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**COMMERCE RESOURCES CORP.**

**2005 DIAMOND DRILLING AND EXPLORATION  
AT THE BLUE RIVER PROPERTY**

NORTH OF BLUE RIVER, BRITISH COLUMBIA  
(KAMLOOPS MINING DIVISION)

**MINERAL TENURES**

374665 (Fir 3), 374670 (Fir 8), 380034 (Mara 5), 382164 (Fir 11), 506262 - 265, 506267,  
506270, 506273 - 274, 506387, 506391 - 393, 506395, 506397, 506399, 506401 - 403, 506405,  
506407, 506408, 506423, 506425, 506426, 506427 - 431, 506433, 506445, 506450, 506459,  
506461, 506464, 506466, 506468, 506473, 506475, 507333

**Geographic Coordinates**

52° 18' N  
119° 10' W

NTS Sheet 83 D/6

**Owner/Operator:** Commerce Resources Corp.  
600, 789 West Pender Street  
Vancouver, B.C. V6C 1H2

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**Date Submitted:** 2006 02 28

MINERAL SURVEY BRANCH  
2010

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## 1.

# INTRODUCTION

The Blue River Property encompasses a series of tantalum-niobium-phosphate bearing carbonatites (including the Fir, Bone Creek and Upper Fir carbonatites), about 25 to 35 km northeast of Blue River, British Columbia. The original property comprised mineral claims Verity 1 to 13, Mara 1 to 7, Paradise 1 to 12, Fir 1 to 12, Serp 1 to 6, Cheadle 3, 4, 13 to 16, Neve Ice 1 to 10 and Thunder 5; however, most of the claims have been converted to cell claims, consolidated or dropped, since the original property acquisitions.

In prior assessment reports these claims have been referred to as the Verity, Mara, Paradise, Gum Creek, Cheadle, Neve Ice, Thunder, Serp and Fir properties. Of the named claims, only Fir 3, 8 (2-post mineral claims), 11 (4-post mineral claim) and Mara 5 (2-post mineral claim), remain. The rest are now map designated claims under the updated mineral tenure system, and are nameless.

During the year SGS Lakefield conducted metallurgical test work on the samples from the property and in October, 2005 a drilling program was carried out. During 2006, fieldwork was conducted between 13 October 2006 and 01 November 2006 by Dahrouge Geological Consulting Ltd., on behalf of Commerce Resources Corp. It included the rehabilitation and construction of about 1½ km of old logging roads and skidder trails to make them suitable for access by drill equipment. In addition, eight HQ-sized diamond drill holes totalling 810 m were completed, logged and sampled. Carbonatite was intersected in five of the eight holes, two in Bone Creek Carbonatite and three in the Upper Fir Carbonatite.

As prior assessment reports (Dahrouge, 2001; Dahrouge and Reeder, 2002) include descriptions of the geographic setting and history and previous investigations, most of that information is not repeated herein. Throughout this report, attitudes of bedding and other planar features are given as A°/B° SW, where A° is the azimuth of the strike and B° is the amount of dip in the direction indicated. A magnetic declination of 20.4° was used.

## 1.1 GEOGRAPHIC SETTING

### 1.1.1 Location and Access

The Blue River Property is within North Thompson River valley of east-central British Columbia, within NTS map area 83 D/6 (Fig. 1.1). The Fir Carbonatite is centered at approximately 52° 19' N latitude and 119° 10' W longitude. The Fir, Bone Creek and Upper Fir carbonatites are located within the historic Fir claims (374670, 374665 and 382164 respectively). The Bone Creek showing is situated about 2 km south- to southeast of the Fir showing and the Upper Fir approximately 1 km to the east.

The property is approximately 26 km north of Blue River, British Columbia and is accessible from B.C. Highway 5 (Yellowhead South Highway). The Fir Carbonatite can be reached from the Gum Creek logging road which branches from Highway 5 about 23 km north of Blue River. The main line of the Canadian National Railway passes through the western part of the property. Limited supplies and accommodations are available at either Blue River or Valemount, the latter of which is 68 km north of the property.

### **1.1.2 Topography, Vegetation, Climate and Geographic Names**

The Blue River Property is between 720 m and 2445 m elevation above sea level and is located along the steep, west-facing slopes of the Monashee Mountains. Slopes are typically covered by thick undergrowth consisting of buck brush, devil's club and huckleberry. Areas not subjected to recent logging are covered by dense stands of hemlock, cedar, fir and white pine. Within the area timber line is at about 2000 m elevation. Precipitation averages 120 cm per year and snowfall is generally heavy.

## **1.2 PROPERTY**

The Blue River Property is held 100 percent by Commerce Resources Corp and encompasses about 128 sq. km, situated within Kamloops Mining Division (Fig. 1.1; Table 1.1). Throughout this report the term Blue River Property refers to 44 mineral claims and/or tenures, including Fir 3 (374665), 8 (374670), 11 (382164) and Mara 5 (380034).

The term Fir Property refers to the southern half of the Blue River Project, whereas the Verity Property makes up the northern portion. The project area encompasses a series of tantalum-niobium-phosphate bearing carbonatites, about 25 to 35 km northeast of Blue River, British Columbia. The Fir Property encompasses the Fir, Bone Creek and Upper Fir carbonatites. Historic claims Fir 1 to 9 were acquired by Commerce Resources Corp. during February, 2000; Fir 10 to 12 during October, 2000. Claims Gum 1 to 6 during January 2001; Thunder 5 during April, 2001; Cheadle 3, 4, 13 to 16 and Neve Ice 1 to 10 during May, 2001; and Serp 1 to 6 during March, 2002.

The claims which comprise the Blue River Property have been referred to as the Cheadle, Gum Creek, Fir, Neve Ice, Thunder and Serp properties in prior assessment reports. Several claims have since been converted, consolidated or dropped, since the original property acquisition. Of the named claims, only Fir 3, 8 (2-post mineral claims) and 11 (4-post mineral claim) remain. The rest are now map designated claims under the updated mineral tenure system, and are nameless.

**Table 1.1: Blue River Property**

Tenure Number	Claim Name	Owner	Map Number	Good To Date	Status	Mining Division	Area (ha)	Tag Number
374665*	FIR 3	142572 (100%)	083D025	2014/DEC/31	GOOD	KAMLOOPS	25.00	690945M
374670*	FIR 8	142572 (100%)	083D035	2014/DEC/31	GOOD	KAMLOOPS	25.00	671381M
380034^	MARA 5	142572 (100%)	083D045	2011/DEC/31	GOOD	KAMLOOPS	25.00	671370M
382164*	FIR 11	142572 (100%)	083D035	2014/DEC/31	GOOD	KAMLOOPS	500.00	221009
506262^		142572 (100%)	083D	2013/DEC/31	GOOD	KAMLOOPS	98.62	
506263^		142572 (100%)	083D	2008/DEC/31	GOOD	KAMLOOPS	295.73	
506264^		142572 (100%)	083D	2008/DEC/31	GOOD	KAMLOOPS	236.80	
506265*		142572 (100%)	083D	2012/DEC/31	GOOD	KAMLOOPS	79.07	
506267*		142572 (100%)	083D	2012/DEC/31	GOOD	KAMLOOPS	98.82	
506270*		142572 (100%)	083D	2008/DEC/31	GOOD	KAMLOOPS	1225.77	
506273*		142572 (100%)	083D	2007/DEC/31	GOOD	KAMLOOPS	1619.06	
506274*		142572 (100%)	083D	2007/DEC/31	GOOD	KAMLOOPS	1244.47	
506387^		142572 (100%)	083D	2013/DEC/31	GOOD	KAMLOOPS	98.64	
506391^		142572 (100%)	083D	2013/DEC/31	GOOD	KAMLOOPS	39.46	
506392^		142572 (100%)	083D	2013/DEC/31	GOOD	KAMLOOPS	39.46	
506393^		142572 (100%)	083D	2014/DEC/31	GOOD	KAMLOOPS	39.45	
506395^		142572 (100%)	083D	2013/DEC/31	GOOD	KAMLOOPS	39.45	
506397^		142572 (100%)	083D	2013/DEC/31	GOOD	KAMLOOPS	19.73	
506399*		142572 (100%)	083D	2014/DEC/31	GOOD	KAMLOOPS	79.08	
506401*		142572 (100%)	083D	2012/DEC/31	GOOD	KAMLOOPS	39.54	
506402*		142572 (100%)	083D	2012/DEC/31	GOOD	KAMLOOPS	19.77	
506403*		142572 (100%)	083D	2012/DEC/31	GOOD	KAMLOOPS	19.77	
506405*		142572 (100%)	083D	2012/DEC/31	GOOD	KAMLOOPS	19.77	
506407^		142572 (100%)	083D	2011/DEC/31	GOOD	KAMLOOPS	591.70	
506408^		142572 (100%)	083D	2011/DEC/31	GOOD	KAMLOOPS	118.38	
506423^		142572 (100%)	083D	2011/DEC/31	GOOD	KAMLOOPS	591.65	
506425^		142572 (100%)	083D	2011/DEC/31	GOOD	KAMLOOPS	157.85	
506426^		142572 (100%)	083D	2011/DEC/31	GOOD	KAMLOOPS	39.44	
506427^		142572 (100%)	083D	2011/DEC/31	GOOD	KAMLOOPS	19.72	
506428^		142572 (100%)	083D	2011/DEC/31	GOOD	KAMLOOPS	551.92	
506429^		142572 (100%)	083D	2011/DEC/31	GOOD	KAMLOOPS	78.92	
506430^		142572 (100%)	083D	2011/DEC/31	GOOD	KAMLOOPS	414.44	
506431^		142572 (100%)	083D	2011/DEC/31	GOOD	KAMLOOPS	315.77	
506433*		142572 (100%)	083D	2014/DEC/31	GOOD	KAMLOOPS	533.48	
506445*		142572 (100%)	083D	2014/DEC/31	GOOD	KAMLOOPS	355.92	
506450^		142572 (100%)	083D	2008/DEC/31	GOOD	KAMLOOPS	236.59	
506459^		142572 (100%)	083D	2008/DEC/31	GOOD	KAMLOOPS	473.37	
506461^		142572 (100%)	083D	2008/DEC/31	GOOD	KAMLOOPS	315.73	
506464^		142572 (100%)	083D	2008/DEC/31	GOOD	KAMLOOPS	78.95	
506466^		142572 (100%)	083D	2008/DEC/31	GOOD	KAMLOOPS	217.12	
506468^		142572 (100%)	083D	2008/DEC/31	GOOD	KAMLOOPS	355.27	
506473*		142572 (100%)	083D	2008/DEC/31	GOOD	KAMLOOPS	474.81	
506475*		142572 (100%)	083D	2008/DEC/31	GOOD	KAMLOOPS	395.68	
507391*		142572 (100%)	083D	2008/DEC/31	GOOD	KAMLOOPS	553.70	

\* Fir Property

^ Verity Property

### **1.3 HISTORY AND PREVIOUS INVESTIGATIONS**

As previous assessment reports (Dahrouge, 2001; Dahrouge and Reeder, 2002) contain detailed accounts of prior exploration of the Fir Carbonatite and the Blue River area, most of that information is not repeated herein. Both the Fir and Bone Creek showings were discovered during an exploration program initiated in 1980 by Anschutz (Canada) Mining Ltd. Studies by Campbell (1968), Pell and Simony (1981), and Pell (1987) contain information on the geology of the Blue River area.

Exploration of the Fir Carbonatite during the fall of 2000, by Commerce Resources Corp. included re-staking of the known carbonatite occurrences and subsequent reconnaissance-scale examinations to confirm known tantalum mineralization (Dahrouge, 2001). This work included the collection of samples for mineralogical determination, geochemical analyses and the acquisition of digital topographic data. The mineralogy and geochemistry confirmed the carbonatite nature of the samples and the highly anomalous 'tantalum - niobium - phosphate' mineralization. Two distinct populations of pyrochlore were identified.

The 2000 exploration was followed by more extensive exploration during the summer of 2001; including geological mapping, soil sampling, pan concentrate sampling and ground magnetic surveys (Dahrouge and Reeder, 2002). Pan concentrates were an effective method at tracing the source of Ta-Nb mineralization, while soil sampling was successful at detecting buried carbonatite bodies. Ground magnetic surveys were unable to delineate the Fir Carbonatite due to lack of sufficient magnetic minerals.

The 2003 soil sampling survey (Dahrouge and Woolbaum, 2004) was undertaken to determine the possible extent of carbonatite outcrop (Upper Fir Carbonatite) discovered in the summer of 2002 (Dahrouge and Smith, 2003). This outcrop, which is predominately covered by vegetation and overburden of various thickness, lies east of the previously discovered and extensively drilled Fir Carbonatite. Prior exploration in the vicinity of the Fir Carbonatite was not extensive enough to have identified any soil anomalies of Ta, Nb, and Mo in soils, which may be related to the Upper Fir Carbonatite. Samples were also collected from the Upper Fir Carbonatite to confirm high values of tantalum obtained from prior grab samples.

### **1.4 PURPOSE**

The exploration described herein, including diamond drilling, was used to confirm previous results by Anschutz (Canada) Mining Ltd. (Aquist, 1982a; 1982b) for the Bone Creek Carbonatite, and to determine the extent and mineralization within the Upper Fir Carbonatite.

## 1.5 SUMMARY

The work was authorized by Commerce Resources Corp. and approved under reclamation permit MX-15-183. Dahrouge Geological Consulting Ltd of Edmonton, Alberta, managed the program. Initial reconnaissance, including flagging trails and drill sites, was completed in September 2005. Heavy equipment was used to rehabilitate access trails, construct drill pads and deactivating drill trails. A total of about 1½ km of road was rehabilitated on the Fir Property (Fig. 1.2). Eight HQ sized core holes totalling 810 m were diamond drilled during October 2006 (Fig. 1.2).

## 2. REGIONAL GEOLOGY

The Blue River Property is within Omineca Crystalline Belt of the Canadian Cordillera. The eastern flank of the Cordillera has previously been recognized as a locus of alkaline igneous activity (Currie, 1976). Pell (1987) has subdivided the Omineca Alkaline Province, within British Columbia, into three northwest trending belts:

- a) an eastern belt, east of the Rocky Mountain Trench and encompassing most of the Main and Western Ranges of the Rocky Mountains;
- b) a central belt, which predominantly encompasses the Rocky Mountain Trench and eastern part of the Omineca; and
- c) a western belt.

The central carbonatite belt generally hosts multiple deformed and metamorphosed, sill-like bodies hosted by Late Precambrian to Early Cambrian metasedimentary rocks (Pell, 1987). This belt includes the Blue River Area carbonatites: Fir, Verity and Paradise Lake, Howard Creek and Mud Lake-Blue River (Fig. 2.1).

## 3. PROPERTY GEOLOGY

The following descriptions of geology of the Fir Property are mostly summarized from prior assessment reports by Dahrouge (2001) and Dahrouge and Reeder (2002).

### 3.1 STRATIGRAPHY, STRUCTURE AND LITHOLOGY

The Fir Property is underlain by interlayered metasediments and metabasites of the Proterozoic Horsethief Creek Group (Fig. 2.1). Near the Fir Carbonatite, the gneisses have a general strike of 360° and a moderate dip of 11° to 26° east (Aquist, 1982b). They are locally folded and cut by later faults. The Horsethief Creek rocks are intruded by sills of carbonatite and later pegmatitic sills and dikes. The carbonatite is either sovite (calcite-dominated) or



beforsite (dolomite-dominated). Aaquist (1982a) indicated that the most significant tantalum-niobium mineralization is confined to the beforsites. The carbonatite sills found to be composed of sovite are usually thin and barren. Both rock types are medium- to coarse- grained. Most exposures display layering defined by varying quantities of accessory minerals.

The Fir Carbonatite has been identified in outcrop and intersected by ten core holes over an area measuring 350 m east-west and 450 m north-south. It consists of two sub-parallel beforsite sills; the upper sill is up to 22 m thick and the lower sill is between 26 – 50 m thick. The carbonatites contain accessory minerals including Na-amphibole, pyroxene, phyllogopite, olivine, magnetite, pyrite, pyrrhotite, apatite and the tantalum-niobium bearing minerals.

Amphibolite and glimmerite (biotite-rich rock) are closely associated with the carbonatite bodies. Nepheline syenite has been found in the area (Aaquist, 1982b).

### 3.2 MINERALIZATION

The host rocks to the mineral occurrences on the Fir Property are carbonatites, which are igneous rock bodies composed of more than 50% carbonate minerals. Typically, they are relatively enriched in alkali elements and occur with other under-saturated alkaline rocks (feldspathoidal syenites and rocks of the ijolite suite).

Deposits of tantalum and niobium within carbonatite bodies were formed by primary magmatic concentration. The non-carbonate minerals tend to segregate into bands, thus a diffuse igneous layering is present with bands richer and poorer in carbonate minerals. This process is enhanced by the relatively low viscosity of the carbonatite magma. If a magma pulse rich in tantalum and niobium is intruded, the minerals may segregate into non-carbonate mineral rich layers and potentially form in economic concentrations.

The main carbonatite body on the Fir claims was discovered in 1981 by a surface outcrop and four subsequent drill holes. The sill possesses the highest concentrations of tantalum and niobium of any of the carbonatites discovered in the Blue River area (Aaquist, 1982a). The surface outcrop was identified as a result of a fortuitous landslide (Ahroon, 1980).

Knox (2000) determined that at the Fir Property, tantalum and niobium could be found in three minerals, pyrochlore ((Ca,Na)<sub>2</sub>Nb<sub>2</sub>O<sub>6</sub>(OH,F)), columbite (FeNb<sub>2</sub>O<sub>6</sub>) and fersmite ((Ca,Na)Nb<sub>2</sub>(O,OH,F)<sub>6</sub>). Tantalum substitution for niobium occurs in all three of the minerals. A mineralogical study (Aaquist, 1982a) ascertained that virtually all the tantalum is hosted by pyrochlore. Pyrochlore crystals range in size from 0.2 to 2 mm and occur in two habits (Knox, 2000). Typically, the pyrochlore crystals are dark red in color (Aaquist, 1982a; Knox, 2000) but

black and yellow coloured varieties have been recognized (Aaquist, 1982a; Mariano, 2000).

Samples from the surface outcrop have returned values of up to 250 ppm  $Ta_2O_5$  and 0.30%  $Nb_2O_5$  (Aaquist, 1982a; Dahrouge, 2001). The best intersection obtained from prior drilling was from Hole BC-19: 7.9 m of 0.037%  $Ta_2O_5$ , 0.064%  $Nb_2O_5$  and 3.25%  $P_2O_5$  (Aaquist, 1982b). This intersection is probably the same carbonatite horizon found at the surface exposure. At least ten intersections grading greater than 200 ppm  $Ta_2O_5$  over potentially mineable widths were cut in the four holes. The most significant finding of the analytical results from the Fir Carbonatite is the overall higher tantalum concentrations when compared with other carbonatites in the Blue River area. The Fir Carbonatite is characterized by concentrations of tantalum greater than 100 ppm with generally low U and Th.

#### **4. 2005 EXPLORATION**

##### **4.1 ACCESS TRAIL CONSTRUCTION AND REHABILITATION**

Initial reconnaissance, including flagging trails and drill sites, was completed in September 2005 by Dahrouge personnel. Trails and drill pads were constructed by Spaz Logging of Valemount, B.C., who were involved in the prior exploration of the property from October, 2001 to April, 2002 (B&G Logging). For the October 2006<sup>5</sup> work period the following equipment was used:

- Chain saw for clearing,
- Low bed for transportation,
- Excavator for reclaiming logging roads and skidder trails, and
- John Deere bull dozer.

The excavator was used intermittently during the above noted period to rehabilitate access trails, construct drill pads and deactivate drill trails. The excavator was also used for upgrading existing access trails and roads, ditching within wet and poorly drained areas, and for installing culverts where required. The John Deere dozer belonged to RJ Beaupre Drilling Ltd and assisted with trail rehabilitation.

A total of about 1½ km of road was rehabilitated on the Fir Property (Fig. 1.2).

##### **4.2 DRILLING**

Diamond drilling was approved under reclamation permit MX-15-183, obtained during 2005. Eight HQ sized core holes totalling 810 m were diamond drilled during October 2006. Four core holes were located east and upslope of the Bone Creek outcrops; and four core holes were drilled east and south of the Upper Fir outcrop (Fig.1.2). Drillhole collars were surveyed by a

Garmin 76S GPS instrument.

Diamond drilling was contracted to RJ Beaupre Drilling Ltd. of Princeton, B.C. Access to drill sites was obtained along Gum Creek logging road and a rehabilitated cat trail. Water for drilling was obtained from nearby creeks and runoff streams draining the property.

The core was logged and split at a garage in Blue River, B.C. Core logging involved both geological and geotechnical aspects. Geological descriptions included lithology, mineralogy and structure (Appendix 2A). Geotechnical logging involved measured recoveries, rock quality description (RQD) and fracture densities (Appendix 2B). All cores were photographed. After logging, the intervals of carbonatite were split with half of the core replaced in the core box.

