

**GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT**

29,152

**TECHNICAL REPORT**

**RANGER 1 - 5 CLAIMS**  
**Tenure numbers 525011-013, 526140-141**

**FOGHORN POLYMETALLIC PROJECT**  
**aka Rexspar Project**

North Thompson River Area  
Kamloops Mining Division  
Birch Island, British Columbia

NTS 82M/12

Latitude 51° 34' North  
Longitude 119° 54' West



Report by: Farshad Shirvani, M. Sc.  
Including Technical Report by: J. T. Shearer, M.Sc., P. Geo.

For: International Ranger Resources Inc.

Date: May 31, 2007.

To Accompany: **Statement of Work No. 4120808.**

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## 1.0 INTRODUCTION

### 1.1 Introduction

This report was prepared to provide technical data in support of Statement of Work No. 4120808, filed on behalf of International Ranger Resources Inc. with respect to mineral tenures that form part of the Foghorn property, North Thompson River Area, British Columbia. It comprises two sections:

- (1) A National Instrument 43-101 compliant technical report, entitled "Technical Geological Report on the Foghorn Polymetallic Project" (hereinafter referred to as the "Shearer Report") dated August 25, 2006 and revised March 2, 2007, by J. T. Shearer, M.Sc., P. Geo.
- (2) A structural study of the Foghorn Polymetallic Project area by Farshad Shirvani, M. Sc.

### 1.2 Location and Access

The Foghorn polymetallic project includes the former Rexspar prospect and nearby mineral claims located in the drainage basin of Foghorn Creek, a north-flowing tributary of North Thompson River, about 130 km north of Kamloops and 5 km south of the town of Birch Island (Figure 1, 2). The project area lies within the Intermontane (Interior Plateau) physiographic province of the Canadian Cordillera.

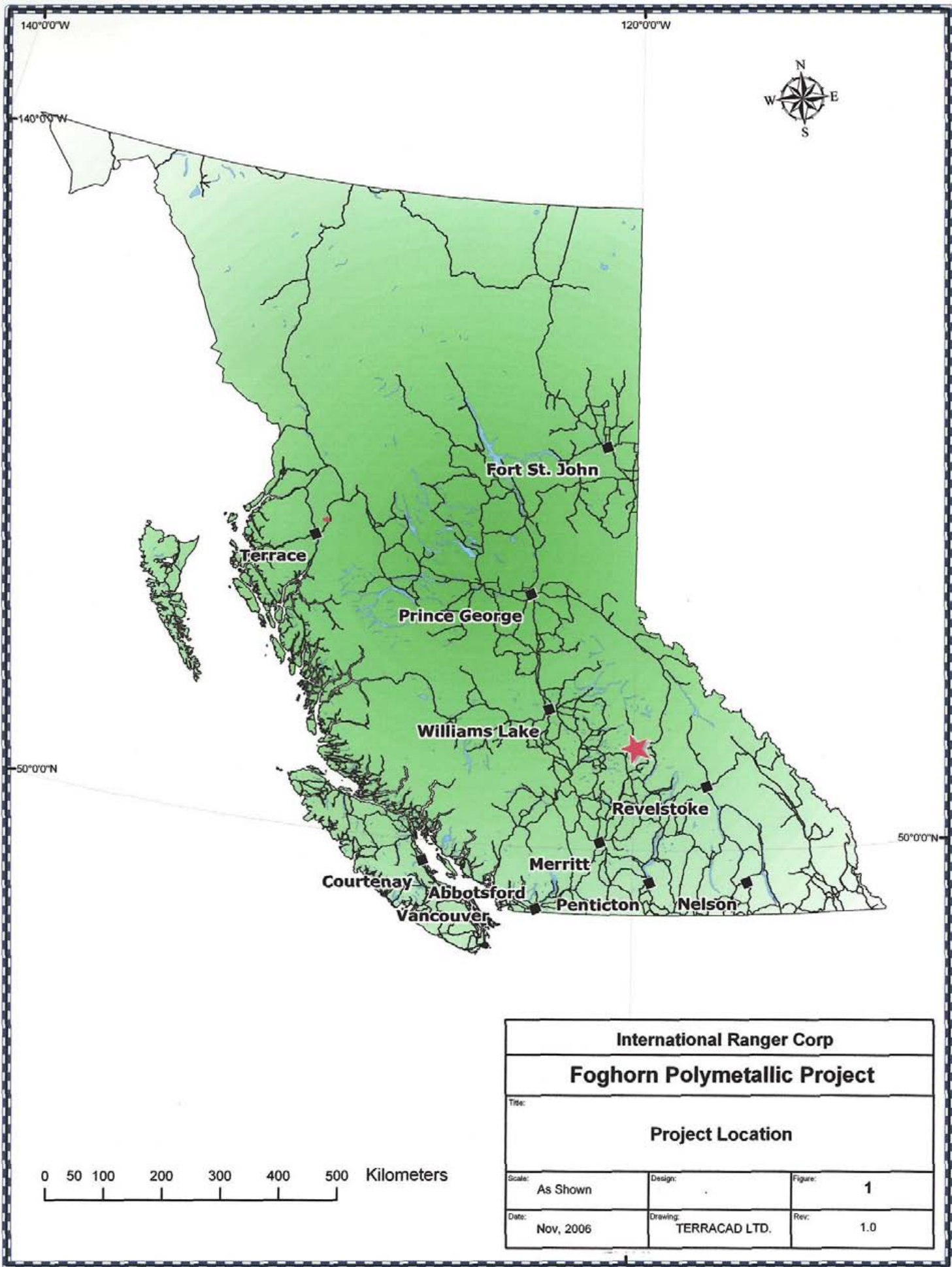
For mining related purposes, the project is within the Kamloops Mining Division.

Access to the project is from Birch Island which is situated south of provincial highway 5 about 10 km east of Clearwater, B. C. The Foghorn Mountain logging road is followed to Km 6 and the final leg to the central part of the property is by 2 km of poor quality mine road. Mineral showings and workings are located on a ridge that forms a "hog's back" between Foghorn and Clay creeks on the north facing slope south of North Thompson River. Elevations are from 1250 to 1370 metres and the terrain, although in part rugged, is mostly forested and relatively accessible by foot trails, and old logging and mining roads.

### 1.3 Property

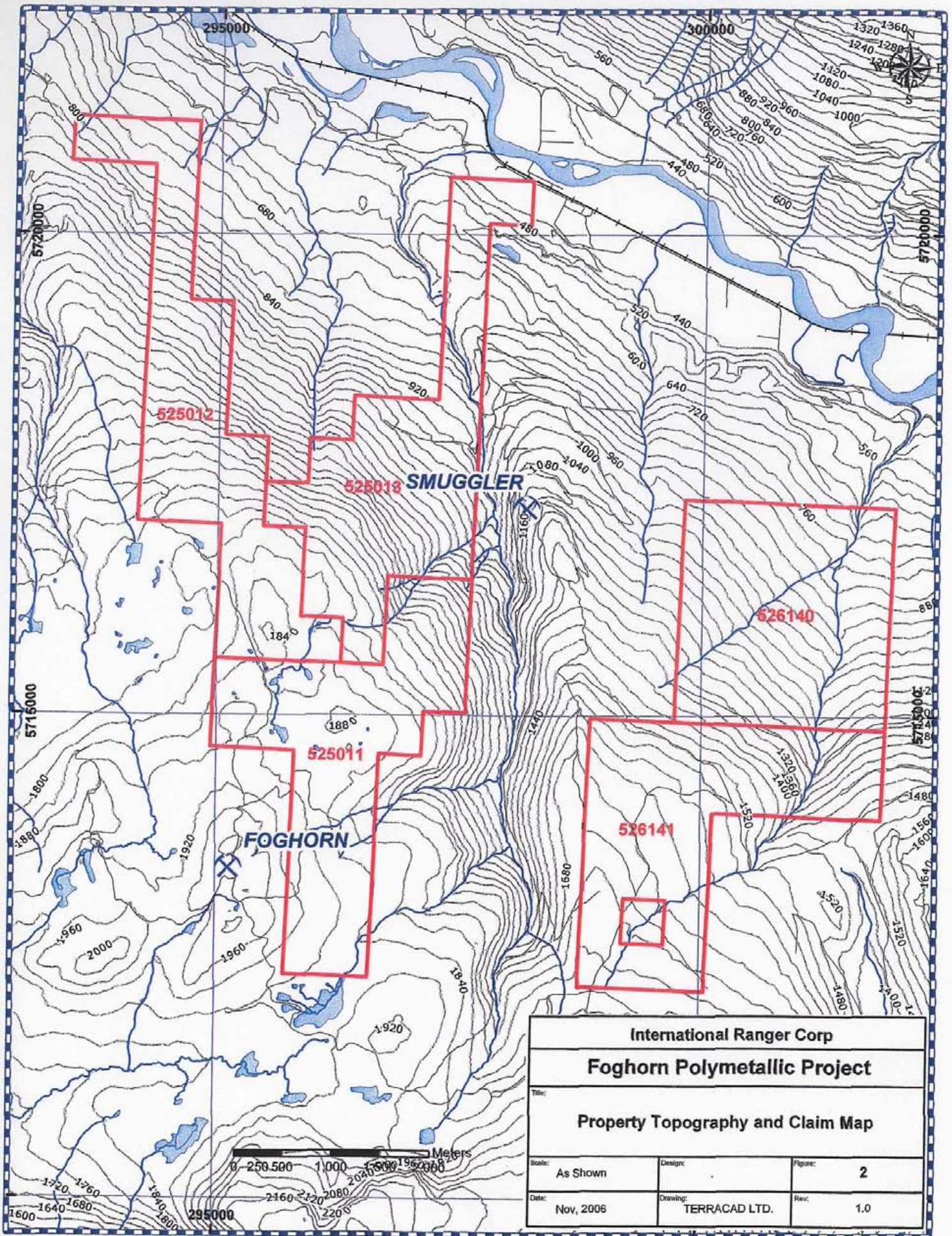
The Foghorn property comprises 40 crown granted mineral claims and five mineral tenures located by provisions of the Mineral Titles Online process. Crown granted claims are listed in Table 1 of the Shearer report and Figure 2 of this report illustrates mineral tenures.

International Ranger Resources Inc. in 2005 purchased the crown granted claims and holds the mineral tenures under agreement to purchase.



<b>International Ranger Corp</b>		
<b>Foghorn Polymetallic Project</b>		
Title: <b>Project Location</b>		
Scale: As Shown	Design: .	Figure: <b>1</b>
Date: Nov, 2006	Drawing: TERRACAD LTD.	Rev.: 1.0

0 50 100 200 300 400 500 Kilometers



<b>International Ranger Corp</b>		
<b>Foghorn Polymetallic Project</b>		
Title: <b>Property Topography and Claim Map</b>		
Scale: As Shown	Design:	Figure: <b>2</b>
Date: Nov, 2006	Drawing: TERRACAD LTD.	Rev: 1.0

#### 1.4 History and Program of Work

Pages 15 through 21 of the Shearer report includes a very detailed history of the Foghorn property. Discovery and first staking was in 1918 and property work has continued intermittently until the present. Work has included at least 17,280 metres of drilling in 368 surface and underground holes and 664 metres of underground development. Former operator Denison Mines Ltd. calculated non-National Instrument 43-101 compliant resource estimates of 1,114,382 tonnes grading 0.077 per cent U<sub>3</sub>O<sub>8</sub> in three uranium zones and 1,441,820 tonnes grading 23.46 percent CaF<sub>2</sub> in a fluorite zone. Although rare earth minerals have been identified on the property, little attention has been directed to that component.

It appears that little ground-based work has been undertaken since 1992.

The present owners of the Foghorn Polymetallic Project acquired the crown granted claims in 2005, commenced data assembly, commissioned a National Instrument 43-101 compliant technical report and prepared a photogrametric structural study. Concommitantly, the company, International Ranger Resources Inc., initiated permitting applications for a Mines Act Permit preparatory to commencement of field work, including diamond drilling. That application was held in abeyance by the District Inspector of Mines pending receipt of additional information. The company on July 10, 2006, hosted a public meeting in Clearwater, B. C. to advise residents of its plans to resume work in the Foghorn Creek area.

The Shearer report and the photogrametric structural study form part of this report and are being submitted to the Mineral Titles Branch in support of a Statement of Work to apply costs incurred as assessment work to maintain the mineral tenures in good standing.

## 2.0 REGIONAL GEOLOGY

The Foghorn polymetallic project is located in a region that is "...underlain by a diverse and complex assemblage of metavolcanic and metasedimentary rocks of the early Palaeozoic Eagle Bay Formation. This formation is intruded to the north by quartz monzonite and granodiorite of the early Cretaceous Raft Batholith and to the south by similar rock types of the Cretaceous Baldy Batholith" (Shearer, p. 24).

Eagle Bay formation rocks "...show moderate to strong foliation" and "...late stage northerly-trending faults are apparent in the Foghorn, Clay and Lute Creek areas" (Shearer, op. cit., p.24).

## 3.0 PROPERTY GEOLOGY

"Much of the Foghorn Polymetallic Project is underlain by quartz-sericite schist, chlorite schist, phyllite and trachytic flows and pyroclastics of the Eagle Bay Formation. Rocks possibly of the Fennell Formation and shale and argillite, which may be part of the Carboniferous Milford Group, are exposed in the westerly part of the claim block" (Shearer, op. cit., p. 24). Shearer reports that the local schistosity has "...a northeasterly strike and a dip of  $\leq 30^\circ$  to the northwest and is, in general, sub-parallel to bedding of the units" (Shearer, op. cit. p. 25).

Mineral zones on the property are shown in Figure 4 of the Shearer report. There are six named zones, including the "A" Zone, an irregular lens containing uraninite with rutile, the "B" Zone, the "BD" (Black Diamond) Zone with uranothorite and rutile, the "G" Zone, with fluorophlogopite in carbonate fractures and pods, with narrow quartz-galena and pyrite occurrences, the "F" Zone, located west of Foghorn Creek, and the "Fluorite" Zone that strikes, on average,  $035^\circ$  and dips northwesterly. Numerous other fluorite occurrences are known, along with several areas of "wad" or bog manganese. Rare earths occur with the uranium but have received little attention.

Shearer includes in his report excerpts from historic drill data but notes that a tabulation of individual assays is not available at the present time.



#### 4.0 J. T. SHEARER TECHNICAL REPORT

J. T. Shearer, M.Sc., P. Geo. in 2006 prepared a comprehensive National Instrument 43-101 compliant report entitled "Technical Geological Report on the Foghorn Polymetallic Project", dated August 25, 2006, revised March 2, 2007. Mr. Shearer in his "Interpretations and Conclusions" section, pages 54 – 56, identified eight topics for future investigation, discussed the genesis of the various mineral zones, highlighted areas with exploration potential, expressed the need for structural studies and airborne surveys using current technology, and the possible presence of "large" molybdenum deposition. In preparation for a resumption of field work, Mr. Shearer recommended a \$240,000 program of preparatory work, digitization of exploration data, review of exploration techniques and geological models, and diamond drilling.

