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EMPRESS PROJECT 2015 AND 2016 SURFACE GLACIAL TILL SAMPLING PROGRAM SYINE TOWNSHIP NORTHWESTERN ONTARIO NTS 42D/15

> Mike Koziol, P. Geo. October 6, 2016

SUMMARY

The Empress property is located approximately 100 km west of Hemlo and 15 km east of Terrace Bay, Ontario. The property comprises 12 contiguous mining claims (covering 736 ha) and lies within the Schreiber portion of the Archean aged Schreiber-Hemlo greenstone belt. Recent exploration by prospectors Wayne Richards and Rudy Wahl resulted in new gold discoveries within the Terrace Bay batholith on their respective properties that adjoin Alto's Empress Property to the east and south

A program consisting of glacial till sampling was carried out on the Empress property between August 24 and September 3, 2015 and June 6 to June 8, 2016. The main objectives of this program were to continue sampling the property not already sampled during the June 2015 program. In total, 20 glacial till samples were processed for gold grain counts and kimberlite indicator minerals (KIMs).

Gold grains were recovered from 13 of the 20 till samples processed ranging in counts from one grain to 24 grains when normalized to 10 kg Table Feed weight, including five samples that contain one or more gold grains classified as "Pristine".

Visually picked possible KIMs were recovered from 13 of the 20 samples, the most common of which is chromite. A map of the results from the current program as well as results from the previous June 2015 program shows a strong cluster of visually picked KIM grains within claim 1195779 at the east end of the property. The visually picked possible KIMs from this program have not been confirmed by microprobe analyses.

Based on these results and the high-grade gold occurrences discovered on the adjoining property to the east, more prospecting is required up ice from the gold-in-till anomalies. Confirmation of the visually picked KIMs by microprobe analyses is recommended and additional glacial till sampling is also recommended to follow-up the cluster of visually pick KIMs in claim 1195779.

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1.0 INTRODUCTION

This report describes the fall 2015 and 2016 summer surface glacial till sampling sampling program completed by Alto Ventures Ltd. on its 100% owned Empress Project. The field work was carried out between August 24 to September 3, 2015 and from June 6 to June 8, 2016.

1.1 Location and Access

The Empress Project is located approximately 100 km west of Hemlo and 15 km east of Terrace Bay, Ontario. The property lies in the Syine Township and it is covered by NTS sheet 42D/15 (see Fig. 1).

The Trans-Canada Highway 17 passes at the south end of the property and old logging and mining roads which are overgrown and now reduced to ATV trails provide some access to the claims further north from the highway.

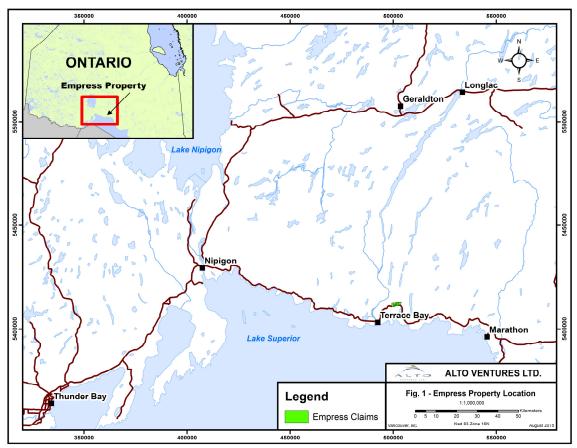


Figure 1 Empress Property location map

1.2 Physiography

Topographic relief on the Empress Property is variable with elevations ranging from 240 m to over 470 m above mean sea level. Steep hills and ridges are commonly flanked by rock cliffs and deep ravines. The ravines are often occupied by beaver ponds and swamps which predominantly extend in an east-west direction. Locally the Empress Hill rises 410 m above mean sea level and is a dominant feature on the property. It is also visible from Highway 17. These rugged topographic features present some challenges to moving heavy equipment on the property and should be factored into the planning of future drilling programs.

Vegetation cover is moderate, dominated by spruce, white birch, balsam fir, and small amounts of trembling aspen. Undergrowth is thick, and consists of mountain maple, alders and young conifers. Parts of Empress Hill and low-lying areas from the foot of Empress Hill and east towards Christie Lake were clear-cut by logging operations and are now occupied by sparse white birch, young balsam fir, and thick moose maple making prospecting and mapping in these areas difficult and unpleasant.

There is a moderate amount of outcrop on the property, but exposure is commonly masked by undergrowth of bush and by a thin cover of moss and detrital material. There are numerous bedrock exposures of the Terrace Bay batholith in road cuts and nearby ridges along the Trans-Canada Highway at the south end of the property.

1.3 Cultural Features

Cultural features found on the property are mostly related to the past mining activities at the Empress Mine (claim not part of Alto's Empress Project) in the early 1900's. These features include old adits and shafts, rock dams and steel water lines, cement foundations, waste dumps, trenches, casings, pipes, and metal debris.

1.4 Property and Tenure

The property consists of 12 contiguous unpatented mining claims, for a total of 46 units covering 736 hectares. The claim group lies within the Thunder Bay Mining Division and is represented on claim map G634, Syine Township.

Certain parts of the property are also held by private individuals who own the surface rights. Claims making up the Empress Property are listed in Table 1 and illustrated in Figure 2.

Claim	Record Date	Units	Township	Surface Rights
1195779	Jul 15/96	6	Syine	
1196616	Mar 28/96	1	Syine	Yes R569
1208187	Feb 13/96	4	Syine	
1208188	May 17/96	1	Syine	Yes R567
1208189	Feb 13/96	3	Syine	
1208190	May 17/96	8	Syine	Yes R567
1208719	Apr 16/96	4	Syine	
1210334	Feb 12/97	1	Syine	
1224854	May 21/96	6	Syine	Yes R569
1224888	Dec 11/96	3	Syine	
3008228	Jul 11/05	8	Syine	
845646	Dec 27/85	1	Syine	

Table 1: List of Claims - Empress Project

The work described in this report was completed on claims 1195779, 1208187, 1208190, 1208719, 1224888 and 3008228.

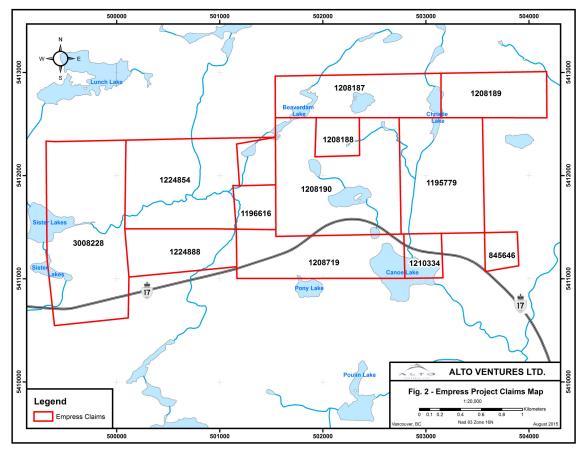


Figure 2 Empress Project claims map

1.5 Previous Work

Exploration interest within the Schreiber-Hemlo District began in 1851 with the discovery of Canada's first molybdenite occurrence in the Terrace Bay area. Subsequently there were several periods when significant work was completed prior to Alto's acquisition of the Empress property (McCracken, 2000, Samson, 1999, Schnieders et al., 1996). Some of the more significant past work includes:

1895 - 1900: The Empress Gold Mining Company was incorporated and various test shafts, adits and pits were sunk on a series of gold-bearing quartz veins. A 10-stamp mill was erected, and 112 ounces of gold were produced from 1100 tons of ore (calculated average of 0.1 oz. /ton or 3.5 g/t Au). Operations were eventually shut down due to lack of funds.

