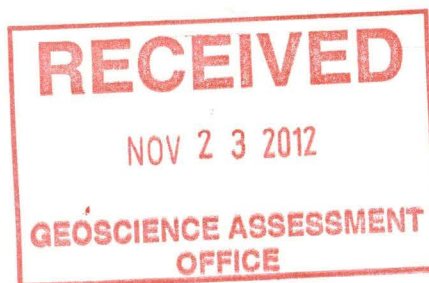


**ASSESSMENT REPORT**  
**ON**  
**GEOLOGICAL MAPPING**  
**CLAIM NOS. 4202302 AND 4252717**  
**CAIRO TOWNSHIP**  
**LARDER LAKE MINING DIVISION, ONTARIO**

2.53370

**FOR**

**WEST KIRKLAND MINING INC.**



**Report prepared by:**

***James Suma-Momoh, MSc.***

***November 1, 2012.***



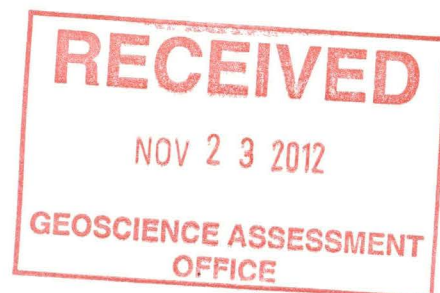
## Table of Contents

1.0	INTRODUCTION.....	2
2.0	LOCATION and ACCESS .....	2
3.0	PREVIOUS WORK.....	2
4.0	REGIONAL GEOLOGY.....	2
5.0	PROPERTY GEOLOGY.....	5
5.1	Sampling.....	6
6.0	PERSONNEL and DAYS WORKED.....	8
7.0	REFERENCES.....	8
8.0	STATEMENTS OF QUALIFICATIONS.....	9

APPENDIX I: Regional Map

APPENDIX II: Rapski Property Geology Map

APPENDIX III: Assay Certificate



## 1.0 INTRODUCTION

This document is a report on geological mapping of the Rapski Property in Cairo Township, Larder Lake Mining Division, Ontario (*see Regional Map in Appendix I*). The property which contains two contiguous claims (4202302 and 4252717) was optioned by West Kirkland Mining Inc. from John Rapski of Kenogami. Geological mapping was done on a scale of 1: 2500 at 100m line spacing west of coordinate 533700E, and at 200m line spacing east of coordinate 533700E, using handheld GPS and compass. The work was performed by K. Kryklywy and J. Suma-Momoh (both employees of West Kirkland Mining, 5500 Hwy 11, Kenogami, Ontario) from October 11 to October 18, 2012.

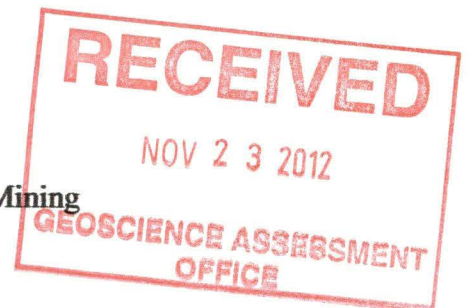
## 2.0 LOCATION and ACCESS

The property is located 49km west of Kirkland Lake along paved Highway 66. The highway passes through the center of the property.

## 3.0 PREVIOUS WORK

Historical work on the property is summarized as follows:

- 1952: Two DDH's totaling 2254 ft, logged by C.G. McIntosh intersected a strong shear zone beneath Morrison Lake
- 1981: Ground Mag survey by Newmont Canada
- 1996: Stripping by Biralger Resources
- 2008: Stripping by John Rapski
- 2010: Ground Mag survey by West Kirkland Mining
- 2012: Prospecting and rock sampling by West Kirkland Mining



## 4.0 REGIONAL GEOLOGY

The Regional Geology is outlined below, excerpted from Berger (2006), Ontario Geological Survey, Open File Report 6177, pages 4 and 5:

The map area is part of the southern Abitibi greenstone belt of the Superior Province of the Canadian Shield. Neoproterozoic supracrustal rocks are composed of tholeiitic, calc-alkalic and alkali mafic, intermediate and felsic metavolcanic rocks; related subvolcanic intrusions, chemical and clastic metasedimentary rocks. Ultramafic metavolcanic rocks occur locally. The supracrustal rocks are intruded by calc-alkalic intermediate and felsic intrusions composed of quartz diorite, quartz monzonite, tonalite

and granodiorite. Alkali intrusions composed of hornblendite, alkali gabbro, syenite, quartz syenite and alkali granite are the youngest Neoproterozoic intrusions in the area. The supracrustal rocks were correlated with regional assemblages described by Ayer et al. (2002).

