

EL09439 Assessment Work Report

Molega Gold District

Queens County, Nova Scotia

25 November 2011 to 24 November 2012

Prepared by Ken Hiltz

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Nova Scotia
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November 2012

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1 Summary

It was decided to concentrate exploration on the tailing bed for this exploration season. Research was carried out to try and determine if the tailings could be economically exploited and it was determined that might be possible. Twenty samples of the tailings were collected for assay with the result being an average grade of about .6 gram per ton. Information collected resulted in an estimate of in excess of 11,000 tons of tailings.

2 Introduction

EL09439 Covers most of the eastern half of the Molega Gold District and includes the site of the Boston Gold Mining Company's 10 stamp mill and the tailings from that mill.

Mining at Molega commenced in 1886 but no record of production were found until 1889. For the period 1889 to 1927 20,462 ounces of gold was produced at Molega from 24,3081 tons of ore. The large majority of that production was during the period 1889 to 1898. For the period 1901 to 1927 an average of only about 180 ounces of gold a year was produced. The official figure for total gold produced up to 1950 is 33,460 ounces so that leaves about 13,000 ounces produced from 1927 to 1950.

No record of any work in evaluating the tailings before 2010 could be found. During the 1980's Seabright Resources Inc. did extensive work evaluating gold tailings in Nova Scotia. They held a special license for tailings in 28 gold districts including Molega and did extensive evaluation of the tailings for 15 of them. No work was done at Molega because of, "land problems and difficulty of making economic arrangements with the mineral rights holder". The tailings at Molega are mostly in three main areas with the tailings on these two claims being one of them. The tailings in one of the other areas on the Parker Douglas property were evaluated in 2010 and it was estimated to hold about 19,200 tonnes at a grade of 614 ppb Au.

Work this year consisted of research and collecting samples to determine the grade of the tailings plus information to enable an estimate to be made of the tonnage and the area the tailings covered

3 Tailings Research

During the 1980's extensive research was carried out on gold mine tailings by Witteck Development Incorporated, Jacques Whitford and Associates Limited and Wright-Curtis Engineers; all commissioned by Seabright Resources Inc. They did extensive evaluation of gold mining tailings in Nova Scotia documented in a Mineral Resource Evaluation dated 16 May 1983. Seabright held licenses for the tailings in 28 gold districts and extensively evaluated fifteen of those, identifying proven plus probable reserves of 1,657,652 tons at a grade of 1.21 gm/t and possible reserves of 533,957 at a grade of 1.30 gm/t. Seabright commissioned Metallurgical Testwork (17 June 1983), a Prefeasibility Capital Cost Estimate (June 1983), an Environmental Review of Gold Tailings Project (1984), and a Prefeasibility Report (February 1984). The bottom line of all this work was that there is a significant quantity of gold in tailings that it is possible to recover economically while virtually eliminating the arsenic and mercury content and the acid generation potential of the processed tailings. The 1984 Prefeasibility Report indicated they could make a 9% profit after taxes with gold at about US \$400 (about US \$890 in 2012 dollars). Unfortunately by early 1983 gold had dropped to less than \$400 and things got worse with the price only getting above \$400 in six of the next twenty years.

4 Location and Access

The license area is in the eastern part of the Molega Gold District, in Queens County of southwestern Nova Scotia. See figure 1. It is about 35 km from Bridgewater and about 140 km from Halifax via Hwy 103, Hwy 325 at Bridgewater, Hwy 210 and then north on the Labelle road.

5 Licence Tabulation

Table 1 - Exploration License Details

EL	NTS Sheet	Tracts	Claims	Date of Issue
09439	21A7B	66	K,L,N,O,P	
		79	B,F,G,H,J,K	25 November 2010