The dominant rock type of interest was a rusty weathered, coarse-grained beforosite (dolomite-dominated) carbonatite, found in holes CF0502, CF0504, CF0505, CF0506 and CF0508. All core holes were vertical which is approximately perpendicular to the sub-horizontal sills. Thus, reported intersections are interpreted as representative of true thickness, (Table 4.1).

**Table 4.1: Summary of Analytical Results for the 2005 Core Holes**

Hole	From (m)	To (m)	Length (m)	Total Carbonatite (m)	Ta <sub>2</sub> O <sub>5</sub> (g/t)	Nb <sub>2</sub> O <sub>5</sub> (g/t)	U <sub>3</sub> O <sub>8</sub> (g/t)	P <sub>2</sub> O <sub>5</sub> (%)
Bone Creek								
CF0501	-	-	-	-	-	-	-	-
CF0502	30.57	32.73	2.21	2.21	218.97	237.00	56.6	4.00
CF0503	-	-	-	-	-	-	-	-
CF0504	11.9	20.92	9.02	9.02	239.96	2287.25	8.3	3.05
Upper Fir								
CF0505	69.86	90.46	20.60	16.79	210.92	2094.99	<3.5	3.30
CF0506	48.58	57.35	8.77	8.77	172.78	1967.56	<3.5	3.28
CF0507	-	-	-	-	-	-	-	-
CF0508	63.09	77.6	14.51	14.51	232.81	1449.99	27.2	3.81

### 4.3 SAMPLING

#### 4.3.1 Method and Approach

Carbonatite intersections were sampled at approximately 1 m intervals, or less. All samples were analyzed for tantalum, niobium and uranium in carbonatites (Table 4.1). Disseminated sulphides were observed throughout the host gneisses, therefore two samples were collected to analyze for base and precious metal.

#### 4.3.2 Preparation, Analysis and Security

One half of the core was sampled and sent for litho-geochemical analyses by X-Ray Fluorescence at Teck Cominco Metals Ltd.'s Global Discovery Lab in Vancouver, (Appendix 3).

#### **4.3.3 Data Verification**

Repeat analyses were completed for random samples, as well as analyses of a standard were run at the lab. Results are in Appendix 3.

At the time of writing values for Ta, Nb and U, as well as whole rock data were obtained for the 2005 core samples.

#### **4.4 METALLURGICAL TESTING**

Metallurgical tests on material from the Fir Carbonatite were conducted at SGS Lakefield Research Limited in Lakefield, Ontario. Two reports regarding the results are in Appendix 4.

### **5. DISCUSSION AND CONCLUSIONS**

Drilling conducted during 2005 confirms prior drill results reported by Anschutz Mining (Canada) Ltd. (Aquist, 1982b) for the Bone Creek Carbonatite. At the Upper Fir Carbonatite, further delineation drilling between the currently drilled zone and the known surface outcrops, as well as drilling further south of the 2005 drilling, will provide a more accurate determination of size and grade of the deposit. Rare earth elemental analyses should be considered, as trace element plots may be used to determine if a relationship exists between the Fir, Upper Fir and Bone Creek carbonatites.

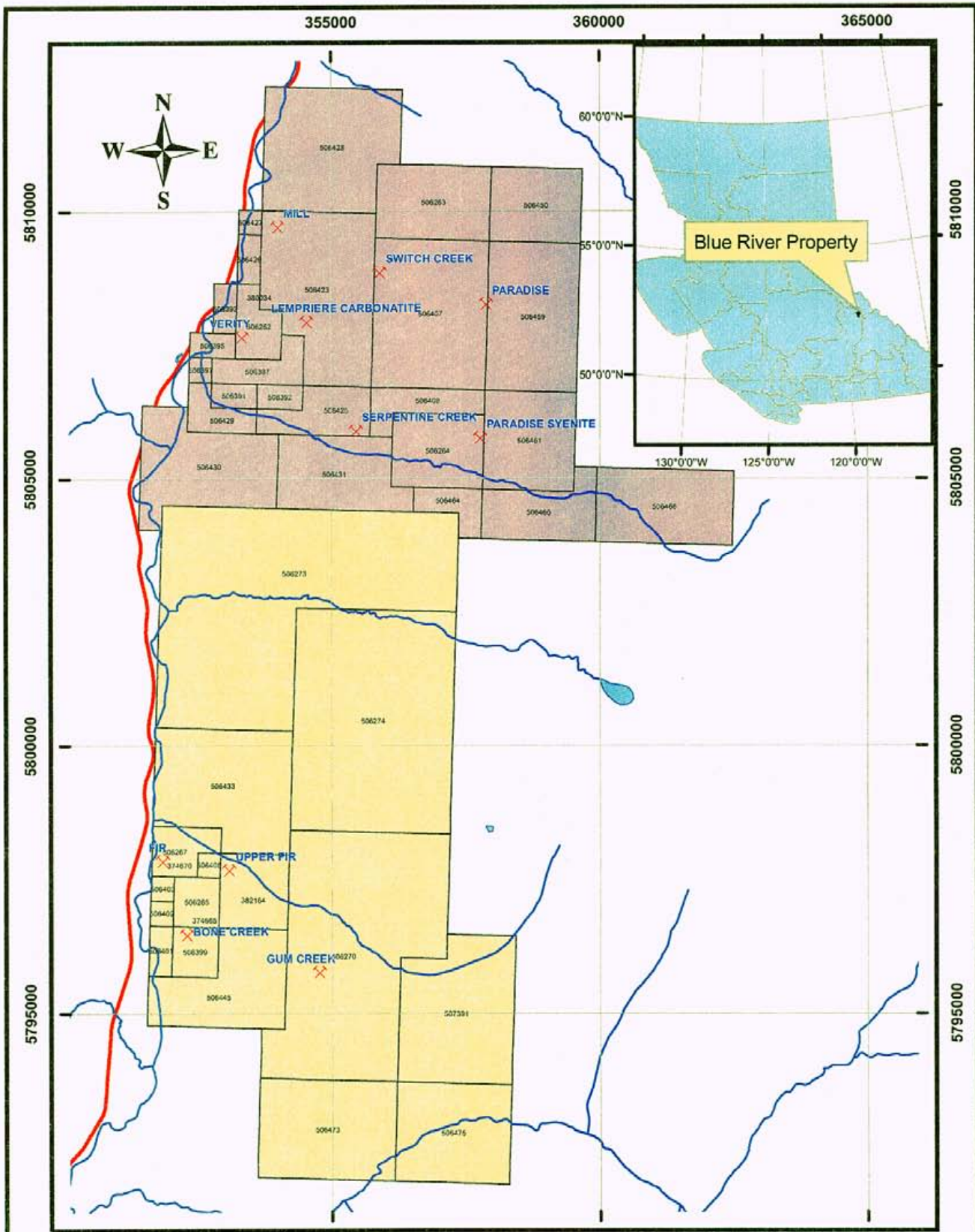
2006 02 20  
Edmonton, Alberta

Clinton Davis, B.Sc., P.Geo.

## REFERENCES

6.

- Aaquist, B. (1982a). Blue River Carbonatites, British Columbia, Final Report; B.C. Min. Energy, Mines Petr. Res. Ass. Rept. 10 274, 30 p.
- Aaquist, B. (1982b). Assessment Report Blue River Carbonatites, British Columbia,; B.C. Min. Energy, Mines Petr. Res. Ass. Rept. 11 130, 15 p.
- Ahroon, T.A. (1980). Geologic Report on the Blue River Project, British Columbia; B.C. Min. Energy, Mines Petr. Res. Ass. Rept. 9566, 13 p.
- Campbell, R.B. (1968). Canoe River, British Columbia; Geol Surv. Can., Map15-1967.
- Currie, K.L. (1976). The Alkaline Rocks of Canada; Geol. Surv. Can., Bull. 239., 228 p.
- Dahrouge, J. (2001a). 2000 Geologic Mapping and Sampling on the Verity Property; B.C. Min. Energy, Mines Petr. Res. Ass. Rept 26550, 7 p.
- Dahrouge, J. (2001b). 2000 Geologic Mapping and Sampling on the Fir Property; B.C. Min. Energy, Mines Petr. Res. Ass. Rept 26549, 7 p.
- Dahrouge, J. & Reeder J. (2002). 2001 Geologic Mapping, Sampling and Geophysical Surveys on the Fir Property; B.C. Min. Energy, Mines Petr. Res. Ass. Rept. 26781. 9 p.
- Dahrouge, J. & Smith M. (2002a). 2001 Diamond Drilling on the Fir Property; B.C. Min. Energy, Mines Petr. Res. Ass. Rept. 26911. 13 p. with appendices
- Dahrouge, J. & Smith, M. (2002b). 2002 Exploration of the Gum Creek Property; B.C. Min. Energy, Mines Petr. Res. Ass. Rept. 26990. 8 p. with appendices
- Dahrouge, J. & Smith M. (2003). 2002 Diamond Drilling and Exploration on the Blue River Property; B.C. Min. Energy, Mines Petr. Res. Ass. Rept. 27131. 20 p. with appendices
- Dahrouge, J. & Woolbaum, R. (2004). 2003 Exploration at the Blue River Property; B.C. Min. Energy, Mines Petr. Res. Ass. Rept. 27412. 13 p. with appendices
- Knox, A. (2000). Summary Report on the Blue River Carbonatite Property; prepared for Commerce Resources Corp., 21 p.
- Mariano, A.N. (2000). Personal Communication to Jody Dahrouge.
- McCrea, J. (2002). Fir Carbonatite Property, Resource Estimate; prepared for Commerce Resources Corp.
- Pell, J. and Simony, P. (1981). Stratigraphy, structure and metamorphism in the southern Cariboo Mountains, British Columbia: *in* Current Research, Part A, Geol. Surv. Can., Paper 81-1A, p. 227-230.
- Pell, J. (1987). Alkaline Ultrabasic Rocks in British Columbia: Carbonatites, Nepheline Syenites, Kimberlites and Related Rocks; B.C. Min. Energy, Mines Petr. Res.; Open File 1987-17, 109 p.



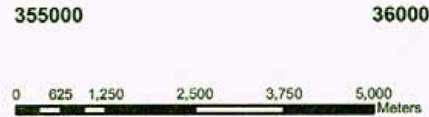
**Symbol**

⊗ Carbonatite Occurrence

**Blue River properties**

■ Fir

■ Verity



1:100,000

Coordinate System: NAD1983, UTM Zone 11

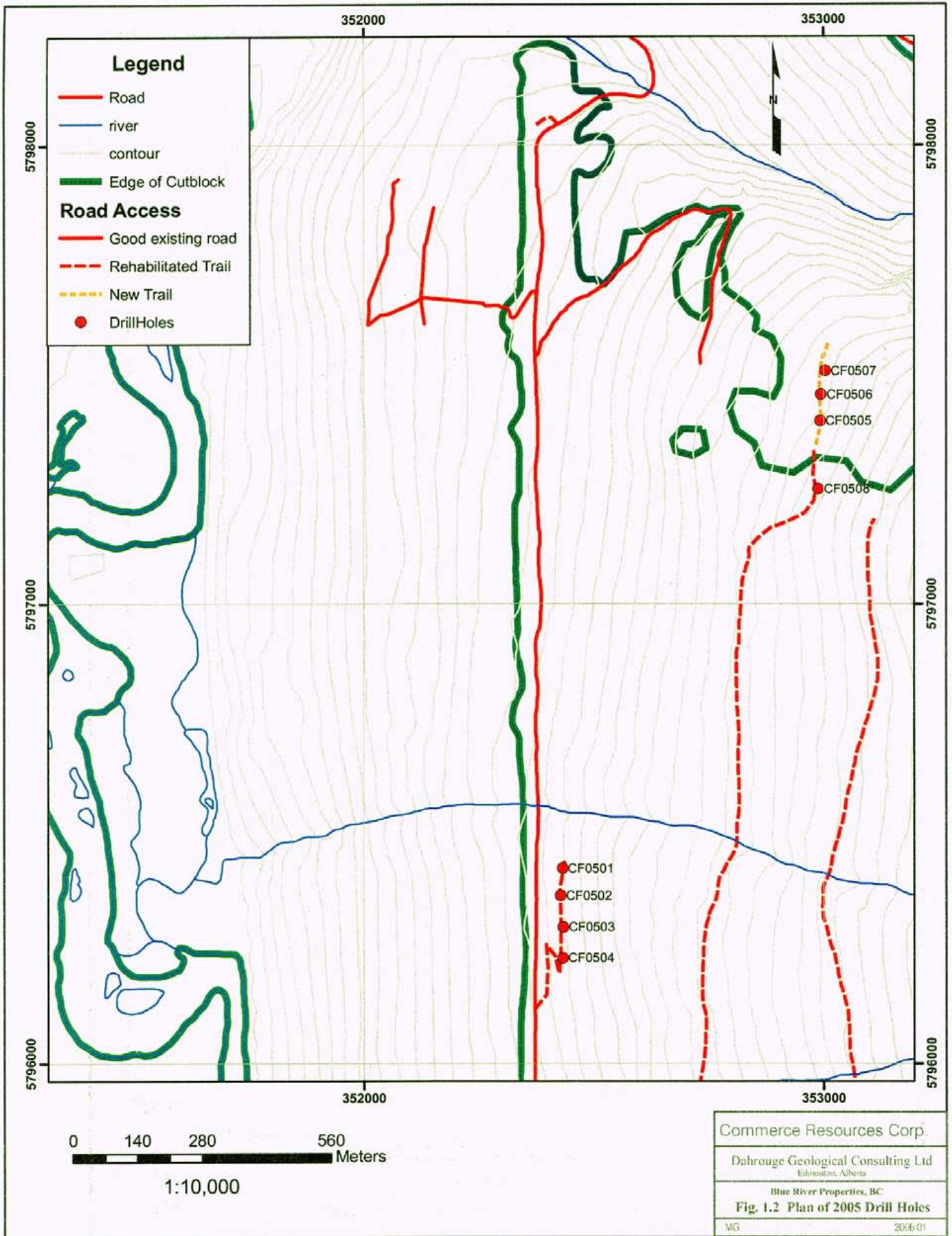
Commerce Resources Corp.

Dahrouge Geological Consulting Ltd  
Edmonton, Alberta

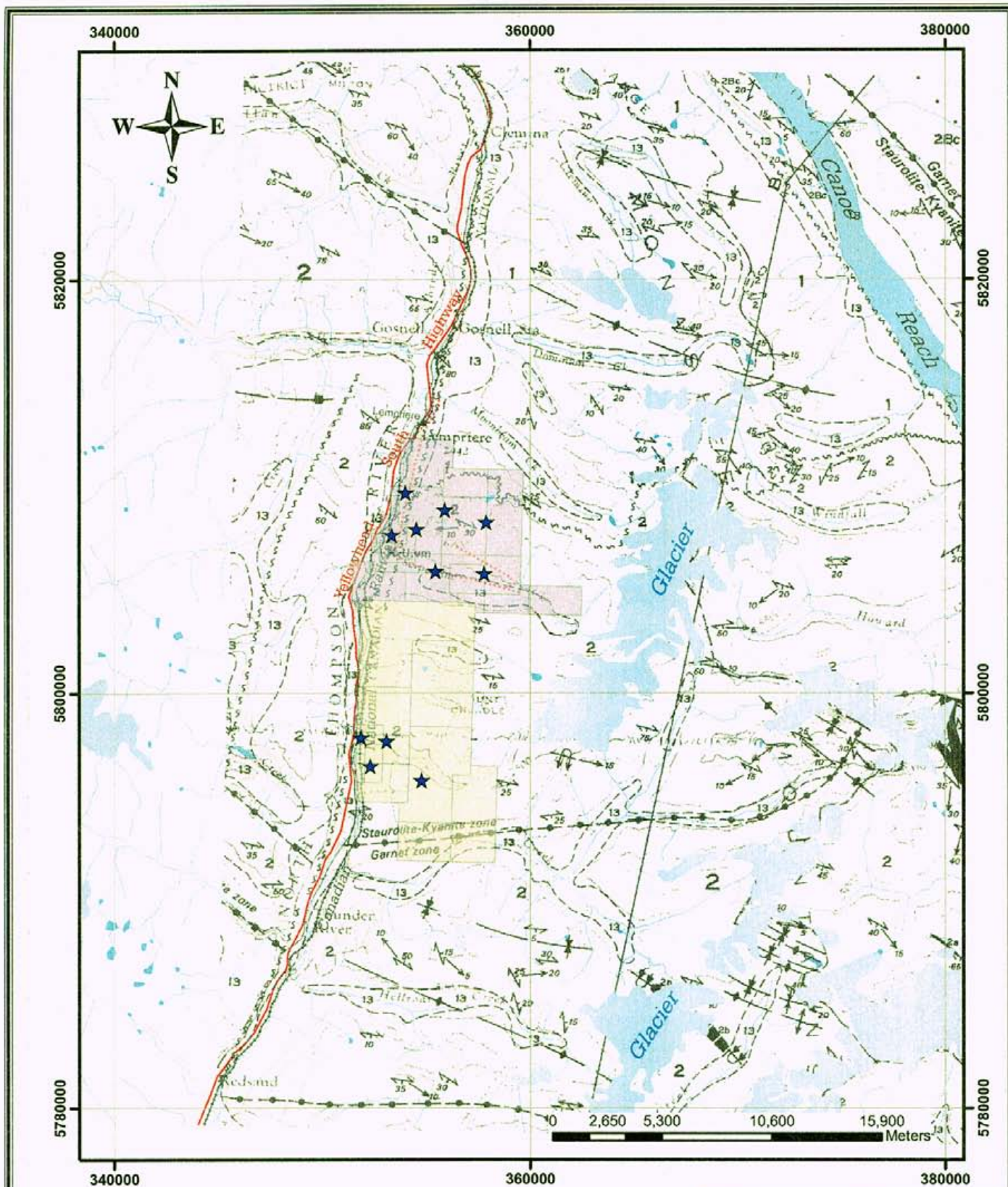
Blue River Properties, BC

**Fig. 1.1 Location and Claim Map**

MG 2006.01



Commerce Resources Corp.  
Dahrouge Geological Consulting Ltd  
Edmonton, Alberta  
Blue River Properties, BC  
Fig. 1.2 Plan of 2005 Drill Holes  
MG 2006 01



**LEGEND AND SYMBOLS**

**PLEISTOCENE AND RECENT**

13 Alluvium and glacial deposits

**WINDERMERE**

2 Horsethief Creek Group: Quartzite, Phyllite, Schist  
Garnet, Gneiss, 2a - Marble, 2b - Amphibolite

**AGE UNKNOWN**

1 Gneiss, Amphibolite, Schist, minor Quartz

**Blue River Properties**

Fir

Verity

★ Carbonatite Occurrence

Commerce Resources Corp.