Paleoproterozoic diabase dykes intrude the Neoproterozoic rocks and are correlated with the Matachewan swarm (cf. Osmani, 1991). This dike swarm does not, however, intrude the Proterozoic Gowganda Formation, which unconformably overlies Neoproterozoic rocks and is composed of polymictic conglomerate, arkose, siltstone, argillite and wacke. Diabase dikes correlated with the Sudbury swarm (cf. Osmani 1991) intrude the Gowganda Formation and are present in Eby and Burt townships. Table 1 presents the major rock types in the Highway 66 synoptic area.

Table 1: Lithological units for Highway 66 area.

PHANEROZOIC

CENOZOIC

QUATERNARY

HOLOCENE

Lake, stream, wetland deposits

PLEISTOCENE

Glacial, glaciofluvial and glaciolacustrine deposits, sand, gravel, till and clay

*Unconformity*

PRECAMBRIAN

PALEOPROTEROZOIC

MAFIC INTRUSIVE ROCKS

Diabase dikes

*Intrusive contact*

HURONIAN SUPERGROUP

GOWGANDA GROUP

Gowganda Formation

Sandstone, arkose, conglomerate, wacke, argillite, siltstone

*Unconformity*

## MAFIC INTRUSIONS

Diabase dikes – quartz diabase, plagioclase porphyritic diabase

## ARCHEAN

## NEOARCHEAN

## METAMORPHOSED ALKALIC FELSIC AND INTERMEDIATE INTRUSIVE ROCKS

Syenite, quartz syenite, monzonite, quartz monzonite, alkali granite, feldspar and quartz feldspar porphyry, intrusion breccia, pegmatitic syenite, mylonite, schist, dikes, albitite and gneiss

*Intrusive contact*

## METAMORPHOSED ALKALIC ULTRAMAFIC AND MAFIC INTRUSIVE ROCKS

Hornblendite, pyroxenite, equigranular and feldspar porphyritic melasyenite, pegmatitic melasyenite, lamprophyre, gabbro/diorite

*Intrusive contact*

## METAMORPHOSED CALC-ALKALIC INTERMEDIATE AND FELSIC INTRUSIVE ROCKS

Tonalite, granodiorite, quartz monzonite, gneiss, pegmatite and aplite dikes

*Intrusive contact*

## METAMORPHOSED ULTRAMAFIC AND MAFIC INTRUSIVE ROCKS

Peridotite, pyroxenite, gabbro, gabbro-norite, diorite, pegmatitic gabbro, schist

*Intrusive contact*

## MAFIC AND INTERMEDIATE ALKALIC METAVOLCANIC ROCKS

Massive and porphyritic amphibole-biotite-bearing flows, flow breccia, pyroclastic and epiclastic tuff, lapilli tuff and breccia, schist, calc-silicate-altered units, amphibolite, feldspar porphyritic dikes

## CLASTIC AND CHEMICAL METASEDIMENTARY ROCKS – TIMISKAMING ASSEMBLAGE

Wacke, sandstone, arkose, siltstone, argillite, polymictic conglomerate, schist, chert, laminated magnetite-hematite iron formation

*Unconformity*

## CLASTIC AND CHEMICAL METASEDIMENTARY ROCKS – TURBIDITES

Wacke, siltstone, argillite, graphitic and pyritic argillite, schist, chert and conglomerate

#### FELSIC METAVOLCANIC ROCKS

Flows, autoclastic flow breccia, tuff, breccia, lapilli tuff, schist

#### INTERMEDIATE METAVOLCANIC ROCKS

Massive, flow laminated and pillowed flows, flow top and pillow breccia, tuff, lapilli tuff and tuff breccia, schist, graphite breccia, amygdaloidal, and variolitic units, feldspar porphyry

