

# **ASX ANNOUNCEMENT**



21 MARCH 2018

TANSIM AIRBRONE GEOPHYSICS CONFIRMS TARGET AREAS FOR IDENTIFYING NEW PEGMATITES

#### Highlights:

- Airborne geophysics confirms large east-west structural corridor extending over 9 kilometres where pegmatite dykes have been mapped and sampled on surface
- Pegmatites within the magnetic corridor include channel sampling intersections up to 18.95 metres @ 0.94% Li<sub>2</sub>0, and selective rock chips of between 2.04% and 2.87% Li<sub>2</sub>0
- Mapping and sampling to confirm drill targets to commence in April

Sayona Mining Limited (ASX: SYA) ("Sayona" or the "Company") is pleased to announce the completion of an airborne geophysics survey at the Tansim lithium project in Quebec, Canada.

The survey has confirmed a strong east-west magnetic anomaly coincident with surface mapping of pegmatites over an area 9 kilometres long and up to 700 metres wide – see Figure 1. The host intermediate/mafic magnetic rocks confirmed through the survey have been intruded by discrete outcrops of sub-parallel lithium, beryllium, and tantalum-bearing, granitic pegmatite dykes. Mapping, sampling and drilling will be required to define the geometry of the pegmatites.

The priority focus of the next exploration program planned in April to define drilling targets at the following prospects:

- Viau Dallaire a 300 metre long dyke, dipping 40 degrees north, and 12-20 metres in thickness. Three channel samples include 10.3 metres @ 1.40% Li<sub>2</sub>0, 11.15 metres @ 0.84% Li<sub>2</sub>0 & 18.95 metres @ 0.94% Li<sub>2</sub>0 (including 7.3 metres at 1.77% Li<sub>2</sub>0); and
- Viau pegmatites have been mapped up to 200 metres long and 30 metres wide. Two separate channel samples returned grades of up to 2.77% Li<sub>2</sub>0 and 1.37% Li<sub>2</sub>0 over 3.2 metres, respectively.

The helicopter airborne survey totalled 553 line kilometres and each of the lines was spaced 75 metres apart in a north-south direction.

Corey Nolan, Chief Executive Officer, commented "The Company is planning to commence exploration as soon as the winter snow has melted and its can get clear access to the property. The Company will draw on its significant experience and expertise in lithium geology in the region, developed through more than 20,000 metres of drilling and exploration at Authier."

**SAYONA MINING LIMITED** 

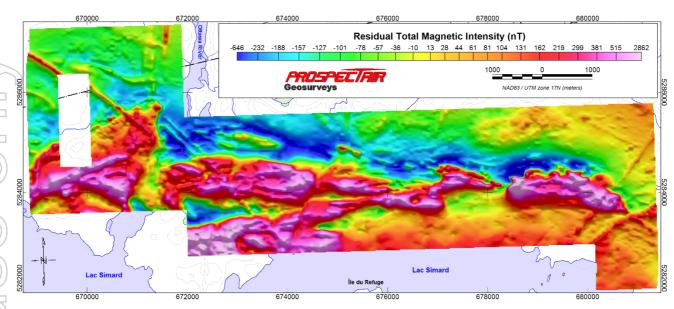
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**Figure 1:** Residual Total Magnetic Intensity showing the east-west structural trending controlling pegmatite placement.

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Sayona Mining Limited is an Australian-based, ASX-listed (SYA) company focused on sourcing and developing the raw materials required to construct lithium-ion batteries for use in the rapidly growing new and green technology sectors. Sayona's primary objective is developing the Authier lithium project in Quebec, Canada. Authier is an advanced, near term development project, construction forecast to commence in the second half of 2018 and first production in late 2019.

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#### COMPETENT PERSON STATEMENT

The information in this report that relates to Exploration Results is based on information compiled by Dr Gustavo Delendatti, a member of the Australian Institute of Geoscientists. Dr Delendatti is an independent consultant, and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which it is undertaking to qualify as a Competent Person as defined in the JORC Code (2012 Edition) of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves." Dr Delendatti was responsible for the design and conduct of the most recent Sayona exploration drilling campaigns (Stage 2, 4,117 metres and stage 1, 3,967 metres). Dr Delendatti, as competent person for this announcement, has consented to the inclusion of the information in the form and context in which it appears herein.