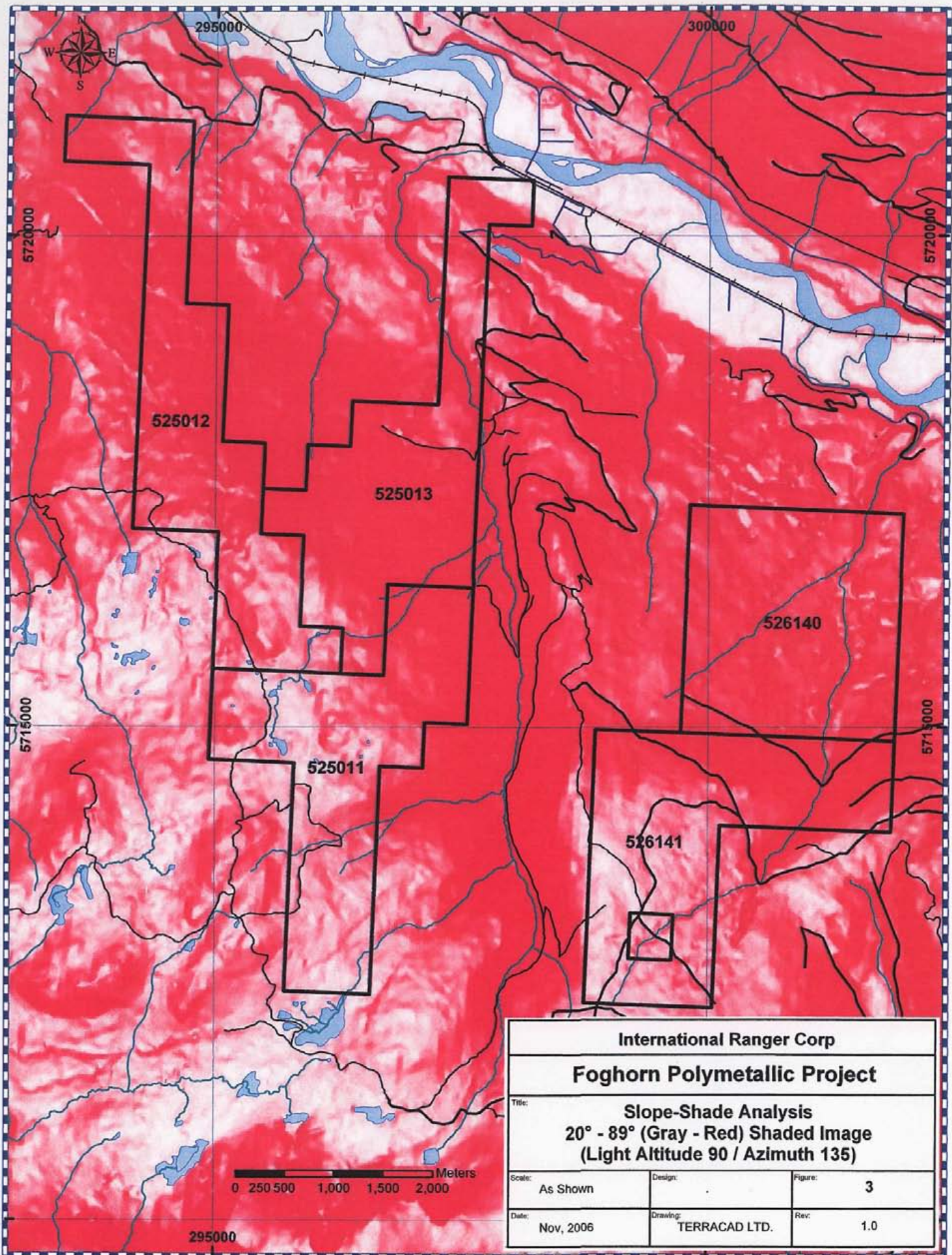
The Shearer report is appended to this report.

#### 5.0 STRUCTURAL STUDY

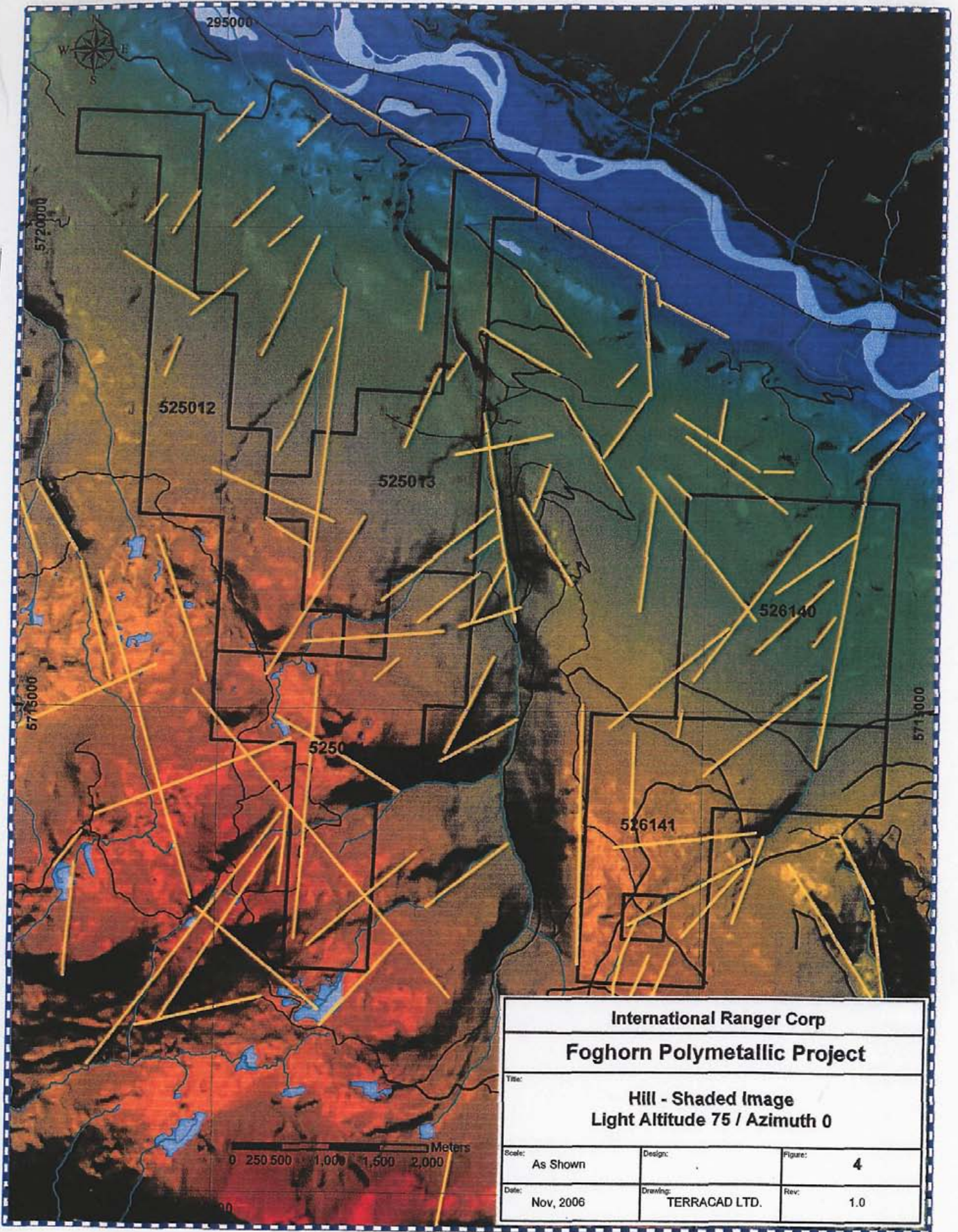
A photogrammetric structural analysis of the Foghorn Polymetallic Project area was undertaken using terrain, aeromagnetic and other data obtained from the provincial Minfile and Map Place databases. Computer-guided techniques were integrated with Global Mapper imagery. [*Note that Landsat coverage in the study area is poor and that available aeromagnetic survey data are similarly unhelpful.*] The objective of the study was to determine the principal structural features in and near the area of the project claims and to attempt to identify any structural elements that are relevant to the search for mineral deposits on those claims. Lineaments were identified with the aid of computer generated shaded relief views.

The following computer software programs were used in support of the studies that are discussed in this report: AutoCAD, Map Info, MICRODEM, ArcGIS and Global Mapper.

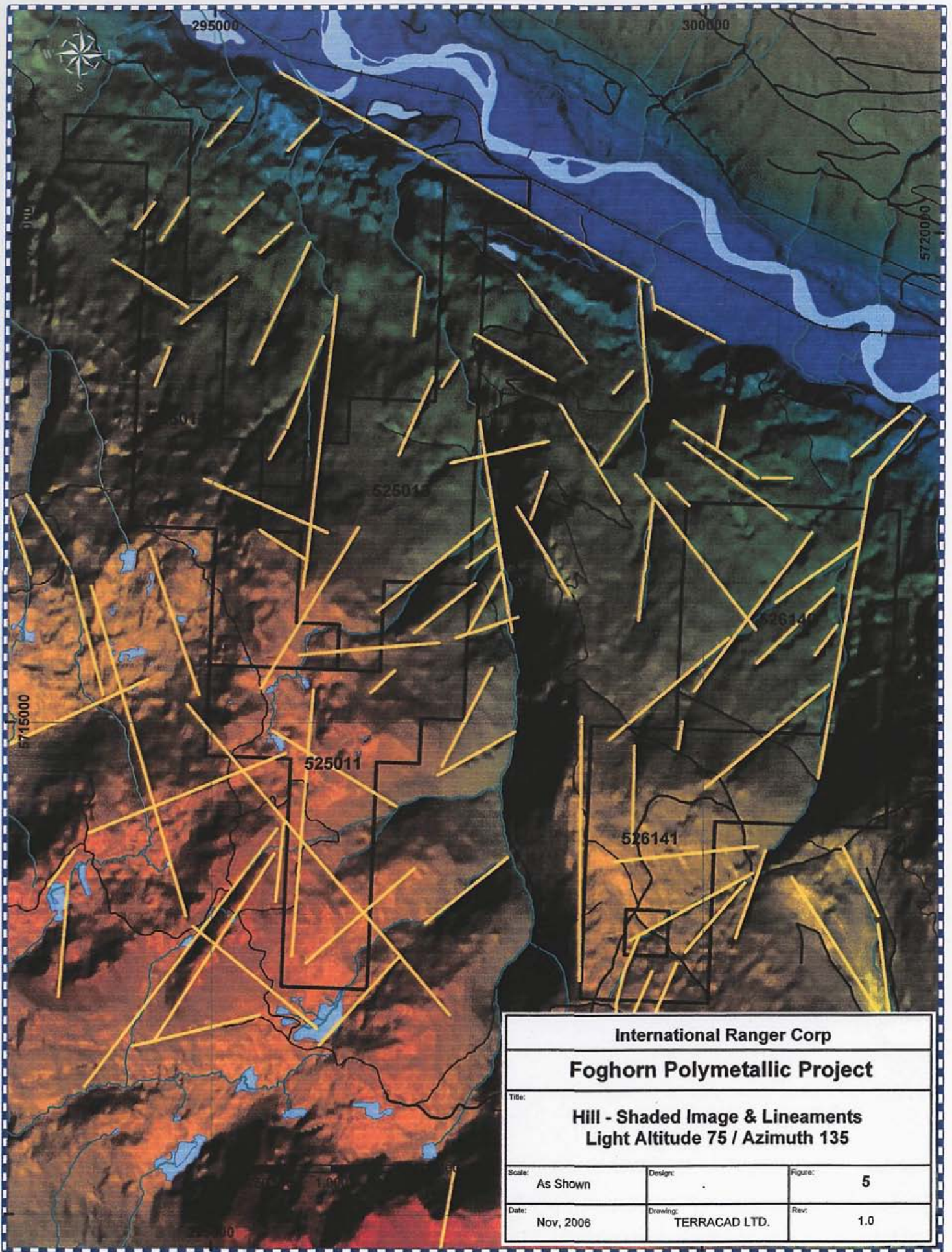
Figure 3 of this report is a Slope-Shade Analysis in which the intensity of the red coloration is proportional to the inclination of the terrain, with lightest shade being the gentlest slope (20° or less) and the darkest shade, the steepest (up to 89°). The method employed utilizes Global Mapper, MicroDEM and ArcGIS computer programs to position a light source 90 metres above the ground, located at 135° azimuth: the resulting image enhances the shadowing effects of fractures and allows maximum definition. This imagery is qualitative but is of value to prospectors and to other field personnel, as, for instance, when planning grid layouts for technical surveys. Figure 3 also shows the network of secondary roads that enable access to parts of the crown granted claims (not shown) and mineral tenures.



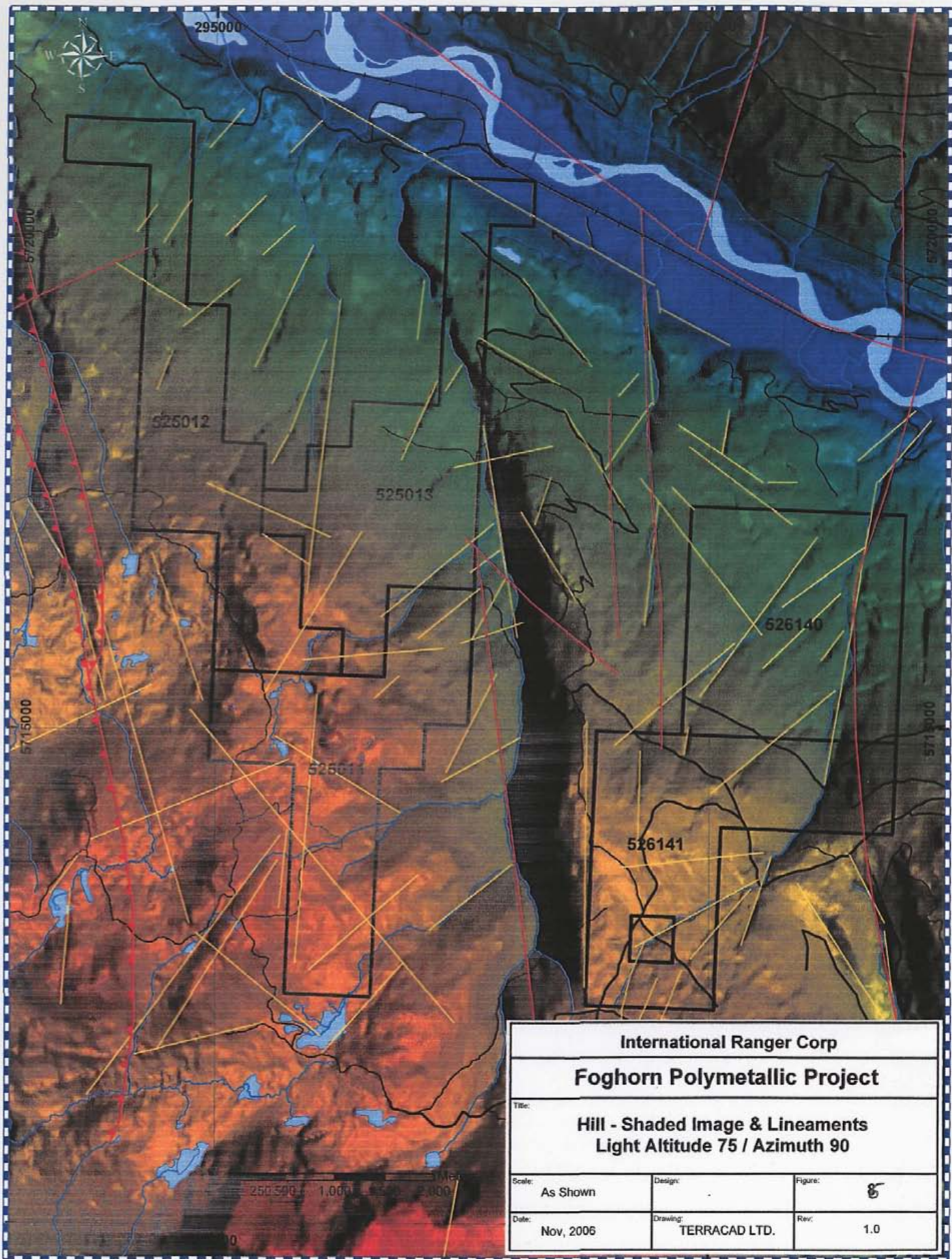
<b>International Ranger Corp</b>		
<b>Foghorn Polymetallic Project</b>		
Title: <b>Slope-Shade Analysis 20° - 89° (Gray - Red) Shaded Image (Light Altitude 90 / Azimuth 135)</b>		
Scale: As Shown	Design:	Figure: <b>3</b>
Date: Nov, 2006	Drawing: TERRACAD LTD.	Rev: 1.0