#### MAFIC METAVOLCANIC ROCKS

Massive and pillowed flows, pillow and flow top breccia, tuff and lapilli tuff, schist, variolitic and amygdaloidal units, plagioclase-bearing units, leucoxene-bearing units, graphite breccia and dikes

#### ULTRAMAFIC AND MAFIC METAVOLCANIC ROCKS (KOMATIITES)

Massive, spinifex- and polysuture-textured flows, schist, basaltic komatiite, variolitic flows

### 5.0 PROPERTY GEOLOGY

Five main rock types were identified during the mapping activity. These include Proterozoic sediments, and Archean mafic intrusives, felsic intrusives and mafic volcanics. (*Refer to Rapski Property Geology Map in Appendix II*)

#### Proterozoic Sediments

An outcrop of conglomerate was identified at one location. The Proterozoic sediment has a fine-grained mafic matrix which contains felsic intrusive clasts up to about 30cm wide. Fine-grained mafic clasts occur as well. The matrix to clast ratio is 50 : 50.

#### Diabase

Diabase locally occurs as late, narrow, north-south crosscutting dykes. They are dark grey, fine- to medium-grained, moderately- to strongly magnetic, and massive.

#### Diorite

The occurrence of diorite is rare, identified only at one location. The rock is medium grey-green, coarse-grained, massive, and with a salt and pepper appearance of the hornblende and plagioclase feldspar crystals. Quartz is accessory (< 5%). There is trace pyrite mineralization.

## Mafic Syenite

These rocks are dark greenish maroon-brown to pinkish-grey in colour, coarse-grained and massive. The mineralogy displays a generally higher percentage (25 – 50%) of mafic constituents: hornblende, pyroxene and chlorite. The felsic compositions are potassium feldspars (30 – 50%) and plagioclase feldspars (5 – 10%). Pyrite mineralization varies from trace to locally up to ~ 3%.

## Syenite

An outcrop of more leucocratic syenite was identified at one location. The rock is dominantly pink-coloured and with tiny dark green spots. It is coarse-grained and massive. Potassium feldspars (80 – 90%) are dominant in the groundmass; 5% to < 10% plagioclase feldspars; < 5% quartz; < 5% hornblende. Microfractures are filled by chlorite (< 5%). There are no visible sulphides in the rock.

## Mafic Volcanics

Basaltic rocks on the property are medium to dark green, aphanitic to fine-grained; very weakly to strongly magnetic. They may be massive or show degrees of foliation intensity. North of Highway 66, there is a linear north-east trend of sheared metavolcanics which appear to be squeezed between two syenite intrusive bodies. The sheared volcanics strike 40 – 60 degrees and dip 70 – 86 degrees to the south-east. Chlorite-sericite-carbonate alteration is noted. Variably rusted surface zones (sometimes light-coloured, almost beige in fresh rock) show about 2 – 5% disseminated pyrite mineralization. Thin and narrow, discontinuous and contorted quartz veins are present in some of these sheared volcanics.

### 5.1 Sampling

A total number of 9 rock samples were collected during mapping and sent to the assay lab. Following are brief descriptions of the samples:

Sample J449930      532953E      5321966N      0.008ppm Au

The sample is sheared and rusty-looking with a fine-grained groundmass. There is a moderate to strong foliation-controlled and patchy chloritic alteration and a weak to moderate foliation-controlled sericitic alteration. Very finely disseminated pyrite mineralization is about 3 – 4%. Sheared basalt.

Sample J449931      532945E      5321957N      < 0.005ppm Au

Sheared; has a pale rusty-brown colour. It is fine-grained and non-magnetic. Groundmass contains thin foliation-parallel quartz-carbonate veining (up to about 5mm wide). There is about 2 - 3% finely disseminated pyrite. Sheared basalt/andesite?

Sample J449932      532979E      5312984N      0.01ppm Au

A sample of quartz vein collected from sheared basalt host. The vein is up to ~ 5cm wide. It is white, with chlorite in-filling of fractures. Trace to local 1% pyrite.