Dahrouge Geological Consulting Ltd  
Edmonton, Alberta

Blue River Properties, BC  
Fig. 2.1 Regional Geology

MG 1:250,000 2006.01



**A1**

**APPENDIX 1: ITEMIZED COST STATEMENT**

**a) Personnel**

J. Dahrrouge, geologist

	9.25	days		permitting and planning, supervising and report preparation		
	1.00	days		field work and travel May 31		
	9.25	days	@	\$ 604.55		\$ 5,592.09

C. Davis, geologist

	21.80	days		permitting and planning, data compilation, report preparation		
	21.00	days		field work and travel October 13 to November 1		
	21.80	days	@	\$ 588.50		\$ 12,829.30

R. Grywul, geologist

	0.50	days		preparations		
	2.00	days		field work and travel between June 17 to 18		
	2.50	days	@	\$ 497.55		\$ 1,243.88

R. Hardy, geologist

	19.00	days		field work and travel October 16 to November 1		
	19.00	days	@	\$ 481.50		\$ 9,148.50

N. McCallum, geologist

	3.10	days		preparations		
	2.00	days		field work and travel between September 14 to 15		
	5.10	days	@	\$ 363.80		\$ 1,855.38

W. McGuire, field assistant and draftsman

	3.25	days		drafting, preparing and plotting figures and maps, other		
	3.25	days	@	\$ 476.15		\$ 1,547.49

G. Sauer, assistant

	2.00	days		field work and travel between September 14 to 15		
	2.00	days	@	\$ 240.75		\$ 481.50

D. Wilson, assistant

	8.00	hours		data entry, binding reports, photocopying, other		
	8.00	hours	@	\$ 19.26		\$ 154.08

\$ 32,852.21

**b) Food and Accommodation**

	47	man-days	@	\$ 45.55	accommodations and meals	\$ 2,140.99
	47	man-days	@	\$ 24.81	groceries and other	\$ 1,166.22

\$ 3,307.21

<b>c) <u>Transportation</u></b>			
	Vehicles:	Rental for 4x4 Truck	\$ 4,321.94
		- September 14, 15; October 13 to November 1	
		Rental for two ATV's (2 days)	\$ 588.50
		- September 14, 15	
		Bus Fare	\$ 112.52
		Fuel	\$ 991.94
		Mileage	\$ 568.49
		Parking	\$ 13.20
			<hr/>
			\$ 6,596.60
<b>d) <u>Instrument Rental</u></b>		n/a	
<b>e) <u>Drilling</u></b>		Spaz Logging	
		- Excavator Work, Reclamation and Logging	\$ 15,269.99
		Beaupre Diamond Drilling	
		- Mob/Demob, Tractor, Consumables, 810 m - HQ Core	\$ 96,741.09
			<hr/>
			\$ 112,011.08
<b>f) <u>Analyses</u></b>		SGS Lakefield	
		- mineral processing	\$ 5,992.00
		Teck-Cominco Laboratories Ltd.	
		- 60 samples, Ta, Nb, U, whole rock and trace element analysis	\$ 1,530.00
			<hr/>
			\$ 7,522.00
<b>g) <u>Report</u></b>		Reproductions and assembly	\$ 96.80
			<hr/>
			\$ 96.80
<b>h) <u>Other</u></b>		Courier and Shipping	\$ 44.98
		Field Equipment and Supplies	\$ 842.51
		Licences and Permits	\$ 581.65
		Long distance telephone	\$ 246.10
		Maps	\$ -
		Miscellaneous	\$ -
		Plots	\$ 58.85
			<hr/>
			\$ 1,774.10
<b><u>Total</u></b>			<hr/>
			\$ 164,159.99
			<hr/>

A3

**APPENDIX 2A  
LITHOLOGICAL LOGS FOR DRILL HOLES**

Company	Commerce Resources Corp		Date Started	16-Oct-05	Bearing	none	Datum	NAD83		
Project	Blue River - Fir Pty		Date Finished	17-Oct-05	Inclination	-90	UTM E	352431		
Claim			Logged By	R. Hardy w/ C.Davis	Core Size	HQ	UTM N	5796425		
Hole No	CF0501		Drill Co	RJ Beaupre Drilling	Depth (m)	81.38	Elev (m)	1054		
Note	most intervals based on runs									
From (m)	To (m)	Rock Type	Description		Mineralization	Alteration	Sample #	From (m)	To (m)	Length (m)
0	1.22		Casing - minimal overburden							
1.22	5.18	Gneiss	grey, fine-medium crystalline, biotite-plagioclase, quartz veinlet 4.3m 75oCA, phlogopite 4.4m 75o CA		tr po py	Sil +/- bt (phlog)				
5.18	8.23	Gneiss	grey, fine-medium crystalline, biotite-plagioclase, 7.13m amphibolite interval ~5cm thick, dark green, subparallel texture, 6m significant fracture 15oCA, 7.35m quartz vein 1-2cm 80oCA, 7.5-8 garnet mica amphibole, garnet <2cm medium-dark pink, mica - biotite? or phlogopite?		tr po py					
8.23	11.28	Gneiss	grey, fine-medium crystalline, garnet-biotite-plagioclase, 8.65m 40% garnet, high mica content, 10.65m gneissosity 60oCA, 11-11.15m quartz vein with Po +/- Py, vein breccia? Not solid +/- mica (phlogopite?), 11.28m crushed/sheared/weak zone ~5cm thick, parallel gneissosity, high mica content		tr po py	Sil +/- bt (phlog)				
11.28	14.33	Gneiss	light-medium grey, fine-medium crystalline, garnet-mica-amphibole +/- quartz-plagioclase, 13.25-14m increase PoPy content, from trace to 5-10%, 14.3-14.37m quartz vein parallel gneissosity		5-10% po py disseminated					
14.33	17.37	Gneiss	light-medium grey, fine-medium crystalline, garnet-mica-amphibole +/- quartz-plagioclase, 16-16.28m bull quartz vein with Po fracture fill, phlogopite layer at base of quartz, 16.31-17.37m mottled greyish green, gneissosity 70-80oCA, 17m sheared/fractured muscovite (light green pearly) 25oCA		tr po py	Sil +/- bt (phlog)				
17.37	20.42	Gneiss	light-medium grey, fine-medium crystalline, garnet-mica-amphibole +/- quartz-plagioclase, 19m garnet cluster 2-3cm, medium pink, 19.85-19.91m potassium feldspar+quartz+green amphibole, 20.10m gneissosity 55oCA, 20.20-20.42m phlogopite gneiss, 20.30-20.62 massive phlogopite grades into phlogopite-quartz @ 20.62m, phlogopite decreases, quartz increases		tr po py	Sil mod-strong, K-Spar weak-mod 19.85-19.91m				
20.42	23.47	Gneiss + Pegmatite	light-medium grey, fine-medium crystalline, garnet-mica-amphibole +/- quartz-plagioclase, 20.70-21m quartz vein with minor plagioclase, 21-21.75m gneiss, 21.75-23.47m garnet muscovite +/- PoPy bearing unit		tr-5% po py	Sil mod-strong, mica (muscovite) weak-mod (metamorphic)				

From (m)	To (m)	Rock Type	Description	Mineralization	Alteration	Sample #	From (m)	To (m)	Length (m)
23.47	26.52	Gneiss	light-medium grey, fine-medium crystalline, garnet-mica-amphibole +/- quartz-plagioclase, decreasing garnet content, 26m gneissosity 60oCA	tr po py	Sil mod-strong				
26.52	29.57	Gneiss	light-medium grey, fine-medium crystalline, garnet-mica-amphibole +/- quartz-plagioclase, 26.63-26.73m massive phlogopite (talc feel), 27-27.05m shear/fracture defined by phlogopite parallels gneissosity 70oCA, 27.32-27.75m epidote-phlogopite-quartz-plagioclase amphibole +/- Po Py, 27.75-28.15m gneiss, 27.88-28.15m brecciated gneiss (resilicified?), 28.44 & 28.47m phlogopite-quartz vein parallel gneissosity 70oCA, 28.45-28.47 dark blue grey 2 cm disk of plagioclase amphibole +/- epidote & phlogopite, 29-29.02m phlogopite-quartz vein parallel gneissosity, 29.02-29.57m grey gneiss	tr po py	Sil mod-strong, Serp intermittent weak (Ep?)				
29.57	30.97	Gneiss	light-medium grey, fine-medium crystalline, garnet-mica-amphibole +/- quartz-plagioclase	tr po py	Sil mod-strong				
30.97	31.4	Pegmatite	quartz-plagioclase brecciated/mottled, medium crystalline, white-grey, texture gneissosity parallel, trace sulphide at bottom contact in gneiss	tr po py					
31.4	31.77	Gneiss	light-medium grey, fine-medium crystalline, garnet-mica-amphibole +/- quartz-plagioclase	tr po py	Sil mod-strong				
31.77	32.61	Gneiss	mica quartz interlayered with grey gneiss, fault zone? ~0oCA with displacement, gneissosity 60-70oCA	5% po py	Sil mod-strong				
32.61	33.22	Sheared Gneiss	32.61-33.22m nice OOCA offset (closed), bottom contact crumbly ~4cm	tr po py	Sil mod-strong				
33.22	34.1	Gneiss	light-medium grey, fine-medium crystalline, garnet-mica-amphibole +/- quartz-plagioclase	tr po py	Sil mod-strong				
34.1	34.45	Sheared Gneiss	OOCA offset (closed)	tr po py	Sil mod-strong				
34.45	35	Gneiss	light-medium grey, fine-medium crystalline, garnet-mica-amphibole +/- quartz-plagioclase	tr po py					
35	35.66	Sheared Gneiss	OOCA offset (closed) +/- fenitization	tr po py	Fen weak				
35.66	38.71	Pegmatite	massive bul quartz+plagioclase, possible trace pyrochlore (brown 2-3mm), trace apatite (elongate hexagons, 5-8mm), highly fractured (closed), moderate open fractures, 5% green pearly soapy greasy- talc?, open fractures 20oCA, 30oCA, 90oCA	tr po py	Sil strong				
38.71	39.01	Amphibolite/ Gneiss	very dark green medium crystalline amphibolite, sheared	tr po py					

From (m)	To (m)	Rock Type	Description	Mineralization	Alteration	Sample #	From (m)	To (m)	Length (m)
39.01	39.42	Gneiss	light-medium grey, fine-medium crystalline, garnet-mica-amphibole +/- quartz-plagioclase to fine crystalline greenish grey sheared	tr po py	Sil mod-strong				
39.42	39.62	Gneiss	light-medium grey, fine-medium crystalline, garnet-mica-amphibole +/- quartz-plagioclase to fine crystalline greenish grey sheared	tr po py	Sil mod-strong				
39.62	40.1	Gneiss	lightly fracture/sheared greyish green gneiss	tr po py	Sil mod-strong				
40.1	41.1	Gneiss	medium green grey, 40.10m calcite veinlet 5mm thick irregular (stylolite-like) ~30oCA	tr po py	Sil-Carb moderate, Serp weak (Ep?)				
41.1	41.23	Gneiss	quartz-amphibolite	tr po py	Sil strong				
41.23	41.28	Gneiss	biotite-muscovite	tr po py	Sil strong				
41.28	41.35	Gneiss	quartz-amphibolite	tr po py	Sil strong				
41.35	41.76	Gneiss	biotite-muscovite, medium crystalline, grey	tr po py	Sil strong				
41.76	44.81	Gneiss	41.76-43.21m biotite-muscovite, medium crystalline, grey with minor increasing silica & amphibole component, 43.21-44.81m increasing silica grey to white "zebra" striped gneiss	tr po py	Sil strong				
44.81	47.85	Gneiss + Pegmatite	44.81-45.3m highly siliceous "zebra" striped gneiss, 45.3-45.32m phlogopite/muscovite shear/weak zone, 45.32-45.7m biotite-plagioclase-quartz gneiss +/- sericite, 45.7-46.17m high silica "zebra" gneiss, 46.17-46.52m quartz-plagioclase pegmatite, 46.52-46.62m grey gneiss, gneissosity 80oCA, 46.62-46.67m quartz amphibole irregular veinlet, 46.67-46.82m sheared amphibole gneiss, 46.82-47.85m grey gneiss	tr po py	Sil strong				
47.85	50.9	Gneiss	medium crystalline grey gneiss, moderate gneissosity 80oCA	tr po py	Sil strong				
50.9	53.95	Gneiss	medium crystalline grey gneiss, moderate gneissosity 80oCA, 53.65m irregular quartz veinlet	tr po py	Sil strong				
53.95	57	Gneiss	medium crystalline grey gneiss, moderate gneissosity 80oCA, 54.85-55m garnet porphyroblast 5-10cm, 56.5m 2cm quartz pyroxene wih po py veinlet	tr po py, 56.5m 5% po py	Sil strong				
57	60.05	Gneiss	medium crystalline grey gneiss	tr po py	Sil strong				
60.05	63.09	Gneiss	medium crystalline grey gneiss, 62.69m muscovite (shear/weak zone)	tr po py	Sil strong				
63.09	66.14	Gneiss	medium crystalline grey gneiss, high fracturing, 64.6-64.64m amphibole phlogopite gneissosity parallel incalcation	tr po py	Sil strong				
66.14	37.62	Gneiss	medium crystalline grey gneiss	tr po py	Sil strong				

From (m)	To (m)	Rock Type	Description	Mineralization	Alteration	Sample #	From (m)	To (m)	Length (m)
37.62	67.82	Gneiss	fine-medium crystalline green & black, 67.62-67.64m garnet porphyroblasts, 67.76-67.77m garnet porphyroblasts	tr po py	Sil strong, Serp moderate (Ep?)				
67.82	68.74	Amphibolite + Pegmatite	Gneiss medium grey, moderate foliation/gneissosity 80oCA, interbanded with quartz plagioclase pegmatite, 67.82-68.08m biotite-amphibole interbanded with quartz plagioclase cm-scale, 68.08-68.43m quartz plagioclase pegmatite with 5% coarse crystalline amphibole, 5% Po, 68.43-68.74m quartz plagioclase pegmatite interlayered with biotite amphibole	tr po py to 5% po	Sil strong, Serp weak-moderate (Ep?)				
68.74	69.45	Gneiss	grey medium crystalline, gneissosity 70oCA	tr po py	Sil strong				
69.45	77.23	Pegmatite	quartz plagioclase coarse crystalline with bands of biotite amphibole (20%) and coarse muscovite (10%), spotty green coloru and rust spots <3mm (trace), drark bands and muscovite bands 60-70oCA, 72.64-72.73m mafic band with 2cm dark green margins, top & bottom, centre medium green	tr po py	Sil strong, Serp weak (Ep?)				
77.23	81.38	Gneiss + Pegmatite	fine to medium crystalline, medium grey, gneissosity, 70oCA, 79.03-79.18m quartz plagioclase pegmatite	tr po py	Sil strong, Serp weak (Ep?)				
<b>EOH</b>									

Company	Commerce Resources Corp		Date Started	18-Oct-05	Date Finished	19-Oct-05	Logged By	C. Davis	Drill Co	RJ Beaupre Drilling	Bearing	none	Datum	NAD83
Project	Blue River - Fir Pty		Date Started	18-Oct-05	Date Finished	19-Oct-05	Logged By	C. Davis	Drill Co	RJ Beaupre Drilling	Inclination	-90	UTM E	352427
Claim			Date Started	18-Oct-05	Date Finished	19-Oct-05	Logged By	C. Davis	Drill Co	RJ Beaupre Drilling	Core Size	HQ	UTM N	5796366
Hole No	CF0502	Rock Type	Description	Mineralization	Alteration	Sample #	Elev (m)	1049	From (m)	To (m)	Length (m)			
From (m)	To (m)	Rock Type	Description	Mineralization	Alteration	Sample #	Elev (m)	From (m)	To (m)	Length (m)				
0	1.22	Casing	Minimal Overburden											
1.22	30.57	Gneiss	fine-medium equicrystalline, medium grey +/- green with white bands, biotite-quartz-plagioclase-amphibole +/- garnet, muscovite, gneissosity 60-70°C, 4.2-4.5m medium pistachio-green interval - amphibolite?, 6.3m closed fracture 0-10°C, 1cm reverse displacement, 11.1-11.75m medium pistachio-green interval - amphibolite?, 13.6-13.8m medium pistachio-green interval - amphibolite?, 24.9m po filling fracture ~1cm at top of 3cm quartz band, 25.5m po filling fracture ~1cm irregular shape ~50°C, 25.5-26m medium pistachio-green interval - amphibolite?, 29.2-30.57 dark grey gneiss	tr po py	Sil strong, Serp weak-moderate (Ep?)									
30.57	32.73	Carbonatite	white with grey spider fracturing, 5mm black speckles (elongate-amphiboles), and translucent hexagonal crystals <3mm - apatite, 350-400 counts/sec			22211		30.57	31.29	0.72				
			top contact sharp ~70°C, bottom contact sharp 50°C brecciated texture, fragments in place, 1-2 cm in size			22212		31.29	32.01	0.72				
32.73	34.74	Gneiss	fine-medium equicrystalline, medium-dark grey +/- green with white bands, biotite-quartz-plagioclase-amphibole +/- garnet, gneissosity 60°C, <1cm bands of quartz, garnets pink <2cm, most <0.5cm	tr po py	Sil strong	22213		32.01	32.73	0.72				
34.74	35.1	Pegmatite	massive, coarse crystalline quartz & plagioclase +/- mafics (amphibole, biotite)											
35.1	35.5	Gneiss	medium green, fine-medium crystalline, weak gneissosity 70°C	tr po py	Sil strong, Serp moderate (Ep?)									
35.5	35.65	Pegmatite	massive, coarse crystalline quartz & plagioclase +/- mafics (amphibole, biotite)											
35.65	37.36	Gneiss	fine-medium equicrystalline, medium grey +/- green with white bands, biotite-quartz-plagioclase-amphibole +/- garnet, gneissosity 70°C, lacks garnets	tr po py	Sil strong, Serp weak (Ep?)									
37.36	37.97	Pegmatite	massive, coarse crystalline quartz & plagioclase +/- mafics (amphibole, biotite)											
37.97	42.64	Gneiss	fine-medium crystalline, alternating bands of medium grey & pale-medium green, 1-5 cm thick, gneissosity 70°C	tr po py	Sil strong, Serp weak (Ep?)									
42.64	43.69	Gneiss	medium-dark grey, medium-coarse crystalline, weak gneissosity	tr po py	Sil strong									



From (m)	To (m)	Rock Type	Description	Mineralization	Alteration	Sample #	From (m)	To (m)	Length (m)
43.69	45.91	Gneiss	pale-medium green, medium crsytalline, weak gneissosity, bottom contact alteration around closed fracture 20°C x2, halo ~3cm, washed out core i.e. lighter colour	tr po py	Sil strong				
45.91	71.34	Gneiss	fine-medium crystalline, medium grey with white quartz bands <2cm, varying garnet content, 1-2cm biotite-amphibole bands @ 54.9m, 55.79m and 58.8m, 2-4cm garnet quartz plagioclase bands @ 57.8m, 67.42m and 52.9m, fault gouge ~4cm thick ~70°C across gneissosity, also ~70°C	tr po py	Sil strong				
71.34	76.81	Gneiss	thicker intervals of quartz plagioclase in gneiss with amphibole medium-dark grey, fine-medium crystalline, gneissosity 70°C, 74.79-75.15m quartz plagioclase massive white, sharp contacts	tr po py	Sil strong				
<b>EOH</b>									

Company	Commerce Resources Corp		Date Started	19-Oct-05	Bearing	none	Datum	NAD83	
Project	Blue River - Fir Pty		Date Finished	20-Oct-05	Inclination	-90	UTM E	352433	
Claim			Logged By	R. Hardy	Core Size	HQ	UTM N	5796297	
Hole No	CF0503		Drill Co	RJ Beaupre Drilling	Depth (m)	81.38	Elev (m)	1048	
Note	most intervals based on runs								
From (m)	To (m)	Rock Type	Description	Mineralization	Alteration	Sample #	From (m)	To (m)	Length (m)
0	3.35	Casing	minimal overburden						
3.35	5.18	Gneiss	medium grained, grey-light grey, grading into fine grained greenish grey @3.7m into greenish grey garnet porphyroblastic massive gneiss, gneissosity 85°C	mainly disseminated pyrite					
5.18	8.23	Gneiss	medium grained, grey to greenish grey with interspersed zones of silica flood gneisses interlayered with medium grained purple grey	tr py po					
8.23	11.28	Gneiss	as above with amphibolite gneiss clasts in bedded in medium grey 'diortitic' gneiss, quartz phlogopite stringers @8.4m	tr py po					
11.28	14.33	Gneiss	as above with quartz-phlogopite 'pyroxene', pyrite-pyrhotite stringers @ 11.6m, 11.85m, 12, 12.10m	tr py po					
14.33	17.37	Gneiss	greenish grey gneiss as above with muscovite alteration, severely disturbed core with fracture parallel to gneissosity, 55°C, and perpendicular to gneissosity (& random fracture)	tr py po					
17.37	20.42	Gneiss	as above, grey-green gneisses with gradation into serpentinepyroxenite gneiss + phlogopite alteration at 18.7-20m	tr py po	Serp moderate				
20.42	23.47	Gneiss	grey (purple-brown) (phlogopite) gneisses with randomly disturbed garnet porphyroblasts, gneissosity is highly distorted with fairly flow textures	tr py po	Sil strong, Serp moderate				
23.47	26.52	Gneiss	grey (purple-brown) with ~10-35% quartz-plagioclase interleaves(banding) with amphibole-phlogopite quartz stringer at 26.05m	tr py po					
26.52	29.57	Gneiss + Pegmatite	as above with increasing grain size through 27.4m (fine grained garnet bearing amphibolite gneiss to grey purple to 28.85-28.93m + quartz plagioclase (metasomatic) pegmatite through to 29.83m	tr py po					
29.57	32.61	Pegmatite + Gneiss	quartz plagioclase metasome to 29.83m, into grey-(purple-brown) gneiss to amphibole green quartz, pyrrhotite lens 30.32 to 30.55m, green grey fine grained gneiss to 31.64m, into rhythmic silica-amphibole, zebra gneiss through to 33.41m	tr py po	Sil strong, Serp moderate				

From (m)	To (m)	Rock Type	Description	Mineralization	Alteration	Sample #	From (m)	To (m)	Length (m)
32.61	35.66	Gneiss	amphibole (greenish) to grey purple brown rhythmic zebra gneiss	tr py po	Sil strong				
35.66	38.71	Gneiss	as above, decreasing quartz plagioclase component in grey green to purple grey gneiss, 7cm quartz fracture infill with phlogopite base @ 38.37-38.44m, gneissosity @ 77°C	tr py po					
38.71	41.76	Gneiss	as above with slight grain size increase to quartz flocced near and about 41m as above to 41.76m	tr py po	Sil strong				
41.76	44.81	Gneiss	as above with 18cm quartz plagioclase pegmatite @ 42.05m, very impressive phlogopite-feldspathoid lenses: 43.99-44.1m, 44.17-44.25m, 44.4-44.48m, medium grain grey gneiss to 44.81m	tr py po					
44.81	47.86	Gneiss + Pegmatite	greenish grey gneiss to granodiorite gneiss into quartz plagioclase(+/- mica amphibole) 45.5-46.25m, gneissosities 85°C, 70°C, 90°C @ 46.25m, 30°C @ 47.5m	tr py po					
47.86	50.9	Gneiss	as above, green to greenish grey to grey purple gneiss with phlogopite-quartz-sulphide lens	tr py po					
50.9	53.95	Gneiss	grey medium grained gneiss with phlogopite quartz at 51.15-51.2m, quartz muscovite-plagioclase at 51.30-51.42m, phlogopite-quartz @ 51.15m, 51.87m, 52.19m, 52.4m, 52.5-52.62m	tr py po					
53.95	57	Gneiss	as above gneisses, no phlogopite lenses, grades to fine grained green epidote bearing (fracture & healed) gneiss to 57m	tr py po	Serp (Ep?)				
57	60.05	Gneiss	interleaves of fine grained green gneiss, random & chaotic orientation of gneissosity + grey gneiss (garnet porphyroblasts @ 59 - 59.06m), white grey gneiss to 60.05m	tr py po					
60.05	63.09	Gneiss	grey grades into light grey granodioritic gneisses to 63.09m	tr py po					
63.09	66.14	Gneiss	as above with interleaving of fine grained light green gneiss - garnets	tr py po					
66.14	69.19	Gneiss	as above gneissosity 73°C	tr py po					
69.19	72.24	Gneiss	rapid transition into medium grained biotite-muscovite	tr py po					
72.24	75.29	Gneiss	quartz-albite granodioritic gneiss through to 75.29m	tr py po					
75.29	80.52	Gneiss	as above minor quartz plagioclase garnet lenses	tr py po					
80.52	81.38	Gneiss	fairly impressive garnet 'freckle' amphibolite gneiss	tr py po					