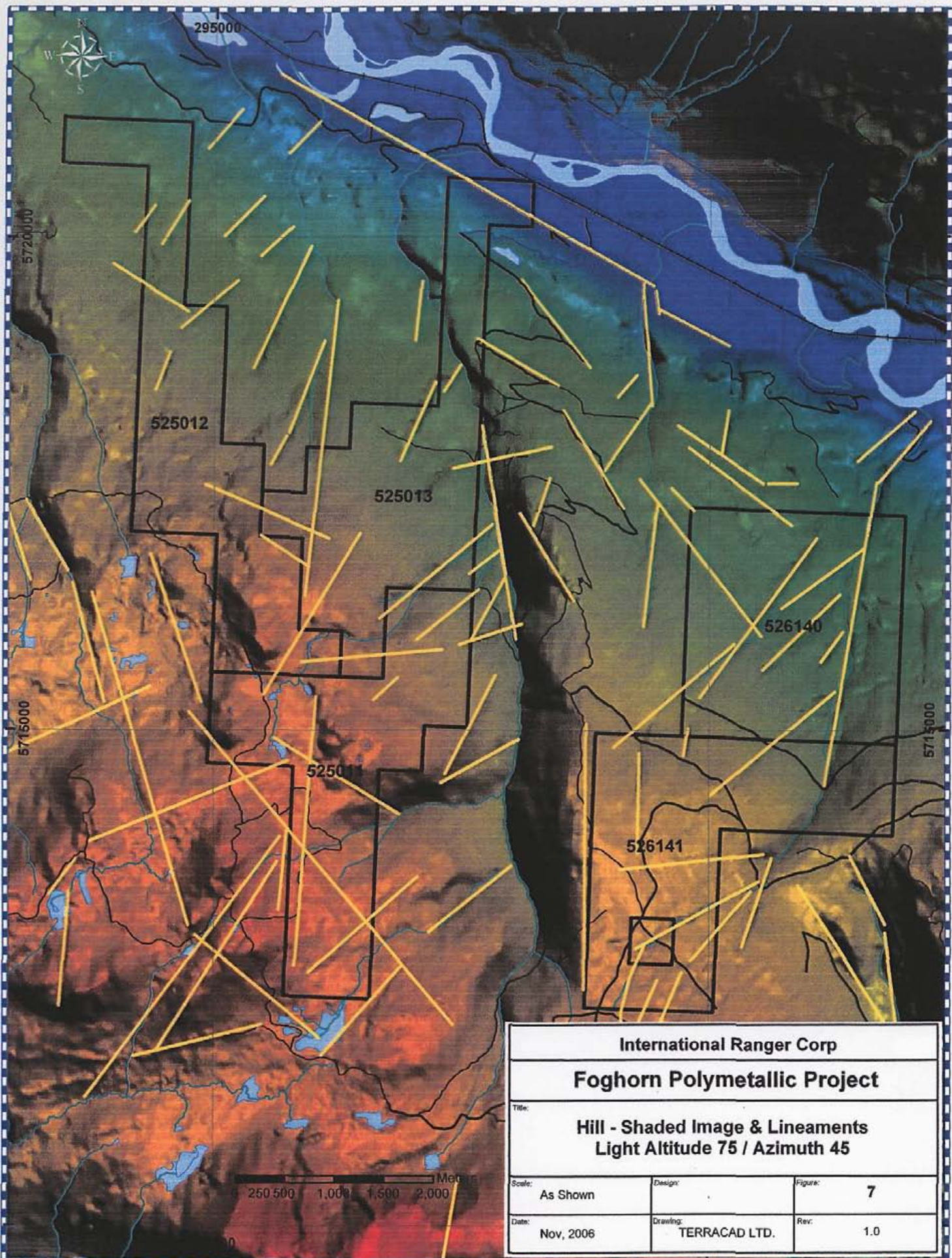
<b>International Ranger Corp</b>		
<b>Foghorn Polymetallic Project</b>		
Title:		
<b>Hill - Shaded Image Light Altitude 75 / Azimuth 0</b>		
Scale:	Design:	Figure: <b>4</b>
Date: <b>Nov, 2006</b>	Drawing: <b>TERRACAD LTD.</b>	Rev: <b>1.0</b>



<b>International Ranger Corp</b>		
<b>Foghorn Polymetallic Project</b>		
Title:		
<b>Hill - Shaded Image &amp; Lineaments Light Altitude 75 / Azimuth 135</b>		
Scale:	Design:	Figure:
As Shown	.	<b>5</b>
Date:	Drawing:	Rev:
Nov, 2006	TERRACAD LTD.	1.0



<b>International Ranger Corp</b>		
<b>Foghorn Polymetallic Project</b>		
Title:		
<b>Hill - Shaded Image &amp; Lineaments Light Altitude 75 / Azimuth 90</b>		
Scale:	Design:	Figure:
As Shown		8
Date:	Drawing:	Rev:
Nov, 2006	TERRACAD LTD.	1.0



<b>International Ranger Corp</b>		
<b>Foghorn Polymetallic Project</b>		
Title:		
<b>Hill - Shaded Image &amp; Lineaments Light Altitude 75 / Azimuth 45</b>		
Scale:	Design:	Figure: <b>7</b>
As Shown		
Date:	Drawing:	Rev: 1.0
Nov, 2006	TERRACAD LTD.	

Figure 4 is a variation of Figure 3 on which are plotted fractures as determined by inspection of the colour-enhanced images. Northwest, north and northeast fracture sets are present. The valley of Foghorn Creek, a north-northwest trending structure, appears to truncate many members of the northeast fracture set. Further study and analysis is warranted, in particular due to its proximity to the polymetallic mineral zones located immediately east of the stream. Of interest, too, is the appearance of several of the streams: the steep v-shaped channels are, at least in part, products of post-glacial up-lift and erosion. Mineral tenure 526140 has several strongly expressed northeast fractures that follow small streams: they are terminated by a strongly expressed north-striking stream valley that is almost certainly fault-controlled.

Figures 5, 6 and 7 are variations of Figure 4 and were prepared in order to supplement the latter figure by placing the light source at different azimuths. The resulting fractures that were identified or confirmed were subsequently plotted on Figure 4.

Because some of the known mineral zones are directly related to fracturing, further structural studies should be pursued: the opportunities to identify sites where potentially valuable mineral occurrences may be found should encourage focused prospecting and soil geochemistry surveys.

## 6.0 REFERENCES

The following sources were useful in the preparation of this report:

Preto, V. A., (1978), Setting and Genesis of Uranium at Rexspar, CIMM Trans. V. 70, no. 800, pp. 82 – 88.

Schiarizza, P. and Preto, V. A. and McLaren, G. P. and Viakow, L. J., 1978-1981: Geology of the Barriere River – Clearwater Area, BCDM Preliminary Map no. 53.

Shearer, J. T. (2006. 2007), Technical Geological Report on the Foghorn Polymetallic Project, private report for International Ranger Resources Inc., 62 pages.

7.0 STATEMENT OF EXPENDITURES

The following expenditures were incurred by International Ranger Resources Inc. in obtaining the "Shearer Report" and computer-aided structural study that are included in this report, and in preparation of the text and copies:

J. T. Shearer, M.Sc., P. Geo. consulting geologist, for fees and expenses, .....	\$5500.00
Farshad Shirvani, M.Sc., geologist and GIS specialist, for data assemblage and compilation, computer generation of images, structural analysis and report preparation related to the accompanying technical report: total of 45 hours @ \$75/hour.....	\$3375.00
Use of licensed software programs, AutoCAD, MapInfo, MICRODEM, ArcGIS, Global Mapper.....	\$ 500.00
Text and illustrations preparation, photocopying, and other printing and binding charges.....	<u>\$ 400.00</u>
<b>Total expenditures.....</b>	<b>\$9775.00</b>





## 8.0 STATEMENT OF AUTHOR'S QUALIFICATIONS

Farshad Shirvani, the author of the attached report, holds BSc. (1983) and MSc (1986) degrees in geology from Shiraz University (Iran). He worked eight years in Iran in mineral exploration, engineering geology and hydrogeology and as Project Manager of the Malayer Reservoir Dam and City pipeline to Hamedan. Resident of Canada since 1996. Citizen of Canada since 2002. Has worked in Canada as a geologist, web designer, AutoCAD specialist, 3D modeler and GIS specialist. Principal of TerraCAD GIS Services Ltd.

A handwritten signature in black ink, appearing to read "Farshad Shirvani". The signature is fluid and cursive, with a long horizontal stroke at the end.

**TECHNICAL GEOLOGICAL REPORT  
ON THE FOGHORN POLYMETALLIC PROJECT  
(Formerly the Rexspar Project)**

Birch Island, BC (Clearwater Region)

North Thompson River Area

NTS 82M/12

Latitude 51° 34' N

Longitude 119° 54' N

UTM ZONE 9, NAD

Kamloops Mining Division

For:

**INTERNATIONAL RANGER RESOURCES INC.**

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August 25, 2006

Revised March 2, 2007

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### 3. SUMMARY

The Foghorn Polymetallic Project has received extensive exploration and development occurring at various times since the initial discovery of fluorite in 1918. The uranium mineralization was discovered in 1949. Several operators have explored the property not only for uranium but also fluorite, molybdenum, lead-zinc, and manganese but no past program considered a coordinated multi-commodity approach. Uncertainties in uranium prices, local opposition and political moratorium prevented the uranium deposits from being developed in the late-1970s by then operator Denison Mines. The moratorium on uranium exploration and development in British Columbia was introduced in 1980 and expired December 1987. The author is personally familiar with the project having visited the property on June 14, 2006 and numerous times in the past and has studied the results of the previous work and discussed the project with others knowledgeable in the area.

Historic uranium resources as calculated by Kilborn in 1977 were reported as 1,114,380 tonnes grading 0.077%  $U_3O_8$  in three uranium zones. The fluorite zone has had a historic resource inventory estimated by Pisani (1970) of 1,441,820 tonnes averaging 23.46%  $CaF_2$ . These resources are historic only. Associated with the Fluorite Zone is the mineral bastnesite which contains elevated rare earth metals. The author has not undertaken any independent investigation of these historic resource estimates nor has he independently analyzed the results of the previous work in order to verify the classification of the resources and therefore the historical estimates should not be relied upon. However, the author believes that these historical estimates provide a conceptual indication of the potential of the property and are relevant to ongoing exploration.

Kilborn's historic 1977 estimates include only material recoverable by open pit mining methods. A tabulation of calculations showing the pit section by section, grades and polygonal calculations are available in Kilborn's 1977 study.

Historic estimates of Fluorite resources on a global geological distribution are based on trench samples and 75 diamond drill holes have varied in the past from 1.3 million tons averaging 23.46%  $CaF_2$  to 2.3 million tonnes averaging 21.3%  $CaF_2$ , with



**Figure 1. Location Map**

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important quantities of celestite, MoS<sub>2</sub> and rare earth metals such as yttrium, cerium and lanthanum.

These resources were estimated prior to the implementation of NI 43-101 and have not been verified by the author. They are included in this report for historical reference.

New exploration techniques, especially advanced geophysics, as well as a better geological understanding of the uranium deposition lend credence to the possibility of discovering further uranium resources. Previous drilling indicated significant thicknesses of fluorite zone extensions albeit at lower grade. The molybdenum potential has not adequately been followed up. All data should be digitized and exploration targets delineated.

A community information session – open house was held on July 10, 2006 and was well attended by interested members of the community. Professional lobbyists should be considered for holding open forum discussions with concerned groups.

An initial budget is set at \$240,000.00 to have all data in order with a diamond drill program to obtain new geological data on the Fluorite Zone.

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#### 4. INTRODUCTION AND TERMS OF REFERENCE

This Technical report was commissioned by International Ranger Resources Inc. to summarize the geology, mineralization and exploration potential for the Foghorn Polymetallic Project situated in the Kamloops mining division south of the village of Birch Island located some 20 kilometres east of the village of Clearwater, British Columbia, Canada. This report was prepared by J. T. Shearer, M.Sc., P.Geo. with some minor sections modified from a report by G. Nicholson, P.Geo dated June 2006. The author of the present report has, in the past, examined drill core, rock samples, confidential drill sections and preliminary resource calculations. The author's field involvement for the current issuer has been limited to a general site visit and he has neither taken samples nor carried out nor commissioned analysis of samples or third party studies for the issuer.

In 1992, eight file boxes of confidential technical data from ConRex Corp was used to initiate a program of exploration on the Fluorite Zone. This data was later returned to ConRex and apparently lost. Parts of the data file was retained, such as the 1954 survey notebooks and geology notebooks, detailed engineering drawings and the historic 1997 Kilborn study for Denison Mines entitled "Consolidated Rexspar Minerals and Chemicals Limited, Birch Island Project Feasibility Study". This 1977 study does not fulfill the requirements of a modern feasibility study.



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## 5. RELIANCE ON OTHER EXPERTS

This technical report has been prepared from data obtained from the reports listed in the reference section and having worked on the Fluorite Zone in 1992. Most of the reports were prepared by persons holding university degree in Geological Sciences. Based on the author's assessment, the information in these reports is accurate. Exploration potential is based on the available personal data, fieldwork and the author's 30 years experience in mineral exploration.

Uranium exploration and development is a divisive political and environmental issue in British Columbia. Keeping the general public updated on the Company's plans and work will be an ongoing issue that should not be taken lightly. To this end the author, along with company management, hosted an information forum in Clearwater on July 10, 2006 which many members of the public attended. Ministry of Mines personnel from Kamloops were also in attendance along with local politicians.

This report is based on published reports by the Geological Survey of Canada, the Geological Survey of British Columbia, and mainly on private reports acquired by or provided to the author. The author has also reviewed documents provided by the company regarding claim tenure and ownership.

As of the date of the certificate attached to this report, to the best of the author's (Qualified Person) knowledge, information and belief, this technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

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## 6. PROPERTY DESCRIPTION AND LOCATION

The Foghorn Polymetallic Project deposit is located approximately 130 kilometres north of Kamloops and 5 kilometres south of the town of Birch Island, latitude 51° 34' N, longitude 119° 54' W (Figure 1). It is reached by travelling south along the Foghorn Mountain logging road to the Km 6 road sign, south from Birch Island, and then along the top switchback mine road. The mineral deposits occur on Red Ridge, which slopes down from Granite Mountain between Foghorn and Clay creeks, at elevations of 1250 to 1370 metres (4100 to 4500 feet). The immediate terrain is characterized by relatively gentle topography that is forested by old growth timber. Numerous outcrops are exposed along roads, trails, trenches, creeks and small cliff sections.

0731183 B.C. Ltd., a private British Columbia company, with offices at #620 – 800 West Pender Street, Vancouver, BC V6C 2V6, negotiated an agreement to acquire an unencumbered, 100% rights, title and interest in 40 Crown granted claims located in the Kamloops Mining Division from Conrex Steel Corp., at Suite 930, 100 Sheppard Avenue, North York, Ontario, M2N 6N5. Terms were agreed in August, 2005, funds placed in escrow, and final transfer to 0731183 from Land, Title Office in Victoria was received October 28, 2005. International Ranger Resources Inc. a reporting United States of America company, (OTC Pink Sheets) arranged for 0731183 BC Ltd to transfer title of all the crowngrant mineral claims to 0782618 BC Ltd having as it's sole officer, J. Walsh (Corporate Secretary of International Ranger Resources Inc.) and being wholly owned by International Ranger Resources Inc. on February 16, 2007, as documented in registration documents examined by the author. The agreement between 1731183 BC Ltd. and 0782618 BC Ltd. calls for a \$150,000 cash payment and 1.2 million shares of International Ranger Inc.

The principals of 0731183 BC Ltd are at arms length with respect to International Ranger Resources Inc. (personal communications with J. Walsh and Farshad Shirvani).