6 Sampling Program

6.1 Methodology

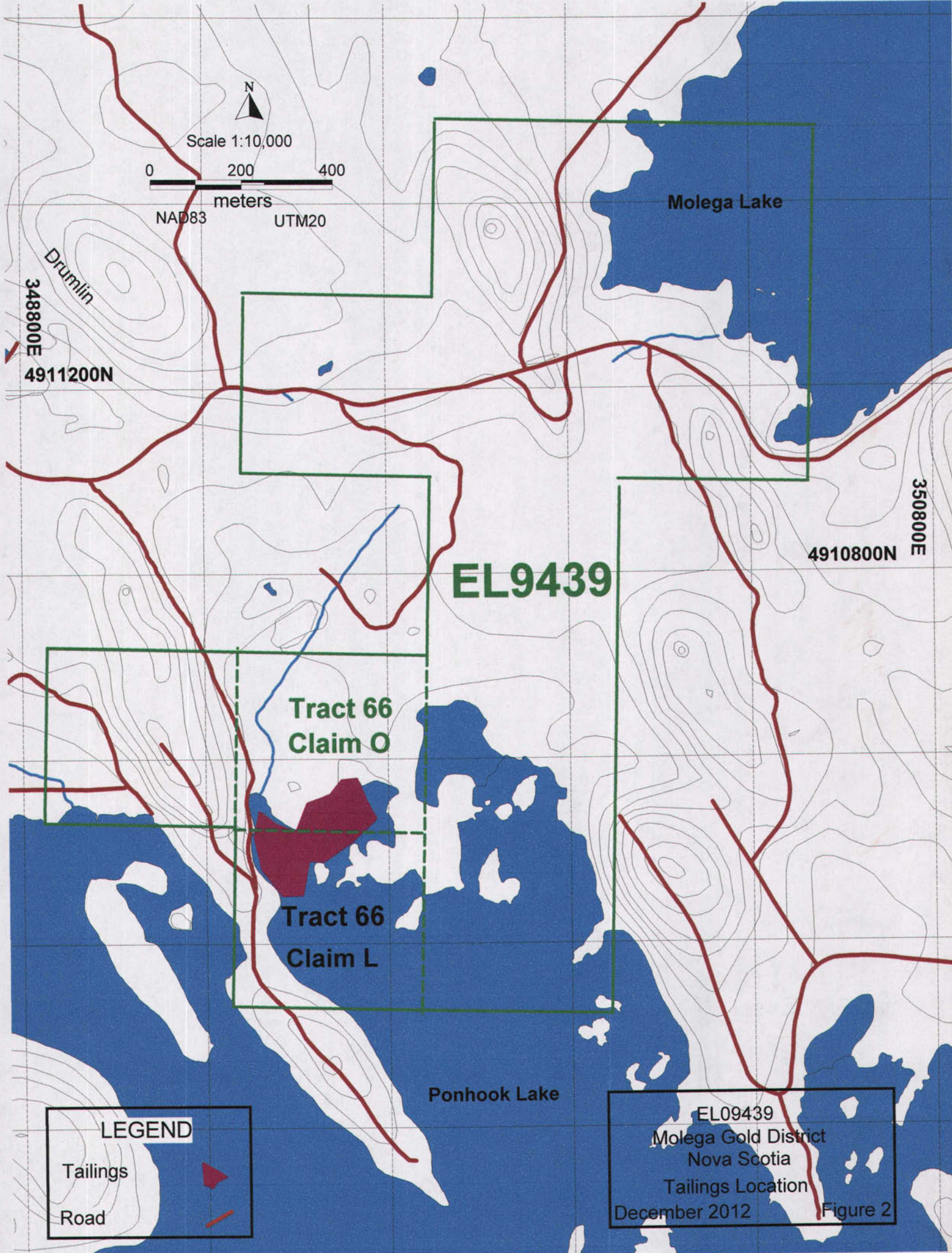
Tailing sampling was done at 25 meter locations on a 25 meter north south east west GPS grid where tailings were present, at surface and at the one meter to 1.2 meter level where the tailings extended that far. Depth of the tailings was measured only up to the 1.2 meter depth as limited by the soil auger being utilized. Tailings in the swamp were largely not measured as there was +/- 1 meter of swamp material on top of much of them and some areas of the swamp could not be safely accessed. The data collected was used to estimate the minimum volume and tonnage of tailings on the property using the Seabright Resources Inc. determination of 1605.21 kg/cu. meter and based upon the assumption that each of the 14 sample locations would represent the center of a 25 meter square area of equal depth. Obviously this could not be true of some sample locations but it was also assumed any shortfalls because of this would be easily made up by areas of the tailings that would not fall within any of the 25 meter square areas, the additional unknown amount of tailings past a depth of 1.2 meters that exists in six of the sample areas, and tailings that were detected in a large area of the adjacent lake.

6.2 Samples

Samples were taken with a 1.2 meter long hand auger that was used to collect .2 meter long vertical samples at surface or past the one meter level. Assays were at Dalhousie University (Appendix 1 and 2). Sample data including locations, depths, sources, weights and dates taken are recorded at appendix 3.

6.3 Results

Twenty tailings samples were taken all from within claim O, tract 66. See figure 2 and 3. The assays averaged 694.5 ppb Au. Fourteen samples taken over the surface .2 meter averaged 794.07 ppb and the six from 1 meter to 1.2 meter averaged 462.17 ppb. Estimated minimum tonnage was calculated as follows: 625 sq meters X average depth of .8285714 meters = 517.85712 cubic meters X 14 sample locations = 7249.90996 cu meters X 1605.21 kg per cubic meter = 11,637.7771 metric tons. Normally in tailings the deeper you go the higher the ppb of Au so these results are somewhat confusing.



