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**REPORT ON  
PROSPECTING WORK CONDUCTED ON  
CLAIMS 853165, 4274854, 4274865, 4274870 AND 4275274  
OF THE RIDLEY LAKE (SWAYZE) PROPERTY**

**ROLLO AND RANEY TOWNSHIPS  
NTS Sheet  
0410/15**

**Work Period  
August 19-20, 2015**

Authors:  
Bogdan Nitescu, P. Geo.  
Warren Hawkins, P. Eng.  
Lucas Currah

November 30, 2015

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## **Introduction**

Richmond Minerals Inc. (“the Company”) owns 154 contiguous unpatented mining claims comprising a total of 194 mining units in the Rollo and Raney Townships, which form the Ridley Lake (Swayze) Property (“the Property”) (Map 1). The initial property comprising 150 mining claims was staked in the 1980’s. No exploration was conducted between 1990 and 2014, due to Certificates of Pending Legal Proceedings that were attached to the claims of the Property. The certificates were vacated by court order in February 2014. The Company resumed exploration on June 04, 2014, by conducting a prospecting traverse in the area covered by the central core of claims of the Property (Niturescu et al., 2014), with the purpose of locating and sampling the historic Agaura and Cyril Knight gold occurrences. Follow-up prospecting work was conducted on September 14-15, 2014 (Niturescu et al., 2015) with the goals of: (1) new sampling of the Agaura gold occurrence; (2) search for mineralized rock exposures on claim 853165, in an area that lies on strike with the structures hosting the Agaura gold occurrence; and (3) search for mineralized rock exposures on claim 4270945, in an area that lies along strike with the Raney gold occurrence.

On August 19 and 20, 2015, the Company conducted prospecting work on claims 853165, 4274854, 4274865, 4274870 and 4275274 of the Property. The specific goals of the work were:

1. Search for (and sampling of) rock exposures on claim 4275274 in order to obtain information on the bedrock geological formations and their gold content, and to investigate possible relationships between the exposed bedrock geology and the information obtained from an induced polarization / resistivity / magnetic survey conducted in July 2015 on this claim and on the adjacent claims to the west, south-west and south. The area that was prospected lies between 0.6 and 1 km north-east of the Agaura outcrop, along strike with the structures hosting the Agaura occurrence.
2. Search for (and sampling of) mineralized rock exposures in an area covering parts of claims 853165, 4274854, 4274865, 4274870, which lies on strike with the west-trending structures hosting the Agaura gold occurrence, 1.6 to 2 km to the west-southwest of the Agaura outcrop. The prospecting work in this area was initiated on September 15, 2014, when an outcrop was identified and sampled on claim 853165 (Niturescu et al. 2015).

## **Location and Access**

The Property is located in northern Ontario, Canada, approximately 110 km southwest of the city of Timmins, and 200 km northwest of Sudbury, extending between the Raney Lake and the southern half of the Rollo Lake, within the Raney and Rollo Townships, on N.T.S. Sheet 410/15 (Map 1). Access is granted by a network of well maintained lumber roads. The Foleyet lumber road can be taken south from highway 101, and the Dore lumber road can be taken north from the Sultan industrial road. A road that loops around Rollo Lake from the Foleyet road passes through the east of the property, and a smaller lumber road continues to the west. An un-

maintained lumber road that branches off southwest from this road reaches claims 853165, 4274854 and 4274865. In the area of the Property, the topography is gently undulating and elevations vary from ca. 380 m to ca. 430 m. Most of the Property appears to have been logged over the past 25 years and is currently covered by secondary growth forest that is often dense and difficult to penetrate. The area accessed on claim 4275274 is covered by planted, secondary growth forest. The area that was accessed on claims 853165, 4274854 and 4274865 was cleared out by logging, and currently is covered by alder scrub brush. The area that was traversed on claim 4274870 is covered by mature forest.

