Assessment Report #19,326.
- Souther, J.G. (1971): Geology and Mineral Deposits of Tulsequah Map-area, British Columbia; Geological Survey of Canada Memoir 362.
- Strain, D. and Aspinall, N.C. (1990): Geological and Geochemical Assessment Report on the LJ Property, British Columbia Ministry of Energy and Mines Assessment Report #20,433.
- Sutherland-Brown, A. ed. (1976): Porphyry Deposits of the Canadian Cordillera, Canadian Institute of Mining and Metallurgy, Special Volume 15, page 510.
- Terry, M. (1991): Geophysical Report on the LIS-2 Mineral Claim, British Columbia Ministry of Energy and Mines Assessment Report #21,435.
- Terry, M. (1992): Geological Report on the LIS Mineral Claims, Atlin Mining Division, British Columbia, British Columbia Ministry of Energy and Mines Assessment Report #22,384.
- Thompson, M. and R.J. Howarth (1976): Duplicate Analysis in Geochemical Practice; Analyst, p. 690-709.
- Thompson, M. and R.J. Howarth (1978): A New Approach to the Estimation of Analytical Precision; Journal of Geochemical Exploration, p. 23–30.
- Titley, S.R. (1982): Advances in Geology of the Porphyry Copper Deposits, southwestern North America, Tuscon, University of Arizona Press, page 560.
- White, L.G. (1970): Geophysical Report on a Magnetometer Survey, Mad and Nut Claim Group, Atlin Mining Division, B.C., British Columbia Ministry of Energy and Mines Assessment Report #2,537.

**Appendix B: Statement Of**  
**Expenditures**



**STATEMENT OF EXPENDITURES**  
**Kizmet claims**  
**August 27 – August 29, 2007**

**PROFESSIONAL FEES AND WAGES:**

Adam Simmons, Geologist		
1.75 days @ \$475/day	831.25	
Rob Duncan, Manager Exploration		
2.00 days @ \$475/day	950.00	
Brian Kay, Northgate Project Geologist		
2.00 days @ \$475/day	950.00	
Eva Maclean, Senior Sampler		
1.00 days @ \$250/day	250.00	
Wes Hodson, Drafting/Logistics		
6.00 hours @ \$75/hour	450.00	
		\$ 3,431.25

**EQUIPMENT RENTALS**

Rental Truck Insurance		
3.00 days @ \$10/day	30.00	30.00

**EXPENSES:**

Accommodation	\$ -	
Airfare	743.34	
Automotive Fuel	97.15	
Camp Food	-	
Chemical Analyses	768.00	
Courier	-	
Freight	-	
Helicopter Charter	8,139.92	
Maps and Publications	-	
Materials and Supplies	-	
Meals	344.87	
Parking		
Plot Charges	475.75	
Project Management Fees	194.25	
Taxi and Airporter	98.73	
Truck Rental	441.85	
Radio Rental	-	
Report (estimated)	500.00	11,803.87

**SUB-TOTAL:** \$ 15,265.12

**GST: 6% on sub-total** 915.91

**TOTAL:** \$ 16,181.03

**Appendix C: Rock Sample**

**Locations**

<b>Sample No.</b>	<b>Easting</b>	<b>Northing</b>	<b>Datum</b>	<b>UTM Zone</b>	<b>Sample Type</b>	<b>Length (m)</b>	<b>Certificate</b>
232976	622229	6507134	NAD83	8	Rock Chip	2	AK 2007-1118
232977	622229	6507136	NAD83	8	Rock Chip	2	AK 2007-1118
232978	622229	6507138	NAD83	8	Rock Chip	2	AK 2007-1118
232979	622229	6507140	NAD83	8	Rock Chip	2	AK 2007-1118
232980	622229	6507143	NAD83	8	Rock Chip	2	AK 2007-1118
232981	622475	6507149	NAD83	8	Rock Chip	2	AK 2007-1118
232982	622475	6507151	NAD83	8	Rock Chip	2	AK 2007-1118
232983	622475	6507153	NAD83	8	Rock Chip	2	AK 2007-1118
232984	622476	6507153	NAD83	8	Rock Chip	2	AK 2007-1118
232986	622476	6507157	NAD83	8	Rock Chip	2	AK 2007-1118
232987	622476	6507159	NAD83	8	Rock Chip	2	AK 2007-1118
232988	621794	6506344	NAD83	8	Rock Chip	2	AK 2007-1118
232989	621790	6506344	NAD83	8	Rock Chip	2	AK 2007-1118
232990	621788	6506344	NAD83	8	Rock Chip	2	AK 2007-1118
232991	621786	6506344	NAD83	8	Rock Chip	2	AK 2007-1118
232992	621784	6506344	NAD83	8	Rock Chip	2	AK 2007-1118
232993	621782	6506344	NAD83	8	Rock Chip	2	AK 2007-1118
232994	621780	6506344	NAD83	8	Rock Chip	2	AK 2007-1118
232995	621777	6506344	NAD83	8	Rock Chip	2	AK 2007-1118

