BC Geological Survey Assessment Report 32707



### ASSESSMENT REPORT

including

Prospecting

on the

# **SOUP PROPERTY**

OMINECA MINING DIVISION, British Columbia NTS: 94C/05 Latitude 56°28' N, Longitude 126°3' W

Prepared for Operators: SERENGETI RESOURCES INC 1700-1750 West Pender Street Vancouver, BC, Canada V6C 2T8

> By: H.R. SAMSON, B.Sc., 16 Dec 2011 Vancouver, B.C.

# **Table of Contents**

List of	Tables	1
List of	Figures	1
List of	Appendix	1
(1)	Introduction and Terms of Reference	2
(2)	Property Description and Location	2
(3)	Accessibility, Local Resources, Infrastructure, Climate and Physiography	5
(4)	History	5
(5)	Geology	7
(6)	Prospecting and Rock Sampling	9
(7)	Results and Discussion	9
(8)	Recommendations1	3
(9)	References1	4

# **List of Tables**

Table 1 – Detailed Claim Information
Table 2 – Soup Rock Samples – Descriptions and Cu-Au Results

## **List of Figures**

- Figure 1 Soup Property General Location and Geology
- Figure 2 Soup Property Claim Details
- Figure 3 2011 Sample Locations and Previous Work in Area
- Figure 4 Cu in Rock Sampling Results
- Figure 5 Au in Rock Sampling Results

# **List of Appendix**

- Appendix A Expenditure Statement
- Appendix B Geologist's Certificate
- Appendix C Analytical Certificate
- Appendix B Sample Notes and Results

# (1) Introduction and Terms of Reference

The Soup project is located 240 km northwest of Fort St. James and 90 km southeast of the Kemess Mine in the Omenica Mining province of British Columbia. The property covers an area of 197 hectares and is underlain by rocks of the Quesnel Terrane (Fig. 1). The Quesnel Terrane comprises Middle and Upper Triassic volcanic and volcaniclastic rocks of the Takla Group that are cut by economically important Late Triassic to Early Jurassic alkaline and calc-alkaline intrusive bodies. These rocks formed in a system of magmatic arcs that developed along or near the western North American continental margin of the Canadian Cordillera (Schiarizza and Tan, 2005). This setting is host to a number of major mineralised alkalic and calc-alkalic porphyry systems in British Columbia (Afton/Ajax, Copper Mtn/Ingerbelle, Galore Creek, Lorraine, and Mt. Polly).

The Soup tenures were acquired by Steven Lawes in June of 2011. The claims are adjacent to the west to Serengeti Resources's (Serengeti) Croy-Bloom project (Fig. 2). The objective of the 2011 exploration on the Soup property was to complete a field investigation of the several reported showings and mineral occurrences on and around the property. An additional purpose of the field investigation was to gain an understanding of the geological setting of the mineral occurrences. On August 6<sup>th</sup>, 2011, two staff members from Serengeti completed a site visit on the Soup project and collected a total of 6 rock samples. The cost of the site visit, helicopter time, and accompanying report totaled \$2,925.

# (2) **Property Description and Location**

The Soup project is located 200 km northwest of Mackenzie and 90 km southeast of the Kemess Mine in the Omenica Mining province of north-central British Columbia, Canada (Fig. 1). The property is accessible by helicopter, staging from nearby logging roads, off the Omenica Resource Access Road that travels east of the property.

The Soup property covers an area of rugged ridges and steep talus with broad cirque and valley floors. Alpine vegetation covers gentler and higher portions of the valleys. Scrub willow, alder and forests of spruce occupy the lower elevations. Property elevation ranges from 1,600 m to 2,200 m. June to September are the best months for fieldwork.

Project	Tenure #	Claim Name	Hectares	Expiry Date	Record Date	Mining Division
SOUP	857168	SOUP	178.750	25-Oct-15	18-Jun-11	OMENICA
SOUP	857291	SOUP 1	17.870	25-Oct-15	19-Jun-11	OMENICA
2 claims			196.620			

**Table 1** – Claim Details





The project consists of two tenures covering a total area of 196.62 hectares. Claim details are presented in Table 1 and their locations shown in Figure 2.

# (3) Accessibility, Local Resources, Infrastructure, Climate and Physiography

Access to the property is via the Omineca Mining Road, 235 km northwest of Mackenzie BC. The Omineca road passes within 20 km to the east of the property and continues to the Kemess Mine, 90 km to the northwest. A logging road branched off the Omineca mining road and travels into a valley in the central portion of the Serengeti's neighboring claim block. The property is located almost entirely within the alpine.

The climate of region is typical of middle to northern latitudes in Canada as the winters are cold (-10 to -35 deg Celsius) and summers are generally moderate (15-20 degrees Celsius). Topography is characterized by steep relief with ice and snow persisting year round on north facing slopes. Vegetation consists of small alpine brush with little to no soil development.

# (4) History

The Soup skarn, southwest of the Shell prospect, was first known to have been staked in 1964. Several operators have completed exploration on the claims from 1964 to present. The 1997 MEMPR Assessment Report #25185, authored Williams, outlines all the surveys known to have been completed at the Soup project – see AR 25185 for reference.

The most pertinent work to current exploration at the property includes work completed by Vital Pacific Resources Ltd. from 1989 to 1997. In 1989, Vital Pacific drilled 7 short holes with the best grade intersection 3.2m @ 49.0 g/t Au and 0.17% Cu from an oxidized quartz-magnetite shear crosscutting the skarn (Grexton and Roberts, 1991). From 1996 to 1997, Vital Pacific Resources Ltd. and Athlone Resources Ltd. drilled an additional 12 holes targeting a northwest trending magnetite-rich auriferous zone with at least three stratiform lenses (Minfile, 2009). The 1997 drilling intersected a particularly interesting, sub-horizontal lens of copper-gold mineralization. Intersections of this horizon include; Hole 97-01 intersected 1.09 g/t Au and 0.39% Cu over 22.71 m (true width ~20.7 m), and Hole 97-02 intersected 0.84 g/t Au and 0.35% Cu over 22.07 m (true width ~14.2 m) (Williams, AR 25185). The locations of the known drill collars are shown in Figure 3. This mineralized lens does not appear to be exposed at surface and represents an attractive exploration target.



