

**BC Geological Survey
Assessment Report
30391**

GEOCHEMICAL SOIL AND ROCK SURVEY REPORT

**On The
BUG LAKE PROPERTY
(Bug 3 & Waratah 7 Claims)**

NORTHWESTERN BRITISH COLUMBIA, CANADA

**Iskut River Area
Liard Mining Division
British Columbia**

**NTS Map Sheets 104B / 10W & 11E
Latitude 56 ° 41' North,
Longitude 130° 59' West
BCGS 104 B065, 066**

Prepared For:

**NEWCASTLE MINERALS LTD.
Operator and Owner**

by

**A. A. Burgoyne, P.Eng., M.Sc.
Burgoyne Geological Inc.
548 Lands End Road
North Saanich, BC V8L 5K9**

**Arnd Burgert, P.Geo., B.Sc.
Arnd Burgert Consulting Ltd.
921 Colonia Drive
Ladysmith, BC, V9G 1N9**

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TABLE OF CONTENTS

1.0 Summary	4
2.0 Introduction	5
3.0 Property Description & Location	6
4.0 Accessibility, Physiography, Infrastructure	7
5.0 History	8
5.1 <i>AREA EXPLORATION</i>	8
5.2 <i>BUG LAKE PROPERTY</i>	8
6.0 Geological Setting	11
6.1 <i>REGIONAL GEOLOGY</i>	11
6.2 <i>PROPERTY GEOLOGY</i>	12
7.0 Mineralization	13
8.0 2008 Field Program	18
8.1 <i>INTRODUCTION AND BACKGROUND</i>	18
8.2 <i>GEOCHEMICAL ROCK SURVEY & SAMPLING METHOD & APPROACH</i>	18
8.3 <i>GEOCHEMICAL ROCK SURVEY RESULTS AND INTERPRETATION</i>	20
8.4 <i>GEOCHEMICAL SOIL SURVEY & SAMPLING METHOD & APPROACH</i>	21
8.5 <i>GEOCHEMICAL SOIL SURVEY RESULTS AND INTERPRETATION</i>	21
9.0 Sample Preparation, Analyses & Security	22
10.0 Adjacent Properties	23
11.0 Interpretation & Conclusions	25
12.0 Recommendations	26
13.0 References	28
14.0 Signature Page	30
15.0 Certificate - Statement Of Qualifications	31

TABLES

		Page
Table 2-1	Location Of 2008 Geochemical Surveys	5
Table 3-1	Bug 1-3, Waratah 7 Claims Mineral Tenure Information	6
Table 5-1	2006 Geochemical Sampling by Newcastle	9
Table 5-2	Historical Trenching & Drilling 1987 - 1990 On Bug Lake Property	10
Table 8-1	Rock Sample Descriptions	following page 21
Table 13-1	Bug Lake Recommended Exploration Program & Budget	27

FIGURES

		Following Page
Figure 3-1	Bug Lake Property Location Map	6
Figure 3-2	Topography & Claims Location Map	6
Figure 7-1	Historical Mineral Showings on Bug 1,2, 3 and Waratah 7 Claims	17
Figure 8-1	Rock Sample Locations	21
Figure 8-2	Soil Sample Locations	21
Figure 8-3	Gold Soil Geochemistry	21
Figure 8-4	Silver Soil Geochemistry	21
Figure 8-5	Copper Soil Geochemistry	21
Figure 8-6	Lead Soil Geochemistry	21

APPENDICES

	Page
Appendix A Detailed Expenditure Statement (from Newcastle Minerals)	33
Appendix B 2007 Assay Certificates	35

1.0 Summary

The Bug Lake property is situated within the Liard Mining Division of northwestern British Columbia, approximately 320 km north of Smithers and 110 km northwest of Stewart. **Note Figure 3-1.** The claims are located on map sheet 104B/10W and 11E at latitude 56° 41' north and longitude 130° 59' west.

The Bug Lake Property, owned 100% by Newcastle, consists of the Bug 1,2,3 and Waratah 7 mineral claims that total 1400 hectares.

During 2008 Newcastle completed geochemical soil and rock surveys on the Bug 3 and Waratah 7 claims on and adjacent to known defined vein mineralization. Seventeen different showings with significant gold values occur on the Bug Lake property. Most of the veins have northwest trends with dips ranging from steep to northwest to southwest. Some veins, although, are found along northeast trending structures and shear zones.

The authors have completed a geochemical soil and rock survey report on the Bug Lake property including a detailed review and evaluation of the historical exploration on the Property and conclude:

- The main stratigraphic unit on the property is the Upper Triassic Stuhini Group. This Group is characterized by basic to intermediate volcanics which underlie andesitic volcanoclastics and flows as well as inter bedded dark grey siltstone and fine to medium grained greywacke. The eastern side of the property is commonly underlain by tuffs and flows of andesitic composition. Sediments dominate in the northwestern part of the property.
- The vein mineralization defined to date occurs over a 5 km trend distance. This mineralization is located on the south side of the Iskut River.
- Mineralized occurrences on the Bug Lake property are classified into three categories: copper-gold veins, native gold-pyrite, and copper-lead-zinc-silver-gold veins. Nearly all of the mineralization does carry ubiquitous, fine-grained disseminations of magnetite and fracture fillings and/or disseminations of pyrite in amounts of trace to 1%. Quartz-carbonate veins and shears commonly have pyrite, with localized chalcopyrite, magnetite, and arsenopyrite. The greatest number of mineralized showings consists of copper-gold veins.

Exploration by Newcastle, to date, has largely focussed on limited rock and soil sampling in 2002 and 2008. There is excellent potential for defining additional vein mineralization. Follow-up exploration is recommended for three areas: 1) the old Centre-Baseline area; 2) unexplained soil geochemistry anomalies east of the Cooper Showing; 3) and an unexplained soil geochemistry anomaly at the Michael exposure.

A two-stage exploration program is recommended, Phase I will entail line cutting, detailed soil sampling, geological mapping, hand pitting and hand trenching, and suitable geophysical surveys consisting of induced polarization, magnetic and electromagnetic (VLF) surveys costing in the order of \$400,000. This will be followed by a Phase II core-drilling program of about 3600 meters costing in the order of \$1.6 million. The Phase II program is contingent on successful completion of the Phase I program.

2.0 Introduction

Burgoyne Geological Inc. and Arnd Burgert Consulting Ltd. were commissioned by Newcastle Minerals Ltd. ("Newcastle") to complete assessment work and prepare the respective assessment report on the Bug Lake Property that comprise the Bug 1, 2, and 3, and Waratah 7 ("the claims") mineral claims in northwestern British Columbia, located about 32 km northeast of the Alaskan border. Newcastle owns a 100% interest in the Property consisting of four mineral claim totaling 56 units. Note **Section 3**.

The Property was explored in the 1980's by Skyline Exploration Ltd. (now Skyline Gold Corp.) and by Gulf International Ltd., and Tungco Resources Corp., under option from Skyline. In 1990 Keewatin Engineering on behalf of Big M Resources Ltd, as part of an option agreement with Royal Bay Gold Corp., explored by drilling the Cooper Zone on the Waratah 7 mineral claim. Details on the exploration history are given in **Section 5**. In 2002 "the claims" were optioned and acquired by Newcastle Minerals Ltd. from Viceroy Resources. In 2002 and 2003 Newcastle Minerals commissioned Keewatin Consultants, J. Moore, M.Sc., and A. Travis, B.Sc. to complete a geological, geochemical and prospecting program and report on "the claims".

In 2008 Newcastle Minerals Ltd. spent in the order of \$111,636 on geochemical soil and rock surveys which is the subject of this report. **Note Appendix A**. This fieldwork was completed from July through early September 2008 and the report compilation was done in September and October 2008. A field camp was constructed in July. Field work was concentrated on the Bug 3 and Waratah 7 claims. Details and results on the geochemical surveys and the corresponding results are given in **Section 8** and the corresponding figures and tables. The location and amount of samples taken on the respective claims is given in the following table:

TABLE 2-1
LOCATION OF 2008 GEOCHEMICAL SURVEYS

CLAIM	NUMBER OF SOIL SAMPLES	NUMBER OF ROCK SAMPLES
BUG 3	33	32
WARATAH 7	-	5
Total	33	37

Assessment work was carried out initially from a base camp on Bug Lake on Bug 3 mineral claim and later from the Rivers West camp at the Bronson Airstrip. Access to the claims is via helicopter. The work from early July to August 15, 2008 was completed by Lou Straith A.ScT., Gordon Brody, sampler, and Mike Thompson, helper under the general direction of A.A. Burgoyne, P.Eng. During the period August 28 to September 2, 2008 work was completed by Arnd Burgert, P.Geo and Gordon Brody under the general direction of A. A. Burgoyne, P.Eng. This assessment report is the result of the fieldwork done in 2008 and a review and evaluation of the database of technical information on exploration and drilling on "the claims". This report will be used by Newcastle in satisfying reporting requirements for mineral tenure assessment purposes. Details on property description and mineral claims are given in **Section 3** whereas details on physiography (and access/infrastructure) and history are given in **Sections 4** and **5**, respectively. Software programs utilized in preparation of this report include Microsoft Word and Excel, Adobe Acrobat, and AutoDesk AutoCAD.

3.0 Property Description & Location

The Bug lake Property consists of the Bug 1-3 and Waratah 7 claims that are situated on the south bank of the Iskut River, approximately two kilometres east of the past producing Snip Mine and Bronson airstrip. The property is situated within the Liard Mining Division of northwestern British Columbia, approximately 320 km north of Smithers and 110 km northwest of Stewart. **Note Figure 3-1.** The claims are located on map sheet 104B/10W and 11E at latitude 56° 41' north and longitude 130° 59' west.

The property comprises three 12-unit claims (Bug 1 to 3) with an area of approximately 900 hectares and the adjacent 20 units, 500 hectare, Waratah 7 claim, all owned 100% by Newcastle Minerals Ltd. The four separate claims total 56 units. **Note Figure 3-2.**

The Bug 1-3 and Waratah 7 claims have not been legally surveyed. A review of the BC Online mineral tenure records give the following information for the claims as tabulated in **Table 3-1.** Newcastle Minerals Ltd. wholly owns, as to 100%, the said claims.

**TABLE 3-1
BUG 1 – 3 & WARATAH 7 CLAIMS MINERAL TENURE INFORMATION**

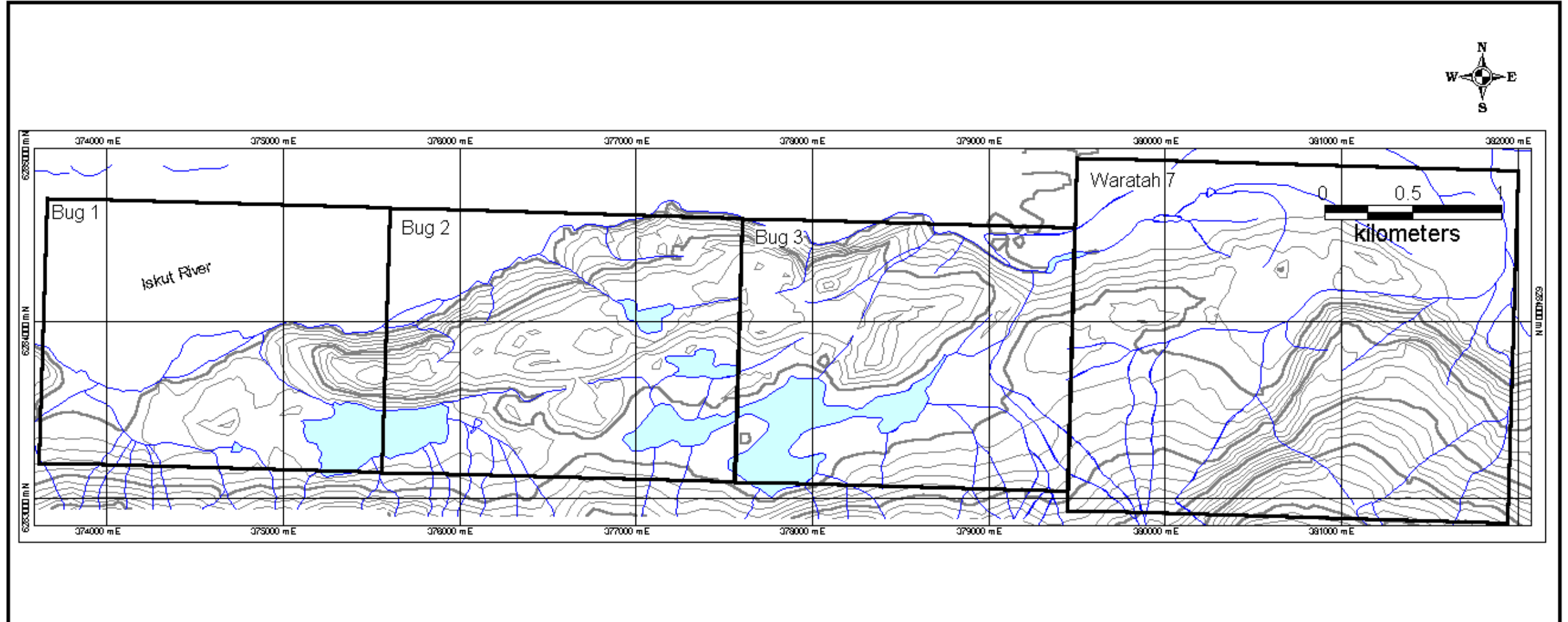
Tenure Number	Claim Name	Owner Number & Interest	Map Number	Date Staked	Good To Date	Mining Division	Units
392384	BUG 1	127361 100%	104B065	2002/03/13	2009/03/13	Liard	12
392385	BUG 2	127361 100%	104B065	2002/03/13	2009/03/13	Liard	12
392386	BUG 3	127361 100%	104B066	2002/03/13	2009/03/13	Liard	12
222212	WARATAH 7	127361 100%	104B066	1982/09/08	2008/11/30	Liard	20

127361 = Newcastle Minerals

In order to carry out exploration work in 2008 on the property, a land use permit was obtained from the BC government; no reclamation bond was required for this work. The Mines Permit MX-1-770, approval #08-0100114-0509 was issued by the BC Department of Mines.



Newcastle Minerals Ltd.
Bug Lake Property Location Map
Figure 3-1



NEWCASTLE MINERALS LTD.
Bug Lake Property - Topography and Claims Location Map
FIGURE 3-2

4.0 Accessibility, Physiography, Infrastructure

There are several ways to access the Bug Lake property. One is by fixed-wing aircraft, from the towns of Smithers or Terrace located, approximately 300 kilometres to the southeast, and fly to the Bronson Creek airstrip, which is located two kilometres west of the property. From the Bronson Creek airstrip a helicopter is needed to access the property. The second method of access is from the Eskay Creek mine road extension to the Forest Kerr hydro site which is situated only 30 kilometres to the east of Bronson Airstrip. A third and most common access mode is to fly by helicopter or fixed wing directly from Bob Quinn on the Cassiar Stewart Highway. Equipment and personnel can be flown into the property by helicopter; this is approximately a 0.3 hours trip. Access throughout the property, is by helicopter to well placed helipads or by hiking through moderate terrain on previously cut baselines or by a boat based on Bug Lake.

The Bronson Creek airstrip is capable of accommodating Hercules aircraft. Access throughout the property is via helicopter from the airstrip to the helipads, which are spread throughout the property. Room and board is available at the fishing lodge adjacent to the Bronson Creek airstrip.

The Iskut River dominates the northern portion of the property. A 200-meter high ridge of hummocky ground with precipitous bluffs and steeply incised drainages characterizes the central part of the claim block. **Note Figure 3-2.** Low, swampy ground, and several small lakes cover the southern part of the property. The southern boundary of the Bug claims occurs at the base of the precipitous Snippaker Ridge. The steep slopes up to Snippaker Ridge contain numerous slide paths that can pose dangerous snow and rock avalanches. The majority of the property is covered by mature spruce and hemlock; however, slide paths below Snippaker Ridge and gullies throughout the claims commonly contain Devil's club and slide alder.

Water for drilling and camp purposes is readily available throughout the property. Other infrastructure includes the nearby Bronson Airstrip and the Rivers West Camp. Skyline Gold Corp. has applied to the BC Government to construct a 30 km access road from the Forest Kerr road to Bronson Airstrip. This road if approved and constructed will transverse the complete length of the Bug Lake Property.

The area is north coastal climate with wet summers and heavy snowfalls in winter. The climate is typified by cold, snowy winters and cool, wet summers. Snow accumulations are up to 1-2 meters near the Iskut River and normally exceed 5 meters at higher elevations. The recommended work season is June through October. The main river valleys are usually free of snow around the end of May. Temperatures in the summer are around 20 degrees Celsius and in the winter –10 degrees Celsius.

The majority of the property is covered by thick and dense undergrowth including willows, alders and devils club. Large trees include fir, hemlock, cedar and spruce. Minor poplar and birch are present.

Large mammals comprising mountain goat, wolf, grizzly bear and black bear have all been observed directly or indirectly. Local bird species observed include white-tailed ptarmigan, ruffed grouse, raven, sparrow and golden eagle. Raven and sea gull are also present.

5.0 History

5.1 Area Exploration

The first recorded work in the Iskut River area was in 1907 by a prospecting party from Wrangell, Alaska, who staked nine claims north of Johnny Mountain. The Iskut Mining Company explored crown-granted claims along Bronson Creek and on the north slope of Johnny Mountain. By 1920, a nine-meter adit had revealed a number of galena-bearing veins and stringers.

In 1954, Hudson's Bay Mining and Smelting located the Pick Axe showing and high-grade gold-silver-lead-zinc float on the open upper slopes of Johnny Mountain. During the 1960's, several major mining companies conducted helicopter-supported reconnaissance exploration programs in their search for porphyry copper-molybdenum deposits. Several claims were staked on Johnny Mountain and in the Bronson Creek area. Cominco Ltd. staked claims over a gold-bearing quartz vein, which was later developed into the Snip Gold Mine, which produced approximately one million ounces of gold. **Note Section 11, Adjacent Properties.**

During the 1960's, several major mining companies conducted helicopter-supported reconnaissance exploration programs in their search for porphyry copper-molybdenum deposits.

5.2 Bug Lake Property

The known historical showings are illustrated in Figure 7-1 and are described in detail in Section 7.

Skyline Explorations Ltd first staked the Bug Lake property area in 1982. In 1983, a Skyline-Placer Development joint venture contracted an airborne electromagnetic and magnetic survey (Piroshco, 1996) over the claim area. Skyline then optioned the property to Gulf International Minerals Ltd. (Caulfield and Ikona, 1985) in 1984; they carried out field programs, which included line cutting, trenching, soil sampling and prospecting. Additional line cutting, trenching, and a Pulse-EM survey were completed during 1985. This option was subsequently dropped.

In 1986, Hector Resources Inc. acquired the Jazz claims, which adjoins the present day Bug Lake property to the south, through an option agreement with Skyline Exploration Ltd. In 1987, Hector carried out a program of geological mapping, prospecting, as well as geochemical and geophysical surveys. The program led to trenching and a 15-hole, 610 meter, diamond drill program to evaluate the Golden Spray Zone, which is southeast of the Waratah 7 claim.