Sample J449933      533016E      5313114N      0.011ppm Au

Brownish- to pinkish-green, rusty sample. The groundmass is medium- to coarse-grained and massive; only weakly magnetic. There is a strong patchy chloritic alteration. 4 -5 % disseminated pyrite cubes (~ 1mm x 1mm). ~ 60% mafic component (mostly chlorite) and 40% k-feldspars. The sample is a piece of float, picked up from an outcrop of mafic syenite; probably close to source.

Sample J449934      532990E      5313146      < 0.005ppm Au

The sample is dark maroon-coloured. It is medium- to coarse-grained and massive. There is a weak patchy chloritic and calcitic alteration. ~ 3% finely disseminated pyrite mineralization is present. Chloritized mafic syenite collected from an old pit.

Sample J449935      533092E      5313123N      0.04ppm Au

Similar to J449930 but with only about 1% py.

Sample J449936      533114E      5313035N      0.054ppm Au

Medium grey-green, sheared and rusty basalt. 5% finely disseminated pyrite mineralization.

Sample J449937      533207E      5312793N      0.019ppm Au

Medium green, sheared and rusty basalt. The sample is fine-grained, non-magnetic; and has a weak patchy chloritic alteration as well as a weak to moderate patchy carbonate alteration. Pyrite mineralization is very finely disseminated and occurs as stringers too. ~ 3% py.

Sample J449938:      duplicate of sample J449937. 0.016ppm Au

Sample J449939      533220E      5312805N      0.02ppm Au

Partly rusty, green-coloured, fine grained, massive, and non-magnetic. There is a strong pervasive chloritic alteration and moderate patchy calcitic alteration. 3% fine pyrite occurring as fine disseminations and as stringers along micro-fractures. Basalt



## 6.0 PERSONNEL and DAYS WORKED

Geological mapping on the property lasted two and a half (2 ½) days and was performed by the following personnel:

Ken Kryklywy: geological engineer

James Suma-Momoh: geologist

Synopsis of the dates work was performed by personnel:

<b>Date</b>	<b>Work performed by</b>	<b>days</b>
Oct. 11	KK, JSM	½
Oct. 16	KK, JSM	1
Oct. 18	KK, JSM	1

Total: 2 ½ days

## 7.0 REFERENCES

- Berger, B.R. (2006): *Geological Synthesis Along Highway 66 from Matachewan to Swastika*. Ontario Geological Survey, Open File Report 6177, page 4 -5
- Howard, L. (1967): *Geology of the Matachewan Area*. ODM Geological Report 51
- Newmont Exploration of Canada Ltd. (1981): Geophysical Survey Report, Magnetometer Survey, Cairo Project, Cairo Township- NTS: 41P/15
- Bernatchez, R.A. (May, 1996): A Report on Exploration Activity on the Biralger Resources Ltd Cairo-Flavelle Twp Property, Matachewan, Ontario
- Rapski, J. (October 2008): Report of Physical work, Stripping, Morrison Lake Property, Cairo Township, Larder Lake Mining Division
- Larder Geophysics Ltd. (2010): West Kirkland Mining Inc., Magnetometer Survey over the Cairo Property, Cairo Township, Ontario
- Kryklywy, Ken (May 4, 2012): Assessment Report on Prospecting and Rock Sampling, Claim Nos. 4202302 and 4252717, in Cairo Township, Larder Lake Mining Division, for West Kirkland Mining Inc.

## 8.0 STATEMENTS OF QUALIFICATIONS

I, M. Kenneth Kryklywy of Swastika, in the PROVINCE of ONTARIO, hereby certify that:

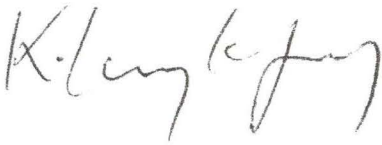
I am a Geological Engineer and currently Manager, Ontario and Quebec, operating out of West Kirkland Mining's regional office in Kenogami, Ontario.

I graduated from the University of Toronto, BAsC in 1979, and obtained my P.Eng designation with APEO in 1983.

I have practiced as an exploration or mine geologist continually from 1979 to 2012 in Canada and Australia with experience varying from grassroots to advanced exploration, and from mine production to mine feasibility.

I am currently registered as a Professional Engineer with Professional Engineers Ontario (PEO).