The crown granted mineral claims under agreement to be purchased by International Ranger Resources Inc. are listed on page 11. All readers of this report are reminded that crown grant mineral claims are handled differently from cell and legacy mineral

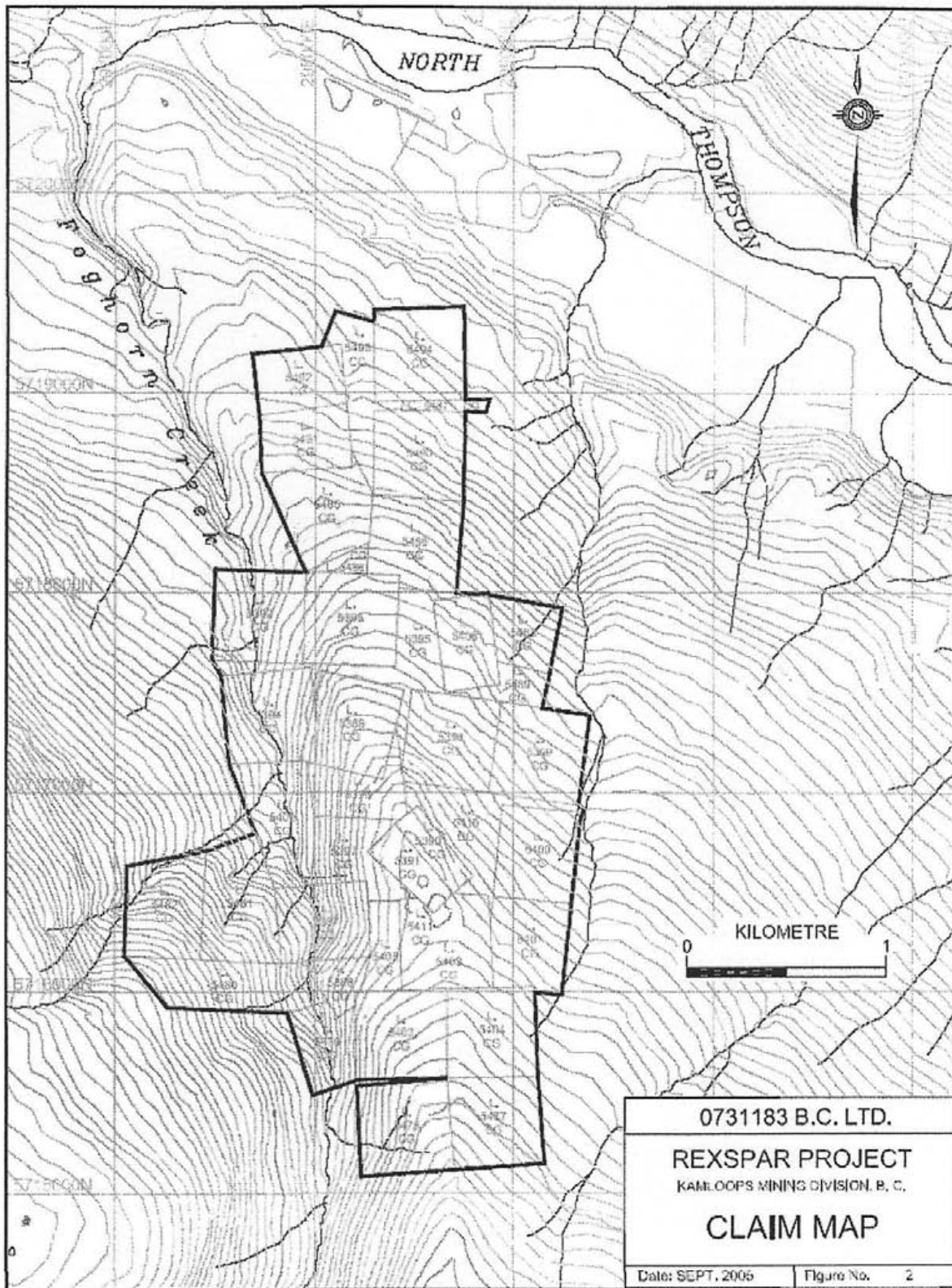


Figure 2. Claim Map

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claims by Mineral Titles Online (MTO) and crown grants have to be called up on a special layer in MTO.

There are new cell claims over top of the existing crown grants but these cell claims do not acquire any of the mineral rights.

The allowing of cell claims to be acquired overtop of crown grants in good standing is a flaw in the MTO System and if necessary the owners of the crown grants can apply to have the cell claims cancelled.

**TABLE I LIST OF CLAIMS**

<b>District Lot #</b>	<b>Mineral Claim</b>
5387	Black Diamond No. 2
5388	Black Diamond No. 1
5389	Smuggler No. 1
5390	Spar No. 1
5391	Spar No. 2
5392	Rex No. 26
5393	Rex No. 25
5394	Rex No. 27
5395	Jane No. 2
5396	Rex No. 19
5397	Rex No. 20
5398	Rex No. 17
5399	Rex No. 18
5400	Rex No. 15
5401	Rex No. 16
5402	Rex No. 12
5403	Rex No. 13
5404	Rex No. 14
5405	Jane No. 4
5408	Rex No. 30
5409	Jane No. 1 Fraction
5410	Jane No. 3 Fraction
5411	Lil No. 39 Fraction
5477	Rex No. 24
5478	Rex No. 23
5479	Rex No. 22
5480	Jane No. 7 Fraction
5481	Jane No. 9 Fraction
5482	Jane No. 8 Fraction
5484	Jane No. 16 Fraction
5485	Lil No. 18
5486	Spar No. 36
5487	Gord No. 8
5488	Lil No. 7

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<b>District Lot #</b>	<b>Mineral Claim</b>
5489	Lil No. 5
5490	Lil No. 13
5491	Lil No. 20
5492	Lil No. 24
5493	Gord No. 6 Fraction
5494	Lil No. 15

An outline of the claims appears on Figure 2.

Annual taxes on these claims are currently set at \$1.25 per hectare. There is a total of 613.67 hectares. The taxes of \$767.09 were paid for 2005/2006 and all claims are in good standing until July 2, 2007. The crowngrant mineral claims which cover the subsurface areas of interest are on crown land and the ability to use the surface of the land should be straight forward. The annual taxes are the only obligation that must be met to retain the claims in good standing.

Because of the sensitivities of uranium exploration mining, beneficiation and use with some segments of the general population of British Columbia, it is expected that obtaining the necessary permits for drilling will require added effort on the part of the company to present the benefits of its activities.

The Open House held in Clearwater on July 10/06 was structured so that the general public had the opportunity to discuss their concerns with company representatives. The company also arranged for the author to be available to address technical and geological concerns and questions as illustrated by using the only box of core in existence in the Flourite zone. The environmental team, headed by Nova Pacific Environmental outlined the baseline studies that have been initiated by the Company, monitoring plans and possible mitigation plans if required at this early exploration phase of evaluation of the property.

Hundreds of local residents participated in the Open House and many received the information they were seeking and the company opened channels for continued dialogue with the community and government regulators.

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## 7. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES INFRASTRUCTURE AND PHYSIOGRAPHY

The property is easily accessible by truck from Kamloops 130 km to the west via provincial highway 5. Locally it lies approximately 5 km southwest of the village of Birch Island, and easily accessible by the main logging road travelling southerly to the Km 6 sign post and then by the top switchback to the main area of past activity (Figure 1).

Topography to the south is rugged with relief of up to 1000 metres. Elevations range from 600 meters above mean sea level in the north Thompson River valley to 2000 meters above sea level at the top of Granite Mountain. The northern portion of the property forms a moderate slope forming the south side of the North Thompson River valley. The area is comprised of low stands of Ponderosa and Jack Pine, hemlock spruce, with alder and birch occupying the creek drainages and North Thompson River valley. Drilling operations would best be carried out from the late spring to the late fall months (April to the end of November) when the ground is snow free.

Climate is typical of central British Columbia with below freezing temperatures ( $0^{\circ}\text{C}$  to  $-40^{\circ}\text{C}$ ) from November to April and periods of hot weather in the summer from  $20^{\circ}$  to  $40^{\circ}\text{C}$ . Precipitation averages 80 centimetres a year, with a substantial portion in the form of snow averaging 2.4 metres per year.

A skilled labour force for mining and exploration is available in Kamloops, which is also a major supply and service center for the mining and forestry industries.

The property has access to good infrastructure with both the Canadian National Railways mainline and Provincial Highway 5 (Yellowhead) located in the North Thompson River valley just below the property. B.C. Hydro power transmission lines bisect the property.

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## 8. HISTORY

Fluorite on the Foghorn Polymetallic Project property was originally discovered and staked in 1918; lead-silver showings were found in 1926 and a bog manganese prospect was discovered north of the other showings in 1929. Work on the property was sporadic until the 1940s when drilling was undertaken to define the extent of fluorite mineralization. The presence of uranium was discovered in 1949 after which extensive drilling and underground work, during the early and mid-1950s, outlined three zones of uranium mineralization, the "A", "B", and "BD" or Black Diamond zones. From 1969 to 1976, surface work, diamond drilling and underground development was conducted on the property. Geological mapping of the Fluorite Zone was conducted by the author for American Bullion and linecutting and radiation surveys completed.

Between 1943 and 1976, approximately 17,280 metres of drilling was completed in 368 surface and underground holes which, together with underground work, defined combined historic resources of 1,228,400 tons (1,114,382 tonnes) grading 0.077 per cent  $U_3O_8$  (1.546 lbs/ton  $U_3O_8$ ) in the three uranium zones. The fluorite zone has a resource of 1,441,820 tonnes averaging 23.46 percent  $CaF_2$  (Pisani, 1970B) The underground development consisted of drifts, cross cuts and raises for a total of 664 metres into the "A" and "BD" uranium zones. Kilborn Engineering in 1977 provided the expertise to assemble a report on the uranium resources. The author has not undertaken any independent investigation of these historic resource estimates nor has he independently analyzed the results of the previous work in order to verify the classification of the resources and therefore the historical estimates should not be relied upon. However, the author believes that these historical estimates provide a conceptual indication of the potential of the property and are relevant to ongoing exploration.

Kilborn's estimates include only resource recoverable by open pit mining methods and a tabulation of Kilborn's calculations showing pit sections, grades and content is given in their 1977 study.

The Fluorite Deposit has been defined by extensive surface trenching and 75 diamond drill holes. Detailed geological mapping was completed by Denison Mines



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Limited in 1970 and considerable metallurgical testing has been undertaken. Mineral inventory estimates indicate a substantial resource of between 20% to 30% fluorite with important amounts of celestite and rare earth metals.

These resources were estimated prior to the implementation of NI 43-101 and have not been verified by the author. They are included in this report as historical reference.

In the early to mid 1950's Rexspar Uranium Metals and Mining Co. Ltd. conducted a comprehensive surface geological mapping, diamond drilling and subsequent underground exploration program. A summary of the program is as follows:

**1951** A limited program of prospecting and development was undertaken during the year. Three trenches exposing 110 feet of strike length over an area of high Geiger counts were completed, the new zone was located approximately 500 feet south of the known fluorite showing and was termed the "A" Zone. Results from the trenching returned an average uranium oxide content of 2.0 lbs per ton. Two additional zones were located by geiger counter.

**1952** Fifty diamond drill holes were completed on the property between late June and mid-December. Thirty one holes totalling 4825 feet were completed on the "A" zone. This drilling outlined a mineralized zone approximately 500 feet long with an average thickness of 19 feet, striking 015° and dipping 30° west, drill intercepts gave a slope depth of 125 feet. Further drilling to the west did not intercept the mineralized zone. Fifteen holes totalling 3786 feet were drilled and successfully identified the "Black Diamond" (BD) Zone. This drilling confirmed a second mineralized zone similar in the strike and dip and character to the "A" zone. Drilling outlined a mineralized lens measuring 250 feet on strike and 250 feet down dip with thicknesses ranging up to 50 feet. Four further holes were drilled to test a radioactive area at the north end of the fluorite zone. The results from this drilling were inconclusive.

**1953** A new camp was constructed including bunkhouses, cook house and offices, a new road measuring seven and one half miles was constructed, diamond drilling of 22 holes totalling 4335 feet were drilled with emphasis on the "BD" zone. The drilling successfully extended the known mineralized zone and in November, a 164 foot

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crosscut adit was completed. The adit was collared at an elevation of 3,720 feet. The company also conducted metallurgical tests on material from the property.

**1954** Underground exploration continued with 599 feet of drifting, 240 feet of crosscuts and 66 feet of raising was completed. An additional 48 holes totalling 4755 feet of diamond drilling was completed from underground. Additional surface diamond drilling totalling 4000 feet was also conducted which focused on extending the "BD" zone and testing limits on the "A" zone.

**1955** Underground exploration began on the "A" zone. An adit was collared at an elevation of 2,840 feet. By May the company had completed 700 feet of drifting and crosscutting, 405 feet of raising and 3,549 feet of underground drilling. A supplementary program of in fill surface diamond drilling was also completed by the end of July. The surface program consisted of 39 holes totalling 4,021 feet.

**1956** continued underground exploration of the "A" zone an additional 1065 feet of drifting crosscutting and raising were completed.

**1956-1967** – Little work was completed on the property.

**1968** Denison Mines Limited conducted an airborne gamma-ray and magnetics survey on the property. Subsequently 4 miles of soil geochemical surveying was conducted over the property testing for uranium and molybdenum.

**1969** Denison Mines Limited conducted a large exploration program consisting of 130 line miles of Induced Polarization surveys, 145 line miles of scintilometer surveying, 18 line miles of radon surveying, 1,200 feet of bulldozer trenching exposing three trenches and diamond drilling totalling 5000 feet.

**1970** Denison Mines Limited continued its exploration program with geological surface mapping, 63.2 line-miles of scintilometer surveying, 985 soil samples and diamond drilling of 26 holes totalling 3,908 feet.

**1972** Denison Mines Limited continued exploring the property with 186 soil samples some trenching, and surface diamond drilling of seven holes totalling 2,373 feet.

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**1973** Kerr Addison Mines Limited drilled six diamond drill holes totalling 2,020 feet.

**1974- 1975** Denison Mines Limited under took a review of all previous work conducted on the property, and conducted 1300 feet of vertical drilling in 11 holes.

**1976** Denison Mines Limited continued its review of all previous work conducted on the property. The company published under a rights offering the following estimates "indicated fluorspar resources of some 1.3 million tons amenable to open pit mining and uranium resources estimated at 1,561,000 tons averaging 1.76 pounds of U<sub>3</sub>O<sub>8</sub>." The company later states that a report prepared for the company by an independent consultant summarizes there results as follows: "The resources have been calculated at 1.62 million tons at an estimated grade of 1.50 pounds of uranium oxide per ton."

**1977** In a prospectus delivered to the deputy Minister of Mines Province of British Columbia by Kilborn Engineering (B.C.) LTD. Historic resources were reported as follows (Kilborn, 1977):

<b>Zone</b>	<b>TONS</b>	<b>LBS./TON U<sub>3</sub>O<sub>8</sub></b>	<b>LBS. OF U<sub>3</sub>O<sub>8</sub></b>
A	541,000	1.690	914,200
B	181,000	1.479	267,900
BD	499,500	1.399	698,700
<b>TOTALS</b>	<b>1,221,800</b>	<b>1.539</b>	<b>1,880,800</b>
or	1,114,380 tonnes	0.077% U <sub>3</sub> O <sub>8</sub>	

The following parameters were used in calculation of resources:

- 1) Minimum mining thickness of 3 feet.
- 2) Minimum grade of 0.5 lbs. U<sub>3</sub>O<sub>8</sub> per ton of resource.
- 3) Resources are restricted to material mineable by open pit methods.
- 4) **Material "Proven" or "Probable" categories only circa 1977.**

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- 5) All unsampled material considered as waste.
  - 6) Method One was a horizontal polygon.
  - 7) Method Two was vertical sections based on 50 foot intervals
  - 8) No dilution or mining loss

**For (6) Method One “The resources were calculated using the horizontal polygon method. The procedure used was as follows:**

- a) **Copies of the drill logs on the A, B and BD zones were obtained, studied and plotted on 50 scale sections and plans.**
- b) **Weighted averages of mineralized lengths for each drill hole were calculated and plotted assuming a cut-off grade of 0.5 lbs per ton over a minimum intersection of 3 feet.**
- c) **The horizontal projection of each resource intersection was determined and a polygon of influence was plotted around each intersection. Polygons were drawn by constructing the perpendicular bi-sectors of the lines joining the intersection under consideration and surrounding drill holes.**
- d) **Resources for each drill hole were calculated by multiplying the polygon area by the vertical component of the diamond drill hole resource intersection to obtain a resource volume for each drill hole. This volume was converted to tons of resource using a ratio of 11 cubic feet per ton of resource.**
- e) **Resources for each zone were obtained by the addition of the resources of all polygons within outlines of the trial open pits as indicated on detail drawings and tables.”**

The document also discussed the infrastructure associated with construction 1000 ton per day mining operation and the foundation for the mill building were poured.