## **Geology**

The Property is located within the western part of the Swayze-Deloro Greenstone Belt, which lies in the western region of the Abitibi Sub-Province of the Superior Province. The Swayze-Deloro greenstone belt trends in a general east-west direction and consists of mafic to felsic volcanic and sedimentary rocks intruded locally by quartz-feldspar porphyry, gabbro and diorite bodies.

Geological data from the Ontario Ministry of Northern Development and Mines (Precambrian bedrock geology digital data, see Maps 2, 3, 4) and the Geological Survey of Canada Open File Report 3384b (Heather and Shore, 1999) indicate that the areas covered by the prospecting work described in this report are underlain by mafic to intermediate metavolcanic rocks.

Hillier (1989) provides a summary of the geological features associated with the gold mineralization in the Agaura area, based on detailed logging of drill core. He states that "several geological features appear to be of significance in the deposition of gold mineralization in this area:

- Shear zone development producing permeable conditions favourable for hydrothermal fluid circulation;
- Carbonatization of the mafic volcanic possibly releasing gold into the system;
- Development of silicified, carbonatized, chloritized and mineralized fracture zones;
- Development of quartz + carbonate  $\pm$  chlorite veins, stringers and stockworks generally with sulphide mineralization containing lower grade gold values in the surrounding wallrock;
- Emplacement of the feldspar porphyry sill/ dike creating a "heat engine" for hydrothermal re-concentration;
- Higher concentration of both disseminated and cubic pyrite mineralization;
- Contacts between mafic to intermediate flows and slightly coarser-grained mafic to intermediate flows;
- Contact between mafic flows and felsic to intermediate flows; and
- Proximity to mafic intrusive dikes."

Further details on the geology of the area covered by the Property and the geology, mineralization and history of exploration at the Agaura and Cyril Knight gold occurrences can be found in the following reports available in the public domain: Rickaby (1935), Thurston et al. (1977), Phendler (1982), Filo (1983), Hillier (1989).

## **Prospecting Work Results**

The prospecting work presented in this report was conducted by a three-person crew: Warren Hawkins, P.Eng., Exploration Manager of Richmond Minerals; Bogdan Nitescu, P.Geo., Director of Richmond Minerals; and Lucas Currah, Field Assistant.

The samples collected as part of the work reported here were assayed for gold (fire assay, AAS finish) at the AGAT Laboratories in Mississauga, Ontario, Canada. This laboratory is ISO 9001 certified. The AGAT Laboratories assay report, which includes the Certificate of Analysis, the Quality Assurance Report and the Method Summary, is provided in the Appendix 1.

*Note: All location coordinates provided below are NAD83 UTM Zone 17N.*

### Traverse on claim 4275274 - August 19, 2015

On August 19, 2015, the crew conducted an on-foot loop traverse on claim 4275274 (see Map 2). Starting and end points of the traverse were at 373105E, 5303781N (GPS coordinates), on an un-maintained lumber road that branches off to the east at 373070E, 5303777N (GPS coordinates) from the main north-south road that crosses the eastern part of the Ridley Lake (Swayze) Property (Maps 1, 2).

The traverse was guided in part along segments of north-south grid lines. These grid lines were cut in July of 2015, in order to carry out induced polarization / resistivity / magnetic surveying, as part of the exploration effort to extend and locate gold-bearing anomalous zones east of the Agaura gold occurrence. One prominent outcrop (approximate size 80 m x 25 m) was identified in the area that was prospected on claim 4275274. The exposed rock is an intermediate metavolcanic rock that is sporadically cross-cut by cm-scale quartz veins, and which displays porphyritic texture, with 1-10 mm feldspar crystals. Rock material from two locations on the northern margin of the outcrop (GPS coordinates 373266E, 5303677N, elevation 384 m and 373247E, 5303675N, elevation 389 m) was combined into a composite grab sample (E5153676) that returned a concentration of 0.004 ppm Au. No bedrock outcrop was identified in the northern half of the claim, which is mostly underlain by an esker.