# (5) Geology

#### **Regional Geology:**

The Soup project is situated in the northern part of the Quesnel Trough, a volcanic arc terrane that formed during the late Triassic to early Jurassic in the north-westerly trending Intermontane Belt of the Canadian Cordillera (Zhang and Hynes, 1991). The Quesnel Terrane is host to many large alkalic and calc-alkalic porphyry Cu-Au deposits, which formed during Early Mesozoic island-arc magmatism

In north-central British Columbia, the Quesnel Terrane comprises mostly Middle to Upper Triassic volcaniclastic and volcanic rocks of the Takla Group, which have been intruded by the Hogem Batholith and its related intrusions. Older components of the Quesnellia Terrane contain arc volcanic and sedimentary rocks of the Lay Range assemblage. These rocks are restricted to the eastern margin of the Quesnel belt (Ferri, 1997).

Proterozoic and Palaeozoic carbonates and siliciclastics of the Cassiar Terrane bound the Quesnellia Terrane to the east of the Croy Bloom/Davie Ck property. The Cassiar Terrane represents part of the ancestral North American miogeocline (Schiarizza, 2004). To the south, however, the Quesnel Terrine is separated from miogeoclinal rocks by oceanic rocks of the Slide Mountain Terrine, commonly interpreted as the imbricated remnants of a Late Palaeozoic marginal basin (Ferri, 1997). 15 km to the west of the property, the Quesnellia Terrane is juxtaposed against the similar volcanic arc Stikine Terrane, separated by the large northwest trending Finlay-Ingenika fault system.

The structural framework of the region includes the development of east-directed thrust faults that placed the Quesnel Terrane above the Cassiar Terrane in late Early Jurassic time (Schiarizza and Tan, 2005). To the west, early Middle Jurassic eastdipping thrust faults, imbricate the Cache Creek Terrane and juxtapose it above the adjacent Stikine Terrane (Schiarizza and Tan, 2005). This thrusting was broadly coincident with the initiation of the Bowser basin, which formed above the Stikine Terrane and contains detritus that was derived, in part, from the adjacent Cache Creek Terrine (Schiarizza and Tan, 2005).

During the Late Cretaceous to Early Tertiary prominent dextral strike-slip fault systems formed in the region. These structures include the Finlay-Ingenika and Pinchi faults, which cut Takla Group rocks into a number of fault-bounded domains (Schiarizza, 2004).

The Finlay-Ingenika fault is an extension of the north-northwest trending Pinchi fault system situated approximately 20 km to the southeast of the property. These structures are thought to have up to more than 100 km of cumulative displacement (Schiarizza and Tan, 2005).

Structural mapping by Zhang and Haynes (1991) has suggested that fault bounded domains east of the Finlay-Ingenika Fault have rotated clockwise about sub-vertical axes in response to this progressive displacement. Their analysis indicates rotations of up to 590 adjacent to the Finlay-Ingenika Fault, and 350 from the Dortatelle Fault (Schiarizza, 2004).

#### **Property Geology:**

Due to the author's lack of specific familiarity of the Soup claim geology, the below description of the property geology is taken for MEMPR Assessment Report #16655 – authored in 1987 by Rebagliati Geological Consulting Ltd on behalf of Lemming Resources Ltd and Vital Pacific Resources Ltd:

(From AR 16665) The SOUP claims are underlain largely by volcanic rocks of the Upper Triassic Takla Group. These have been intruded by diorite stocks sills and dykes, microdiorite and feldspar porphyry dykes and by quartz monzonitic batholithic rocks. A few narrow dykes of augite porphyry and mica lamprophyre also occur. Volcanic units strike north-northwesterly and dip moderately eastward and are offset by northwesterly and north to northeasterly-striking faults. Magnetite-rich, gold-copper bearing skarn beds appear to lie parallel to the volcanic layering and are traceable for over 2,000 metres. The stratigraphically lowest exposed rocks are grey to greenish feldspar-rich andesitic lavas, These andesites grade upward into, and at first interfinger with, beds of andesitic to basaltic augite porphyry flows and flow breccias. Both the andesite and the augite porphyry flows are intruded by augite porphyry feeder dykes. Recessive, thin calcareous andesitic tuff units, indicative of a period of sedimentation, lie at the base of the augite-bearing units. On the west side of Kliyul Creeks these units correlate with west-dipping thick beds of pyritic ash tuff, interlayered calcareous tuffs, gritty limestone and argillite which occupy the same stratigraphic position between the feldspathic andesite and the augite porphyries, The opposing dips suggest that Klivul Creek occupies an anticlinal valley (Rebagliati, 1987, AR 16655).

#### **GOLD-COPPER MAGNETITE OCCURRENCES**

Massive conformable lenses (or beds) of magnetite-rich skarn occurring near the base of the augite porphyry contain appreciable gold and copper. At least three parallel skarn horizons are recognized, possibly replacing calcareous tuffs. Similar-looking mineralization is present in quartz-magnetite veins occur-ring along cross-cutting faults which offset the skarn units. The skarns occur in a series of intermittently exposed concordant lenses 1 to 5 metres thick, each up to several hundred metres long. Magnetite, ranging from 60 to 100%, is concentrated near the top of the horizon. Peripheral zones of disseminated magnetite 5 to 20 metres thick underlie most massive horizons and contain minor pyrite and chalcopyrite. Lenses of massive pyrite also occur within or adjacent to the zones of disseminated magnetite (Rebagliati, 1987, AR 16655).

Outcrops of skarn tend to be highly oxidized, forming orange-brown stain zones, and are characterized by epidote actinolite and fine-grained garnet. Only minor calc-silicate alteration, typical of many skarn deposits, is present on the **SOUP** claims. The quartz-magnetite veins and replacement bodies occupy subsidiary faults and shear zones branching from or parallel to the main Saddle Gully Fault. These auriferous veins have only been observed to occur near the magnetite-bearing **skarn** units (Rebagliati, 1987, AR 16655).

# (6) Prospecting and Rock Sampling

The decision to complete the site visit at the Soup Project was based on the following factors; close proximity to Serengeti's Croy Bloom project, previously identified mineral occurrences, presence of a field crew in the area, and an invitation by the claim owner, Steven Lawes, to investigate the property. As a result, there was very little research completed on the specific targets prior to the site visit. On August 6<sup>th</sup>, 2011, two staff members from Serengeti Resources completed a site visit on the Soup claims. The purpose of the site visit was simply to confirm the presence of potentially significant mineral occurrences, which were known to have been reported in past work. The field staff collected 6 rock samples from areas that they determined to have potential to contain precious or base metal showings. Field observations made by the field staff confirmed the presence of numerous copper bearing magnetite horizons throughout the property. Subsequent results from the laboratory analysis confirmed both strongly anomalous copper and gold results in some of the samples. The rock samples collected and general field observations described from the site visit convinced Serengeti to complete a detailed review of the extensive past work completed on the claims. The locations and sample numbers of the collected rock samples are shown in Figure 3. The samples were shipped to Acme Labs in Vancouver for analysis. Acme analyzed the rock samples using a 30 element ICP scan.