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The above mentioned resources were tabulated prior to the implementation of NI 43-101 and do not conform to the standards as established either by NI 43-101 or the Canadian Institute of Mining ("CIM") standards. The above resources are thus presented as a historical reference only.

**1980** Geochemical water quality surveys samples analysed for total solids dissolved solids suspended solids turbidity, alkalinity, hardness Ca, Mg, nitrate, ammonia, dissolved iron, zinc, lead, copper, cadmium, total mercury, fluorides, sulphates, plus uranium, lead 210, radium 226, and polonium 210.

**1982** Placer Dome had an option on the property and conducted soil sampling and drilled one vertical hole of 539.5 meters testing for molybdenum mineralization.

**1992** American Bullion optioned the property and engaged J. T. Shearer, M.Sc., P.Geo. to geologically map the fluorite zone on cut lines. American Bullion also had R. Wares, P. Eng. Complete environmental studies including a radiation survey.

From the original Rexspar, then Consolidated Rexspar Minerals and Chemicals, to Conrex Corporation and now Conrex Steel, the property has had one long time owner which over the years has changed its corporate focus. This latest sale to a private BC company ends the long standing involvement by Conrex.

From 1988 to 1992, the core from the property was stored in a Company owned building in the Birch Island Community and was briefly examined at that time. Except for one box of core in J. Shearer's possession all other core has been buried.

Since 1950, when Rexspar Uranium Metals and Mines Co. Ltd. began exploring the property, drilling has been the main exploration tool supplemented by extensive underground exploration in delineating two of the uranium mineralized bodies. A ground magnetometer survey and a limited induced polarization survey provided some focus for drill targets, however the drilling strategy has been to proceed by drilling the stratigraphy and then following better grade intercepts along strike or down dip with follow-up holes.

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Documentation of this work, primarily by Rexspar and later by Consolidated Rexspar culminating with a report prepared by Kilborn Engineering (B.C.) Ltd. in 1977 suggest that this work was carried out by mainly trained professionals. Paper records such as assay sheets and drill logs, geophysical sections, maps and cross sections although limited in scope are archived at International Ranger's offices in Vancouver and readily available for inspection.

Geological mapping in 1992 by J. T. Shearer, M.Sc., P.Geo. was conducted on a base map at 1"=40 feet (1:480) which was subsequently reduced to 1:500. Positions of outcrop were plotted in reference to transit survey points, old surveyed trenches, surveyed diamond drill hole collars and the brushed-out reference base-line. The reference baseline trends 030° to 033° and was marked by 2x4 stakes at 75 foot intervals corresponding to the cross-sections produced by Denison Mines Limited in 1970. Permanent survey hubs consist of metal rods driven into the ground. The Crown grant survey hubs are angle-iron stakes driven into the ground with carved tree markers nearby. A list of these survey hubs is available.

A 10m x 10m grid was established over most of the Fluorite Deposit in 1992 starting from the main Denison baseline (re-cut) trending north-south. East-west lines every 10m were flagged between 0 and 380N connecting with a N-S tieline at 110E.

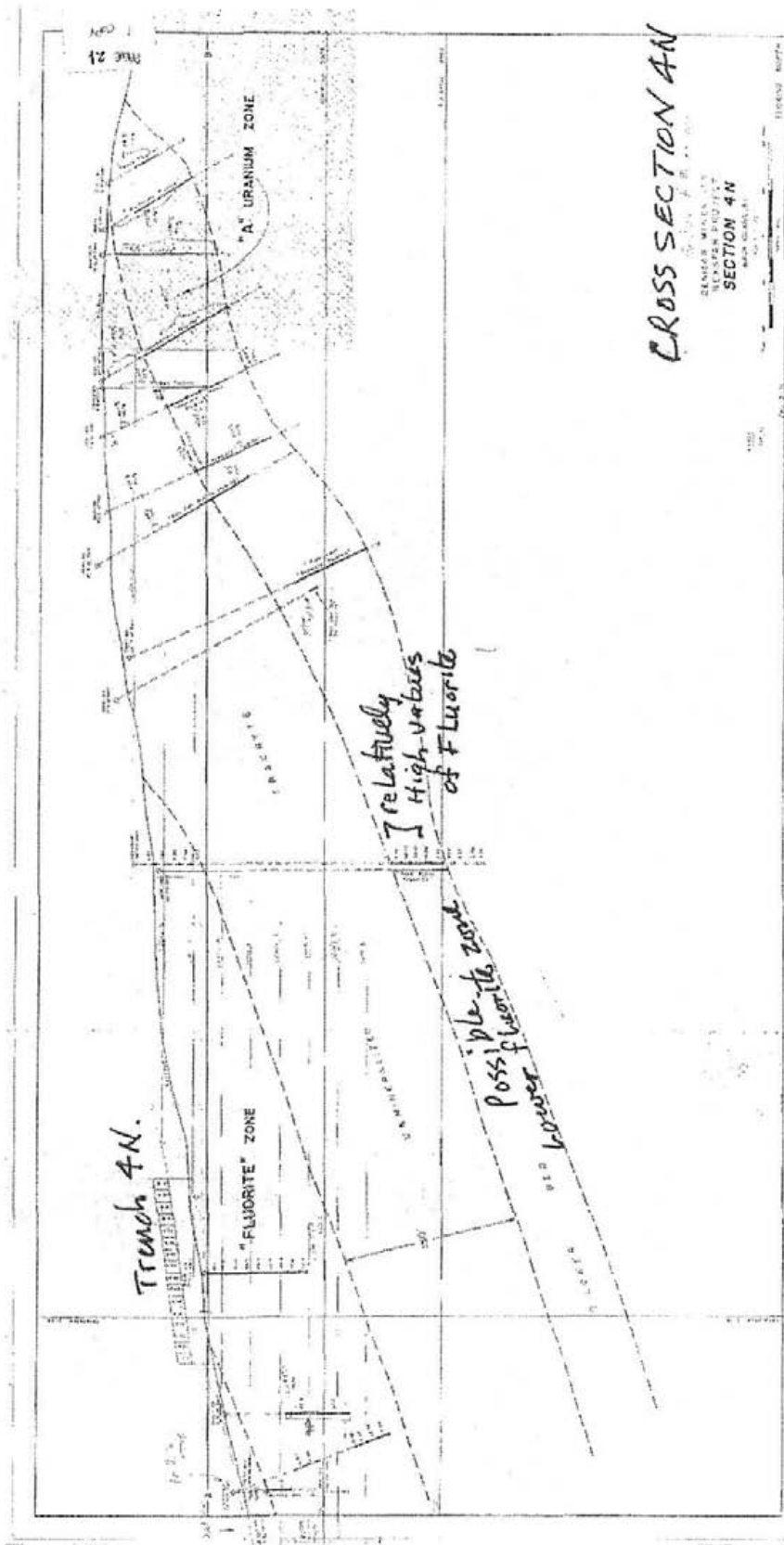


FIGURE 5

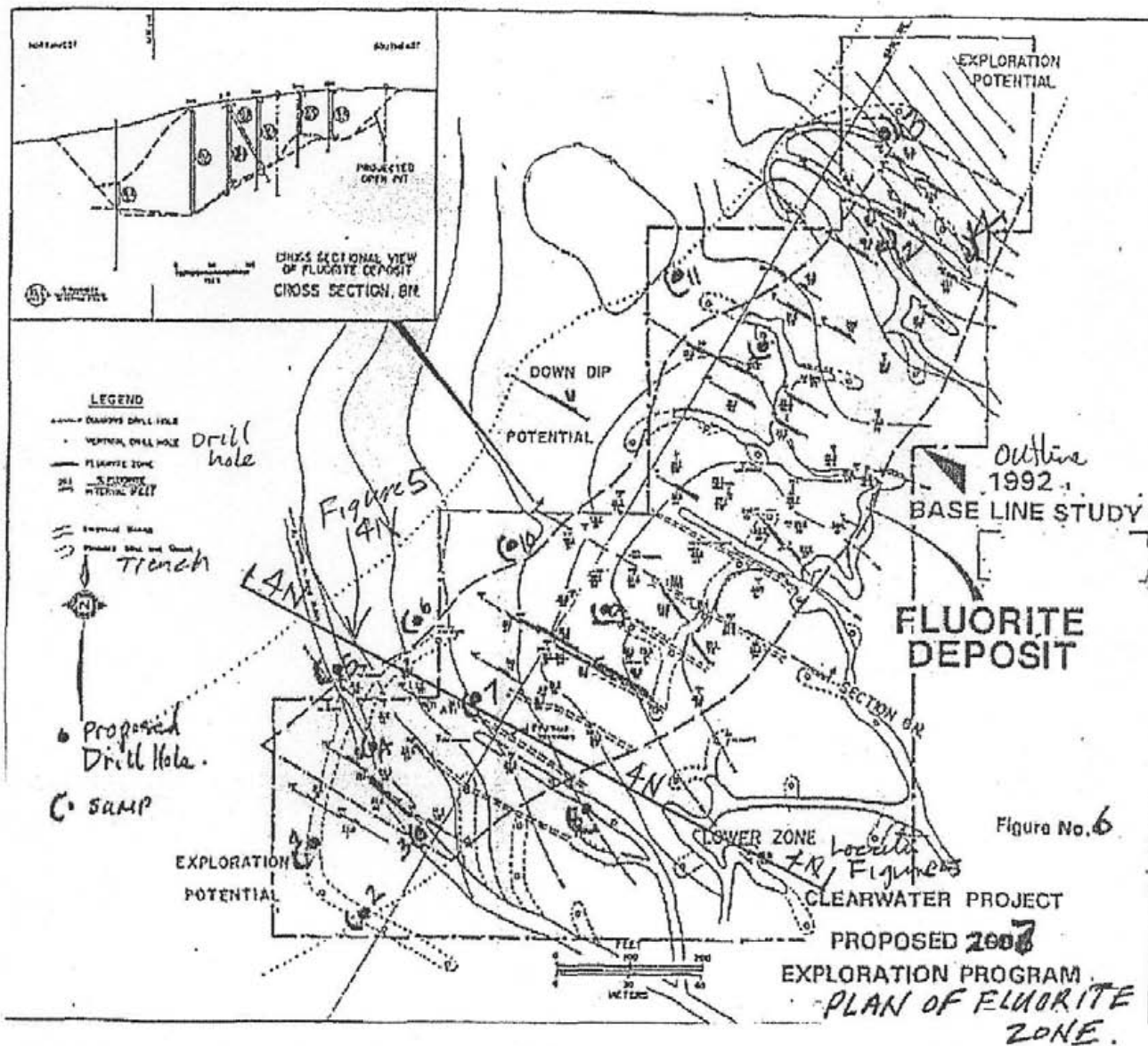


FIGURE 6



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## **9. GEOLOGY SETTING**

### **9.1 REGIONAL GEOLOGY**

The area east-southeast of Clearwater and northwest of the northern tip of Adams Lake is underlain by a diverse and complex assemblage of metavolcanic and meta-sedimentary rocks of the early Palaeozoic Eagle Bay Formation. This formation is intruded to the north by quartz monzonite and granodiorite of the early Cretaceous Raft Batholith and to the south by similar rock types of the Cretaceous Baldy Batholith (Figure 3).

The Eagle Bay Formation lies structurally above gneissic and schistose rocks of the Shuswap Metamorphic Complex of Proterozoic to Paleozoic age, which are exposed north of Adams Lake. Immediately south and southeast of Clearwater, Eagle Bay Formation is in contact with Upper Paleozoic greenstone and minor interbedded argillaceous rocks belonging to the Fennell Formation. The nature of contact relationships between Eagle Bay Formation and other map units is uncertain.

Rocks of the Eagle Bay Formation show moderate to strong foliation. This phyllitic to schistose foliation is sub-parallel to bedding. Polyphase deformation is recorded in these folded metavolcanic and metasedimentary rocks and late stage northerly-trending faults are apparent in the Foghorn, Clay and Lute Creek areas.

### **9.2 Property Geology**

Much of the Foghorn Polymetallic Project is underlain by quartz-sericite schist, chlorite schist, phyllite and trachytic flows and pyroclastics of the Eagle Bay Formation. Rocks possibly of the Fennell Formation and shale and argillite, which may be part of the Carboniferous Milford Group, are exposed in the westerly part of the claim block.

The trachytic assemblage of feldspar porphyry, volcanic breccia and tuff appears to overlie conformably a metasedimentary sequence of quartz sericite schist with interbedded carbonaceous and phyllitic units. On the western side of the property sericite schist occurs both above and below the trachyte and is, in turn, overlain by andesite probably of the Fennel Formation.

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Rocks exposed on the property are folded with sedimentary rocks becoming highly schistose and the more competent volcanic rocks becoming fractured and faulted.

The schistosity has a north-easterly strike and a dip of  $\leq 30^\circ$  to the northwest and is, in general, sub-parallel to bedding of the units (Figure 4).

In the vicinity of the mineralized zones the trachytic unit is rusty weathered, pale grey, alkali feldspar porphyry and trachytic breccia. The former varies from massive to strongly schistose and lineated, or to brecciated. The latter contains fragments of feldspar porphyry, trachyte, more felsic tuffaceous rock and feldspar crystal fragments. These rock fragments vary in size from  $\leq 1$  cm to 20 cm.

There is good potential for additions to the known fluorite tonnage on the property. There are three exploration objectives which are described below in order of their priority.

1. **Strike**

The Fluorite zone appears to be still open for a short distance on line of strike to the northeast. The last drill hole in this direction, No. 238, cut 28%  $\text{CaF}_2$  across a width of 40 feet. There are no drill holes on line of strike beyond this and the termination of the fluorite zone should be established by drilling short holes on sections 18N and 19N. (Refer to Figure 5, Longitudinal Section.)

2. **Dip**

Similarly, the known resource can probably be extended up or down dip by short holes on several of the sections. Section 4N is an example of how additional drill holes can increase the dip dimension of known resource. On this section hole No. 159 was not taken into consideration when resources were being calculated. This hole lies 120 feet down dip from hole 218 on Section 4N and it cut 55 feet averaging 28.5%  $\text{CaF}_2$ . (Refer to Figure 5, Longitudinal Section.)

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### 3. Parallel Fluorite Zone

Vertical cross-section 4N across the fluorite zone and the "A" zone indicates the possibility that there may be a parallel fluorite-bearing bed lying about 150 feet below the main fluorite zone. Hole 249 on Section 4N cut fluorite of resource grade and width and depth structurally below the main zone. Holes 198 and 199 lie on the southwest line of strike from the No. 249 intersection, over a length of 210 feet. No CaF<sub>2</sub> assays were made from Nos. 198 and 199, but the description of the core indicates that the lower fluorite zone may persist for this length. (Refer to Figure 5, Longitudinal Section.)

Up-dip from the No. 249 intersection, several holes have been drilled to test for uranium. No CaF<sub>2</sub> assays were made but the description of the core from these holes indicates that the lower fluorite bed persists, although possibly with reduced CaF<sub>2</sub> grade. The projection of the up-dip extension indicates that this lower Fluorite Zone might grade into the "A" uranium zone.

