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N.T.S. 32D05

# REPORT ON MECHANISED TRENCHING AND ROCK SAMPLING THE TANNAHILL PROPERTY, TANNAHILL & HOLLOWAY TOWNSHIPS, LARDER LAKE MINING DIVISION, ABITIBI GREENSTONE BELT, NORTHERN ONTARIO

For Brandy Brook Mines Limited 8901 Reily Drive Mount Brydges, Ontario

> By: Robert Dillman of Arjadee Prospecting Brandy Brook Mines Limited

> > October 25, 2016



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# Summary

In September 2016, Brandy Brook Mines Limited mobilized a track excavator to the Tannahill Property to expose a gold bearing outcrop discovered in 2014 on claim 4255937. The excavator exposed strongly sheared, brecciated and carbonated mafic metavolcanic rocks mineralized by disseminated pyrite. A total of 50 samples were collected from the outcrop. Thirty-five of the samples were cut from the outcrop using a diamond bladed rock saw. Assay results for gold ranged 0.002 g/t to 4.28 g/t.

## Location, Access

The Tannahill Property is located in the Harker-Holloway area of the Larder Lake Mining Division in Ontario (Figure 1). The property straddles the township boundary between Holloway and Tannahill Township's.

The property has several access points via logging roads connecting with Highway 672. The Magusi River Road is the largest logging road in the area and crosses Tannahill Township 1.2 km's south of the property. A logging road at the 17 km marker on the Magusi River Road provides access to the center of the property.

## **Claim Ownership and Logistics**

The Tannahill Property consists of nine contiguous unpatented mining claims covering a total area of 1,376 hectares (Figure 2). Claim logistics is summarized in Table 1. All claims are registered in the name of Brandy Brook Mines Limited located at 8901 Reily Drive, Mount Brydges, Ontario.

# Land Status and Topography

The Tannahill Property is situated entirely on Crown Land. There are no buildings or people living on the property and there is no hydro. The closest transmission line is approximately 5 km's west of the property.

Large areas of the property have been logged at various times over the last decade. Most recent logging operations occurred in the winter of 2013. Areas logged a decade ago have been reforested with spruce trees. The recently logged areas are mostly clear-cut but isolated patches of old-growth forest still remain. The old-growth areas have been left to act as boundaries between logged areas and waterways crossing the property. Trees within old-growth areas include: spruce, pine, poplar, maple, ash and alders.

The property is crossed by the Magusi River which flows north towards Lake Abitibi. The river generally flows slowly and is navigable by canoe. There are several sections with short rapids.

Most of the Tannahill Property is covered with thick overburden consisting of clay and till. Outcrop exposure is less than 5%. Most outcrops are found south and east of the Magusi River and in the south section of the property. In these areas, boulder till can be found around some of the outcrops. No outcrops have been found north of the river in the north section of the property.

# Geology

The Tannahill Property is located in the Harker-Holloway section of the Abitibi Greenstone Belt. The property straddles the unconformity between Archean units of the Upper and Lower Blake River formation dated 2704 to 2696 Ma (Figure 3).

Exposed outcrops are rare on the property. Outcrops consist mostly of flow and pillowed basalts, gabbroic flows and fine-grained sedimentary schists. Rock units generally trend northeast-southwest and dip moderately towards the south. A large gabbro pluton occupies the central section of the claim. A north-south orientated diabase dike also crosses the property.



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Table 1. Claim Logistics Tannahill Property Tannahill & Holloway Twp.'s, Ontario G-3717 Brandy Brook Mines Limited

August 20, 2016

Claim	Township	Number	Date	Work	\$ Amount	Banked
Number		of Units	Recorded	Due Date	Due	Work \$
4266634	Holloway	8	Nov. 14, 2011	Nov. 14, 2016	\$3,200	\$2,065
4273758	Tannahill	8	Dec. 11, 2014	Dec. 11, 2016	\$3,200	\$0
4251297	Tannahill	16	Nov. 26, 2009	Nov. 26, 2016	\$6,400	\$2,537
4255937	Tannahill	11	Nov. 14, 2011	Nov. 14, 2016	\$4,400	\$7,140
4263100	Tannahill	12	Oct. 31, 2011	Oct. 31, 2016	\$4,800	\$0
4264181	Tannahill	4	Oct. 31, 2011	Oct. 31, 2016	\$1,600	\$759
4267469	Tannahill	3	Oct. 31, 2011	Oct. 31, 2016	\$1,200	\$1,275
4273168	Tannahill	12	Dec. 21, 2012	Dec. 21, 2015	\$4,800	\$302
4273169	Tannahill	12	Dec. 21, 2012	Dec. 21, 2015	\$4,800	\$0



The property is crossed by east-west and northeast-southwest trending faults associated with south branches of the Destor-Porcupine Fault. Rock units close to the Magusi River in the north section of the property are carbonated and schistose as a result of shearing.

