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# **PROSPECTING REPORT**

**For the**

**WASCANNA SE PROPERTY  
Claim 3012624**

**In the**

**METCALFE LAKE AREA G-0084  
NTS Sheet 42L4**

**Of the**

**THUNDER BAY MINING DIVISION**

**By**

**Raymond J. Koivisto**

**March 2017**

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## **INTRODUCTION**

This report was prepared to meet the requirements for assessment credit as defined in the Mining Act Regulations.

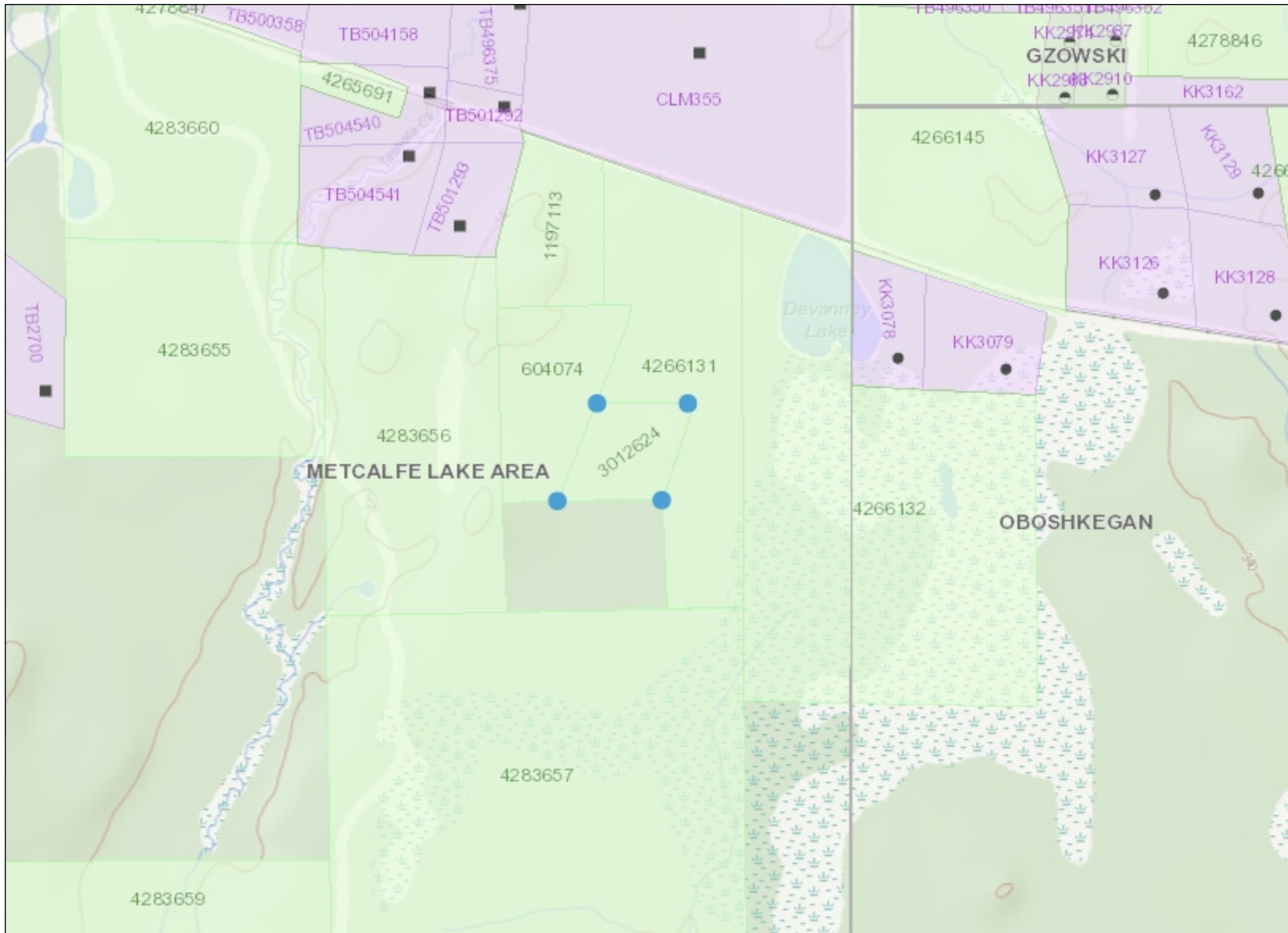
The Wascanna SE property is 1 unit in size, the claim number being 3012624. The claim is owned 50% by Raymond J. Koivisto and 50% by James L. Savage. The owners of the claim spent 1 day prospecting. Altogether 7 samples were taken and submitted for assay.

## **LOCATION AND ACCESS**

The claim group is located in the Metcalfe Lake Area, claim map G-0084 of the Thunder Bay Mining Division. The 1:50,000 NTS map sheet is 42L4. The UTM coordinates in NAD 83 are 16U 454000E and 5563000N.

