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GEOTECHNICAL REPORT
ON THE
HINZER, DIRKS, DIRKS
SHININGTREE
BASE AND PRECIOUS METALS PROPERTY
CHURCHILL TOWNSHIP, ONTARIO

J.B. Hinzer P. Geo.

January 27, 2017

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INTRODUCTION

P.P. Dirks, P.J. Dirks and J.B. Hinzer engaged local prospector D. Hiltz to conduct a supplementary rock chip sampling program in November 2016. This sampling was undertaken to expand, to the south, the detailed sampling and mapping program on the northern portion of the claim in October 2013. The sampling was designed to follow up anomalous gold mineralization encountered during earlier sampling programs and consisted of locating previous grab sample sites from 2000 and 2005 and sampling in more detail any mineralization and quartz veining located in the immediately surrounding area. The work was focused on five (5) target areas along a 600m section of the southern portion of the north trending valley where previous grab samples returned weakly anomalous gold and arsenic responses.

The exploration work was conducted in accordance with MNDN guidelines and regulations.

P. Dirks and partners have been prospecting for gold in this area since 1999. The current claim unit is the residual property of a larger claim block originally optioned from M. Caron (CORPOMIN) in 1998. Since that time the partners assessed fourteen sites of anomalous gold mineralization, previously identified by Northgate, and since 2007 the partners have focused their work in the eastern part of the original Northgate property.

The current property holding, consists of one eight unit claim registered in the name of Peter P. Dirks. The claim unit covers several north – northwest trending locally silicified and carbonated shears zones and hosts several areas of anomalous gold values ranging from background up to 1.73g/t Au from rock chip samples and one channel –chip sample located just south of the old Northgate 7+00S tie line which assayed 2.05g/t Au over 0.2m. All of the anomalous gold mineralization is concentrated in a north-northwest trending valley, thought to represent a shear zone or fault. A 2004, IP survey, indicated several northwest trending chargeability anomalies more or less co-incident with the anomalous gold mineralization. The original trenching in 2007-2008 identified a mineralized quartz rich shear zone with anomalous gold mineralization ranging up to 2090 ppb Au. The work completed in 2013 traced this zone for more that 125m along a strike and confirmed a second similar zone approximately 150m to the north.

The current sampling which followed up previous anomalous sites on the southern part of the claim not only re-confirmed their existence but has returned much higher values at two of the sites indicating a similar potential to the areas in the northern portion of the claim explored in 2013.

The samples were analyzed by fire assay and ICP by ACTLABS of Ancaster Ontario.

This report presents the results of the supplemental sampling program completed in 2016.

PROPERTY DESCRIPTION

The property is located just to the north of Shiningtree, Ontario, being within the Shiningtree Area, Larder Lake Mining Division, in Churchill Township G 3210, NTS sheet 41/P/11 Lat. 47°37' Long. 81°18' (see Figure 1).

The property currently consists of 1 unpatented mining claim (containing 8 claim units) as shown on Fig.2, and listed in Table 1 below. The recorded owner is Peter P. Dirks.

Table 1. List Of Claims

Claim Number	Due date
Claim L 3007649	2017 February 05

Claim posts	Easting	Northing
Post 1	479189	5273996
Post 2	479186	5272314
Post 3	478386	5272302
Post 4	478379	5273994

The center of the property lies 6.4 km. (4 miles) northwest of the town of Shiningtree along Highway 560. Highway 560 is a tarred road, running east from Highway 11 at the town of Engelhart to intersect near the midpoint of Highway 144 which links Sudbury and Timmins (see Figure 1). The claims are accessible in summer by boat following a 10-km canoe route, approximately 30-40 minutes, from the village of Shining Tree where accommodation and boat rental are available. Winter skidoo access to the claims closely follows along the same route used in the summer.

Relief is gentle (5-30m) and outcrop exposure is extensive in most parts. The property is wooded with mixed vegetation and is part of a managed forest harvest area. Forest harvesting operations have been in progress to the north, east and west of the property during the last 3-5 years.

The electrical power grid traverses the town of Shining Tree. The property is located approximately half way between Sudbury and Timmins (two hours by road) from two major mining centers. Unemployment in the area is high.