## **History of Exploration**

In 1981, prospectors G. Bastarache and A. Mathias reported low gold values in sheared mafic metavolcanic rock and feldspar porphyry dikes.

In 1982, Canamax Resources Inc. drilled 647 metres with 4 holes close to the Bastarache-Mathias Showing and along the Magusi River. Low gold values were reported.

In 1984, the Bastarache-Mathias property was optioned to Condaka Metals Corp. Over the next 3 years, Condaka completed airborne magnetometer and EM surveys, ground magnetometer and VLF-EM surveys, mapped geology and drilled 18 holes. The magnetometer surveys outlined a northeast trending magnetic feature along the Magusi River. The magnetic feature coincides with work by Bastarache-Mathias. A hole drilled by Condaka in the vicinity to the Bastarache-Mathias is reported to have interested altered basalt assaying 0.15 oz/ton Au over 4.2 feet. Another hole in the same area intersected 0.112 oz/ton Au over 12 feet and 0.22 oz/ton Au over 4.0 feet in a second zone. Condaka also reports an assay of 0.07 oz/ton Au from pyrite mineralization exposed in a trench on the south side of the Magusi River in the northeast corner of the property.

In 1988, the Ontario Geological Survey drilled three sonic overburden holes in the area covered by the Tannahill Property (88-33, 88-34, 88-42). The holes were drilled vertically. Overburden depth is reported to range 29 to 32 metres thick and consist of several layers of till and glaciofluvial sand layers. Heavy mineral concentrates derived from the till layers contained numerous gold grains, total counts ranging 6 to 46 grains per hole. The samples of the basal till layer above bedrock in each of the holes contained 4 to 11 gold grains per sample. The grains are described as abraded and angular shaped. Assays of heavy mineral concentrates derived from the basal till layers assayed <2 ppb to 1,400 ppb gold, 110 pm to 120 ppm copper and some showed anomalous values of Zn, Fe, Cr, Ti and Ni. A bedrock sample of basalt from the bottom of hole 88-42 assayed 135 ppm Cu. This hole was drilled close to a northeast striking airborne VLF-EM conductor. Bedrock encountered at the bottom of overburden hole 88-33 is described as "altered" and "limonitic". The basal till sample above the altered bedrock in 88-33 assayed 1,200 ppb gold and contained 6 gold grains, one measuring 250 x 400 microns in size. No assay was performed on the bedrock.

In 1994, Strike Minerals Inc. and Findore Minerals Inc. completed a ground magnetometer survey over a circular aeromagnetic feature located in the southeast corner of the property. The circular magnetic feature was explored as a potential kimberlite pipe.

In 1995, Strike Minerals completed a mechanized trenching program on the Gagne-St. Amant Prospect. Strike reported assay values ranging: trace to 583 ppb (0.016 oz/ton) Au, trace to 37.0 ppm (1.01 oz/ton) Ag, 287 to 87,100 ppm (8.71%) Cu and 91 to 1,360 ppm (0.136 %) Zn.

In 2011, Brandy Brook Mines Limited staked the Tannahill Property and completed ground magnetometer and VLF-EM surveys over the Gagne-St. Amant Prospect and airborne VLF conductor situated in the northeast section of the property close to the OGS sonic drill hole 88-42. Rocks samples were also collected from the Gagne-St. Amant Prospect. Assays included: <0.02 to 1.46 g/t gold, 0.5 to 46.8 g/t silver, 0.007 to 8.61% copper and <0.001 to 0.12% zinc over sample widths of 20 cm or less.

In 2013, Brandy Brook completed a Geo-referencing Survey of the claim post locations on the property. Rock samples were also collected from the Bastarache-Mathias zone however none contained any significant gold mineralization.