Scale 1:10,000

0 200 400

meters
NAD83 UTM20

Molega Lake

EL9439

Tract 66
Claim O

Tract 66
Claim L

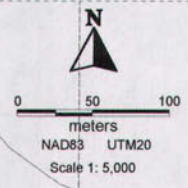
Ponhook Lake

LEGEND

Tailings

Road

EL09439
Molega Gold District
Nova Scotia
Tailings Location
December 2012 Figure 2



EL09439
Tract 66
Claims O & L

4910400N

349200E



Ponhook Lake

4910000N

349200E

LEGEND

- Approximate Border of Tailings
- Sample Location
- Sample at surface **MT27A**
- Sample at one meter **MT27B**
- ppb Au **1061 450**
- Swamp

EL09439
Molega Gold District
Sample location and ppb Au
December 2012 **Figure 3**

7 Conclusions and Recommendations for Further Exploration

The tailings on this property have a significant quantity of gold much of which it might be possible to economically recovered as part of a program to process tailings in historic gold districts of Nova Scotia. This could be done while at the same time removing the high levels of arsenic and mercury in the tailings processed for gold.

Evaluation of the extent of the tailings that are in Lake Ponhook on these claims is recommended.

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Prospector ID # 567

14 years Prospecting Experience
Natural Resources Basic Prospecting Course
Natural Resources Advanced Prospecting Course

Appendix 1
Analytical Method

Sample Preparation of Rocks and Core

Samples undergo multiple stage crushing (minus 10.0 mm) with jaw crushers. For rock and core samples requiring gold analysis, samples may be crushed to <3mm using a BICO face plate pulverizer. Crushed samples are riffle split to 200-250 grams, then pulverized with a ring and puck pulverizer (Spex Industries Inc. Shatterbox) to approximately 100% passing 0.15 mm or 75% passing 0.075mm. Equipment is cleaned with jets of air and silica sand between samples.

Fire Assay Procedure – Gold

Sample Decomposition: Fire Assay Fusion

Analytical Method: Atomic Absorption Spectroscopy (AAS), Inductively Coupled
Plasma Optical Emission Spectroscopy (ICPOES)

A prepared sample is fused with a neutral lead oxide flux inquartered with 4 mg of gold-free silver and then cupelled to yield a precious metal bead. The bead is digested for one hour in 1.0ml of dilute nitric acid. Hydrochloric acid (1.0ml) is then added and the solution is digested for an additional hour. The digested solution is then cooled, diluted to 6.0 ml with double distilled water, mixed and then analyzed by AAS or ICPOES.

Certified reference samples from CANMET, West Coast Minerals, or Rocklabs are analyzed with each batch. In addition, duplicate check analysis and method blank analysis are also run with the samples. A CRM sample is inserted with every batch of 20 samples.

Au detection limit is 0.005 ppm, or 5 ppb, on a 30g sample.

Appendix 2
Assay Certificates

2-Nov-12

K. Hiltz
15 Cambridge Court
Stillwater Lake
B3Z 1G2

minerals.engineering.dal.ca
Tel: 902.494.3955
Fax: 902.494.3506
Email: mec@dal.ca

Re: Results of analysis on submitted rock samples.
Au analysis using 30g fire assay, lead collection, AAS finish.

Sample	Au (mg/kg)
MT-21A	1.626
MT-22A	0.547
MT-23A	1.339
MT-24A	0.475
MT-25A	0.681
MT-26A	0.795
MT-27A	1.061
MT-28A	0.941
MT-29A	0.434
MT-30A	0.415
MT-31A	0.781
MT-49A	0.744
MT-50A	0.454
MT-51A	0.824
MT-23B	0.497
MT-24B	0.366
MT-27B	0.450
MT-28B	0.493
MT-29B	0.611
MT-30B	0.356
VC-25	<0.005
VC-26	<0.005
VC-27	<0.005
VC-28	<0.005
VC-29	<0.005
VC-30	0.627
VC-31	0.845
VC-32	0.476
VC-32 Dup.	0.428

Certified Reference Samples:	Au (mg/kg)	Recommended Value
OXC72	0.204	0.205±0.003

Daniel Chevalier, MASc
Manager, Minerals Engineering Centre



Digitally signed by
Daniel Chevalier
Date: 2012.11.02
14:19:30 -03'00'