The property is located 2.5 km to the southeast of the old Tashota Station on the C.N. Railway.

Access to the property is via the Kinghorn road, 6 km east of the village of Jellicoe. One travels this logging road in a north, then west, and then a northerly direction for 81 km. A side road at km 81 will transect the claim group 7 km further to the north. The village of Jellicoe is 230 km northeast of the City of Thunder Bay via Hwy 11/17, then Hwy 11 just past Nipigon.



### Legend

**Administration Boundaries**

- Mining Divisions
- Resident Geologist District
- Townships and Areas
- UTM Grid
- Geographic Lot Fabric
- Other Federal Land

**Mineral Tenure Grid**

- OM TG Tenure Grid

**Alienations**

- Withdrawal
- Notice

**Unpatented Claim**

- Active
- Reconciled
- Pending

**Disposition**

- Disposition

**Disposition Symbols**

- Camp
- Disposition Unknown/Pending
- Freehold Patent Mining Rights Only
- Freehold Patent Surface Rights Only
- Freehold Patent Surface and Mining Rights
- Land Use Permit
- Leasehold Patent Mining Rights Only
- Leasehold Patent Surface Rights Only
- Leasehold Patent Surface and Mining Rights
- License of Occupation Mining Use Only
- License of Occupation Surface Use Only
- License of Occupation Surface and Mining Rights
- License of Occupation Uses Not Specified
- Order in Council
- Tower
- WPLA

**Geology Layers**

- AMIS Sites
- AMIS Features
- Drill Holes
- Mineral Occurrences



Projection: Web Mercator



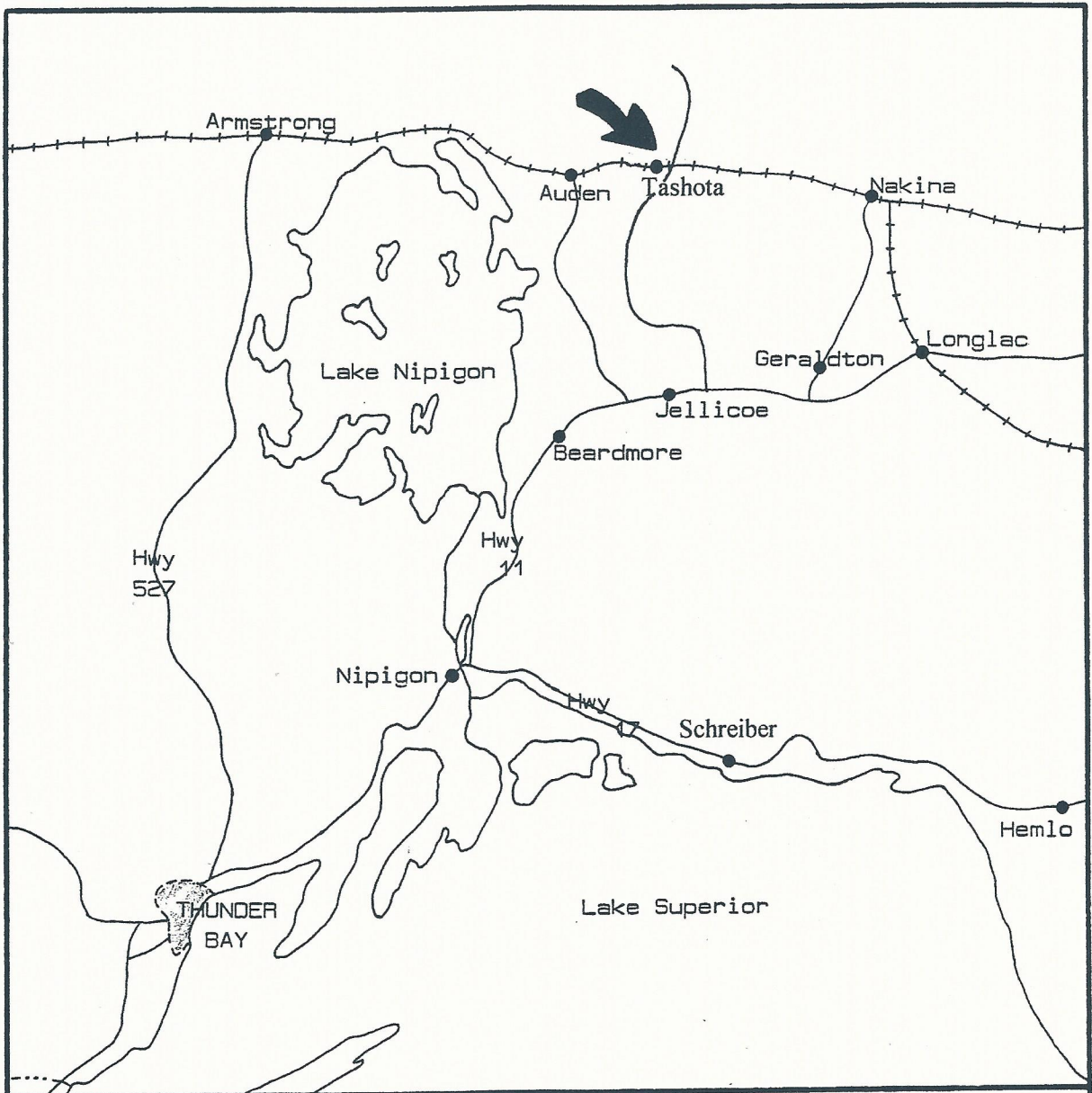
The Ontario Ministry of Northern Development and Mines shall not be liable in any way for the use of, or reliance upon, this map or any information on this map. This map should not be used for: navigation, a plan of survey, routes, nor locations.