### Traverse on claims 853165, 4274854, 4274865 and 4274870 - August 20, 2015

On August 20, 2015, the crew completed an on-foot loop traverse on claims 853165, 4274854, 4274865 and 4274870 (see Map 3). Starting and end points of the traverse were at 370923E, 5303163N (GPS coordinates), on an un-maintained lumber road that branches off to the south-

west at 371245E, 5303646N (GPS coordinates) from the east-west road that crosses the northern half of the Ridley Lake (Swayze) Property (Maps 1, 3).

A total of twelve outcrops were identified along the traverse (Map 3). Rock samples were collected from seven of these outcrops. Details for each of these outcrop locations are presented below:

Outcrop B SPOT (GPS coordinates 370907E, 5303176N, elevation 410 m) was identified and sampled in September 2014 (see Nitescu et al., 2015). The outcrop exposes a sharp contact between a mafic metavolcanic unit with disseminated sulfides (pyrite and bornite) and a laminated felsic metavolcanic rock (possible tuff) with amygdules.

Outcrop 28 (GPS coordinates 370834E, 5303203N, elevation 404 m) - mafic metavolcanic rock with disseminated pyrite (trace to 1%) and with calcium (Ca) alteration; sample E5153670 returned concentration of 0.007 ppm Au.

Outcrop 29 (GPS coordinates 370818E, 5303201N, elevation 405 m) - mafic metavolcanic rock with disseminated pyrite (trace to 1%) and with Ca alteration; sample E5153669 returned concentration of 0.012 ppm Au.

Outcrop 30 (GPS coordinates 370786E, 5303211N, elevation 403 m) - outcrop exposes contact between mafic metavolcanic rock and felsic metavolcanic rock (tuff), similar to the contact observed at outcrop B SPOT.

Outcrop 31 (GPS coordinates 370764E, 5303237N, elevation 401 m) - mafic metavolcanic rock with weak Ca alteration and shearing; sample E5153671 returned concentration of 0.016 ppm Au.

Outcrop 32 (GPS coordinates 370758E, 5303281N, elevation 397 m) - mafic metavolcanic rock with disseminated pyrite (1-2%) and with weak Ca alteration; sample E5153672 returned concentration of 0.002 ppm Au.

Outcrop 33 (GPS coordinates 370668E, 5303262N, elevation 399 m) - mafic metavolcanic rock, slightly porphyritic, with disseminated pyrite (1-2%) and with Ca alteration; sample E5153673 returned concentration of 0.002 ppm Au.

Outcrop 34 (GPS coordinates 370643E, 5303239N, elevation 401 m) - mafic metavolcanic rock, slightly porphyritic, with disseminated pyrite (1-2%) and with Ca alteration; sample E5153674 returned concentration < 0.002 ppm Au.

Outcrop 35 (GPS coordinates 370516E, 5303112N, elevation 396 m) - mafic metavolcanic rock with weak Ca alteration; no visible sulphides.

Outcrop 36 (GPS coordinates 370603E, 5303083N, elevation 395 m) - mafic metavolcanic rock

with more intense chlorite alteration; no visible Ca alteration; no visible sulphides.

Outcrop 37 (GPS coordinates 370696E, 5303096N, elevation 395 m) - mafic metavolcanic rock with disseminated pyrite (1-2%) and with Ca alteration that is stronger than at previous locations; sample E5153675 returned concentration of 0.003 ppm Au.

Outcrop 38 (GPS coordinates 370725E, 5303073N, elevation 399 m) - mafic metavolcanic breccia; no visible sulphides.

## **Conclusions and Recommendations**

### **Claim 4275274**

One prominent outcrop of intermediate metavolcanic rock was identified and sampled along the traverse that was conducted on claim 4275274. The assay of the collected sample indicates the absence of anomalous gold concentration in the exposed rock. Further detailed prospecting is recommended for the southern half of the claim as well as for claim 4275273, to the south.