In 1987 and 1988, Skyline (Caulfield, 1987a,b, 1988) optioned the Waratah Property to Tungco Resources Corp., which is approximately coincident with the current Bug Lake property. Tungco conducted line cutting, geochemical, and geophysical surveys, prospecting, trenching and diamond drilling. This work included 33 km of line cutting, 45 km of magnetic and VLF-EM surveys and the excavation of 40 trenches. A total of 1,025 soil, 7 heavy mineral, 4 silt, and 509 rock samples were collected and analyzed. Seventeen gold occurrences were discovered during this program, most of which were investigated by trenching and/or drilling. An Aerodat airborne VLF-EM and magnetic survey was flown over the property during the spring of 1988.

In 1990, Keewatin Engineering (Pegg, 1991) was commissioned to explore the previous Waratah 7 claim, which is now covered by the extreme eastern end of the Bug 3 claim. This work was done for Big M Resources Ltd. as part of an option agreement with Royal Bay Gold Corp., formerly Tungco Resources Corp., and the pre-cursor to Featherstone Resources and Newcastle Minerals. The work included geological, geochemical and prospecting surveys, as well as a trenching and diamond drilling program totalling 540 meters in 7 drill holes over the Cooper Zone, which is 2.4 kilometres southeast of the River Showing. **Note Figure 7-1.**

During 1996, Royal Bay Gold Corp. conducted work over portions of the Waratah 7 claim. The objective (Piroshco, 1996) was to evaluate the Cooper Zone and the area southeast of the Cooper Zone to the Golden Spray zone. This work consisted of 5 kilometres of line-cutting, geological mapping, rock sampling including 66 samples, and 100 line meters of trenching, and 4.5 line-kilometres of VLF-EM and magnetometer surveys. A compilation of the previous trenching and drilling is presented below in **Table 5-2**

During September 2002 Newcastle commissioned geochemical rock and soil and prospecting surveys on the Bug 1, 2, and 3 claims. In the order of 47 rock samples and 125 soil samples were taken mostly over known historical showings as illustrated in **Table 5-1**. This work is discussed in detail in Moore and Travis (2003) and for exact locations of the samples and results, this report should be referred to. **Figure 7-1 illustrates the historical mineral showings.**

**TABLE 5-1
2002 GEOCHEMICAL SAMPLING BY NEWCASTLE**

Showing/Zone Name	Number of Rock Samples	Number of Soil Samples	Comments
Boot Hill / Flare Zone	12	32	
Western Ridge Zone	3	21	Near Gold Bug
Eastern Ridge Zone	7	19	Near Gold Bug East
No. 9 Showing	6	16	
Western Baseline South*	2	24	North of west end of Bug Lake
Eastern Baseline North*	10	12	North of Lake Showing
Centre Baseline*	7	1	Between Lake Showing & No. 7 Vein

* note Moore and Travis (2003) report for detailed locations and results

TABLE 5-2
HISTORICAL TRENCHING & DRILLING 1987 - 1990 ON BUG LAKE PROPERTY
(from Moore & Travis 2003)

Showing Name	Showing #	1987		1988		1990		Total	
		Trenches	Drilling	Trenches	Drilling	Trenches	Drilling	Trenches	Drilling
Golden Arrow	1	3(T19-T21)						3	
River Vein	2								
No 11	3			1(T35)				1	
Swamp Vein	4	2(T7-8)	6 (251.5m)					2	6 (251.5m)
X-Cut Vein	5	3(T13-15)						3	
Bluff Vein	6	5(T2-T6)	11 (420.7m)		8 (675.1m)			5	19 (1095.8m)
I. Helipad	7a	1(T11)						1	
II. Helipad	7b	1(T12)						1	
Map Vein	8	3(T16-18)						3	
No 7	9	2(T9-10)	7 (366.3m)		8 (797.6m)			2	15 (1163.9m)
Lake Showing	10	1(T1)						1	
Badger Showing	11			3(T30-32)				3	
No 9	12			2(T33-34)				2	
E. Gold Bug	13			1(T36)				1	
Gold Bug	14	2(T22-23)		3(T24-26)	8 (807.6m)			5	8 (807.6m)
Root Hill	15			5(T27-28: 37-39)	2 (226.8m)			5	2 (226.8m)
Flare Zone	16			1(T29)				1	
Cooner Zone*	17			T(36-38)		3 (I. M II)	7 (539.8m)	3	7 (539.8m)
Total								42 Trenches	57 Drill Holes

* In 1996, Maple Mark and Royal Bay conducted 100 meters of blast trenching

6.0 Geological Setting

6.1 Regional Geology

The following references on Regional Geology have been used and include: Alldrick et al (1990), Anderson (1989), Grove (1986), MacDonald et al (1992) and Rhys (1995).

The Iskut River area lies within the intermontane tectono-stratigraphic belt, one of five parallel, northwest-southeast trending belts, which comprise the Canadian Cordillera. This belt of Permian to Middle Jurassic volcanic and sedimentary rocks defines the Stikinia-Stikine Terrane. This is bounded on the west by the Coast Plutonic Complex and overlapped to the east by younger sediments of the Bowser Basin. This belt has been intruded by at least four episodes of plutonism, from Late Triassic to Oligocene-Miocene. Quaternary and Tertiary bimodal terrestrial volcanic rocks occur to the east of the Bug Lake property and to the west at Hoodoo Mountain.

Most of the Mesozoic rocks have been subjected to regional low-grade greenschist facies metamorphism. The most prominent fault direction is northeast southwest. Some displacement is suggested by the abrupt termination of various lithological units.

The oldest rock assemblage in the local area consists of Palaeozoic crinoidal limestone overlying metamorphosed sedimentary and volcanic rocks. Unconformably overlying the Palaeozoic limestone unit are Upper Triassic Group island arc volcanics and sediments, referred to informally as the "Snippaker Volcanics" and are correlated (Grove 1986) to the Unuk River Formation of the Stewart Complex. Monotis fossils have been recognized on the north slope of Snippaker Peak, two kilometres south of the Bug Lake property, and west of Newmont Lake giving a relative age date of late Triassic. This volcano-sedimentary package hosts the Reg, Snip, and Inel deposits.

An unconformity occurs between Carboniferous and Middle Jurassic strata on both sides of Snippaker Ridge, north of Snippaker Peak. The same unconformable relationship between these major rock units appears to extend from Forrest Kerr Creek west along the Iskut River to its junction with the Stikine River. The most recent interpretation suggests an east-west trending fault along the Iskut River which, like the King Salmon Thrust Fault, pushed up and over to the north.

Following the Iskut River faulting, the entire region was overlain by Middle Jurassic Hazelton Group volcanic sedimentary rocks that correlates to the Betty Creek Formation. Sub-volcanic orthoclase porphyry stocks, dated as Jurassic by MacDonald et al (1992), occur near all of the significant gold occurrences in the local area and may be genetically related to the mineralization.

Many of the mineral deposits in the local area are located within 5 kilometres of these shatter zones. Sub-volcanic orthoclase porphyry stocks, dated as Jurassic occur near significant gold occurrences in the local area and may be genetically related to the mineralization.

6.2 Property Geology

The main stratigraphic unit on the property is the Upper Triassic Stuhini Group (Anderson, 1989 and Alldrick, 1990). This Group is characterized by basic to intermediate volcanics which underlie andesitic volcanoclastics and flows as well as interbedded dark grey siltstone and fine to medium grained greywacke.

The eastern side of the property is commonly underlain by tuffs and flows of andesitic composition. Plagioclase phyric flows which grade into ash to crystal to lapilli tuffs and tuff breccias predominate. These flows contain rounded, monolithic porphyry fragments, up to 45 cm but generally less than 15 cm in diameter and plagioclase phenocrysts, to 7 mm, in a fine grained, dark green-grey matrix. The lapilli tuffs exhibit sub-angular to sub-rounded porphyritic fragments, less than 2cm across, but up to 5cm locally, in a dark green tuffaceous matrix. The crystal tuffs display up to 60% euhedral to anhedral plagioclase phenocrysts, 1 to 3 cm long, in a dark to light green-grey groundmass. The volcanic rock types are commonly interfingered and exhibit gradational contacts. A few scattered exposures of black, banded, and argillaceous siltstone were observed within the north-eastern part of the property. Sediments dominate in the northwestern part of the property. The paucity of outcrop and lack of marker units make the correlation of distinctive rock units very difficult.

The volcanic rocks are cut by a number of equigranular monzodiorite to diorite sills, plugs, and dykes. An orthoclase porphyry stock was noted in the northeastern corner of the southeast grid. Pegg (1990) observed locally, narrow aplite dykes.

Propylitic alteration of the volcanic section is widespread, especially within the north eastern part of the property. Locally, silicified pods are associated with shear zones throughout the area. In the Cooper Zone area, which is located just to the east of the Bug 3 claim on Waratah 7 claim, ankerite/siderite alteration occurs just west of the trenches.

The eastern part of the property is cut by numerous lineaments and narrow, discontinuous topographic depressions. These commonly trend northeast and northwest and probably reflect underlying faults, shear zones and/of fracture zones. The majority of these gullies trend at 070°, with a lesser number at 150°.

7.0 Mineralization

This discussion of mineralization is taken mostly from Moore & Travis (2003) and Pegg (1991) and is thus best described as historical mineralization defined in the period of 1987 through 1990. The mineralization defined in 2002 and discussed in Section 5.2 and Table 5-1 involved work that confirmed, for the most part, know historical mineralization. For details on mineralization and location of samples with respective maps and figures, the reader is referred to the references given in this Section.

Mineralized occurrences on the Bug Lake property are classified into three categories: copper-gold veins, native gold-pyrite, and copper-lead-zinc-silver-gold veins (Caulfield, 1987a). Nearly all of the mineralization does carry ubiquitous, fine-grained disseminations of magnetite and fracture fillings and/or disseminations of pyrite in amounts of trace to 1%. Quartz-carbonate veins and shears commonly have pyrite, with localized chalcopyrite, magnetite, and arsenopyrite (Pegg, 1991). The greatest number of mineralized showings consists of copper-gold veins. Seventeen different showings with significant gold values occur on the Bug Lake property as illustrated on **Figure 7-1**.

The best examples of copper-gold vein mineralization (Pegg, 1990) are the Bluff, Swamp and No. 7 veins. The mineralization consists of pyrite, chalcopyrite magnetite, and arsenopyrite within quartz-chlorite veins. Pegg (1990) reported minor bornite, chalcocite, and native copper. Generally, the gold grade varies in direct proportion to the sulphide content.

Most of the veins have northwest trends with dips ranging from steep to northwest to southwest. Some veins, although, are found along northeast trending structures and shear zones.

Golden Arrow (showing #1)

The Golden Arrow showing is a relatively unaltered monzonite intrusion, which hosts 10-30 centimetre wide quartz-chlorite veins mineralized with pyrite and native gold. Wall rock alteration is restricted to a few centimetres on either side of the vein structure and is comprised of chlorite and pyrite. The controlling structure is an east to northeast trending fracture with moderate south dip; it is offset by several northwest-southeast faults with minor right lateral movement. The entire exposed strike length is 30 meters. Three trenches were utilized in the area to expose the showing. Trench 19 returned 151.81 g/t gold over 0.23 meters in sample 15356. Trench 21 returned 53.24 g/t gold over 0.33 meters in sample 15368. Sample 15366 returned 33.78 g/t gold over 0.13 meters. Caulfield (1987a) reported another vein, which assayed 22.99 g/t gold 125 meters northwest of the Golden Arrow vein. This vein had a dissimilar strike of 135 degrees and dipping 5 degrees to the south.

River Vein (showing #2)

The River Vein, which was originally discovered in 1987 and described by Caulfield (1988), is a 2 cm to 25 cm wide quartz-chlorite vein containing pyrite, magnetite, and chalcopyrite. It was reported to be oriented at 140⁰-150⁰/45⁰-90⁰ SW, exposed for 50 meters and hosted by volcanic agglomerate. Two grab samples collected from the River Vein in 1987 returned 36.79 and 3.77 g/t gold. Thirteen samples collected south of the vein area, contained values ranging from 1.16 g/t to 4.62 g/t gold but across very narrow widths. Two areas of nearby anomalous (60 to 170 ppb) gold-in-soils are also reported.

Investigations in 1990 (Pegg, 1991) revealed sheared and locally gossanous quartz veins which carry 5-7% pyrite, 1-5% magnetite, and trace to 3% chalcopyrite. The mineralization is generally found in the form of small lenses of semi-massive to massive sulphides. At one point,

it reaches a width of 35 cm and contains 2 quartz veins, 4 and 6 cm wide. The main showing exposed the structure for a 5-meter strike length. Along strike to the southeast, a narrow, 1 to 2 centimetres wide, quartz vein with minor pyrite and magnetite is present.

Chip samples collected from the main structure revealed very erratic gold values along strike. The chip samples taken across the exposure to the southeast returned only anomalous gold values. Pegg (1991) concluded that the original grab samples were "high-graded" from the narrow quartz veins, resulting in little potential for economic mineralization.

No. 11 Vein (showing #3)

Trench and soil sample results in this area were disappointing (Caulfield, 1988). Three grab samples from this area contained moderately encouraging gold values (up to 3.43 g/t) but were collected from very narrow veins (0.05-0.10m).

Swamp Vein (showing #4)

In 1987, the Swamp vein tested by two trenches and six drill holes totalling 251.5 metres. Caulfield (1988) indicate pod-like auriferous mineralization is discontinuous and erratic both along strike to the southeast and at depth. Trenches 7 and 8 revealed irregular, semi-massive to massive sulphide pods, which vary in width from 30 to 70 cm. The sulphides are comprised of pyrite, >magnetite, and >chalcopyrite. Chip sample results ranged up to 214.16 g/t gold across 1.90 meters from trench 7 and 49.95 g/t gold over 0.34 m in trench 8. The best drill intercept was 12.57 g/t gold over 0.25 m in drill hole H87-14. The vein has a northwest trend.

Work in 1990 (Pegg, 1991) did not reveal any significant mineralization along strike to the northwest of the Swamp Vein trenches. Only the very narrow, gold-bearing quartz veins, which were previously sampled, were located.

A 0.75m long chip sample from the Swamp vein, which consists of massive pyrite, chalcopyrite and magnetite, assayed 344.00 g/t gold.

X-cut Vein (showing #5)

The two trenches, which are 11 meters apart, revealed moderate gold values (0.58 and 6.85 g/t over very narrow widths (0.12 and 0.10 m). A third trench encountered 35.29 g/t gold over 0.25 meters.

Bluff Vein (showing #6)

Trench and drill testing indicates that the gold mineralization is narrow and erratic; both along strike and down dip. Faulting has broken up the vein structure, at least locally. A drilling program in 1987 (Caulfield, 1987a) indicated that the mineralization extended to a depth of 75 m in hole 27. Ten of the 11 holes intersected quartz veining with gold values exceeding 6.85 g/t gold. A 2.5 m mineralized intersection from one drill hole assayed 8.7 g/t gold. The five drill sections, 25 to 35 m apart, have adequately tested this zone.

Helipad Veins (showings # 7)

Trenching in 1988 (Caulfield, 1989) revealed narrow (0.15 to 0.40 m) veins with discontinuous gold +/- copper mineralization.

Mag Vein (showing # 8)

Trench sampling results from this zone indicate that significant gold grades, up to 7.09 g/t over 1.30 m in width and limited strike length. The vein is defined by a single point, gold-in-soil anomaly, which assayed 11,900 ppb gold from a detailed 25 by 25 meter grid. A few soil

samples to the south and southeast contained enhanced to anomalous gold values. One grab sample to the northeast contains anomalous gold but over a very narrow width.

The No. 7 (showing #9)

The No. 7 vein comprises massive lenses of pyrite, chalcopyrite, and magnetite. A 1.0 m sample taken from trench 9 assayed 71.60 g/t gold, 89.48 g/t silver and 0.41% copper (Caulfield, 1987a). This zone has been adequately tested along six drill sections, 18 to 50 meters apart. Five of the six holes intersected the main vein structure. Overall, the gold grades obtained from the drilling were not as high as reported from the trench sampling. The gold mineralization is narrow, erratic and discontinuous both along strike and down dip. The vein was delineated over a strike length of 120 meters. The best drill intersection was 5.93 g/t gold over 3.00 meters. The soil geochemical results indicate a restricted strike potential.

Lake Showing (showing # 10)

Trenching (Caulfield, 1988) indicates erratic, pod-like, and faulted mineralization with good to poor gold grades. One high-grade grab sample collected along strike to the south, assayed 4.32 g/t gold. To the east, one float sample and one grab sample carried enhanced gold values. Gold-in-soil results were low.

Badger Vein (showing # 11)

Trench results (Caulfield, 1987a) from this zone indicate significant (up to 15.31 g/t) gold mineralization over a narrow width (0.65m) but over a very limited strike length. Two grab samples and two soil samples from the general area contain anomalous gold values.

No. 9 Showing (showing # 12)

The showing area is underlain by andesitic lapilli tuff and agglomerate. Propylitic alteration, especially epidote, is very pronounced in the vicinity of the vein. The zone itself displays extensive but discontinuous silicification, bleaching, fracturing, and limonitic patches. Minor amounts of pyrite were observed throughout the fractured and bleached tuffs within the trenches. In trench #33, a twenty centimetre-wide shear zone composed of oxidized and bleached silicified material contains 2% pyrite. This shear zone is not present in trench 34, only 14 meters along strike to the southeast. The shear zone has an apparent northwest trend.

During 1988, prospecting in the vicinity of gold-in-soil anomalies returned a grab sample which assayed 9.56 g/t gold. This was collected from a zone reported (Caulfield, 1988) to be 2 meters wide. Two trenches were excavated across this zone and revealed very erratic and discontinuous mineralization. The chip sample results from the trenches did not correlate with those obtained from the grab sample.

During 1990 (Pegg, 1991), the two trenches were re-sampled and their results confirmed the very low values obtained during the previous sampling program. No significant mineralization was noted along strike to the northwest. The soil sample results outline an east-west trending gold anomaly of >200 ppb gold, which extends for approximately 220 meters and is open to the west. Several single-point gold-in-soil anomalies were noted in the general vicinity.

East Gold Bug (showing #13)

Chip samples results for a trench indicate low grade and erratic gold values over relatively narrow widths. Gold-in-soil sample results are low.

Gold Bug (Showing # 14)

The Gold Bug showing is located on the western side of the Bug Lake property and is reported (Caulfield, 1988) to have a strike length of 60 meters. Mineralization in the zone is composed of semi-massive pyrite, magnetite, and chalcopyrite within quartz-chlorite veins that are characterized by the presence of sphalerite and galena. The lead and zinc mineralization is accompanied by lower gold values, generally between 0.3 to 3.4 g/t. The veins are similar to the copper-gold veins on the Bug 3 claim. A narrow alteration envelope consists of pervasive chlorite-carbonate alteration penetrated by a network of carbonate-quartz-pyrite veinlets adjacent to the vein walls.

An 0.85 meter chip sample from trench 22, taken across a massive sulphide zone (pyrite, magnetite, chalcopyrite), in a quartz-chlorite vein called the Upper Gold Bug vein, assayed 10.29 g/t gold, 20.4 g/t silver, 0.4% copper, 0.03% lead and 0.86% zinc. One meter along strike to the northwest and southeast, the grades drop off to less than 4.97 g/t gold over a similar width. A select grab sample taken from a 20 by 40 cm pod within this vein assayed 20.1 g/t gold, 16.5 g/t silver, 0.4% copper, 0.03% lead and 0.39% zinc. Samples taken in 1988 (Caulfield, 1988) from trenches in the Gold Bug Zone ranged from 7.37 g/t gold over 0.3 m to 29.7 g/t gold over 0.77 meters.