1936 - 1937: The Empress Consolidated Gold Mines Ltd. was incorporated and signed an option agreement with Czarina Gold Mines in order to extensively re-evaluate the Empress mine. Dozens of trenches now found on the Empress claims are attributed to this period of activity.

1984 - 1987: Micham Exploration Inc. conducted a diamond drilling program in 1984 consisting of 1557 m (5106 ft.) in 12 holes, testing various anomalies detected in the vicinity of the Ursa Major occurrence (486 m in 4 holes), the Empress Mine (587 m in 4 holes), and along the Empress Structure (483 m in 4 holes). The most encouraging results included 44.23 g/t over 0.61 m (ddh 441-84-8), the presence of visible gold in ddh 441-84-1, and several sub economic intersections hosted by a "carbonatized sericitic shear" coincident with the Empress Structure. Another follow-up program further testing the Empress Structure was completed in 1987 (1674 m in 10 holes); The drill logs for this last program were submitted for assessment with the MNDM, but the corresponding report and assay results were not found.

1998-2005: Cameco Gold Inc., a subsidiary of Cameco Corporation (Cameco) acquired the property in 1998 and started work in 1999. Cameco's 1999 program involved an intensive review of the northern portion of the current Empress property and surface work included line cutting and geological mapping (Samson, 1999). The mapping program was followed by the stripping of eight historical trenches distributed over a strike length of 1.4 km to the east of the former Empress Mine. The stripped areas were mapped and 308 channel samples were collected. Sampling at Trench 6E averaged 1.3 g/t gold across a 16.2 m wide section of the Empress Shear, including 5.3 g/t gold across 2.8 m.

To enhance the understanding of the Empress mineralized system Cameco completed 8.8 km of dipole-dipole IP surveying in 1999 on selected grid lines at locations northeast and southwest of the Empress Mine. Twelve diamond drill holes totaling 1800 metres drilled previously by Micham Resource in 1984 and 1987 were re-logged and re-sampled by Cameco. In 2000, Cameco performed a geological survey and bulk till sampling program to follow-up previous year's results and to further explore the property

(McCracken, 2000).

Alto Ventures Limited purchased the property from Cameco Corporation in 2005. In 2006 Alto completed geological work and recommended diamond drilling (Koziol, 2007).

In 2008, Alto Ventures drilled two holes, totaling 332 m to test sections of the Empress Structure (Koziol, 2008). Results returned several anomalous gold values, including 2.04 g/t gold over 0.5 m.

In 2012, Alto Ventures completed sampling of the 2008 drill cores that were not sampled previously and analyzed these samples for gold plus other trace elements (Koziol, 2012). In 2012, Alto also completed a surface channel sampling program testing targets along the Empress Structure (Koziol, 2013). Results confirmed significant gold mineralization in Trench 6 area, returning 3.97 g/t gold across 2.8 m including 6.15 g/t gold over 0.8 m.

In 2013, Alto Ventures completed a small bedrock sampling program near the south end of the property focusing on the Terrace Bay Batholith (Koziol, 2014a). In 2014 Alto completed small prospecting and soil sampling programs, again focused on the Terrace Bay Batholith (Koziol, 2014b).

In 2015, Alto Ventures completed a surface till and bedrock sampling programs (Koziol, 2015).

1.6 Recent Developments Close to the Empress Project

Alto's Empress Property is situated near the north-northeast contact of the Terrace Bay batholith and it is an excellent target for gold mineralization. This contact has not been subjected to significant exploration in the past. However, recent new gold discoveries have been reported on adjoining properties on the eastern edge of the Terrace Bay batholith by prospectors Wayne Richards and Rudy Wahl. Richards reported up to 1.28 oz./ton gold on his Jackfish Lake property and Wahl has reported gold values up to 39 g/t on the adjoining Wahl Jackfish Lake property (source of info: 2013-2104 Recommendations for Exploration booklet, produced by the OGS Resident Geologist Program). Both properties are located immediately east and south of Alto's Empress Property. Figure 3 is a reproduction of a promotional map produced by Wayne Richards showing the location of gold occurrences to east and south of Alto's Empress Property.

New gold discoveries were reported at the west edge of the Terrace Bay batholith near Schreiber by GTA Resources Inc. in 2012 from drilling on the North Shore Property. Drill results include intersections of 3.21 g/t Au over 149.5 m. The North Shore Property is located approximately 20 km west-southwest of the Empress Property. Drilling by GTA in 2016 continued to intersect high-grade gold values including nine metres of 23.7 g/t Au (see GTA Resources news release dated August 8, 2016).

Exploration work by Alto Ventures within the Terrace Bay batholith and along its contact

with the rocks to the north and northeast was minimal and consisted of mainly prospecting and grab rock sampling (Koziol 2014a, 2014b). Several areas of small white and clear-white quartz veins and micro-veinlets have been identified within the batholith near its north and northeast contact with the supracrustal rocks. The veins occur in narrow shear zones and areas of intense fracturing. At several locations, minor amounts of pyrite are associated with the quartz veins and pyrite also occurs disseminated along alteration halos near some of the fractures and as veinlets filling open-fractures. However, no significant gold values have been obtained from the quartz veins and sulphide-filled fractures on the Empress property to date (Koziol 2014a, 2014b). This is in stark contrast to exploration results reported from properties owned by Wayne Richards and Rudy Wahl to the east and southeast of Empress. High-grade gold mineralization was reported from both properties (see Fig 3 and Puumala et al., 2014).

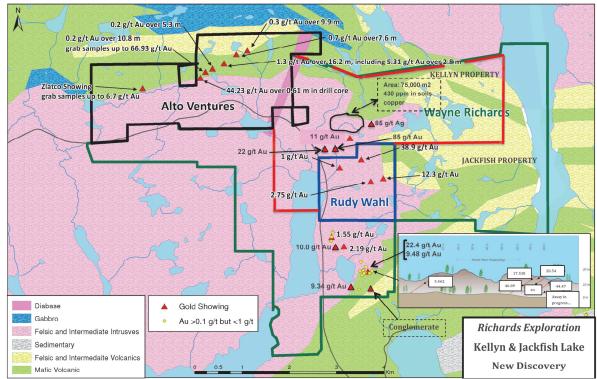


Figure 3 Reproduction of map from Wayne Richards showing gold occurrences to the east and south of Alto's Empress Property, April 2014

2.0 PROPERTY GEOLOGY

The Empress property lies within the Schreiber portion of the Archean aged Schreiber-Hemlo greenstone belt. It is comprised of tholeiitic and calc-alkalic mafic to felsic flows, inter-layered with coarse to fine fragmental volcanic and minor sedimentary rocks. In the Jackfish Bay area, these rocks are folded into a series of tight isoclinal folds with subhorizontal to gently plunging east to east-southeasterly oriented fold axes (Walker 1967, Carter 1988). Large and small sill-like intrusions of gabbro, peridotite and minor quartzfeldspar porphyries have intruded the supracrustal sequences. The supracrustal and associated intrusive rocks are bounded to the northeast, north, west and south by the Black-Pic batholith, by rocks of the Quetico metasedimentary subprovince, the Crossman batholith and Terrace Bay batholith, respectively. Recently, several new gold occurrences have been discovered associated with the Terrace Bay batholith in the Schreiber area and near Jackfish Lake east of Terrace Bay.