Dated in Kenogami, this 1<sup>st</sup> day in November, 2012.



---

M. Kenneth Kryklywy, BAsC, PEng

I, James Suma-Momoh, of Kirkland Lake, in the Province of Ontario, hereby certify that:

I am a geologist currently employed by West Kirkland Mining, and operating out of West Kirkland Mining's regional office in Kenogami, Ontario.

I graduated from the University of Sierra Leone, BSc (Hons.) in 1999; and Saint Mary's University, Canada, MSc in 2007.

I have practiced as an exploration geologist in 2004 in Sierra Leone. I worked as an exploration geologist in Canada in 2008 and from 2010 to 2012.



---

James Suma-Momoh, MSc.

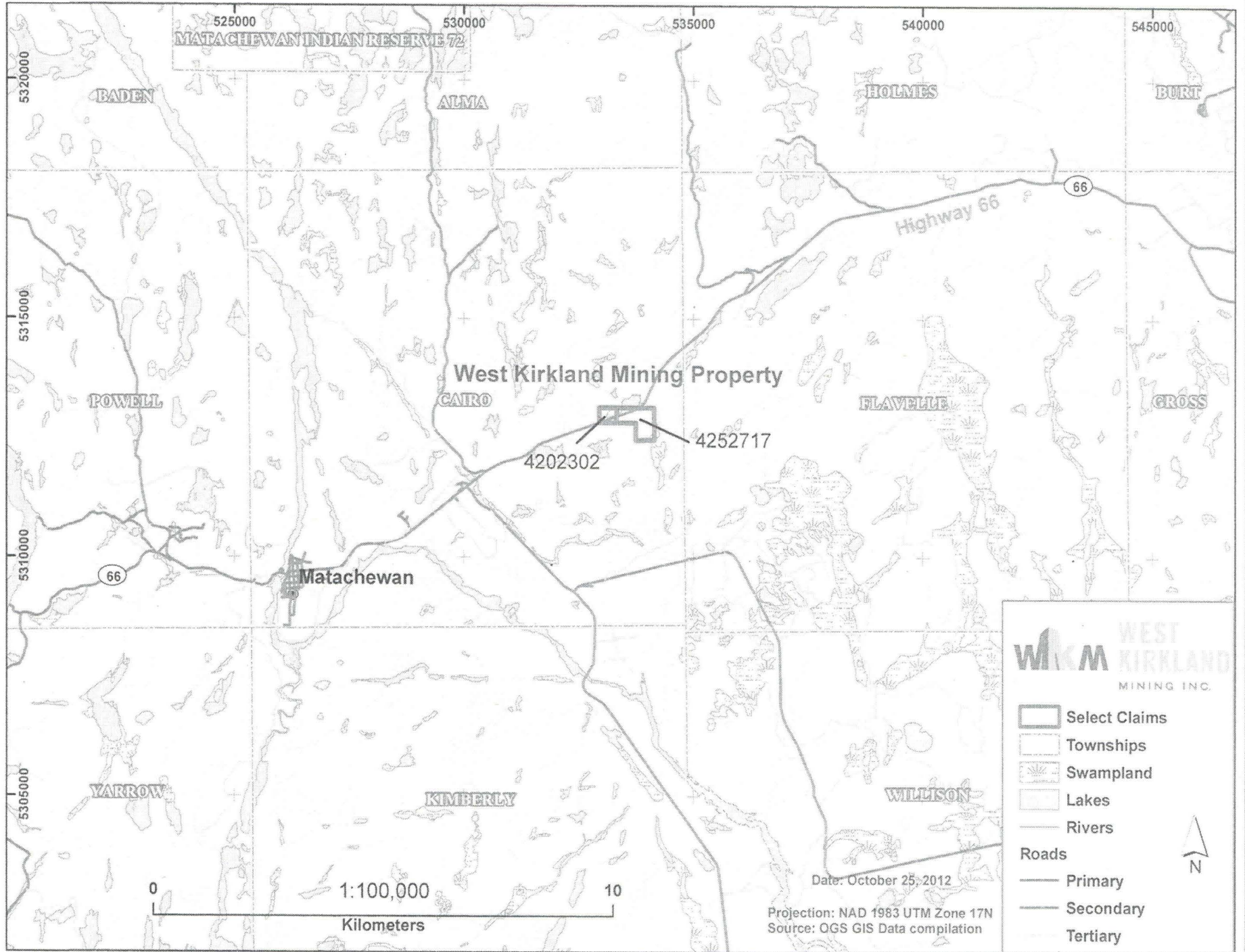
November 1, 2012.