Boot Hill (Showing # 15)

The trenching and drilling generally indicated low-grade veins over narrow widths, although two chip samples from the trenches were of interest. From trench #27, one chip sample, assayed 14.39 g/t gold, and 0.96% zinc over a length of 1.10 meters. Trench 38 produced a chip sample that ran 5.07 g/t gold, 93.9 g/t silver and 1.54% lead over 0.85 meters. The other samples from the trenches did not reflect these grades, nor did the drilling. The drilling could not duplicate the high-grade results from trench 27. This may indicate a discontinuous, pod style of mineralization.

Flare Zone (Showing #16)

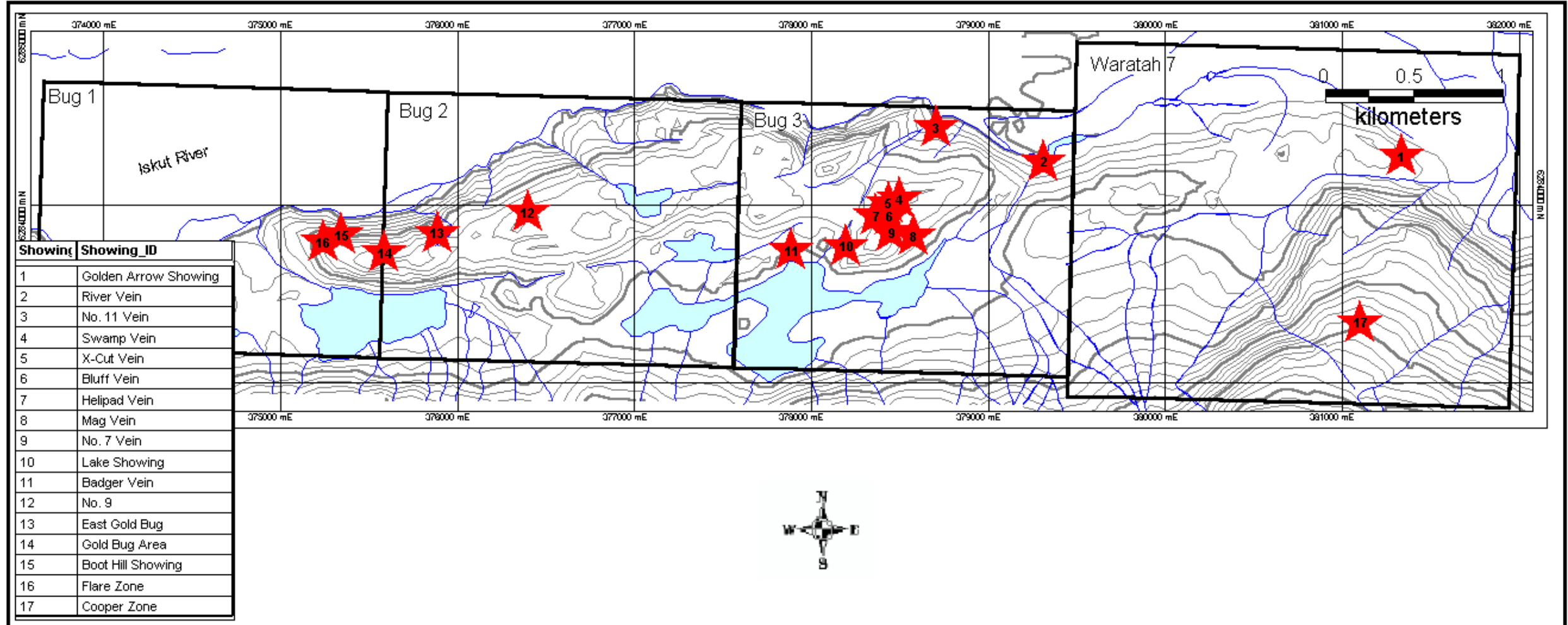
In 1988, trenching (TR-29) on the Flare Vein revealed a 1.7-meter wide quartz +/- chlorite vein hosted by greywacke. The initial grab sample from this vein returned 1.41% zinc, 0.14 g/t gold, and 5.8 g/t silver. Subsequent chip sampling returned values up to 0.89% zinc, 0.10% lead, 0.82 g/t gold and 20.6 g/t silver across 0.5 meters. A float sample, 1.2 x 0.6 meters in area, was collected 27 meters to the south. It assayed 25.80 g/t gold, 158.3 g/t silver, 5.24% lead, and 17.90 % zinc.

During 1990, (Pegg1990) re-chip sampled trench #29. The quartz vein is 0.70 meters wide and can be traced for 8 meters along strike. Up to 1% sphalerite and galena, in the form of 0.3 cm wide pods, and minor pyrite, as 3 to 4 cm wide lenses, are concentrated along the margins of the vein. The veining is controlled by a narrow, 2 to 15 centimeter wide shear zone that has 160 degree/ 50 degree northeast dip. Narrow quartz-carbonate veining to the east, known as the Boot Hill Zone, returned low to moderate zinc values but background levels of gold.

Cooper Zone (Showing #17)

The Cooper Zone was investigated for a 76 ppb gold-in-soil anomaly. Mineralization is comprised of up to 10% pyrite in fracture fillings, stringers, and pods. The mineralization is associated with quartz veinlets and lenses; the rock host is an andesitic tuff. The entire mineralized zone appears to have a strike of 110-120 degree dip and striking north (Pegg, 1991). Three trenches were blasted; the best results were from the Lower Trench, where 24.56 g/t gold was returned over a sample length of 2.5 meters. This intersection included 0.50 meters of 103.91 g/t gold. The Centre Trench returned 20.21 g/t gold over 1.45 meters. This

intersection was not entirely exposed due to terrain. The Upper Trench returned 15.18 g/t gold over 1.0 meter. Seven diamond drill holes were completed on the Cooper Zone. Best results were from drill hole W90-03 which returned 34.57 g/t gold over 0.45 meters and 13.09 g/t gold over 0.61 meters. Other positive results were from drill hole W90-02; this returned 19.87 g/t gold over 0.68 meters. W90-04 also intersected the Cooper Zone returning 2.81 g/t gold over 1.07 meters. Drill hole W90-1, W90-5, 6 and 7 did not intersect the Cooper Zone (Pegg, 1991). Pegg (1991) concluded from the work that the Cooper Zone was a complex structure, which lacked continuity and depth; it is possible that shallow dipping shears noted in the trenches may terminate or offset mineralization at depth. Detailed correlation studies of the seven drill holes with the surface workings should be completed as well as detailed mapping and prospecting west of the Cooper Zone grid.



NEWCASTLE MINERALS LTD.
Historical Mineral Showings on the Bug 1,2,3 and Waratah 7 Claims
FIGURE 7-1

(from Moore & Travis, 2003)

8.0 2008 Field Program

8.1 Introduction and Background

Previous work, outlined in **Section 5**, had resulted in the discovery of 17 gold occurrences distributed about the Bug-Waratah claims. The focus of the 2008 program was to evaluate known sulphide exposures and to prioritize areas for further exploration. The 2008 evaluations involved prospecting and collecting rock and soil samples.

8.2 Geochemical Rock Survey & Sampling Method & Approach

Locations of the 37 rock samples are shown on **Figure 8-1**, and a summary of sample descriptions is included as **Table 8-1**. Assay results from ACME Labs are given in **Appendix B**. Samples were collected from the Cooper, Bluff, No. 7, Lake, and Badger showings. Additional rock samples were collected from outcrops or float boulders consisting of altered rock. Some samples are specimens of rock, while others are chip samples collected over intervals as indicated in **Table 8-1**. A Garmin GPS 72 unit recorded sample locations.

Bedrock underlying the Bug-Waratah area typically consists of green to gray fragmental volcanics (basic to intermediate). Shear zones and fractures occur in a variety of styles and orientations. Veining at some showings has occurred along foliated shear zones, while at others shearing is not evident. Sulphide occurrences in the various showings range from irregular disseminations to massive pods, with zones bearing more than about 1% sulphide usually associated with quartz +/- carbonate veining or vein wall rock alteration. Summaries specific to individual areas of interest follow.

The Cooper Zone, situated about 2000m east-southeast of the old Centre Baseline area (**Figure 8-1**), consists of multiple quartz veins and strongly silicified volcanics exposed in a series of three blasted trenches. Vein orientations are irregular and occasionally crosscutting, but the zone strikes about 090° and dips steeply. Pyrite concentrations in veins and in wall rock range from <1% to massive. Among the three trenches, mineralization is exposed over an area about 90m wide. Five rock specimens from the Cooper Zone (697008 – 697012) were submitted for laboratory analysis.

Prospecting during 2008 led to the discovery of a quartz vein/shear zone at a location 450m east-southeast of the Cooper Zone. The new discovery is identified on **Figure 8-1** as the Water Pump Vein, after a historic pumping station in a nearby creek. The showing is situated on the north slope of a local east-trending ridge having about 5m relief. The south slope of the ridge drops to a linear topographic low, which may represent the surface expression of a structural bedrock feature such as a fault. The 0.10m wide quartz vein is contained within, and parallel to, a 0.20m wide shear zone within volcanics. The vein's attitude is parallel to the shear zone at 140°/75NE, and contains fine-grained, semi-massive pyrite bands up to 0.02m wide and 0.08m long. Rock sample No. M500314 is a pyrite specimen, while No. M500315 is a 0.2m long chip sample collected across the shear zone.

The Badger vein, situated near the north shore of Bug Lake (**Figure 8-1**), consists of a 4m long trench that has been blasted across quartz veins in sheared and silicified volcanic bedrock. Pyrite is inconsistently disseminated. Five rock samples were collected from the Badger trench, including sample No. M500313, a 1m long chip sample across the mineralized vein zone, and four mineralized specimens (697001 – 697004).

The Lake Showing (**Figure 8-1**) consists of an orange-yellow weathering shear zone and several quartz veins exposed in a 30m long trench blasted into volcanic bedrock. The attitude of the veins and mineralized fracture is 085°/90, while another prominent fracture set trends 045°/80NW. About 1% disseminated pyrite is typically present, except at the edge of the shear zone (near the center of the trench), where a pod of fine to medium grained massive pyrite measures 0.4m long by 0.1m wide. The attitude of the pyrite pod is 030°/80NW. Rock sample No. M500319 consists entirely of the pyrite pod. Rock sample M500318 is a 0.3m long chip sample collected across a quartz vein and strongly altered, pyritic volcanics 7m from the northern end of the trench. Rock sample No. M500319, collected near the northern end of the trench, is a 0.6m long chip sample across light to medium gray volcanic rock containing 1% disseminated pyrite and fine pyrite as fracture coatings.

A bedrock exposure thought to be the Bluff Vein (**Figure 8-1**) consists of strongly foliated, altered volcanics that is exposed in two 5m long outcrops adjacent to a linear topographic low. The two exposures are separated by about 8m. The rock weathers orange, and contains ½ to 2% pyrite. Sample M500316 is a 0.2m long chip sample across strongly foliated volcanics in the western exposure, which contains no quartz veining. The attitude of foliation in the western exposure is 110°/70NE. Sample M500321, collected from the eastern exposure, is a 0.6m long chip sample across foliation and a 0.07m wide quartz vein. The eastern exposure is a rusty zone containing ½ to 5% pyrite as disseminations (grains up to 1mm wide) and fracture coatings. Trace arsenopyrite is present, as well as pods of massive galena measuring up to 0.04m long and 0.01m wide. Disseminated magnetite euhedra (<1%) measure up to 1mm wide. Galena clots were noted within the quartz vein, while pyrite is concentrated in wall rock adjacent to the vein. The foliation and vein in the eastern exposure trend 155°/85NE.

The No. 7 vein showing, exposed in a natural outcrop (**Figure 8-1**), consists of a 0.05m wide quartz vein with strongly altered adjacent wall rock. Bands of massive pyrite are present within the vein, while massive magnetite bands were noted in wall rock along its margin. Rare clots of galena and bornite are present. Rock samples M500324 – M500327 are a series of contiguous chip samples, each 0.3m long, across the 1.2m wide mineralized zone.

The bedrock exposure identified as “Michael” on **Figure 8-1** is an occurrence of dark green-gray fractured and silicified volcanics situated on a local topographic knob. Pyrite occurrence ranges from an occasional grain to 2% disseminated. The main exposure measures about 10m long by 2m wide, trending approximately north-south. Bedrock in the northern portion of the outcrop is porphyritic (felsic phenocrysts of up to 2mm long), and non-magnetic, and containing about 1% disseminated pyrite grains to 0.5mm wide. Rock in the southern portion is dark gray, aphanitic, and also non-magnetic. Three rock samples were collected to test rock geochemistry at the Michael exposure. These include Nos. 697052 and M500312 from the northern part of the exposure, and No. 697051 from the southern part. The most significant analytical result was obtained from rock sample No. 697052, a specimen containing about 1% disseminated pyrite, and which 39 g/t silver (G6) and <2g/t silver (7AR); re analyses of this sample is required.

Topography of the east-facing slope to the north and east of the helipad (**Figure 8-1**) is marked by recessive linear zones oriented east-west. The Bluff sulphide showing is hosted by sheared and altered volcanics on the edge of such a recessive zone. Two rock samples (M500322, M500323) were collected from float boulders within linear recessive zones, as were some of the reconnaissance soil samples.

8.3 Geochemical Rock Survey Results and Interpretation

The 2008 rock geochemical program has helped evaluate the nature of mineralization at known sulphide occurrences on the Bug/Waratah claims, and also helped focus future exploration targets. Several types of mineralization are seen, suggesting multiple phases or styles of mineralization. Notably, silver-rich galena is seen in some veins, but absent in others. Similarly, gold occurs in some veins with arsenopyrite, while in other gold-bearing veins the arsenic concentration was below the detection limit. A summary of sample descriptions is included as **Table 8-1**, and geochemical results are discussed in the following paragraphs. **Please note that g/t (grams per tonne) and gm/mt (grams per metric tonne) are used interchangeably.** Acme Labs reports rock gold values as gm/mt and rock silver values as gm/mt in and soil silver values as ppm in soils.

The Cooper Showing is an occurrence of quartz veins containing massive sulphides. Gold concentrations of up to 21.03 g/t were found in mineralized specimens. While the Cooper Showing has been evaluated by previous work including drilling, outlying soil geochemical anomalies remain unexplained, and previous recommendations for following up (Pegg, 1991, and Moore and Travis, 2003) remain valid.

The Badger showing, situated near the north shore of Bug Lake, consists of sheared rock and several quartz veins. A chip sample across a 0.05 m wide vein (M500313) contained gold and silver concentrations of 2.01 g/t and 4 g/t, respectively, while a mineralized specimen with abundant sulphides contained 22.91 g/t gold and 36 g/t silver.

Specimens of relatively unaltered volcanic rock collected from south end of the Lake trench contained silver values of up to 6 g/t. The highest precious metals grades from the Lake Showing samples were obtained from a 0.3 m long chip sample across pyritic, chlorite and clay altered volcanics (M500318). Gold and silver concentrations in this sample were 18.04 g/t and 28 g/t, respectively. A specimen of massive pyrite collected from a 0.1m wide pod in a vein contained 1.72 g/t gold and 65 g/t silver.

Samples collected from the Bluff vein/shear zone include a 0.2m wide chip sample (M500316) across chlorite-altered volcanic rock containing disseminated pyrite and magnetite, which contained 3.58 g/t gold and 19 g/t silver. A 0.6 m wide chip sample (M500321) collected about 7 m along strike from M500316 contains 30.21 g/t gold and 18 g/t silver.

A series of three contiguous chip samples (M500325 – M500327) collected across the No. 7 vein returned a weighted average of 29.29 g/t gold and 30 g/t silver across a width of 0.9m. The style and volume of mineralization seen at the No. 7 Showing, including pods and bands of massive sulphides across 0.9m, is suggestive of economic significance.

A rock sample obtained from an angular to sub angular float boulder (M500323) contained 6.98 g/t gold and 146 g/t silver. The rock consisted of crystal porphyry containing epidote and quartz veins to 5mm thick, and pervasive chlorite alteration. While its bedrock source is not known, the size and shape of the rock suggest that it has not been transported a great distance. This style of mineralization was not observed in outcrop, suggesting that a local mineralized zone may remain undetected beneath overburden.

8.4 Geochemical Soil Survey & Sampling Method & Approach

A total of 33 soil samples were collected from within the Bug 3 claim during 2008. Sample locations are plotted on **Figure 8-2**. Twenty-nine soil samples were collected from the old centre base-line mineralized area on the Bug 3 claim, where thin overburden and good soil horizon development were noted. Of these, 19 soil samples were collected at 20m intervals along three grid lines, while 9 samples were collected within topographic low areas. The remaining 5 samples were collected in the vicinity of an exposure of silicified volcanics identified as the Michael exposure. A Garmin GPS 72 unit recorded sample locations.

Soil samples were collected using either a long-handled shovel or a grub hoe, and placed into kraft soil sample bags. Sampled material typically consisted of orange-brown to brown "B" horizon soil collected at depths ranging from 0.2 to 0.4m. Soil composition ranged from silt with a trace of sand and a trace of clay to sandy gravelly silt. Gravel was typically sub angular and soil texture was loose to firm, suggesting colluvial deposition.

8.5 Geochemical Soil Survey Results and Interpretation

Soil geochemistry values are presented on **Figures 8-3** through **8-6** and the analytical results from Acme Labs is given in **Appendix B**. By applying regional thresholds, anomalous soil geochemical values are apparent for each of gold, silver, copper, and lead. Anomalous values are indicated by red text on the figures.

At several locations, anomalous values for multiple elements coincide. This often indicates mineral associations such as silver in galena, or gold with arsenopyrite.

An example of multi-element geochemical anomalies is in soil collected at grid station L450E 820N (the southwest corner of the soil grid), which contained anomalous concentrations of silver, copper, and lead. The sample was collected about 7m east (downhill) of the No. 7 Vein, confirming that soil geochemistry at this location is responsive to bedrock mineralization. This sample was not analyzed for gold because insufficient soil pulp was available for the lab to perform the fire assay.