The Terrace Bay batholith is a late tectonic intrusion that extends for 25 km from Schreiber eastward to Jackfish Lake. The batholith is dominated by massive equigranular, fine to medium grained granodiorite that for the most part is homogenous but locally it is feldspar porphyritic. Most of the batholith on the Empress property appears un-deformed but there are areas near the contacts where the intrusion contains penetrative fabric and is intensely fractured. Narrow shear zones also occur within the intrusion. White and clear-white quartz veins are associated with some of the shear zones and fracturing as open fracture-fill veins. The batholith is cut by several generations of dykes including aplite and granitic pegmatite, diorite and diabase.

Metamorphic grade is generally upper greenschist but increases to upper amphibolite proximal to the granitoid plutons.

On a regional scale, the property lies within the Trans-Superior Tectonic Zone (TSTZ) which extends from Michigan northeast into Ontario west of Marathon. The TSTZ represents a fault system that has tapped mantel material (Sage, 1999). Kimberlites straddle the structure in Michigan (Cannon and Mudry, 1981) and a kimberlite has been mapped at Killala Lake approximately 25 km northeast of the Empress Property.

All glacial landforms and materials within the Empress area were deposited during the Wisconsin glaciation. Ice flow directions are reported by Morris (1999, 2000) to be oriented at 220° and 170-190°. The 220° direction is the oldest and is observed throughout the area and represents an earlier regional ice flow. The younger set is more localized and represents later ice flow controlled by bedrock topography. Landforms and materials associated with ice retreat are commonly located in bedrock controlled valleys and include tills, gravels and outwash sand in the lower flat lying areas.

2.1 Empress Structure

The dominant gold bearing feature on the property is the Empress Structure which traverses the northern part of the property. The Empress Structure has been the focus of most of the exploration to date and has been described in detail by Samson, 1999, McCracken, 2000 and Koziol, 2007. The following is the description given by Koziol, 2007.

"The Empress structure is a zone of shearing and deformation that has been previously exposed by trenching and stripping at various locations (Samson, 1999). The stripped area extends for approximately 1.6 km from the eastern property boundary of the former Empress Mine (Cameco's LOE) and extending eastward to L15+00E. The most sheared portion of the structure varies from less than 15 to 25 m in width, and strikes slightly oblique to stratigraphy, at roughly 070° azimuth, dipping variably to the south at 90° to less than 50° but it is confined to an area between mafic flows.

The sheared rocks within the structure include quartz-sericite schist and chemical sediments bordered in the north by a \pm graphitic quartz-sericite schist which can be followed eastward past L15+00E and moderately deformed clastic metasediments found discontinuously along the southern edge of the quartz-sericite schist. A 15 to 25 cm wide lamprophyre dyke occupies the centre of the shear on L1+00E.

Structural work by Alto in Trench 1+00E indicates that there are only a few fold closures that are defined sufficiently for determining reliable plunge directions. In Trench 1+00E lineation rods along the shear dip plane varied from 105° to 115° in azimuth and dipping 43°. The strike of the shear zone varies from 70° to 95°.

The rocks in Trench 2+50E are similar to those in Trench 1+00E but the intensity of alteration and mineralization associated with the Empress structure is reduced at this location. The work by Alto has identified a fold with an axial plane striking 050° and dipping 43°. A number of lineation rods were measured down the dip plane showing an azimuth of 85° and a dip of 42°.

In Trench 6+00E, the Empress structure is over 25 metres wide and strongly silicified, sericitized, and injected with narrow quartz veins. The structure carries 1 to 5% sulphides and displays strong shearing and folding. Measurements by Alto indicate that the axial plane strikes 85° and dips 40°. Lineation rods trend down the dip plane at 125° azimuth with 42° dips.

The rocks exposed in Trench 15+00E are similar to the other areas trenched but the deformation and alteration normally associated with the Empress structure is considerably diminished both in intensity and mineralization. No significant structural measurements were obtained in 2006 other than several sets of quartz micro-veins that strike at 82° and dip at 43° and other sets strike at 200° and dip at 70°.

General observations for along the Empress Structure include pinching and swelling on a scale of one metre to tens of metres in the individual stripped areas as well as in between the stripped areas. Similar observations were made for the quartz veins while walking past the Empress Mine where a vertical cross section in a trench shows a one metre wide quartz vein on surface pinching to 10 cm at a depth of two metres. To date, the two best exposures of the Empress Structure (including shearing, alteration, mineralization and width of zone) are (1) between the former mine and L1+00E and (2) the area of the trench on L6+00E. The best gold values obtained east of the former mine are from these two areas."

3.0 THE FALL 2015 AND 2016 SUMMER PROGRAMS

3.1 Objectives

The main objectives of the fall 2015 and 2016 summer programs were to continue with

the glacial till sampling that was initiated in June 2015.

3.2 Description of the 2015 and 2016 Summer Work and Logistics

The fall 2015 and 2016 summer work programs consisted of the collection of 20 glacial till samples (EMT024 to 043). The program was completed in two stages, the first from August 24 to September 3, 2015 (16 samples) and the second from June 6 to June 8, 2016 (4 samples).

The sampling was carried out by prospector Wayne Richards and geologist Mike Koziol. P. Geo., with the support of an all-terrain vehicle and four-wheel drive truck for those sites easily accessible and by foot traverses to the more remote sites. The work was based out of Jackfish Lake Efficiency Cottages in the hamlet of Jackfish Lake. The samples were processed for visible gold grains and for kimberlite indicator minerals (KIMs) as the regional geology of this area is considered to be potentially favourable for hosting both gold deposits and kimberlite bodies and possibly diamonds. Till sample locations are plotted on map titled "2015 & 2016 Empress Till Sample Locations" included at the end of this report. The UTM coordinates with corresponding sample numbers are included in Appendix A.

Potential sample sites were predetermined from geology maps and scouted in the field to determine if suitable sampling material can be found. Once a suitable till was found, the crew removed the organic layer and dug out material by hand shovel. Approximately 20 kg of material was bagged, removing by hand and discarding the pebbles greater than 2 cm. The samples were then taken to camp where the bags were cut open and the samples were dried and then shaken through a 6 mm square mesh screen. The objectives were to prepare samples of screened materials of approximately 10 kg each but actual raw sample weights varied from 9.4 to 18.2 kg.

Depths of sample pits ranged from 0.2 m to 1.5 m but averaged approximately 0.6 m. A flag with the sample number was left tied to a nearby bush to mark the specific sample locations as the deeper pits were backfilled. The samples were described on a paper sheet with a GPS waypoint recorded for each site.