**Appendix D: Certificates Of**  
**Analysis (Rock Samples)**

28-Aug-07

**ECO TECH LABORATORY LTD**  
 10041 Dallas Drive  
**KAMLOOPS, B.C.**  
 V2C 6T4

Phone: 250-573-5700  
 Fax : 250-573-4557

**ICP CERTIFICATE OF ANALYSIS AK 2007-111E**

**Northgate Minerals Corp.**  
 Box 3519  
**Smithers, BC**  
 V0J 2N0

**ATTENTION: Carl Edmunds**

*No. of samples received: 19*  
*Sample type: Rock*  
**Project #:4009**  
*Samples submitted by: Daphne Hall*

**Values in ppm unless otherwise reported**

Et #.	Tag #	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
1	232976	0.2	1.91	55	75	<5	0.58	1	14	139	32	4.77	20	1.15	669	6	0.07	21	920	38	10	<20	13	0.03	<10	145	<10	4	70
2	232977	0.2	1.92	85	65	5	0.68	2	15	102	30	4.59	10	1.23	924	8	0.04	21	910	38	15	<20	14	0.03	<10	133	<10	4	69
3	232978	1.5	0.85	3745	60	20	0.32	27	6	91	17	3.37	<10	0.41	372	5	0.03	8	730	40	35	<20	9	0.02	<10	54	<10	<1	29
4	232979	1.8	0.98	1680	65	15	0.09	11	7	74	17	4.06	10	0.50	406	2	0.03	8	930	34	10	<20	<1	0.03	<10	70	<10	<1	28
5	232980	<0.2	1.75	30	95	10	1.69	1	17	72	35	4.54	10	1.33	966	7	0.06	17	1190	30	15	<20	44	0.07	<10	161	<10	6	75
6	232981	1.5	1.03	3740	100	10	0.34	21	8	70	47	3.94	<10	0.58	362	3	0.03	10	1160	36	30	<20	12	0.02	<10	77	<10	2	43
7	232982	0.8	1.90	145	75	5	0.38	1	14	99	49	4.38	10	1.35	517	7	0.04	24	1090	38	15	<20	10	0.03	<10	106	<10	2	75
8	232983	0.6	1.82	575	95	<5	0.31	5	12	75	44	4.20	10	1.22	551	5	0.03	21	1140	38	20	<20	9	0.03	<10	100	<10	3	68
9	232984	0.5	1.86	425	75	20	0.32	4	12	99	29	4.51	10	1.27	560	6	0.04	16	1050	36	15	<20	9	0.03	<10	112	<10	3	63
10	232986	1.1	1.15	5925	45	10	0.11	47	11	72	31	4.44	<10	0.60	454	4	0.02	13	940	38	45	<20	5	0.02	<10	62	<10	<1	42
11	232987	1.0	1.28	3660	70	<5	0.13	23	11	86	31	3.90	<10	0.71	629	6	0.02	13	890	32	30	<20	2	0.02	<10	57	<10	1	54
12	232988	<0.2	3.02	20	175	<5	2.40	2	31	25	150	7.63	<10	2.97	1245	8	0.06	16	770	38	15	<20	93	0.05	<10	324	<10	6	90
13	232989	<0.2	1.06	2060	185	15	0.31	14	6	53	7	2.92	10	0.37	638	8	<0.01	3	940	26	15	<20	17	0.02	<10	19	<10	5	48
14	232990	<0.2	1.06	1875	170	<5	0.31	13	8	33	8	2.91	10	0.31	532	5	<0.01	1	980	30	15	<20	14	0.02	<10	16	<10	5	89
15	232991	0.5	1.10	1890	130	10	0.28	12	6	37	5	3.03	10	0.43	454	4	<0.01	1	970	30	15	<20	10	0.01	<10	19	<10	4	50
16	232992	<0.2	1.10	765	155	15	0.49	4	6	53	6	2.73	10	0.49	604	6	<0.01	2	870	26	5	<20	18	0.02	<10	18	<10	4	51
17	232993	<0.2	1.33	45	100	<5	0.36	<1	9	25	8	3.06	10	0.66	512	4	<0.01	3	1000	30	10	<20	4	0.02	<10	23	<10	4	67
18	232994	0.4	1.14	290	185	5	0.22	3	7	73	9	2.97	<10	0.59	446	8	<0.01	4	730	78	10	<20	10	0.01	<10	22	<10	2	67
19	232995	0.2	1.13	2840	115	10	0.24	26	5	37	10	3.06	10	0.52	283	8	<0.01	5	970	32	40	<20	8	0.01	<10	19	<10	3	47