# (7) Results and Discussion

Serengeti collected a small number of rock samples on the August 2011 site visit. A total of 6 rock samples were collected and analyzed using a 30 element ICP scan. The copper and gold assay results as well as the sample descriptions are shown below in Table 2. Plots of the copper and gold sample results are shown in Figures 4 and 5, respectively. The full 30 element ICP results can be found in appendix D.

Sample #	Zone	Easting (NAD83)	Northing (NAD83)	Lithology	Notes	Width	Cu (ppm)	Au (ppb)
					massive magnetite/volcanics with boxwork and stockworking. 30m			
		600064		massive	downhill from epidote volcanics.			
552001	9	680361	6262303	magnetite	Rubble grab	grab	456.4	388.8
					grab sample from weakly prop			
					diorite float w strong mal staining.			
					Likely from a continuation of the			
552002	9	680577	6261929	diorite	skarn above	grab	5243.4	6.4

Table 2 – Soup	Rock Samples -	Descriptions and	Cu-Au Results
----------------	----------------	------------------	---------------

					3m comp sample from E-W structure coming out of Ox Skarn area 30m down slope. F gr volcanic with tr cpy, lots of mal staining. V wk mag. Old sample site. Sample includes 1m of structure as well as ozidized wall rock (skarn? No identifiable			
1115036	9	680482	6262450	Skarn/volc	minerals)	3m	1228.2	518.0
1145027	0	600462	6262446		comp grab over 2m from magnetite bearing oxidized skarn o/c 1X2m wide. Prev side of 87-D- 209. Ox o/c continue 100m vert. down scree slope. Wk stockwork is	2	620.0	052.6
1115037	9	680463	6262446	skarn	visible in spots	2m	639.8	953.6
1115040	9	680246	6262598	felsic intrusive	2m comp from strongly ox mod stockwk felsic intrusive. Non altered volcanic 5m away	2m	275.1	94.1
1115041	0	690241	6262452	skarn/felsic	15m comp chip along strike w skarn zone and feldspar porphyry. Felsic intrusive wall rock. Zone appears to be discontinuous along strike as it pinches in places into the granitoids. E-W it runs for 10- 20m but disappears under rubble. (diff to sample accord)	15 m	522.2	120 5

The Serengeti rock sampling, while limited in its extent, demonstrated widespread copper and gold occurrences on the Soup property. The analytical results, indicating strongly anomalous copper and gold values, are consistent with comments of the field staff that indicated widespread but localized occurrences of malachite stained magnetite. At the time of the site visit, the significance of the mineral occurrences was entirely unknown as previous exploration on the property had not been sufficiently investigated by Serengeti.

Upon receipt of the comments from the field staff, Serengeti decided to complete a detailed review of past exploration described in the assessment records. In this review, Serengeti found that the results of drilling completed by Vital Pacific in 1997 were of particular interest. As indicated in the History section of this report, the 1997 drilling intersected a sub-horizontal lens of copper-gold mineralization. Intersections of this horizon included; Hole 97-01 intersected 1.09 g/t Au and 0.39% Cu over 22.71 m (true width ~20.7 m), and Hole 97-02 intersected 0.84 g/t Au and 0.35% Cu over 22.07 m (true width ~14.2 m) (Williams, AR 25185). This mineralized lens is not described to be exposed at surface and potentially represents an attractive exploration target. As a result of the review of past work on the Soup claim, Serengeti decided to purchase the Soup claims from Steven Lawes





# (8) **Recommendations**

- 1) The site visit completed by Serengeti confirmed the presence of mineral occurrences on the Soup project
- 2) A review of the assessment records indicated that past exploration has identified significant mineralization on the Soup claims.
- 3) The extent of the significant mineralization has not yet been previously defined.
- 4) Based on indications from past exploration results, there is potential for the discovery of significant mineral resources on the Soup property.

It is therefore recommended to acquire the Soup claims from Steven Lawes (completed Sept 2011) and plan the next exploration steps. These steps may include geophysical surveying and diamond drilling.

# (9) References

Bath, A., and Cooke, D., 2008, The importance of biotite for the deposition of sulphides at the Lorraine Cu-Au deposit, north-central British Columbia: Mineral Deposit Research Unit University of British Columbia, Canada.

Ferri, F., Dudka, S., Rees, C., and Meldrum, D. (1995): Geology of the Aiken Lake And Osilinka River Areas, North Quesnel Trough; B.C. Ministry of Energy and Mines, Geoscience.

Ferri, F., Dudka, S., Rees, C., and Meldrum, D. (2001): Geology of the Aiken Lake Area, North-Central British Columbia; B.C. Ministry of Energy and Mines, Geoscience Map 2001-10.

Garnett, J.A., 1978, Geology and Mineral Occurrences of the Southern Hogem Batholith: B.C. Ministry of Energy, Mines and Petroleum Resources Bulletin p. 70 -75.

Jago, C.P., 2005, Metal- and alteration-zoning, and hydrothermal flow paths at the moderatelytilted, silica-saturated Mt. Milligan Cu-Au alkalic porphyry deposit: Mineral Deposit Research Unit University of British Columbia, Canada.

Jago, C.P., and Tosdal, T., 2008, The Early Jurassic Mt. Milligan (British Columbia): an example of the younger silica-saturated alkalic porphyry Cu-Au deposit: Mineral Deposit Research Unit University of British Columbia, Canada.

Rebagliati, C.M., Phase II Summary Report 1987 Kliyul Creek Gold Project Soup Claims, B.C. Ministry of Energy, Mines and Petroleum Resources, Assessment Report #16655.

Schiarizza, P., 2004, Geology and mineral occurrences of Quesnel Terrane, Kliyul Creek to Johanson Lake (94D/8, 9). B.C. Ministry of Energy, Mines and Petroleum Resources Paper 2004 - 1: p. 83-100.

Schiarizza, P., and Tan, S.H., 2005, Geology and mineral occurrences of Quesnel Terrane, between the Mesilinka River and Wrede Creek (NTS 94D/8,9), North-Central British Columbia. B.C. Ministry of Energy, Mines and Petroleum Resources Paper 2005 - 1: p. 109-130.