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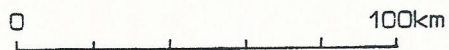




REGIONAL MAP

Property Location: 

Scale: 1 cm to 20 km



<b>Claim Number</b>	<b>Post Number</b>	<b>Type</b>	<b>Zone</b>	<b>Easting</b>	<b>Northing</b>	<b>Elevation</b>
3012624	#1	Corner Post	16 U	454309	5563301	337 m
3012624	#2	Corner Post	16 U	454296	5562914	338 m
3012624	#3	Corner Post	16 U	453866	5562912	322 m
3012624	#4	Corner Post	16 U	453976	5563306	338 m

## **REGIONAL GEOLOGY**

The Wascanna SE property is located in the eastern part of the east-west trending Wabigoon Belt of the Superior Province of the Canadian Shield. The basement rocks are of the neoproterozoic era, except the diabase dikes which are of the proterozoic eon. They consist mainly of mafic volcanics and felsic plutons and stocks with minor felsic volcanics and minor sediments. Two eruptive centres occur within the area. The Marshall Lake Vent lies 25 km to the north and the Knucklethumb Lake Vent lies 10 km to the southeast.

## **LOCAL GEOLOGY**

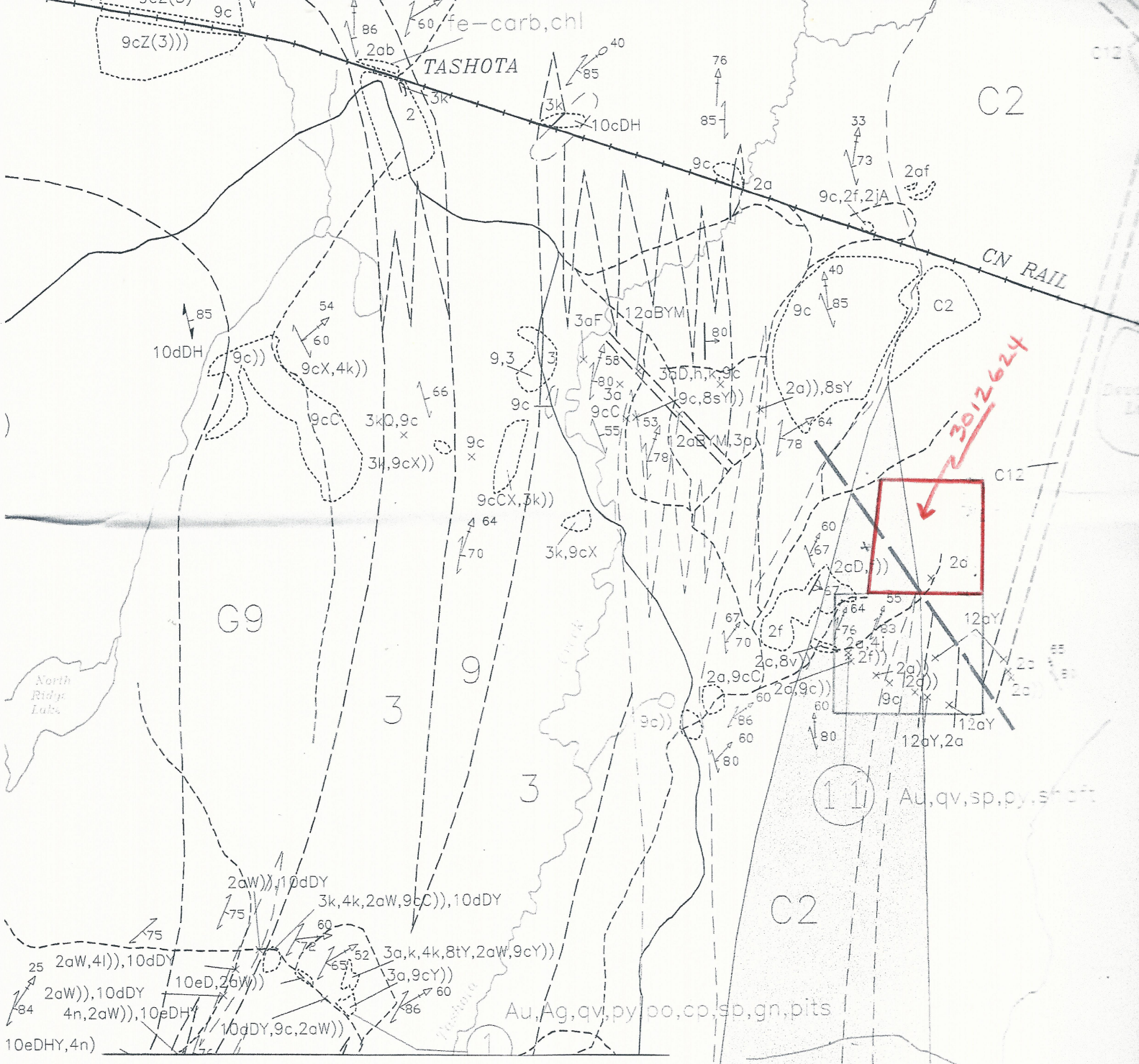
The claim covers part of the north end of the north-south trending 7 km long Tashota Shear Zone. Outcrops observed were mainly massive mafic flows which were moderately to strongly deformed (chloritized). Slivers of felsic volcanic rocks, and quartz veining up to .5m wide and diabase dikes were also noted. North south trending bands of iron formation occurs to the west of the claim. Much of the area is low lying swampy terrain.