# JORC CODE, 2012 EDITION - TABLE 1

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Geochemical samples reported have been collected as first pass assessment and orientation of the project.</li> <li>The samples have an irregular spacing reflecting the reconnaissance nature of the assessment.</li> <li>Samples are reconnaissance rock chip from sawn blade channel samples and grab samples.</li> <li>Historical sampling consisted in grab samples and soil samples distributed in the main targets of the property.</li> <li>The presence or absence of mineralization was initially determined visually field geologists.</li> <li>Sample preparation and assaying techniques are within industry standard and appropriate for this type of mineralisation.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face- sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	Historical drilling for a total of 448.5 metres was performed in 1961, 1974 and 1979 by different contractors. Drilling in 1979 is reported as DDH.



<b>D</b> '''		
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	Not applicable, historical drilling records are not available. No new drilling has been carried out.
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	Not applicable, no new drilling has been carried out. Historical drilling is not enough to support a JORC compliant resource estimate. Channel sampling was performed for reconnaissance and exploration purposes and has no gathered information to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Not applicable, no new drilling has been carried out.</li> <li>No measures have been taking to ensure sampling is statistically representative of the in situ sample material. The collection methodology is considered appropriate for this early stage assessment of the project.</li> <li>The sample size reported is considered appropriate to the early stage of exploration carried out.</li> </ul>
Quality of assay data	The nature, quality and appropriateness of the assaying	Grab rock samples were collected from the Viau- Dallaire main spodumene-rich dyke in 2016 by a
and laboratory tests	and laboratory procedures used and whether the technique is considered partial or total.	team of prospectors from Golden Retriever Exploration in Rouyn-Noranda sub-contracted by Matamec Explorations.



- For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.
- Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.
- In 2013, channel samples were collected from the Viau-Dallaire and Viau showings by Matamec's geologists.
- All samples were packed and labelled in a sturdy plastic bag, sealed and brought back to Rouyn-Noranda or Montreal to be stored securely.
- The 2013 batch of samples were sent by courier to the ALS Chemex Laboratories in Val d'Or, whereas the 2016 samples were transported by by courier to the SGS Laboratory situated in Lakefield, Ontario. The samples were securely handled at each stage of their transport and manipulation, from the field to the laboratory, and their integrity is unquestioned.
- All samples (<3 kg) were dried, crushed 75%-2 mm, split to 250 g with, and pulverized to 85% passing the 75 µm sieve. In 2016, a series of 56 elements including Li, Ta, Be, Nb, Hf, Cs, Zr, REE, Y, Th and U were analyzed using the SGS Laboratory GE\_ICM90A and GE\_ICM90M packages which determined the concentrations through the ICP\_MS and ICP-AES methods after sodium peroxide fusion in graphite crucibles.</p>
- The analyses were carried out at the SGS Minerals Services Geochemical Laboratory in Vancouver, Canada.
- The 2013 samples were analyzed for 48 elements by ICPMS using the ME-ICP61A package.
- For samples with elevated concentrations of Li, Be and Ta, the following methods were chosen: four acids for high concentrations of Be (ICPMS-61A), ME-XRF10 (Ta) and Li-OG63 (Li).
- Sayona did not performed sampling at Tansim property.
- No additional QA/QC measures beyond that of the laboratory QA/QC were implemented by Sayona.
- The XRF analyses performed at the University of Sherbrooke laboratories followed a standard procedure with 2.5 g of powder sample inserted in a Thermo Scientific Thermolyne oven and cooked for one hour at 1,050 °C, then cooled at room temperature. 0.7 g of cooked powder sample is later mixed with 7 g of Li2B4O7 and LiBO and melted in a platinum crucible with a Claisse fusion apparatus at 1,050°C.
- The glass beads were analysed for major elements using an Axios Advance XRF from Panalytical.
- XRD analyses were carried out using an XPert Pro MPD diffractometer from Panalytical equipped with an X-ray source emitting the characteristic