Another site at which soil concentrations are anomalous for multiple elements is sample AB08-4, located north of the Michael exposure. While bedrock mineralization in the outcrop is relatively subtle, the anomalous soil geochemistry suggests that significant (as yet undetected) mineralization may be present beneath overburden

**TABLE 8-1
ROCK SAMPLE DESCRIPTIONS**

Sample No.	UTM Easting	UTM Northing	Location	Sampler	Interval (m)	Rock Type	Alteration	Mineralization	Comment	Au (g/mt)	Ag (g/mt)	Cu (%)
697001	377,880	6,283,694	Badger Showing	LS	specimen	qtz vein		cpy, bn, py, mg	0.3m wide vein	22.91	36	1.44
697002	377,880	6,283,694	Badger Showing	LS	specimen	volc	rusty		footwall of vein	0.55	3	0.09
697003	377,880	6,283,694	Badger Showing	LS	specimen	qtz vein		cpy, bn, py, mg	0.3m wide vein	11.4	13	0.46
697004	377,880	6,283,694	Badger Showing	LS	specimen	green qtz		cpy, py, mg	0.2m wide vein	0.62	2	0.06
697005	377,930	6,283,370	Penninsula	LS	specimen	Bleached andesite	sil	py		0.02	<2	0.01
697006	378,216	6,283,254	Talus	LS	Float spec	Brxx w. qtz carb inclusions				<0.01	<2	0
697007	378,216	6,283,254	Talus	LS	Float spec	qtz vein				<0.01	<2	0
697008	380,604	6,282,811	Cooper Showing	GB	specimen	Qtz vein, green-grey volc.		py, aspy?, cpy		21.03	26	0.11
697009	380,604	6,282,811	Cooper Showing	GB	specimen	Qtz vein, green-grey volc.		py, aspy?, cpy		14.91	29	0.14
697010	380,604	6,282,811	Cooper Showing	GB	specimen	Qtz vein, green-grey volc.		py, aspy?, cpy		1.57	6	0.1
697011	380,604	6,282,811	Cooper Showing	GB	specimen	Qtz vein, green-grey volc.		py, aspy?, cpy		0.02	<2	0.01
697012	380,604	6,282,811	Cooper Showing	GB	specimen	Qtz vein, green-grey volc.		py, aspy?, cpy		5.02	9	0.1
697013	378,339	6,283,755	No. 7 Helipad	GB	specimen	Green-grey volc.				<0.01	<2	0
697014	378,339	6,283,755	No. 7 Helipad	GB	specimen	Green-grey volc.				0.02	<2	0.01
697015	378,339	6,283,755	No. 7 Helipad	GB	specimen	Green-grey volc.				L.N.R.	L.N.R.	L.N.R.
697016	378,339	6,283,755	No. 7 Helipad	GB	specimen	Green-grey volc.				<0.01	<2	0.01
697017	378,293	6,289,498	Flyway	GB	specimen	Green-grey volc.				<0.01	<2	0.01
697018	378,109	6,283,695	Lake Showing	GB	specimen	Green-grey volc.				0.02	6	0.05
697019	378,109	6,283,695	Lake Showing	GB	specimen	Green-grey volc.				0.15	<2	0.04
697051	377,937	6,283,867	Michael	LS	specimen	Green-grey volc.				0.05	<2	0.01
697052	377,937	6,283,867	Michael	LS	specimen	Green-grey volc.				<0.01	<2	0.01

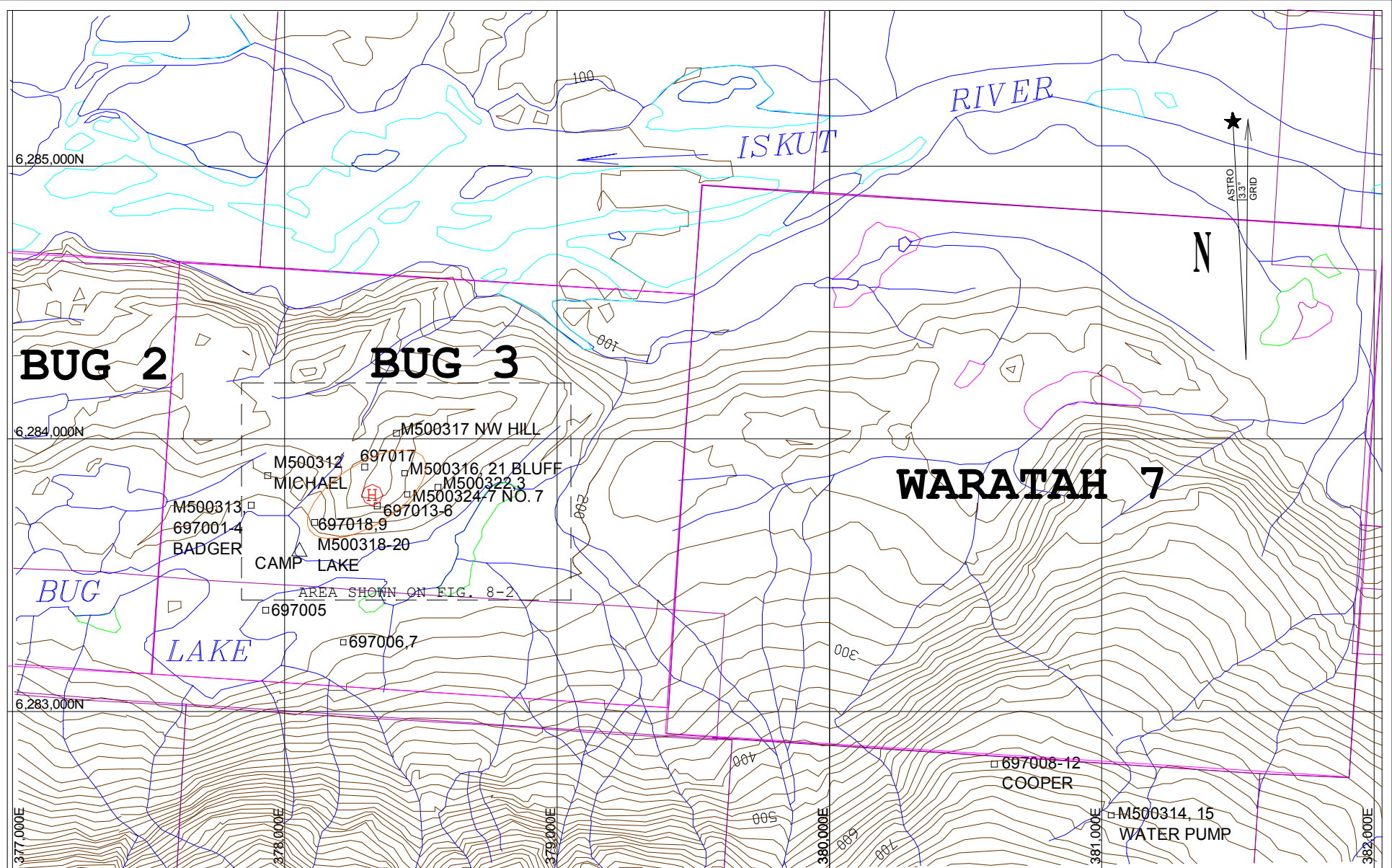
**TABLE 8-1
ROCK SAMPLE DESCRIPTIONS**

Sample No.	UTM Easting	UTM Northing	Location	Sampler	Interval (m)	Rock Type	Alteration	Mineralization	Comment	Au (g/mt)	Ag (g/mt)	Cu (%)
M500312	377,937	6,283,867	Michael	AB	0.50	Green-grey volc.	sil	py		<0.01	<2	0.01
M500313	377,879	6,283,720	Badger Showing	AB	0.05	Green-grey volc.	chl, sil	py		2.01	4	0.1
M500314	381,036	6,282,610	Water Pump Vein	AB	specimen	qtz vein		py		0.58	3	0.01
M500315	381,036	6,282,610	Water Pump Vein	AB	0.20	Qtz vein, green-grey volc.	chl, cl	py		0.26	2	0.01
M500316	378,440	6,283,875	Bluff Vein	AB	0.20	weathered green volc.	chl	mg, py	shear zone	3.58	19	0.11
M500317	378,410	6,284,020	NW Hill	AB	specimen	Green-grey volc.	chl	mg, py	Weakly foliated, fine compositional banding, 1/2% dissem py	0.06	<2	0.01
M500318	378,120	6,283,670	Lake Showing	AB	0.30	Green volc.	chl, cl	py	weathers orange/yellow	18.04	28	0.12
M500319	378,120	6,283,670	Lake Showing	AB	0.60	Light to med grey volc.	sil	py	weathers rusty	0.03	<2	0.02
M500320	378,447	6,283,875	Lake Showing	AB	specimen	massive sulphide		py	0.1 x 0.4m sulphide pod	1.72	65	0.81
M500321	378,447	6,283,875	Bluff Vein	AB	0.60	Green volc.	chl, cl	py, gl, aspy	Shear zone >0.6m wide, 1% dissem. py, 0.07m qtz vein	30.21	18	0.03
M500322	378,562	6,283,824	East of Bluff Vein	AB	float cobble				Angular	0.13	7	0.08
M500323	378,549	6,283,826	East of Bluff Vein	AB	float boulder	dk. green crystal porphyry	chl, ep, qtz	py	Angular to subangular, occas dissem py <0.5%	6.98	146	0.13
M500324	378,450	6,283,798	No. 7 Vein	AB	0.30	Qtz vein, green-grey volc.	chl, ep	py, mg	M500324 – 27 contiguous across 1.2m shear zone. Qtz vn 5cm thick, dissem py, bands of massive fine-gr py, mg, rare bn.	0.12	<2	0.02
M500325	378,450	6,283,798	No. 7 Vein	AB	0.30	Qtz vein, green-grey volc.	chl, ep	py, mg		40.92	46	0.42
M500326	378,450	6,283,798	No. 7 Vein	AB	0.30	Qtz vein, green-grey volc.	chl, ep	py, mg		26.38	23	0.12
M500327	378,450	6,283,798	No. 7 Vein	AB	0.30	Qtz vein, green-grey volc.	chl, ep	py, mg		20.57	21	0.08

Notes:

1) Samples collected by: GB - Gord Brody; LS – Lou Straith; AB – Arnd Burgert

2) Geological abbreviations: chl – chlorite; ep – epidote; py – pyrite; mg – magnetite, gl – galena; bn – bornite; qtz – quartz; cpy – chalcopyrite; sph – sphalerite; aspy – arsenopyrite; sil – siliceous; cl – clay; dissem – disseminated; vn – vein; gr – grained; brxx – breccia



PRODUCED AT
1:20,000
0 100 200 300m

- 697005 ROCK SAMPLE LOCATION WITH SAMPLE NUMBER
- CLAIM BOUNDARY
- OLD CENTRE BASELINE AREA
- Ⓜ HELICOPTER PAD

NEWCASTLE
Nowcastic Minerals Ltd.

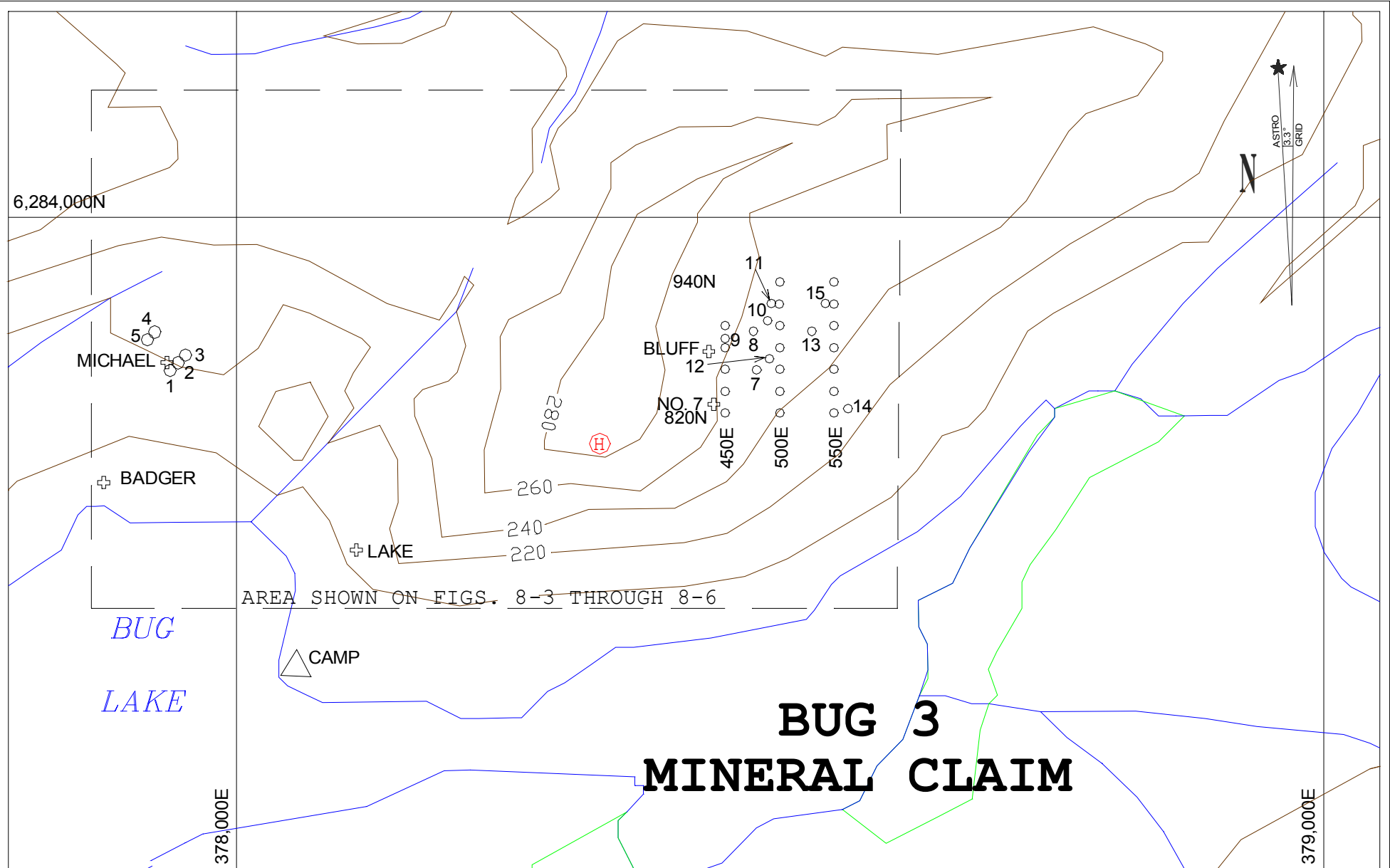
**ARND BURGERT
CONSULTING, LTD.**

GEOCHEMICAL SOIL AND
ROCK SURVEY REPORT

ROCK SAMPLE
LOCATIONS

DRAWN BY AB	DATE SEP 08
APPROVED	FIGURE 8-1

NOTES:
1) UTM COORDINATE DATUM IS NAD 83.
2) SEE ROCK SAMPLE DESCRIPTIONS IN TABLE 8-1.



PRODUCED AT
1:5,000
0 25 50 75m

- LEGEND**
- 8 SOIL SAMPLE LOCATION WITH SAMPLE NUMBER
 - ⊕ AREA OF INTEREST
 - Ⓜ HELICOPTER PAD

NOTES:
 1) NUMBERED SOIL SAMPLES ARE PREFIXED WITH "AB08-".
 2) UTM COORDINATE DATUM IS NAD 83.

NEWCASTLE
 Newcastle Minerals Ltd.

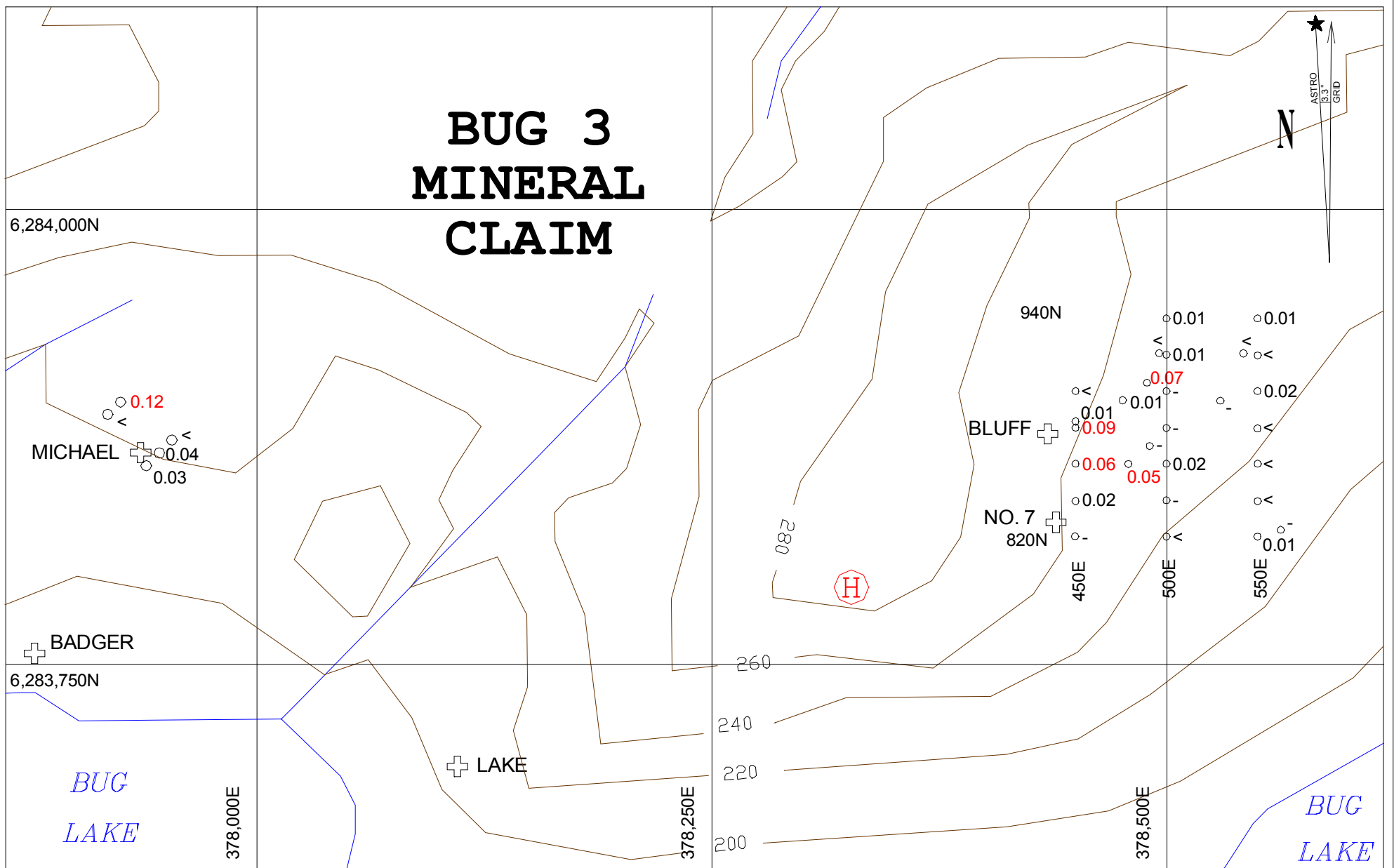
**ARND BURGERT
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GEOCHEMICAL SOIL AND
 ROCK SURVEY REPORT

SOIL SAMPLE LOCATIONS

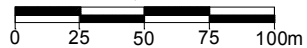
DRAWN BY AB	DATE SEP 08
APPROVED	FIGURE 8-2

BUG 3 MINERAL CLAIM



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1:3,000

LEGEND



○0.03 SOIL SAMPLE LOCATION WITH
GOLD VALUE IN g/mt

⊕ AREA OF INTEREST

Ⓜ HELICOPTER PAD

- NOTES:
 1) UTM COORDINATE DATUM IS NAD 83.
 2) '<' MEANS LESS THAN THE DETECTION LIMIT OF 0.01.
 3) '-' MEANS THIS SAMPLE NOT ANALYZED FOR GOLD.
 4) **RED** NUMBER INDICATES ANOMALOUS VALUE.