While the evidence is fragmentary, there is a suggestion of zoning in the mineralized bodies, with the down-dip extensions rich in fluorite and the up-dip extensions rich in uranium. The indications are that relatively higher grade of each type of mineralization is restricted to a dip length of a few hundred feet.

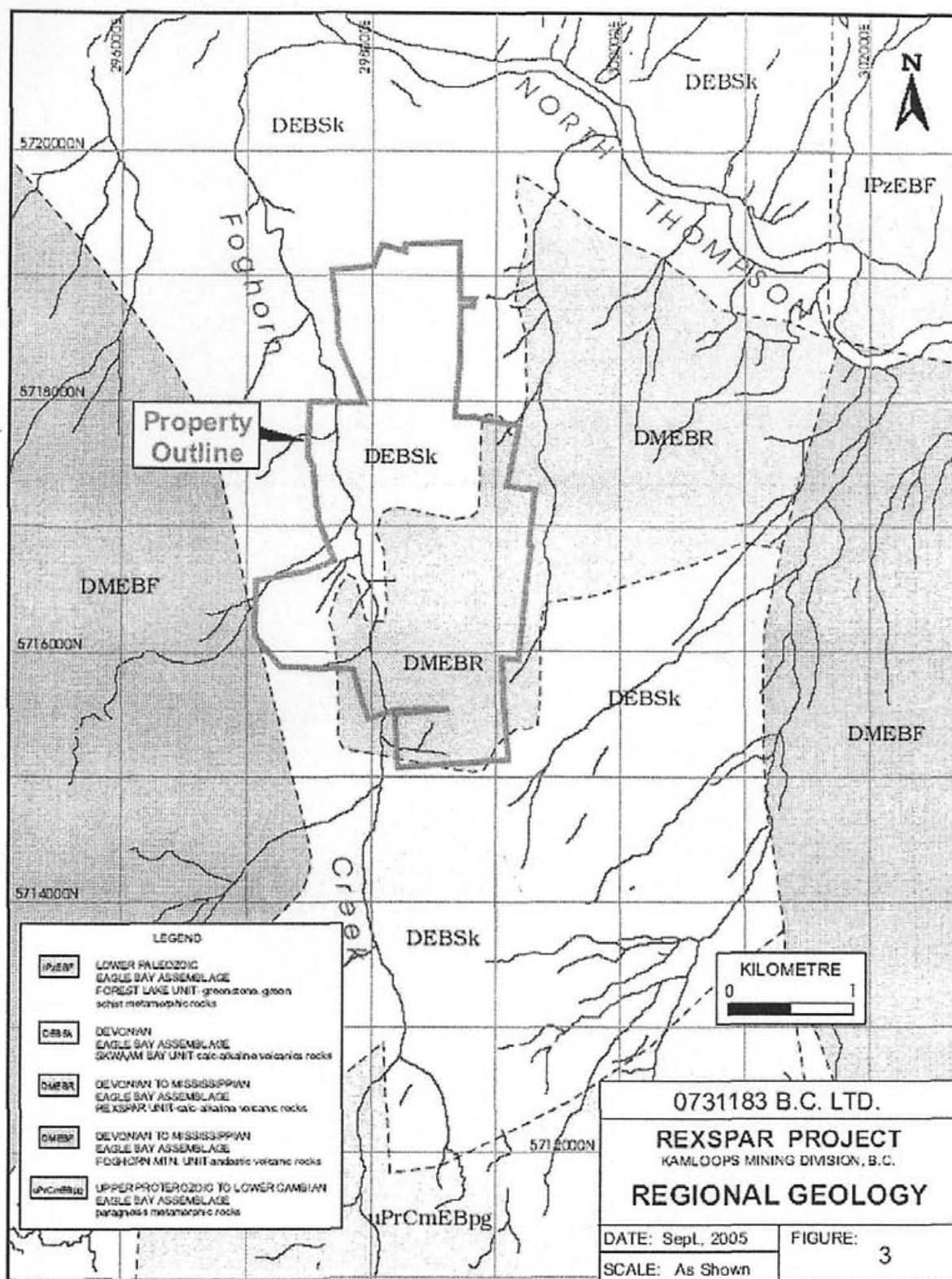


Figure 3. Regional Geology

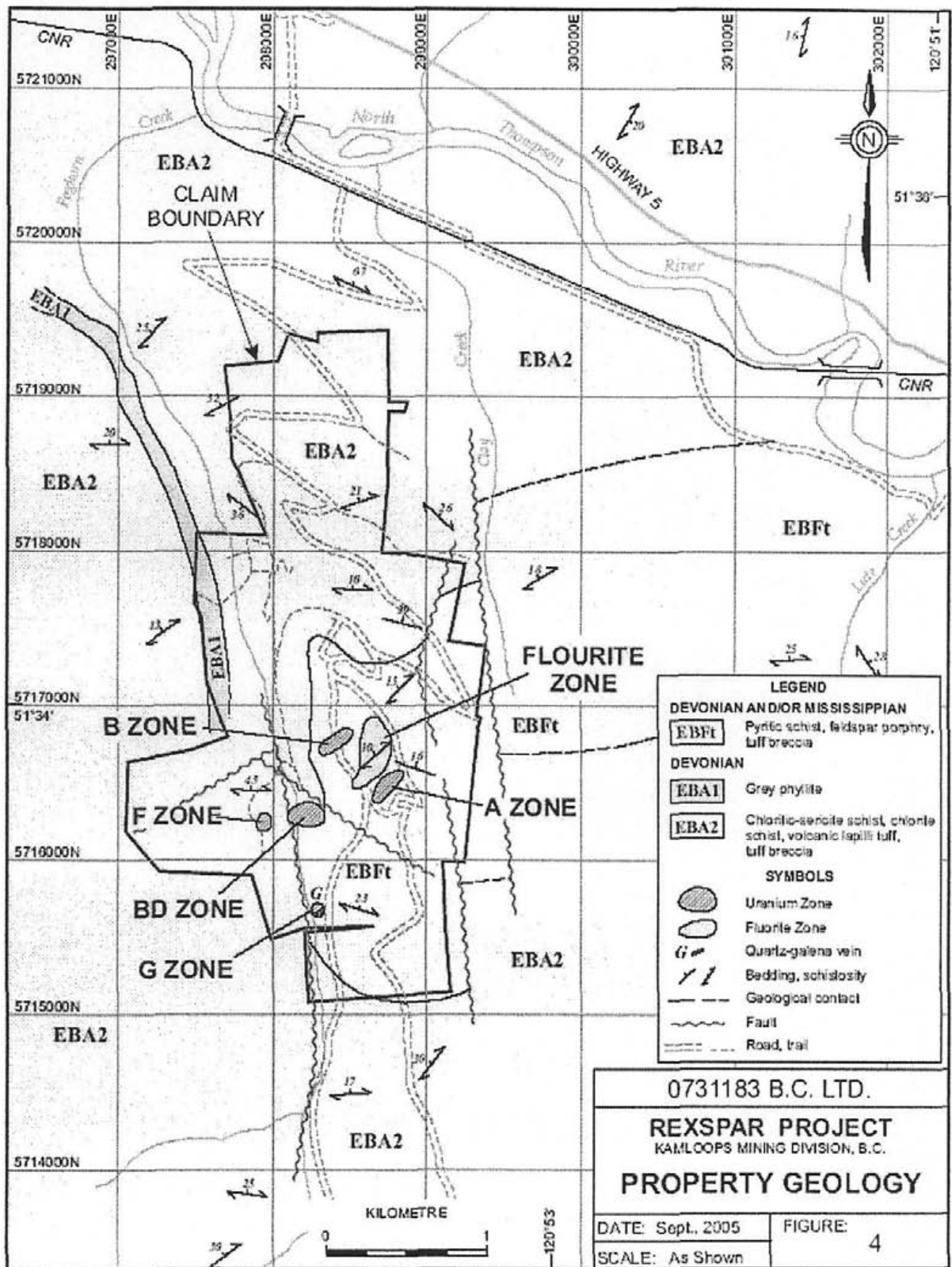


Figure 4. Property Geology and Showings

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## 10. DEPOSIT TYPES

Uranium mineralization at Foghorn Polymetallic Project could best be described as Volcanogenic. Such deposits originated during the formation of the original volcanic flows and breccias by a number of processes but they are normally bedded parallel to the volcanic rocks that contain them.

In the vicinity of Foghorn Polymetallic Project deposits, the foliated rocks are relatively flat lying and mostly of volcanic origin. Locally green chlorite-sericite schist and silver grey sericite-quartz schist are the most common rock type and contain several exposures of clearly recognizable dacitic and andesitic volcanic breccia which attest to the volcanic origin. Uranium mineralization is found exclusively in a trachyte unit. In the vicinity of the deposits the trachyte consists of weathered rusty light grey, pyritic feldspar porphyry which ranges from massive to brecciated to strongly schistose and lineated. Proximal to two of the mineralized zones is a breccia which contains a predominance of feldspar porphyry fragments as well as containing other fine grained fragments of darker coloured rocks. The breccias, based on their distribution, appearance and setting can be interpreted as intrusive and volcanic breccias. This would suggest that within this area of these mineralized zones is probably a volcanic center or vent.

An alternative deposit model has been hypothesized where mineralization is derived from the underlying rocks and migrated to localized traps within the trachyte. Although this model does not have substantial verification, the localized concentration of both fluorite and uranium mineralization in lenses without a verified feeder system may suggest an alternative mode of mineral concentration.

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## 11. MINERALIZATION

Uranium-thorium mineralization is found exclusively in the trachytic assemblage. Drilling has shown that the best grade material occurred in a series of discontinuous, tabular masses or lenses, generally  $\leq 20$  m thick and as much as 130 to 140 m long. Five Zones hosting uranium mineralization have been delineated. They are termed the "A" Zone, "B" Zone, "BD" Zone, "G" Zone and "F" Zone respectfully. These Zones are lensoidal in shape with mineralization consisting of abundant fluorphlogopite and pyrite along with fragments of trachyte and variable fluorite. Principal uranium and thorium minerals include uraninite, thorian uraninite, torbenite, meta-torbenite, thorianite and thorite. They occur as tiny, discrete grains within fluorphlogopite grains or scattered in the pyrite-fluorphlogopite matrix. The mineralized lenses show both conformable and cross-cutting relationships to schistosity in the trachyte. A potassium/argon age of 236 Ma  $\pm$  8 Ma for fluorphlogopite from one of the mineralized zones is considered a minimum age and used cautiously because of some analytical problems. This Middle Triassic age suggests the mineralization is syngenetic with the host rocks, and not related to the nearby Cretaceous Baldy batholith.

### "A" Zone

The A zone, is a shallow dipping (12 degrees) irregular lens averaging 15 metres in thickness which has been traced along strike for about 60 metres. It pinches out at a slope depth of about 60 metres and appears to occur at a lower horizon in the porphyry mass. A 1.8 metre sample across the zone assayed 0.07 per cent uranium, 0.06 per cent thorium oxide, 0.015 per cent niobium and trace yttrium, lanthanum and cerium (Minister of Mines Annual Report 1954). The principal radioactive mineral is uraninite associated with rutile.

### "B" ZONE

The B zone averages 8 metres in thickness, strikes about 60 metres and has a dip-slope length of about 75 metres.

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## **"B D" ZONE**

The BD or Black Diamond zone is a flat-dipping lens with a strike length of 140 metres, dip-slope length of 90 metres and an average thickness of 15 metres. A 1.8 metre sample across part of the zone assayed 0.09 per cent uranium, 0.14 per cent thorium oxide, 0.025 per cent niobium and trace yttrium and lanthanum (Minister of Mines Annual Report 1954). The zone lies along the upper surface of the porphyry and the radioactivity appears to be mainly related with uranothorite which is associated with rutile.

## **"G" ZONE**

The "G" mineralization consists of fluorophlogopite replacements are associated with brown weathering carbonate-filled fractures and larger carbonate pods or "sweats" in fragmental volcanic rocks. In this area, quartz-galena veins up to a few centimetres wide and pyrite-filled shears or fracture zones are also present.

## **"F" ZONE**

The "F" Zone to the west of Foghorn Creek is on a very steep hillside and the interesting borehole intersections in the northeast part of the property are widely scattered and lie at depths of 50 to 200 feet. The probability of open pitable mineralization is therefore remote but zones amenable to underground mining methods cannot be ruled out.

In addition to the uranium-thorium occurrences, fluorite and molybdenite are present on the property. Three of the uranium zones partly surround a fluorite zone almost 400m long and within an average true thickness of 24m. The fluorite occurs as disseminated grains, fragments, massive patches and vein-type material. Molybdenite is associated with the fluorite, occurring as finely disseminated grains.

## **FLUORITE ZONE**

Detailed geological mapping of the Fluorite Deposit was completed by P. Pisani in May to July 1970 on a scale of 1"=40 feet (1:480). The 1992 mapping program by J. Shearer, M.Sc., P.Geo., was an extension of the 1970 work, with particular emphasis



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on alteration facies, structure and host rock-types.

Many of Pisani's geological ideas have been summarized from his October 3 and December 5, 1970 monthly reports as contained in the Preliminary Summary Report on the Fluorspar Deposit for Denison Mines Limited. This viewpoint was subsequently modified by B.M. Arnott (1972).

The intensity of alteration, the zoned distribution of alteration facies and gradational outward contacts suggest from initial observations that the Fluorite Deposit is more closely associated with the alteration event than with original stratigraphy and at least some of the late stage alteration cross-cuts the host rocks. The Fluorite Deposit is not truncated by the northeast-trending fault on the east side of the deposit, although some telescoping of the gradational decrease of CaFs content may have taken place. It appears possible that the lower fluorite intersection in Hole 249 (23% over 44 feet between 218 feet to 262 feet depth) is a down-faulted continuation of the main higher grade core of the Fluorite Deposit. The top of the intersection in Hole 249 was very sheared. An inspection of the cross-section north of 4N to 9N and perhaps to 14N suggest an interpretation of several stacked sequence of several faulted lenses which was originally one gently dipping zone (which a remnant appears in cross-sections 1N to 3N).

At a scale of 1:500, the Fluorite Deposit can be subdivided into several distinct alteration facies as outlined below.

#### Map Unit

- 1 Thinly banded fluorite and altered tuff, disseminated and lenses of CaF<sub>2</sub>, tends to be lower-grade at 15 to 20% CaF<sub>2</sub>.
- 2 Uniform, fine-grained purple fluorite, often higher-grade, 25-40% CaF<sub>2</sub>, gneissic by Pisani.
- 3 Fragmental, widely banded altered tuff with pronounced dark grey subangular fragments, coarse crystalline fluorite, often high-grade, 25-35% CaF<sub>2</sub>.

- 
- a. Sheared tuff, disseminated pyrite, white  $\text{CaF}_2$  veining.
  - 4 PM unit, coarse fluorophlogopite and pyrite in very altered tuff, cross-cutting in places, dipping to south.

#### Altered Trachyte Tuff

- 5 Fine disseminated pyrite in sericitic and siliceous tuff, disseminated  $\text{CaF}_2$ .
- 6 No  $\text{CaF}_2$  in siliceous, pyritic altered tuff, fine-grained.

The general strike of the Fluorite Deposit varies between  $020^\circ$  to  $065^\circ$ , averaging  $035^\circ$ . The variation appears to be due to arrangement around a fold hinge in the vicinity of line 8N. The dip of the deposit varies from  $20^\circ$  to  $60^\circ$  northwest and at line 8N is  $31^\circ$  NW. The deposit has a strike length of at least 410m (1,350 feet), an average width of 38 m and a presently known down-dip extent of between 46m and 122m.

Numerous other fluorite occurrences are known on the claims, figure 4. The most prominent of these are the "G" Zone, 850 m southwest of the main Fluorite Zone straddling Foghorn Creek and the "F" Zone on the west side of Foghorn Creek. Other occurrences have not been tested further than basic prospecting. A large area of fluorite mineralization occurs 800m northeast of the main Fluorite Zone. All fluorite localities noted by Denison Mines mapping should be followed by detail prospecting, geology and chip sampling. The association of higher Mo in soil over the main Fluorite Deposit suggests that all Mo anomalies should also be checked in the field. One such anomaly is a large Mo in soil concentration between lines 33S and 42S around 5E to 9E.