In the fall of 2014, Brandy Brook mapped surface features and geology in the north section of the property. This work lead to the discovery of a gold-bearing outcrop located in claim 4255937 just south of the Tannahill-Holloway Township line. Rock samples collected from the site assayed up to 0.992 g/t Au. Rock samples were also investigated by Sarah Codyre on behalf of Brandy Brook Mines Limited and to partially fulfill the requirements for the Honors Bachelor of Science Degree from the Department of Earth Sciences at the University of Western Ontario.

In the October of 2015, Brandy Brook Mines completed ground magnetometer and VLF-EM surveys over areas south and west of the Magusi River and manually excavated several trenches over the new gold showing. Assay from samples collected from the trenches ranged 0.25 ppb to 1.78 ppb Au.

# **Survey Dates and Personnel**

The trenching, mapping and rock sampling program on claim 4255937 was conducted over 8 days between September 16, 2016 and September 25, 2016.

The program was supervised by the author, Robert Dillman of Mount Brydges, Ontario and assisted by James Chard of Cordova Mines, Ontario.

The excavator used for the project was supplied by Canadian Exploration Services (CXS) Ltd. located in Larder Lake, Ontario. The excavator was operated by William Bonney of CXS Ltd. The excavator was mobilized to the Tannahill Property on September 16<sup>th</sup>, 2016. The trench was excavated in 1 day on September 19th, 2016.

## **Survey Logistics**

The trench is bounded between UTM coordinates (NAD 83, Zone 17):

Northwest Corner	594362mE, 5367029mN
Southeast Corner	594367mE, 5367029mN
Northeast Corner	594380mE, 5367033mN
Southeast Corner	594381mE, 5367021mN

The total area excavated during the program was approximately 216 square metres. After excavation, the outcrop was washed using a Honda pump.

The program was performed under Exploration Permit Pr-1510691.

Trench Plans depicting geology, rock sample locations plus assay results and photo sites are appended this report. The plans are at a scale of 1cm : 100 cm.

A total of 50 rock samples were collected from the newly exposed outcrop. Thirty-five of the samples were cut from the outcrop using a diamond-bladed gas powered saw. Fifteen of the rock samples were "grab" samples collected from various areas of mineralization observed throughout the trench. The UTM coordinates for each sample site was recorded using a Garmin GPS model GPSmap 60Cx. The GPS unit was set to NAD 83, Zone 18.

The rock samples were sent for analysis to AGAT Laboratories located in Mississauga, Ontario. All the samples were assayed for gold by standard Fire Assay method. At the lab, each sample was weighed and 3.0 kg was dried at 1,050C. The dried samples were crushed and pulps were made by passing the crushed material through a 2mm screen until 75% of the material was sieved. From the -2mm fraction, 250g was selected and further pulverized until 85% was passed through a 75 micron screen. From the -75 micron fraction of each sample, a 50 g charge was selected for fire assay by lead (Pb) fusion technique. The amount of gold in each sample was measured by Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES).

Assay results, sample descriptions and sample locations are summarized in Table 2. Assay certificates from the laboratory are appended to this report.

# **Survey Results**

The excavator exposed a complex outcrop of strongly altered and deformed mafic metavolcanic rocks and minor thin interbeds of potential metasedimentary rocks. Original textures of the parent rock have been obscured by multiple events of brecciation, faulting and shearing. The outcrop is pervasively carbonated and mineralized with fine disseminated pyrite. There are multiple generations of carbonate infilling fractures, as stringers and acting as matrix material in brecciated sections. At least 2 generations of quartz veining are present: 1.) an older folded quartz vein with associated marginal silicification and pyrite and, 2.) a younger quartz vein crossing foliation and offset by cross cutting faults.



Figure 4. Veiw of the area excavated. Looking west SZ : Shear Zone

# Table 2.

Rock Sample Locations, Descriptions and Assay Results Trenching Program: Claim 4255937, Tannahill Twp., Ontario