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GOLD SOIL
GEOCHEMISTRY

DRAWN BY AB	DATE OCT 08
APPROVED	FIGURE 8-3

BUG 3 MINERAL CLAIM

6,284,000N

BADGER

6,283,750N

BUG
LAKE

378,000E

LAKE

378,250E

940N
BLUFF

NO. 7
820N

260

240

220

200

450E

500E

550E

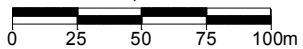
378,500E

BUG
LAKE



PRODUCED AT
1:3,000

LEGEND



○37.7 SOIL SAMPLE LOCATION WITH SILVER VALUE IN PARTS PER MILLION

⊕ AREA OF INTEREST

Ⓜ HELICOPTER PAD

NEWCASTLE
Newcastle Minerals Ltd.

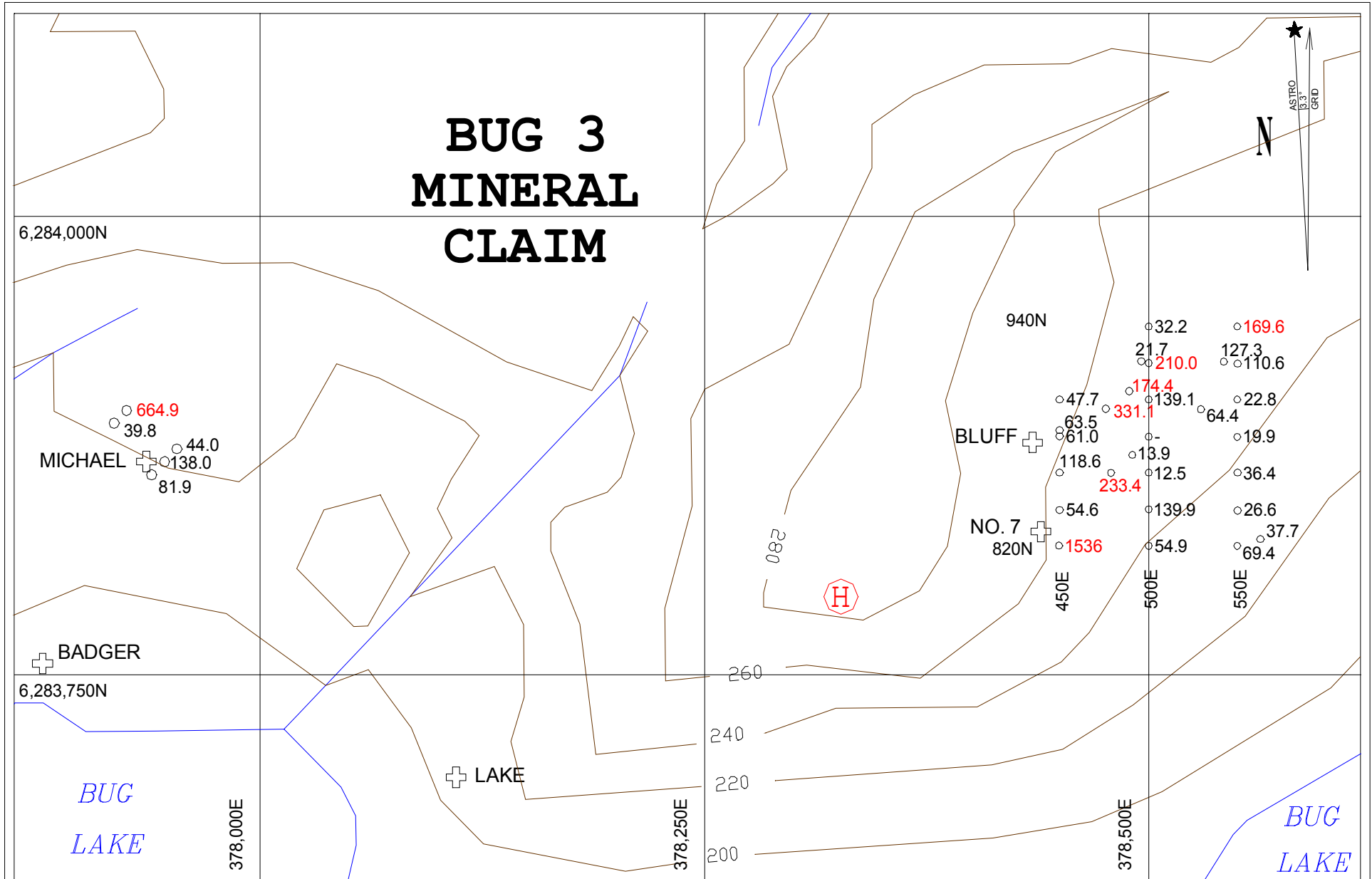
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GEOCHEMICAL SOIL AND
ROCK SURVEY REPORT

SILVER SOIL
GEOCHEMISTRY

DRAWN BY AB	DATE OCT 08
APPROVED	FIGURE 8-4

- NOTES:
- 1) UTM COORDINATE DATUM IS NAD 83.
 - 2) '<' MEANS LESS THAN THE DETECTION LIMIT OF 0.5 PPM.
 - 3) '-' MEANS THIS SAMPLE NOT ANALYZED FOR SILVER.
 - 4) RED NUMBER INDICATES ANOMALOUS VALUE.



PRODUCED AT
1:3,000



LEGEND

○37.7 SOIL SAMPLE LOCATION WITH
COPPER VALUE IN PARTS PER MILLION

⊕ AREA OF INTEREST

Ⓜ HELICOPTER PAD

- NOTES:
 1) UTM COORDINATE DATUM IS NAD 83.
 2) ' ' MEANS THIS SAMPLE NOT ANALYZED FOR COPPER.
 3) RED NUMBER INDICATES ANOMALOUS VALUE.

NEWCASTLE
Newcastle Minerals Ltd.

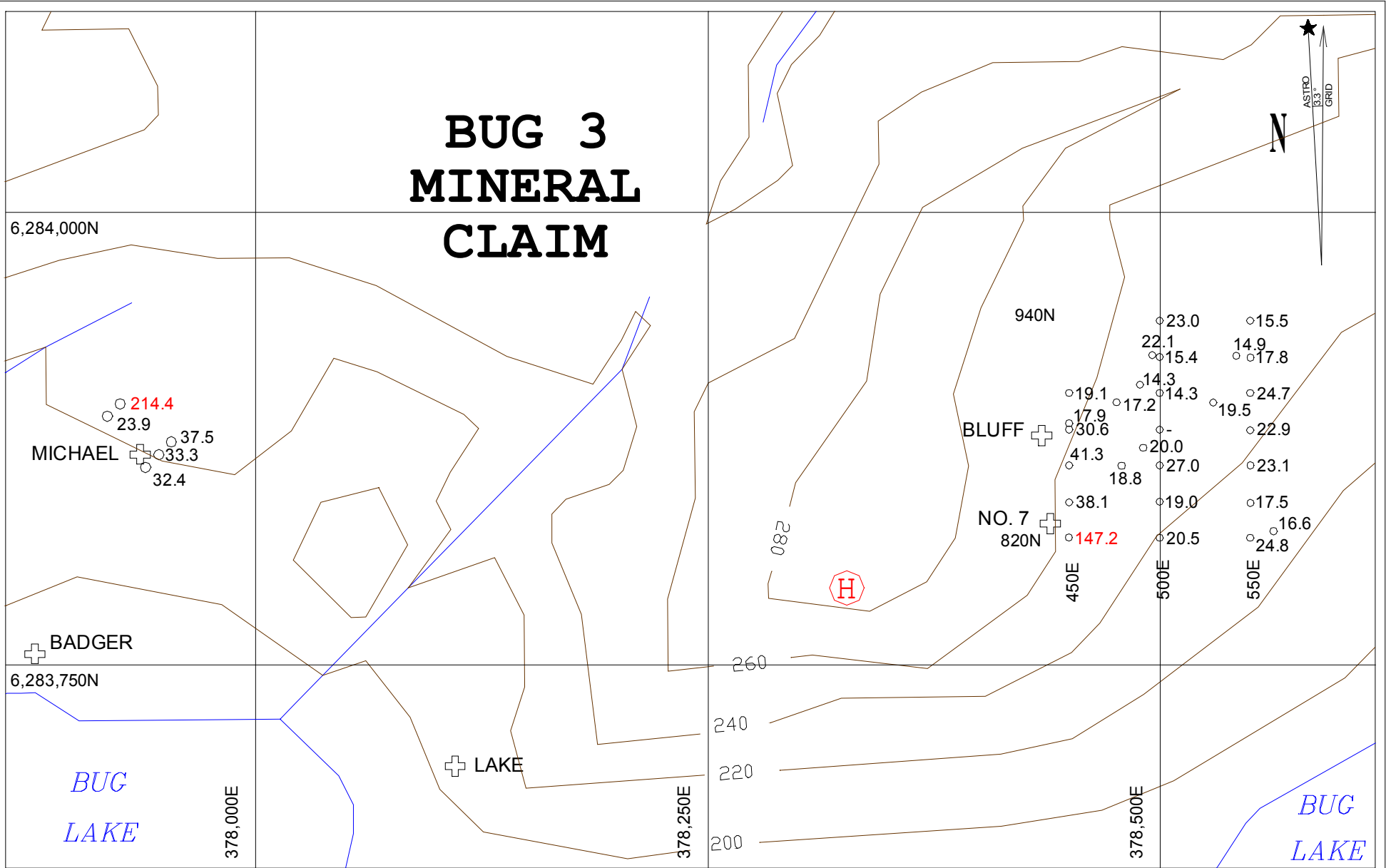
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GEOCHEMICAL SOIL AND
ROCK SURVEY REPORT

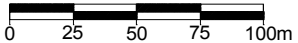
COPPER SOIL
GEOCHEMISTRY

DRAWN BY AB	DATE OCT 08
APPROVED	FIGURE 8-5

BUG 3 MINERAL CLAIM



PRODUCED AT
1:3,000



- NOTES:
- 1) UTM COORDINATE DATUM IS NAD 83.
 - 2) "⊞" MEANS THIS SAMPLE NOT ANALYZED FOR LEAD.
 - 3) RED NUMBER INDICATES ANOMALOUS VALUE.

NEWCASTLE
Newcastle Minerals Ltd.

**ARND BURGERT
CONSULTING, LTD.**

GEOCHEMICAL SOIL AND
ROCK SURVEY REPORT

LEAD SOIL
GEOCHEMISTRY

DRAWN BY AB	DATE OCT 08
APPROVED	FIGURE 8-6

9.0 Sample Preparation, Analyses & Security

All rock samples were delivered to the Acme preparation lab in Terrace, BC, where the laboratory staff assumed the chain of custody of the samples. Analyses were completed at the Acme Laboratories facility in Vancouver, BC. Acme Laboratories is an ISO 9001:2000 accredited company using accepted and good quality analytical technology and protocol with respect to current industry standards. The samples were recorded, dried, crushed, and split with the split portion then being ground or pulverized. Standard sample procedure during this stage was crushing of the rock so that 1 kg is crushed to 70% passing the No. 10 mesh with a 250 gram split pulverized to 85% passing the No. 200 mesh sieve size screen.

The analytical suite for all rock samples included ICP analysis and fire assay. Hot aqua regia digestion (HCL-HNO₃-H₂O) preceded Acme's Group 7AR 23-element ICP emission spectrometry analysis on a 1g split of pulp. Silver and gold were analyzed by Group 6 fire assay on a 30g pulp sample. Metal values are reported in g/t (gm/mt) for gold and silver and as percent for all other metals with detection limits of 0.01 g/t (10 ppb) for Au, 2 g/t for Ag, 0.001 % (10 ppm) for Cu, 0.01% (100 ppm) for Pb, and 0.01% (100 ppm) for Zn. Eighteen other elements were also analysed as given in **Appendix B**.

Soil samples were transported to Acme's Terrace lab as described in this section for rock samples. Soil samples were prepared in Terrace by drying at 60°C and sieving through the No. 80 mesh size sieve. Pulps were then forwarded to Acme's Vancouver lab.

Soil sample pulps were analyzed by Group 7AX 34-element ICP using a combination of emission spectrometry and mass spectrometry analyses following hot Aqua Regia digestion. Gold was analyzed by Group 6 fire assay on a 30g pulp sample. Metal values are reported in g/t (gm/mt) for gold and silver and as ppm or percent for all other metals with detection limits of 0.01 g/t (10 ppb) for Au, 0.5 ppm for Ag, 0.5 ppm for Cu, 0.01% 0.5 ppm for Pb, and 5 ppm for Zn. Thirty other elements were also analysed as given in **Appendix B**.

Given the relatively small volume of samples submitted for analysis, preparation of project-specific standards and blanks was not warranted. Acme Labs' internal QA/QC protocols were considered suitable to ensure reproducibility given the scope of work. These include analyzing a series of blanks and known standards to identify and, if found, quantify laboratory bias or contamination.

10.0 Adjacent Properties

There are nearly four hundred mineral occurrences in the Iskut River area of NTS 104B. Only those major deposits that are within a several kilometers of the Bug Lake Property and/or where production is recorded are described here.

Bronson Slope Deposit

The Bronson Slope deposit, owned by Skyline Gold Corporation is located 2.5 km to the southwest of the Bug Lake property. The Bronson Slope Property is underlain by the Early Jurassic Red Bluff porphyry gold-copper-silver-molybdenum hydrothermal system that is dominated by an intense quartz-magnetite-hematite stock work that trends northwest along the south side of Bronson Creek valley. The Red Bluff porphyry is intrusive into Upper Triassic age feldspathic greywacke. The geological setting and mineralization style is similar to the Iskut deposit. Burgoyne and Giroux (2008) report a resource based on a cut-off of US \$ 9 per tonne Net Recoverable Metal Value of:

Category	Metric Tonnes	Au g/t	Ag g/t	Cu %	Mo%
Measured	74,800,000	0.45	2.31	0.17	0.0059
Indicated	150,300,000	0.31	2.17	0.13	0.0087
Total Measured + Indicated	225,100,000	0.36	2.22	0.14	0.0077
Inferred	91,600,000	0.27	1.76	0.13	0.0080

Metal prices of US \$650 per ounce for gold, \$10 per ounce for silver, \$2 per pound for copper and \$12 per pound for molybdenum were used.

Iskut Deposit

Newcastle Minerals Ltd. owns the Snip North property, located approximately 3.5 km east of the Bug Lake property. The limited drilling and preliminary geological modeling to date has defined the Iskut gold-copper-molybdenum deposit. Based on eight 2007 and 2006 drill holes and four historical drill holes the following definition on the geometry and grade of the deposit was reported in the February 22, 2008 Newcastle Minerals Press Release and is detailed in Burgoyne (2008). Using dimensions of 500 and 600 meters in strike length, a width of 225 meters and a depth of 175 meters along with a specific gravity of 2.90 yields a potential quantity of 57.1 to 68.5 million tonnes. The grade varies from 0.3 to 0.6g/t gold, 0.09 to 0.17% copper and 0.003 to 0.023% molybdenum. ***This estimate of quantity and grade is conceptual in nature and there has been insufficient exploration and drilling to define a mineral resource and that it is uncertain if further exploration will result in the target being delineated as a mineral resource***

Johnny Mountain

The closed Johnny Mountain Gold Mine (Stonehouse Gold deposit - Minfile 104B 107) of Skyline Gold, located approximately 4 km south-southwest of the Bug Lake property, is optioned out to Spirit Bear Minerals Ltd. Recorded production from 1987-1993 totals 2815.4 kilograms of gold from 227,247 tonnes. This is a structurally disrupted mesothermal gold-bearing quartz vein deposit. Mineralization includes pyrite, chalcopyrite with some sphalerite, galena and minor pyrrhotite within a number of sub parallel sulphide-K-feldspar-quartz veins and stock work systems occurring along a series of northeast-trending structures in close proximity to plagioclase porphyry dykes.

Snip Deposit

The adjacent Snip Mine (Minfile 104B 250), located approximately 2.5 km east of the Bug Lake property and was operated by Cominco Limited, and Prime Resources Group and Homestake Canada Inc. From 1991 to 1999, the Snip Mine produced 32,093 kilograms of gold, 12,183 kilograms of silver, and 249,000 kilograms of copper from about 1,267,642 million tonnes of ore. The Twin vein zone is a 0.5 to 15 meter wide sheared quartz-carbonate-sulphide vein that cuts through a massively bedded feldspathic greywacke-siltstone sequence. The mineralization occupies a 120° structure with dips varying from 30 to 90 degrees southwest. A post-mineralization dyke divides the vein into two parts for most of its length. The dip length of the deposit is about 500m and has been traced over a strike length of 1000m.

The writers are unable to verify the above information, except for Bronson Slope and Iskut deposits, and the information is not necessarily indicative of the mineralization on the Bug Lake property.

11.0 Interpretation & Conclusions

The authors have completed a geochemical soil and rock survey report on the Bug Lake property including a detailed review and evaluation of the historical exploration on the Property and conclude:

- The main stratigraphic unit on the property is the Upper Triassic Stuhini Group. This Group is characterized by basic to intermediate volcanics which underlie andesitic volcanoclastics and flows as well as inter bedded dark grey siltstone and fine to medium grained greywacke. The eastern side of the property is commonly underlain by tuffs and flows of andesitic composition. Sediments dominate in the northwestern part of the property.
- The vein mineralization defined to date occurs over a 5 km trend distance. This mineralization is located on the south side of the Iskut River.
- Mineralized occurrences on the Bug Lake property are classified into three categories: copper-gold veins, native gold-pyrite, and copper-lead-zinc-silver-gold veins. Nearly all of the mineralization does carry ubiquitous, fine-grained disseminations of magnetite and fracture fillings and/or disseminations of pyrite in amounts of trace to 1%. Quartz-carbonate veins and shears commonly have pyrite, with localized chalcopyrite, magnetite, and arsenopyrite. The greatest number of mineralized showings consists of copper-gold veins.

Exploration by Newcastle, to date, has largely focussed on limited rock and soil sampling in 2002 and 2008. There is excellent potential for defining additional vein mineralization. Follow-up exploration is recommended for three areas: 1) the old Centre-Baseline area; 2) unexplained soil geochemistry anomalies east of the Cooper Showing; 3) and an unexplained soil geochemistry anomaly at the Michael exposure.

A two-stage exploration program is recommended, with Phase I entailing line cutting, detailed soil sampling, geological mapping, hand pitting and hand trenching, and suitable geophysical surveys consisting of induced polarization, magnetic and electromagnetic (VLF) surveys costing in the order of \$400,000. This would be followed by a Phase II core-drilling program of about 3600 meters costing in the order of \$1.6 million. The Phase II program is contingent on successful completion of the Phase I program.

12.0 Recommendations

The Bug Lake Property should be advanced through further exploration, trenching, and eventually drilling. Three targets are considered priorities: 1) the old Centre-Baseline area including the Bluff and No. 7 veins; 2) unexplained soil geochemistry anomalies east of the Cooper Showing; 3) and an unexplained soil geochemistry anomaly at the Michael exposure.

Due to the remote location and relative lack of infrastructure at Bug Lake, it will require air support with fairly major and costly programs to be done during the relatively short field season of June to late October. Although some diamond drilling has been carried out in the Bug/Waratah area during previous exploration campaigns, additional drill targets should be developed by other exploration techniques before further drilling is contemplated. A two-stage exploration program is recommended, with Phase I costing in the order of \$400,000, followed by a Phase II core drilling program costing in the order of \$1.6 million. The Phase II program is contingent on successful completion of the Phase I program.