JBR PER / JBR_03_Loc_Map.cdr
Last revision date: Thursday 26 January 2017

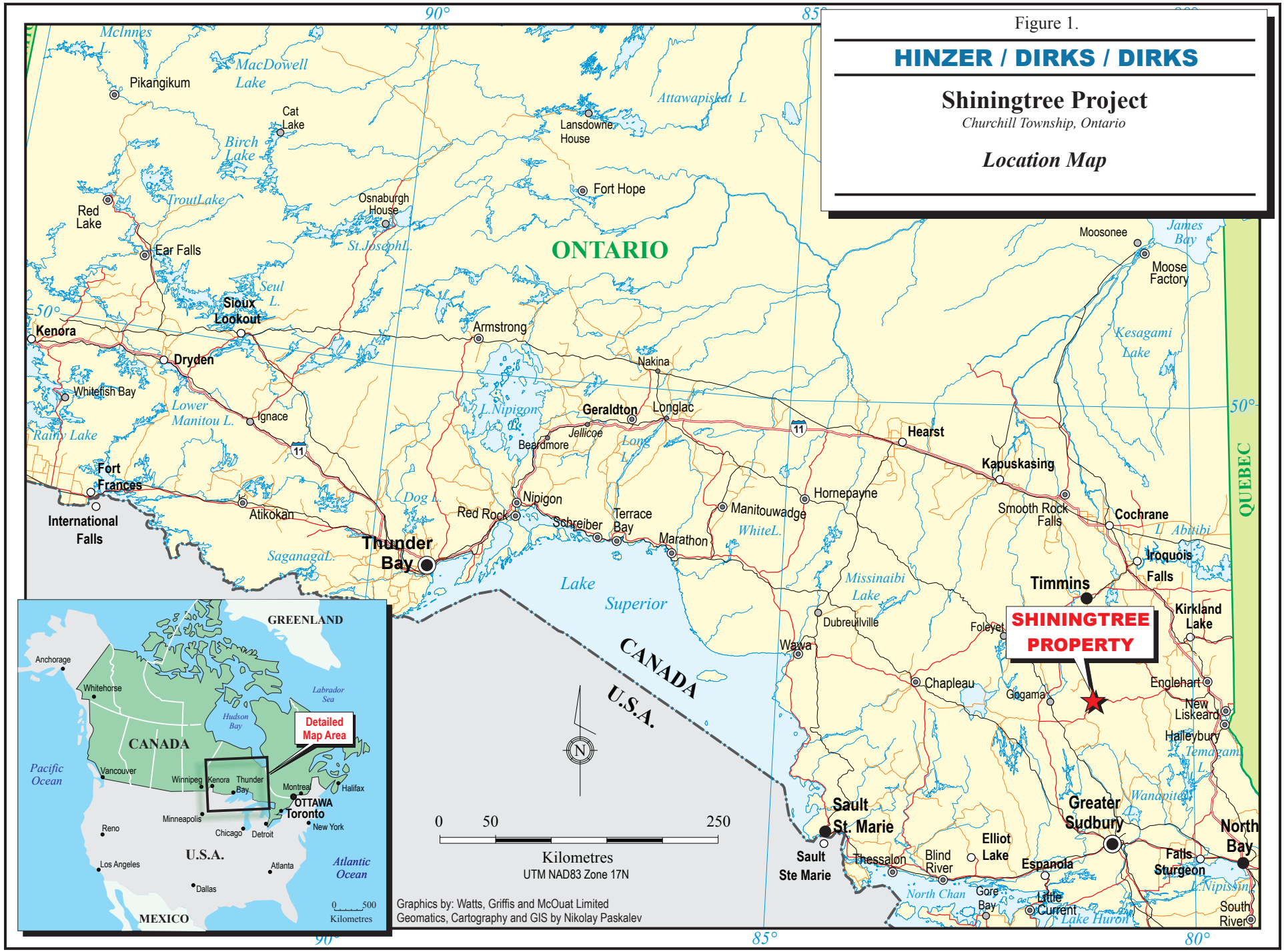
Figure 1.

HINZER / DIRKS / DIRKS

Shiningtree Project

Churchill Township, Ontario

Location Map



Graphics by: Watts, Griffis and McOuat Limited
Geomatics, Cartography and GIS by Nikolay Paskalev

HISTORY

The Shining Tree area, because of its generally similar geology to the Timmins camp, has received periodic exploration for both gold and base metals since the early 1900's. The relationship between mineral occurrences and structure was well presented by Kutina and Fabbri (1971) for this part of the Abitibi area. Their work showed a strong correlation of both base metal and gold occurrences with major east-west and north-south structures, and especially their zones of intersection. Regional geological mapping by the O.G.S. (Map 2484, 1984) shows the geological similarities between both the Timmins and Shining Tree area and the presence of similar NNW and ENE structures.

Many gold showings were actively explored during the 1970's and late 1980's in the eastern and southeastern parts of Churchill Township. Base metals are reported in adjacent townships to the north and west and more recently in the east.

Following the release of the Ontario Geological Survey Geoterrex airborne survey in 1990 activity in this area was reactivated. Kidd Creek Mines reported sporadic copper mineralization from their 1991 drill program which tested several airborne electromagnetic anomalies near a previously reported grab sample assaying 2.57% Cu immediately north of the claim group.

The claim group itself, was optioned by Northgate Mines Ltd. in 1990 for its gold potential. Northgate field crews completed geological, soil geochemical and ground magnetic and VLF surveys in 1990. Soil and rock geochemical sampling identified numerous (14) sites of anomalous gold mineralization. Follow up work consisting of limited channel sampling and some whole rock analysis encountered encouraging gold values at three sites with values of up to 6 g/tonne. Other anomalous areas, were never followed up, or were not ranked as significant. The absence of airborne electromagnetic anomalies precluded the testing of samples for base metal mineralization by Northgate. Northgate relinquished the option on the property in 1992 as part of its restructuring in the mid 1990's.

Since 1999 the partners have conducted successive prospecting visits to the property. During the initial visits most of the gold anomalies identified by Northgate were re-sampled. Several of the more prospective gold anomalies were subsequently stripped and sampled in detail. Seven sites of anomalous gold mineralization were sampled in detail by the partners and at three sites anomalous gold mineralization in excess of 1.35 g/tonne Au (including 1.35 g/t over 1.4m) and one area of anomalous Cr 3280 ppm and Ni 1090 ppm were confirmed.

The area found to containing anomalous Cr and Ni was tested for PGE mineralization in 2000. No anomalous concentrations were encountered.

Since 2002 the partners have focused on the area covered by the current claim. In 2004, work supported by an OPAP grant allowed for geophysical testing. Three short east west trending IP lines were surveyed to traverse the north trending valley (shear/fault) zone generally paralleling the former Northgate gridline 14+00E. The three lines along the 7+00S tie line, 700m to the south and 250m to the north all encountered one or more weak to moderate chargeability anomalies. These anomalies were interpreted to show several parallel northwest trending chargeability zones. The 2005 follow up work showed one of these coincided closely with a zone of anomalous weak to moderate Au and As mineralization on surface. The easternmost IP anomaly coincided with a sheared graphitic? and sulphide bearing (3-8% pyrite) zone. The southernmost anomaly remains unexplained.