### **Claims 853165, 4274854, 4274865, 4274870**

Twelve outcrops were visited along the traverse conducted on these claims and seven samples with visible disseminated pyrite were collected. Although the area that was prospected on claims 853165, 4274854, 4274865 and 4274870 lies along strike to the Agaura gold occurrence, no significant gold concentration was found in the collected samples. It is recommended that future prospecting work be conducted to the east of the area that was traversed, between the Agaura gold occurrence and the eastern boundary of claims 853165 and 4274854. In addition, a review of available airborne magnetic and air photography data is recommended, in order to seek any relevant information on the westward extension of the structures hosting the Agaura gold occurrence.

## **References**

Filo, J.K. 1983. Geological Report on the Ridley Lake Prospect in Rollo Township, Sudbury Mining Division, for Carlson Mines Ltd. (Available in the Assessment Work Database of the Ontario Ministry of Northern Development and Mines; AFRI File: 41O15SE0024)

Heather, K.B and Shore, G.T. 1999. Geology, Rollo Lake, Swayze Greenstone Belt, Ontario. Geological Survey of Canada, Open File 3384b, scale 1:50,000

Hillier, D. 1989. Diamond Drilling Report on the Swayze Property of Black Gregor Explorations Ltd. and Carlson Mines Ltd. (Available in the Assessment Work Database of the Ontario Ministry of Northern Development and Mines; AFRI File: 41O15SE0001)



Nitescu, B., Hawkins, W., Carter G. 2014. Report on prospecting work conducted on the Ridley Lake (Swayze) Property in the area of the Agaura and Cyril Knight gold occurrences, Rollo Township. (Submitted to the Ontario Ministry of Northern Development and Mines on behalf of Richmond Minerals Inc.)

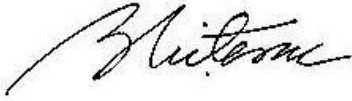
Nitescu, B., Hawkins, W., Currah L. 2015. Report on prospecting work conducted on claims 633593, 853165 and 4270945 of the Ridley Lake (Swayze) Property, Rollo and Raney Townships. (Submitted to the Ontario Ministry of Northern Development and Mines on behalf of Richmond Minerals Inc.)

Phendler, R.W. 1982. Report on the Ridley Lake Property for Carlson Mines Ltd. (Available in the Assessment Work Database of the Ontario Ministry of Northern Development and Mines; AFRI File: 41O15SE0020)

Rickaby, H.C. 1935. Geology of the Swayze Gold Area. Ontario Department of Mines, Annual Report, v. 43, part 3, pp. 1-36. (Available in the Ontario Geological Survey Publications Database of the Ontario Ministry of Northern Development and Mines; Publication No: ARV43-03.001)

Thurston, P.C., Siragusa, G.M. and Sage, R.P. 1977. Geology of the Chapleau Area, Districts of Algoma, Sudbury and Cochrane. Ontario Department of Mines, Geoscience Report 157, 293p. (Available in the Ontario Geological Survey Publications Database of the Ontario Ministry of Northern Development and Mines; Publication No: M2352)

**Signatures of the Authors**



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Bogdan Nitescu, P.Geom.



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Warren Hawkins, P.Eng.