A 2 m wide quartz vein was seen on the edge of the Wascanna Shaft just 5m west of the claim boundary of 3012624 and 200 m north of the no. 3 post.

## **RELIEF AND VEGETATION**

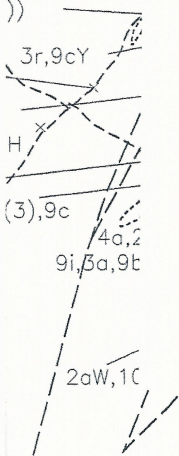
The change in elevation over the entire claim is less than 10 meters with shallow to deep till cover and swamp over 90% of the property. The old cancelled claim 4204528 to the south had been cut over 15 years ago and has ATV access to the south side of claim 3012624.





**Local Geology P.3365 (from Stott/Parker 1996)**

- 12a Diabase**
- 5 Chemical Sediments**
- 4 Fesic Metavolcanics**
- 3 Intermediate**
- 2 Mafic Metavolcanics**



TASHOTA  
SHEAR  
ZONE

TASHOTA ROAD

3012624

WASCANNA  
SHAFT

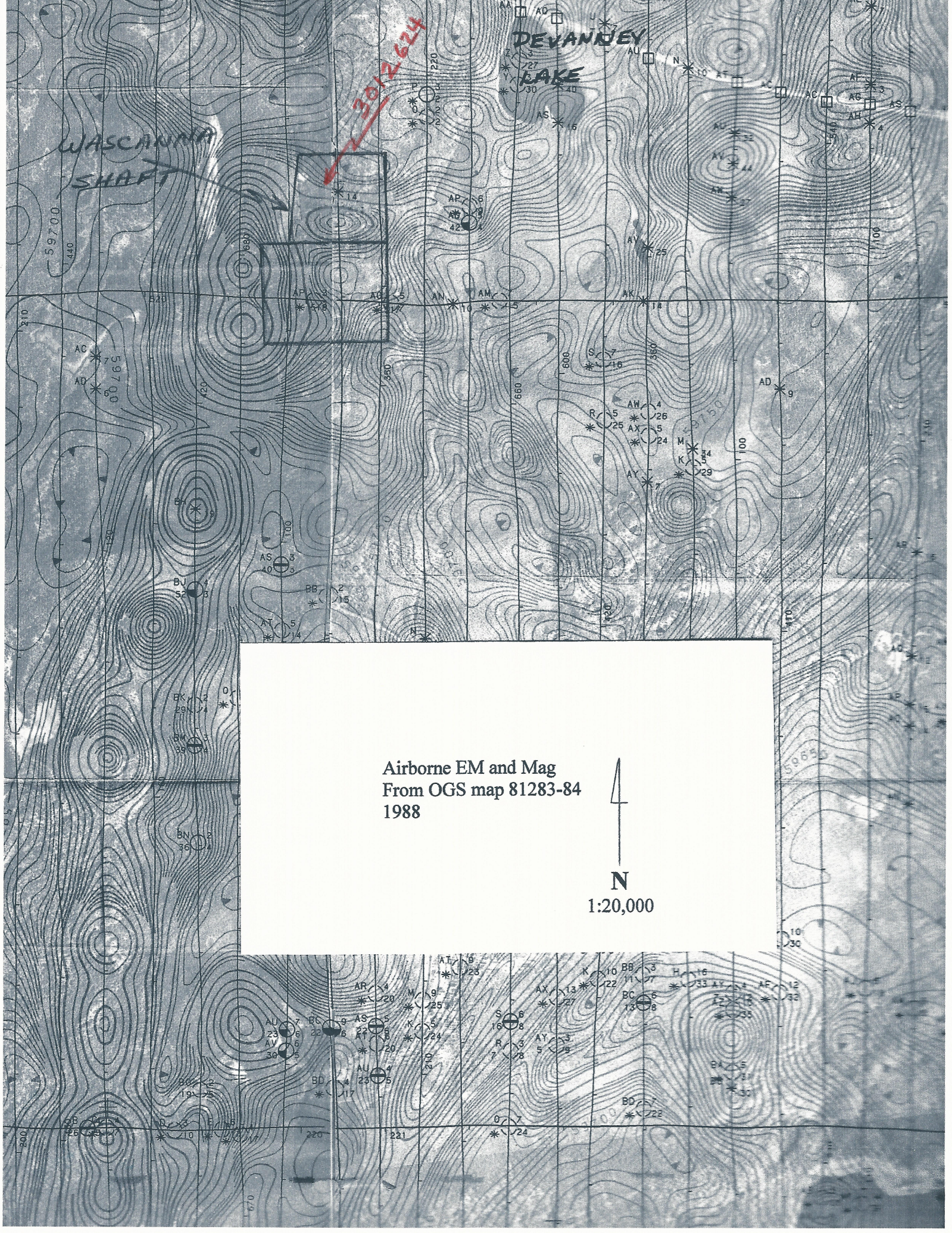
3012 624

DEVANNEY  
LAKE

Airborne EM and Mag  
From OGS map 81283-84  
1988



N  
1:20,000



## **ECONOMIC GEOLOGY & HISTORY**

Governmental geological studies of the area include **Moore** in 1908-Onaman Iron Ranges; **Hopkins** in 1916-Kowkash Gold Area; **Gledhill** in 1925-Tashota-Onaman Gold Area; **Kindle** in 1931-Kowkash-Ogoki Area; **Langford** in 1958-Geology of the Gripp Lake Area; **Pye et al** in 1965 Tashota-Geraldton geology map; **Amukun** in 1977-Geology of the Tashota Area; and **Stott et al** in 1999-Geology of the Metcalfe Lake Area. Also in 1988 the **O.G.S.** completed an airborne E.M. & Magnetometer survey over the area.

The discovery of the Onaman Iron Range in 1904 and the completion of the C.N. Railway through Tashota in 1913 brought a rush of prospectors into the area. The Cline Prospect (3 km to the northwest of the Wascanna) was discovered in 1916 and drilling by Amax from 1980 to 1982 outlined 212,000 tons at .21oz/ton. Other prospects include Edgelake, Adair, Knapp Paulpic, Kipper-Cameron, Knucklethumb, Hendrikson, etc. as summarized in Amukun's 1977 report on the Tashota Area. More recent work has been carried out by Cameco, Kodiak Exp., East West Res., Spruce Ridge, SageGold, A. Lafontaine et al.