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Last revision date: Thursday 26 January 2017

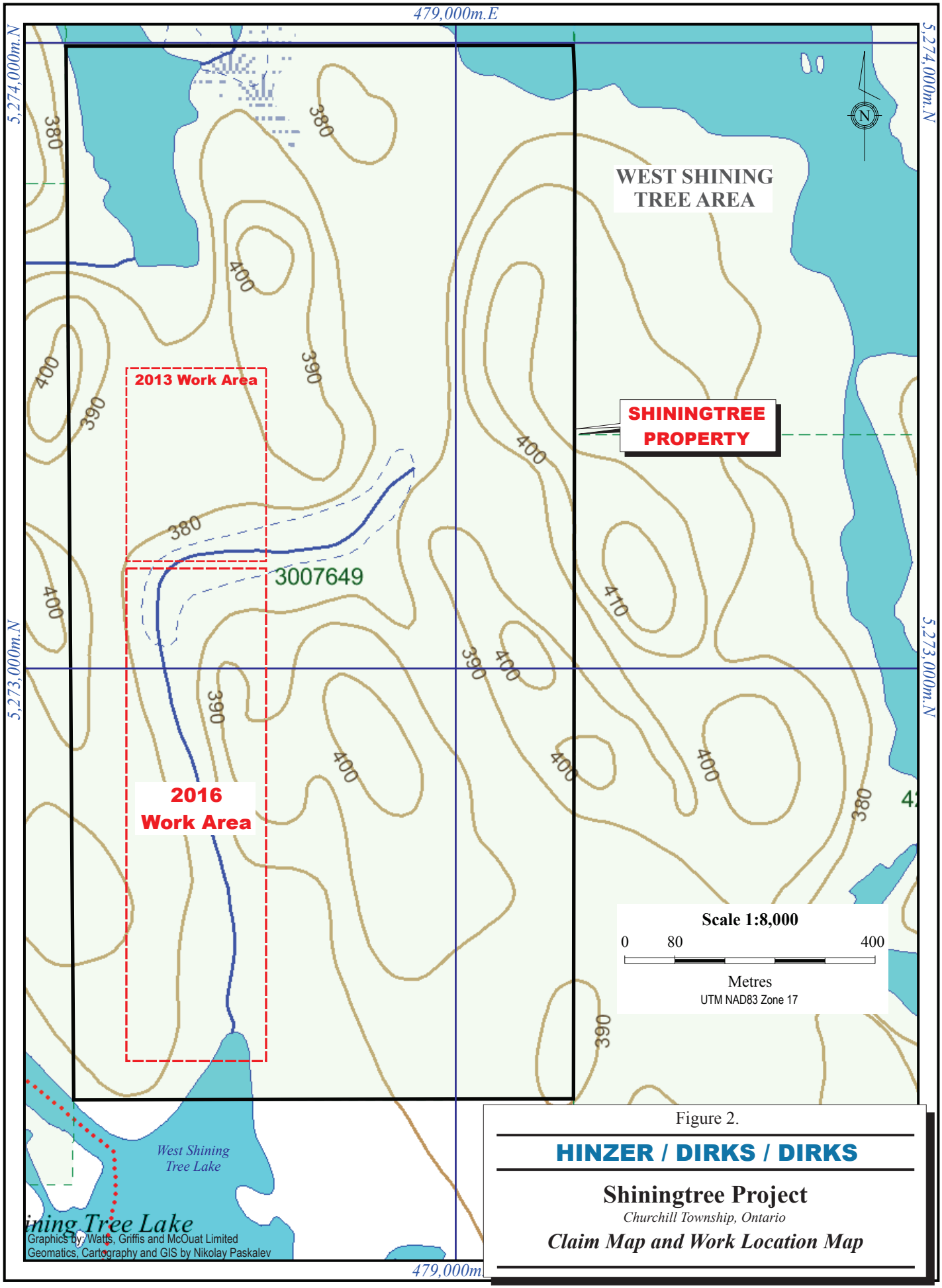

Figure 2.

HINZER / DIRKS / DIRKS

Shiningtree Project

Churchill Township, Ontario

Claim Map and Work Location Map

The rock and trench sampling in 2006, 2007 and 2008 led to the discovery of a mineralized shear zone (2-4m wide) with anomalous gold mineralization of up to 2090 ppb Au (10+ metres strike length) bearing approximately 120° in the vicinity of previous anomalous grab samples (2002).

The program in 2008 consisted of trenching and sampling three parallel, 30-40m long east west trending trenches in 2008. The trenches were manually dug, 5 metres apart. The trenches were dug 10, 15 and 20m north of the 2007 sampling program. Twenty nine samples were collected, Table 2 summarizes the best results. These samples were collected immediately south of a moderate IP chargeability anomaly along old Tie line 7S.

Table 2. Selected Rock Chip Samples 2008

Sample #	Au ppb	As ppm	Ni ppm	Zn ppm	Mo ppm
6	1540	736	32	42	*
7	1220	480	28	45	*
7A	1900	712	37	41	*
13	122	166	27	73	*
14	1720	376	18	43	10
15	320	136	29	64	*
16	20	30	30	69	*
20	1300	287	30	81	*
21	97	119	24	84	*
28	2090	770	23	52	4

*- below detection limit

Additional trenching in 2011extending the northern most trench encountered anomalous gold values up to 2200 ppb from grab sampling in the trench.

Table 3. Selected Rock Chip Samples 2012

Analyte Symbol	Au	Ag	Cu	Au
Unit Symbol	ppb	ppm	ppm	ppb
Detection Limit	5	0.2	1	1
Analysis Method	INAA	MULT INAA / AR-ICP	AR-ICP	FA-INAA
0-11	1860	0.4	26	1520
1-11	2700	1.1	78	2200
2-11	702	0.4	62	568
3-11	843	0.7	61	756
4-11	115	0.3	79	99
5-11	499	0.4	59	460
6-11	190	0.2	31	169
7-11	844	0.3	63	719

Mineralization is hosted in a sheared mafic volcanic with quartz veins (silicification and local carbonate alteration) and disseminated sulphides (2-8%).