The following Phase I program, in the order presented below, is recommended:

- A compilation of all previous work would be helpful in planning future exploration work. This compilation would include a map or series of maps summarizing previous soil geochemistry anomalies, geophysical survey results, exploration borehole locations, attitudes of bedrock structural features, and known mineral occurrences. A base map at a suitable scale (1:5000) would be required.
- Soil sampling surveys conducted to date over portions the Bug and Waratah claims confirm that soil geochemistry can provide an indication of bedrock mineralization. However, as the geochemical background for base and precious metals may be relatively high, and given the sporadic mineralization of the target vein deposits, the sampling interval must be suitably small. Detailed soil grids with a maximum sample interval of 20 m would be suitable.
- East-west trending linear topographic low features in the old Centre Baseline area are interpreted as possible expressions of structural features (faults, joints) in the underlying bedrock. Since such features are prospective areas for vein mineralization, and given the occurrence of sulphide mineralization on the edge of one such feature (Bluff Vein), topographically recessive features should be prospected by hand pitting and hand trenching. Occurrences of mineralized float should be documented and mapped.
- Since overburden appears to be relatively thin over portions of the property, pyrite-bearing quartz veins in volcanic or sedimentary rock may be detectible by ground geophysical techniques such as induced polarization (resistivity). Concentrations of magnetite, which is associated with mineralization, at most of the sulphide showings, would be detectible by ground magnetic field measurements. Bedrock structural features may be detectible by a Very Low Frequency (VLF) receiver. Underbrush density on the Bug/Waratah claims ranges from moderate to very dense. Line cutting would be required to facilitate efficient geophysical surveying.
- Upon completion of geochemical surveys, geophysical surveys, and hand trenching, the compilation map should be revised to reflect the new Phase I information. If warranted, targets suitable for drill testing should then be selected, and a drill program planned.

Owing to the lack of road access to the area, a significant portion of the budget is earmarked for personnel accommodations and helicopter and fixed wing aircraft use. Details and costs of the Phase I program are given on **Table 13-1**.

TABLE 13-1
BUG LAKE RECOMMENDED EXPLORATION PROGRAM & BUDGET
Phase I Program

	Unit	Rate	Prepare Compilation	Linecutting	Soil Sampling	Hand Pits/Trench	Geophysical Surveying	Reporting	Sum of Units	Total
Project Management	Day	\$900	3	0.5	0.5	4	1	12	21	\$18,900
Engineering	Day	\$600	6	7	20	20	7	20	80	\$48,000
Studies & Labour	Day	\$400	20	21	60	60	21		182	\$72,800
Accommodation	Day	\$400		28	80	80	28		216	\$86,400
Travel	Trip	\$750		1	6	6	2		15	\$11,250
Field Supplies & Communication	Lump Sum	-		\$5,000	\$20,000	\$10,000	\$4,000			\$39,000
Maps/Surveys	km	\$1,000	12				17		29	\$29,000
Helicopter	hour	\$1,000		8	8	8	8		32	\$32,000
Fixed Wing	km	\$4		500	2000	800	800		4100	\$16,400
Contingency		~ 13%								\$46,250
TOTALS			\$26,300	\$40,000	\$108,950	\$97,300	\$58,400	\$22,800		\$400,000

After completion of Phase I with positive results, the Phase II program directed mostly at diamond core drilling will commence. It is anticipated that three targets could be adequately tested by a total of eighteen boreholes drilled from six drill pads. The program would entail about 3600 metres of diamond drilling at an estimated cost of about \$1.62 million or all in costs of \$450/ drilled meter. Drill hole locations will be determined by the Phase I program.

13.0 References

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14.0 Signature Page

The report titled "Geochemical Soil And Rock Survey Report On Bug 1-3, & Waratah 7 Claims, Northwestern British Columbia for Newcastle Minerals Ltd." dated October 15, 2008 was prepared and signed by the following authors.

Dated at North Saanich, British Columbia
October 15, 2008

A.A. Burgoyne

A. A. Burgoyne, P.Eng., M.Sc.,

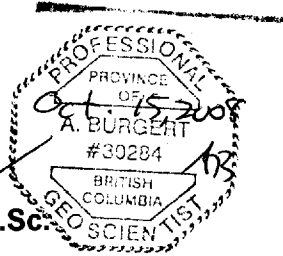


Burgoyne Geological Inc.

Dated at Ladysmith, British Columbia
October 15, 2008

Arnd Burgert

Arnd Burgert, P.Geo., B.Sc.



Arnd Burgert Consulting Ltd.

15.0 Certificate - Statement Of Qualifications

BURGOYNE GEOLOGICAL INC.
Consulting Geologists & Engineers

548 Lands End Road
North Saanich, BC, Canada
V8L 5K9
TEL / FAX (250) 656 3950

A.A. (Al) Burgoyne, M.Sc., P.Eng.

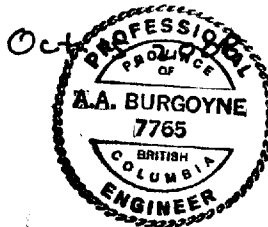
I Alfred A. Burgoyne hereby certify:

1. I am an independent consulting Geologist employed by Burgoyne Geological Inc. with residence and office at 548 Lands End Road, North Saanich, BC, CANADA, V8L 5K9.
2. I graduated from the University of British Columbia in 1962 with a Bachelor of Science Degree in Geology and from the University of New Mexico in 1967 with a Master of Science Degree in Geology.
3. I am a registered Professional Engineer in the Association of Professional Engineers and Geoscientists for the Province of British Columbia and am registered as a Fellow of the Geological Association of Canada.
4. I have practiced my profession for 45 years and have been involved in mineral exploration and development in Canada, USA, Latin America, Southeast and Central Asia, and Eastern Europe.
5. Prior to establishing Burgoyne Geological Inc. in 1991 I held several successive positions from 1980 to 1991 as Vice President-Exploration for Breakwater Resources Ltd., Western Canadian Mining Corporation, Cassiar Mining Corporation and Bethlehem Copper Corporation. From 1970 to 1979, I was Exploration Manager of Western Canada for UMEX Corp.
6. The report dated October 15, 2008 and titled "Geochemical Soil Rock Survey Report On Bug 1-3, & Waratah 7 Claims, Northwestern British Columbia for Newcastle Minerals Ltd." is based on field work and of technical evaluation in July through October 2008.

Dated at North Saanich, British Columbia this 15 th day of October 2008.

A.A. Burgoyne

A.A. Burgoyne, P.Eng., M.Sc.
"Signed and Sealed"



ARND BURGERT CONSULTING LTD.


**921 Colonia Drive
Ladysmith, BC, Canada
V9G 1N9
TEL (250) 245 9712**

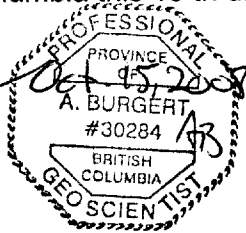
Arnd Burgert, P.Ge.

I Arnd Burgert hereby certify that:

7. I am an independent consulting Geologist employed by Arnd Burgert Consulting Ltd. with residence and office at 921 Colonia Drive, Ladysmith, BC, Canada, V9G 1N9.
8. I graduated from the University of British Columbia in 1995 with a Bachelor of Science Degree in Geology.
9. I am a registered Professional Geoscientist in the Association of Professional Engineers and Geoscientists for the Province of British Columbia.
10. I have practiced my profession for 19 years and have been involved in mineral exploration and development in western and northern Canada.
11. The report dated October 15, 2008 and titled "Geochemical Soil and Rock Survey Report On Bug 1-3, & Waratah 7 Claims, Northwestern British Columbia for Newcastle Minerals Ltd." is based on field work and of technical evaluation in July through October 2008.
12. Field work conducted between August 28, 2008 and September 2, 2008 was supervised by me personally.

Dated at Ladysmith, British Columbia this 13 th day of October 2008.


Arnd Burgert, P.Ge.
"Signed and Sealed"



APPENDIX A

EXPLORATION EXPENDITURES FOR 2008 PROGRAM

2008 SUMMARY OF EXPLORATION EXPENDITURES, BUG 3 & WARATAH 7 CLAIMS (From Newcastle Minerals Ltd.)

Geology/Prospecting/field program		
Lou Straith, Project Manager Research April – June 60 hrs@150/hr, and May 11 – June 23 70 hrs@100/hr	10,000.00	
Lou Straith, Project Manager (July 14, 2008) Supplies and camping gear	9,000.00	
Gord Brodie, July 6 th -July 31 2008- Prospecting and camp maintenance 25 days @ \$375.00 per day	9,375.00	
Burgoyne Geological Inc.1.75 hours @120/hr	210.00	
Lou Straith, Project Manager Supplies and camping gear/expensed	9,000.00	
Gord Brodie, invoice 58160, August 1-15 2008 Prospecting and pad building, camp maintenance 15 days @375.00 per day	5,625.00	
CM Thompson, invoice 558161 Aug 1-15 th 200814 days Pad building at \$550 per day and 14 days of camp maintenance @\$400.00 per day	6,600.00	
Arnd Burgert Consulting Ltd. Invoice 1301, August 25, 2008, Professional Retainer for geological services.	3,000.00	
Burgoyne Geological Inc. August 27, 2008. Professional Time 12:00 hours @120/hr, expenses 12.80	1440.00	
Cam DeLong- Geological Services Rendered on Snip North Project/Bug-Waratah Invoice# CD080831N For August 16, 2008 to August 31, 2008 inclusive 12 Hours @ \$100.00 per diem = \$1,200.00 Expenses - ½ Arnd Burgert's airfare \$203.00, Paul Metcalfe's non refundable airfare \$337.75 Gord Brodie's airfare \$376.78 Total <u>\$917.53</u>	2,117.53	
Gord Brodie, August 16 – Sept 1 2008 10 days @375 per day, expense receipts of \$519.54 plus 17.44 greyhound freight charges.	4,286.98	
Mike Thompson August 16-20-\$400.00, August 26 to 29 \$400.00, Sept 2 \$400.00 (including travel expenses) Falling snags, Helipad Maintenance and Camp Clean Up.	5,212.15	
Burgoyne Geological Inc/ Invoice 1611,October 1. 2008.,19:00 hours @120/hr	2,280.00	
Arnd Burgert Consulting Ltd. Invoice 1305, Oct 1, 2008, Professional geological services.	8,351.70	
Arnd Burgert Consulting Ltd. Invoice 1307, Oct 13, 2008, Professional geological services.	2,550.00	
Burgoyne Geological Inc/ Invoice 1612, October 14. 2008., 9.75 hours @120/hr	1170.00	
Geology Total	\$80218.36	\$80218.36
Room and Board / Expediting		
Rivers West Adventures, Sept 24/08 Bronson Camp 55 Man Days @185.00 per man \$10,175.00, Gasoline 117.50.00	10,292.50	
Expediting Total	\$10,292.50	\$10,292.50
Helicopter		
Interior Helicopters Ltd. Flight date: July 15, 2008, invoice 4011. Air Time/Crew Moves 0.8 hours/91.2 litres fuel surcharge/	944.16	
Interior Helicopters Ltd. Flight date: July 18, 2008, invoice 4015. Air Time/Crew Moves 1 hour. Fuel surcharge114 litres/	1,180.20	
Interior Helicopters Ltd. Flight date: July 26, 2008, invoice 4026: Air Time/Crew Moves 1.8 hours. Fuel surcharge 205.2litres/	2079.36	
Interior Helicopters Ltd. Flight date: July 26, 2008, invoice 3176: Air Time/Crew Moves 0.8 hours. Fuel surcharge 91.2 litres/	924.13	
Interior Helicopters Ltd. Flight date: August 4, 2008, invoice 3182: Air Time/Crew Moves 1.6 hours. Fuel surcharge 182.4litres/	1888.32	
Interior Helicopters Ltd. Flight date: August 9, 2008, invoice 3190: Air Time/Crew Moves 1.3 hours. Fuel surcharge 148.2 litres/	1,501.76	
Interior Helicopters Ltd. Flight date: August 6, 2008, invoice 3185: Air Time/Crew Moves 0.9 hours. Fuel surcharge 102.6 litres/	1,039.68	
Interior Helicopters Ltd. Flight date: August 10, 2008, invoice 3193: Air Time/Crew Moves 1.5 hours. Fuel surcharge 171.0 litres/	1,732.80	
Interior Helicopters Ltd. Flight date: August 13, 2008, invoice 3831: Air Time/Crew 0.9 hours. Fuel surcharge 126 litres/	1,396.80	
Interior Helicopters Ltd. Flight date: August 29, 2008, invoice 3877: Air Time/Crew 1.5 hours. Fuel surcharge 210 litres/	2,328.00	
Interior Helicopters Ltd. Flight date: August 28, 2008, invoice 3850: Air Time/Crew 1.2 hours. Fuel surcharge	1,840.80	

156 litres/ 1,560.00 and 280.80		
Quantum Helicopters, September 1/08. Ticket 17258/ .9 hours/159.03 fuel/\$919.53 Mclymont-Bronson C/O 4 pax-Mclymont Mclymont Bronso –pu 4 pax & 1 sling of Garbage return to Mclymont. Reclamation work done here. Bug Waratah camp clean up and removal of garbage. September 1/08/Ticket 18420/ .6 hours/ 120.90 fuel/ \$747.90. 3 pax & gear. (All crew moves. Arnd Burgert/ Gord Brodie/Mike Thompson.	1,667.43	
Total Helicopter	\$18,523.44	\$18,523.44
Assays –Acme Labs		0
September 25 and 30/08 Crush and Pulverize Rock and Drill Core/Overweight prep charges/storage	1,435.47	0
October 6, 2008 Sieve 100g soil to -80 mesh, 30g Pb collection fire assay, ICP-ES, 1G AR digestion icp-es/icp- ms finish/storage	1,165.94	
Total Assays	\$2,601.41	\$2,601.41
	OVERALL	\$111,635.71
	TOTAL	

APPENDIX B
2008 ASSAY CERTIFICATES



ACME ANALYTICAL LABORATORIES LTD.
 1020 Cordova St. East Vancouver BC V6A 4A3 Canada
 Phone (604) 253-3158 Fax (604) 253-1716

www.acmelab.com

Client: Newcastle Minerals

108 - 800 Kelly Road
 Victoria BC V9B 6J9 Canada

Submitted By: Kevin Whelan
 Receiving Lab: Canada-Smithers
 Received: August 18, 2008
 Report Date: September 24, 2008
 Page: 1 of 2

CERTIFICATE OF ANALYSIS

SMI08000766.1

CLIENT JOB INFORMATION

Project: Bug-Waratah
 Shipment ID:
 P.O. Number
 Number of Samples: 9

SAMPLE DISPOSAL

STOR-PLP Store After 90 days Invoice for Storage
 STOR-RJT Store After 90 days Invoice for Storage

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Invoice To: Newcastle Minerals
 108 - 800 Kelly Road
 Victoria BC V9B 6J9
 Canada

CC: Al Burgoyne

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status
R150	9	Crush, split and pulverize rock to 200 mesh		
G6	9	Ag Au by fire assay	30	Completed
7AR	9	1:1:1 Aqua Regia digestion ICP-ES analysis	1	Completed

ADDITIONAL COMMENTS



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only.



AcmeLabs ACME ANALYTICAL LABORATORIES LTD.
 1020 Cordova St. East Vancouver BC V6A 4A3 Canada
 Phone (604) 253-3158 Fax (604) 253-1716

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Client: Newcastle Minerals

108 - 800 Kelly Road
 Victoria BC V9B 6J9 Canada

Project: Bug-Waratah

Report Date: September 24, 2008

Page: 2 of 2 **Part** 1

CERTIFICATE OF ANALYSIS

SMI08000766.1

	Method Analyte Unit MDL	WGHT	G6	G6	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	
		Wgt	Au	Ag	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Sr	Cd	Sb	Bi	Ca	P	Cr
		kg	gm/mt	gm/mt	%	%	%	%	gm/mt	%	%	%	%	%	%	%	%	%	%	%	%
		0.01	0.01	5	0.001	0.001	0.01	0.01	2	0.001	0.001	0.01	0.01	0.01	0.001	0.001	0.001	0.01	0.01	0.001	0.001
697001	Rock	2.11	22.91	29	<0.001	1.444	0.01	0.03	36	<0.001	0.002	0.07	3.02	<0.01	0.006	<0.001	<0.001	<0.01	4.08	0.021	<0.001
697002	Rock	2.66	0.55	<5	<0.001	0.092	<0.01	0.02	3	0.001	0.003	0.07	4.93	<0.01	0.002	<0.001	<0.001	<0.01	0.85	0.166	<0.001
697003	Rock	2.45	11.40	8	<0.001	0.456	<0.01	0.04	13	<0.001	0.001	0.08	1.84	<0.01	0.008	<0.001	<0.001	<0.01	5.98	0.010	<0.001
697004	Rock	3.14	0.62	<5	<0.001	0.063	<0.01	0.03	2	<0.001	<0.001	0.10	2.05	<0.01	0.009	<0.001	<0.001	<0.01	3.88	0.123	<0.001
697005	Rock	2.35	0.02	<5	<0.001	0.014	<0.01	<0.01	<2	<0.001	0.002	0.10	4.38	<0.01	0.010	<0.001	<0.001	<0.01	2.99	0.147	<0.001
697006	Rock	3.34	<0.01	<5	<0.001	0.004	<0.01	<0.01	<2	0.001	<0.001	0.08	3.17	<0.01	0.023	<0.001	<0.001	<0.01	6.79	0.080	0.001
697007	Rock	4.29	<0.01	<5	<0.001	0.004	<0.01	<0.01	<2	0.002	<0.001	0.12	1.70	<0.01	0.106	<0.001	<0.001	<0.01	10.79	0.011	<0.001
697051	Rock	1.88	0.05	<5	<0.001	0.009	<0.01	0.02	<2	<0.001	0.002	0.13	5.45	<0.01	0.003	<0.001	<0.001	<0.01	0.87	0.169	<0.001
697052	Rock	4.35	<0.01	39	<0.001	0.008	<0.01	0.01	<2	<0.001	0.002	0.10	5.45	<0.01	0.007	<0.001	<0.001	<0.01	1.57	0.172	<0.001



ACME ANALYTICAL LABORATORIES LTD.
 1020 Cordova St. East Vancouver BC V6A 4A3 Canada
 Phone (604) 253-3158 Fax (604) 253-1716

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Client: **Newcastle Minerals**

108 - 800 Kelly Road
 Victoria BC V9B 6J9 Canada

Project: Bug-Waratah

Report Date: September 24, 2008

Page: 2 of 2

Part 2

CERTIFICATE OF ANALYSIS

SMI08000766.1

Method	7AR	7AR	7AR	7AR	7AR	7AR	
Analyte	Mg	Al	Na	K	W	Hg	
Unit	%	%	%	%	%	%	
MDL	0.01	0.01	0.01	0.01	0.001	0.001	
697001	Rock	0.23	0.33	<0.01	0.08	<0.001	<0.001
697002	Rock	0.95	1.71	0.06	0.51	<0.001	<0.001
697003	Rock	0.29	0.40	<0.01	0.05	<0.001	<0.001
697004	Rock	0.74	1.24	0.08	0.31	<0.001	<0.001
697005	Rock	1.35	2.21	0.09	0.51	<0.001	<0.001
697006	Rock	0.78	0.61	0.05	0.17	<0.001	<0.001
697007	Rock	0.45	0.52	<0.01	0.05	<0.001	<0.001
697051	Rock	1.69	2.60	0.07	0.34	<0.001	<0.001
697052	Rock	1.92	2.78	0.09	0.23	<0.001	<0.001