The Wascanna was discovered by Robert Wells in 1916. In 1936-37 Wascanna Mines sank a shaft to a depth of 98 m and did more than 550 m of drifting at the 30, 60, and 90 m levels. A 1,000 ton bulk sample was reported to have run greater than 1oz./ton. Amede Lafontaine acquired the claims in 1982 and performed various work on them finally letting all but claim 604704 to lapse in 2007.

## **RESULTS & RECOMMENDATIONS**

No anomalous gold values were found in the samples, but we were unable to sample to the east and north of the shaft area, which is underlain by low lying swampy ground. According to Hopkins the width and grade of the quartz veins increases as one approaches a northwest-southeast trending fault just to the north of the Wascanna shaft. The shaft lies less than 8 meters from the property boundary.

## **REFERENCES**

Amukun, S.E.

1977: Geology of the Tashota Area, District of Thunder Bay, O.G.S. Report 167, 90p. Accompanied by Map 2354, scale 1 inch to ½ mile.

Amukun, S.E.

1979: Geology of the Willet Lake Area, District of Thunder Bay, O.G.S. Report 183, 72 p. Accompanied by Map 2415, scale 1 inch to ½ mile.

Stott, G. M. and Parker, J.R.

1996. Precambrian geology, Metcalfe Lake area, central Onaman-Tashota Greenstone Belt, eastern Wabigoon Subprovince: Ontario Geological Survey, Preliminary Map P.3365, scale 1:20 000

Ontario Geological Survey

1992. Tectonic Assemblages of Ontario, west-central sheet: Ontario Geological Survey, Map 2576, scale 1:1 000 000.

Pye, E.G.; Harris, F.R.; Fenwick, K.G.; and Baille, J.