Table 4. Selected Analytical Results of 2013 Trench Samples

Analyte Symbol	Au	Au	Ag	Cu	Mo	Ni	Pb	As
Unit Symbol	ppb	Ppb	ppm	ppm	ppm	Ppm	ppm	ppm
Detection Limit	1	5	0.2	1	2	1	2	2
Analysis Method	FA-INAA	INAA	MULT INAA / AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	INAA
299019		< 5	82.4	271	119	59	< 2	12
299020		133	3.5	67	8	44	3	84
299021		65	4.7	120	38	55	< 2	46
299022		36	2.1	78	17	40	3	15
299023		< 5	1.2	63	22	117	< 2	22
299024		56	0.6	107	< 2	64	< 2	18
299025		< 5	1.4	221	2	133	< 2	10
299026		< 5	0.5	121	118	218	< 2	46
299027		13	0.3	76	202	112	< 2	22
299028		< 5	0.5	95	< 2	194	< 2	16
299029		64	1.4	66	3	54	< 2	16
299030		< 5	0.6	10	8	12	< 2	10
299031		90	0.4	218	3	60	< 2	22
299032		119	0.9	13	8	13	2	10
299033	1180	1180	1.3	40	25	16	9	404
299034		29	< 0.2	72	< 2	188	< 2	29
299035		25	0.4	66	4	31	< 2	18
299036		105	0.3	80	11	32	< 2	41

Mapping sampling and trenching in 2013 extended the length of the main anomalous gold bearing, northwest trending mineralized shear/vein zone for a strike length of at least 125 m and identified the sheared mineralized zone approximately 150m to the northwest confirming the presence of anomalous gold values as first identified by Northgate in the 1990s. One of the also returned elevated Molybdenum (202 ppm).

GENERAL GEOLOGY

Archean greenstone formations consisting of both calc-alkaline and tholeiitic rocks equivalent to the Timmins area Cycle II, III and IV groups underlie the area (Carter 1980) with strikes north to northwest and dipping steeply to the east. The tholeiitic rocks of the Shining Tree area are considered equivalents of the (Timmins) Kinojevis group, which host much of the prolific gold mineralization in the Timmins camp.

Field mapping by Northgate (Doyle 1992) identified dominant mafic and intermediate volcanic rocks. Whole rock geochemistry confirmed the mafic rocks as primarily potassium rich tholeiitic basalts and the intemediate rocks as potassium poor calc-alkaline dacites, equivalent to (the mineralized Cycle III rocks of the Timmins area). Felsic volcanics are present as narrow bands in the northeast and metasediments are interbedded in the southwestern areas of the claim group. Ultramafic rocks although not identified on the claims by Northgate have been mapped by Carter (1980) at the western claim boundary and along strike southeast of Saville Lake. Strikes vary from 310-340 degrees, dips are sub vertical. The dominant structures observed from air photo, aeromagnetic and satellite imagery are a series of N-S to NNW-SSE and E-W to ENE-WSW lineaments interpreted to be major fault lines. Topographic features strongly reflect these directions. Carter (1980) identified most of the major N-S and NNW-SSE faults, the most significant being along the western township boundary.

Detailed Geology

The underlying rocks can be grouped into three broad categories. The dominant rocks are mafic volcanic. Both pillowed flows and more massive rocks have been identified. Quartz and quartz feldspar porphyries occur both as dykes and irregular intrusives in the central portion of the claim area. Some of the more massive mafic volcanic rocks contain locally silicified areas with some quartz phenocrysts.

The main area of interest are two sub- parallel north to slightly northwest trending shear-fault zones approximately 75-90 metres apart traversing the central part of the claim. They occupy a small lake and pond in the north and follow a valley between two outcrop areas in the northern half of the claim and expose a small highly carbonated cliff in the southern half of the property. Anomalous gold mineralization has been encountered in surface exposures at several locations along the structures primarily in the northern half of the property. Gold mineralization is associated with elevated arsenic and samples locally enriched in Pb are often depleted in Cr and Cu.

Sheared, silicified and porphyritic rocks are exposed in the central part of this structural zone and as well as along the low ground on either side of the valley. Gossany sulphide rich bands and quartz veins also occur locally.

The porphyrytic rocks range from medium to coarse-grained are usually siliceous but can be locally strongly carbonated. Small 1-3 mm clear to dark gray quartz eyes are common throughout. One to three percent disseminated pyrite and pyrrhotite are present locally. The majority of the porphyritic rocks are light green to mid gray and dacitic in appearance. Locally, some zones however are darker green and coarse grained.

The mafic rocks on the east side of the central structural (shear) zone are primarily intrusive, dark green, massive, medium to coarse grained. Grains include feldspar and locally tiny black 1-2mm quartz phenocrysts and hornblende? needles. One to two percent disseminated sulphides are common. Alteration is weak, minor carbonate and local epidote veinlets are present on fractures.

Those on the west side are primarily massive mafic volcanic flows or sills. These rocks are mid to dark green with grain size ranging from fine to coarse. Pillows were observed in one area suggesting these might be a series of flows. One to two percent disseminated sulphides are common. Epidote and carbonate alteration is variable.

2016 WORK PROGRAM

Rock chip sampling was carried out over a three day period by prospector David Hiltz of Shiningtree. For two days he was assisted by local helper Joan Carmichael. The property was accessed by boat daily from Shiningtree. The sampling was carried out November, 5, 6 and 7, 2016. The sampling program was a follow up to a more extensive geological mapping, sampling and trenching program in 2013 to explore the southern portion of the shear zone in more detail.

The author completed the assessment report between January 22 and January 27, 2017.

The 2016 work program consisted of rock chip sampling of five outcrop areas along a 600m stretch (the southern portion) of the shear zone south of the area detailed in 2013. The results

obtained in 2013 in the northern portion of the claim led to this re-assessment of several weakly anomalous gold and or arsenic responses from previous grab sampling in 2000 and 2005.

Five sites were targeted on the basis of previous work. Outcrop areas in the vicinity of where previous anomalous results were reported were examined and stripped as warranted to locate zones of quartz veining or mineralization for detailed follow up sampling. The GPS location coordinates of the fourteen samples (14) collected are listed in (see Appendix 2) and shown on (see Figure 3). Selected sample sites are shown in photos 1-4, (see below).

Shovels, axe and a pickaxe, were used to remove overburden and expose the bedrock, hammer and chisels were used to collect the samples.

The work program was carried out under the direction of J. Hinzer P. Geo. of Niagara Falls ON.