## MANGANESE

A surficial deposit of bog manganese (wad) occurs as a subsoil deposit, of variable grade and thickness (up to 3 metres) over a 1200 metre northwest trend. The material is very heterogeneous, comprising mainly rock fragments in a light to dark brown

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earthy ground mass consisting largely of limonite with small localized patches of wad. Assays up to 53 per cent manganese are reported (Annual Report 1929-224).

Higher on the hillside occurs a zone of altered rock mineralized with pyrite and siderite with minor mangano-siderite associated with calcite and quartz. Rocks of this type may have been the source of the manganese oxides.

## **MOLYBDENUM**

Flat-lying quartz-sericite schist with interlayers of phyllite and sericitic quartzite of the Devonian part of the Eagle Bay Formation contain quartz lenses with associated pyrite, pyrrhotite, galena, sphalerite, molybdenite, and siderite.

Spatial relationships among these different types of mineralization are shown in Figure 4.

## **RARE EARTH METALS**

Rare earth minerals are associated with the uranium. Some work has been done in the past including metallurgy and recovery, but little is known about the complete analyses, mode of occurrence or current economics.

Rare earth oxides noted in the past on the Property are:

<b>Rare Earth</b>	<b>Formula</b>
Cerium Oxide	$Ce_2O_3$
Lanthanum Oxide	$La_2O_3$
Preseodymium Oxide	$Pr_2O_3$
Neodymium Oxide	$Nd_2O_3$
Yttrium Oxide	$Y_2O_3$
Samarium Oxide	$Sm_2O_3$
Ytterbium Oxide	$Yb_2O_3$

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Preto (1978) summarized the key mineralizing characteristics based on previous work by officers of the Geological Survey of Canada (Lang et al., 1962) and British Columbia Ministry of Mines and Petroleum Resources (McCammon, 1954), as well further optical, chemical, X-ray, and electron microprobe work has yielded the following conclusions:

- (1) The principal uranium-thorium minerals at the Foghorn Polymetallic Project are uraninite, thorian uraninite, torbernite, and metatorbernite, thorianite, and thorite. In addition, some uranium and thorium occur in monazite, and niobian ilmenorutile.
- (2) Rare earths are found in bastnaesite and monazite.
- (3) Other minerals include pyrite, fluorphlogopite, apatite, fluorite, celestite, galena, sphalerite, chalcopyrite, molybdenite, scheelite, siderite, dolomite, calcite, barite, quartz, albitic plagioclase, and alkali feldspar.
- (4) Uranium-thorium minerals occur as tiny, discrete grains inside fluorphlogopite flakes and surrounded by single or double pleochroic haloes or as discrete grains scattered in the pyrite-fluorphlogopite matrix.
- (5) Radiation damage has caused pleochroic haloes in fluorphlogopite and the purple colouration in fluorite.
- (6) Analyses indicate that thorium-uranium ratios range from nearly 1:1 to much greater than 1:1. Rare earths, and particularly cerium and lanthanum, are present in very substantial amounts.
- (7) Oxidation of the resource has been negligible.
- (8) Fluorite is commonly found in the zones of uranium-thorium mineralization, but the fluorite zone which could be of commercial grade is separate from resource-grade uranium-thorium mineralization.

- (9) All phases of the 'trachyte unit,' including zones of fluorophlogopite-pyrite replacement and uranium-fluorite mineralization, display evidence of deformation and range from brecciated to markedly schistose and lineated. They appear to have been subjected to most or all of the deformation that affected the rest of the foliated rocks in the area, though their response was not uniform.

Considerable amounts of thorium and widespread rare earths (yttrium, etc.) are found throughout the various mineralized zones. Systematic sampling has not been completed.

A research project on **Fluorite and celestite concentration by flotation also indicated Rare Earth Metals (RE<sub>2</sub>O<sub>3</sub>)** content was initiated at the Colorado School of Mines in 1960 with the following assay results:

Sample No.	Chemical Analysis	
	SrSO <sub>4</sub> %	*(RE) <sub>2</sub> O <sub>3</sub> %
F4	23.05	1.88
F5	22.85	1.76
F6	13.41	0.35
F7	6.08	0.24
F8	7.13	0.53
F9	8.80	0.39
F10	9.01	1.29
F11	2.93	0.58
F12	0.84	0.49
F13	4.82	0.49
F14	13.62	0.51
F15	12.79	0.72
F16	3.77	0.48
F17	8.17	1.47
F18	5.87	0.63
F23	20.13	1.55
F24	20.33	0.95
F25	20.33	1.31

**Note: These samples were collected from drill core taken from Holes 182 and 184 and surface trenches**

\*(RE)<sub>2</sub>O<sub>3</sub> is the complete Rare Earths analysis

**The fluorite zone has been analyzed for rare earth metals and the presence of cerium, samarium, gadolinium, dysprosium, ytterbium as well as lanthanum, yttrium and thorium have been detected. Rare earth analyses of random core drill samples ranged from .24 to 1.88% REO (Rare**

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**Earth Oxides) with a composite drill core sample reporting 1.03% REO. The rare earths are associated with the fluorite and celestite. Celestite flotation product (80% celestite) reported .3% yttrium, 2.0% lanthanum and 2.0% cerium while a fluorite flotation product reported similar rare earth concentrations. The mineral bastnaesite has been identified as an associated mineral with the fluorite. Bastnaesite concentrates with fluorite on flotation.**

**Note: the study of the Fluorite Zone necessitates the consideration of not only fluorite content but also celestite ( $\text{SrSO}_4$ ) and rare earth metals since there is elevated concentrations of all three commodities and it is expected, like many industrial mineral projects, that the ultimate value of the Fluorite deposit will probably depend on producing a fluorite concentrate, a celestite concentrate and a rare earth metal concentrate.**

The uranium deposits (A and BD Zones) have been sampled and analyzed for rare earths on a grab sample basis (v. Preto, 1978). However, systematic sampling of rare earth metals has not been completed. Rare earths are found in the minerals bastnaesite and monazite that accompany the uranium mineralization and fluorite mineralization.

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## 12. EXPLORATION

Past exploration programs conducted on the Foghorn Polymetallic Project are described in the history section of this report. No exploration has been conducted by International Ranger Resources Inc.

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## 13. DRILLING

Past drilling has completed a total of 368 surface and underground holes between 1943 to 1976, for a total of approximately 17,280 metres. Of these, 121 holes were on the "A" deposit, 81 on the "B" deposit, 125 on the "BD" deposit and most of the others on the fluorite deposit. Drifts, cross cuts and raises for a total of 664 metres were driven in the "A" and "BD" uranium zones. Between 1950 and 1957 Consolidated Rexspar Mines conducted the largest and most comprehensive drill programs.

No drilling has been conducted by International Ranger Resources Inc.



## 14. SAMPLING METHOD AND APPROCH

The Uranium zones and Fluorite zone have been investigated in the past by mainly diamond drilling, some underground drifting and numerous surface trenches. Future work by International Ranger Resources Inc. will focus on diamond drilling. The core is required by the Uranium Exploration Regulations to be carefully sampled for Uranium as well as the target fluorite zone. The core will be split with a saw.

The available drill hole and assay database can be summarized as follows (from Kilborn, 1977 and Pisani, 1970):

**TABLE II**  
**Fluorite Zone**  
**Location of Diamond drill Holes (1969-1970)**

Hole	Section	Distance from R.L.*	Distance from Sect.	Elevation (ft.)
219	4 N	140 NW	4 S	3874.58
220	3 N	92 NW	6 N	3857.94
221	3 N	215 NW	32 N	3847.13
221 A	3 N	215 NW	32 N	3847.13
222	2 N	121 NW	14 N	3838.12
223	2 N	121 NW	14 N	3838.12
224	2 N	45 NW	2 N	3857.22
225	2 N	188 NW	23 N	3831.70
226	1 N	128 NW	27 N	3831.86
227	1 N	202 NW	26 N	3809.84
228	5 N	78 NW	8 N	3907.34
229	6 N	120 NW	9	3912.00
230	6 N	7 SE	6 N	3943.13
231	14 N	2 SE	3 N	3922.97
232	16 N	50 SE	7 S	3888.02
233	16 N	210 SE	32 S	3862.44
234	15 N	213 SE	14 S	3886.33
235	15 N	51 SE	8 N	3904.57
236	16 N	31 NW	6 S	3892.22
237	17 N	53 SE	6 S	3847.96
238	17 N	127 SE	13 S	3832.10
239	12 N	101 SE	17 N	3932.00
240	12 N	29 NW	8 N	3938.41
241	12 N	112 NW	7 N	3941.14
242	10 N	202 SE	6 N	3971.78
243	10 N	105 SE	13 N	3964.96
244	8 N	201 SE	4 N	3988.47
245	8 N	141 SE	1 S	3975.17

246	8 N	53 SE	7 S	3965.27
247	6 N	69 SE	8 N	3956.38
248	6 N	50 NW	10 N	3919.06
249	4 N	392 SE	34 N	3963.66

\*R.L. = Reference Line

**TABLE III**  
**DIAMOND DRILL DATA**

Time Period	Drill Holes	No. of Holes	Location
June 1952 - November 1954	32 - 67	30	A Zone
	69 - 74	6	-
	75 - 77	3	A Zone
	78 - 79	2	-
	80 - 85	6	B Zone
	86 - 90	5	-
	91 - 93	3	A Zone
	94 - 109	15	-
	112 - 114	3	B Zone
	115 - 118	4	-
	119 - 120	2	B Zone
	121 - 122	2	-
	123 - 126	4	B Zone
	128	1	B Zone
	131 - 137	7	B Zone
	138	1	-
	139	1	B Zone
	140	1	-
	142 - 143	2	B Zone
	145	1	-
	146 - 154	9	B Zone
	156 - 175	20	B Zone
	176	1	-
	177 - 193	20	B Zone
	194	1	-
	195 - 197	3	B Zone
	198 - 199	2	A Zone
	201 - 202	2	-
July 1953 - November 1953	BD1 - 36	35	BD Zone
	BD35	1	Missing
December 1953 - May 1954	BD101 - 148	48	BD Zone U/G
May 1954 - October 1954	BD37 - 50	14	BD Zone
	A1 - 35	35	A Zone U/G
	A101 - 142	42	A Zone
	BD51 - 70	19	BD Zone
	75-1 - 4	4	2 A Zone

			<b>1 B Zone</b>
			<b>1 BD Zone</b>
	<b>76A1 - 4</b>	<b>4</b>	<b>A Zone</b>
	<b>76B1, 2</b>	<b>2</b>	<b>B Zone</b>
	<b>76BD-1 - 9</b>	<b>9</b>	<b>BD Zone</b>

**TOTAL**

**369 holes for Uranium Zones**

**A subdivision of drill holes per Uranium Zone is as follows:**

**A ZONE**

<b>D.D.H. Number</b>	<b>Grade U<sub>3</sub>O<sub>8</sub> lbs/ton</b>	<b>Vertical Thickness of Mineralization, ft.</b>	<b>Polygon Area sq. ft.</b>
A-2	1.80	30	800
A-3	1.64	71	1,075
A-4	1.03	48	2,050
A-6	1.89	66	1,550
A-8 & 9	2.85	74	2,400
A10 & 11	1.54	90	1,450
A-12	0.70	25	2,275
A16	1.94	82	1,400
A-17	1.72	108	1,925
A-18 & 19	0.80	31.2	5,800
A-20	1.25	80	1,950
A-23 & 24	2.00	36	1,950
A-25	2.42	48.3	1,300
A-26	1.66	61	1,300
A-30	1.09	71.5	1,625
A-31 & 32	1.64	26	1,395
37	0.80	42	1,625
38	1.23	82	1,275
39	1.43	54	2,450
40	0.96	47	1,050
41	2.04	37.1	3,475
42	1.34	74	850
43	1.27	26	1,550
44	1.60	4.6	5,250
45	1.02	81.9	1,150
46	1.04	51.6	2,025
49	1.16	22	2,950
50	0.80	3.2	1,325
51	0.82	32	2,075
52	0.93	17.8	2,275
53	2.61	27.5	3,475
54	3.02	25.5	2,900
55	1.94	30.5	2,350
56	1.28	20.8	3,225

57	2.22	12.1	3,225
58	1.05	12.2	2,850
65	1.78	7	1,475
92	1.08	8.5	3,650
A-101	3.16	74	2,675
A-102	2.12	59.5	1,750
A-103	2.20	14	2,100
A-104	1.08	18	2,925
A-105	1.22	42	6,475
A-107	1.01	47	3,150
A-108	1.79	56	2,600
A-109	0.71	42	1,825
A-111	1.45	64	1,000
A-112	2.72	47	2,875
A-113	1.40	52	2,500
A-116	2.08	28	3,325
A-117	1.24	6	2,275
A-118	2.64	27	2,575
A-119	2.30	80	3,525
A-120	1.80	43	2,650
A-121	1.86	58.5	2,375
A-122	2.68	22	1,850
A-123	1.91	39	2,275
A-124	0.91	43	3,225
A-125	1.19	28	2,125
A-126	0.68	12	1,800
A-127	1.35	55.5	1,725
75-2	1.43	30	2,750
76-A-1	3.17	15	3,150
76-A-2	1.52	59.8	800
76-A-3	2.01	45	1,100
76-A-4	0.83	13	1,600
76-A-5	1.89	58	1,625

### B ZONE

D.D.H. Number	Grade U <sub>3</sub> O <sub>8</sub> lbs/ton	Vertical Thickness of Mineralization, ft.	Polygon Area sq. ft.
80	0.93	25.2	3,875
112	1.44	55	3,375
126	1.50	10.5	4,175
133	1.12	25	3,500
134	1.70	22	4,975
137	1.08	10	4,250
147	1.68	10	5,250
148	1.52	40	4,625
149	2.24	17	4,200

150	1.54	29	4,450
151	2.32	45	3,175
152	1.10	15	3,075
161	1.15	24	3,525
162	1.81	22	3,900
163	1.26	18	3,000
165	1.83	28	3,875
171	1.56	13	3,500
187	1.40	13	5,050
190	1.28	14	3,375
75-1	1.46	20.5	2,450
76-B-1	0.97	35	3,475
76-B-2	1.10	30	4,525

**BD ZONE**

D.D.H. Number	Grade U <sub>3</sub> O <sub>8</sub> lbs/ton	Vertical Thickness of Mineralization, ft.	Polygon Area sq. ft.
BD-1	1.67	81.1	3,250
BD-2	1.42	48	4,075
BD-3	1.14	93	4,800
BD-4	1.08	50	3,880
BD-7	1.00	6	3,350
BD-10	1.08	35	8,150
BD-11	1.48	28	9,400
BD-16	1.76	62.2	5,725
BD-17	0.97	32.8	4,975
BD-19	1.13	11	3,400
BD-20	1.82	60.2	3,800
BD-21	2.02	60	6,725
BD-24	0.98	6	1,416
BD-25	2.20	4	1,400
BD-29	0.99	94.5	5,900
BD-34	0.99	57.2	2,500
BD-38	4.20	10	3,800
BD-42	2.80	9	3,025
BD-55	1.17	5	2,150
BD-56	1.55	53.5	2,600
BD-57	0.62	14	2,850
BD-58	2.80	5	4,125
BD-64	1.53	38	3,050
BD-65	1.20	20	3,425
BD-66	1.24	6	3,750
BD-68	0.85	20	3,025
BD-101	1.40	30	1,650
BD-103	1.62	15	1,200
BD-104	2.08	40	55

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<b>BD-105</b>	<b>1.68</b>	<b>50</b>	<b>3,750</b>
<b>BD-113</b>	<b>0.90</b>	<b>65</b>	<b>2,400</b>
<b>BD-122</b>	<b>1.30</b>	<b>13</b>	<b>2,100</b>
<b>BD-123</b>	<b>1.70</b>	<b>75</b>	<b>3,150</b>
<b>BD-124</b>	<b>1.20</b>	<b>14</b>	<b>1,200</b>
<b>BD-140</b>	<b>1.28</b>	<b>20</b>	<b>3,280</b>
<b>BD-144</b>	<b>1.27</b>	<b>25</b>	<b>800</b>
<b>76-BD-1</b>	<b>0.86</b>	<b>5</b>	<b>5,825</b>
<b>76-BD-2</b>	<b>1.11</b>	<b>78</b>	<b>2,800</b>
<b>76-BD-3</b>	<b>1.78</b>	<b>75</b>	<b>5,475</b>
<b>76-BD-4</b>	<b>1.41</b>	<b>36</b>	<b>2,875</b>
<b>76-BD-7</b>	<b>1.60</b>	<b>18.5</b>	<b>1,500</b>
<b>76-BD-8</b>	<b>1.36</b>	<b>11</b>	<b>1,500</b>
<b>76-BD-9</b>	<b>0.88</b>	<b>28</b>	<b>1,312</b>

**A tabulation of individual assay values in each hole is not presently available to International Ranger Corp. This data did exist when the author reviewed the data file in 1992 as described in Section 4, page 7 and a diligent search for this data will be required as the project progresses.**

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## 15. SAMPLE PREPARATION, ANALYSES AND SECURITY

The sample preparation procedures used by Rexspar Uranium Metal and Mines Co. Ltd in the 1950's are not described in their reports, however, the data obtained was later used in a report prepared by Kilborn Engineers (B.C.) Ltd. in 1976 and 1977. The study prepared by Kilborn (1977) did not describe its method of analysis or what Quality Control or Quality Assurance programs were in place for their historic resource estimates. Subsequent programs conducted by Denison Mines Limited, Kerr Addison and later by Placer Dome made some references to their procedures; logged core was split using a diamond saw and then bagged and sent for analysis.