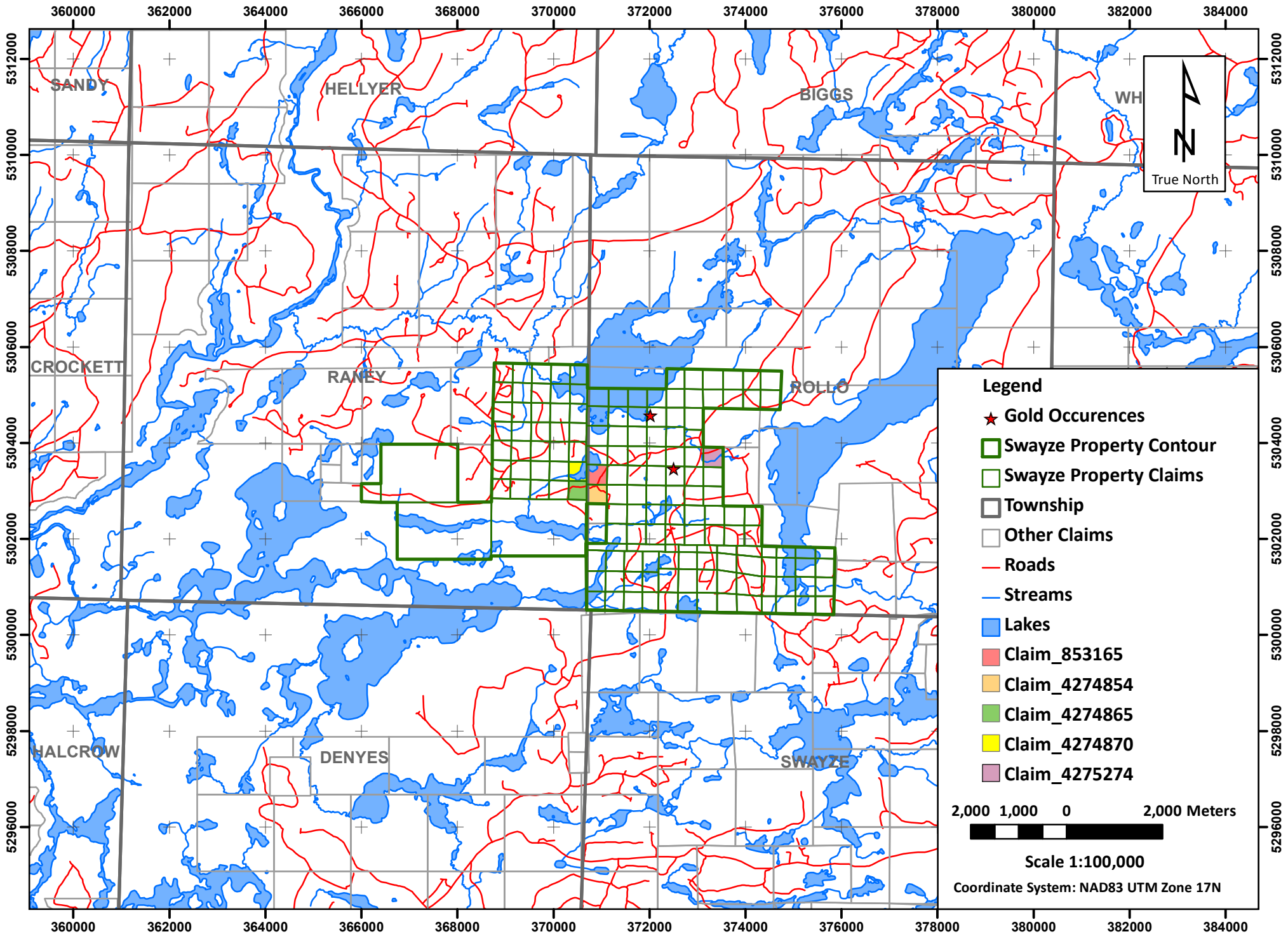


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