**Brandy Brook Mines Limited** 

Sample	UTM	Sample	Width	Description	
Number		Туре			Au ppm
TR-1	594370mE 5367022mN	grab	10 cm	White quartz vein crossing foliation and off-set by faulting 3 % pyrite	0.033
TR-2	594378mE 5367019.8mN	Cut A	15 cm	Carbonated and fractured basalt, 5% disseminated pyrite.	0.382
TR-3	594378mE 5367019.9mN	Cut A	15 cm	Silicified, carbonated, calcite filled fractures and stringers in wallrock, 5-10% coarser pyrite	1.77
TR-4	594378mE 5367020mN	Cut A	10 cm	Silicified wallrock + fine grey quartz vein <15 cm wide, 5-20% pyrite, stringer-like sulphides.	3.88
TR-5	594378mE 5367020mN	Cut A	10 cm	Silicified wallrock + fine grey quartz vein <15 cm wide, 5-20% pyrite, stringer-like sulphides.	2.27
TR-6	594378mE 5367020.1mN	Cut A	10 cm	Silicified, carbonated, calcite filled fractures and stringers in wallrock, 5-10% coarser pyrite	1.19
TR-7	594378mE 5367020.2mN	Cut A	10 cm	Carbonated and fractured basalt, 5% disseminated pyrite.	0.051
TR-8	594378mE 5367020.4mN	Cut A	10 cm	Carbonated and fractured basalt, 5% disseminated pyrite.	0.013
TR-9	594378mE 5367020.6mN	Cut A	15 cm	Carbonated and fractured basalt, 5% disseminated pyrite.	0.011
TR-10	594378mE 5367020.8mN	Cut A	15 cm	Carbonated and fractured basalt, 5% disseminated pyrite.	0.012
TR-11	594383mE 5367023.8mN	Cut B	10 cm	Carbonated and fractured basalt, 5 -10% disseminated to occasional bleb of coarser pyrite.	0.690
TR-12	594383mE 5367023.9mN	Cut B	10 cm	Carbonated and fractured basalt, 5% disseminated to occasional bleb of coarser pyrite.	0.178
<b>TR-13</b>	594383mE 5367024mN	Cut B	10 cm	1 cm wide stringers of pyrite and potential chalcopyrite, weakly magnetic, Metasediment?	1.21
<b>TR-14</b>	594383mE 5367024.1mN	Cut B	10 cm	Semi-massive and stringers of pyrite plus potential chalcopyrite, weakly magnetic, orange carbonate or altered garnet? Possible metasediment	2.62

# Table 2. continued

Rock Sample Locations, Descriptions and Assay Results Trenching Program: Claim 4255937, Tannahill Twp., Ontario

Brandy Brook Mines Limited

Sample	UTM	Sample	Width	Description	
Number		Туре			Au ppm
TR-15	594383mE 5367024.2mN	Cut B	10 cm	Semi-massive and stringers of pyrite plus potential chalcopyrite, weakly magnetic, orange carbonate or altered garnet? Possible metasediment.	4.28
<b>TR-16</b>	594383mE 5367024.3mN	Cut B	10 cm	Stringers of pyrite plus potential chalcopyrite, weakly magnetic, Possible metasediment	1.70
TR-17	594383mE 5367024.4mN	Cut B	10 cm	Carbonated and fractured basalt, 5% disseminated pyrite, occasional coarser bleb.	0.181
TR-18	594383mE 5367024.5mN	Cut B	10 cm	Carbonated and fractured basalt, 5% disseminated pyrite.	0.041
TR-19	594385mE 5367033mN	Grab Shear	15 cm	10% coarse pyrite blebs in silicified, carbonated and sheared mafic metavolcanic	0.095
TR-20	594383mE 5367032mN	Grab Shear	35 cm	Fault gauge, very sheared material, carbonated, rusty, trace pyrite.	0.539
TR-21	594380mE 5367032mN	Grab Shear	boulder	Loose piece on shear, carbonated, silicified, 1 cm quartz stringer, 20% coarse pyrite blebs.	1.81
TR-22	594385mE 5367033mN	Grab	15 cm	Sheared material, carbonated, rusty Tr. – 3% pyrite	0.255
TR-23	594385mE 5367032.5mN	Grab	15 cm	Sheared material, carbonated, rusty Tr. pyrite	0.062
TR-24	594385mE 5367033.5mN	Grab	15 cm	Sheared material, carbonated, rusty Tr. – 5% pyrite, some coarser blebs	1.22
TR-25	594378mE 5367019.8mN	Cut C	20 cm	Carbonated and fractured basalt, 5% disseminated pyrite.	0.282
<b>TR-26</b>	594378mE 5367019.8mN	Cut C	20 cm	Carbonated and fractured basalt weak silicification, 5% disseminated pyrite, occasional coarse bleb.	0.809
TR-27	594378mE 5367020mN	Cut C	20 cm	Silicified wallrock + fine grey quartz vein <10 cm wide, 5-20% pyrite, stringer-like sulphides.	2.22