QUALITY CONTROL REPORT

SMI08000766.1

Method	WGHT	G6	G6	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	
Analyte	Wgt	Au	Ag	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Sr	Cd	Sb	Bi	Ca	P	Cr	
Unit	kg	gm/mt	gm/mt	%	%	%	%	gm/mt	%	%	%	%	%	%	%	%	%	%	%	%	
MDL	0.01	0.01	5	0.001	0.001	0.01	0.01	2	0.001	0.001	0.01	0.01	0.01	0.001	0.001	0.001	0.01	0.01	0.001	0.001	
Reference Materials																					
STD SF-3A	Standard			0.031	0.778	0.95	1.06	53	0.343	0.018	0.43	7.81	<0.01	0.006	0.005	<0.001	<0.01	2.61	0.054	0.017	
STD SF-3A	Standard			0.031	0.773	0.94	1.07	54	0.337	0.018	0.43	7.71	<0.01	0.005	0.005	<0.001	<0.01	2.58	0.053	0.017	
STD SN16	Standard	8.76	18																		
STD SN16	Standard	8.70	18																		
STD SP27	Standard	18.23	58																		
STD SP27	Standard	18.19	59																		
STD SF-3A Expected				0.0308	0.7705	0.9625	1.0628	54	0.3365	0.0183	0.4247	7.91	0.0046	0.005	0.0045	0.001	0	2.59	0.054	0.0167	
STD SN16 Expected		8.367	17.64																		
STD SP27 Expected		18.13	59.16																		
BLK	Blank			<0.001	<0.001	<0.01	<0.01	<2	<0.001	<0.001	<0.01	<0.01	<0.01	<0.001	<0.001	<0.01	<0.01	<0.01	<0.001	<0.001	
BLK	Blank	<0.01	<5																		
BLK	Blank	<0.01	<5																		
BLK	Blank	<0.01	<5																		
BLK	Blank	<0.01	<5																		
Prep Wash																					
G1	Prep Blank	<0.01	<0.01	<5	<0.001	<0.001	<0.01	<0.01	<2	<0.001	<0.001	0.06	2.03	<0.01	0.006	<0.001	<0.001	<0.01	0.55	0.080	0.001
G1	Prep Blank	<0.01	<0.01	<5	<0.001	<0.001	<0.01	<0.01	<2	<0.001	<0.001	0.06	2.07	<0.01	0.007	<0.001	<0.001	<0.01	0.55	0.076	0.001

QUALITY CONTROL REPORT

SMI08000766.1

Method		7AR	7AR	7AR	7AR	7AR	7AR
Analyte		Mg	Al	Na	K	W	Hg
Unit		%	%	%	%	%	%
MDL		0.01	0.01	0.01	0.01	0.001	0.001
Reference Materials							
STD SF-3A	Standard	4.25	1.06	0.50	1.03	<0.001	<0.001
STD SF-3A	Standard	4.28	1.03	0.50	1.02	<0.001	<0.001
STD SN16	Standard						
STD SN16	Standard						
STD SP27	Standard						
STD SP27	Standard						
STD SF-3A Expected		4.27	1	0.47	0.99	0	0.00006
STD SN16 Expected							
STD SP27 Expected							
BLK	Blank	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001
BLK	Blank						
BLK	Blank						
BLK	Blank						
BLK	Blank						
Prep Wash							
G1	Prep Blank	0.61	1.11	0.11	0.58	<0.001	<0.001
G1	Prep Blank	0.64	1.17	0.12	0.61	<0.001	<0.001



ACME ANALYTICAL LABORATORIES LTD.
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www.acmelab.com

Client: **Newcastle Minerals**

108 - 800 Kelly Road
Victoria BC V9B 6J9 Canada

Submitted By: Kevin Whelan
Receiving Lab: Canada-Smithers
Received: September 05, 2008
Report Date: September 29, 2008
Page: 1 of 2

CERTIFICATE OF ANALYSIS

SMI08000873.1

CLIENT JOB INFORMATION

Project: None given
Shipment ID:
P.O. Number
Number of Samples: 28

SAMPLE DISPOSAL

STOR-PLP Store After 90 days Invoice for Storage
STOR-RJT Store After 90 days Invoice for Storage

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Invoice To: Newcastle Minerals
108 - 800 Kelly Road
Victoria BC V9B 6J9
Canada

CC: Al Burgoyne

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status
R150	27	Crush, split and pulverize rock to 200 mesh		
G6	27	Ag Au by fire assay	30	Completed
7AR	27	1:1:1 Aqua Regia digestion ICP-ES analysis	1	Completed

ADDITIONAL COMMENTS



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only.



1020 Cordova St. East Vancouver BC V6A 4A3 Canada
 Phone (604) 253-3158 Fax (604) 253-1716

ACME ANALYTICAL LABORATORIES LTD.

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Client: **Newcastle Minerals**

108 - 800 Kelly Road
 Victoria BC V9B 6J9 Canada

Project: None given

Report Date: September 29, 2008

Page: 2 of 2 Part 1

CERTIFICATE OF ANALYSIS

SMI08000873.1

Method	WGHT	G6	G6	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	
Analyte	Wgt	Au	Ag	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Sr	Cd	Sb	Bi	Ca	P	Cr	
Unit	kg	gm/mt	gm/mt	%	%	%	%	gm/mt	%	%	%	%	%	%	%	%	%	%	%	%	
MDL	0.01	0.01	5	0.001	0.001	0.01	0.01	2	0.001	0.001	0.01	0.01	0.01	0.001	0.001	0.001	0.01	0.01	0.001	0.001	
697008	Rock	0.88	21.03	28	<0.001	0.106	0.01	0.01	26	<0.001	0.001	0.03	19.33	0.19	<0.001	<0.001	<0.001	<0.01	0.12	0.065	<0.001
697009	Rock	1.91	14.91	30	<0.001	0.142	0.02	<0.01	29	<0.001	<0.001	0.03	24.16	0.11	<0.001	<0.001	<0.001	<0.01	0.11	0.058	<0.001
697010	Rock	1.70	1.57	<5	<0.001	0.095	<0.01	0.02	6	<0.001	0.002	0.04	9.00	0.08	<0.001	<0.001	<0.001	<0.01	0.24	0.118	<0.001
697011	Rock	0.77	0.02	<5	<0.001	0.011	<0.01	<0.01	<2	<0.001	0.001	0.16	3.89	<0.01	0.007	<0.001	<0.001	<0.01	2.36	0.134	<0.001
697012	Rock	1.40	5.02	12	<0.001	0.103	<0.01	0.03	9	<0.001	<0.001	0.04	8.29	0.04	<0.001	<0.001	<0.001	<0.01	0.20	0.098	<0.001
697013	Rock	0.40	<0.01	<5	<0.001	0.002	<0.01	<0.01	<2	<0.001	<0.001	0.12	3.01	<0.01	0.021	<0.001	<0.001	<0.01	3.00	0.117	<0.001
697014	Rock	0.41	0.02	<5	<0.001	0.007	<0.01	0.01	<2	<0.001	0.001	0.16	3.05	<0.01	0.008	<0.001	<0.001	<0.01	1.76	0.119	<0.001
697015	Rock	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
697016	Rock	0.54	<0.01	<5	<0.001	0.006	<0.01	<0.01	<2	<0.001	0.001	0.11	3.04	<0.01	0.007	<0.001	<0.001	<0.01	1.64	0.129	<0.001
697017	Rock	0.54	<0.01	<5	<0.001	0.008	<0.01	<0.01	<2	<0.001	0.002	0.14	3.33	<0.01	0.009	<0.001	<0.001	<0.01	2.12	0.142	<0.001
697018	Rock	1.48	0.02	<5	<0.001	0.049	0.14	0.62	6	<0.001	<0.001	0.02	8.95	0.01	<0.001	0.003	<0.001	<0.01	0.11	0.130	<0.001
697019	Rock	1.64	0.15	<5	<0.001	0.037	<0.01	<0.01	<2	<0.001	0.001	0.08	5.30	<0.01	0.001	<0.001	<0.001	<0.01	0.33	0.150	<0.001
M500312	Rock	0.49	<0.01	<5	<0.001	0.010	<0.01	0.02	<2	<0.001	0.002	0.14	5.51	<0.01	0.004	<0.001	<0.001	<0.01	1.14	0.185	<0.001
M500313	Rock	1.32	2.01	<5	<0.001	0.097	0.01	0.05	4	<0.001	0.002	0.10	4.70	<0.01	0.001	<0.001	<0.001	<0.01	0.67	0.110	<0.001
M500314	Rock	0.50	0.58	<5	<0.001	0.012	<0.01	<0.01	3	<0.001	0.003	<0.01	8.13	0.05	<0.001	<0.001	<0.001	<0.01	0.02	0.011	<0.001
M500315	Rock	1.28	0.26	<5	<0.001	0.010	<0.01	<0.01	2	<0.001	0.002	0.02	6.23	0.02	<0.001	<0.001	<0.001	<0.01	0.08	0.070	<0.001
M500316	Rock	0.69	3.58	17	<0.001	0.105	<0.01	0.06	19	<0.001	<0.001	0.04	14.80	0.01	<0.001	<0.001	<0.001	<0.01	0.02	0.135	<0.001
M500317	Rock	0.44	0.06	<5	<0.001	0.013	0.01	0.02	<2	0.001	0.001	0.05	4.78	<0.01	0.002	<0.001	<0.001	<0.01	0.61	0.253	<0.001
M500318	Rock	1.35	18.04	24	<0.001	0.122	<0.01	<0.01	28	<0.001	0.001	0.02	6.76	<0.01	<0.001	<0.001	<0.001	<0.01	0.14	0.094	0.001
M500319	Rock	1.79	0.03	<5	<0.001	0.019	<0.01	<0.01	<2	<0.001	<0.001	0.04	4.89	0.02	<0.001	<0.001	<0.001	<0.01	0.15	0.092	<0.001
M500320	Rock	1.68	1.72	50	<0.001	0.813	0.01	0.03	65	<0.001	0.003	0.02	10.79	<0.01	<0.001	<0.001	<0.001	<0.01	0.12	0.079	<0.001
M500321	Rock	2.54	30.21	16	<0.001	0.030	0.11	0.03	18	<0.001	<0.001	0.02	10.16	0.04	<0.001	<0.001	<0.001	<0.01	0.06	0.066	<0.001
M500322	Rock	0.17	0.13	9	<0.001	0.082	<0.01	<0.01	7	<0.001	0.001	0.05	5.31	<0.01	0.002	<0.001	<0.001	<0.01	0.17	0.096	<0.001
M500323	Rock	0.52	6.98	255	<0.001	0.134	0.06	<0.01	146	<0.001	<0.001	0.03	13.67	0.06	<0.001	<0.001	<0.001	0.02	0.06	0.060	<0.001
M500324	Rock	0.89	0.12	<5	<0.001	0.016	<0.01	<0.01	<2	<0.001	0.002	0.11	4.18	<0.01	0.022	<0.001	<0.001	<0.01	3.31	0.152	<0.001
M500325	Rock	1.19	40.92	45	<0.001	0.419	<0.01	0.02	46	<0.001	0.003	0.09	14.70	0.02	<0.001	<0.001	<0.001	<0.01	0.27	0.113	<0.001
M500326	Rock	0.63	26.38	29	<0.001	0.121	0.01	<0.01	23	<0.001	<0.001	0.03	6.56	0.02	<0.001	<0.001	<0.001	<0.01	0.08	0.040	<0.001
M500327	Rock	0.81	20.57	25	<0.001	0.075	0.01	0.01	21	<0.001	<0.001	0.06	7.34	<0.01	0.001	<0.001	<0.001	<0.01	0.30	0.071	<0.001



ACME ANALYTICAL LABORATORIES LTD.
 1020 Cordova St. East Vancouver BC V6A 4A3 Canada
 Phone (604) 253-3158 Fax (604) 253-1716

www.acmelab.com

Client: **Newcastle Minerals**

108 - 800 Kelly Road
 Victoria BC V9B 6J9 Canada

Project: None given

Report Date: September 29, 2008

Page: 2 of 2 Part 2

CERTIFICATE OF ANALYSIS

SMI08000873.1

Method	7AR	7AR	7AR	7AR	7AR	7AR	
Analyte	Mg	Al	Na	K	W	Hg	
Unit	%	%	%	%	%	%	
MDL	0.01	0.01	0.01	0.01	0.001	0.001	
697008	Rock	0.33	1.57	<0.01	0.35	<0.001	<0.001
697009	Rock	0.31	1.42	<0.01	0.33	<0.001	<0.001
697010	Rock	0.60	2.42	<0.01	0.66	<0.001	<0.001
697011	Rock	1.21	2.30	0.03	0.58	<0.001	<0.001
697012	Rock	0.54	1.75	<0.01	0.48	<0.001	<0.001
697013	Rock	0.74	1.96	0.03	1.04	<0.001	<0.001
697014	Rock	0.85	1.59	0.06	0.53	<0.001	<0.001
697015	Rock	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
697016	Rock	0.57	1.15	0.05	0.48	<0.001	<0.001
697017	Rock	0.84	1.81	0.05	0.54	<0.001	<0.001
697018	Rock	0.48	1.15	0.03	0.66	<0.001	<0.001
697019	Rock	0.70	1.88	0.07	0.80	<0.001	<0.001
M500312	Rock	1.76	2.89	0.08	0.35	<0.001	<0.001
M500313	Rock	1.24	1.91	0.02	0.38	<0.001	<0.001
M500314	Rock	0.01	0.13	<0.01	0.15	<0.001	<0.001
M500315	Rock	0.11	0.55	<0.01	0.39	<0.001	<0.001
M500316	Rock	0.44	1.42	<0.01	0.32	<0.001	<0.001
M500317	Rock	1.36	2.34	<0.01	0.65	<0.001	<0.001
M500318	Rock	0.69	1.03	0.07	0.58	<0.001	<0.001
M500319	Rock	0.20	1.01	0.03	0.73	<0.001	<0.001
M500320	Rock	0.91	1.45	0.02	0.56	<0.001	<0.001
M500321	Rock	0.43	0.87	<0.01	0.30	<0.001	<0.001
M500322	Rock	0.19	0.96	0.04	0.64	<0.001	<0.001
M500323	Rock	0.36	0.99	<0.01	0.28	<0.001	<0.001
M500324	Rock	1.83	2.30	0.05	0.67	<0.001	<0.001
M500325	Rock	1.23	2.56	<0.01	0.38	<0.001	<0.001
M500326	Rock	0.52	0.97	<0.01	0.20	<0.001	<0.001
M500327	Rock	0.90	1.56	0.01	0.23	<0.001	<0.001

QUALITY CONTROL REPORT

SMI08000873.1

Method	WGHT	G6	G6	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR	7AR
Analyte	Wgt	Au	Ag	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Sr	Cd	Sb	Bi	Ca	P	Cr	
Unit	kg	gm/mt	gm/mt	%	%	%	%	gm/mt	%	%	%	%	%	%	%	%	%	%	%	%	
MDL	0.01	0.01	5	0.001	0.001	0.01	0.01	2	0.001	0.001	0.01	0.01	0.01	0.001	0.001	0.001	0.01	0.01	0.001	0.001	
Pulp Duplicates																					
M500321	Rock	2.54	30.21	16	<0.001	0.030	0.11	0.03	18	<0.001	<0.001	0.02	10.16	0.04	<0.001	<0.001	<0.001	<0.01	0.06	0.066	<0.001
REP M500321	QC				<0.001	0.029	0.11	0.03	17	<0.001	<0.001	0.02	10.11	0.04	<0.001	<0.001	<0.001	<0.01	0.06	0.064	<0.001
Reference Materials																					
STD R4A	Standard				0.057	0.520	1.55	3.30	88	0.351	0.040	0.06	23.16	0.02	0.004	0.018	0.010	<0.01	0.96	0.043	0.013
STD SF-3A	Standard				0.031	0.780	0.95	1.08	53	0.342	0.018	0.43	7.84	<0.01	0.006	0.004	<0.001	<0.01	2.61	0.054	0.017
STD SP17	Standard		18.77	58																	
STD SP17	Standard		18.45	59																	
STD SP17	Standard		18.55	61																	
STD SP17	Standard		19.01	58																	
STD R4A Expected					0.054	0.511	1.5	3.3	88	0.345	0.04	0.06	23.11	0.02	0.003	0.018	0.013	0	0.92	0.042	0.012
STD SF-3A Expected					0.0308	0.7705	0.9625	1.0628	54	0.3365	0.0183	0.4247	7.91	0.0046	0.005	0.0045	0.001	0	2.59	0.054	0.0167
STD SP17 Expected			18.13	59.16																	
BLK	Blank				<0.001	<0.001	<0.01	<0.01	<2	<0.001	<0.001	<0.01	<0.01	<0.01	<0.001	<0.001	<0.01	<0.01	<0.001	<0.001	
BLK	Blank		<0.01	<5																	
BLK	Blank		<0.01	<5																	
BLK	Blank		<0.01	<5																	
BLK	Blank		<0.01	<5																	
Prep Wash																					
G1	Prep Blank	<0.01	<0.01	<5	<0.001	<0.001	<0.01	<0.01	<2	<0.001	<0.001	0.06	2.09	<0.01	0.009	<0.001	<0.001	<0.01	0.65	0.075	0.001
G1	Prep Blank	<0.01	<0.01	<5	<0.001	<0.001	<0.01	<0.01	<2	<0.001	<0.001	0.06	2.03	<0.01	0.007	<0.001	<0.001	<0.01	0.60	0.076	0.001

QUALITY CONTROL REPORT

SMI08000873.1

Method		7AR	7AR	7AR	7AR	7AR	7AR
Analyte		Mg	Al	Na	K	W	Hg
Unit		%	%	%	%	%	%
MDL		0.01	0.01	0.01	0.01	0.001	0.001
Pulp Duplicates							
M500321	Rock	0.43	0.87	<0.01	0.30	<0.001	<0.001
REP M500321	QC	0.44	0.88	<0.01	0.31	<0.001	<0.001
Reference Materials							
STD R4A	Standard	0.86	1.30	0.07	0.51	<0.001	<0.001
STD SF-3A	Standard	4.26	1.05	0.51	1.03	<0.001	<0.001
STD SP17	Standard						
STD SP17	Standard						
STD SP17	Standard						
STD SP17	Standard						
STD R4A Expected		0.84	1.27	0.07	0.511	0	0.001
STD SF-3A Expected		4.27	1	0.47	0.99	0	0.00006
STD SP17 Expected							
BLK	Blank	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001
BLK	Blank						
BLK	Blank						
BLK	Blank						
BLK	Blank						
Prep Wash							
G1	Prep Blank	0.60	1.17	0.13	0.57	<0.001	<0.001
G1	Prep Blank	0.58	1.05	0.09	0.52	<0.001	<0.001



ACME ANALYTICAL LABORATORIES LTD.
 1020 Cordova St. East Vancouver BC V6A 4A3 Canada
 Phone (604) 253-3158 Fax (604) 253-1716

www.acmelab.com

Client: Newcastle Minerals

108 - 800 Kelly Road
 Victoria BC V9B 6J9 Canada

Submitted By: Kevin Whelan
 Receiving Lab: Canada-Smithers
 Received: September 05, 2008
 Report Date: October 03, 2008
 Page: 1 of 3

CERTIFICATE OF ANALYSIS

SMI08000874.1

CLIENT JOB INFORMATION

Project: None given
 Shipment ID:
 P.O. Number
 Number of Samples: 34

SAMPLE DISPOSAL

STOR-PLP Store After 90 days Invoice for Storage
 DISP-RJT-SOIL Immediate Disposal of Soil Reject

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Invoice To: Newcastle Minerals
 108 - 800 Kelly Road
 Victoria BC V9B 6J9
 Canada

CC: Al Burgoyne

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status
SS80	33	Dry at 60C sieve 100g to -80 mesh		
Dry at 60C	33	Dry at 60C		
G6	33	Fire Assay fusion Au by ICP-ES	30	Completed
7AX-Soil	33	1:1:1 Aqua Regia digestion ICP-ES/ICP-MS analysis	1	Completed

ADDITIONAL COMMENTS



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only.