During the screening process, a number, ranging from 15 to 50 of random pebbles were collect from each sample. These were washed in camp and examined later to gather information on the pebble lithologies, shapes (roundness and angularity) and intensity of clay coatings of the pebbles. This information is useful to help determine if the till is sampling material from local or distal sources.

The samples were sun dried and then delivered to Overburden Drilling Management Ltd (ODM) in Ottawa using Manitoulin Transport. The samples were processed by ODM as described in the flow chart included in Appendix A to determine the number of gold grains and kimberlite indicator minerals (KIMs) in each till sample. The gold grains were classified by their shapes (pristine, modified, reshaped) and inferring their relative distance of transport.

3.3 Glacial Till Results

Gold

The till sampling program has recovered gold grains in 13 of the 20 samples processed ranging in counts from 1 gold grain to a maximum of 24 gold grains when normalized to a 10 kg Table Feed sample weight. Table 2 provides a summary of the visible gold grains recovered in each till sample processed from the current 2015-2016 program as well as results from the previous program completed in June 2015 (see Koziol, 2015). Gold grains results from both the current program and the June 2015 program are plotted on the map titled "2015 & 2016 Empress Normalized Gold Grains" included at the end of this report. The ODM sample processing certificates along with the sample processing flow-chart are included in Appendix A.

Table 2 Summary of visible gold grains recovered in each till sample from thecurrent 2015-2016 program and the previous 2015 program

Sample #	Table Feed (Kg)	Gold Grains (total recovered)	Gold Grains (normalized to 10 kg Table Feed)
2015 and 2016			
Program			
EMP024	16.7	2	1
EMP025	13.3	3	2
EMP026	14.1	6	4
EMP027	12.1	2	2
EMP028	12.8	1	1
EMP029	13.6	3	2
EMP030	15.6	2	1
EMP031	11.9	11	9
EMP032	5.6	2	4
EMP033	7.0	17	24
EMP034	8.3	0	0
EMP035	9.1	0	0
EMP036	8.7	0	0
EMP037	10.8	0	0
EMP038	10.9	1	1
EMP039	9.9	0	0
EMP040	12.8	0	0
EMP041	9.1	1	1
EMP042	10.9	0	0
EMP043	9.9	2	2
2015 Summer			
Program			
EMT001	9.4	13	14

EMT002	9.4	7	7
EMT003	9.9	3	3
EMT004	8.7	7	8
EMT005	10.8	2	2
EMT006	9.1	1	1
EMT007	7.2	10	14
EMT008	9.8	8	8
EMT009	9.1	9	5
EMT010	7.7	8	10
EMT011	8.7	5	6
EMT012	10.6	14	13
EMT013	7.2	2	3
EMT014	7.8	6	8
EMT015	8.5	6	7
EMT016	7.8	0	0
EMT017	10.3	9	9
EMT018	6.2	1	2
EMT019	5.8	1	2
EMT020	9.9	5	5
EMT021	9.6	0	0
EMT022	9.7	1	1
EMT023	11.2	4	4

Kimberlite Indicator Minerals

Visually picked possible Kimberlite Indicator Minerals (KIMs) were recovered from 13 of the 20 till samples including one sample containing a possible orange mantle garnet. Table 3 provides a summary of the till samples that contain visually picked KIMs from the current program. The results are plotted on the map title "2015 & 2016 Empress Visually Picked KIMs" included at the end of the report. To complete the data set, the map also shows the visually picked KIMs recovered from the June 2015 program (Koziol, 2015). The plot of these results shows a strong cluster, especially the chromite grains within claim 1195779. The visually picked KIMs have not been confirmed by microprobe analysis. The ODM sample processing certificates for the fall 2015 and 2016 summer programs are included in Appendix A.

Table	3	Empress	till	samples	that	contain	visually-picked	possible	KIMs	(not
confiri	ne	d by micro	opro	be analys	sis).					

Sample Number	Total KIM grains (visual pick)	Purple/red Garnet	Orange Mantle Garnet	Chrome Diopside	Mg Ilmenite	Chromite	Forsterite
EMP-026	1	0	1	0	0	0	0
EMP-029	3	0	0	0	0	1	2
EMP-030	1	0	0	0	0	0	1

EMP-031	2	0	0	0	0	2	0
EMP-032	3	0	0	0	0	3	0
EMP-033	2	0	0	0	0	2	0
EMP-034	1	0	0	0	0	1	0
EMP-035	1	0	0	0	0	0	1
EMP-038	16	0	0	0	0	16	0
EMP-039	27	0	0	0	0	26	1
EMP-040	4	0	0	0	0	0	4
EMP-041	4	0	0	0	0	0	3
EMP-042	3	0	0	0	0	2	1

4.0 CONCLUSIONS AND RECOMMENDATIONS

A program consisting of glacial till sampling was carried out on the Empress property between August 24 and September 3, 2015 and June 6 to June 8, 2016. The main objectives of this program were to continue sampling the property not already sampled during the June 2015 program. In total, 20 glacial till samples were processed for gold grain counts and kimberlite indicator minerals (KIMs).

Gold grains were recovered from 13 of the 20 till samples processed ranging in counts from one grain to 24 grains when normalized to 10 kg Table Feed weight, including five samples that contain one or more gold grains classified as "Pristine".

Visually picked possible KIMs were recovered from 13 of the 20 samples, the most common of which is chromite. A map of the results from the current program as well as results from the previous June 2015 program shows a strong cluster of visually picked KIM grains within claim 1195779 at the east end of the property. The visually picked possible KIMs have not been confirmed by microprobe analyses.

Based on these results and the high-grade gold occurrences discovered on the adjoining property to the east, more prospecting is required up ice from the gold-in-till anomalies. Confirmation of the visually picked KIMs by microprobe analyses is recommended and additional glacial till sampling is also recommended to follow-up the cluster of visually pick KIMs in claim 1195779.

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6.0 CERTIFICATE OF AUTHOR

I, Marian (Mike) Koziol, P. Geo., P. Eng., resident at 26 Cognac Court, Sudbury, Ontario, P3E 6L4 do hereby certify that:

1. I am currently employed as President and Director of Alto Ventures Ltd.

2. I graduated from McGill University, Montreal, Quebec with a B.Sc. degree in Geological Sciences in 1978.

3. I am a licensed member of the Professional Engineers of Ontario (No. 100026045) and a licensed member of the Association of Professional Geoscientists of Ontario (No. 1009). I am also a member of the Association of Professional Engineers and Geoscientists of Saskatchewan (No. 05638).

4. I have worked continuously as an exploration geologist since my graduation, exploring for gold and base metals deposits in the Canadian Shield including the Churchill Province of Saskatchewan and Manitoba and the Superior Province of Manitoba, Ontario and Quebec.

5. I have read the definition of "Qualified Person" as set out in National Instrument 43-101 and certify that I fulfill the requirements to be a Qualified Person for the purposes of NI43-101 by reason of my education, relevant past work experience and affiliation with professional association as defined in NI43-101.

6. I have personally worked on the Empress property and supervised the programs described in this report.

8. As of the date of this certification, I am not aware of any material fact or change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.

9. I do not hold a direct interest in the property but I do own shares of Alto Ventures Ltd and am an Officer and Director of the Company and for the purposes of this report I am not an independent Qualified Person as defined by Section 1.5 of NI43-101.