EOH

Company	Commerce Resources Corp		Date Started	20-Oct-05	Bearing	none	Datum	NAD83	
Project	Blue River - Fir Pty		Date Finished	21-Oct-05	Inclination	-90	UTM E	352432	
Claim			Logged By	C. Davis	Core Size	HQ	UTM N	5796230	
Hole No	CF0504		Drill Co	RJ Beaupre Drilling	Depth (m)	60.05	Elev (m)	1046	
Note	Samples intervals by R. Hardy								
From (m)	To (m)	Rock Type	Description	Mineralization	Alteration	Sample #	From (m)	To (m)	Length (m)
0	3.66	Casing	Minimal overburden		Sil strong				
3.66	11.48	Gneiss	medium-dark grey medium crystalline biotite amphibole quartz plagioclase +/- pink garnet porphyroblasts most <0.5cm, 0.5cm<rare<2cm, gneissosities: 3.66-10.68m 90°CA, 10.68-11.48m 60°CA		Sil strong				
11.48	11.9	Gneiss	grey & green strined appearance with rounded white clasts - plagioclase-quartz, fracture filling irregular shaped Po <2cm tr-3%	tr-3% Po	Sil strong				
11.9	20.92	Carbonatite	white to pale grey with pale grey fracturing and green-black elongate speckles - amphiboles <0.5cm ~15% consistent, translucent hexagonal crystals <3mm ~5%, trace sulphide blebs (po) 0.5cm, brecciated texture, little movement, subangular clasts <1cm, minor yellow staining (rust/limonite), 350-400 counts/sec, 15.58-16.03m mafic unit, dark grey-green with white similar to 11.48-11.9m unit, platy soapy green pearlescent mineral dominates, 12.93-13.31m grey green interval strained texture lie 11.48-11.9m, top contact 60°CA, bottom 80°CA			22201	11.9	12.75	0.85
						22202	12.75	13.6	0.85
						22203	13.6	14.45	0.85
						22204	14.45	15.3	0.85
						22205	15.3	16.15	0.85
						22206	16.15	17	0.85
						22207	17	17.85	0.85
						22208	17.85	18.7	0.85
						22209	18.7	19.55	0.85
						22210	19.55	20.1	0.55
						22214	20.1	20.87	0.77
20.92	20.95	Fen. Gneiss	3 cm margin bottom contact of carbonatite, fenitized gneiss, dark green to black		Sil weak, Fen strong				
20.95	60.05	Gneiss	medium-dark grey with white bands and green bands (same sort of green as nickel bloom, NOT nickel bloom)		Sil strong				
EOH									

Company	Commerce Resources Corp		Date Started	22-Oct-05	Date Finished	24-Oct-05	Logged By	R. Hardy	Drill Co	RJ Beupre Drilling	Bearing	none	Datum	NAD83
Project	Blue River - Fir Pty		Core Size	HQ	UTM E	352992	UTM N	5797400	Elev (m)	1267				
Claim	CF0505		Sample #		From (m)		To (m)		Length (m)					
Hole No			Alteration		From (m)		To (m)		Length (m)					
Note			Mineralization		From (m)		To (m)		Length (m)					
From (m)	To (m)	Rock Type	Description	Mineralization	Alteration	Sample #	From (m)	To (m)	Length (m)					
0	1.22	Casing	Minimal overburden											
1.22	13.7	Gneiss + Amphibolite	Gneiss- medium grey with light & darker bands, biotite amphibole quartz plagioclase +/- pink garnets (<5%), gneissosity 70°C; Amphibolite-medium-dark green with black, biotite pyroxene amphibole, foliated, found at 5.18-6.44m, 12.38-12.48m, 13.55-13.70m	trace Po Py	Gneiss-sil strong; Amph-biot mod strong									
13.7	15.08	Pegmatite	white with black/dark grey bands 1-2cm, medium crystalline, quartz plagioclase, black bands parallel above gneissosity 75°C											
15.08	69.79	Gneiss + Amphibolite	Gneiss- medium-dark grey with light & darker bands, biotite amphibole quartz plagioclase +/- pink garnets (variable), medium-coarse crystalline; Amphibolite-medium-dark green with black, biotite pyroxene amphibole, foliated weakly parallel gneissosity, medium-coarse crystalline, found at 19.32-19.34m, 43.8-45.76m, 50.75-52.91m	trace Po Py	Gneiss-sil strong; Amph-biot mod strong									
69.79	69.86	Amphibolite	dark green, biotite pyroxene amphibole, contact with carbonatite sharp 60°C											
69.86	70.9	Carbonatite (Before-site?)	white breccia texture (flow) with medium grey matrix, weak foliation parallel gneissosity, black elongate speckles (amphiboles) <0.5cm, 3% (less than Bone Creek carbonatite), no significant change in counts/sec from host rock 150-200, except where there is increase in density of amphiboles	trace Po Py		22216	69.86	70.9	1.04					
70.9	71.3	Gneiss	dark grey-black with white to grey bands, gneissosity 75°C, bottom contact sharp 75°C	trace Po Py	Gneiss-sil strong									
71.3	73.02	Carbonatite (Before-site?)	white breccia texture (flow) with medium grey matrix, weak foliation parallel gneissosity, black elongate speckles (amphiboles) <0.5cm, 3% (less than Bone Creek carbonatite), no significant change in counts/sec from host rock 150-200, except where there is increase in density of amphiboles	trace Po Py		22217	71.3	72.24	0.94					
73.02	73.62	Carbonatite +Amphibolite	72.42-72.47m mafic interval-amphibole? Carbonatite interlayered with black amphibole layers/bands	trace Po Py		22218 22219	72.24 73.02	73.02 73.42	0.78 0.4					

From (m)	To (m)	Rock Type	Description	Mineralization	Alteration	Sample #	From (m)	To (m)	Length (m)
73.62	76.05	Carbonatite (Before-site?)	white breccia texture (flow) with medium grey matrix, weak foliation parallel gneissosity, black elongate speckles (amphiboles) <0.5cm, 3% (less than Bone Creek carbonatite), no significant change in counts/sec from host rock 150-200, except where there is increase in density of amphiboles	trace Po Py		22220	73.66	74.56	0.9
			bottom contact gradual ~60°C, short amphibolite (fenite?) before more carbonatite			22221	74.56	75.66	1.1
76.05	76.46	Carbonatite +Amphibolite	Carbonatite interlayered with black amphibole layers/bands, pale green halo between carbonatite and amphibolite - fenite? ~1cm wide	trace Po Py		22222	75.66	76.46	0.8
76.46	76.86	Amphibolite	dark green-black with pale green, biotite pyroxene amphibole, pale green-fenite? (bottom half of interval), bottom contact sharp ~85°C	trace Po Py					
76.86	78.02	Pegmatite	white with grey black cross hatch texture, quartz plagioclase with pink garnets <1cm round <5%	trace Po Py					
78.02	78.06	Amphibolite	short band dark green and black	trace Po Py					
78.06	86.93	Carbonatite (Before-site?)	white breccia texture (flow) with medium grey matrix, weak foliation parallel gneissosity, black elongate speckles (amphiboles) <0.5cm, 3% (less than Bone Creek carbonatite), no significant change in counts/sec from host rock 150-200, except where there is increase in density of amphiboles	trace Po Py		22223	78.11	78.56	0.45
			close fractures 1-2cm wide, medium grey fill			22224	78.56	79.56	1
			85.43-85.83m amhibole fracture fill			22225	79.56	80.56	1
						22226	80.56	81.63	1.07
						22227	81.63	82.63	1
						22228	82.63	83.43	0.8
						22229	83.43	84.43	1
						22230	84.43	85.43	1
						22231	85.43	86.18	0.75
						22232	86.18	86.93	0.75
86.93	87.07	Carbonatite +Amphibolite (fenite?)	Carbonatite interlayered with black amphibole layers/bands, pale green halo between carbonatite and amphibolite - fenite? ~1cm wide	trace Po Py					
87.07	88.88	Amphibolite Gneiss	black with dark green & white bands, minor garnet (pink bands), gneissosity golded, bottom contact interfingered with carbonatite ~20cm	trace Po Py					
88.88	90.46	Carbonatite (Before-site?)	white breccia texture (flow) with medium grey matrix, weak foliation parallel gneissosity, black elongate speckles (amphiboles) <0.5cm, 3% (less than Bone Creek carbonatite), no significant change in counts/sec from host rock 150-200, except where there is increase in density of amphiboles			22233	88.88	89.71	0.83

From (m)	To (m)	Rock Type	Description	Mineralization	Alteration	Sample #	From (m)	To (m)	Length (m)	
						22234	89.71	90.46	0.75	
90.46	90.53	Amphibolite (fenite?)	dark green-black with pale green, biotite pyroxene amphibole, pale green-fenite?	trace Po Py						
90.53	91.53	Gneiss	medium grey with white & pink speckles, pink garnets <1cm, 10%, gneissosity 60-80°CA (folded), bottom contact sharp 60°CA	trace Po Py						
91.53	94.76	Pegmatite	white&grey +/-pink (garnet), coarse crystalline, quartz plagioclase	trace Po Py						
94.76	171.56	Gneiss	medium grey with white & black bands, variable pink speckles & green intervals, biotite amphibole quartz plagioclase +/- pink garnets <2cm, interbands of quartz plagioclase pegmatite and green biotite amphibolite, 119.8-120.25 brecciated cross fractures in place, Pegmatite @:5.24-95.33m, 98.47-98.7m, 108.88-108.98m, 116.66-116.79m, 142.67-142.92m, 153.87-154.02m, 154.45-154.58m, 157.63-157.73m, 157.88-158.01m, 158.13-158.7m; Amphibolite @: 99.04-99.17m, 117.69-118.15m, 123.82-123.91m, 124.91-125.47m, 126.74-127.78m, 138.59-138.75m, 143.39-143.41m; Gneissosities: 96.62m 65°CA, 99.67m 75°CA, 102.72m 70°CA, 15.77m 75°CA, 108.81m 80°CA, 118.6m 80°CA, 114.91m 85°CA, 117.46m 85°CA, 121.01m 75°CA, 124.05m 80°CA, 127.1m 80°CA, 130.15m 85°CA, 133.2m 85°A, 13.25m 75°CA, 139.29m 80°CA, 142.34m 85°CA, 145.39m 80°CA, 148.44m 75°CA, 151.49m 70°CA, 154.33°CA, 157.58m 70°CA, 163.68 70°CA, 169.77m 60°CA	trace Po Py, fracture fill Po Py: 127.1-127.78m, 149.89-149.96m, 158m						
171.56	176.75	Gneiss	pale green & white, medium-coarse crystalline with medium grey bands, this unit only seen in this hole, top contact folding in bottom 30cm of overlying unit, gneissosity 60°CA	trace Po Py						
176.75	185.01	Gneiss	medium grey with white & black bands, variable pink speckles & pale green intervals, biotite amphibole quartz plagioclase +/- pink garnets <2cm, gneissosity 65°-75°CA	trace Po Py						
<b>EOH</b>										

Company	Commerce Resources Corp		Date Started	24-Oct-05	Bearing	none	Datum	NAD83	
Project	Blue River - Fir Pty		Date Finished	25-Oct-05	Inclination	-90	UTM E	352994	
Claim			Logged By	C. Davis	Core Size	HQ	UTM N	5797457	
Hole No	CF0506		Drill Co	RJ Beaupre Drilling	Depth (m)	99.67	Elev (m)	1278	
Note									
From (m)	To (m)	Rock Type	Description	Mineralization	Alteration	Sample #	From (m)	To (m)	Length (m)
0	1.83	Casing	minimal overburden						
1.83	12.28	Gneiss	medium-dark grey, fine-medium crystalline, biotite plagioclase quartz amphibole +- garnet, gneissosity 70°C, occasional quartz bands 5-10cm	tr Po Py	Sil strong				
12.28	13.28	Gneiss/ Amphibolite	dark green-black, medium crystalline, biotite pyroxene amphibole, foilation 65°C	tr Po Py	Sil strong				
13.28	48.58	Gneiss	medium-dark grey, fine-medium crystalline, biotite plagioclase quartz amphibole +- garnet, gneissosity 70°C, occasional quartz bands 5-10cm, Amphibolite intervals (dark green) @:18.81-19.04m, 22.97-23.07m, 28.46-28.82m, 33.28-33.38m, 34.01-34.36m; Gneissosities: 14.33m 80°C, 17.37m 85°C, 20.42m 70°C, 23.47m 85°C, 26.57m 80°C, 29.57m 85°C, 32.61m 80°C, 35.66m 70°C, 41.26m 85°C, 44.81m 80°C, 47.85m 70°C	tr Po Py	Sil strong				
48.58	57.35	Carbonatite (Beforesite?)	white-light grey with black/dark green elongate speckles (amphiboles) <0.5cm 5-10%, clear transparent/transluscent minerals 2-3 <0.5cm (apatite), breccia clast subangular (flow?) <2cm, little to no change in CPS from gneiss/host	tr Po Py		22235	48.58	49.58	1
						22236	49.58	50.58	1
						22237	50.58	51.58	1
						22238	51.58	52.58	1
						22239	52.58	53.58	1
						22240	53.58	54.58	1
						22241	54.58	55.58	1
						22242	55.58	56.58	1
						22243	56.58	57.35	0.77
57.35	64.65	Gneiss	medium-dark grey with white bands, medium-coarse crystalline, biotite amphibole quartz plagioclase, gneissosity 75°-80°C	tr Po Py	Sil strong				
64.65	64.88	Carbonatite (Beforesite?)	white-light grey with black/dark green elongate speckles (amphiboles) <0.5cm 5-10%, clear transparent/transluscent minerals 2-3 <0.5cm (apatite), breccia clast subangular (flow?) <2cm, little to no change in CPS from gneiss/host, top contact sharp ~2cm medium green grey- fenite?, miday in interval 1cm band of medium green - fenite?	tr Po Py		22260	64.65	64.88	0.23
64.88	65.52	Fenite?	pale-dark pastel green with white & dark green patches,	tr Po Py					



From (m)	To (m)	Rock Type	Description	Mineralization	Alteration	Sample #	From (m)	To (m)	Length (m)
65.52	66.34	Gneiss	medium-dark grey with white bands, medium-coarse crystalline, biotite amphibole quartz plagioclase, gneissosity 70°C	tr Po Py					
66.34	66.68	Pegmatite/ Felsic Gneiss	quartz plagioclase, coarse-very coarse crystalline, top contact sharp, 65°C, bottom 70°C contact sharp	tr Po Py					
66.68	76.73	Gneiss	medium-dark grey with white bands, medium-coarse crystalline, biotite amphibole quartz plagioclase, gneissosity 65°-75°C, parting along gneissosity, Amphibolite (medium-dark green +biotite) @: 67.28-67.88m (weak foliation 60°C), 68.19-69.19m, 73.85-73.6m, 74.85-75.05m	tr Po Py	Sil strong				
76.73	77.33	Pegmatite	white with grey bands 1-2cm, medium-coarse crystalline, quartz plagioclase, gneissosity/foliation 70°C	tr Po Py					
77.33	93.17	Gneiss	medium-dark grey with white bands, medium-coarse crystalline, biotite amphibole quartz plagioclase, gneissosity 65°-75°C, parting along gneissosity, Amphibolite (medium-dark green +biotite) @: 81.08-81.68m; Gneissosities: 78.33m 85°C, 81.38m 80°C, 84.45m 80°C, 87.48m 70°C, 90.53m 65°C	tr Po Py	Sil strong				
93.17	95.02	Pegmatite/ Felsic Gneiss	medium grey with light bands/patches, quartz plagioclase, medium-coarse crystalline, foliation 60°C to breccia	tr Po Py					
95.02	99.67	Gneiss	medium-dark grey with white bands, medium-coarse crystalline, biotite amphibole quartz plagioclase, gneissosity 60°C	tr Po Py	Sil strong				
<b>EOH</b>									

Company	Commerce Resources Corp		Date Started	25-Oct-05	Bearing	none	Datum	NAD83	
Project	Blue River - Fir Pty		Date Finished	26-Oct-05	Inclination	-90	UTM E	353003	
Claim			Logged By	C. Davis	Core Size	HQ	UTM N	5797509	
Hole No	CF0507		Drill Co	RJ Beaupre Drilling	Depth (m)	99.67	Elev (m)	1258	
Note									
From (m)	To (m)	Rock Type	Description	Mineralization	Alteration	Sample #	From (m)	To (m)	Length (m)
0	2.44	Casing	Minimal overburden	tr Po Py					
2.44	18.24	Gneiss + Amphibolite	medium grey with light/white & medium-dark green bands (amphibole+biotite), minor pink speckles (garnet) <1cm subround, Amphibolite (biotite pyroxene amphibole, foliated parallel gneissosity): 10.81-11.28m, 11.4-11.51m, 11.74-12.09m, 12.95-13.08m; Quartz vein parallel gneissosity (top 60°CA, bottom 70°CA) 13.93-14.02m; gneissosities: 2.43m 30°CA, 5.18m 65°CA, 8.23m 80°CA, 11.28m 70°CA, 14.33m 75°CA, 17.37m 70°CA	tr Po Py					
18.24	19.07	Pegmatite	white & grey with black speckles, medium-coarse crystalline, biotite amphibole quartz plagioclase, weak foliation parallel gneiss	tr Po Py					
19.07	47.15	Gneiss	medium grey with white bands & green amphibolite bands @ 22.02-23.3m, 25.45-26.15m, 26.39-26.52m, 26.62-27.01m, 27.95-28.95m	tr Po Py; Po +/- Py veinlets 34.01-34.03m, 34.54-34.62m, Qtz vnlit + PoPy, garnet & Cpy? 33.78-33.84m					
47.15	47.35	Pegmatite	white & grey, plagioclase quartz, coarse elongate crystals	tr Po Py					
47.35	48.6	Gneiss	dark grey & white with black, minor pink, amphibole + biotite, quartz + plagioclase +/- garnet (pink subround <0.5cm)	tr Po Py					
48.6	48.85	Pegmatite	white & grey, plagioclase quartz, coarse elongate crystals	tr Po Py					
48.85	49.48	Gneiss	dark grey & white with black, minor pink, amphibole + biotite,	tr Po Py					
49.48	50.11	Pegmatite	white & grey, plagioclase quartz, coarse elongate crystals	tr Po Py					
50.11	51.38	Gneiss + Amphibolite	Gneiss: dark grey & white with black, minor pink, amphibole + biotite, quartz + plagioclase +/- garnet (pink subround <0.5cm), Amphibolite: dark green biotite pyroxene amphibole @ 50.24-51.25m	tr Po Py					
51.38	51.7	Pegmatite	white & grey, plagioclase quartz, coarse elongate crystals gneiss band midway	tr - 5% Po Py disseminated					

From (m)	To (m)	Rock Type	Description	Mineralization	Alteration	Sample #	From (m)	To (m)	Length (m)
51.7	60.18	Gneiss	medium grey with light/white & medium-dark green bands (amphibole+biotite), minor pink speckles (garnet) <1cm subround, Amphibolite (biotite pyroxene amphibole, foliated parallel gneissosity): 53.13-53.87m, 54.14-54.31m, 54.55-54.74m	tr Po Py					
60.18	60.25	Pegmatite	white & grey, plagioclase quartz, coarse elongate crystals	tr Po Py					
60.25	61.28	Gneiss	medium grey with light/white & medium-dark green bands (amphibole+biotite), minor pink speckles (garnet) <1cm subround, weak gneissosity	tr Po Py					
61.28	62.11	Pegmatite	white & grey, plagioclase quartz, coarse elongate crystals, with gneiss bands	tr Po Py					
62.11	70.06	Gneiss	medium dark with zones of medium green grey (not amphibolite described previously), gneissosity consistent 65°C, no amphibolite intervals, rare garnet	tr Po Py					
70.06	70.76	Pegmatite + Gneiss	Pegmatite white & grey, plagioclase quartz, coarse elongate crystals; Gneiss: dark grey, interlayered with pegmatite @ 70.26-70.35m, 70.52-70.72m, +1 cm bands 70.35-70.52m	tr Po Py					
70.76	75.95	Gneiss	medium dark with zones of medium green grey (not amphibolite described previously), gneissosity consistent 65°C, no amphibolite intervals, rare garnet	tr Po Py					
75.95	77.3	Pegmatite	very coarse crystalline, plagioclase quartz +/- biotite amphibole, contacts across gneissosity top 70°C, bottom 50°C	tr Po Py					
77.3	77.96	Gneiss	medium dark with zones of medium green grey (not amphibolite described previously), gneissosity consistent 65°C, no amphibolite intervals, rare garnet	tr Po Py					
77.96	78.32	Pegmatite	very coarse crystalline, plagioclase quartz +/- biotite amphibole, contacts across gneissosity top irregular 35°C, bottom 50°C	tr Po Py					
78.32	88.05	Gneiss	medium dark with zones of medium green grey (not amphibolite described previously), gneissosity consistent 70°C, no amphibolite intervals, increasing garnet content <1cm, 5-10% throughout	tr Po Py					
88.05	88.84	Pegmatite	very coarse crystalline, plagioclase quartz +/- biotite amphibole, contacts across gneissosity top 50°C, bottom 60°C	tr Po Py					