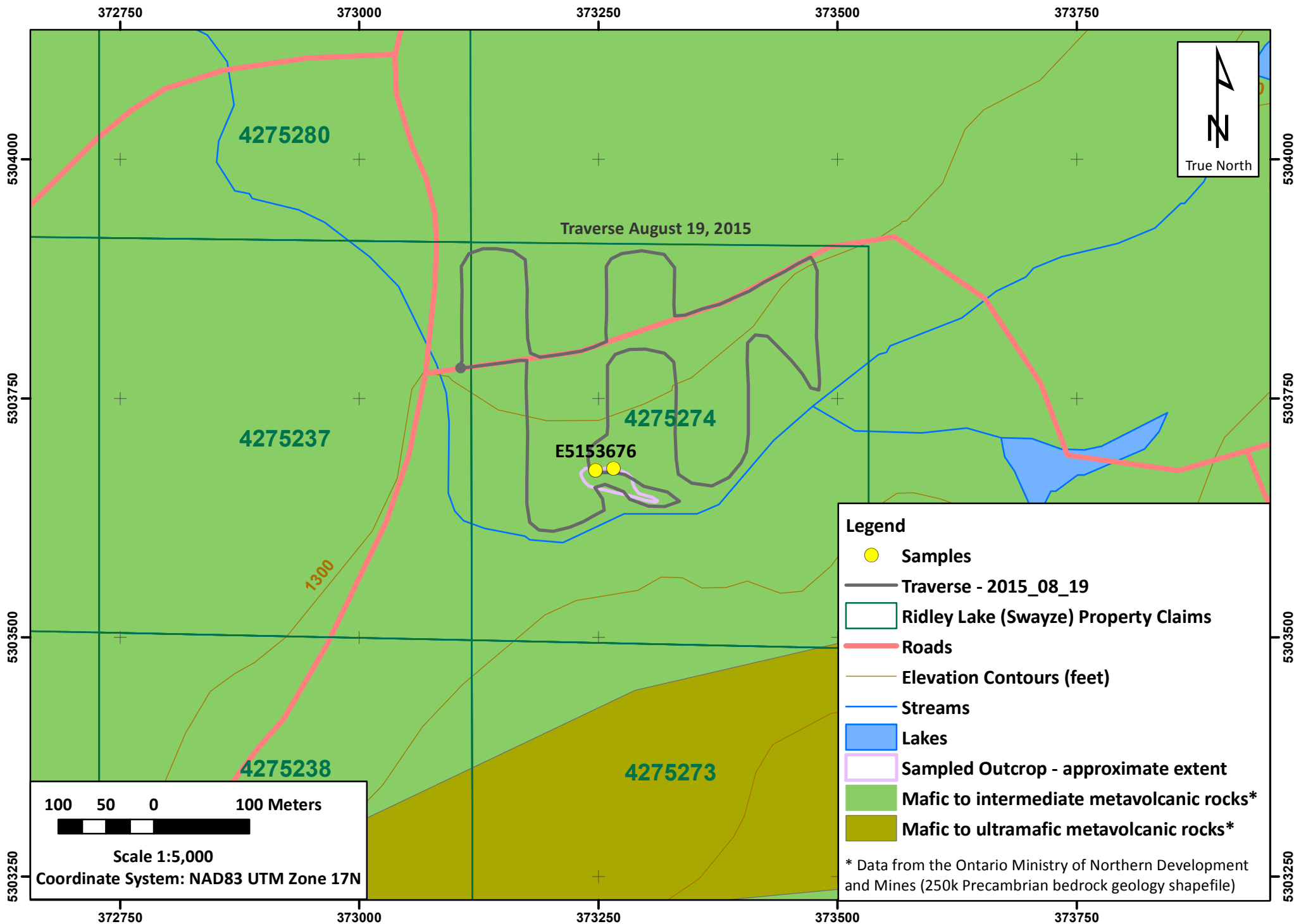
Lucas Currah