Original Signed in Sudbury, Ontario on this 6th day of October, 2016

Marian (Mike) Koziol, P. Geo., P. Eng.

APPENDIX A

EMPRESS 2015 TILL SAMPLE LOCATIONS GOLD GRAINS AND KIMBERLITE INDICATOR MINERAL VISUALLY PICKED GRAINS

Empress fall 2015 and 2016 summer Till Sample Coordinates							
			NAD 83 Zone 16				
Number	East	North	Depth (m)				
EMT024	501677	5411179	0.7 resample EMP008				
EMT025	501763	5411202	0.8				
EMT026	501844	5411284	0.7				
EMT027	501956	5411267	0.6				
EMT028	500833	5411370	0.7				
EMT029	500520	5411368	1.2				
EMT030	500454	5411501	0.8				
EMT031	500693	5411584	0.9 OGS till area				
EMT032	502770	5411572	1.1 resample EMP019				
EMT033	502679	5411846	0.7				
EMT034	502785	5411791	0.6				
EMT035	502633	5412618	0.5				
EMT036	502785	5412686	0.7				
EMT037	502940	5412678	1.9				
EMT038	503046	5411649	0.7				
EMT039	502925	5411709	1.5				
EMT040	502860	5411747	1.1				
EMT041	502880	5412006	1.5				
EMT042	502108	5411591	0.7				
EMT043	499681	5410770	0.7				

OVERBURDEN DRILLING MANAGEMENT LIMITED 107-15 CAPELLA COURT, NEPEAN, ONTARIO, K2E 7X1 TELEPHONE: (613) 226-1771 FAX NO.: (613) 226-8753 EMAIL: odm@storm.ca

DATA TRANSMITTAL REPORT

DATE:	14-Jul-2016				
ATTENTION:	Mr. Mike Koziol				
CLIENT:	Alto Ventures Ltd. Unit 7 - 1351C Kelly Lake Sudbury, ON P3E 5P5	Unit 7 - 1351C Kelly Lake Road Sudbury, ON			
E-mail	koziol@altoventures.con	ı			
NO. OF PAGES:	8				
PROJECT:	EMP				
FILE NAME:	20167211 - Alto Ventures	- Koziol - (KIMs) - June 2016			
SAMPLE NUMBERS:	EMP-024 to 043				
BATCH NUMBER:	7211				
NO. OF SAMPLES:	20				
THESE SAMPLES WEF	RE PROCESSED FOR:	KIMBERLITE INDICATORS GOLD			

SPECIFICATIONS:

- Submitted by client: Twenty, 9.3 to 18.2 kg till and alluvial sand/gravel samples prescreened to -4.0 mm in the field. 1.
- One ±300 g archival split taken. 2.
- All samples panned for gold and metallic minerals. 3.
- 4.
- Heavy liquid separation specific gravity: 3.20. 0.25-2.0 mm nonferromagnetic heavy mineral fraction picked for indicator minerals. 5.

REMARKS:

Remy Huneault, P.Geo.

President

OVERBURDEN DRILLING MANAGEMENT LIMITED RAW SAMPLE DESCRIPTIONS

File Name: 20167211 - AltoVentures - Koziol - (KIMs) - June 2016 Total Number of Samples in this Report = 20

Batch Number: 7211 Sample Description Weight (kg wet) Clasts (+2.0 mm)* Matrix (-2.0 mm) Percentage Distribution Colour s Sample O R G Bulk Archived +2.0 mm Table Table i V/S GR LS ОТ S/U SD ST CY SD CY CLASS Number Rec'd Split Split Clasts* Feed EMP-024 17.9 18.2 0.3 70 1.2 16.7 G 30 0 0 U + γ -Ν LOC LOC TILL EMP-025 14.4 0.3 14,1 0.8 13.3 G 30 70 0 0 U Y Ν LOC LOC TILL ÷ EMP-026 15.5 0.3 15.2 1.1 14.1 G 30 70 0 0 υ + Υ -Ν LOC LOC TILL EMP-027 14,5 12.1 G 0.3 14.2 2.1 30 70 0 0 U Υ + -Ν OC oc TILL EMP-028 14.1 03 13.8 10 12.8 G 30 70 0 0 U + Y -Ν 0C oc TILL EMP-029 14.5 0.3 14.2 0.6 13.6 G 30 70 0 0 U ÷ Y -Ν LOC LOC TILL EMP-030 17.0 0.3 16.7 15.6 G 30 65 5 1.1 0 U ÷ Y Ν LOC LOC _ TILL EMP-031 13.1 0.3 12.8 0.9 11.9 G 30 70 0 U 0 + Y _ N 0C oc TILL EMP-032 10.2 0.3 9.9 4.3 5.6 G 30 70 0 s 0 FMC Ν Ν DOC NA SAND + GRAVEL EMP-033 9.3 0.3 9.0 2.0 7.0 G 30 70 0 0 U Y Y DOC DOC TILL ÷ -EMP-034 9.9 0.3 9.6 1.3 8.3 G 30 70 0 0 U ÷ -Y DOC DOC TILL Y EMP-035 11.0 0.3 10.7 1.6 9.1 G 30 70 0 0 U Y + -Y DOC DOC TILL EMP-036 94 0.3 8.7 G 30 9.1 0.4 70 0 0 Ų ÷ Υ _ Y DOC DOC TILL EMP-037 Y 11.9 0.3 11.6 0.8 10.8 G 30 70 0 0 U Y Y Y DOC DOC TILL EMP-038 13.4 0.3 10.9 G 70 13.1 2.2 30 0 0 FMC S Ν Ν DOC NA SAND + GRAVEL . EMP-039 11.0 0.3 10.7 0.8 9.9 G 60 0 40 0 U + Y . Ν DOC DOC TILL EMP-040 15.0 12.8 G 0.3 14.7 1.9 30 70 Tr 0 U ÷ Υ . Ν OC 00 TILL EMP-041 12.1 0.3 11.8 2.7 9.1 G 30 70 s FMC Ν DOC Τr 0 Ν SAND + GRAVEL -NA EMP-042 12.5 10.9 G 0.3 12.2 1.3 30 70 Tr 0 U Υ + -Ν OC oc TILL EMP-043 11.2 9.9 G 0.3 10.9 1.0 υ 30 70 Tr 0 + Y . Ν OC OC TILL

*Samples prescreened to <4.0 mm in the field.