# Table 2. continuedRock Sample Locations, Descriptions and Assay ResultsTrenching Program: Claim 4255937, Tannahill Twp., OntarioBrandy Brook Mines Limited

Sample	UTM	Sample	Width	Description	
Number		Туре			Au ppm
TR-28	594378mE 5367020.2mN	Cut C	20 cm	Silicified wallrock + fine grey quartz vein <10 cm wide, 5-20% pyrite, stringer-like sulphides.	2.35
TR-29	594378mE 5367020.4mN	Cut C	20 cm	Carbonated and fractured basalt, Tr5% disseminated pyrite, occasional coarse bleb.	0.018
TR-30	594378mE 5367020.6mN	Cut C	20 cm	Carbonated and fractured basalt, Tr5% disseminated pyrite.	0.017
TR-31	594378mE 5367019.0mN	Cut C extension	35 cm	Carbonated and fractured basalt, Tr. disseminated pyrite.	0.006
TR-32	594378mE 5367019.4mN	Cut C extension	10 cm	Carbonated and fractured basalt, Tr. disseminated pyrite.	0.002
TR-33	594378mE 5367019.5mN	Cut C extension	15 cm	Carbonated and fractured basalt, Tr3% disseminated pyrite.	0.038
TR-34	594378mE 5367019.6mN	Cut C extension	15 cm	Carbonated and fractured basalt, Tr. disseminated pyrite.	0.011
TR-35	594378mE 5367019.8mN	Cut C extension	15 cm	Adjacent to TR-25, Carbonated and fractured basalt, Tr. – 5% disseminated pyrite.	0.025
TR-36	594383mE 5367022.5mN	Cut D	22 cm	Carbonated and fractured basalt, Tr. disseminated pyrite	0.140
TR-37	594383mE 5367022.8mN	Cut D	22 cm	Silicified wallrock Tr5% pyrite, occasional bleb.	0.476
TR-38	594383mE 5367024mN	Cut D	10 cm	Silicified wallrock + fine grey quartz vein <10 cm wide, 5-20% pyrite, stringer-like sulphides	0.683
TR-39	594383mE 5367024mN	Cut D	10 cm	Silicified wallrock + fine grey quartz vein <10 cm wide, 5-20% pyrite, stringer-like sulphides	1.37
TR-40	594383mE 5367024.1mN	Cut D	10 cm	Carbonated and fractured basalt, Tr5% disseminated pyrite, occasional coarse bleb.	0.542
TR-41	594383mE 5367024.2mN	Cut D	15 cm	Silicified, 5-10% pyrite, stringer-like sulphides	1.93
TR-42	594383mE 5367024.4mN	Cut D	15 cm	Silicified, 5-10% pyrite, stringer-like sulphides	1.57

# Table 2. continuedRock Sample Locations, Descriptions and Assay ResultsTrenching Program: Claim 4255937, Tannahill Twp., OntarioBrandy Brook Mines Limited

Sample	UTM	Sample	Width	Description	Assay
Number		Туре			Au
					ppm
TR-43	594367mE 5367019mN	grab	2 m	Best over 2 metres. Carbonated and fractured basalt, Tr5% disseminated pyrite.	0.021
TR-44	594367mE 5367017.5mN	grab	1 m	Best over 1 metre. Sheared, carbonated and fractured basalt with Tr5% disseminated to occasional bleb of pyrite.	0.360
TR-45	594367mE 5367019mN	grab	1 m	Best over 1 metre. Weakly silicified, sheared, carbonated, fractured basalt, Tr5% disseminated to occasional bleb of pyrite.	0.295
TR-46	594371mE 5367025mN	grab	20 cm	Carbonate-breccia seam, carb matrix, mafic metavolcanic fragments. 5% disseminated pyrite	0.180
TR-47	594372mE 5367032mN	grab	1 m	Best over 1 metre. Weakly silicified, carbonated and fractured basalt, Tr5% disseminated pyrite.	0.031
TR-48	594375mE 5367030mN	grab	1 m	Best over 1 metre. Sheared, carbonated and fractured basalt with Tr5% disseminated to occasional bleb of pyrite.	0.032
TR-49	594379mE 5367029mN	grab	2.5 m	Best over 2.5 metre. Sheared, weak silicification, carbonated and fractured basalt with Tr5% disseminated pyrite. Tr. Chalcopyrite.	0.093
TR-50	594383mE 5367030mN	grab	1.2 m	Best over 1.2 metre. Sheared, weak silicification, carbonated and fractured basalt with Tr5% disseminated pyrite.	0.006

Assay results show gold occurs in a variety of settings. Anomalous values ranging <1.0 g/t occur in many of the rock samples collected across the area excavated. These samples generally consist of brecciated and fractured mafic metavolcanic rocks with extensive carbonate alteration, carbonate stringers, fractures filled with calcite or ankerite and disseminated pyrite and hematite (Figure 6). This type of mineralization is ubiquitous throughout the outcrop.