Williams, J.D., Report on Drilling in 1997 on the Soup Gold-Copper Property, B.C. Ministry of Energy, Mines and Petroleum Resources, Assessment Report #25185.

Woodsworth, G.J., Anderson, R.G., and Armstrong, R.L., 1991, Plutonic regimes, Chapter 15, *in* Geology of the Cordilleran Orogen in Canada, H. Gabrielse and C.J. Yorath, eds., *Geological Survey of Canada*, Geology of Canada, no. 4, p. 491-531.

Appendix A – Expenditure Statement

#### Soup Project Cost Statement

Dates: Aug 6, 2011 Claims Worked: 857168, 857291

Total Expenditure:	\$	2,925.00
<i>Report:</i> 1 day @ \$400	\$	400.00
<i>Helicopter:</i> 1.0 hour @ \$1150/hr	\$	1,150.00
<i>Accomadation</i> 2 nights - \$165/day room and board	\$	660.00
<i>Analysis</i> 6 rocks @ \$20/sample	\$	180.00
<i>Staff:</i> Junior Geologist - 1 day @ \$300/day Student - 1 day @ \$235/day	\$ \$	300.00 235.00

Appendix B – Geologist's Certificate

#### **GEOLOGIST'S CERTIFICATE**

I, Hugh R. Samson of #205-1875 West 8<sup>th</sup> Avenue, Vancouver, in the province of British Columbia, DO HEREBY CERTIFY:

1. THAT I am Serengeti Resources Inc.'s Project Geologist.

2. THAT I am a 2005 graduate of Dalhousie University with an Honours BSc.

3. THAT I have practised in the field of Geosciences since my graduation from University.

4. THAT this report is based on fieldwork carried out on August 6<sup>th</sup>, 2011, by personnel of Serengeti Resources Inc.

5. THAT this report was written by myself under the supervision and direction of David W. Moore, President and CEO of Serengeti Resources Inc. and a Professional Geoscientist (P. Geo) registered and in good standing with the Association of Professional Engineers and Geoscientists of the Province of British Columbia (#28163).

DATED at Vancouver, British Columbia this 16<sup>th</sup> day of December, 2011.

Hugh R. Samson, B.Sc.

David W. Moore, P. Geo

Appendix C – Analytical Certificates



Client:

Serengeti Resources 1700 - 750 W. Pender Street Vancouver BC V6C 2T8 Canada

1020 Cordova St. East Vancouver BC V6A 4A3 Canada

Acme Analytical Laboratories (Vancouver) Ltd.

www.acmelab.com

Submitted By:Hugh SamsonReceiving Lab:Canada-SmithersReceived:August 25, 2011Report Date:September 10, 2011Page:1 of 3

SMI11000342.1

## CLIENT JOB INFORMATION

# Project:Aug 12, 2011 ShipmentShipment ID:Aug-11P.O. NumberVumber of Samples:42

CERTIFICATE OF ANALYSIS

#### SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
R200-250	42	Crush, split and pulverize 250 g rock to 200 mesh			SMI
1DX3	42	1:1:1 Aqua Regia digestion ICP-MS analysis	30	Completed	VAN

#### ADDITIONAL COMMENTS

#### SAMPLE DISPOSAL

 STOR-PLP
 Store After 90 days Invoice for Storage

 DISP-RJT
 Dispose of Reject After 90 days

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: Serengeti Resources 1700 - 750 W. Pender Street Vancouver BC V6C 2T8 Canada

CC:





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. Results apply to samples as submitted. "\*" asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



#### Serengeti Resources

1700 - 750 W. Pender Street Vancouver BC V6C 2T8 Canada

Part 1

SMI11000342.1

Project

Page:

Aug 12, 2011 Shipment

2 of 3

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

Project:	
Report Date:	

September 10, 2011

www.acmelab.com

Acme Analytical Laboratories (Vancouver) Ltd.