Alto Ventures

OVERBURDEN DRILLING MANAGEMENT LIMITED GOLD GRAIN SUMMARY SHEET

File Name: 20167211 - AltoVentures - Koziol - (KIMs) - June 2016 Total Number of Samples in this Report = 20 Batch Number: 7211

Sample Number	Number of Visible Gold Grains				Nonmag HMC Calculated PPB \ Weight			/isible Gold in HMC	
	Total	Reshaped	Modified	Pristine	(g)	Total	Reshaped	Modified	Pristine
					*				
EMP-024	2		0	0	66.8	<1	<1	0	0
EMP-025	3	2	0	1	53.2	9	2	0	7
EMP-026	6	5	0	1	56.4	28	28	0	<1
EMP-027	2	2	0	0	48.4	15	15	0	0
EMP-028	1	0	0	1	51.2	<1	0	0	<1
EMP-029	3		0	0	54.4	8	8	0	0
EMP-030	2		0	0	62.4	<1	<1	0	0
EMP-031	11	7	2	2	47.6	15	10	4	1
EMP-032	2		0	0	22.4	10	10	0	0
EMP-033	17	8	4	5	28.0	92	4	67	21
EMP-034	0	0	0	0	33.2	0	0	0	0
EMP-035	0	0	0	0	36.4	0	0	0	0
EMP-036	0	0	0	0	34.8	0	0	0	0
EMP-037	0	0	0	0	43.2	0	0	0	0
EMP-038	1	1	0	0	43.6	113	113	0	0
EMP-039	0	0	0	0	39.6	0	0	0	0
EMP-040	0	0	» О	0	51.2	0	0	0	0
EMP-041	1	1	0	0	36.4	10	10	0	0
EMP-042	0	0	- 0	0	43.6	0	0	0	0
EMP-043	2	2	0	0	39.6	16	16	0	0

* Calculated PPB Au based on assumed nonmagnetic HMC weight equivalent to 1/250th of the table feed.

OVERBURDEN DRILLING MANAGEMENT LIMITED DETAILED GOLD GRAIN SHEET

File Name: 20167211 - AltoVentures - Koziol - (KIMs) - June 2016 Total Number of Samples in this Report = 20 Batch Number: 7211

Sample Number	Panned Yes/No	Dimensi	ons (mic	rons)	Nun	nber of Visil	ole Gold Gra	ains	Nonmag HMC Weight*	Calculated V.G. Assay in HMC	Metallic Minerals in Pan Concentrate			
		Thickness	Width	Length	Reshaped	Modified	Pristine	Total	(g)	(ppb)				
EMP-024	Yes	3 C	15	15	1				1	<1	No Sulphides.			
		5 C	25	25	1		-			<1				
								2	2 66.8	<1				
EMP-025	Yes	5 C	25	25	1			1	1	<1	No Sulphides.			
		8 C	25	50	1			1		1				
		13 C	50	75			1_	1		7	-			
MP-026	Yes	3 C	15	15	1			1	1	<1	No Sulphides.			
		5 C	25	25	1		1	2		1				
		10 C	50	50	1			1		3				
		13 C 18 C	50 75	75 100	1			1	1	6 18				
		10 0	15	100	I		-	e	5 56.4	28	-			
MP-027	Yes	13 C	50	75	2			2	,	15	No Sulphides.			
-1011 -027	103	10 0	00	19	2		-	2	48.4	15				
EMP-028	Yes	5 C	25	25			1	1		<1	No Sulphides.			
		00	20	20			· -	1		<1				
EMP-029	Yes	5 C	25	25	1			1		<1	No Sulphides.			
		8 C	25	50	1			1		1				
		13 C	50	75	1		-	1		<u>7</u> 8	•			
									5 54.4	o				
EMP-030	Yes	3 C 5 C	15 25	15 25	1 1			1			No Sulphides. 3 grains scheelite (100-250µm			
		50	20	20	·		-	2		<1				
EMP-031	Yes	3 C	15	15	2	1	1	4	ł	<1	No Sulphides.			
		5 C	25	25			1	1			4 grains scheelite (100-250µm			
		5 C	25	25	4			4	ļ	2				
		10 C 13 C	50 50	50 75	1	1		1		4 8				
		13 0	50	75	1		-	11	47.6	15				
EMP-032	Yes	5 C	25	25	1			1		1	No Sulphides.			
-1011 0012	100	10 Č	50	50	1			1		9				
							-	2	2 22.4	10				
EMP-033	Yes	3 C	15	15	5	1	4	10)		1 grain galena (75µm).			
		5 C	25	25	3	1		4			~500 grains pyrite (25-125µm)			
		13 C 15 C	50 50	75 100		1	1	1		13 20				
		20 C	100	100		1	I	1		20 54				
							-	17	28.0	<u>54</u> 92				
EMP-034	Yes	NO VIŜIBLI	e gold								No Sulphides.			
EMP-035	Yes	NO VISIBL	E GOLD								1 grain galena (50µm).			
											~15 grains pyrite (15-25µm).			
EMP-036	Yes	NO VISIBLI	E GOLD								8 grains galena (25-75µm).			
											~40 grains pyrite (25-500µm).			
EMP-037	Yes	NO VISIBL	e gold								1 grain galena (50µm).			
											2 grains pyrite (50µm).			

OVERBURDEN DRILLING MANAGEMENT LIMITED LABORATORY PROCESSING WEIGHTS

File Name: 20167211 - Alto Ventures - Koziol - (KIMs) - June 2016

Total Number of Samples in this Report = 20

Batch Number: 7211

						Wei	ght (g)											
	-2.0 mm Table Concentrate																	
		0.25 to 2.0 mm Heavy Liquid Separation S.G. 3.20																
			HMC S.G.>3.2															
						I.				Nonferro	omagnetic HMC							
											Processed							
									T	otal								
Sample				Lights		-0.25 mm	Mag				0.25 to	0.5 to 1.0	1.0 to 2.0					
Number	Total	-0.25 mm	Total	S.G <3.2	Total	(wash)	HMC	Total	%	Weight	0.25 to 0.5 mm	0.5 to 1.0	mm					
EMP-024	1,339.3	924.0	415.3	396.9	18.4	3.9	4.2	10.3	100	10.3	6.9	2.6	0.8					
EMP-025	1,617.7	1,158.5	459.2	437.6	21.6	4.0	5.5	12.1	100	12.1	8.2	2.9	1.0					
EMP-026	1,340.1	983.0	357.1	332.9	24.2	5.3	1.2	17.7	100	17.7	12.3	4.2	1.2					
EMP-027	1,380.6	1,050.1	330.5	306.2	24.3	8.1	2.4	13.8	100	13.8	10.0	3.0	0.8					
EMP-028	846.6	606.0	240.6	231.0	9.6	2.5	1.3	5.8	100	5.8	3.9	1.4	0.5					
EMP-029	1,551.9	1,012.2	539.7	485.6	54.1	11.3	10.1	32.7	100	32.7	23.1	7.4	2.2					
EMP-030	1,514.7	965.2	549.5	522.3	27.2	2.8	6.2	18.2	100	18.2	11.1	5.0	2.1					
EMP-031	1,151. 1	792.7	358.4	335.0	23.4	3.5	1.6	18.3	100	18.3	11.3	5.1	1.9					
EMP-032	1,529.5	734.6	794.9	738.5	56.4	5.1	17.4	33.9	100	33.9	14.4	12.4	7.1					
EMP-033	795.1	428.1	367.0	356.1	10.9	2.8	3.2	4.9	100	4.9	1.7	1.5	1.7					
EMP-034	1,078.1	661.9	416.2	401.9	14.3	4.3	3.6	6.4	100	6.4	3.5	1.9	1.0					
EMP-035	1,194.4	705.1	489.3	463.1	26.2	8.0	6.9	11.3	100	11.3	6.8	3.2	1.3					
EMP-036	612.1	369.1	243.0	239.3	3.7	1.3	0.9	1.5	100	1.5	0.9	0.4	0.2					
EMP-037	1,068.0	571.8	496.2	485.5	10.7	2.8	1.0	6.9	100	6.9	4.4	1.9	0.6					
EMP-038	1,810.2	699.7	1,110.5	1,024.9	85.6	12.7	18.6	54.3	100	54.3	34.3	14.7	5.3					
EMP-039	1,576.3	882.2	694.1	666.3	27.8	5.2	4.4	18.2	100	18.2	10.9	4.8	2.5					
EMP-040	1,373.5	776.2	597.3	544.6	52.7	10.7	11.0	31.0	100	31.0	20.9	7.4	2.7					
EMP-041	1,310.8	654.2	656.6	603.6	53.0	5.1	13.5	34.4	100	34.4	18.3	10.5	5.6					
EMP-042	1,143.2	589.8	553.4	533.9	19.5	4.4	4.6	10.5	100	10.5	6.9	2.7	0.9					
EMP-043	1,329.6	835.7	493.9	460.3	33.6	4.6	5.8	23.2	100	23.2	12.9	7.2	3.1					