Due to the general sensitivities associated with uranium and related mineral exploration dictate that extra care be taken in sample collection, sample preparation, analyses and especially security.

A special lockable core shack will be constructed within a locked and fenced enclosure. Proposed uranium analyses will be delayed neutron counting, following neutron activation analysis using a weight  $2.00 \pm 0.002$  gm of prepared and dried sample material into a 2 dram polyethylene irradiation vial. Seal the vial using a preheated Teflon cap sealer, and check for possible leaks. Irradiate the sample in a constant neutron flux of  $2.0 \times 10^{12}$  neutrons per square centimetre per second for 10 seconds, pneumatically transfer the sample from the irradiation site back to the neutron detector, and delayed neutron emission from nitrogen isotopes formed from the oxygen contents of the sample and the polyethylene vial. Following this 10 second cooling period, count the total number of neutrons being emitted by the sample for the next 10 seconds. This number will be directly proportional to the uranium contents of the sample. The factor that is used to convert from the number of emitted neutrons to ppm uranium is obtained by calibrating the system with certified reference materials, which are irradiated, cooled and counted under the same conditions. This method has a range - 0.5ppm to 10,000ppm.

The rare earth elements will be by Neutron Activation Analysis. Neutron activation Analysis (NAA) is one of the most satisfactory methods for the determination of trace quantities of the rare earth elements. The marked chemical similarity of these elements normally makes it difficult to distinguish among these elements. The

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nuclear properties of the rare earths, however, are sufficiently different to permit fairly ready identification.

In NAA, samples are sealed into a container and exposed to neutrons. Stable isotopes of the elements present are thereby converted into radioactive isotopes. When these radioactive nuclei decay, gamma radiation is emitted detection of this radiation is then carried out from the identification and quantitation of the elements of interest. No chemical processing is required and, therefore, errors due to contamination or incomplete collection are avoided.

NAA is highly sensitive for most rare earth elements, as these are readily activated. Consequently, 1ppm level can be measured for all but Gd, Nd, Er and Pr.



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## 16. DATA VERIFICATION

Previous work has not been done to modern standards. Future work requires a comprehensive protocol to be established to include multiple standards, blanks and duplicates to be inserted in the sample stream. Close attention will be required to maintain sample integrity.

The author has visited the property on several occasions since May 27, 1988 and between July 15 and July 28, 1992 to complete geological mapping of the fluorite trenches, outcrops, samples and check diamond drill hole locations. I also visited the property on June 14, 2006.

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## **17. ADJACENT PROPERTIES**

There are no adjacent properties which are relevant to complete disclosure on the Foghorn Polymetallic Property.

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## 18. MINERAL PROCESSING AND METALLURGICAL TESTING

Numerous studies on processing and metallurgical testing have been completed on the Foghorn polymetallic project uranium-bearing material. However, neither International Ranger or the author have not undertaken any independent investigations of the metallurgical testing nor have they independently analysed the previous metallurgical work to verify the conclusions presented.

From 1951 to 1956 laboratory metallurgical studies on the Foghorn polymetallic project resource were conducted at various periods at the Radioactivity Division, Department of Mines and Technical Surveys, Ottawa; and also in the Department of Mining and Metallurgy of the University of British Columbia under the direction of Professor F. A. Forward. The testwork was undertaken on diamond drill core rejects and on bulk samples of mine resource.

This testwork showed that conventional acid or carbonate leaching methods are not suitable for the Foghorn polymetallic project mineralization. The acid-pressure leach process developed at the University of British Columbia yielded excellent extractions. This latter method is characterized by a number of further advantageous features such as the low leaching reagent cost resulting from the fact that only water and air are used in the leach.

From September 1956 to April 1957, further laboratory investigational work was undertaken with the acid-pressure leach process at the Radioactivity Division, Department of Mines and Technical Surveys, Ottawa. This work was also directed toward finding the most applicable method of recovering uranium from leach liquors to final product. Representative bulk samples of mine resource were used for these test purposes.

Testwork utilizing a small pilot plant leaching tower was conducted at Sherritt Gordon Mines Limited, Fort Saskatchewan, Alberta in February 1957, and at the Radioactivity Division, Department of Mines and Technical Surveys, Ottawa in the period of January – April 1985. Approximately 12 tons of resource were processed in the Sherritt Gordon program and 10 tons in the Radioactivity Division tests.

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The following conclusions are available from the limited amount of Sherritt Gordon pilot plant work:

- a. Excellent extractions of uranium were consistently obtained.
- b. Corrosion and erosion were indicated to be severe; however the duration of the run was too short to allow definite conclusions on corrosion to be drawn.

The investigational work conducted at the Department of Mines, Ottawa, subsequently showed the following:

- a. Satisfactory performance was obtained during the test period with a number of materials of construction that had been chosen for test purposes in the leaching section of the plant; however, the length of the pilot plant work was too short to allow final conclusions on corrosion to be drawn.
- b. A solvent extraction process is the preferred method of recovering uranium from leach liquors; and results with this technique were reported to be satisfactory.

Although excellent extraction of uranium is readily achieved by autoclave leaching with oxygen, no successful plant of this kind is known. Hence a lower temperature alternative to autoclave autogenous leaching was sought. The metallurgical studies on the Foghorn polymetallic project resource in 1951 to 1958 had not used the temperature range of 75°C to 100°C for leaching, and it was decided to explore the possibilities in this range.

The 1977 Kilborn report recommends further work be done to optimize the metallurgical recoveries. However, this further work was not performed due to the imposition of the 7 year Uranium Exploration and Development moratorium.

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## 19. MINERAL RESOURCE ESTIMATES

Neither International Ranger or the author has not undertaken any independent investigation of the resource estimate nor have they independently analyzed the results of the previous exploration work in order to verify the classification of the resources, and therefore the historical estimates should not be relied upon. **There are no current mineral resource estimates on the property.**

However, the author believes that these historical estimates provide a conceptual indication of the potential of the property and are relevant to ongoing exploration.

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## 20. OTHER RELEVANT DATA AND INFORMATION

Between 1976 and 1978 Consolidated Rexspar Mines made application to the British Columbia Ministry of Mines and the Atomic Energy Control Board of Canada to construct a uranium mine on its property. On January 20, 1977 a joint news release from the B.C. Minister of Mines and Petroleum Resources and the B.C. Minister of the Environment was issued. The release reported that company officials of Denison Mines Ltd. had met with technical officers of the two ministries as well as the Atomic Energy Control Board of Canada (a federal agency which has jurisdiction over all uranium production in Canada). Also contained in the release was the announcement that "the staged process requires developers to submit a prospectus; a first stage report which identifies the problems; a second stage report which proposes solutions, and a third stage report in preparation for the application for various permits under Provincial statutes. Each stage requires the approval of all interested Government agencies". Documents pertaining to the application trace a process that met with high levels of public resistance to the project as several letters from concerned citizens were sent to the then Minister of Mines and Petroleum Resources and to the Premier the Honourable Bill Bennett. A moratorium on uranium exploration was later introduced covering the entire province of British Columbia which was lifted in Dec. 1987.

Further work on informing the public, local community groups and First Nations is needed. To this end, a well attended public information meeting was held on July 10, 2006. Additional public meetings are recommended.

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## 21. INTERPRETATIONS AND CONCLUSIONS

### 21.1 INTERPRETATIONS

Exploration programs on the Foghorn Polymetallic Project have primarily been focused on the valuation of uranium and to a lesser extent fluorite. A thorough review of the available literature provides some intriguing possibilities given the advancements in exploration geology. The key highlights for future studies are:

- a) The volcanogenic reinterpretation of uranium deposition by Preto
  - b) high grade molybdenum and fluorite in a drillhole not followed up
  - c) no drilling to test for resource continuation at the base of the trachyte
  - d) untested molybdenum/fluorine soil geochemistry targets
  - e) unknown relationships with extensive faulting
  - f) advancements in geophysics and geochemistry
  - g) extensive hydrothermal alteration
- a) Government fieldwork, compiled by Preto (1978), yields evidence that the setting and aspect of the pyrite-mica zones suggest that these were formed by the deuteritic, volatile rich fluids during a late stage in the formation of the "trachyte unit." This suggests then that the zones of uranium-thorium mineralization and perhaps also the fluorite could be syngenetic with the formation of the trachyte and therefore be volcanogenic in origin.

This has not been followed up with new detailed geological mapping and reinterpretation of the property as to new possible areas to explore.

- b) Kerr Addison, north of the fluorite zone in drillhole 73-5 had an intersection between 179'-248' approximating  $>7\%$   $\text{CaF}_2$  and  $\leq 0.08\%$  Mo.

They also refer to coincident Mo and F geochemical anomalies 9000 feet ENE of the fluorite zone near Lute Creek which require detail mapping and drilling. Other Mo and F targets have not been investigated in detail.

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- c) All the uranium mineral zones occur near the basal section of the trachyte yet the base of the trachyte below the fluorite zone is untested.
  - d) In all the reports, statements are made regarding regional faulting, local faulting and intense fracture zones, alteration and gouge zones, yet correlation of the faulting system or its interrelationships with mineral occurrences has not been studied in detail.
  - e) While airborne magnetics, radiometrics and ground magnetics, I.P. geophysical surveys were conducted over most the property, this was over 30 years ago and technology and software have since been refined. Likewise for geochemistry and analyses and detection limits including new methods to detect rare earths.
  - f) Placer Development, in its work, focussed more attention on the large hydrothermal alteration and the possibilities for large molybdenum deposition. Their work was inconclusive and a poor magnetic response over a limited area suggested any intrusion was probably weakly magnetized.

Large areas of similar geological setting occur to the east and this ground should be staked.

International Ranger has not conducted any work on the property and is presently applying for a core drilling permit.

## **21.2 CONCLUSIONS**

Based on a thorough review of all documents available the author concludes that the Foghorn Polymetallic Project hosts three mineralized bodies hosting uranium mineralization and one mineralized body hosting fluorite mineralization. The property is of merit and should be investigated further to consider a multi-commodity target which includes Fluorite, celestite, rare earth metals and molybdenum. These commodities have received less attention by past work which mainly concentrated on Uranium resources. The program recommended in this report should initially explore for parallel/faulted segments of the Fluorite Zone and define the level of rare earth metals present.



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The current re-evaluation of geological information has focused on detailed mapping of alteration facies, structure and host-rock types. Several new concepts regarding the sequence of alteration and fault off-sets have been developed and require additional investigation by petrographic examination and diamond drilling.

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## 22. RECOMMENDATIONS

The Foghorn Polymetallic Project has a large volume of material summarizing previous work. It is recommended that the following preparatory work be completed prior to any further project advancement so that realistic budgets and schedules can be established.

### PHASE I

- |   |              |
|---|--------------|
| (a) purchase digital trim data and digitize all relevant development work completed   | \$15,000.00  |
| (b) digitize all relevant exploration targets   | \$15,000.00  |
| (c) review of current exploration techniques especially geophysics and geochemistry and geological models for a greater understanding of potential extensions of known zones of mineralization and to aid in locating new target areas  | \$5,000.00   |
| (d) prepare a summary report of findings  | \$25,000.00  |
| (e) Diamond drilling is recommended to obtain geological data on new interpretations, fresh samples for geochemical and data verification and for critical information pertaining to a comprehensive environmental assessment on the Fluorite deposit, parallel/faulted Fluorite Zones and rare earth metal content. Contract core drilling 1200m at an all in cost of \$148 per metre. | \$180,000.00 |

Extra costs anticipated for such a drill program will be cementing the holes, labelling, disposal of cuttings, security, environmental monitoring, radiation surveys.

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\$240,000.00

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## 24. DATE AND SIGNATURE

March 15, 2007

Date

Signed by J. T. Shearer, M.Sc., P.Geo.

J.T. (Jo) Shearer, M.Sc., P.Geo.

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## 25. STATEMENT OF QUALIFICATIONS

I J. T. (Jo) Shearer of Unit 5 – 2330 Tyner St., Port Coquitlam, B.C. V3C 2Z1 do hereby certify that:

1. I am an independent consulting geologist and principal of Homegold Resources Ltd.
2. My academic qualifications are:
  - a. Bachelor of Science, Honours Geology from the University of British Columbia, 1973
  - b. Associate of the Royal School of Mines (ARSM) from the Imperial College of Science and Technology in London, England in 1977 in Mineral Exploration
  - c. Master of Science from the University of London, 1977
3. My professional associations are:
  - a. Member of the Association of Professional Engineers and Geoscientists in the Province
  - b. of British Columbia, Canada, Member #19,279
  - c. Fellow of the Geological Association of Canada, Fellow #F439
  - d. Fellow of the Geological Society of London
  - e. Fellow of the Canadian Institute of Mining and Metallurgy, Fellow # 97316
  - f. Elected Fellow of the Society of Economic Geologists (SEG), Fellow #723766
4. I have been professionally active in the mining industry continuously for over 30 years since initial graduation from university.
5. I have read the definition of “qualified person” set out in National Instrument 43-101 and certify that by reason of my education, affiliation with a professional association and past relevant work experience, I fulfil the requirements to be a “qualified person” for the purposes of NI 43-101.
6. I am responsible for all sections of the technical geological report entitled “Technical Geological Report on the Foghorn (Rexspar) Polymetallic Project - Clearwater Area” dated August 25, 2006, Revised March 2, 2007 for International Ranger Corp. (IRNG). I have visited the Property on numerous occasions in the past. I have kept close contact with the general area and know that no further substantial work has been completed on the Foghorn property Polymetallic deposit since 1992. I visited the property on June 14, 2006 to confirm no work has occurred since 1992.
7. I have had prior involvement with the property, which is the subject of the technical report.
8. That as of the date of the certificate, to the best of the my knowledge, information and belief, this technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.
9. I am independent of the issuer, applying all of the tests in section 1.4 of National instrument 43-101.

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10. I have read the NI 43-101 and this technical report has been prepared in compliance with this Instrument.

11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

March 15, 2007

Date

Signed by J. T. Shearer, M.Sc., P.Geol.

J.T. (Jo) Shearer, M.Sc., P.Geol.