---

Date

APPENDIX I  
(Regional Geology Map)

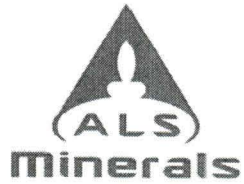
# Regional Map



APPENDIX II

(Rapski Property Geology Map)

APPENDIX III  
(Assay Certificate)



ALS Canada Ltd.  
 2103 Dollarton Hwy  
 North Vancouver BC V7H 0A7  
 Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: WEST KIRKLAND MINING INC.  
 328 - 550 BURRARD STREET  
 VANCOUVER BC V6C 2B5

Page: 1  
 Finalized Date: 1 - NOV - 2012  
 Account: WKIRMI

**CERTIFICATE SD12246592**

Project: HOLMES  
 P.O. No.:  
 This report is for 10 Rock samples submitted to our lab in Sudbury, ON, Canada on 18- OCT- 2012.  
 The following have access to data associated with this certificate:  
 MIKE ALLEN | KEN KRYKLYWY

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
CRU- QC	Crushing QC Test
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um

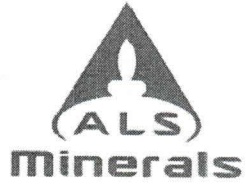
ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA23	Au 30g FA- AA finish	AAS
ME- ICP61a	High Grade Four Acid ICP- AES	ICP- AES

To: WEST KIRKLAND MINING INC.  
 ATTN: KEN KRYKLYWY  
 328 - 550 BURRARD STREET  
 VANCOUVER BC V6C 2B5

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:   
 Colin Ramshaw, Vancouver Laboratory Manager





ALS Canada Ltd.  
 2103 Dollarton Hwy  
 North Vancouver BC V7H 0A7  
 Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

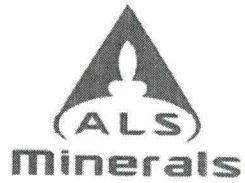
To: WEST KIRKLAND MINING INC.  
 328 - 550 BURRARD STREET  
 VANCOUVER BC V6C 2B5

Page: 2 - A  
 Total # Pages: 2 (A - C)  
 Finalized Date: 1- NOV- 2012  
 Account: WKIRMI

Project: HOLMES

**CERTIFICATE OF ANALYSIS SD12246592**

Sample Description	Method Analyte Units LOR	WEI- 21	Au- AA23	ME- ICP61a	ME- ICP61a	ME- ICP61a	ME- ICP61a	ME- ICP61a	ME- ICP61a	ME- ICP61a	ME- ICP61a	ME- ICP61a	ME- ICP61a	ME- ICP61a	ME- ICP61a	ME- ICP61a
		Recvd Wt. kg	Au ppm	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm
J449930		1.81	0.008	<1	3.90	<50	650	<10	<20	0.27	<10	20	190	20	3.47	<50
J449931		2.47	<0.005	<1	3.98	<50	250	<10	<20	0.22	<10	<10	170	10	3.38	<50
J449932		1.86	0.010	<1	4.22	<50	440	<10	<20	0.33	<10	10	130	<10	3.30	<50
J449933		1.79	0.011	<1	5.76	<50	1300	<10	<20	4.31	<10	30	90	<10	6.18	<50
J449934		1.05	<0.005	<1	5.94	<50	3280	<10	<20	2.78	<10	30	140	100	5.56	<50
J449935		1.88	0.040	1	2.36	<50	960	<10	<20	0.08	<10	<10	110	40	2.24	<50
J449936		2.06	0.054	<1	2.41	<50	230	<10	<20	0.08	<10	10	120	<10	2.32	<50
J449937		0.63	0.019	<1	3.55	<50	210	<10	<20	0.80	<10	30	250	<10	5.45	<50
J449938		1.23	0.016	<1	2.77	<50	280	<10	<20	0.40	<10	20	250	<10	5.60	<50
J449939		1.68	0.022	<1	3.96	<50	280	<10	<20	0.45	<10	20	270	10	4.95	<50