From (m)	To (m)	Rock Type	Description	Mineralization	Alteration	Sample #	From (m)	To (m)	Length (m)
88.84	94.18	Gneiss	medium dark with zones of medium green grey (not amphibolite described previously), gneissosity consistent 65°C <sub>A</sub> , no amphibolite intervals, garnet <1cm, 5-10% above 90m, rare below	tr Po Py					
94.18	95.52	Pegmatite	very coarse crystalline, plagioclase quartz +/- biotite amphibole	tr Po Py					
95.52	99.67	Gneiss	medium dark with zones of medium green grey (not amphibolite described previously), gneissosity consistent 60°C <sub>A</sub> , some sections weak gneissosity, no amphibolite intervals, rare garnet	tr Po Py					
<b>EOH</b>									

Company	Commerce Resources Corp		Date Started	26-Oct-05	Date Finished	28-Oct-05	Logged By	C. Davis	Drill Co	RJ Beaupre Drilling	Bearing	none	Datum	NAD83
Project	Blue River - Fir Pty		Date Started	26-Oct-05	Date Finished	28-Oct-05	Logged By	C. Davis	Drill Co	RJ Beaupre Drilling	Inclination	-90	UTM E	352988
Claim			Date Started	26-Oct-05	Date Finished	28-Oct-05	Logged By	C. Davis	Drill Co	RJ Beaupre Drilling	Core Size	HQ	UTM N	5797251
Hole No	CF0508		Date Started	26-Oct-05	Date Finished	28-Oct-05	Logged By	C. Davis	Drill Co	RJ Beaupre Drilling	Depth (m)	121.01	Elev (m)	1277
Note			Date Started	26-Oct-05	Date Finished	28-Oct-05	Logged By	C. Davis	Drill Co	RJ Beaupre Drilling	Depth (m)	121.01	Elev (m)	1277
From (m)	To (m)	Rock Type	Description						Mineralization	Alteration	Sample #	From (m)	To (m)	Length (m)
0	3.66	Casing	Minimal overburden											
3.66	50.52	Gneiss	medium grey with interbands of white, minor interals of medium green grey, the dark green (amphibolite), rare pink (garnet), gneissosity not as consistent as in holes CF0505-07, more higher angle, biotite plagioclase quartz amphibole +/- garnet (trace), Epidote? occasional bands of quartz with pale green (increase in Po Py in this green zone), less and shorter intervals of Amphibolite described in previous holes, Amphibolite (medium-dark green) @: 28.06-28.13m, 35.48-35.79m, 36.34-36.45m, 44.55-44.81m; Gneissosity: 3.66m 80°CA, 5.18m 60°CA, 8.23m 50°CA, 11.28m 20°CA, 14.33m 55°A, 17.37m 40°CA, 20.42m 70°CA, 23.47m 75°CA, 26.52m 60°CA, 29.57m 80°CA, 32.61m 75°CA, 35.86m 70°CA, 38.71m 70°CA, 41.76m 75°CA, 44.81m 60°CA, 47.85m 70°A, 50.52m 80°CA						tr Po Py					
50.52	63.09	Gneiss	medium-dark grey with white bands and pink spots (garnet subround <3cm, most <1cm), biotite plagioclase quartz amphibole, 5-10% garnet, minor dark green bands- amphibolite @ 52.43-52.81m, 53.14-53.19m, 58.98-59.16m, 60.78-60.91m; Gneissosity: 50.9m 75°CA, 53.5m 70°CA, 57m 70°CA, 60.05m 70°CA, 63.09m 70°CA						tr Po Py					
63.09	77.6	Carbonatite (Beforesite?)	white with grey matrix flow breccia texture calst <1cm subangular, translucent-transparent hexagonal cross section - apatite, black speckles overall 8 - amphiolites, 71.07-71.54m 30% amphiboles corresponds with increase count/sec from background of 150-200 to 400-600cps; biotite ampibole band @: 72.84-						tr Po Py					
											22244	63.09	64	0.91
											22245	64	65	1
											22246	65	66	1
											22247	66	67	1
											22248	67	68	1
											22249	68	69	1

From (m)	To (m)	Rock Type	Description	Mineralization	Alteration	Sample #	From (m)	To (m)	Length (m)
			73.22m, 74.59-74.99m, shorter intervals elsewhere (<5cm) 72.43-72.46m, 76.16-76.19m, weak foliation texture except 76.19-77.6m 80oCA			22250	69	70	1
						22251	70	71	1
						22252	71	72	1
						22253	72	73	1
						22254	73	74	1
						22255	74	75	1
						22256	75	76	1
						22257	76	76.8	0.8
						22258	76.8	77.6	0.8
77.6	112.5	Gneiss	medium-dark grey with white bands and pink spots (garnet subround <3cm, most <1cm), biotite plagioclase quartz amphibole, 5-10% garnet, more folding activity evident, variable gneissosities, crenulated folds, no amphibolite bands; Gneissosity: 78.33m 70°CA, 81.38m 70°CA, 84.43m 70°CA, 87.48m 75°CA (crenulated fold), 90.53m 75°CA (crenulated fold), 93.57m indistinct, 9.62m 60°CA, 99.67m 80°CA, 99.67m 80°CA, 102.72m 70°CA, 105.77m 70°CA, 108.81m 30°CA, 111.86m 40°CA	tr - 5% Po Py (variable), 94.16-94.30m 3cm wide, 15cm long fracture fill Po		22259	94	94.36	0.36
112.5	116.96	Gneiss	medium grey with interbands of white, minor interals of medium green grey, the dark green (amphibolite), rare pink (garnet), gneissosity not as consistent as in holes CF0505-07, more higher angle, biotite plagioclase quartz amphibole +/- garnet (trace), Epidote? occasional bands of quartz with pale green (increase in Po Py in this green zone), more crenulated folding present, less intervals of Amphibolite described in previous holes, Amphibolite (medium-dark green) @: 113.18-113.4m; Gneissosity: 112.5m 60°CA, 114.91m 75°CA	tr Po Py					
116.96	117.33	Pegmatite	white & grey with black speckles/bands (biotite amphibole) coarse crystalline, quartz plagioclase	tr Po Py					

From (m)	To (m)	Rock Type	Description	Mineralization	Alteration	Sample #	From (m)	To (m)	Length (m)
117.33	120.24	Gneiss	medium grey with interbands of white, minor interals of medium green grey, the dark green (amphibolite), rare pink (garnet), gneissosity not as consistent as in holes CF0505-07, more higher angle, biotite plagioclase quartz amphibole +/- garnet (trace), Epidote? occasional bands of quartz with pale green (increase in Po Py in this green zone), more crenulated folding present, less intervals of Amphibolite described in previous holes, Amphibolite (medium-dark green) @: 119.83-119.91m; Gneissosity: 117.96m 80°C, 120m 70°C	tr Po Py					
120.24	120.63	Pegmatite	white & grey with black speckles/bands (biotite amphibole) coarse crystalline, quartz plagioclase	tr Po Py					
120.63	121.01	Gneiss	medium grey with interbands of white, minor interals of medium green grey, the dark green (amphibolite), rare pink (garnet), gneissosity not as consistent as in holes CF0505-07, more higher angle, biotite plagioclase quartz amphibole +/- garnet (trace), Epidote? occasional bands of quartz with pale green (increase in Po Py in this green zone), more crenulated folding present, gneissosity 75°C	tr Po Py					
EOH									

**A24**

**APPENDIX 2B  
GEOTECHNICAL LOGS FOR DRILL HOLES**



<b>Company</b>	Commerce Resources Corp			<b>Date Started</b>	16-Oct-05		<b>Bearing</b>	none		<b>Datum</b>	NAD83	
<b>Project</b>	Blue River - Fir Pty			<b>Date Finished</b>	17-Oct-05		<b>Inclination</b>	-90		<b>UTM E</b>	352431	
<b>Claim</b>				<b>Logged By</b>	C. Davis w/ R. Hardy		<b>Core Size</b>	HQ		<b>UTM N</b>	5796425	
<b>Hole No</b>	CF0501			<b>Drill Co</b>	RJ Beaupre Drilling		<b>Depth (m)</b>	81.38		<b>Elev (m)</b>	1054	
<b>Run From (m)</b>	<b>Run To (m)</b>	<b>Run Length (m)</b>	<b>Measured Run (m)</b>	<b>Total &gt;15cm (m)</b>	<b>RQD</b>	<b>No Fractures</b>	<b>Recovery %</b>	<b>Rock Type</b>	<b>Notes</b>			
2.18	5.18	3.00	2.45	1.27	42.33%	>66	82%	Gneiss				
5.18	8.23	3.05	2.98	1.56	51.15%	21	98%	Gneiss				
8.23	11.28	3.05	2.99	1.52	49.84%	27	98%	Gneiss				
11.28	14.33	3.05	2.90	2.29	75.08%	14	95%	Gneiss				
14.33	17.37	3.04	2.96	1.93	63.49%	23	97%	Gneiss	Qtz vein w/ Po-Py			
17.37	20.42	3.05	2.90	2.11	69.18%	23	95%	Gneiss				
20.42	23.47	3.05	3.00	2.08	68.20%	23	98%	Gneiss				
23.47	26.52	3.05	2.95	2.21	72.46%	26	97%	Gneiss				
26.52	29.57	3.05	2.98	1.02	33.44%	39	98%	Gneiss				
29.57	32.61	3.04	3.00	1.37	45.07%	28	99%	Gneiss				
32.61	35.66	3.05	2.91	2.22	72.79%	47	95%	Gneiss				
35.66	38.71	3.05	2.77	2.77	90.82%	61	91%	Pegmatite	Qtz Plag			
38.71	41.76	3.05	2.89	2.89	94.75%	42	95%	Gneiss				
41.76	44.81	3.05	2.86	2.86	93.77%	32	94%	Gneiss				
44.81	47.85	3.04	2.92	2.92	96.05%	41	96%	Gneiss				
47.85	50.90	3.05	3.03	3.03	99.34%	35	99%	Gneiss				
50.90	53.95	3.05	2.96	2.96	97.05%	37	97%	Gneiss				
53.95	57.00	3.05	2.86	2.86	93.77%	24	94%	Gneiss				
57.00	60.05	3.05	3.00	3.00	98.36%	27	98%	Gneiss				
60.05	63.09	3.04	2.88	2.88	94.74%	30	95%	Gneiss				
63.09	66.14	3.05	2.77	2.77	90.82%	58	91%	Gneiss				
66.14	69.19	3.05	2.94	2.94	96.39%	32	96%	Gneiss				
69.19	72.24	3.05	2.71	2.71	88.85%	>66	89%	Pegmatite	Qtz Musc Plag			
72.24	75.29	3.05	2.88	2.88	94.43%	48	94%	Pegmatite	Qtz Plag			
75.29	78.33	3.04	2.74	2.74	90.13%	32	90%	Gneiss + Peg				
78.33	81.38	3.05	2.87	2.87	94.10%	48	94%	Gneiss + Peg				

<b>Company</b>	Commerce Resources Corp			<b>Date Started</b>	18-Oct-05	<b>Bearing</b>	none	<b>Datum</b>	NAD83
<b>Project</b>	Blue River - Fir Pty			<b>Date Finished</b>	19-Oct-05	<b>Inclination</b>	-90	<b>UTM E</b>	352427
<b>Claim</b>				<b>Logged By</b>	C. Davis	<b>Core Size</b>	HQ	<b>UTM N</b>	5796366
<b>Hole No</b>	CF0502			<b>Drill Co</b>	RJ Beaupre Drilling	<b>Depth (m)</b>	76.81	<b>Elev (m)</b>	1049
<b>Run From (m)</b>	<b>Run To (m)</b>	<b>Run Length (m)</b>	<b>Measured Run (m)</b>	<b>Total &gt;15cm (m)</b>	<b>RQD</b>	<b>No Fractures</b>	<b>Recovery %</b>	<b>Rock Type</b>	<b>Notes</b>
1.81	5.18	3.37	2.97	1.53	51.52%	55	88%	Gneiss	
5.18	8.23	3.05	2.92	1.83	62.67%	18	96%	Gneiss	
8.23	11.28	3.05	2.88	1.68	58.33%	26	94%	Gneiss	
11.28	14.33	3.05	3.05	1.38	45.25%	37	100%	Gneiss	
14.33	17.37	3.04	2.88	1.48	51.39%	24	95%	Gneiss	
17.37	20.42	3.05	3.02	2.47	81.79%	19	99%	Gneiss	
20.42	23.47	3.05	2.97	1.71	57.58%	19	97%	Gneiss	
23.47	26.52	3.05	3.04	1.12	36.84%	39	100%	Gneiss	
26.52	29.57	3.05	2.82	1.54	54.61%	31	92%	Gneiss	
29.57	32.61	3.04	2.99	2.22	74.25%	23	98%	Carbonatite	Gneiss 29.57-30.56m = 18 frac, Carb 30.56-32.71m = 4 frac
32.61	35.66	3.05	3.03	1.43	47.19%	29	99%	Gneiss+Peg	
35.66	38.71	3.05	2.98	1.51	50.67%	26	98%	Gneiss+Peg	
38.71	41.76	3.05	2.91	1.71	58.76%	24	95%	Gneiss	
41.76	44.81	3.05	2.45	0.64	26.12%	37	80%	Gneiss	
44.81	47.85	3.04	2.94	2.13	72.45%	17	97%	Gneiss	
47.85	50.90	3.05	3.05	2.41	79.02%	24	100%	Gneiss	
50.90	53.95	3.05	3.03	1.67	55.12%	30	99%	Gneiss	51.74m 2cm normal displ 20CA closed frac
53.95	57.00	3.05	3.01	2.27	75.42%	18	99%	Gneiss	
57.00	60.05	3.05	3.02	1.97	65.23%	24	99%	Gneiss	
60.05	63.09	3.04	2.97	1.68	56.57%	27	98%	Gneiss	
63.09	66.14	3.05	3.03	0.37	12.21%	60	99%	Gneiss	
66.14	69.19	3.05	3.05	1.92	62.95%	31	100%	Gneiss	
69.19	72.24	3.05	3.00	2.58	86.00%	15	98%	Gneiss	
72.24	75.29	3.05	2.98	2.57	86.24%	14	98%	Gneiss	
75.29	76.81	1.52	1.50	1.22	81.33%	7	99%	Gneiss	

Company	Commerce Resources Corp		Date Started	19-Oct-05	Bearing	none	Datum	NAD83	
Project	Blue River - Fir Pty		Date Finished	20-Oct-05	Inclination	-90	UTM E	352433	
Claim			Logged By	R. Hardy	Core Size	HQ	UTM N	5796297	
Hole No	CF0503		Drill Co	RJ Beaupre Drilling	Depth (m)	81.38	Elev (m)	1048	
Run From (m)	Run To (m)	Run Length (m)	Measured Run (m)	Total >15cm (m)	RQD	No Fractures	Recovery %	Rock Type	Notes
3.35	5.18	1.83	1.76	1.48	84.09%	27	96%	Gneiss	
5.18	8.23	3.05	2.82	2.10	74.47%	32	92%	Gneiss	
8.23	11.28	3.05	2.90	1.92	66.21%	47	95%	Gneiss	
11.28	14.33	3.05	2.92	2.09	71.58%	35	96%	Gneiss	
14.33	17.37	3.04	2.35	0.42	17.87%	>66	77%	Gneiss	
17.37	20.42	3.05	2.86	0.44	15.38%	>66	94%	Gneiss	
20.42	23.47	3.05	2.81	1.15	40.93%	55	92%	Gneiss	
23.47	26.52	3.05	2.94	2.03	69.05%	41	96%	Gneiss	
26.52	29.57	3.05	2.74	1.65	60.22%	36	90%	Gneiss+Peg	
29.57	32.61	3.04	2.96	1.68	56.76%	59	97%	Peg+Gneiss	
32.61	35.66	3.05	2.84	2.02	71.13%	25	93%	Gneiss	
35.66	38.71	3.05	3.03	2.10	69.31%	28	99%	Gneiss	
38.71	41.76	3.05	3.00	1.74	58.00%	38	98%	Gneiss	
41.76	44.81	3.05	2.96	2.20	74.32%	27	97%	Gneiss	
44.81	47.85	3.04	3.04	2.47	81.25%	23	100%	Gneiss +/- Peg	
47.85	50.90	3.05	3.03	1.85	61.06%	36	99%	Gneiss	
50.90	53.95	3.05	2.97	2.80	94.28%	18	97%	Gneiss	
53.95	57.00	3.05	2.94	2.32	78.91%	26	96%	Gneiss	
57.00	60.05	3.05	3.01	2.03	67.44%	37	99%	Gneiss	
60.05	63.09	3.04	3.04	1.34	44.08%	41	100%	Gneiss	
63.09	66.14	3.05	2.94	1.40	47.62%	46	96%	Gneiss	
66.14	69.19	3.05	2.97	1.97	66.33%	28	97%	Gneiss	
69.19	72.24	3.05	3.01	2.26	75.08%	17	99%	Gneiss	
72.24	75.29	3.05	3.02	2.47	81.79%	19	99%	Gneiss	
75.29	78.33	3.04	2.97	1.63	54.88%	33	98%	Gneiss	
78.33	81.38	3.05	3.00	2.14	71.33%	26	98%	Gneiss	
<b>EOH</b>									

Company	Commerce Resources Corp			Date Started	20-Oct-05	Bearing	none	Datum	NAD83
Project	Blue River - Fir Pty			Date Finished	21-Oct-05	Inclination	-90	UTM E	352432
Claim				Logged By	C. Davis w/ R. Hardy	Core Size	HQ	UTM N	5796230
Hole No	CF0504			Drill Co	RJ Beaupre Drilling	Depth (m)	60.05	Elev (m)	1046
Run From (m)	Run To (m)	Run Length (m)	Measured Run (m)	Total >15cm (m)	RQD	No Fractures	Recovery %	Rock Type	Notes
3.66	5.18	1.52	1.27	0.00	0.00%	99	84%	Gneiss	
5.18	8.23	3.05	2.81	1.43	50.89%	35	92%	Gneiss	
8.23	11.28	3.05	2.93	1.35	46.08%	35	96%	Gneiss	
11.28	14.33	3.05	3.05	2.11	69.18%	26	100%	Carbonatite	Carb 11.98-20.91m
14.33	17.37	3.04	2.95	1.90	64.41%	23	97%	Carbonatite	
17.37	20.42	3.05	3.05	3.05	100.00%	3	100%	Carbonatite	
20.42	23.47	3.05	2.96	1.09	36.82%	29	97%	Gneiss	
23.47	26.52	3.05	2.91	0.97	33.33%	44	95%	Gneiss	
26.52	29.57	3.05	2.98	1.09	36.58%	34	98%	Gneiss	
29.57	32.61	3.04	2.98	1.87	62.75%	20	98%	Gneiss	
32.61	35.66	3.05	2.98	1.75	58.72%	31	98%	Gneiss	
35.66	38.71	3.05	3.00	2.39	79.67%	17	98%	Gneiss	
38.71	41.76	3.05	2.91	1.31	45.02%	29	95%	Gneiss	
41.76	44.81	3.05	2.93	1.34	45.73%	36	96%	Peg+Gneiss	
44.81	47.85	3.04	3.05	1.75	57.38%	21	100%	Gneiss	
47.85	50.90	3.05	2.98	2.14	71.81%	20	98%	Gneiss	
50.90	53.95	3.05	2.97	2.55	85.86%	14	97%	Gneiss	
53.95	57.00	3.05	3.00	2.07	69.00%	21	98%	Gneiss	
57.00	60.05	3.05	3.00	2.44	81.33%	13	98%	Gneiss	
<b>EOH</b>									