OVERBURDEN DRILLING MANAGEMENT LIMITED KIMBERLITE INDICATOR MINERAL COUNTS

File Name: 20167211 - Alto Ventures - Koziol - (KIMs) - June 2016

Total Number of Samples in this Report = 20

Batch Number: 7211

		Number of Grains																																														
	Selected MMSIM										+																Kil	//s																				
		1.0	to 2,0 i	nm		0.	0.5 to 1.0 mm 0.25 to 0.5 mm											1.0	0 to 2	2.0 m.	m					0.5 to 1.0 mm											0.25 to 0.5 mm											
Sample Number		w-Cr oside	Сру	Gh	,	Low-Cr diopside		Сру	Gł		_ow-Cr liopside Cpy Gh			GP GO		DC IM			л	CR	1	FO		GP	:	GO	D	x	м	CR		FO		GP	6	50	DC		ім		CR		FO	Total (KIMs)				
Number	т	P	ТР	т	Р	ТР	, 1	Р	т	P T	 F	5 7	P	τ	Р	T P	τ	P	т	Ρ	т	Р	т	P	τ	P 1	r F	PΤ	P	т	Р	ТР	т	P	т	P T	P	Τ	P	т	P	т	P	TF	P T	P	т	Р
EMP-024	ο	0	0 0	0	0	0 0		0 0	0	0 10	0 1	0 0	0 0	0	0	0 0	0	0	٥	0	0	0	0	0	0 0	0 0		0 0	0	0	0	0 0	0	10	0	0 0	0		0	0	0	0					0	
EMP-025	D	0	0 0	0	0	2 2	. o	0 0	0	0 1	1 1	1 0	0	0	0	0 0	o	0	٥	o	o	0	0	0	0				0	0	0	0 0			1				0			-	- I				0	0
EMP-026	0	0	0 0	0	0	0 0		0 0	0	0 8	3 8	9 c	0 0	0	0	0 0	0	0	ο	0	0	0	0	0	0	0 0			1		0	0 0		-			-	1	1								Ĩ	
EMP-027	0	0	0 0	0	0	0 0) a	0 0	0	0 3	3 3	3 0	0 0	o	0	0 0	0	0	o	0	0	0	0	0	0	0 0		0 0	0	0	0	0 0	0	0	0	0 0	o	0	0	0		-				o	0	0
EMP-028	0	0	0 0	0	0	0 0	0 0	0	0	0 1	1	1 a	0 0	o	0	0 0	0	0	0	0	o	0	0	o	0	0 0		0 0	0	0	o	0 0	0	0	0	0 0	o	0	0	0	0	0		0 0		0	0	0
EMP-029	0	0	0 0	0	0	0 0) a	0	0	0 6	3 e	3 C	0 0	0	0	0 0	0	0	0	0	0	0	0	0	0	0 0		0 0	0	0	0	0 0	0	0	0	0 0	0	0	0	0	0	0	0	1 1	1 2	2	3	3
EMP-030	0	0	0 0	0	0	0 0) a	0 0	0	0 2	2 2	2 1	1	0	0	0 0	o	0	٥	0	o	0	0	0	0	0 0		0 0	0	0	0	0 0	0	0	0	0 0	0	0	0	0	0	0	0	0 0	0 1	1	1) 1 1
EMP-031	0	0	0 0	0	0	0 0) a	olo	0	0 3	3 3	з о	0 0	0	0	0 0	0	0	0	0	0	0	0	0	0	0 0		0 0	0	0	0	0 0	0	0	0	0 0	0	0	0	o	0	0	0	2 2	2 0	0	2	2
EMP-032	o	0	0 0	0	0	0 0		0 0	0	0 1	1	1 0	0 0	0	0	0 0	o	0	o	0	0	0	0	0	0	0 0	5 C	0 0	0	0	0	0 0	0	0	0	0 0	o	0	0	0	0	0	0	3 3	3 0	0	3	3
EMP-033	0	0	0 0	0	0	0 0		0 0	0	0 4	1 4	4 C	0 0	0	0	0 0	0	0	٥	0	0	0	0	0	0	0 0	5 c	0 0	0	0	o	0 0	0	0	0	0 0	0	0	0	0	0	0	0	2 2	2 0	0	2	2
EMP-034	D	0	0 0	0	0	0 0	0	0	0	0 0		5 a	0 0	0	0	0 0	0	0	٥	0	٥	0	0	0	0	0 0		0 0	0	0.	0	0 0	0	0	0	0 0	0	0	0	0	0	0	0	1 1	1 0	0	1	1
EMP-035	0	0	0 0	0	0	0 0	1	1	0	0 2	2 2	2 C	0 0	0	0	0 0	0	0	0	0	0	0	0	0	0	0 0		0 0	0	0	0	0 0	0	0	0	0 0	0	0	0	0	0	1	1	0 0	0 0	0	1	1
EMP-036	O	0	0 0	0	0	0 0) a	0	0	0 0) c	5 a	0 0	0	0	0 0	0	0	0	0	٥	0	0	0	0	0 0	5 C	0 0	0	0	0	0 0	0	0	o	0 0	0	0	0	ο	0	0	0	0 0	0 0	0	0	0
EMP-037	D	0	0 0	0	0	0 0) a	0	0	0 0) c	5 C	0	0	0	0 0	0	0	0	0	o	0	0	0	0	0 0		0 0	0	0	0	0 0	0	0	0	0 0	0	0	0	0	0	0	0	0 0	0 0	0	0	0
EMP-038	0	0	0 0	0	0	4 4	+ a	0	0	0 8	3 8	з с	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0 0		0 0	0	0	0	0 0	2	2	o	0 0	0	0	0	0	0	0	o 1	4 1	4 0	0	16	16
EMP-039	0	0	0 0	0	0	2 2	: a	0	0	0 6	5 E	s 0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0 0	5 C	0 0	0	0	0	0 0	1	1	0	0 1	1	0	0	0	0	0	0 2	25 2	5 0	0	27	27
EMP-040	D	0	0 0	0	0	0 0) a	0	0	0 9	9 9	9 C	0	0	0	0 0	ο	0	0	0	0	0	0	0	0	0 0	5 C	0 0	0	0	0	0 0	0	0	0	0 0	O	0	0	0	0	0	0	0 0	3	4	4	4
EMP-041	D	0	0 0	0	0	1 1	c	0	0	0 1	1	1 0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0 0	5 G	0 0	0	0	0	0 0	0	0	0	0 0	o	0	0	1	1	0	0	0 0	3 3	3	4	4
EMP-042	0	0	0 0	0	0	3 3	• a	0	0	0 1	3 1	з с	0 0	0	0	0 0	0	0	0	0	0	٥	0	0	0	0 0) (0 0	0	0	0	0 0	0	0	0	0 0	0	0	0	0	0	0	0	2 2	2 1	1	3	3
EMP-043	D	0	0 0	0	o	0 0) o	0 0	0	0 4	! 4	4 C	0 0	0	0	0 0	0	0	0	0	0	0	0	0	o 1	0 0	0 0	0 0	0	0	0	0 0	0	0	0	0 O	0	0	0	0	0	0	o -	o c	0 0	0	o	0

T = Total number of grains in sample. Total is estimated if number is greater than number of picked grains.