**RICHMOND MINERALS INC.**

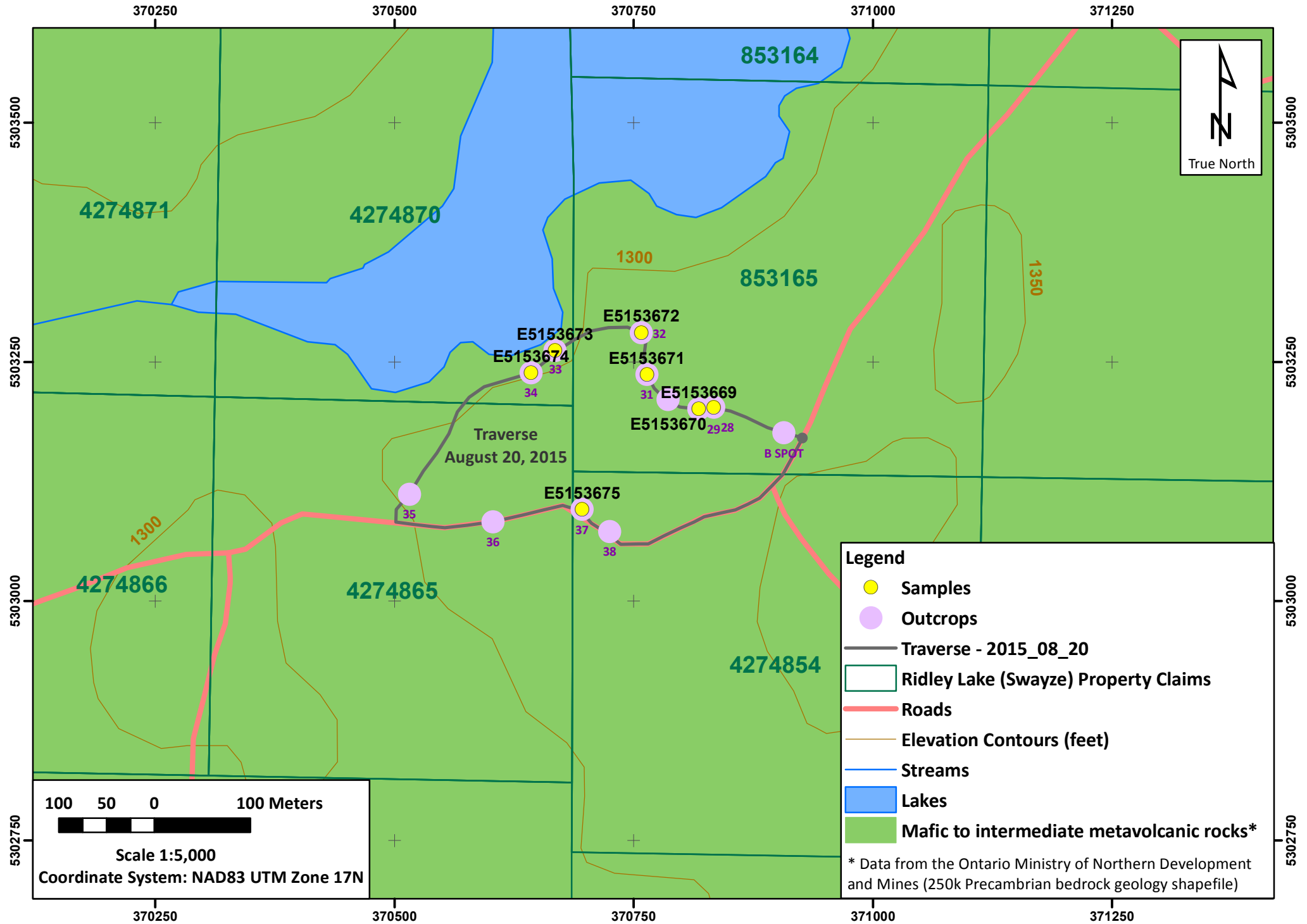
**Map 1 - Ridley Lake (Swayze) Property and Location of Claims 853165, 4274854, 4274865, 4274870, 4275274**