Photo 1. Target area # 1 Sample #1602 WP 478597 5272443

Photo 2. Target area # 3 Sample # 1607 WP 478590 5272859

Photos 3 and 4. Target area # 4 Quartz vein Sample # 1611 WP 478595 5272894

The rock chip samples from the above program were collected by David Hilts and placed into plastic bags with appropriate descriptive details and securely bound with tape and then shipped by David Hiltz directly to Joe Hinzer P. Geo. for examination, classification, description and selection of samples for analyses (see Appendix 2). All selected rock samples were prepared for shipment, to the lab, by J. Hinzer. Appropriate splits of samples were retained as reference duplicates by the author.

All samples selected for assaying were placed in plastic bags and sealed by the author, with proper identification and forwarded to Activation Laboratories of Ancaster, Ontario an ISO accredited facility for analysis using both ICP and Fire Assay techniques.

Duplicate analyses and quality control procedures performed by the lab were considered sufficient QA/QC procedures for this stage of exploration.

The gold assay values range from <5ppb to 412 ppb Au. These results confirm the potential for the discovery of additional zones of gold bearing mineralized vein systems within , the northwest trending mineralized shear/vein zone.

Table 5. Analytical results of 2016samples (partial table, complete results are appended)

Report Number: A16-12417

Report Date: 16/12/2016

Analyte Symbol Unit Symbol Detection Limit Analysis Method	Au ppb 5 FA-AA	Ag ppm 0.2 AR-ICP	Cu ppm 1 AR-ICP	Mn ppm 5 AR-ICP	Ni ppm 1 AR-ICP	Pb ppm 2 AR-ICP	Zn ppm 2 AR-ICP	As ppm 2 AR-ICP
16-01	< 5	< 0.2	201	1010	121	< 2	101	7
16-02	36	< 0.2	29	861	8	2	59	29
16-03	< 5	< 0.2	112	877	59	< 2	61	7
16-04	< 5	< 0.2	145	826	58	< 2	65	12
16-05	< 5	< 0.2	145	872	30	< 2	90	3
16-06	< 5	< 0.2	23	304	51	< 2	59	< 2
16-07	383	0.2	45	1180	62	< 2	80	96
16-08	13	< 0.2	131	1420	82	< 2	62	22
16-09	< 5	< 0.2	92	1490	95	< 2	63	67
16-10	60	< 0.2	6	1450	34	< 2	36	10
16-11	412	0.3	13	1110	28	< 2	26	41
16-12	< 5	< 0.2	146	1090	106	< 2	88	32
16-13	< 5	< 0.2	155	1480	92	< 2	92	29
16-14	< 5	< 0.2	128	1350	90	< 2	86	37

The assay results from Samples 1611, 412ppb Au and 1607, 383ppb Au (see table) are both significantly higher than results previously obtained of 97ppb Au and 13ppb Au respectively. This not only confirms the importance of the previous weakly anomalous results as significant in terms of identifying mineralized areas, it also underscores the significant potential of finding higher grade mineralization as more detailed exploration is undertaken.

The assay results from Sample 1602 from Target 1 (see Figure 3) compares favorably to original grab sample results of 42ppb Au and 58ppm As reported previously. The filed observations (see photos above) have confirmed a new vein system here also warranting further more detailed exploration.

In all cases the new more intensive sampling confirmed earlier limited grab sample values and in three cases, identifying a new vein system in the case of site T-1 and much higher gold grades at sites T-3 and T-4.

The complete results and certificate are presented in Appendix I.

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Last revision date: Thursday 26 January 2017