Company	Commerce Resources Corp			Date Started	22-Oct-05	Bearing	none	Datum	NAD83
Project	Blue River - Fir Pty			Date Finished	24-Oct-05	Inclination	-90	UTM E	352992
Claim				Logged By	R. Hardy	Core Size	HQ	UTM N	5797400
Hole No	CF0505			Drill Co	RJ Beupre Drilling	Depth (m)	185.01	Elev (m)	1267
Run From (m)	Run To (m)	Run Length (m)	Measured Run (m)	Total >15cm (m)	RQD	No Fractures	Recovery %	Rock Type	Notes
1.81	5.18	3.37	3.71	2.12	57.14%	54	110%	Gneiss	
5.18	8.23	3.05	3.17	1.97	62.15%	42	104%	Gneiss	
8.23	11.28	3.05	3.00	2.62	87.33%	11	98%	Gneiss	
11.28	14.33	3.05	2.92	2.17	74.32%	26	96%	Gneiss	
14.33	17.37	3.04	3.00	1.93	64.33%	33	99%	Gneiss	
17.37	20.42	3.05	3.08	2.78	90.26%	18	101%	Gneiss	
20.42	23.47	3.05	3.05	2.71	88.85%	14	100%	Gneiss	
23.47	26.52	3.05	2.96	2.49	84.12%	18	97%	Gneiss	
26.52	29.57	3.05	3.05	2.62	85.90%	19	100%	Gneiss	
29.57	32.61	3.04	3.03	2.94	97.03%	10	100%	Gneiss	
32.61	35.66	3.05	2.92	2.41	82.53%	35	96%	Gneiss	
35.66	38.71	3.05	3.05	2.58	84.59%	22	100%	Gneiss	
38.71	41.76	3.05	3.10	2.34	75.48%	27	102%	Gneiss	
41.76	44.81	3.05	3.03	2.83	93.40%	14	99%	Gneiss	
44.81	47.85	3.04	3.00	2.59	86.33%	27	99%	Gneiss	
47.85	50.90	3.05	3.03	2.87	94.72%	15	99%	Gneiss	
50.90	53.95	3.05	3.02	2.67	88.41%	23	99%	Gneiss	
53.95	57.00	3.05	3.05	1.99	65.25%	29	100%	Gneiss	
57.00	60.05	3.05	3.12	2.61	83.65%	21	102%	Gneiss	
60.05	63.09	3.04	3.05	1.85	60.66%	22	100%	Gneiss	
63.09	66.14	3.05	3.02	2.42	80.13%	19	99%	Gneiss	
66.14	69.19	3.05	3.00	2.63	87.67%	20	98%	Gneiss	
69.19	72.24	3.05	3.06	2.97	97.06%	11	100%	Gneiss	
72.24	75.29	3.05	3.05	2.83	92.79%	9	100%	Carbonatite	
75.29	78.33	3.04	3.07	2.63	85.67%	7	101%	Carbonatite	
78.33	81.38	3.05	3.00	3.08	102.67%	8	98%	Carbonatite	
81.38	84.43	3.05	3.05	2.76	90.49%	8	100%	Carbonatite	
84.43	87.48	3.05	3.00	2.68	89.33%	18	98%	Carbonatite	
87.48	90.53	3.05	3.05	2.67	87.54%	9	100%	Carbonatite	
90.53	93.57	3.04	3.05	2.66	87.21%	12	100%	Gneiss+Peg	
93.57	96.62	3.05	3.05	2.50	81.97%	17	100%	Gneiss+Peg	
96.62	99.67	3.05	2.99	2.13	71.24%	37	98%	Gneiss+Peg	
99.67	102.72	3.05	3.04	2.18	71.71%	31	100%	Gneiss	
102.72	105.77	3.05	3.05	2.67	87.54%	21	100%	Gneiss	
105.77	108.81	3.04	3.01	2.62	87.04%	14	99%	Gneiss	
108.81	111.86	3.05	3.02	2.61	86.42%	14	99%	Gneiss	
111.86	114.91	3.05	3.04	2.82	92.76%	19	100%	Gneiss	
114.91	117.96	3.05	3.01	2.44	81.06%	30	99%	Gneiss	
117.96	121.01	3.05	3.02	2.37	78.48%	24	99%	Gneiss	
121.01	124.05	3.04	2.91	2.55	87.63%	19	96%	Gneiss	
124.05	127.10	3.05	3.02	2.71	89.74%	14	99%	Gneiss	
127.10	130.15	3.05	3.01	2.62	87.04%	15	99%	Gneiss	
130.15	133.20	3.05	3.04	2.76	90.79%	6	100%	Gneiss	
133.20	136.25	3.05	3.02	2.65	87.75%	19	99%	Gneiss	
136.25	139.29	3.04	3.01	2.87	95.35%	9	99%	Gneiss	
139.29	142.34	3.05	3.07	2.18	71.01%	25	101%	Gneiss	
142.34	145.39	3.05	3.04	2.65	87.17%	17	100%	Gneiss	
145.39	148.44	3.05	3.04	2.62	86.18%	7	100%	Gneiss	
148.44	151.49	3.05	3.02	2.52	83.44%	17	99%	Gneiss	
151.49	154.53	3.04	2.97	1.37	46.13%	41	98%	Gneiss	
154.53	157.58	3.05	2.99	1.68	56.19%	39	98%	Gneiss	
157.58	160.63	3.05	3.03	2.07	68.32%	31	99%	Gneiss	
160.63	163.68	3.05	3.00	2.06	68.67%	26	98%	Gneiss	
163.68	166.73	3.05	3.01	2.43	80.73%	23	99%	Gneiss	
166.73	169.77	3.04	3.07	2.49	81.11%	11	101%	Gneiss	
169.77	172.82	3.05	3.01	2.22	73.75%	13	99%	Gneiss	
172.82	175.87	3.05	3.05	3.02	99.02%	7	100%	Gneiss	
175.87	178.92	3.05	3.08	2.47	80.19%	19	101%	Gneiss	
178.92	181.97	3.05	3.03	2.24	73.93%	21	99%	Gneiss	
181.97	185.01	3.04	3.05	2.39	78.36%	23	100%	Gneiss	
<b>EOH</b>									

Company	Commerce Resources Corp			Date Started	24-Oct-05	Bearing	none	Datum	NAD83
Project	Blue River - Fir Pty			Date Finished	25-Oct-05	Inclination	-90	UTM E	352994
Claim				Logged By	C. Davis	Core Size	HQ	UTM N	5797457
Hole No	CF0506			Drill Co	RJ Beapre Drilling	Depth (m)	99.67	Elev (m)	1278
Run From (m)	Run To (m)	Run Length (m)	Measured Run (m)	Total >15cm (m)	RQD	No Fractures	Recovery %	Rock Type	Notes
1.83	5.18	3.35	2.93	0.90	30.72%	47	87%	Gneiss	
5.18	8.23	3.05	3.09	2.33	75.40%	23	101%	Gneiss	
8.23	11.28	3.05	2.97	2.10	70.71%	21	97%	Gneiss	
11.28	14.33	3.05	3.03	2.24	73.93%	28	99%	Gneiss	
14.33	17.37	3.04	3.00	1.69	56.33%	29	99%	Gneiss	
17.37	20.42	3.05	3.05	2.02	66.23%	18	100%	Gneiss	
20.42	23.47	3.05	3.03	2.45	80.86%	12	99%	Gneiss	
23.47	26.52	3.05	3.01	3.01	100.00%	6	99%	Gneiss	
26.52	29.57	3.05	3.02	2.79	92.38%	9	99%	Gneiss	
29.57	32.61	3.04	2.98	2.05	68.79%	18	98%	Gneiss	
32.61	35.66	3.05	2.97	1.58	53.20%	22	97%	Gneiss	
35.66	38.71	3.05	3.03	2.59	85.48%	13	99%	Gneiss	
38.71	41.76	3.05	3.05	2.90	95.08%	13	100%	Gneiss	
41.76	44.81	3.05	3.02	2.21	73.18%	22	99%	Gneiss	
44.81	47.85	3.04	3.08	2.17	70.45%	10	101%	Gneiss	
47.85	50.90	3.05	3.02	2.81	93.05%	9	99%	Gneiss+Carb	Carb 48.53-57.35m
50.90	53.95	3.05	3.05	3.05	100.00%	6	100%	Carbonatite	
53.95	57.00	3.05	3.00	2.94	98.00%	5	98%	Carb+Gneiss	
57.00	60.05	3.05	3.05	2.17	71.15%	22	100%	Gneiss	
60.05	63.09	3.04	3.00	2.46	82.00%	20	99%	Gneiss	
63.09	66.14	3.05	3.04	2.14	70.39%	19	100%	Gneiss+Peg	
66.14	69.19	3.05	2.99	2.05	68.56%	23	98%	Gneiss(Amph) + Peg	
69.19	72.24	3.05	3.00	1.55	51.67%	25	98%	Gneiss(Amph)	
72.24	75.29	3.05	3.06	1.66	54.25%	23	100%	Gneiss	
75.29	78.33	3.04	2.99	2.47	82.61%	23	98%	Gneiss	
78.33	81.38	3.05	3.04	0.94	30.92%	36	100%	Gneiss + (Amph)	
81.38	84.45	3.07	3.03	2.16	71.29%	21	99%	Gneiss	block m mislabelled 83.52m but 277 ft
84.45	87.48	3.03	3.00	1.20	40.00%	32	99%	Gneiss	
87.48	90.53	3.05	3.05	3.05	100.00%	5	100%	Gneiss	
90.53	93.57	3.04	3.00	2.78	92.67%	10	99%	Gneiss+Peg	
93.57	96.62	3.05	3.02	2.24	74.17%	16	99%	Gneiss+Peg	
96.62	99.67	3.05	2.95	2.52	85.42%	15	97%	Gneiss	

EOH

Company	Commerce Resources Corp			Date Started	25-Oct-05	Bearing	none	Datum	NAD83
Project	Blue River - Fir Pty			Date Finished	26-Oct-05	Inclination	-90	UTM E	353003
Claim				Logged By	R. Hardy w/ C. Davis	Core Size	HQ	UTM N	5797509
Hole No	CF0507			Drill Co	RJ Beaupre Drilling	Depth (m)	99.67	Elev (m)	1258
Run From (m)	Run To (m)	Run Length (m)	Measured Run (m)	Total >15cm (m)	RQD	No Fractures	Recovery %	Rock Type	Notes
2.43	5.18	2.75	2.17	0.35	16.13%	>66	79%	Gneiss	
5.18	8.23	3.05	2.87	1.67	58.19%	38	94%	Gneiss	
8.23	11.28	3.05	3.04	2.71	89.14%	18	100%	Gneiss	
11.28	14.33	3.05	2.99	2.15	71.91%	24	98%	Gneiss	
14.33	17.37	3.04	2.93	2.86	97.61%	8	96%	Gneiss	
17.37	20.42	3.05	3.01	2.70	89.70%	11	99%	Gneiss	
20.42	23.47	3.05	2.98	2.54	85.23%	16	98%	Gneiss	
23.47	26.52	3.05	3.04	2.37	77.96%	20	100%	Gneiss	
26.52	29.57	3.05	3.01	1.98	65.78%	28	99%	Gneiss	
29.57	32.61	3.04	3.04	2.42	79.61%	19	100%	Gneiss	
32.61	35.66	3.05	2.72	2.00	73.53%	33	89%	Gneiss	
35.66	38.71	3.05	3.04	2.57	84.54%	17	100%	Gneiss	
38.71	41.76	3.05	2.98	2.71	90.94%	15	98%	Gneiss	
41.76	44.81	3.05	3.05	2.99	98.03%	10	100%	Gneiss	
44.81	47.85	3.04	3.02	2.71	89.74%	14	99%	Gneiss	
47.85	50.90	3.05	3.00	2.57	85.67%	11	98%	Gneiss	
50.90	53.95	3.05	2.88	1.61	55.90%	35	94%	Gneiss	
53.95	57.00	3.05	2.82	2.21	78.37%	15	92%	Gneiss	
57.00	60.05	3.05	2.91	2.16	74.23%	21	95%	Gneiss	
60.05	63.09	3.04	2.88	2.71	94.10%	17	95%	Gneiss	
63.09	66.14	3.05	2.89	0.95	32.87%	51	95%	Gneiss	
66.14	69.19	3.05	2.59	0.81	31.27%	>66	85%	Gneiss	
69.19	72.24	3.05	2.84	2.16	76.06%	26	93%	Gneiss	
72.24	75.29	3.05	2.96	2.69	90.88%	20	97%	Gneiss	
75.29	78.33	3.04	2.89	2.48	85.81%	14	95%	Peg+Gneiss	
78.33	81.38	3.05	2.92	2.72	93.15%	11	96%	Peg+Gneiss	
81.38	84.43	3.05	3.05	2.67	87.54%	16	100%	Gneiss	
84.43	87.48	3.05	3.04	2.99	98.36%	6	100%	Gneiss	
87.48	90.53	3.05	3.05	2.06	67.54%	18	100%	Gneiss+Peg	
90.53	93.57	3.04	3.01	2.42	80.40%	11	99%	Gneiss	
93.57	96.62	3.05	2.94	2.65	90.14%	9	96%	Gneiss+Peg	
96.62	99.67	3.05	3.05	2.67	87.54%	9	100%	Gneiss	

EOH

Company	Commerce Resources Corp			Date Started	26-Oct-05	Bearing	none	Datum	NAD83
Project	Blue River - Fir Pty			Date Finished	28-Oct-05	Inclination	-90	UTM E	352988
Claim				Logged By	R. Hardy	Core Size	HQ	UTM N	5797251
Hole No	CF0508			Drill Co	RJ Beaupre Drilling	Depth (m)	121.01	Elev (m)	1277
Run From (m)	Run To (m)	Run Length (m)	Measured Run (m)	Total >15cm (m)	RQD	No Fractures	Recovery %	Rock Type	Notes
3.66	5.18	1.52	1.41	0.64	45.39%	31	93%	Gneiss	
5.18	8.23	3.05	2.88	1.49	51.74%	67	94%	Gneiss	
8.23	11.28	3.05	2.93	1.76	60.07%	37	96%	Gneiss	
11.28	14.33	3.05	2.83	1.97	69.61%	39	93%	Gneiss	
14.33	17.37	3.04	2.77	2.01	72.56%	>66	91%	Gneiss	
17.37	20.42	3.05	3.15	2.55	80.95%	31	103%	Gneiss	
20.42	23.47	3.05	2.86	2.39	83.57%	27	94%	Gneiss	
23.47	26.52	3.05	3.09	2.52	81.55%	17	101%	Gneiss	
26.52	29.57	3.05	3.03	2.23	73.60%	19	99%	Gneiss	
29.57	32.61	3.04	3.08	2.91	94.48%	7	101%	Gneiss	
32.61	35.66	3.05	3.05	2.80	91.80%	15	100%	Gneiss	
35.66	38.71	3.05	3.00	2.66	88.67%	28	98%	Gneiss	
38.71	41.76	3.05	3.01	2.82	93.69%	10	99%	Gneiss	
41.76	44.81	3.05	3.15	2.55	80.95%	31	103%	Gneiss	
44.81	47.85	3.04	3.05	3.00	98.36%	13	100%	Gneiss	
47.85	50.90	3.05	2.94	2.52	85.71%	25	96%	Gneiss	
50.90	53.95	3.05	3.03	1.71	56.44%	32	99%	Gneiss	
53.95	57.00	3.05	2.97	2.11	71.04%	48	97%	Gneiss	
57.00	60.05	3.05	2.88	2.33	80.90%	28	94%	Gneiss	
60.05	63.09	3.04	2.94	2.81	95.58%	15	97%	Gneiss	
63.09	66.14	3.05	3.04	2.92	96.05%	11	100%	Carbonatite	
66.14	69.19	3.05	3.12	3.04	97.44%	9	102%	Carbonatite	
69.19	72.24	3.05	3.02	2.88	95.36%	9	99%	Carbonatite	
72.24	75.29	3.05	3.01	2.87	95.35%	14	99%	Carbonatite	
75.29	78.33	3.04	3.04	2.90	95.39%	12	100%	Gneiss	
78.33	81.38	3.05	3.05	2.80	91.80%	18	100%	Gneiss	
81.38	84.43	3.05	2.96	2.70	91.22%	18	97%	Gneiss	
84.43	87.48	3.05	3.05	2.70	88.52%	28	100%	Gneiss	
87.48	90.53	3.05	3.10	3.05	98.39%	15	102%	Gneiss	
90.53	93.57	3.04	2.99	2.86	95.65%	12	98%	Gneiss	
93.57	96.62	3.05	3.05	2.95	96.72%	11	100%	Gneiss	
96.62	99.67	3.05	3.07	2.57	83.71%	24	101%	Gneiss	
99.67	102.72	3.05	3.04	2.89	95.07%	13	100%	Gneiss	
102.72	105.77	3.05	3.13	3.00	95.85%	8	103%	Gneiss	
105.77	108.81	3.04	2.96	2.66	89.86%	15	97%	Gneiss	
108.81	111.86	3.05	3.04	2.91	95.72%	12	100%	Gneiss	
111.86	114.91	3.05	3.12	2.80	89.74%	16	102%	Gneiss	
114.91	117.96	3.05	3.00	2.92	97.33%	5	98%	Gneiss	
117.96	121.01	3.05	3.05	2.68	87.87%	22	100%	Gneiss	

EOH



**A33**

**APPENDIX 3  
GLOBAL DISCOVERY LABS ANALYTICAL RESULTS**

DAHROUGE GEOLOGICAL-X05

BLUE RIVER/FIR:PJR#20002

Report date: 17 JAN 2006

Job V 05-1116R

LAB NO	FIELD NUMBER	Au ppb	Wt Au gram	Nb(F) ppm	Ta(F) ppm	U(P) ppm
R0540078	GDL PREP BLANK	<10	5			
R0540079	22215	<10	5			
R0540080	22259	<10	5			
R0540081	22201			3876	155	<3
R0540082	22202			3101	205	<3
R0540083	22203			2815	162	<3
R0540084	22204			1080	180	<3
R0540085	22205			1418	197	<3
R0540086	22206			1295	192	<3
R0540087	22207			1518	305	<3
R0540087 rpt				1464	293	
R0540088	22208			947	236	<3
R0540089	22209			295	185	24
R0540090	22210			309	152	29
R0540091	22211			333	195	<3
R0540092	22212			163	136	58
R0540093	22213			323	207	83
R0540094	22214			362	175	8
R0540095	22216			570	81	<3
R0540096	22217			583	155	<3
R0540096 rpt						<3
R0540097	22218			311	116	<3
R0540098	22219			920	182	<3
R0540099	22220			1931	209	<3
R0540100	22221			1650	155	<3
R0540101	22222			699	107	<3
R0540102	22223			402	82	<3
R0540103	22224			1307	166	<3
R0540104	22225			3271	297	<3
R0540105	22226			1199	214	<3
R0540106	22227			1192	151	<3
R0540107	22228			2159	173	<3
R0540108	22229			1805	269	<3
R0540109	22230			1137	149	<3
R0540110	22231			4280	423	<3
R0540110 rpt						<3
R0540111	22232			770	93	<3
R0540111 rpt					104	
R0540112	22233			1120	69	<3
R0540113	22234			1967	133	<3
R0540114	22235			665	87	<3
R0540115	22236			1706	147	<3
R0540116	22237			645	114	<3
R0540117	22238			2180	254	<3
R0540118	22238 DUP			1938	194	<3
R0540119	22239			1823	132	<3
R0540120	22240			2320	183	<3
R0540121	22241			1012	117	<3
R0540122	22242			1411	150	<3
R0540123	22243			390	74	<3
R0540124	22244			1443	121	<3
R0540125	22245			1297	204	<3
R0540126	22246			1429	282	3

LAB NO	FIELD NUMBER	Au ppb	Wt Au gram	Nb(F) ppm	Ta(F) ppm	U(P) ppm
R0540126 rpt				1354	271	
R0540127	22247			506	213	31
R0540128	22248			168	144	18
R0540129	22249			921	501	174
R0540130	22250			221	135	42
R0540131	22251			225	112	17
R0540132	22252			1377	197	10
R0540133	22253			1098	280	20
R0540134	22254			580	77	<3
R0540135	22255			1405	113	<3
R0540136	22256			1508	128	<3
R0540137	22257			2539	252	<3
R0540138	22258			785	86	<3
R0540139	22260			1173	106	<3
STD: SY-4				26		270
STD: VS-N					800	
STD: OKA-1				3734		

I=insufficient sample X=small sample E=exceeds calibration C=being checked R=revised  
 If requested analyses are not shown, results are to follow

#### ANALYTICAL METHODS

Au Aqua regia decomposition / solvent extraction / AAS  
 Wt Au The weight of sample taken to analyse for gold (geochem)  
 Nb(F) X-Ray fluorescence / fusion  
 Ta(F) X-Ray fluorescence / fusion  
 U(P) X-Ray fluorescence / pressed pellet

DAHROUGE GEOLOGICAL-X05  
 BLUE RIVER/FIR:PJR#20002

**teckcominco**

Global Discovery Labs

Report date: 5 DEC 2005

Job V 05-1116R

LAB NO	FIELD NUMBER	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	Ba ppm	Cd ppm	Co ppm	Ni ppm	Fe %	Mo ppm	Cr ppm	Bi ppm	Sb ppm	V ppm	Sn ppm	W ppm	Sr ppm	Y ppm	La ppm	Mn ppm	Mg %	Ti %	Al %	Ca %	Na %	K %	P ppm
R0540078	GDL PREP BLAN	67	34	81	<.4	4	115	<1	8	<1	2.98	<2	19	<5	<5	98	<2	<2	99	5	13	587	0.90	0.17	1.91	1.09	0.26	0.18	586
R0540079	22215	372	15	25	<.4	18	90	<1	63	378	5.40	<2	162	<5	<5	20	<2	<2	115	14	224	505	0.59	0.08	0.46	1.74	0.10	0.06	3155
R0540080	22259	1551	14	91	<.4	11	42	<1	98	143	11.64	2	55	<5	<5	49	<2	3	122	29	35	360	1.30	0.19	2.48	2.24	0.12	1.76	11450

I=insufficient sample X=small sample E=exceeds calibration C=being checked R=revised

If requested analyses are not shown, results are to follow

**ANALYTICAL METHODS**

ICP PACKAGE : 0.5 gram sample digested in hot reverse aqua regia (soil,silt) or hot Aqua Regia(rocks).