# CERTIFICATE OF ANALYSIS

	Metho	WGHT	1DX30																		
	Analyt	€ Wgt	Мо	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	v	Ca	P
	Un	t kg	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%							
	MD	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
537955 F	ock	0.55	1.1	85.5	3.3	36	0.1	6.9	14.8	1017	3.68	1.3	3.1	2.2	34	0.2	0.6	<0.1	50	0.55	0.194
537956 F	ock	0.88	0.9	9.8	2.2	37	<0.1	5.4	10.3	641	2.67	0.6	10.7	1.3	37	<0.1	0.5	<0.1	45	0.40	0.134
537957 F	ock	0.59	2.3	85.3	2.5	30	0.2	4.0	10.3	608	2.80	2.4	14.1	2.8	34	0.1	0.3	<0.1	31	0.87	0.102
537958 F	ock	0.99	2.8	70.0	3.0	28	0.1	3.0	9.5	988	2.93	3.3	9.2	4.0	29	0.2	1.3	<0.1	31	0.72	0.138
537959 F	ock	0.98	2.7	89.3	2.3	15	0.2	2.4	4.0	633	2.76	2.4	42.0	1.7	32	0.2	0.3	<0.1	27	0.77	0.141
540958 F	ock	0.77	1.5	51.7	2.2	14	<0.1	3.2	6.1	352	2.30	<0.5	130.1	2.4	10	<0.1	<0.1	0.1	33	0.14	0.075
541942 F	ock	0.35	<0.1	108.5	0.2	37	<0.1	17.0	21.9	422	5.17	<0.5	21.2	<0.1	74	<0.1	0.2	<0.1	126	1.29	0.218
541722 F	ock	0.46	17.2	118.0	1.1	10	0.2	6.8	11.2	109	4.03	<0.5	12.1	0.7	58	<0.1	<0.1	<0.1	22	0.54	0.101
541723 F	ock	1.36	2.6	99.4	0.5	27	<0.1	33.9	17.2	288	2.47	<0.5	2.5	0.2	97	<0.1	<0.1	<0.1	73	1.30	0.053
541897 F	ock	0.60	4.5	503.6	1.8	21	0.2	16.3	8.3	176	2.70	0.8	5.3	0.5	212	<0.1	<0.1	0.2	31	1.27	0.069
541898 F	ock	0.77	49.8	79.5	0.2	17	0.1	20.1	12.8	298	2.59	0.7	13.9	0.2	19	<0.1	0.1	<0.1	49	0.74	0.059
541899 F	ock	1.01	0.2	20.1	0.5	30	<0.1	11.7	7.5	303	0.85	<0.5	1.4	0.1	38	<0.1	<0.1	<0.1	9	0.41	0.038
541900 F	ock	0.88	5.7	89.2	1.6	34	0.1	7.3	14.4	200	3.64	<0.5	<0.5	0.6	82	<0.1	<0.1	<0.1	39	0.89	0.051
541907 F	ock	0.61	0.4	1291	2.6	48	0.6	1.5	9.3	799	2.28	0.9	8.2	2.7	285	0.1	0.4	<0.1	127	3.35	0.093
1115001 F	ock	0.96	1.1	176.5	1.1	16	0.1	17.0	16.9	143	2.91	<0.5	0.7	0.3	84	<0.1	<0.1	<0.1	36	0.85	0.052
1115002 F	ock	0.84	1.7	141.6	0.9	16	<0.1	9.4	9.9	178	2.46	<0.5	1.3	0.3	93	<0.1	<0.1	<0.1	46	0.94	0.049
1115129 F	ock	0.78	0.6	56.8	1.0	7	<0.1	4.3	6.2	127	1.95	<0.5	<0.5	1.9	32	<0.1	<0.1	<0.1	24	0.54	0.078
1115130 F	ock	0.76	0.1	40.7	0.9	17	<0.1	1.3	3.2	194	1.26	<0.5	<0.5	0.8	73	<0.1	<0.1	<0.1	13	0.71	0.052
1115003 F	ock	0.45	3.5	2359	1.2	62	1.7	633.5	105.8	415	4.22	3.8	67.5	<0.1	15	0.4	0.1	<0.1	111	0.47	0.117
1115004 F	ock	0.89	0.2	8.1	0.7	19	<0.1	5.2	13.0	455	3.74	0.6	<0.5	1.0	43	<0.1	<0.1	<0.1	113	0.90	0.116
1115005 F	ock	0.72	2.1	51.4	3.3	34	0.2	4.3	9.0	360	2.72	1.0	14.0	3.0	43	0.2	<0.1	0.3	40	0.57	0.080
1115006 F	ock	0.96	2.2	16.0	1.5	18	<0.1	4.4	8.0	286	1.99	1.0	<0.5	0.8	86	<0.1	<0.1	0.1	49	0.91	0.179
1115007 F	ock	0.93	4.2	29.2	1.8	23	<0.1	3.0	10.4	318	2.72	<0.5	<0.5	0.7	31	<0.1	<0.1	0.2	63	0.85	0.156
1115008 F	ock	0.93	5.1	22.2	2.2	15	<0.1	1.6	3.0	195	2.51	<0.5	1.1	2.8	29	<0.1	<0.1	0.7	49	0.30	0.081
1115009 F	ock	0.85	8.4	50.4	0.8	18	0.1	24.8	13.2	244	3.59	<0.5	0.8	0.2	31	<0.1	<0.1	0.7	112	0.76	0.023
1115010 F	ock	0.84	46.7	27.2	1.0	21	<0.1	21.1	10.0	304	2.00	<0.5	<0.5	0.3	42	<0.1	<0.1	0.1	53	0.90	0.074
1115011 F	ock	0.80	165.8	50.4	2385	31	0.9	2.5	5.9	273	3.67	<0.5	10.1	0.2	25	<0.1	0.2	1.6	81	0.34	0.070
1115012 F	ock	1.11	2.7	79.1	3.0	15	0.1	26.7	13.2	213	5.05	<0.5	<0.5	0.2	8	<0.1	<0.1	0.3	138	0.74	0.007
1115013 F	ock	0.77	4.7	29.7	9.9	22	<0.1	21.0	8.1	277	2.48	<0.5	<0.5	0.3	34	<0.1	<0.1	0.3	66	0.76	0.099
541913 F	ock	0.59	15.8	41.4	1.5	30	<0.1	1.3	3.7	247	2.16	0.8	2.5	0.9	56	<0.1	<0.1	0.2	26	0.38	0.089

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.





Client:

Page:

#### Serengeti Resources

1700 - 750 W. Pender Street

Vancouver BC V6C 2T8 Canada

Project: Au Report Date: Se

Aug 12, 2011 Shipment September 10, 2011

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

www	acm	elab	com
** ** **	aum	σιαυ.	

Acme Analytical Laboratories (Vancouver) Ltd.