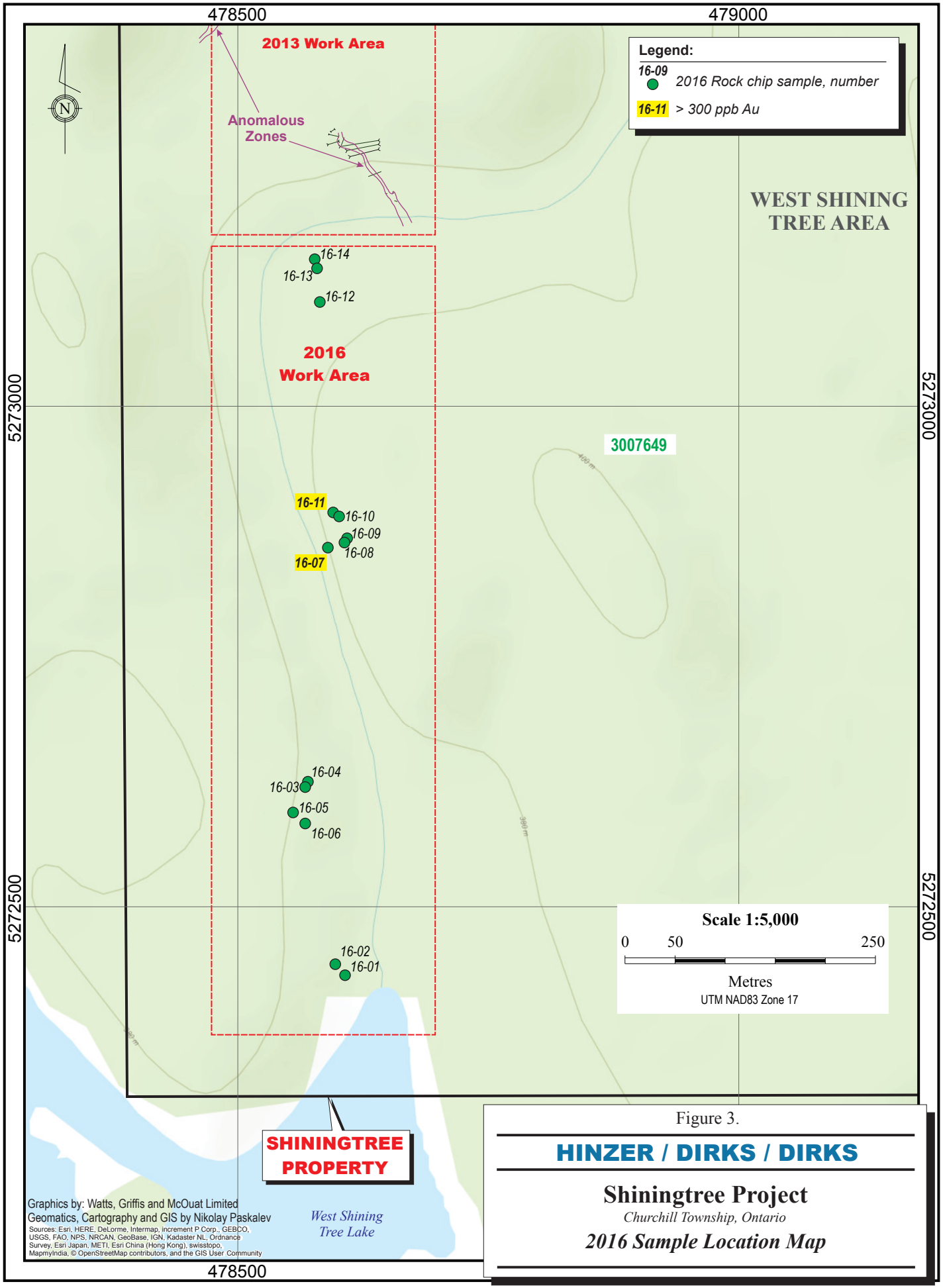


Figure 3.

HINZER / DIRKS / DIRKS

Shiningtree Project

Churchill Township, Ontario

2016 Sample Location Map

SUMMARY AND CONCLUSIONS

Sampling in 2016 returned anomalous gold mineralization ranging from <5 to 412ppb Au from three local sites along a strike length of approximately 400 metres along the southern extension of the structure targeted in detailed mapping, sampling and trenching program in 2013 .

The 2016 sampling confirmed the presence of significant anomalous gold mineralization at two additional sites and exposed a new vein hosting anomalous gold within the southern portion of the northwest bearing structure. This confirms the reliability of weakly anomalous gold (Au) and Arsenic (As) responses (from previous chip sampling), as important indicators of the presence of more significant mineralization as confirmed by the recent more detailed sampling. This has been born out on several occasions now as successive more detailed and extensive sampling programs have encountered increasing anomalous gold mineralization wherever the structure has been tested within the claim.

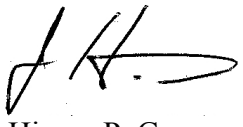
Mineralization is generally hosted in quartz veins within sheared mafic volcanic rocks with minor sulphides (2-8%) especially in the vicinity of quartz porphyritic dykes hosted within the shear.

RECOMMENDATIONS

Additional stripping and sampling as well as trenching along the sites sampled during the 2016 program is recommended to try and expose and sample the zones of anomalous mineralized further along strike to determine the extent of the mineralization.

The entire claim warrants an extensive detailed program including mechanical surface stripping and washing of all anomalous outcrop areas in order to complete detailed mapping and sampling and to determine the nature of the mineralization.

This should be done in conjunction with a detailed geophysical survey to identify potential drill targets for testing the extent of the mineralization to depth.



Joe Hinzer P. Geo.

SELECTED REFERENCES

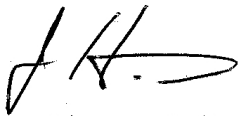
Kutina, J. and Fabbri, A (1972)	Relationship of Structural Lineaments and Mineral Occurrences in the Abitibi area of the Canadian Shield G.S.C. Paper 71-9
Carter, M. (1980)	Geology of Connaught and Churchill Twps. O.G.S. Report 190
MERQ – OGS (1983)	Lithostratigraphic map of the Abitibi Subprovince; Ontario Geological Survey/Ministére de l'Énergie et des Ressources, Québec; 1:500,000 Map 2484 Ontario or DV 83-16 in Québec
Ontario Geological Survey (1990)	Airborne electromagnetic and total intensity magnetic survey Shining Tree area. Ontario Geological Survey Maps, 81425, 81426,
Doyle, P. (1992)	Report on Northgate Exploration Ltd. Churchill Project (assessment file report)
Kallfa, G., Kapllani. L.,(2004)	Assessment Report Regarding the IP \ RESISTIVITY SURVEYS at the SHINING TREE PROPERTY, Shining Tree, Ontario on behalf of P.P. DIRKS, P.J.DIRKS and J.B.HINZER Toronto, Ontario

CERTIFICATE

I, JOE B. HINZER, am a geologist with my mailing address at 6395 Russell Street in the city of Niagara Falls, Ontario.

I have been practicing my profession for 45 years and am a graduate of the University of Waterloo, 1971 B. Sc. and the University of Western Ontario, 1977 M.Sc. and am a Fellow of the Geological Association of Canada and am a practicing member of the APGO license No. 0146.

The author warrants that he has visited the property on numerous occasions between 1998 and 2008 and has personally examined and selected and submitted all the samples for assaying. The field work and sample collection were carried out on the authors instruction and direction. Data for this report is based on data collected from the public domain and from personal knowledge of this property based on previous property visits. Conclusions and recommendations are based on the author's interpretation of the data and the author's personal experience.



Joe Hinzer P. Geo.

APPENDIX I

ASSAY CERTIFICATES

Quality Analysis ... *Innovative Technologies*

Date Submitted: 21-Nov-16
Invoice No.: A16-12417
Invoice Date: 16-Dec-16
Your Reference: SHINING TREE

Peter Dirks Limited
6 Goldsmith Ave.
St. Catharines
L2M 2V8
Canada

ATTN: Peter Dirks

CERTIFICATE OF ANALYSIS

14 Rock samples were submitted for analysis.

The following analytical package(s) were requested: Code 1A2 Au - Fire Assay AA

Code 1E3 Aqua Regia ICP(AQUAGEO)

REPORT **A16-12417**

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:

Emmanuel Eseme , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au	Th	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%
Lower Limit	5	20	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
16-01	< 5	< 20	< 0.2	< 0.5	201	1010	< 1	121	< 2	101	4.90	7	< 10	35	< 0.5	< 2	3.98	45	135	9.02	10	1	0.23
16-02	36	< 20	< 0.2	< 0.5	29	861	< 1	8	2	59	1.92	29	< 10	70	0.5	< 2	3.29	15	6	4.36	< 10	< 1	0.38
16-03	< 5	< 20	< 0.2	< 0.5	112	877	< 1	59	< 2	61	2.98	7	< 10	17	< 0.5	< 2	2.12	32	53	6.01	< 10	< 1	0.02
16-04	< 5	< 20	< 0.2	< 0.5	145	826	< 1	58	< 2	65	3.66	12	< 10	16	< 0.5	< 2	2.52	33	31	6.69	10	< 1	0.01
16-05	< 5	< 20	< 0.2	< 0.5	145	872	< 1	30	< 2	90	3.12	3	< 10	36	< 0.5	< 2	2.52	33	20	7.99	10	< 1	0.07
16-06	< 5	< 20	< 0.2	< 0.5	23	304	2	51	< 2	59	2.07	< 2	< 10	75	< 0.5	< 2	1.67	12	55	1.97	< 10	< 1	0.34
16-07	383	< 20	0.2	< 0.5	45	1180	< 1	62	< 2	80	4.30	96	< 10	17	0.6	< 2	> 10.0	22	59	7.07	< 10	< 1	0.07
16-08	13	< 20	< 0.2	< 0.5	131	1420	< 1	82	< 2	62	3.38	22	< 10	54	< 0.5	< 2	5.46	37	62	7.76	< 10	< 1	0.29
16-09	< 5	< 20	< 0.2	< 0.5	92	1490	< 1	95	< 2	63	4.06	67	< 10	44	< 0.5	< 2	7.69	31	67	7.56	< 10	< 1	0.23
16-10	60	< 20	< 0.2	< 0.5	6	1450	< 1	34	< 2	36	0.23	10	< 10	< 10	< 0.5	< 2	> 10.0	11	4	5.80	< 10	< 1	0.03
16-11	412	< 20	0.3	< 0.5	13	1110	2	28	< 2	26	0.35	41	< 10	28	< 0.5	< 2	7.69	14	20	4.10	< 10	< 1	0.11
16-12	< 5	< 20	< 0.2	< 0.5	146	1090	< 1	106	< 2	88	4.96	32	< 10	19	< 0.5	3	3.88	42	80	10.6	10	< 1	0.10
16-13	< 5	< 20	< 0.2	< 0.5	155	1480	< 1	92	< 2	92	3.93	29	< 10	14	< 0.5	2	4.64	45	102	8.64	10	< 1	0.01
16-14	< 5	< 20	< 0.2	< 0.5	128	1350	< 1	90	< 2	86	4.41	37	< 10	11	< 0.5	< 2	6.10	40	92	9.67	10	< 1	0.01

Analyte Symbol	La	Mg	Na	P	S	Sb	Sc	Sr	Ti	Te	Tl	U	V	W	Y	Zr
Unit Symbol	ppm	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	10	0.01	0.001	0.001	0.01	2	1	1	0.01	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
16-01	< 10	3.36	0.043	0.025	0.13	4	17	45	< 0.01	< 1	< 2	< 10	195	< 10	5	3
16-02	11	0.94	0.050	0.065	0.76	< 2	3	27	< 0.01	< 1	< 2	< 10	24	< 10	8	3
16-03	< 10	2.27	0.132	0.024	0.09	< 2	11	37	0.36	3	< 2	< 10	144	< 10	10	12
16-04	< 10	2.36	0.053	0.029	0.06	2	10	66	0.45	< 1	< 2	< 10	169	< 10	13	11
16-05	< 10	1.80	0.183	0.045	0.31	2	9	40	0.48	5	< 2	< 10	179	< 10	15	26
16-06	< 10	0.84	0.142	0.032	0.10	< 2	4	58	0.11	2	< 2	< 10	28	< 10	3	10
16-07	< 10	5.87	0.020	0.016	0.36	< 2	20	91	0.30	1	< 2	< 10	139	< 10	8	5
16-08	< 10	3.01	0.051	0.027	0.25	3	15	28	< 0.01	< 1	< 2	< 10	131	< 10	6	3
16-09	< 10	2.85	0.040	0.037	0.11	2	17	43	< 0.01	< 1	< 2	< 10	152	< 10	4	2
16-10	< 10	8.36	0.025	0.004	0.06	2	4	45	< 0.01	2	< 2	< 10	24	< 10	5	2
16-11	< 10	2.71	0.031	0.011	0.35	< 2	6	24	< 0.01	< 1	< 2	< 10	37	< 10	4	2
16-12	< 10	2.96	0.026	0.027	0.21	4	19	15	< 0.01	< 1	< 2	< 10	179	< 10	4	3
16-13	< 10	3.04	0.060	0.027	0.14	4	21	137	0.50	4	< 2	< 10	242	< 10	14	20
16-14	< 10	3.05	0.054	0.022	0.14	3	31	21	0.33	3	< 2	< 10	244	< 10	15	4

Analyte Symbol	Au	Th	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%
Lower Limit	5	20	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-1 Meas		< 20	27.1	2.0	1130	800	14	30	595	636	0.59	362	12	343	0.8	1480	0.79	4	6	22.7	< 10	3	0.04
GXR-1 Cert		2.44	31.0	3.30	1110	852	18.0	41.0	730	760	3.52	427	15.0	750	1.22	1380	0.960	8.20	12.0	23.6	13.8	3.90	0.050
DH-1a Meas		770																					
DH-1a Cert		910																					
GXR-4 Meas		< 20	3.8	< 0.5	6170	154	323	38	46	71	2.79	106	< 10	26	1.4	24	0.94	13	54	3.36	10	< 1	1.74
GXR-4 Cert		22.5	4.0	0.860	6520	155	310	42.0	52.0	73.0	7.20	98.0	4.50	1640	1.90	19.0	1.01	14.6	64.0	3.09	20.0	0.110	4.01
GXR-6 Meas		< 20	0.3	< 0.5	69	1090	1	23	100	122	7.35	225	< 10	931	0.9	< 2	0.15	13	79	5.88	20	< 1	1.17
GXR-6 Cert		5.30	1.30	1.00	66.0	1010	2.40	27.0	101	118	17.7	330	9.80	1300	1.40	0.290	0.180	13.8	96.0	5.58	35.0	0.0680	1.87
OREAS 251(FA-Anaster) Meas	502																						
OREAS 251(FA-Anaster) Cert	504																						
OREAS 16A (FA-Ancaster) Meas	1780																						
OREAS 16A (FA-Ancaster) Cert	1810																						
16-02 Orig		< 20	< 0.2	< 0.5	30	869	< 1	8	3	60	1.94	30	< 10	69	0.5	< 2	3.31	15	6	4.39	< 10	< 1	0.38
16-02 Dup		< 20	< 0.2	< 0.5	28	852	< 1	7	2	59	1.90	28	< 10	70	0.5	< 2	3.27	14	5	4.32	< 10	< 1	0.39
16-08 Orig	12																						
16-08 Dup	13																						
Method Blank		< 20	< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01
Method Blank	< 5																						
Method Blank	< 5																						