1020 Cordova St. East Vancouver BC V6A 4A3 Canada
Phone (604) 253-3158 Fax (604) 253-1716

ACME ANALYTICAL LABORATORIES LTD.

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Client: Newcastle Minerals

108 - 800 Kelly Road
Victoria BC V9B 6J9 Canada

Project: None given

Report Date: October 03, 2008

Page: 2 of 3 Part 1

CERTIFICATE OF ANALYSIS

SMI08000874.1

Method	Analyte	G6	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	
		Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Th	Sr	Cd	Sb	Bi	V	Ca	P
Unit		gm/mt	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
MDL		0.01	0.5	0.5	0.5	5	0.5	0.5	0.5	0.01	5	0.5	0.5	5	0.5	0.5	0.5	10	0.01	0.001	
AB08-01	Soil	0.03	5.4	81.9	32.4	149	0.8	14.0	9.1	621	7.26	28	1.2	5.8	<5	1.2	0.9	<0.5	90	0.04	0.110
AB08-02	Soil	0.04	4.9	138.0	33.3	242	1.1	30.7	11.4	499	5.96	23	6.2	15.5	<5	1.5	1.2	0.5	47	0.05	0.090
AB08-03	Soil	<0.01	5.5	44.0	37.5	153	0.8	15.7	5.5	298	7.31	21	2.4	10.3	9	1.3	0.9	<0.5	67	0.06	0.085
AB08-04	Soil	0.12	5.3	664.9	214.4	135	3.0	25.9	62.6	3038	9.74	145	1.1	2.9	7	1.6	2.7	3.0	118	0.08	0.115
AB08-05	Soil	<0.01	4.9	39.8	23.9	128	1.8	12.4	4.0	293	7.45	22	1.7	9.6	<5	1.1	0.9	<0.5	77	0.02	0.085
AB08-06	Soil	1.05	29.5	646.7	6.2	156	1.9	33.8	11.4	273	7.81	19	0.8	2.8	26	1.8	<0.5	3.6	114	0.17	0.096
AB08-07	Soil	0.05	4.3	233.4	18.8	177	0.8	14.9	6.0	321	6.19	15	2.8	11.4	9	1.4	0.6	<0.5	36	0.15	0.047
AB08-08	Soil	0.01	5.8	331.1	17.2	240	<0.5	30.2	6.9	2200	4.85	14	8.8	9.3	17	1.1	0.9	<0.5	34	0.34	0.082
AB08-09	Soil	0.01	4.9	63.5	17.9	189	0.6	17.7	6.7	767	5.83	15	1.2	2.3	21	0.5	<0.5	0.6	76	0.29	0.084
AB08-10	Soil	0.07	4.8	174.4	14.3	267	0.6	23.6	9.3	2353	4.22	16	3.7	2.0	36	1.6	<0.5	<0.5	40	0.79	0.135
AB08-11	Soil	<0.01	5.7	21.7	22.1	128	<0.5	5.8	1.8	178	6.89	15	2.2	12.6	5	0.6	0.8	<0.5	31	0.07	0.044
AB08-12	Soil	I.S.	10.0	13.9	20.0	97	<0.5	6.7	2.8	204	7.78	19	0.5	2.2	<5	0.8	1.1	0.9	154	0.02	0.048
AB08-13	Soil	<0.01	6.2	64.4	19.5	152	0.6	13.1	8.9	337	8.83	15	1.5	6.8	10	0.6	0.6	<0.5	85	0.07	0.045
AB08-14	Soil	<0.01	5.7	37.7	16.6	123	<0.5	12.7	8.0	292	6.91	8	0.8	1.4	52	<0.5	<0.5	<0.5	165	0.52	0.055
AB08-15	Soil	<0.01	5.1	127.3	14.9	252	<0.5	22.0	7.3	2118	4.65	13	4.8	2.8	77	1.4	0.6	<0.5	37	1.35	0.101
L450E 820N	Soil	I.S.	7.3	1536	147.2	286	7.5	20.7	70.0	1418	11.23	161	1.8	6.0	9	1.3	1.4	17.6	73	0.09	0.092
L450E 840N	Soil	0.02	9.2	54.6	38.1	52	*	4.6	1.3	142	13.26	22	1.3	7.3	<5	0.8	1.0	0.8	122	0.03	0.064
L450E 860N	Soil	0.06	1.7	118.6	41.3	88	3.0	5.6	20.1	679	3.18	7	0.7	0.7	47	1.0	<0.5	0.9	123	0.38	0.066
L450E 880N	Soil	0.09	5.6	61.0	30.6	168	0.9	10.1	2.7	214	7.42	20	2.4	17.2	<5	1.6	0.7	0.6	35	0.05	0.046
L450E 900N	Soil	<0.01	6.3	47.7	19.1	103	<0.5	5.4	2.8	553	7.03	17	2.1	7.8	28	0.7	1.0	<0.5	34	0.66	0.064
L500E 820N	Soil	<0.01	4.8	54.9	20.5	255	<0.5	10.5	4.6	267	4.45	5	1.7	2.5	30	<0.5	0.8	0.5	59	0.64	0.046
L500E 840N	Soil	I.S.	3.9	139.9	19.0	424	1.4	24.3	9.5	3064	4.85	10	2.9	3.3	54	1.2	0.6	<0.5	54	1.03	0.104
L500E 860N	Soil	0.02	7.6	12.5	27.0	90	<0.5	6.0	2.0	197	14.68	21	0.8	3.5	8	1.1	1.0	0.7	99	0.05	0.057
L500E 880N	Soil	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
L500E 900N	Soil	I.S.	3.3	139.1	14.3	331	1.6	17.9	8.5	4006	3.80	7	3.1	1.1	55	1.6	<0.5	<0.5	41	1.02	0.124
L500E 920N	Soil	0.01	3.7	210.0	15.4	296	1.2	26.5	9.6	2009	4.46	13	4.0	4.8	40	1.6	0.6	<0.5	47	0.78	0.138
L500E 940N	Soil	0.01	4.7	32.2	23.0	187	<0.5	7.9	4.0	414	6.73	18	1.1	3.5	41	1.8	<0.5	0.6	80	0.68	0.049
L550E 820N	Soil	0.01	5.2	69.4	24.8	96	0.8	7.8	14.2	487	10.99	12	0.8	3.1	25	0.7	0.7	0.5	173	0.12	0.048
L550E 840N	Soil	<0.01	4.7	26.6	17.5	103	0.8	15.7	2.5	180	5.39	13	2.4	14.3	<5	1.6	<0.5	<0.5	29	0.07	0.058
L550E 860N	Soil	<0.01	4.7	36.4	23.1	75	<0.5	6.2	3.7	235	10.31	12	1.2	6.2	12	<0.5	<0.5	<0.5	89	0.06	0.051

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.



ACME ANALYTICAL LABORATORIES LTD.
 1020 Cordova St. East Vancouver BC V6A 4A3 Canada
 Phone (604) 253-3158 Fax (604) 253-1716

www.acmelab.com

Client: Newcastle Minerals
 108 - 800 Kelly Road
 Victoria BC V9B 6J9 Canada

Project: None given
Report Date: October 03, 2008

Page: 2 of 3 **Part** 2

CERTIFICATE OF ANALYSIS

SMI08000874.1

Method	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	
Analyte	La	Cr	Mg	Ba	Ti	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	
Unit	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	
MDL	0.5	0.5	0.01	5	0.001	0.01	0.01	0.01	0.01	0.05	0.05	0.5	0.5	5	2	
AB08-01	Soil	16.3	26.6	0.27	41	0.215	4.40	0.02	0.06	1.3	0.22	6.2	<0.5	0.5	24	<2
AB08-02	Soil	21.7	29.4	0.36	44	0.156	6.38	0.02	0.08	1.1	0.29	11.2	<0.5	<0.5	21	5
AB08-03	Soil	18.7	27.4	0.19	84	0.217	4.62	0.02	0.06	1.6	0.29	6.8	<0.5	<0.5	32	5
AB08-04	Soil	24.4	21.4	0.66	271	0.111	4.47	0.01	0.07	<0.5	0.22	8.5	<0.5	<0.5	11	2
AB08-05	Soil	17.4	35.4	0.17	47	0.166	6.73	0.02	0.05	1.2	0.30	9.3	<0.5	<0.5	27	3
AB08-06	Soil	6.7	127.7	1.00	152	0.177	6.45	0.02	0.84	2.5	0.20	11.7	0.6	0.6	12	12
AB08-07	Soil	31.0	23.0	0.12	57	0.158	6.36	0.03	0.06	1.3	0.16	8.5	<0.5	<0.5	26	3
AB08-08	Soil	183.9	24.6	0.26	112	0.144	4.91	0.03	0.08	0.9	0.22	9.7	<0.5	<0.5	24	4
AB08-09	Soil	27.6	22.7	0.25	84	0.235	2.53	0.03	0.07	0.9	0.16	3.2	<0.5	<0.5	27	<2
AB08-10	Soil	69.4	21.6	0.20	139	0.110	5.43	0.02	0.06	<0.5	0.29	7.4	<0.5	<0.5	16	8
AB08-11	Soil	28.1	19.5	0.06	39	0.169	6.71	0.02	0.05	1.7	0.31	7.7	<0.5	<0.5	28	2
AB08-12	Soil	19.8	21.1	0.06	33	0.419	1.29	0.01	0.05	2.0	0.09	1.1	<0.5	<0.5	69	5
AB08-13	Soil	20.2	27.9	0.28	53	0.208	4.83	0.02	0.06	1.2	0.21	4.5	<0.5	<0.5	28	<2
AB08-14	Soil	10.1	27.5	0.47	95	0.305	2.32	0.01	0.06	0.8	0.07	2.8	<0.5	<0.5	24	2
AB08-15	Soil	82.2	18.7	0.21	238	0.144	3.86	0.03	0.07	<0.5	0.20	5.8	<0.5	<0.5	19	3
L450E 820N	Soil	24.7	24.5	0.38	73	0.162	4.84	0.02	0.07	0.7	0.20	6.7	<0.5	<0.5	16	2
L450E 840N	Soil	13.4	32.0	0.05	46	0.344	3.86	0.02	0.04	1.7	0.26	3.7	<0.5	<0.5	71	<2
L450E 860N	Soil	14.5	11.5	0.28	172	0.264	1.62	0.02	0.07	<0.5	0.20	4.4	<0.5	<0.5	16	<2
L450E 880N	Soil	22.1	24.5	0.10	54	0.167	6.70	0.02	0.05	1.3	0.29	8.2	<0.5	<0.5	30	3
L450E 900N	Soil	24.8	11.9	0.06	46	0.138	4.49	0.04	0.05	1.6	0.17	6.4	<0.5	<0.5	29	<2
L500E 820N	Soil	28.5	14.4	0.06	80	0.217	1.68	0.02	0.04	1.3	0.12	2.4	<0.5	<0.5	23	<2
L500E 840N	Soil	53.9	24.1	0.24	162	0.162	4.60	0.02	0.06	<0.5	0.28	5.2	<0.5	<0.5	19	2
L500E 860N	Soil	14.5	28.6	0.07	57	0.337	2.09	0.01	0.04	1.5	0.13	1.7	<0.5	<0.5	81	<2
L500E 880N	Soil	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
L500E 900N	Soil	56.7	18.2	0.19	160	0.117	3.66	0.06	0.08	0.7	0.22	4.1	<0.5	<0.5	14	2
L500E 920N	Soil	77.3	26.1	0.19	155	0.142	6.01	0.02	0.06	0.7	0.30	9.2	<0.5	<0.5	16	<2
L500E 940N	Soil	24.6	21.2	0.07	104	0.263	2.18	0.02	0.04	1.5	0.15	2.5	<0.5	<0.5	40	2
L550E 820N	Soil	11.7	21.4	0.61	50	0.300	2.46	0.02	0.03	1.4	0.12	3.7	<0.5	<0.5	40	<2
L550E 840N	Soil	17.3	29.5	0.22	31	0.106	6.54	0.02	0.06	1.2	0.37	8.9	<0.5	<0.5	21	3
L550E 860N	Soil	14.1	29.6	0.10	40	0.269	6.69	0.01	0.03	1.1	0.37	9.5	<0.5	<0.5	27	<2

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.



ACME ANALYTICAL LABORATORIES LTD.
 1020 Cordova St. East Vancouver BC V6A 4A3 Canada
 Phone (604) 253-3158 Fax (604) 253-1716

www.acmelab.com

Client: **Newcastle Minerals**

108 - 800 Kelly Road
 Victoria BC V9B 6J9 Canada

Project: None given

Report Date: October 03, 2008

Page: 3 of 3 Part 1

CERTIFICATE OF ANALYSIS

SMI08000874.1

Method	G6	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX
Analyte	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Th	Sr	Cd	Sb	Bi	V	Ca	P
Unit	gm/mt	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
MDL	0.01	0.5	0.5	0.5	5	0.5	0.5	0.5	5	0.01	5	0.5	0.5	5	0.5	0.5	0.5	10	0.01	0.001
L550E 880N Soil	<0.01	9.0	19.9	22.9	170	<0.5	8.5	3.9	327	6.12	12	2.8	4.1	58	0.7	3.5	0.5	51	0.84	0.057
L550E 900N Soil	0.02	5.5	22.8	24.7	167	0.6	14.9	3.7	319	5.17	16	4.8	17.9	9	2.3	1.2	<0.5	18	0.09	0.055
L550E 920N Soil	<0.01	4.6	110.6	17.8	325	0.6	15.0	4.1	1409	4.91	60	5.5	5.1	51	1.3	1.8	<0.5	43	0.94	0.110
L550E 940N Soil	0.01	4.9	169.6	15.5	457	<0.5	34.3	6.5	1520	4.48	19	11.6	7.1	18	1.4	0.9	<0.5	53	0.28	0.095



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 1020 Cordova St. East Vancouver BC V6A 4A3 Canada
 Phone (604) 253-3158 Fax (604) 253-1716

www.acmelab.com

Client: Newcastle Minerals
 108 - 800 Kelly Road
 Victoria BC V9B 6J9 Canada

Project: None given
Report Date: October 03, 2008

Page: 3 of 3 **Part** 2

CERTIFICATE OF ANALYSIS

SMI08000874.1

Method	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX
Analyte	La	Cr	Mg	Ba	Ti	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se
Unit	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm
MDL	0.5	0.5	0.01	5	0.001	0.01	0.01	0.01	0.5	0.05	0.5	0.5	0.5	5	2
L550E 880N Soil	33.4	21.9	0.11	158	0.198	3.77	0.02	0.06	1.3	0.16	3.4	<0.5	<0.5	32	3
L550E 900N Soil	30.7	23.1	0.21	43	0.112	7.26	0.03	0.07	1.8	0.21	7.1	<0.5	<0.5	21	4
L550E 920N Soil	67.0	22.8	0.18	174	0.150	3.73	0.03	0.07	0.9	0.24	6.0	<0.5	<0.5	23	<2
L550E 940N Soil	211.2	34.1	0.34	117	0.207	4.00	0.02	0.08	0.8	0.24	9.5	<0.5	<0.5	26	3

QUALITY CONTROL REPORT

SMI08000874.1

Method		G6	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	
Analyte		Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Th	Sr	Cd	Sb	Bi	V	Ca	P
Unit		gm/mt	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
MDL		0.01	0.5	0.5	0.5	5	0.5	0.5	0.5	5	0.01	5	0.5	0.5	5	0.5	0.5	0.5	10	0.01	0.001
Pulp Duplicates																					
AB08-10	Soil	0.07	4.8	174.4	14.3	267	0.6	23.6	9.3	2353	4.22	16	3.7	2.0	36	1.6	<0.5	<0.5	40	0.79	0.135
REP AB08-10	QC		4.0	165.8	13.8	249	0.7	23.7	7.6	2470	4.32	15	3.4	1.7	40	1.2	0.6	<0.5	40	0.79	0.140
L500E 840N	Soil	I.S.	3.9	139.9	19.0	424	1.4	24.3	9.5	3064	4.85	10	2.9	3.3	54	1.2	0.6	<0.5	54	1.03	0.104
REP L500E 840N	QC	I.S.																			
Reference Materials																					
STD OXH55	Standard	1.37																			
STD OXH55	Standard	1.30																			
STD SF-3A	Standard		313.4	7796	9333	10801	51.9	3451	186.6	4166	7.86	44	3.3	2.9	55	48.4	9.9	4.8	126	2.62	0.055
STD SF-3A	Standard		314.7	7773	9211	10681	52.3	3403	181.3	4148	7.84	44	3.3	2.9	62	49.5	9.8	4.8	125	2.57	0.055
STD SF-3A Expected			308	7705	9625	10628	54	3365	183	4247	7.91	46	0	0	50	45	10	0	102	2.59	0.054
STD OXH55 Expected		1.282																			
BLK	Blank		<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<5	<0.01	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<10	<0.01	<0.001
BLK	Blank	<0.01																			
BLK	Blank	<0.01																			

QUALITY CONTROL REPORT

SMI08000874.1

Method	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	7AX	
Analyte	La	Cr	Mg	Ba	Ti	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	
Unit	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	
MDL	0.5	0.5	0.01	5	0.001	0.01	0.01	0.01	0.5	0.05	0.5	0.5	0.5	5	2	
Pulp Duplicates																
AB08-10	Soil	69.4	21.6	0.20	139	0.110	5.43	0.02	0.06	<0.5	0.29	7.4	<0.5	<0.5	16	8
REP AB08-10	QC	71.6	23.0	0.20	144	0.115	5.60	0.02	0.06	0.7	0.33	7.3	<0.5	<0.5	16	4
L500E 840N	Soil	53.9	24.1	0.24	162	0.162	4.60	0.02	0.06	<0.5	0.28	5.2	<0.5	<0.5	19	2
REP L500E 840N	QC															
Reference Materials																
STD OXH55	Standard															
STD OXH55	Standard															
STD SF-3A	Standard	8.9	175.8	4.30	265	0.118	1.08	0.50	1.02	3.5	0.50	2.9	2.8	5.4	<5	10
STD SF-3A	Standard	8.9	174.7	4.22	272	0.115	1.03	0.50	1.02	3.3	0.56	2.3	2.8	5.1	5	10
STD SF-3A Expected		10	167	4.27	260	0.117	1	0.47	0.99	0	0.6	0	0	4.2	0	10
STD OXH55 Expected																
BLK	Blank	<0.5	<0.5	<0.01	<5	<0.001	<0.01	<0.01	<0.01	<0.5	<0.05	<0.5	<0.5	<0.5	<5	<2
BLK	Blank															
BLK	Blank															