2 of 3 Part 2

# CERTIFICATE OF ANALYSIS

		Method	1DX30																
		Analyte	La	Cr	Mg	Ва	Ti	в	AI	Na	к	w	Hg	Sc	ті	S	Ga	Se	Те
		Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
		MDL	1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
537955	Rock		11	10	0.40	88	0.021	<1	0.68	0.047	0.19	0.1	<0.01	5.4	<0.1	<0.05	2	<0.5	<0.2
537956	Rock		8	8	0.65	292	0.012	<1	1.00	0.033	0.27	0.1	<0.01	3.0	<0.1	0.12	3	<0.5	<0.2
537957	Rock		6	5	0.36	58	0.004	<1	0.55	0.035	0.23	0.2	<0.01	2.0	<0.1	0.05	2	<0.5	<0.2
537958	Rock		12	4	0.08	57	0.006	<1	0.26	0.055	0.14	0.3	<0.01	4.3	<0.1	<0.05	1	<0.5	<0.2
537959	Rock		8	3	0.18	50	0.006	<1	0.36	0.046	0.18	0.3	<0.01	3.0	<0.1	0.11	1	<0.5	<0.2
540958	Rock		7	3	0.40	39	0.004	1	0.69	0.055	0.13	0.1	<0.01	2.5	<0.1	<0.05	3	<0.5	<0.2
541942	Rock		2	46	1.32	110	0.110	<1	1.18	0.038	0.48	0.3	<0.01	3.1	<0.1	<0.05	3	<0.5	<0.2
541722	Rock		3	8	0.40	32	0.058	<1	0.81	0.100	0.10	1.4	<0.01	0.7	<0.1	1.54	3	1.3	<0.2
541723	Rock		<1	75	1.01	124	0.134	<1	2.45	0.260	0.47	0.9	<0.01	2.5	0.2	0.56	5	<0.5	<0.2
541897	Rock		4	16	0.39	34	0.093	<1	2.29	0.279	0.08	0.2	<0.01	1.6	<0.1	0.76	5	4.5	0.3
541898	Rock		<1	30	1.00	22	0.183	<1	1.17	0.029	0.10	0.6	<0.01	2.1	<0.1	0.19	3	<0.5	<0.2
541899	Rock		<1	14	0.67	75	0.039	<1	0.82	0.046	0.08	0.1	<0.01	0.5	<0.1	0.16	2	<0.5	<0.2
541900	Rock		2	9	0.55	20	0.117	<1	1.55	0.170	0.05	1.4	<0.01	2.3	<0.1	1.19	4	2.2	<0.2
541907	Rock		12	3	0.49	223	0.108	3	0.96	0.025	0.28	0.3	0.01	2.9	<0.1	<0.05	4	<0.5	<0.2
1115001	Rock		1	10	0.38	56	0.099	<1	1.36	0.168	0.12	0.1	<0.01	1.7	<0.1	0.99	3	4.6	<0.2
1115002	Rock		1	9	0.48	48	0.106	<1	1.63	0.143	0.12	0.1	<0.01	2.0	<0.1	0.60	4	3.8	<0.2
1115129	Rock		6	7	0.25	8	0.099	<1	0.58	0.072	0.05	0.7	<0.01	1.0	<0.1	0.47	2	<0.5	<0.2
1115130	Rock		4	3	0.34	61	0.062	<1	0.60	0.059	0.13	0.1	<0.01	0.3	<0.1	0.29	2	<0.5	<0.2
1115003	Rock		<1	276	1.98	42	0.131	<1	1.92	0.046	0.10	0.3	0.03	3.1	<0.1	2.02	7	5.6	0.4
1115004	Rock		2	4	1.32	120	0.118	<1	1.54	0.051	0.41	0.3	<0.01	3.1	<0.1	<0.05	5	<0.5	<0.2
1115005	Rock		5	4	0.62	85	0.082	<1	0.81	0.058	0.29	5.1	<0.01	1.5	<0.1	1.11	4	<0.5	0.2
1115006	Rock		2	2	0.77	35	0.084	<1	0.98	0.062	0.11	4.6	<0.01	1.4	<0.1	0.23	4	<0.5	<0.2
1115007	Rock		3	2	0.74	44	0.099	<1	0.95	0.065	0.19	4.7	<0.01	1.4	<0.1	0.45	4	<0.5	<0.2
1115008	Rock		5	3	0.44	97	0.114	<1	0.59	0.070	0.11	20.3	<0.01	1.6	<0.1	0.42	4	<0.5	<0.2
1115009	Rock		<1	88	0.88	21	0.231	<1	0.91	0.057	0.11	17.0	<0.01	4.2	<0.1	0.41	4	<0.5	0.3
1115010	Rock		2	70	0.89	58	0.108	<1	0.97	0.099	0.19	9.5	<0.01	3.7	<0.1	0.39	3	<0.5	<0.2
1115011	Rock		1	3	0.91	21	0.139	<1	0.93	0.046	0.10	60.7	<0.01	2.9	<0.1	0.99	5	0.8	0.9
1115012	Rock		<1	174	0.63	9	0.180	<1	0.39	0.041	0.05	18.3	<0.01	4.6	<0.1	0.61	3	<0.5	<0.2
1115013	Rock		2	61	0.88	46	0.131	<1	0.89	0.073	0.19	23.7	<0.01	3.4	<0.1	0.39	4	<0.5	<0.2
541913	Rock		5	<1	0.77	29	0.118	<1	0.90	0.070	0.07	0.6	<0.01	0.6	<0.1	0.28	4	<0.5	<0.2

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.

# SMI11000342.1



Page:

#### Serengeti Resources

1700 - 750 W. Pender Street Vancouver BC V6C 2T8 Canada

AcmeLabs 1020 Cordova St. East Vancouver BC V6A 4A3 Canada

Acme Analytical Laboratories (Vancouver) Ltd.

Project:	Αι
Report Date:	Se

ug 12, 2011 Shipment eptember 10, 2011

www.acmelab.com

#### 3 of 3 Part 1

SMI11000342.1

# CERTIFICATE OF ANALYSIS

Phone (604) 253-3158 Fax (604) 253-1716

		Method	WGHT	1DX30																		
		Analyte	Wgt	Мо	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	v	Ca	Р
		Unit	kg	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%							
		MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
541914	Rock		0.75	34.8	58.7	1.3	24	<0.1	32.9	16.8	250	2.31	<0.5	0.6	0.2	49	<0.1	<0.1	0.2	58	0.77	0.057
541915	Rock		0.95	7.8	83.0	1.3	32	0.1	1.7	5.6	230	2.49	<0.5	1.3	0.5	98	<0.1	<0.1	<0.1	36	0.81	0.127
552001	Rock		0.79	5.9	456.4	2.3	4	1.3	1.6	6.1	105	22.38	9.1	388.8	0.4	58	<0.1	0.6	1.1	92	0.03	0.077
552002	Rock		0.55	0.2	5243	0.9	6	<0.1	10.1	79.4	404	0.50	4.5	6.4	0.4	49	0.1	0.2	<0.1	27	1.11	0.148
1115033	Rock		0.31	2.1	151.8	0.9	21	0.4	28.2	33.0	213	3.98	<0.5	47.9	0.3	17	<0.1	0.2	0.1	37	0.43	0.036
1115034	Rock		0.51	0.5	964.6	0.6	16	0.2	50.9	57.0	237	3.70	0.9	26.5	<0.1	24	0.1	0.2	<0.1	42	0.61	0.084
1115035	Rock		0.44	0.2	322.9	0.6	28	0.2	36.7	36.3	300	2.42	0.8	11.9	<0.1	18	0.1	<0.1	<0.1	37	0.74	0.068
1115036	Rock		0.67	0.6	1228	1.6	39	4.7	32.4	68.7	524	11.85	5.9	518.0	0.3	28	0.1	0.1	0.2	85	1.03	0.014
1115037	Rock		0.47	29.0	639.8	2.3	3	1.2	2.3	3.5	32	24.19	6.4	953.6	0.1	51	<0.1	0.2	0.6	140	0.03	0.054
1115040	Rock		0.69	2.4	275.1	2.8	44	1.2	23.5	25.4	358	21.62	34.2	94.1	0.4	14	<0.1	0.4	0.2	46	0.28	0.024
1115041	Rock		1.40	1.5	523.2	2.8	37	1.1	7.3	85.4	567	14.85	74.2	120.5	0.3	13	<0.1	1.2	0.2	59	0.30	0.050
1115133	Rock		1.24	0.9	3804	7.3	15	5.1	1.4	5.2	204	1.19	13.3	29.9	0.8	39	0.1	1.9	6.8	18	0.95	0.084



Client:

Page:

#### Serengeti Resources

1700 - 750 W. Pender Street

SMI11000342.1

Vancouver BC V6C 2T8 Canada

Project: Report Date:

Aug 12, 2011 Shipment September 10, 2011

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

www.acmelab.com

Acme Analytical Laboratories (Vancouver) Ltd.