Analyte Symbol	La	Mg	Na	P	S	Sb	Sc	Sr	Ti	Te	Tl	U	V	W	Y	Zr
Unit Symbol	ppm	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	10	0.01	0.001	0.001	0.01	2	1	1	0.01	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-1 Meas	< 10	0.16	0.070	0.040	0.18	73	1	193	< 0.01	11	< 2	32	76	125	25	17
GXR-1 Cert	7.50	0.217	0.0520	0.0650	0.257	122	1.58	275	0.036	13.0	0.390	34.9	80.0	164	32.0	38.0
DH-1a Meas												2700				
DH-1a Cert												2629				
GXR-4 Meas	53	1.69	0.148	0.117	1.63	3	7	77	0.12	< 1	< 2	< 10	81	12	12	10
GXR-4 Cert	64.5	1.66	0.564	0.120	1.77	4.80	7.70	221	0.29	0.970	3.20	6.20	87.0	30.8	14.0	186
GXR-6 Meas	12	0.42	0.094	0.032	0.04	4	19	33		< 1	< 2	19	175	< 10	6	9
GXR-6 Cert	13.9	0.609	0.104	0.0350	0.0160	3.60	27.6	35.0		0.0180	2.20	1.54	186	1.90	14.0	110
OREAS 251(FA-Anaster) Meas																
OREAS 251(FA-Anaster) Cert																
OREAS 16A (FA-Ancaster) Meas																
OREAS 16A (FA-Ancaster) Cert																
16-02 Orig	11	0.95	0.050	0.066	0.76	3	3	27	< 0.01	< 1	< 2	< 10	24	< 10	8	3
16-02 Dup	11	0.93	0.050	0.065	0.75	< 2	3	27	< 0.01	< 1	< 2	< 10	23	< 10	8	4
16-08 Orig																
16-08 Dup																
Method Blank	< 10	< 0.01	0.013	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 1	< 2	< 10	< 1	< 10	< 1	< 1
Method Blank																
Method Blank																

APPENDIX II

GPS TRENCH LOCATIONS AND SAMPLE DESCRIPTIONS

November 5-6-7 2016, UTM coordinates, WGS 84 Zone 17

Target areas	Samples #	WayPoints		sample description
Target # 1	# 01	478607	5272432	mid to dark gray green, fine grained moderately bsheared and strongly carbonated(soft) volcanic, with locally disseminated sulphides, (py/po) 1% and carbn and qtz carbn veinlets 2-3mm-10mm? Local contact with more siliceous unit. Local splash of cpy on vein 2-3mm
	# 02	478597	5272443	similar to 16-1 above, more highly sheared and more carbonated, much softer, with local pockets (1-2cm) of gossan at surface, gray to browny green gray, slightly coarser, highly altered volcanic?
Target # 2	# 03	478567	5272620	massive green (gray) fine grained volcanic flow? Slightly carbonate with occasional 1-2mm to 1cm crb-qtz veins, rare trace sulphide grain (=/- 1mm on shear or joint plane.
	# 04	478570	5272625	massive medium grained intrusive looking texture, mafic to intermediate volcanic, weakly to moderately carbonated local carnb veinlets or on shears
	# 05	478555	5272594	dark gray green fine grained with local zones of up to 5% pyrite (irregular and cubes to 2-3mm., locally carbonated, looks platy and bedded or sheared in places, (part of shear zone-see photo) mineralization is controlled by x fractures perpendicular to shear.
	# 06	478567	5272583	contact zone, carbonated sheared rock light to mid gray with soft greeny carbonate rich zones 1-3mm and hard siliceous material ? Porphyry (qtz splashes of sulphides, (Py Po/) up to a 3-4cm long and 1-3mm wide along silicied shear or contact zone? Also photo
Target # 3	# 07	478590	5272859	dark green to black medium to coarse grained 3-5mm+ mafic intrusive locally serpentinized, magnetic with minor carnb light green veins?
Target # 4	# 08	478607	5272864	sheared fine grained light greenish with matrix ?carbonated pervasively, cut by veinlets and veins of quartz (white) 2-3mm-1-2cm, disseminated sulphides, 2-3% usually sub-1-3mm sized adjacent to or along micro qtz veins.
	# 09	478609	5272868	same as 16-8 but sulphides rare.
	# 10	478601	5272890	massive quartz and carbon vein, white with large intergrown masses, local narrow bluish quartz bands 1-2mm. And some carbonate on shears or foliation planes, trace sulphides.
	# 11	478595	5272894	same as 16-10, with more bluish quartz bands to 1-3mm and irregular, trace sulphides
Target # 5	# 12	478582	5273104	similar to 16-08 less quartz/carbn veinlets, but frequent splashed of sulphides
	# 13	478579	5273138	similar to above 16-12 but with no sulphides and signs of epiditization along /on shear or joint fractures.
	# 14	478577	5273147	same as 16-13 carbonate on shear planes, fairly massive mid green now, homogeneous fine grained medium soft, some pervasive carbonization.