Report date: 18 JAN 2006

Job V 05-1116R

LAB NO	FIELD NUMBER	SiO2 %	TiO2 %	Al2O3 %	Fe2O3 %	FeO %	MnO %	MgO %	CaO %	Na2O %	K2O %	P2O5 %	Ba(F) %	LOI %	Total %
R0540081	22201	6.48	0.05	0.25	7.96		0.89	14.64	29.01	0.02	0.11	3.01	0.01	34.13	96.56
R0540082	22202	15.27	0.02	0.41	8.21		0.87	14.27	27.43	0.02	0.15	2.41	0.01	25.20	94.27
R0540083	22203	9.25	0.03	0.34	8.69		0.87	14.75	28.25	0.02	0.14	2.52	0.01	30.95	95.82
R0540084	22204	4.09	0.02	0.20	7.86		0.95	15.06	29.20	0.02	0.10	2.55	0.01	37.00	97.06
R0540085	22205	10.90	0.03	0.31	7.65		0.91	14.56	28.34	0.03	0.10	2.80	0.01	31.21	96.85
R0540086	22206	12.31	0.02	0.40	7.88		0.81	14.96	27.56	0.28	0.17	2.67	0.01	31.11	98.18
R0540087	22207	2.38	0.05	0.21	7.17		0.81	15.40	29.70	0.01	0.10	3.39	0.01	38.43	97.66
R0540087 rpt		2.33	0.05	0.25	7.21		0.74	15.59	29.82	0.01	0.10	3.43	0.01	38.36	97.90
R0540088	22208	2.63	0.01	0.20	7.42		0.83	15.39	29.62	0.01	0.10	2.88	0.01	38.25	97.35
R0540089	22209	2.66	0.01	0.27	7.00		0.80	15.14	30.28	0.03	0.10	3.81	0.01	38.16	98.27
R0540090	22210	2.02	0.01	0.21	6.80		0.79	15.10	30.71	0.03	0.10	4.07	0.01	38.20	98.05
R0540091	22211	7.46	0.05	0.99	8.52		0.80	14.46	28.13	0.09	0.21	2.83	0.01	34.04	97.59
R0540092	22212	2.98	0.10	0.46	8.21		0.62	13.10	31.76	0.02	0.11	4.57	0.01	35.45	97.39
R0540093	22213	4.78	0.28	0.93	11.68		0.55	7.61	35.95	0.07	0.28	4.59	0.03	29.12	95.87
R0540094	22214	3.00	0.03	0.31	7.01		0.80	14.81	30.39	0.10	0.10	3.84	0.01	37.41	97.81
R0540095	22216	1.53	0.03	0.44	7.76		0.88	14.94	29.88	0.01	0.10	2.66	0.01	39.31	97.55
R0540096	22217	2.02	0.03	0.40	7.76		0.81	14.78	30.36	0.17	0.10	3.88	0.01	38.00	98.32
R0540097	22218	2.24	0.07	0.73	7.67		0.79	14.14	31.07	0.28	0.15	4.51	0.01	36.93	98.59
R0540098	22219	18.10	0.62	5.90	10.02		0.43	13.28	22.06	0.74	2.71	6.23	0.09	17.95	98.13
R0540099	22220	2.43	0.05	0.46	7.88		0.82	15.10	29.51	0.25	0.14	3.69	0.01	36.77	97.11
R0540100	22221	1.61	0.05	0.27	7.09		0.83	15.60	30.03	0.07	0.09	2.82	0.01	38.84	97.31
R0540101	22222	13.18	0.20	3.58	8.02		0.64	13.89	26.17	0.58	0.87	3.93	0.04	26.37	97.47
R0540102	22223	2.83	0.03	0.44	7.30		0.87	16.02	29.27	0.15	0.10	1.38	0.01	39.13	97.53
R0540103	22224	3.35	0.03	0.28	7.44		0.87	15.82	29.68	0.25	0.10	3.05	0.01	37.56	98.44
R0540104	22225	3.09	0.05	0.23	7.86		0.86	15.02	29.56	0.37	0.10	3.83	0.01	36.18	97.16
R0540105	22226	1.60	0.03	0.23	7.65		0.83	15.61	29.65	0.36	0.10	2.79	0.01	39.49	98.35
R0540106	22227	1.80	0.05	0.27	7.28		0.87	15.43	29.90	0.37	0.10	3.23	0.01	39.00	98.31
R0540107	22228	6.57	0.05	0.37	7.59		0.85	14.97	29.29	0.52	0.12	3.21	0.01	33.63	97.18
R0540108	22229	2.82	0.05	0.33	7.15		0.87	15.60	29.69	0.15	0.10	2.44	0.01	38.47	97.68
R0540109	22230	2.21	0.03	0.34	7.01		0.86	15.67	30.04	0.11	0.11	2.80	0.01	38.91	98.10
R0540110	22231	5.61	0.10	1.52	7.44		0.70	14.89	28.44	0.07	0.86	5.53	0.03	31.73	96.92
R0540111	22232	5.11	0.05	0.74	7.57		0.79	15.22	29.02	0.07	0.31	3.25	0.01	35.16	97.30
R0540111 rpt		5.13	0.05	0.74	7.57		0.77	15.13	29.04	0.02	0.34	3.09	0.01	35.11	97.00
R0540112	22233	12.68	0.11	2.03	10.98		0.75	14.07	25.65	0.09	0.64	1.44	0.01	24.84	93.29
R0540113	22234	6.94	0.10	1.60	7.90		0.86	13.97	29.02	0.27	0.50	3.53	0.01	32.63	97.33
R0540114	22235	1.37	0.05	0.34	7.53		0.85	15.47	29.70	0.03	0.10	2.84	0.01	39.84	98.13
R0540115	22236	1.83	0.03	0.33	8.60		0.88	15.00	29.13	0.37	0.10	2.65	0.01	38.18	97.11
R0540116	22237	2.40	0.09	0.66	8.14		0.85	14.35	29.94	0.12	0.28	4.30	0.01	36.43	97.57
R0540117	22238	1.83	0.05	0.27	8.10		0.92	14.96	29.29	0.15	0.10	2.72	0.01	38.93	97.33
R0540118	22238 DUP	1.75	0.05	0.27	8.11		0.92	15.03	29.31	0.03	0.10	2.72	0.01	38.97	97.27
R0540119	22239	2.06	0.05	0.23	8.18		0.93	15.19	28.81	0.03	0.10	2.04	0.01	39.06	96.69
R0540120	22240	2.45	0.05	0.25	8.22		0.91	14.88	29.17	0.07	0.10	3.19	0.01	37.75	97.05
R0540121	22241	1.96	0.05	0.33	7.73		0.92	15.53	29.12	0.01	0.15	1.96	0.01	39.54	97.31

Report date: 18 JAN 2006

Job V 05-1116R

LAB NO	FIELD NUMBER	SiO2 %	TiO2 %	Al2O3 %	Fe2O3 %	FeO %	MnO %	MgO %	CaO %	Na2O %	K2O %	P2O5 %	Ba(F) %	LOI %	Total %
R0540122	22242	1.26	0.05	0.20	7.03		0.85	15.11	30.30	0.01	0.10	3.81	0.01	38.72	97.45
R0540123	22243	2.44	0.05	0.61	6.59		0.76	13.67	32.16	0.01	0.25	6.82	0.01	35.08	98.45
R0540124	22244	2.61	0.05	0.60	7.98		1.00	15.10	28.64	0.01	0.23	1.65	0.01	39.11	96.99
R0540125	22245	3.28	0.09	0.73	7.78		0.83	14.86	29.04	0.02	0.41	3.82	0.01	36.72	97.59
R0540126	22246	1.65	0.07	0.20	8.60		0.77	14.44	29.65	0.03	0.12	4.17	0.01	37.04	96.75
R0540126 rpt		1.98	0.10	0.25	8.59		0.79	14.72	29.63	0.02	0.14	4.07	0.01	37.06	97.36
R0540127	22247	2.20	0.10	0.20	8.69		0.73	12.25	32.52	0.02	0.12	4.42	0.01	35.90	97.16
R0540128	22248	1.49	0.05	0.27	8.35		0.76	13.78	30.79	0.03	0.10	4.34	0.01	37.88	97.85
R0540129	22249	1.01	0.05	0.27	8.07		0.70	13.22	32.00	0.01	0.10	6.30	0.01	35.43	97.17
R0540130	22250	1.67	0.05	0.18	7.38		0.72	14.02	31.23	0.03	0.10	5.21	0.01	36.90	97.50
R0540131	22251	1.66	0.05	0.20	7.34		0.80	14.73	30.40	0.03	0.10	3.83	0.01	38.66	97.81
R0540132	22252	10.18	0.10	0.60	8.47		0.66	16.37	24.95	1.00	0.17	2.66	0.01	32.88	98.05
R0540133	22253	9.43	0.21	2.57	9.35		0.69	12.88	27.48	0.41	1.40	4.86	0.04	28.30	97.62
R0540134	22254	9.07	0.20	2.50	8.35		0.77	14.15	26.87	0.31	1.15	3.66	0.04	30.15	97.22
R0540135	22255	13.59	0.25	4.34	8.59		0.74	13.28	23.89	0.93	1.40	2.66	0.06	27.43	97.16
R0540136	22256	1.60	0.05	0.25	7.40		0.87	15.22	29.86	0.07	0.14	3.22	0.01	38.63	97.32
R0540137	22257	3.75	0.09	0.93	7.63		0.80	15.03	28.86	0.02	0.50	4.11	0.03	35.34	97.09
R0540138	22258	3.01	0.05	0.55	7.61		0.88	15.76	28.70	0.01	0.15	1.60	0.01	39.33	97.66
R0540139	22260	7.88	0.07	0.62	7.71		0.89	15.19	28.23	0.01	0.25	1.95	0.01	34.02	96.83
STD: SY-4		49.84	0.28	20.72	6.13		0.10	0.51	8.06	6.98	1.61	0.11	0.03	4.80	99.17

I=insufficient sample X=small sample E=exceeds calibration C=being checked R=revised

If requested analyses are not shown, results are to follow

## ANALYTICAL METHODS

FeO determined by acid digestion /volumetric. LOI determined gravimetrically

Other elements by LI borate fusion/XRF. Where no FeO value shown "Fe2O3" is total Fe as Fe2O3

**A39**

**APPENDIX 4  
SGS LAKEFIELD METALLURGICAL TEST REPORTS FOR  
TANTALUM AND NIOBIUM LEACHING**



January 7, 2005

Mr. Dave Hodge  
Commerce Resources

Email: dhodge@commerceresources.com

Dave,

Please see the report below for tantalum and niobium leaching from the upgraded Fir gravity concentrate.

**Tantalum and niobium leaching from the upgraded Fir gravity concentrate**  
**Letter Report #1 – SGSLR10673-002**

**1. Introduction**

Latest results indicated that the Fir gravity concentrate, further upgraded by reverse pyrite flotation, responded well to the conventional HF/H<sub>2</sub>SO<sub>4</sub> leach: in a single test, more than 99% of (Ta + Nb) were dissolved for acid additions of 293 and 2869 (kg/t of upgraded concentrate) of H<sub>2</sub>SO<sub>4</sub> (100%) and HF (48%).

Two additional tests were conducted to examine the effect of lowering acid additions.

**2. Results**

The test details for the 2 additional tests are appended. Results are summarized in the following table, where they are compared with the previous results.

**Table 1: Summary leach results – Upgraded gravity concentrate**

Test #	H <sub>2</sub> SO <sub>4</sub> (100%) (kg/t)	HF (48%) (kg/t)	% Extraction	
			Nb <sub>2</sub> O <sub>5</sub>	Ta <sub>2</sub> O <sub>5</sub>
10	240	1560	76.1	82.7
11	240	2340	88.1	93.0
9	293	2869	>99	>99

**Lakefield Research**

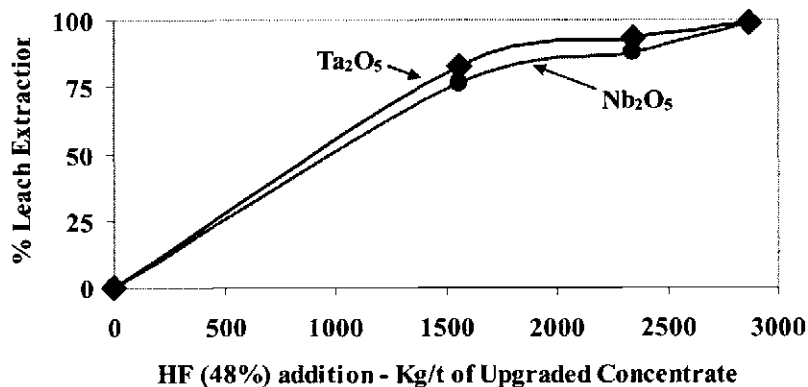
SGS Lakefield Research Limited

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Results are also illustrated graphically in Figure 1.



The results allow to better estimate the optimum economic addition of fluorhydric acid to leach (Ta + Nb) from the upgraded Fir concentrate.

Of note: all three leaches conducted on the upgraded Fir gravity concentrate indicated that most, if not all, of the uranium, was not dissolved during the leach. Because of the difficulties of analyzing small amounts of uranium in a concentrated HF solution containing >120 g/L (Ta<sub>2</sub>O<sub>5</sub> + Nb<sub>2</sub>O<sub>5</sub>), this statement is based on residue assays only, and should be confirmed.

Regards

C. J. Ferron, Ph.D.  
V.P. Metallurgical Operations

cc. Steve Williams

Project 10673-002

Test No. 9

Operator: LP

01-Oct-04

**Purpose:** To repeat conditions of Test 7 and 8 on Test F-1 pyrite rougher flotation tailings.

**Procedure:** HF Leach

**Stage 1**

30.0 grams of feed was transferred to a 150 mL teflon beaker.

7.2 grams of concentrated H<sub>2</sub>SO<sub>4</sub> was added.

After the mineral/acid reaction subsided, 46.8 grams of 48% HF was added slowly.

The beaker was covered with a Teflon watch glass and placed on a hot plate.

The pulp was mixed with a magnetic stir bar and heated to a boil (~80 °C).

After 1 hour of boiling, 62.4 grams of DI water was added to the beaker.

The pulp was then boiled for 4 hours.

After 4 hours, the beaker was removed from the hot plate and cooled.

The solution was decanted (PLS1) and filtered through low ash PVC membrane (5 µm).

**Stage 2**

45 grams DI water was added to the Teflon beaker containing the solids.

23.4 grams of 48% HF was added.

The beaker was covered and the pulp was reheated to a boil (~80° C).

After 4 hours of boiling, the beaker was removed from the hot plate and cooled.

The pulp was filtered through low ash PVC membrane (5 µm).

The solution (PLS2) and PLS1 were combined and submitted for Nb and Ta analyses.

The solids were displacement washed three times with 25 mL DI water.

The residue and wash solution were submitted for Nb and Ta analyses.

**Stage 3**

6.7 grams of feed was transferred to a 150 mL teflon beaker.

1.61 grams of concentrated H<sub>2</sub>SO<sub>4</sub> was added.

After the mineral/acid reaction subsided, 10.5 grams of 48% HF was added slowly.

The beaker was covered with a Teflon watch glass and placed on a hot plate.

The pulp was mixed with a magnetic stir bar and heated to a boil (~80 °C).

After 1 hour of boiling, 14.1 grams of DI water was added to the beaker.

The pulp was then boiled for 4 hours.

After 4 hours, the beaker was removed from the hot plate and cooled.

The solution was decanted (PLS1) and filtered through low ash PVC membrane (5 µm).

**Stage 4**

6.7 grams of feed was transferred to a 150 mL teflon beaker.

10.1 grams DI water was added to the Teflon beaker containing the solids.

5.23 grams of 48% HF was added.

The beaker was covered and the pulp was reheated to a boil (~80° C).

After 4 hours of boiling, the beaker was removed from the hot plate and cooled.

The pulp was filtered through low ash PVC membrane (5 µm).

The solution (PLS2) and PLS1 were combined and submitted for Nb and Ta analyses.

The solids were displacement washed three times with 10.1 mL DI water.

The residue and wash solution were submitted for Nb and Ta analyses.

**Feed:** 30 grams Test F-1 pyrite rougher flotation tailings (pulverized 30 seconds/100 grams)

**Metallurgical Balance:**

Product	Amount g, mL	Assays (mg/L, %, g/t)			% Distribution		
		Nb <sub>2</sub> O <sub>5</sub>	Ta <sub>2</sub> O <sub>5</sub>	U <sub>3</sub> O <sub>8</sub>	Nb <sub>2</sub> O <sub>5</sub>	Ta <sub>2</sub> O <sub>5</sub>	U <sub>3</sub> O <sub>8</sub>
HF PLS 1-4	130	106000	12400	-	98.7	98.8	-
Wash Solution	30	5240	440	-	1.1	0.8	-
Residue	5.2	0.38	0.11	4.23	0.1	0.4	-
Head (calculated)	30.0	46.5	5.44	-	100.0	100.0	-
Head (assayed)		52.20	6.5	0.43			

**Observations:** Stage 3

After 2.5 hours of boiling in stage 3, 10 mL of DI was added due to evaporation.

Stage 4

After 1 hour of boiling in stages 4, 10 mL of DI was added due to evaporation.

After 2 hours of boiling in stage 4, 10 mL of DI was added due to evaporation.

After 3 hours of boiling in stage 4, 12 mL of DI was added due to evaporation.

**Project 10673-002**

**Test No. 10**

**Operator: LP**

**20-Nov-04**

**Purpose:** To repeat conditions of Test 9 with 1st stage only.

**Procedure: HF Leach**

**Stage 1**

30.0 grams of feed was transferred to a 150 mL teflon beaker.

7.2 grams of concentrated H<sub>2</sub>SO<sub>4</sub> was added.

After the mineral/acid reaction subsided, 46.8 grams of 48% HF was added slowly.

The beaker was covered with a Teflon watch glass and placed on a hot plate.

The pulp was mixed with a magnetic stir bar and heated to a boil (~80 °C).

After 1 hour of boiling, 62.4 grams of DI water was added to the beaker.

The pulp was then boiled for 4 hours.

After 4 hours, the beaker was removed from the hot plate and cooled.

The pulp was filtered through low ash PVC membrane (5 µm).

The PLS was submitted for Nb and Ta analyses.

The solids were displacement washed three times with DI water.

The residue and wash solution were submitted for Nb and Ta analyses.

**Feed:** 30 grams Test F-1 pyrite rougher flotation tailings (pulverized 30 seconds/100 grams)

**Metallurgical Balance:**

Product	Amount g, mL	Assays (mg/L, %, g/t)			% Distribution		
		Nb <sub>2</sub> O <sub>5</sub>	Ta <sub>2</sub> O <sub>5</sub>	U <sub>3</sub> O <sub>8</sub>	Nb <sub>2</sub> O <sub>5</sub>	Ta <sub>2</sub> O <sub>5</sub>	U <sub>3</sub> O <sub>8</sub>
HF PLS 1	68	142000	17900	-	68.3	74.1	-
Wash Solution	26	42800	5450	-	7.9	8.6	-
Residue	9.9	34.2	2.87	1.67	23.9	17.3	-
Head (calculated)	30.0	47.2	5.47	-	100.0	100.0	-
Head (assaycd)		52.2	6.5	0.43			

**Observations:** There was no precipitate present.

**Lakefield Research**

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**Purpose:** To repeat conditions of Test 10 with 1st stage and 2nd stage only.

**Procedure:** HF Leach

**Stage 1**

30.0 grams of feed was transferred to a 150 mL teflon beaker.

7.2 grams of concentrated H<sub>2</sub>SO<sub>4</sub> was added.

After the mineral/acid reaction subsided, 46.8 grams of 48% HF was added slowly.

The beaker was covered with a Teflon watch glass and placed on a hot plate.

The pulp was mixed with a magnetic stir bar and heated to a boil (~80 °C).

After 1 hour of boiling, 62.4 grams of DI water was added to the beaker.

The pulp was then boiled for 4 hours.

After 4 hours, the beaker was removed from the hot plate and cooled.

The solution was decanted (PLS1) and filtered through low ash PVC membrane (5 µm)

**Stage 2**

45 grams DI water was added to the Teflon beaker containing the solids.

23.4 grams of 48% HF was added.

The beaker was covered and the pulp was reheated to a boil (~80° C).