#### 3 of 3 Part 2

# CERTIFICATE OF ANALYSIS

	Method	1DX30																
	Analyte	La	Cr	Mg	Ва	Ti	в	AI	Na	к	w	Hg	Sc	TI	S	Ga	Se	Те
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
	MDL	1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
541914	Rock	<1	40	0.99	63	0.189	<1	1.17	0.059	0.30	0.4	<0.01	2.7	<0.1	0.60	4	<0.5	0.3
541915	Rock	6	2	0.59	35	0.111	<1	1.03	0.082	0.10	0.3	<0.01	0.7	<0.1	0.71	4	0.6	<0.2
552001	Rock	1	23	0.03	57	0.084	<1	0.13	0.219	0.26	0.4	0.04	1.1	<0.1	1.16	10	9.3	1.9
552002	Rock	4	10	0.15	11	0.106	<1	0.67	0.052	0.03	0.2	<0.01	1.3	<0.1	<0.05	2	<0.5	<0.2
1115033	Rock	<1	18	1.01	6	0.153	2	1.06	0.081	0.02	0.2	<0.01	1.7	<0.1	3.03	3	4.6	0.2
1115034	Rock	<1	30	0.78	33	0.094	2	0.97	0.051	0.11	0.2	0.04	2.7	<0.1	3.01	2	3.3	0.2
1115035	Rock	<1	65	1.08	30	0.128	<1	1.05	0.055	0.06	0.2	<0.01	2.4	<0.1	1.04	2	3.7	<0.2
1115036	Rock	2	152	2.56	127	0.026	1	2.59	0.112	0.32	<0.1	0.02	7.9	<0.1	0.62	7	7.6	1.0
1115037	Rock	5	22	0.01	35	0.085	1	0.31	0.184	1.36	0.2	0.10	3.2	0.2	3.02	7	10.7	4.3
1115040	Rock	1	21	0.62	89	0.087	<1	1.22	0.008	0.04	1.4	0.01	2.3	<0.1	0.74	5	3.3	0.9
1115041	Rock	1	26	0.77	41	0.148	<1	1.53	0.020	0.10	<0.1	0.04	2.1	<0.1	2.03	5	6.0	1.3
1115133	Rock	8	1	0.07	617	0.001	4	0.40	0.032	0.29	<0.1	1.18	1.5	0.1	0.19	2	0.6	0.2



Client:

Serengeti Resources

1700 - 750 W. Pender Street

Vancouver BC V6C 2T8 Canada

Part 1

SMI11000342.1

Project:	
Report Date:	

Page:

Aug 12, 2011 Shipment

September 10, 2011

1 of 1

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

www.acmelab.com

# QUALITY CONTROL REPORT

	Method	WGHT	1DX30																		
	Analyte	Wgt	Мо	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	v	Ca	Р
	Unit	kg	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%							
	MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
Pulp Duplicates																					
540958	Rock	0.77	1.5	51.7	2.2	14	<0.1	3.2	6.1	352	2.30	<0.5	130.1	2.4	10	<0.1	<0.1	0.1	33	0.14	0.075
REP 540958	QC		1.4	50.7	2.2	15	<0.1	3.1	6.1	334	2.24	<0.5	170.9	2.3	10	<0.1	<0.1	<0.1	32	0.12	0.077
1115012	Rock	1.11	2.7	79.1	3.0	15	0.1	26.7	13.2	213	5.05	<0.5	<0.5	0.2	8	<0.1	<0.1	0.3	138	0.74	0.007
REP 1115012	QC		3.3	75.9	5.5	15	0.1	25.2	13.0	211	5.05	<0.5	<0.5	0.2	8	<0.1	<0.1	0.3	139	0.75	0.008
1115033	Rock	0.31	2.1	151.8	0.9	21	0.4	28.2	33.0	213	3.98	<0.5	47.9	0.3	17	<0.1	0.2	0.1	37	0.43	0.036
REP 1115033	QC		2.1	155.2	0.9	22	0.4	29.3	32.7	214	4.00	0.5	47.1	0.3	17	<0.1	0.1	<0.1	36	0.44	0.035
Reference Materials																					
STD DS8	Standard		11.8	112.0	133.9	317	1.8	38.4	7.6	635	2.51	25.0	115.6	7.2	66	2.4	5.6	7.7	40	0.66	0.077
STD DS8	Standard		12.6	111.0	130.2	326	1.9	38.0	7.5	628	2.54	25.8	110.9	6.5	66	2.4	5.5	6.9	42	0.73	0.084
STD DS8 Expected			13.44	110	123	312	1.69	38.1	7.5	615	2.46	26	107	6.89	67.7	2.38	5.7	6.67	41.1	0.7	0.08
BLK	Blank		<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001
BLK	Blank		<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001
Prep Wash																					
G1	Prep Blank		0.1	2.0	3.2	41	<0.1	3.0	3.8	528	1.88	<0.5	2.7	5.1	57	<0.1	<0.1	0.2	33	0.40	0.072
G1	Prep Blank		0.1	1.5	3.7	45	<0.1	3.0	3.8	559	1.90	<0.5	0.6	5.5	51	<0.1	<0.1	0.1	34	0.42	0.075



QUALITY CONTROL REPORT

Client:

Page:

Serengeti Resources 1700 - 750 W. Pender Street

Part 2

Vancouver BC V6C 2T8 Canada

Project: Aug 12, 2011 Shipment

1 of 1

September 10, 2011 Report Date:

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

www.acmelab.com

# SMI11000342.1

	Method	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30	1DX30
	Analyte	La	Cr	Mg	Ва	Ti	в	AI	Na	к	w	Hg	Sc	ті	S	Ga	Se	Те
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
	MDL	1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
Pulp Duplicates																		
540958	Rock	7	3	0.40	39	0.004	1	0.69	0.055	0.13	0.1	<0.01	2.5	<0.1	<0.05	3	<0.5	<0.2
REP 540958	QC	7	3	0.39	38	0.004	1	0.66	0.052	0.13	0.2	<0.01	2.3	<0.1	<0.05	2	<0.5	<0.2
1115012	Rock	<1	174	0.63	9	0.180	<1	0.39	0.041	0.05	18.3	<0.01	4.6	<0.1	0.61	3	<0.5	<0.2
REP 1115012	QC	<1	169	0.64	9	0.182	<1	0.38	0.041	0.05	18.6	<0.01	4.5	<0.1	0.62	3	<0.5	<0.2
1115033	Rock	<1	18	1.01	6	0.153	2	1.06	0.081	0.02	0.2	<0.01	1.7	<0.1	3.03	3	4.6	0.2
REP 1115033	QC	<1	18	1.03	6	0.157	2	1.04	0.070	0.02	0.2	0.01	1.8	<0.1	3.04	3	5.5	<0.2
Reference Materials		[																
STD DS8	Standard	12	113	0.62	246	0.115	3	0.85	0.077	0.40	2.8	0.20	1.9	5.6	0.16	5	5.9	5.1
STD DS8	Standard	14	115	0.64	278	0.114	2	0.94	0.083	0.43	3.0	0.19	2.1	5.7	0.18	5	6.3	4.9
STD DS8 Expected		14.6	115	0.6045	279	0.113	2.6	0.93	0.0883	0.41	3	0.192	2.3	5.4	0.1679	4.7	5.23	5
BLK	Blank	<1	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	<1	<1	<0.01	<1	<0.001	<1	<0.01	< 0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
Prep Wash		Í T																
G1	Prep Blank	8	7	0.54	172	0.105	<1	0.86	0.067	0.45	<0.1	<0.01	1.5	0.3	<0.05	4	<0.5	<0.2
G1	Prep Blank	9	8	0.54	182	0.108	<1	0.84	0.067	0.45	<0.1	<0.01	1.6	0.3	<0.05	5	<0.5	<0.2

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

Appendix D – Field Notes and Results

							Type of Sample	
							(Outcrop,	
		Easting	Northing				subcrop, float,	
Sample #	Zone	(NAD83)	(NAD83)	Date	Lithology	Notes	talus)	Width
						massive magnetite/volcanics with		
						boxwork and stockworking. 30m		
					massive	downhill from epidote volcanics.		
552001	9	680361	6262303	06/08/2011	magnetite	Rubble grab	float	grab
						grab sample from weakly prop		
						diorite float w strong mai staining.		
						Likely from a continuation of the	<i>a</i> .	
552002	9	680577	6261929	06/08/2011	diorite	skarn above	float	grab
						3m comp sample from E-W		
						structure coming out of Ox Skarn		
						area 30m down slope. F gr volcanic		
						with tr cpv. lots of mal staining. V		
						wk mag. Old sample site. Sample		
						includes 1m of structure as well as		
						ozidized wall rock (skarn? No		
1115036	9	680482	6262450	06/08/2011	Skarn/volc	identifiable minerals)	o/c	3m
1110000		000102	0202100	00/00/2011		comp grab over 2m from magnetite	0,0	5
						boaring ovidized skarp o/c 122m		
						wide Provide of 87 D 200 Ov olo		
						wide. Prev side of 87-D-209. OX 0/C		
						continue 100m vert. down scree		
1115027	0	600462	6262446	00/00/2011	-1	siope. Wk stockwork is visible in	- /-	2
1115037	9	680463	6262446	06/08/2011	skarn	spots 2m comp from strongly ox mod	0/0	2m
					felsic	stockwk felsic intrusive Non		
1115040	0	680246	6262508	06/08/2011	intrucivo	altered volcanic 5m away	olc	2m
1113040	5	080240	0202338	00/08/2011	Inclusive		0/0	2111
						15m comp chip along strike w skarn		
						zone and feldspar porphyry. Felsic		
						intrusive wall rock. Zone appears to		
						b e discontinuous along strike as it		
						pinches in places into the granitoids.		
						E-W it runs for 10-20m but		
					skarn/felsic	disappears under rubble. (diff to		
1115041	9	680341	6262452	06/08/2011	intrusive	sample across)	o/c	15m

Sample #	ACME Job #	Wgt (KG)	Mo (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Ni (ppm)	Co (ppm)	Mn (ppm)	Fe (%)	As (ppm)	Au (ppb)	Th (ppm)	Sr (ppm)	Cd (ppm)	Sb (ppm)
552001	SMI11000342	0.79	5.9	456.4	2.3	4	1.3	1.6	6.1	105	22.38	9.1	388.8	0.4	58	<0.1	0.6
552002	SMI11000342	0.55	0.2	5243.4	0.9	6	<0.1	10.1	79.4	404	0.50	4.5	6.4	0.4	49	0.1	0.2
1115036	SMI11000342	0.67	0.6	1228.2	1.6	39	4.7	32.4	68.7	524	11.85	5.9	518.0	0.3	28	0.1	0.1
1115037	SMI11000342	0.47	29.0	639.8	2.3	3	1.2	2.3	3.5	32	24.19	6.4	953.6	0.1	51	<0.1	0.2
1115040	SMI11000342	0.69	2.4	275.1	2.8	44	1.2	23.5	25.4	358	21.62	34.2	94.1	0.4	14	<0.1	0.4
1115041	SMI11000342	1.40	1.5	523.2	2.8	37	1.1	7.3	85.4	567	14.85	74.2	120.5	0.3	13	<0.1	1.2

Sample #	Bi (ppm)	V (ppm)	Ca (%)	P (%)	La (ppm)	Cr (ppm)	Mg (%)	Ba (ppm)	Ti (%)	B (ppm)	Al (%)	Na (%)	K (%)	W (ppm)	Hg (ppm)	Sc (ppm)	TI (ppm)	S (%)	Ga (ppm)	Se (ppm)	Te (ppm)
552001	1.1	92	0.03	0.077	1	23	0.03	57	0.084	<1	0.13	0.219	0.26	0.4	0.04	1.1	<0.1	1.16	10	9.3	1.9
552002	<0.1	27	1.11	0.148	4	10	0.15	11	0.106	<1	0.67	0.052	0.03	0.2	<0.01	1.3	<0.1	<0.05	2	<0.5	<0.2
1115036	0.2	85	1.03	0.014	2	152	2.56	127	0.026	1	2.59	0.112	0.32	<0.1	0.02	7.9	<0.1	0.62	7	7.6	1.0
1115037	0.6	140	0.03	0.054	5	22	0.01	35	0.085	1	0.31	0.184	1.36	0.2	0.10	3.2	0.2	3.02	7	10.7	4.3
1115040	0.2	46	0.28	0.024	1	21	0.62	89	0.087	<1	1.22	0.008	0.04	1.4	0.01	2.3	<0.1	0.74	5	3.3	0.9
1115041	0.2	59	0.30	0.050	1	26	0.77	41	0.148	<1	1.53	0.020	0.10	<0.1	0.04	2.1	<0.1	2.03	5	6.0	1.3