Appendix 3
Tailings Sample Data

Sample #	Prospect	EL	NAD83North	NAD83East	Sample Method/Source/Depth	Tailing Bed Depth	Au ppb	Date Taken	Prospector	Sample Description	Weight Kg	Assay Method	Au Lab	Au Lab Report
MT21A	Molega	EL09439	4910271	349417	Hand Auger/Tailings 0 to .2m	.4 meter	1627	3-Aug-12	Ken Hiltz	sand coloured	0.665	Fire Assay	Dalhousie University	2-Nov-12
MT22A	Molega	EL09439	4910276	349417	Hand Auger/Tailings 0 to .2m	.6 meter	547	3-Aug-12	Ken Hiltz	sand/gy coloured	0.79	Fire Assay	Dalhousie University	2-Nov-12
MT23A	Molega	EL09439	4910246	349443	Hand Auger/Tailings 0 to .2m	1.2 meter +	1339	3-Aug-12	Ken Hiltz	sand/gy coloured	0.805	Fire Assay	Dalhousie University	2-Nov-12
MT23B	Molega	EL09439	4910246	349443	Hand Auger/Tailings 1 to 1.2m	1.2 meter +	497	3-Aug-12	Ken Hiltz	gy and wet	1.045	Fire Assay	Dalhousie University	2-Nov-12
MT24A	Molega	EL09439	4910271	349443	Hand Auger/Tailings 0 to .2m	1.2 meter +	475	3-Aug-12	Ken Hiltz	sand coloured	0.635	Fire Assay	Dalhousie University	2-Nov-12
MT24B	Molega	EL09439	4910271	349443	Hand Auger/Tailings 1 to 1.2m	1.2 meter +	366	3-Aug-12	Ken Hiltz	gy and wet	0.835	Fire Assay	Dalhousie University	2-Nov-12
MT25A	Molega	EL09439	4910296	349443	Hand Auger/Tailings 0 to .2m	.4 meter	681	3-Aug-12	Ken Hiltz	sand coloured	0.65	Fire Assay	Dalhousie University	2-Nov-12
MT26A	Molega	EL09439	4910296	349468	Hand Auger/Tailings 0 to .2m	.3 meter	795	3-Aug-12	Ken Hiltz	sand coloured	0.675	Fire Assay	Dalhousie University	2-Nov-12
MT27A	Molega	EL09439	4910271	349468	Hand Auger/Tailings 0 to .2m	1.2 meter +	1061	3-Aug-12	Ken Hiltz	sand coloured	0.735	Fire Assay	Dalhousie University	2-Nov-12
MT27B	Molega	EL09439	4910271	349468	Hand Auger/Tailings 1 to 1.2m	1.2 meter +	450	3-Aug-12	Ken Hiltz	gy and wet	0.97	Fire Assay	Dalhousie University	2-Nov-12
MT28A	Molega	EL09439	4910246	349468	Hand Auger/Tailings 0 to .2m	1.2 meter +	941	3-Aug-12	Ken Hiltz	gy and wet	0.77	Fire Assay	Dalhousie University	2-Nov-12
MT28B	Molega	EL09439	4910246	349468	Hand Auger/Tailings 1 to 1.2m	1.2 meter +	493	3-Aug-12	Ken Hiltz	gy and wet	1.08	Fire Assay	Dalhousie University	2-Nov-12
MT29A	Molega	EL09439	4910271	349493	Hand Auger/Tailings 0 to .2m	1.2 meter +	434	3-Aug-12	Ken Hiltz	sand coloured	0.93	Fire Assay	Dalhousie University	2-Nov-12
MT29B	Molega	EL09439	4910271	349493	Hand Auger/Tailings 1 to 1.2m	1.2 meter +	611	3-Aug-12	Ken Hiltz	gy and wet	0.83	Fire Assay	Dalhousie University	2-Nov-12
MT30A	Molega	EL09439	4910296	349493	Hand Auger/Tailings 0 to .2m	1.2 meter +	415	3-Aug-12	Ken Hiltz	sand coloured	0.85	Fire Assay	Dalhousie University	2-Nov-12
MT30B	Molega	EL09439	4910296	349493	Hand Auger/Tailings 1 to 1.2m	1.2 meter +	356	3-Aug-12	Ken Hiltz	gy and dry	0.95	Fire Assay	Dalhousie University	2-Nov-12
MT31A	Molega	EL09439	4910321	349493	Hand Auger/Tailings 0 to .2m	.3 meter	781	3-Aug-12	Ken Hiltz	sand coloured	0.895	Fire Assay	Dalhousie University	2-Nov-12
MT49A	Molega	EL09439	4910346	349518	Hand Auger/Tailings 0 to .2m	.3 meter	744	1-Sep-12	Ken Hiltz	gy and wet	0.67	Fire Assay	Dalhousie University	2-Nov-12
MT50A	Molega	EL09439	4910321	349518	Hand Auger/Tailings 0 to .2m	1 meter	454	1-Sep-12	Ken Hiltz	sand coloured	0.725	Fire Assay	Dalhousie University	2-Nov-12
MT51A	Molega	EL09439	4910296	349518	Hand Auger/Tailings 0 to .2m	1.1 meter	824	1-Sep-12	Ken Hiltz	sand/rust coloured	0.75	Fire Assay	Dalhousie University	2-Nov-12