ALS Canada Ltd.  
 2103 Dollarton Hwy  
 North Vancouver BC V7H 0A7  
 Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

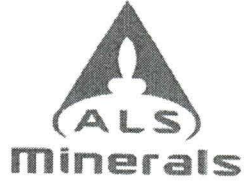
To: WEST KIRKLAND MINING INC.  
 328 - 550 BARRARD STREET  
 VANCOUVER BC V6C 2B5

Page: 2 - B  
 Total # Pages: 2 (A - C)  
 Finalized Date: 1-NOV-2012  
 Account: WKIRMI

Project: HOLMES

CERTIFICATE OF ANALYSIS SD12246592

Sample Description	Method Analyte Units LOR	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	
		K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Th ppm	Ti %
		0.1	50	0.05	10	10	0.05	10	50	20	0.05	50	10	10	50	0.05
J449930		0.8	<50	1.97	270	<10	3.94	70	1680	<20	0.86	<50	10	100	<50	0.24
J449931		0.4	<50	2.03	230	<10	4.64	40	1780	20	0.22	<50	10	100	<50	0.19
J449932		0.5	<50	2.08	250	<10	2.33	40	1330	<20	0.11	<50	10	120	<50	0.20
J449933		2.4	70	3.00	1300	130	2.97	40	3110	90	2.97	<50	20	410	<50	0.39
J449934		5.1	70	1.99	1110	<10	2.30	60	3550	20	0.68	<50	20	720	<50	0.43
J449935		2.8	<50	0.86	100	<10	1.60	40	680	<20	0.35	<50	<10	40	<50	0.16
J449936		0.8	<50	1.09	130	<10	3.84	50	500	<20	0.74	<50	<10	40	<50	0.14
J449937		1.0	<50	1.43	440	<10	3.23	130	480	<20	2.90	<50	10	70	<50	0.26
J449938		1.2	<50	1.27	350	<10	3.25	120	580	20	2.54	<50	10	60	<50	0.25
J449939		0.8	<50	1.71	390	<10	4.50	140	740	30	2.20	<50	10	70	<50	0.37



ALS Canada Ltd.  
 2103 Dollarton Hwy  
 North Vancouver BC V7H 0A7  
 Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