1965: Tashota Geraldton Sheet; Geology Compilation Series, Ontario Department of Mines, Map 2102, scale 1 inch to 4 miles.

Ontario Geological Survey

1989: Airborne Electromagnetic and Total Intensity Magnetic Survey. Tashota-Geraldton-Longlac Area. District of Thunder Bay by Aerodat Limited for the O.G.S. Geophysical/Geochemical Series. Map 81283 and 81284. Scale 1:20,000, Survey and Compilation, June to December 1988.

## **STATEMENT OF QUALIFICATION** (R. Koivisto)

I, Raymond J. Koivisto , have worked in various fields of mining exploration since 1969.

I have performed prospecting, staking, gridding, diamond drilling and geophysical surveys for a large number of mining exploration companies throughout Canada.

I have taken courses in prospecting sponsored by the Ministry of Northern Development and Mines, including a 3 month course in the Geology of Northwestern Ontario. This course was taught by Mark Smyk, District Geologist (Thunder Bay South). I have also taken several short courses in various aspects of geology.

I have written technical reports for assessment credit, for OPAP and for geophysical surveys.

This report has been completed the 6<sup>th</sup> day of March, 2017.

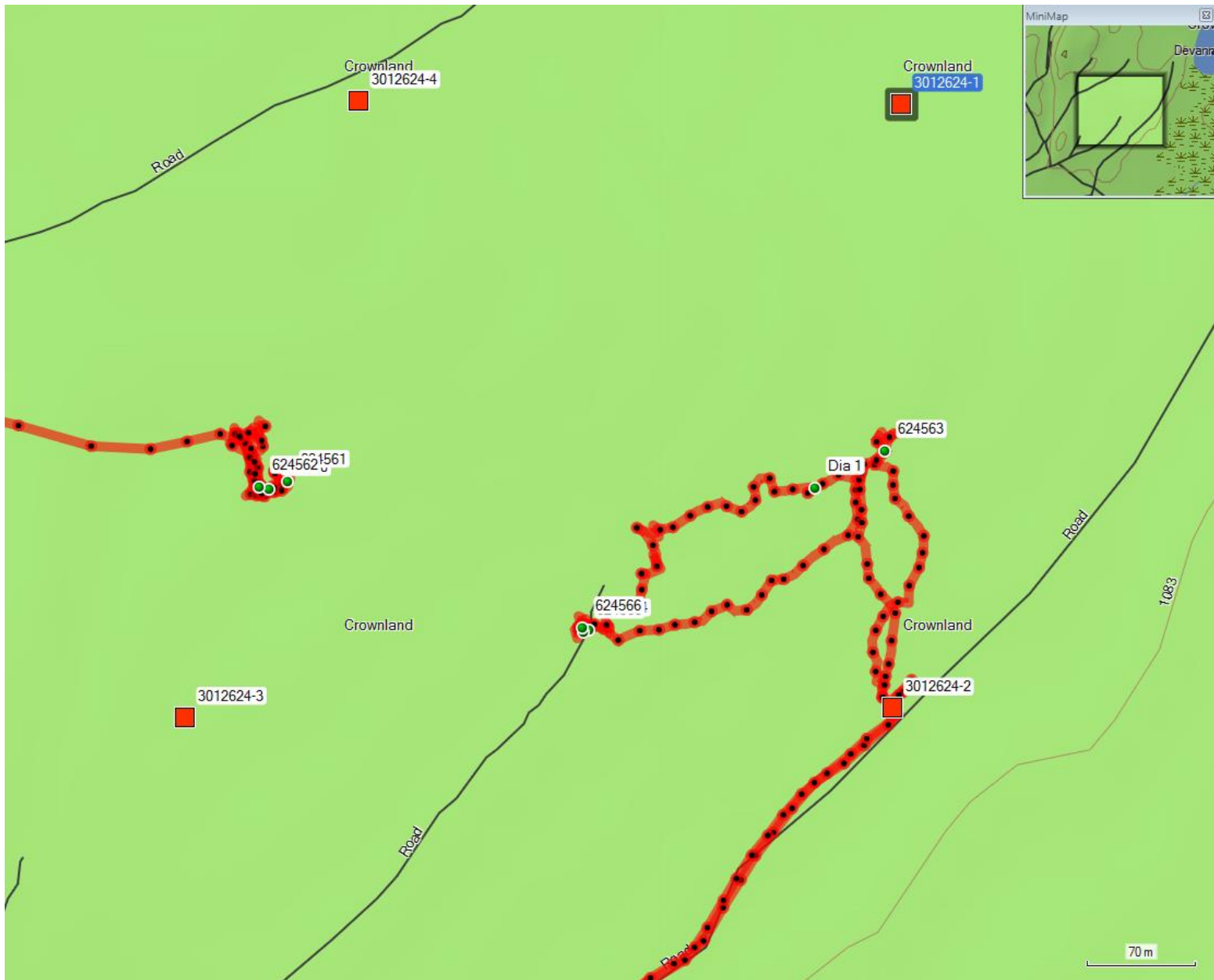
Raymond J. Koivisto

**Licence no. E27528**

**Client no. 153089**

220 Dease Street  
Thunder Bay, Ontario  
P7C 2H8  
807-626-8290

APPENDIX 'A'  
TRAVERSES & WAYPOINTS



## SAMPLE LOCATIONS

sample	Sample no.	Date	utm,s Nad 83	elevation
	3012624-2	29-OCT-16 2:21:18PM	16 U 454300 5562914	326 m
1	<b>624560</b>	29-OCT-16 1:05:24PM	16 U 453919 5563058	346 m
2	<b>624561</b>	29-OCT-16 1:16:13PM	16 U 453930 5563063	336 m
3	<b>624562</b>	29-OCT-16 1:30:46PM	16 U 453912 5563060	336 m
4	<b>624563</b>	29-OCT-16 2:44:09PM	16 U 454297 5563079	331 m
5	<b>624564</b>	29-OCT-16 3:29:14PM	16 U 454115 5562966	336 m
6	<b>624565</b>	29-OCT-16 3:34:16PM	16 U 454111 5562965	335 m
7	<b>624566</b>	29-OCT-16 3:36:58PM	16 U 454111 5562968	334 m



APPENDIX 'B'  
SAMPLE DESCRIPTIONS & ASSAYS

## SAMPLE DESCRIPTIONS

### **624560**

Mafic volcanic, sheared, chlorite, silicified, gossanous, quartz veinlets, 2% sulphides