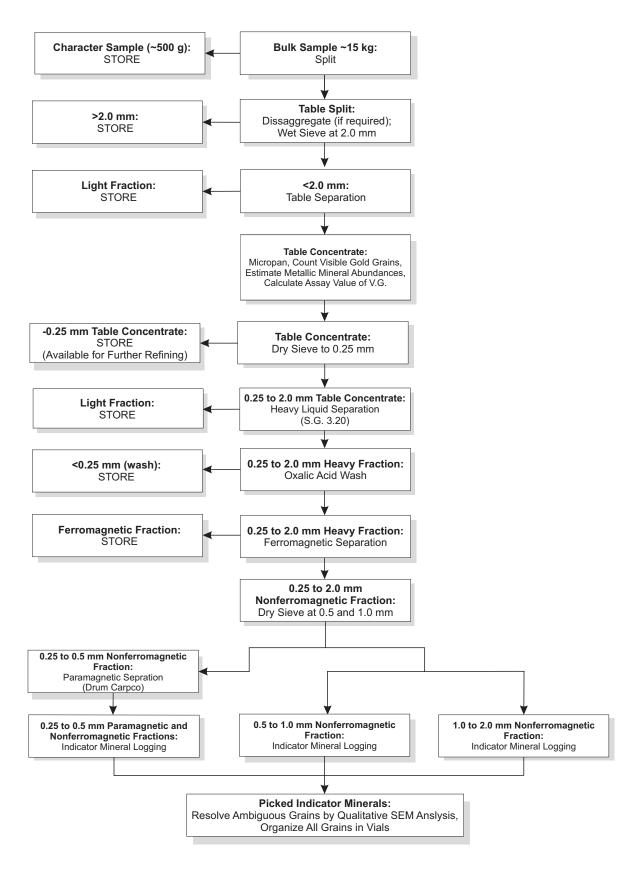
P = Number of picked grains in sample.

OVERBURDEN DRILLING MANAGEMENT LIMITED KIMBERLITE INDICATOR MINERAL PICKING FOOTNOTES

File Name: 20167211 - Alto Ventures - Koziol - (KIMs) - June 2016 Total Number of Samples in this Report = 20 Batch Number: 7211

SAMPLE NO.	REMARKS:
EMP-024	Hornblende-almandine-augite/epidote-diopside assemblage.
EMP-025	Hornblende-almandine-hematite/epidote-diopside assemblage. SEM check from 0.5-1.0 mm fraction: 1 CR versus crustal ilmenite candidate = 1 crustal ilmenite.
EMP-026	Hornblende-almandine-augite/diopside-epidote assemblage. SEM check from 0.25-0.5 mm fraction: 1 GO versus almandine candidate = 1 GO (Cr-poor pyrope).
EMP-027	Homblende-almandine-augite/epidote-diopside assemblage.
EMP-028	Hornblende-almandine/epidote-diopside assemblage.
EMP-029	Hornblende-almandine/diopside-epidote assemblage. SEM checks from 0.25-0.5 mm fraction: 1 GP versus zircon candidate = 1 ruby corundum; 5 CR versus crustal ilmenite candidates = 1 CR and 4 crustal ilmenite; and 2 FO versus diopside candidates = 2 FO.
EMP-030	Hornblende-almandine/diopside-epidote assemblage.
EMP-031	Hornblende-almandine-augite/epidote-diopside assemblage. SEM checks from 0.5-1.0 mm fraction: 1 CR versus almandine candidate = 1 almandine; and 1 IM versus crustal ilmenite candidate = 1 crustal ilmenite. SEM checks from 0.25-0.5 mm fraction: 2 CR versus hercynite candidates = 1 CR and 1 rutile.
EMP-032	Hornblende-almandine-augite/epidote-diopside assemblage. SEM checks from 0.25-0.5 mm fraction: 3 IM versus crustal ilmenite candidates = 3 crustal ilmenite.
EMP-033	Almandine-hornblende/epidote-diopside assemblage.
EMP-034	Almandine-hornblende-augite/epidote-diopside assemblage.
EMP-035	Hornblende-almandine-augite-ilmenite/epidote-diopside assemblage. SEM check from 0.25-0.5 mm fraction: 1 IM versus crustal ilmenite candidate = 1 IM.
EMP-036	Almandine-homblende-hematite/epidote-diopside assemblage.
EMP-037	Almandine-homblende/epidote-diopside assemblage.
EMP-038	Augite-hornblende-almandine/epidote-titanite assemblage. SEM checks from 0.5-1.0 mm fraction: 2 IM versus crustal ilmenite candidates = 1 crustal ilmenite and 1 CR; and 1 CR candidate = 1 CR. SEM checks from 0.25-0.5 mm fraction: 1 GO versus almandine candidate = 1 grossular; 8 IM versus crustal ilmenite candidates = 1 CR and 7 crustal ilmenite; and 2 CR candidates = 2 CR.
EMP-039	Almandine-hornblende/epidote-diopside assemblage. SEM check from 0.5-1.0 mm fraction: 1 CR candidate = 1 CR. SEM checks from 0.25-0.5 mm fraction: 1 GP versus zircon candidate = 1 GP; 3 IM versus crustal ilmenite candidates = 1 CR and 2 crustal ilmenite; and 8 CR candidates = 6 CR and 2 crustal ilmenite.
EMP-040	Augite-hornblende/epidote-diopside assemblage. SEM checks from 0.25-0.5 mm fraction: 4 IM versus crustal ilmenite candidate = 4 crustal ilmenite; and 4 FO candidates = 4 FO.
EMP-041	Augite-hornblende/epidote-diopside assemblage.
EMP-042	Almandine-hornblende-hematite/epidote-diopside assemblage. SEM checks from 0.25-0.5 mm fraction: 2 IM versus crustal ilmenite candidates = 1 crustal ilmenite and 1 CR; and 2 CR versus crustal ilmenite candidates = 1 CR and 1 titanite.
EMP-043	Hornblende-almandine/diopside-epidote assemblage. SEM checks from $0.25-0.5$ mm fraction: 2 CR candidates = 2 crustal ilmenite; and 5 IM versus crustal ilmenite candidates = 5 crustal ilmenite.

Overburden Drilling Management Limited



Processing flow sheet for gold grains + indicator minerals.