After 4 hours of boiling, the beaker was removed from the hot plate and cooled.

The pulp was filtered through low ash PVC membrane (5 µm).

The solution (PLS2) and PLS1 were combined and submitted for Nb and Ta analyses.

The solids were displacement washed three times with 25 mL DI water.

The residue and wash solution were submitted for Nb and Ta analyses.

**Feed:** 30 grams Test F-1 pyrite rougher flotation tailings (pulverized 30 seconds/100 grams)

**Metallurgical Balance:**

Product	Amount g, mL	Assays (mg/L, %, g/t)			% Distribution		
		Nb <sub>2</sub> O <sub>5</sub>	Ta <sub>2</sub> O <sub>5</sub>	U <sub>3</sub> O <sub>8</sub>	Nb <sub>2</sub> O <sub>5</sub>	Ta <sub>2</sub> O <sub>5</sub>	U <sub>3</sub> O <sub>8</sub>
HF PLS 1+2	127	111000	13300	-	86.4	91.6	-
Wash Solution	74	3700	350	-	1.7	1.4	-
Rcsidue	8.3	23.4	1.55	1.54	11.9	7.0	-
Head (calculated)	30.0	54.4	6.15	-	100.0	100.0	-
Head (assayed)		52.2	6.5	0.43			

**Observations:** There was no precipitate present.

**SGS Lakefield Research Limited**

A Preliminary Investigation of

**THE EXTRACTION OF TANTALUM AND NIOBIUM**  
from

**FIR CONCENTRATE SAMPLES**

prepared for

**Commerce Resources**

LR 10673-002 - Progress Report No. 3  
Upgrading of the Gravity Concentrate and HF/H<sub>2</sub>SO<sub>4</sub> leaching  
of the upgraded concentrate

November 12, 2004

**NOTE:** This report refers to the samples as received.  
The practice of this Company in issuing reports of this nature is to require the recipient not to publish the report or any part thereof without the written consent of SGS Lakefield Research Limited.

## *Abstract*

Preliminary tests were conducted to examine whether Fir gravity concentrate could be upgraded prior to leaching.

A WHIMS test indicated poor selectivity between magnetics removal and tantalum. Reverse sulphide flotation was very successful: the desulphurized concentrate (41% wgt of the gravity concentrate) assayed >58% ( $\text{Nb}_2\text{O}_5 + \text{Ta}_2\text{O}_5$ ), with only a few percents (Ta + Nb) losses to the flotation concentrate.

The desulphurized concentrate responded well to the HF/ $\text{H}_2\text{SO}_4$  leach. For a total addition of 160 kg  $\text{H}_2\text{SO}_4$  (100%) and 1175 kg HF (48%) per ton of gravity concentrate, greater than 99% of the ( $\text{Nb}_2\text{O}_5 + \text{Ta}_2\text{O}_5$ ) were extracted.

## **INTRODUCTION**

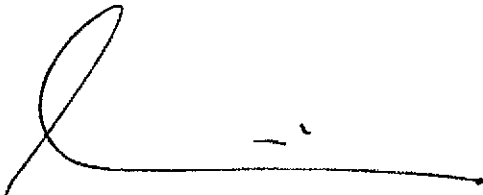
Mineralogical information provided by Commerce Resources in July 2004 indicated the presence of significant quantities of sulphide minerals (mostly pyrite and pyrrhotite) in the gravity concentrate under testing at Lakefield.

As an alternative to the successful but reagent-intensive HCl leach developed to remove iron minerals prior to HF/H<sub>2</sub>SO<sub>4</sub> leaching, sighter tests were conducted to examine the feasibility of using wet high intensity magnetic separation (WHIMS) and sulphide flotation to upgrade the Fir gravity concentrate prior to HF/H<sub>2</sub>SO<sub>4</sub> leach. A single HF/H<sub>2</sub>SO<sub>4</sub> leach was conducted on the upgraded (by S<sup>2-</sup> flotation) concentrate.

### **SGS LAKEFIELD RESEARCH LIMITED**



Joe Ferron, Ph.D.  
V.P. Metallurgical Technology



Steve Williams  
Director - Metallurgical Operations

*Report Preparation By: C. Pilley*

# RESULTS AND DISCUSSIONS

## 1. WHIMS

One sample of the FIR concentrate from the first shipment (i.e. the same as what has been used so far) was passed through our laboratory Eriez L-4-20 WHIMS separator at increasing field intensities. Results are presented in Table 1.

Table 1: WHIMS Results for the FIR Gravity Concentrate

Products	Wgt (%)	Assays (%)			% Distribution		
		Fe	Ta <sub>2</sub> O <sub>5</sub>	Nb <sub>2</sub> O <sub>5</sub>	Fe	Ta <sub>2</sub> O <sub>5</sub>	Nb <sub>2</sub> O <sub>5</sub>
Magnetics 1A	6.0	52.1	0.93	5.5	8.2	1.9	1.4
Magnetics 3A	24.6	42.6	2.12	21.9	27.6	18.1	23.6
Magnetics 5A	32.8	38.8	2.48	27.1	33.7	28.3	39.0
Magnetics 10A	23.6	37.2	2.80	26.2	23.2	23.0	27.2
Magnetics 20A	6.2	33.5	3.96	16.3	5.5	8.5	4.4
Non-Magnetics 20A	6.8	9.81	8.61	14.5	1.8	20.2	4.3
Feed	100.0	37.86	2.88	22.79	1400.0	100.0	100

Results indicate that the selectivity between iron and tantalum is only acceptable at low intensity (1A), where likely magnetite and pyrrhotite were pulled out; at higher intensities, the selectivity is not acceptable.

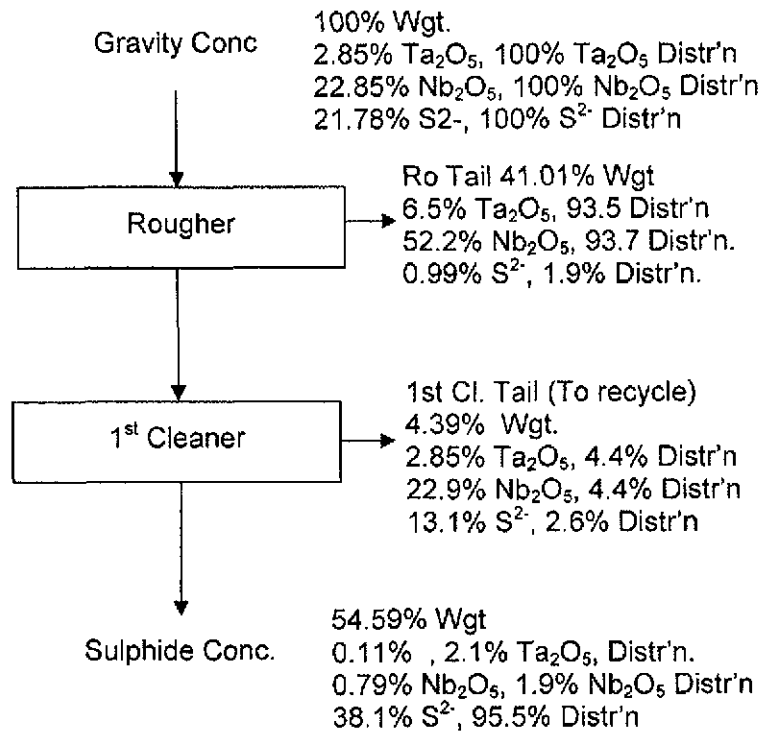
## 2. SULPHIDE FLOTATION

One single flotation test was conducted on the new gravity concentrate shipped to Lakefield in August.

Flotation details are appended.

Results can be summarized in the Figure 1 below.





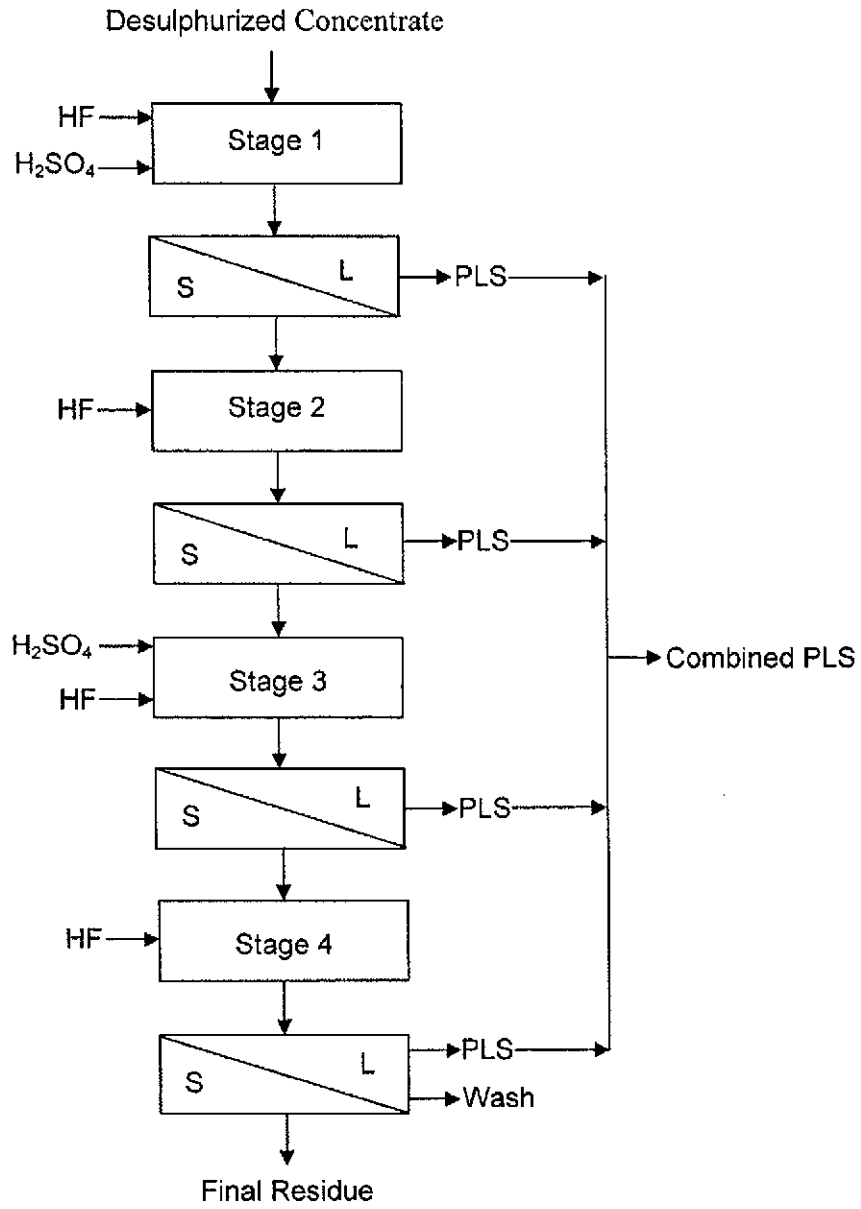
**Figure 1: Results of Sighter Sulphide Flotation Test**

Although not optimized, and without recycling of cleaner tails, results showed excellent promises with an excellent selectivity between sulphides and (Ta<sub>2</sub>O<sub>5</sub> + Nb<sub>2</sub>O<sub>5</sub>) concentrate: only 1% S<sup>2-</sup> is left in the (Ta<sub>2</sub>O<sub>5</sub> + Nb<sub>2</sub>O<sub>5</sub>) upgraded product, with minimum (Ta<sub>2</sub>O<sub>5</sub> + Nb<sub>2</sub>O<sub>5</sub>) losses in the flotation product (~2%), producing a (Ta<sub>2</sub>O<sub>5</sub> + Nb<sub>2</sub>O<sub>5</sub>) upgraded concentrate representing only 41% of the original mass and assaying 58-59% (Ta<sub>2</sub>O<sub>5</sub> + Nb<sub>2</sub>O<sub>5</sub>).

Unfortunately, as expected from the known mineralogical association, the uranium minerals remain with the (Ta<sub>2</sub>O<sub>5</sub> + Nb<sub>2</sub>O<sub>5</sub>) concentrate.

### 3. Ta<sub>2</sub>O<sub>5</sub>/Nb<sub>2</sub>O<sub>5</sub> Leach

A single HF/H<sub>2</sub>SO<sub>4</sub> leach was conducted on the sulphide flotation residue, i.e. the Ta/Nb concentrate. Test details are appended. The test was conducted in 4 stages, as indicated in Figure 2. Because of the small scale of the test, no subsamples were taken of the intermediate steps residues.



**Figure 2: Desulphurized Concentrate HF/H<sub>2</sub>SO<sub>4</sub> Leaching Procedure**  
 Results are presented in Table 2.

**Table 2: Leach Results**

Product	Amount g, mL	Assays (mg/L, %)			% Distribution		
		Nb <sub>2</sub> O <sub>5</sub>	Ta <sub>2</sub> O <sub>5</sub>	U <sub>3</sub> O <sub>8</sub>	Nb <sub>2</sub> O <sub>5</sub>	Ta <sub>2</sub> O <sub>5</sub>	U <sub>3</sub> O <sub>8</sub>
HF PLS 1-4	130	106000	12400	-	98.7	98.8	-
Wash Solution	30	5240	440	-	1.1	0.8	-
Residue	5.2	0.38	0.11	4.23	0.1	0.4	-
Head (calculated)	30.0	46.5	5.44	-	100.0	100.0	-
Head (assayed)		52.20	6.5	0.43			

The calculated heads are low because of the imprecision on the concentrated solutions (>115 g/L (Ta<sub>2</sub>O<sub>5</sub> + Nb<sub>2</sub>O<sub>5</sub>)). However, leach extractions are greater than 99% for both the tantalum and the niobium. Table 3 presents reagent additions at each stage.

**Table 3: Acid Additions at each Step**

Stage	H <sub>2</sub> SO <sub>4</sub> (100%)		HF (48%)	
	kg/t Upgraded Conc	kg/t Gravity Conc.	kg/t Upgraded Conc	kg/t Gravity Conc.
1	240	131	1565	641
2	0	0	781	320
3	53	28.9	350	144
4	0	0	175	72
Total	293	160	2869	1176

Acid additions were not optimized, and it is possible that acceptable leach extractions could be achieved after fewer stages.

## *Conclusions and Recommendations*

These preliminary results indicated that the gravity concentrate could be easily upgraded to >58% ( $\text{Nb}_2\text{O}_5 + \text{Ta}_2\text{O}_5$ ) with minimum losses (a few percents) by reverse sulphide flotation. The so upgraded desulphurized concentrate responded well to the traditional HF/ $\text{H}_2\text{SO}_4$ .

Greater than 99% (Ta + Nb) extractions were achieved with total acid additions of 160 kg of 100%  $\text{H}_2\text{SO}_4$  per ton of gravity concentrate and 1176 kg of 48% (HF) per ton of gravity concentrate.

Further tests are required to better define the relation between acid additions and leach extractions.

*APPENDIX*

**Test No:** F-1    **Project No.** 10673-001

**Purpose:** To examine pyrite flotation from a sample of Ta/Nb concentrate

**Feed:** 500 g of Ta/Nb Concentrate

**Grind:** 6 minutes at 50% solids in the S.S. Rod mill

	Reagents added, g/T				Time, Minutes			
	WW 82	H <sub>2</sub> SO <sub>4</sub>	PAX	3501	Grind	Cond.	Froth	pH
Grind					6			
Condition	100	100				3		6.5
Py Rougher 1			50	50		1	3	
Py Rougher 2			50	50		1	3	
Py Cleaner	50					1	2	6.5
			10	20		1	2	

Product	Weight		Assays %					% Distribution				
	g	%	Ta <sub>2</sub> O <sub>5</sub>	Nb <sub>2</sub> O <sub>5</sub>	Fe	S <sup>-</sup>	U <sub>3</sub> O <sub>8</sub>	Ta <sub>2</sub> O <sub>5</sub>	Nb <sub>2</sub> O <sub>5</sub>	Fe	S <sup>-</sup>	U <sub>3</sub> O <sub>8</sub>
1 Py Cl Conc	273.4	54.59	0.11	0.79	59.8	38.1	0.017	2.1	1.9	84.3	95.5	4.7
2 Py Cl Tail	22	4.39	2.85	22.9	27.8	13.1	0.28	4.4	4.4	3.2	2.6	6.2
3 Py Ro Tail	205.4	41.01	6.5	52.2	11.9	0.99	0.43	93.5	93.7	12.6	1.9	89.1
Head (calc)	500.8	100.0	2.85	22.85	38.75	21.78	0.2	100.0	100.0	100.0	100.0	100.0

**Combined Products**

1-2 Py Ro Conc	58.99	0.3	2.44	57.42	35.24	0.0	6.5	6.3	87.4	98.1	10.9
2-3 Py Ro + Cl Tails	45.41	6.1	49.37	13.44	2.16	0.4	97.9	98.1	15.7	4.5	95.3

**Purpose:** To repeat conditions of Test 7 and 8 on Test F-1 pyrite rougher flotation tailings.

**Procedure:** HF Leach

**Stage 1**

30.0 grams of feed was transferred to a 150 mL teflon beaker.

7.2 grams of concentrated  $H_2SO_4$  was added.

After the mineral/acid reaction subsided, 46.8 grams of 48% HF was added slowly.

The beaker was covered with a Teflon watch glass and placed on a hot plate.

The pulp was mixed with a magnetic stir bar and heated to a boil (~80 °C).

After 1 hour of boiling, 62.4 grams of DI water was added to the beaker.

The pulp was then boiled for 4 hours.

After 4 hours, the beaker was removed from the hot plate and cooled.

The solution was decanted (PLS1) and filtered through low ash PVC membrane (5  $\mu$ m).

**Stage 2**

45 grams DI water was added to the Teflon beaker containing the solids.

23.4 grams of 48% HF was added.

The beaker was covered and the pulp was reheated to a boil (~80° C).

After 4 hours of boiling, the beaker was removed from the hot plate and cooled.

The pulp was filtered through low ash PVC membrane (5  $\mu$ m).

The solution (PLS2) and PLS1 were combined and submitted for Nb and Ta analyses.

The solids were displacement washed three times with 25 mL DI water.

The residue and wash solution were submitted for Nb and Ta analyses.

**Stage 3**

6.7 grams of feed was transferred to a 150 mL teflon beaker.

1.61 grams of concentrated  $H_2SO_4$  was added.

After the mineral/acid reaction subsided, 10.5 grams of 48% HF was added slowly.

The beaker was covered with a Teflon watch glass and placed on a hot plate.

The pulp was mixed with a magnetic stir bar and heated to a boil (~80 °C).

After 1 hour of boiling, 14.1 grams of DI water was added to the beaker.

The pulp was then boiled for 4 hours.

After 4 hours, the beaker was removed from the hot plate and cooled.

The solution was decanted (PLS1) and filtered through low ash PVC membrane (5  $\mu$ m).

**Stage 4**

6.7 grams of feed was transferred to a 150 mL teflon beaker.

10.1 grams DI water was added to the Teflon beaker containing the solids.

5.23 grams of 48% HF was added.

The beaker was covered and the pulp was reheated to a boil (~80° C).

After 4 hours of boiling, the beaker was removed from the hot plate and cooled.

The pulp was filtered through low ash PVC membrane (5  $\mu$ m).

The solution (PLS2) and PLS1 were combined and submitted for Nb and Ta analyses.

The solids were displacement washed three times with 10.1 mL DI water.

The residue and wash solution were submitted for Nb and Ta analyses.

**Feed:** 30 grams Test F-1 pyrite rougher flotation tailings (pulverized 30 seconds/100 grams)

**Metallurgical Balance:**

Product	Amount g, mL	Assays (mg/L, %, g/t)			% Distribution		
		Nb <sub>2</sub> O <sub>5</sub>	Ta <sub>2</sub> O <sub>5</sub>	U <sub>3</sub> O <sub>8</sub>	Nb <sub>2</sub> O <sub>5</sub>	Ta <sub>2</sub> O <sub>5</sub>	U <sub>3</sub> O <sub>8</sub>
HF PLS 1-4	130	106000	12400	-	98.7	98.8	-
Wash Solution	30	5240	440	-	1.1	0.8	-
Residue	5.2	0.38	0.11	4.23	0.1	0.4	-
Head (calculated)	30.0	46.5	5.44	-	100.0	100.0	-
Head (assayed)		52.20	6.5	0.43			

**Observations:** Stage 3

After 2.5 hours of boiling in stage 3, 10 mL of DI was added due to evaporation.

Stage 4

After 1 hour of boiling in stages 4, 10 mL of DI was added due to evaporation.

After 2 hours of boiling in stage 4, 10 mL of DI was added due to evaporation.

After 3 hours of boiling in stage 4, 12 mL of DI was added due to evaporation.

**APPENDIX 5: STATEMENT OF QUALIFICATIONS**

The field work described in this report was supervised by Clinton Davis.

Clinton Davis is a geological consultant with Dahrouge Geological Consulting Ltd. He obtained a Bachelor of Science (Honours) degree in geology from the Carleton University, Ottawa, Ontario in 1997 and studied graduate level mineral economics at the Colorado School of Mines. He has more than 7 years of experience in mineral exploration. He is registered as P. Geo. with the Association of Professional Geoscientists of Ontario.