Strike 180    Dip 85 S

### **624561**

Mafic volcanic, sheared, chlorite, silicified, calcite, quartz veinlets, 1% sulphides

Strike 180    Dip 90

### **624562**

Mafic volcanic, minor fabric, calcite, trace sulphides

Strike 190    Dip 90

### **624563**

Mafic volcanic, sheared, minor quartz veinlets , 1 % sulphides

Strike 190    Dip 90

### **624564**

Mafic volcanic, sheared, gossanous, local semi massive sulphides

Strike 160    Dip 90

### **624565**

Felsic volcanic, sheared, gossanous, 1% sulphides

Strike 160    Dip 90

### **624566**

Felsic volcanic, sheared, gossanous, trace sulphides

Strike and dip unknown, located in old trench

Thursday, November 10, 2016

## Final Certificate


 Koivisto, Ray  
 220 Dease St.  
 Thunder Bay, ON, CAN  
 P7C2H8  
 Ph#: (807) 626-8290  
 Fax#: (807) 626-8290  
 Email: rayko@tbaytel.net

 Date Received: 11/01/2016  
 Date Completed: 11/10/2016  
 Job #: 201642298  
 Reference:  
 Sample #: 7


Acc #	Client ID	Au g/t (ppm)
233697	624560	<0.005
233698	624561	<0.005
233699	624562	<0.005
233700	624563	0.006
233701	624564	<0.005
233702	624565	0.007
233703	624566	<0.005
233704	624566 Dup	<0.005

APPLIED SCOPES: ALP1, ALFA1, ALAR1

Validated By:

  
 Jason Moore, VP Operations, Assayer

Certified By:

  
 Jason Moore, VP Operations, Assayer

Authorized By:

  
 Derek Demianiuk, VP Quality

**The results included on this report relate only to the items tested.**

**The Certificate of Analysis should not be reproduced except in full, without the written approval of the laboratory.**

Thursday, November 10, 2016

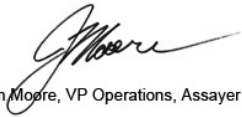
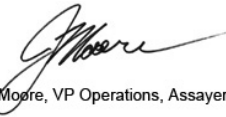

**Final Certificate**Koivisto, Ray  
220 Dease St.  
Thunder Bay, ON, CAN  
P7C2H8  
Ph#: (807) 626-8290  
Fax#: (807) 626-8290  
Email: rayko@tbaytel.netDate Received: 11/01/2016  
Date Completed: 11/10/2016  
Job #: 201642298  
Reference:  
Sample #: 7**Control Standards**

QC Type	Element	QC Performance (ppm)	Mean (ppm)	Std Dev (ppm)
APPLIED SCOPES: ALP1, ALFA1, ALAR1				

Validated By:

Certified By:

Authorized By:

  
Jason Moore, VP Operations, Assayer  
Jason Moore, VP Operations, Assayer  
Derek Demianiuk, VP Quality**The results included on this report relate only to the items tested.****The Certificate of Analysis should not be reproduced except in full, without the written approval of the laboratory.**



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Wednesday, November 9, 2016


**Final Certificate**

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Ph#: (807) 626-8290  
Fax#: (807) 626-8290  
Email: rayko@taylor.net

Date Received: 11/01/2016  
Date Completed:  
Job #: 201642298  
Reference:  
Sample #: 7

Acc #	ClientID	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Se ppm	Si %	Sn ppm	Sr ppm	Ti ppm	Tl ppm	V ppm	W ppm	Y ppm	Zn ppm
233697	624560	<1	4.17	21	47	31	<2	<1	0.68	<4	53	364	108	7.69	0.12	30	2.82	1056	29	0.03	304	194	14	5	13	0.03	<10	4	1077	3	246	<10	3	100
233698	624561	<1	2.62	8	37	2	<2	11	1.58	<4	31	201	55	4.33	<0.01	15	2.24	535	2	0.05	89	206	8	<5	6	0.03	<10	4	1045	6	135	<10	5	62
233699	624562	<1	2.31	8	39	5	<2	<1	2.74	<4	28	156	78	3.98	0.03	24	1.83	587	2	0.06	84	208	3	<5	<1	0.04	<10	6	1595	<2	96	<10	4	52
233700	624563	<1	2.10	11	37	6	<2	<1	1.81	<4	33	121	118	3.68	<0.01	<10	1.47	739	6	0.02	97	184	<1	13	6	0.04	<10	19	2343	21	80	<10	2	60
233701	624564	<1	2.20	10	33	3	<2	<1	0.24	<4	58	105	174	9.58	<0.01	14	1.81	762	4	0.06	61	210	5	<5	<1	0.02	<10	<3	2231	<2	131	<10	4	114
233702	624565	<1	1.81	11	32	7	<2	<1	0.26	<4	14	94	174	6.37	0.04	<10	1.47	544	2	0.06	31	206	7	9	10	0.03	<10	6	2734	<2	110	<10	2	82
233703	624566	<1	0.75	11	35	41	<2	<1	0.32	<4	5	26	28	1.64	0.08	<10	0.33	174	8	0.09	44	293	1	5	4	0.02	<10	7	212	<2	10	<10	3	35
233704D	624566	<1	0.69	10	35	37	<2	<1	0.29	<4	1	20	26	1.47	0.07	<10	0.30	156	6	0.07	32	255	2	8	7	0.02	<10	5	201	<2	7	<10	3	30

PROCEDURE CODES: ALP1, ALFA1, ALAR1

Certified By:   
Jason Moore, VP Operations, Assayer

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APPENDIX 'C'  
EXPENDITURES

EXPENDITURES:

Assays: see attached receipt	\$273.69
Prospecting: R. Koivisto 1 day @ 350.00/day 29 October 2016	\$350.00
Prospecting: J. Savage 1day @ 350.00/day 29 October 2016	\$350.00
Report writing: R. Koivisto 1 day @ 350.00/day 01 March 2017	\$350.00
Mileage: R. Koivisto 760km @.50/km Round trip Thunder Bay to Wascanna SE property and back to Thunder Bay. Includes the cost of gas.	\$380.00
Total	\$1703.69



**Laboratory Address:**  
 1046 Gorham Street,  
 Thunder Bay, ON P7B 5X5  
 Ph: 807-626-1630  
 Fx: 807-622-7571

**Please Remit to:**  
 Accurassay Laboratories Ltd.  
 PO Box 177, Lambeth Station  
 London, ON, N6P 1P9  
 Ph: 519-266-4640

# INVOICE

<p><b>Invoiced to:</b>          Koivisto, Mr. Ray          220 Dease St.          Thunder Bay, ON P7C2H8          Canada</p>	<p><b>Analyzed For:</b>          Koivisto, Mr. Ray          220 Dease St.          Thunder Bay, ON P7C2H8          Canada</p>
--	---

**Invoice No:** IN124735  
**Date:** Nov 11, 2016  
**Page:** 1  
**Cust. No.:** 0122

Business No: 10029 4768

Terms: N30

Due Date: Dec 11, 2016

Code	Qty	Description	Unit Price	Amount
Job# 20164298				
ALP1	7	Dry, Crush (<5kg) 85%-10 mesh, Split 500g, Pulv 90%-200 Mesh	8.80	61.60
ALFA1	7	Gold (FA/AAS, 30g)	14.90	104.30
ALAR1	7	Aqua Regia Digestion with ICP-OES Finish	10.90	76.30
Notes:			<b>Tax Summary:</b> HST 31.49 QST 0.00	
			<b>Sub-Total</b>	242.20
			<b>Total Taxes</b>	31.49
			<b>Total Amount</b>	273.69