**QC DATA:**

**Repeat:**

1	232976	0.3	1.94	60	80	10	0.59	<1	14	142	33	4.79	10	1.17	674	4	0.07	18	940	38	5	<20	14	0.03	<10	146	<10	5	71
---	--------	-----	------	----	----	----	------	----	----	-----	----	------	----	------	-----	---	------	----	-----	----	---	-----	----	------	-----	-----	-----	---	----

**Standard:**

Pb113		11.1	0.26	45	50	<5	1.66	39	2	2	2324	1.04	<10	0.11	1441	57	0.01	<1	90	5396	<5	<20	80	0.01	<10	6	<10	1	6967
-------	--	------	------	----	----	----	------	----	---	---	------	------	-----	------	------	----	------	----	----	------	----	-----	----	------	-----	---	-----	---	------

JJ/jl  
 df/5513  
 XLS/07

**ECO TECH LABORATORY LTD**  
 Jutta Jealouse  
 B.C. Certified Assayer

## CERTIFICATE OF ASSAY AK 2007-1118

---

Northgate Minerals Corp.

Box 3519

Smithers, BC

V0J 2N0

30-Aug-07

**ATTENTION: Carl Edmunds**

*No. of samples received: 19*

*Sample type: Rock*

**Project #:4009**

*Samples submitted by: Daphne Hall*

<b>ET #.</b>	<b>Tag #</b>	<b>Au (g/t)</b>	<b>Au (oz/t)</b>
1	232976	0.03	0.001
2	232977	0.04	0.001
3	232978	0.50	0.015
4	232979	0.26	0.008
5	232980	0.04	0.001
6	232981	0.39	0.011
7	232982	0.03	0.001
8	232983	0.10	0.003
9	232984	0.07	0.002
10	232986	0.78	0.023
11	232987	0.46	0.013
12	232988	<0.03	<0.001
13	232989	0.09	0.003
14	232990	0.07	0.002
15	232991	0.07	0.002
16	232992	0.03	0.001
17	232993	<0.03	<0.001
18	232994	0.12	0.003
19	232995	0.10	0.003

**QC DATA:**

**Repeat:**

1	232976	0.03	0.001
3	232978	0.52	0.015
6	232981	0.37	0.011
10	232986	0.78	0.023
11	232987	0.46	0.013
19	232995	0.09	0.003

**Standard:**

OXi54	1.87	0.055
-------	------	-------

JJ/nl  
XLS/07

---

**ECO TECH LABORATORY LTD.**

Jutta Jealouse  
B.C. Certified Assayer

**Appendix E: Cd-Rom**

**Appendix G: Geologist's**  
**Certificate**



I, Rob Duncan, of 4412 Cliffmont Road, North Vancouver, in the province of British Columbia, DO HEREBY CERTIFY:

THAT I am a Geoscientist employed by Rimfire Minerals Corporation., with offices at #700-700 West Pender Street in the City of Vancouver, B.C., in the Province of British Columbia.

THAT I am a graduate of the University of British Columbia (1996) with an Honours Bachelor of Science degree in Geology, and am a graduate student of the University of British Columbia (1999) Master of Science, and I have practiced my profession continuously since 1994.

THAT this report is based on fieldwork carried out by me or under my direction during July 2007, on publicly available reports and on historical data provided to me by previous operators of the Kizmet property. I have examined the property in the field.

Dated at Vancouver, British Columbia, this \_\_\_\_ day of \_\_\_\_\_, 2008.

---

Rob Duncan