Higher gold values ranging >1.0 g/t were obtained from three structures exposed in the outcrop:

- 1.) in a shear zone with patches of coarse pyrite, best assay 1.81 g/t Au (Figure 4.)
- 2.) 40 cm wide section with semi-massive pyrite mineralization and pyrite stringers assaying 1.21 to 4.28 g/t Au (Figure 6.)
- 3.) 40 cm wide zone of silicification containing coarse pyrite and a 10 cm wide contorted quartz vein assaying 1.19 to 3.88 g/t Au (Figure 7 & Figure 8.)

## **Discussion of Results**

The intense alteration and structural complexity of the outcrop clearly indicates the site is within a fault zone where brittle deformation and shearing combined with hydrothermal alteration are major components. Original textures have been mostly obliterated, however remnants of possible minor interbeds of metasedimentary rocks suggest units trend  $92^{0}$  to  $100^{0}$  E. and dip moderately to steeply south. A significant event of brecciation is believed to have occurred early, closely followed variable shearing across the outcrop and hydrothermal alteration manifesting as widespread carbonate alteration, fracture filling, silicification, and injections of quartz and carbonate stringers (Figure 9). It is probable that sulphide and gold mineralization coincided with hydrothermal and shearing events.

A prominent shear zone striking across the northeast corner of the outcrop appears to be the oldest structure. It has been offset by younger phases of faulting and jointing, the oldest of which trend  $42^{0}$  to  $48^{0}$  NE. Some of these structures off-set a thin quartz-carbonate vein striking southeast across the west section of the outcrop (Figure 10). Another well-formed joint crosses the zone of gold-bearing silicification in southeast corner of the outcrop. This particular joint has been intruded by a thin quartz vein (Figure 11).

The youngest set of faults trend  $160^{\circ}$  to  $168^{\circ}$ S and cut across all other structures in the outcrop (Figure 12). These faults truncate some of the northeast trending structures and one of



Figure 5. Fractured basalt with calcite-ankerite-quartz fracture filling, pyrite and hematite.



Figure 6. Cut C, 15 cm wide quartz vein in silicified zone. Looking east.



Figure 7. Cut B, Stringers of pyrite. Looking west.



Figure 8. Cut C & Cut A, 15 cm wide quartz vein in silicified zone. Looking east.



Figure 9. Breccia with carboante alteration and carbonate stringers. Looking south.



Figure 10. Quartz - carbonate vein off-set by younger faults orientated parallel to the hose. Looking north



Figure 11. Fracture striking 48<sup>0</sup> through Cut D and Cut A. Note thin quartz vein in fracture. Looking west



Figure 12. Young cross cutting faults striking 168°. Looking north.

the faults off-sets the shear zone in the central area of the outcrop. This particular fault also shows some control on the degree of carbonate alteration on either side of the fault.

The gold mineralization in Cut B occurs with stringers of pyrite associated with a possible interbed of altered cherty magnetite iron formation. Samples of the mineralization have been sent for petrologic examination to gain a better understanding of the host rock.

The location of the trench is south of the magnetic anomaly following the Magusi River which has been the focus of historic drill programs. Anomalous gold mineralization has been reported in drill holes collared close to the trench location which were drilled northward to test the magnetic anomaly. The trench exposes gold mineralization believed to be parallel zones to the reported intersections. South of the magnetic feature, there VLF-EM conductors which have not been tested by drilling. Some of these conductors are in close proximity to the new trench. The conductors could represent sulphide and potential gold mineralization and are considered as priority targets for further mineralization.

## **Conclusions and Recommendations**

The trenching program has exposed an outcrop of mafic metavolcanic rocks with extensive alteration and faulting. Assays of rock samples collected at various locations show wide-spread anomalous gold mineralization. Higher grade gold values > 2.0 g/t has been detected with pyrite mineralization in quartz, silicification and potential metasedimentary rocks.