RICHMOND MINERALS INC.  
MAP 2 - Prospecting Work Conducted on Claim 4275274



**RICHMOND MINERALS INC.**  
**MAP 3 - Prospecting Work Conducted on Claims 853165, 4274854, 4274865, 4274870**



**Legend**

- Samples
- Outcrops
- Traverse - 2015\_08\_20
- Ridley Lake (Swayze) Property Claims
- Roads
- Elevation Contours (feet)
- Streams
- Lakes
- Mafic to intermediate metavolcanic rocks\*

\* Data from the Ontario Ministry of Northern Development and Mines (250k Precambrian bedrock geology shapefile)

**APPENDIX**

**AGAT LABORATORIES ASSAY REPORT**

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CLIENT NAME: RICHMOND MINERALS INC.  
133 RICHMOND ST. WEST, SUITE 403  
TORONTO, ON M5H2L3  
(416) 603-2114

ATTENTION TO: WARREN HAWKINS

PROJECT:

AGAT WORK ORDER: 15T010825

SOLID ANALYSIS REVIEWED BY: Kevin Motomura, Data Review Supervisor

DATE REPORTED: Sep 14, 2015

PAGES (INCLUDING COVER): 5

Should you require any information regarding this analysis please contact your client services representative at (905) 501-9998

\*NOTES

All samples are stored at no charge for 90 days. Please contact the lab if you require additional sample storage time.





## Certificate of Analysis

AGAT WORK ORDER: 15T010825

PROJECT:

5623 McADAM ROAD  
 MISSISSAUGA, ONTARIO  
 CANADA L4Z 1N9  
 TEL (905)501-9998  
 FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: RICHMOND MINERALS INC.

ATTENTION TO: WARREN HAWKINS

(202-051) Fire Assay - Trace Au, AAS finish

DATE SAMPLED: Aug 24, 2015

DATE RECEIVED: Aug 21, 2015

DATE REPORTED: Sep 14, 2015

SAMPLE TYPE: Rock

Sample ID (AGAT ID)	Analyte:	Sample Login Weight	Au
	Unit:	kg	ppm
	RDL:	0.01	0.002
E5153669 (6893179)		1.85	0.012
E5153670 (6893180)		1.58	0.007
E5153671 (6893181)		1.48	0.016
E5153672 (6893182)		1.01	0.002
E5153673 (6893183)		2.55	0.002
E5153674 (6893185)		1.89	<0.002
E5153675 (6893186)		1.83	0.003
E5153676 (6893187)		2.39	0.004

Comments: RDL - Reported Detection Limit

Certified By:



**AGAT** Laboratories

Quality Assurance - Replicate  
 AGAT WORK ORDER: 15T010825  
 PROJECT:

5623 McADAM ROAD  
 MISSISSAUGA, ONTARIO  
 CANADA L4Z 1N9  
 TEL (905)501-9998  
 FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: RICHMOND MINERALS INC.

ATTENTION TO: WARREN HAWKINS

(202-051) Fire Assay - Trace Au, AAS finish

Parameter	Sample ID	REPLICATE #1												
		Original	Replicate	RPD										
Au	6893179	0.012	0.006											



**AGAT** Laboratories

Quality Assurance - Certified Reference materials

AGAT WORK ORDER: 15T010825

PROJECT:

5623 McADAM ROAD  
 MISSISSAUGA, ONTARIO  
 CANADA L4Z 1N9  
 TEL (905)501-9998  
 FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: RICHMOND MINERALS INC.

ATTENTION TO: WARREN HAWKINS

(202-051) Fire Assay - Trace Au, AAS finish

Parameter	CRM #1 (GSP7J)													
	Expect	Actual	Recovery	Limits										
Au	0.722	0.675	93%	90% - 110%										



## Method Summary

CLIENT NAME: RICHMOND MINERALS INC.

AGAT WORK ORDER: 15T010825

PROJECT:

ATTENTION TO: WARREN HAWKINS

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Solid Analysis			
Sample Login Weight	MIN-12009		BALANCE
Au	MIN-200-12019	BUGBEE, E: A Textbook of Fire Assaying	AAS