Colour	Abbrev.	Mineral	Abbrev.	Rock	Abbrev.	Adjective	Abbrev.
black	blk	pyrrhotite	po.	grewwacke	GW	light	l
blue	bl.	pyrite	py.	granitoid	FG	dark	dk
grey	gv	arsenopyrite	ap.	argillite	AR	strongly	str.
green	gn	spalerite	Sp.	siltstone	zt	moderately	mod.
yellow	v.	galena	gl.	claystone	ct	weakly	Weak
brown	br.	chalcopryite	cp.	quartz vein	qv	altered	alt.
Structure		carbonate	ca	graphite	Gr.	Sed. Feature	
breccia	b	ankerite	ak	mica	mi	bedded	bdd
shear(ed)	sh	sericite	se.	muscovite	mu	bouma	bm
fault(ed)	fl	siliceous	si.			laminated	lm
contact	cn	General				cross-bedded	x-bdd
foliation	fn	strike	sk				
cleavage	cv.	dip	dp				

Form 10 - Statement of Assessment Work Expenditure
(pursuant to the Mineral Resources Act, S.N.S. 1990, c. 18, s. 43(1))

(Complete as necessary to substantiate the total claimed.)

Re: Licence No. EL9439 Date of issue 25 Nov, 2012

R

Type of Work		Amount Spent
1. <u>Prospecting</u> <u>Land Clearances & Reconnaissance</u>	1 days	\$ 300
2. <u>Geological mapping</u> <u>Survey on Tailings Pond & Sample Collection</u>	1 days	\$ 300
3. <u>Preparation of reports</u> <u>Research Report Prepared</u>	2 days	\$ 600
4. <u>Assaying & whole rock analysis</u>		
5. <u>Other laboratory</u>	#	
6. <u>Grid:</u> (a) <u>Line cutting</u> (b) <u>Picket setting</u> (c) <u>Flagging</u>	km km km	
7. <u>Geophysical surveys</u> <u>Airborne:</u> (a) <u>EM/VLF</u> (b) <u>Mag or Grad</u> (c) <u>Radiometric</u> (d) <u>Combination</u> (e) <u>Other</u>	km km km km	
8. <u>Geophysical surveys</u> <u>Ground:</u> (a) <u>EM/VLF</u> (b) <u>Seismic soundings</u> (c) <u>Magnetic/telluric</u> (d) <u>IP/resistivity</u> (e) <u>Gravity</u> (f) <u>Other</u>	km # km km km	
9. <u>Geochemical surveys:</u> (a) <u>Lake, stream, spring</u> (i) <u>Water</u> (ii) <u>Sediments</u> (b) (i) <u>Rock</u> (ii) <u>Core</u> (iii) <u>Chips</u> (c) (i) <u>Soil</u> (ii) <u>Overburden</u> (d) <u>Gas</u> (e) <u>Biogeochemistry</u> (f) <u>Sample collection</u> (g) <u>Other</u>	samples samples samples samples samples samples samples days	
10. <u>Drilling:</u> (a) <u>Diamond (# holes/m)</u> (b) <u>Percussion (# holes/m)</u> (c) <u>Rotary (# holes/m)</u> (d) <u>Auger (# holes/m)</u> (e) <u>Reverse circulation (# holes/m)</u> (f) <u>Logging, supervision, etc.</u> (g) <u>Sealing (# holes)</u>	20 samples m m m m m days	\$ 470.00
11. <u>Other (describe)</u> <u>70% Km at 55\$ per Km</u>		\$ 387.20
Subtotal		\$ 2057.20
Overhead costs		
12. <u>Secretarial services</u>		
13. <u>Drafting services</u>		
14. <u>Office expenses (rent, heat, light, etc.)</u>		
15. <u>Field supplies</u>		
16. <u>Compensation paid to landowners</u>		
17. <u>Legal fees</u>		
18. <u>Other (describe)</u> <u>10%</u>		\$ 205.72
Subtotal		\$ 205.72
Grand total		\$ 2262.92