The results of the trenching program are very encouraging and further work is warranted. Additional rock sampling using the rock saw is required to further determine the extent of the higher grade gold mineralization in the outcrop. In addition, some petrologic studies of various rocks from different locations in the trench are warranted to gain a better understanding of the host rocks and the controls of gold mineralization.

Respectfully submitted,

Robert Dillman B.Sc. P.Geo. October 25, 2016

# Robert J. Dillman P.Geo, B.Sc. ARJADEE PROSPECTING 8901 Reily Drive, Mount Brydges, Ontario, Canada, N0L1W0 Phone/ fax (519) 264-9278

# **CERIFICATE of AUTHOR**

# I, Robert J. Dillman, Professional Geologist, do certify that:

1. I am the **President** and the holder of a **Certificate of Authorization** for:

ARJADEE PROSPECTING 8901 Reily Drive Mount Brydges, Ontario, Canada N0L1W0

- 2. I graduated in 1991 with a **Bachelor of Science Degree** in **Geology** at the **University of Western Ontario.**
- 3. I am an active member of:

Association of Professional Geoscientists of Ontario, APGO Prospectors and Developers Association of Canada, PDAC

- 4. I have been a **licensed Prospector in Ontario** since 1985.
- 5. I have worked continuously as a **Professional Geologist** for 24 years.
- 6. Unless stated otherwise, **I am responsible** for the preparation of all sections of the Assessment Report titled:

Report On Mechanised Trenching and Rock Sampling, The Tannahill Property, Tannahill & Holloway Township's, Larder Lake Mining Division, Abitibi Greenstone Belt, Northern Ontario

# dated, October 25, 2016

7. I am not aware of any material fact or material change with respect to the subject matter of the Assessment Report that is not contained in the Assessment Report and its omission to disclose makes the Assessment Report misleading.

Dated this 25th day of October, 2016

P.Geo

Robert James Dillman Arjadee Prospecting



# References

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

CLIENT NAME: MISC AGAT CLIENT ON, ON (403) ATTENTION TO: Robert Dillman PROJECT: AGAT WORK ORDER: 16T142044 SOLID ANALYSIS REVIEWED BY: Brandon Wang, Spectroscopy Supervisor DATE REPORTED: Oct 12, 2016 PAGES (INCLUDING COVER): 12

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

*NOTES				
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A	I samples are stored at n	to charge for 90 days. Please cont	act the lab if you require additional	sample storage time.

AGAT Laboratories (V1)

Results relate only to the items tested and to all the items tested

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<b>(</b> )		T	Laboratories	AGAT WORK	te of Analysis ORDER: 16T142044	5623 McADAN ROAD MISSISSAUGA, ONTRAIO CANADA 142 1N9 TEL. (905)501-988 FAX (905)501-988 http://www.agatlabs.com
CLIENT NAME: MIS	C AGAT CLI	ENT ON		T A 101	ATTENTION TO: ROD	ert Dinnan
			(202-552) Fire Assa	y - Trace Au, ICP	-OES misn (sug charge) (ppm)	
DATE SAMPLED: Sej	o 27, 2016		DATE RECEIVED	: Sep 27, 2016	DATE REPORTED: Oct 12, 2016	SAMPLE TYPE: Rock
	Analyte:	Au				
	Unit:	ppm				
Sample ID (AGAT ID)	RDL:	0.001				
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TR-2 (7880845)		1.382				
1 K-3 (7880846)		1.77				
11K-4 (7880847)		3.88	FILT			
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11K-0 (7880849)		1.19				
TR-7 (7880850)		0.031				
TR-8 (7880851)		0.013				
TR-9 (7000032)		0.011				
TR-10 (7000055)		0.012				
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CERTIFICATE OF ANALYSIS (V1)

Results relate only to the items tested and to all the items tested

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<b>(</b> 1		1	Laboratories	AGAT WORK O	e of Analysis RDER: 16T142044	5623 McADAM ROAD MISSISSAUGA, ONTARIC CANADA L42 11W TEL (905)501-9989 FAX (905)501-9589 http://www.agatabac.com
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			(202-552) Fire Ass	ay - Trace Au, ICP-	OES finish (50g charge) (ppm)	
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Results relate only to the items tested and to all the items tested

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