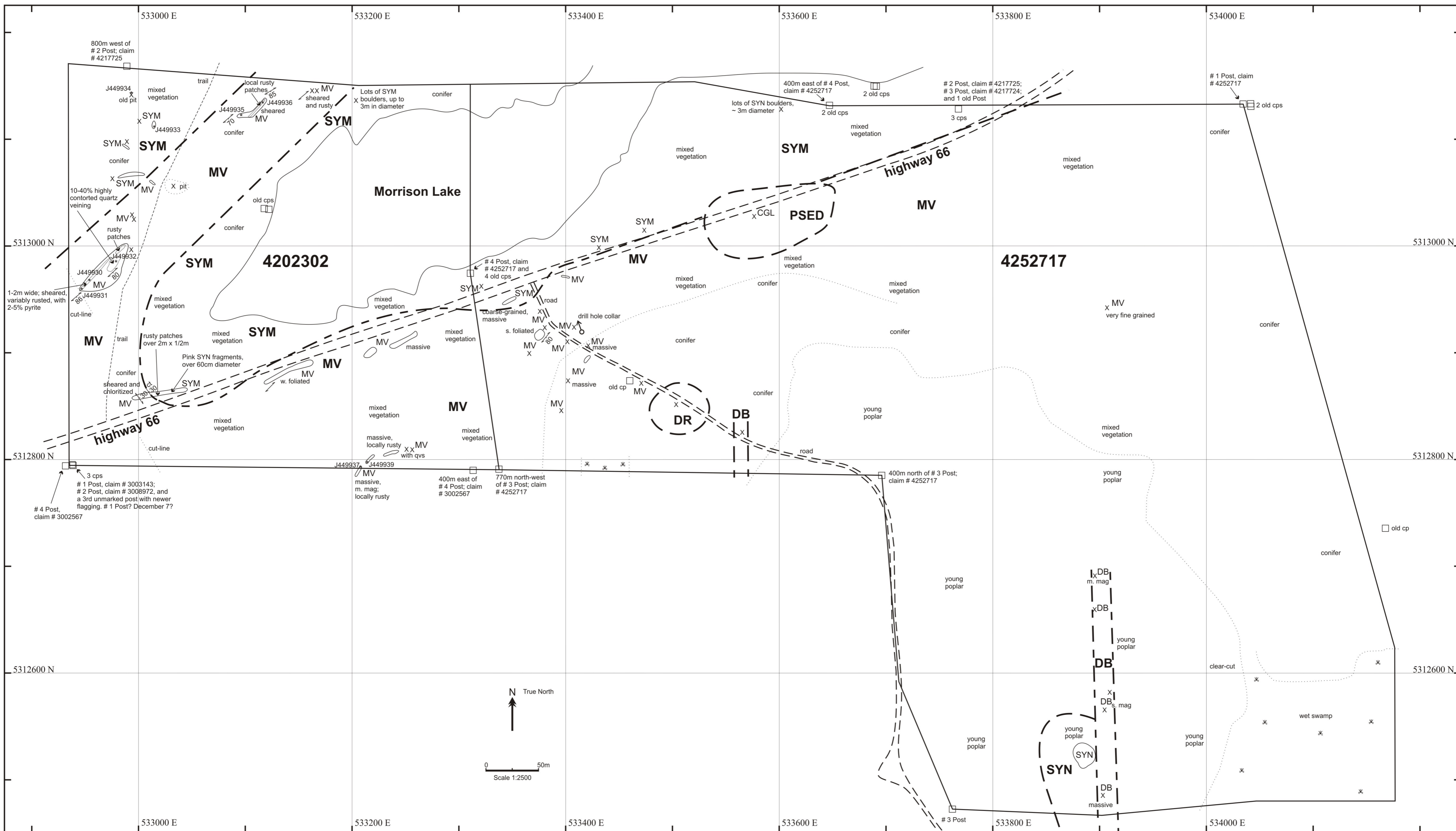
To: WEST KIRKLAND MINING INC.  
 328 - 550 BARRARD STREET  
 VANCOUVER BC V6C 2B5

Page: 2 - C  
 Total # Pages: 2 (A - C)  
 Finalized Date: 1- NOV- 2012  
 Account: WKIRMI

Project: HOLMES

CERTIFICATE OF ANALYSIS SD12246592

Sample Description	Method Analyte Units LOR	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a	ME-ICP61a
		Tl	U	V	W	Zn
		ppm 50	ppm 50	ppm 10	ppm 50	ppm 20
J449930		<50	<50	100	<50	40
J449931		<50	<50	100	<50	50
J449932		<50	<50	70	<50	30
J449933		<50	<50	120	<50	110
J449934		<50	<50	170	<50	110
J449935		<50	<50	100	<50	30
J449936		<50	<50	80	<50	30
J449937		<50	<50	130	<50	90
J449938		<50	<50	130	<50	90
J449939		<50	<50	110	<50	120



# WEST KIRKLAND MINING INC.

LITHOLOGY	CODES	SYMBOLS
PSED Proterozoic Sediments	Cp, cps claim post(s)	foliation with dip
DB Diabase Dyke	f.g fine-grained	contact with dip
DR Diorite	n. non-	small outcrop
SYN Syenite	w. weakly	outcrop area
SYM Mafic Syenite	m. moderately	rock sample location and number
MV Mafic Volcanics	s. strongly	swamp
	mag magnetic	trail
	qv, qvs quartz vein(s)	road
	CGL conglomerate	interpreted lithologic boundary
		topographic feature
		claim line
		claim post
		diamond drill hole KH11110

<b>TITLE:</b>	<b>RAPSKI PROPERTY GEOLOGY MAP</b>
<b>TOWNSHIP:</b>	Cairo
<b>MAPPED BY:</b>	K. Kryklywy and J. Suma-Momoh
<b>DRAWN BY:</b>	J. Suma-Momoh
<b>DATE:</b>	October 22, 2012.
<b>SCALE:</b>	1 : 2500
<b>PROJECTION:</b>	NAD 83