		wavelength energy of the Cu Ka ray and using a PIXcel detector. The diffractograms were completed and recorded between 5° and 70° 29. Concerning the AA analyses, 0.250 g of sample was weighted with a Mettler Toledo XA204 DeltaRange analytical balance. Then, the powder was dissolved in a mix of HCl-HF-HNO3 acids in a Teflon digestive cell. The mixture is placed in a CEM Mars 6 microwave oven at 200°C for 20 minutes. A solution of boric acid is then added to the melange and placed in the microwave oven for successive 15 minutes intervals to a temperature up to 170°, then maintained for 15 minutes.  • After the sample was cooled at ambient temperature and diluted with deionized water, the analysis was performed on a PerkinElmer AAnalyst 200 absorption spectrometer.  • For Full assay results accompanying the Certificate of Analyses performed by Matamec please refer to Appendix 2 of 43-101 report for Matamec properties dated Feb 25th 2017.
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>The results have been provided by the vendor party.</li> <li>Sayona did not performed verification of significant channel sampling intersections or grab samples control.</li> <li>All the pegmatite intersections and assay results have been reviewed by the Competent Person signing 43-101 report for Matamec properties (Mr. Michel Boily, Ph.D., P. Geo.).</li> <li>Lithium (ppm) reported in assays is converted to Li2O by multiply Li (ppm) X 2.153 (conversion factor).</li> <li>No twinned holes were drilled by Sayona or the vendor party.</li> <li>The data provided by vendor party is documented in an Excel database.</li> <li>The vendor party supplied a database with historical drill hole collar location, including azimuth, dip and final depth.</li> <li>No other documentation of historical primary data was recorded or is available for Sayona.</li> <li>No adjustments to assay data have been undertaken.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> </ul>	<ul> <li>Not applicable. Sayona did not perfomed control of location of channel sampling, grab sampling and soil sampling performed by Matamec as well as historical drilling and sampling performed before Matamec's ownership of the Tansim property.</li> </ul>



	<ul> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>The grid system used is 1983 North American Datum (NAD83)</li> <li>The level of topographic control offered by the collar survey is considered sufficient for the work undertaken at its current stage.</li> </ul>
Data spacing and distribution  Orientation of	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> <li>Whether the orientation of</li> </ul>	<ul> <li>Costeans were performed for reconnaissance purposes. There is no predetermined line spacing channels.</li> <li>Historical drilling was performed for reconnaissance purposes. There is no predetermined drilling spacing for such programs.</li> <li>The data spacing is not sufficient to estimate geological and grade continuity of observed mineralisation and therefore to produce a JORC compliant Mineral Resource estimate.</li> <li>Sample compositing has not been applied.</li> <li>Sampling and historical drilling was carried out</li> </ul>
data in relation to geological structure	sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.  If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	<ul> <li>over small areas of the project and it is not known if they are representative.</li> <li>Not applicable. Sayona did not perform drilling at Tansim property.</li> </ul>
Sample security	<ul> <li>The measures taken to ensure sample security.</li> </ul>	<ul> <li>Industry standard sample collection and storage have been reported by the vendor Qualified Person.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>No audit or review of the sampling techniques and data for this release has been carried out.</li> </ul>

## Section 2 - Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</li> </ul>	<ul> <li>The Tansim property is located in the Témiscamingue region of southern Quebec in the regional municipality of Témiscamingue (NTS map sheet 31M10).</li> <li>The property consists of 65 mineral claims (polygons) totaling an area of 13,764 ha or 137.64 km2 and 100% owned by Matamec Explorations Inc.</li> <li>Tony Perron, prospector and promoter, registered the claims of the Tansim property through the GESTIM site and immediately transferred the property to Matamec Explorations Inc., who now owns 100% of the claims.</li> </ul>



	ne by er parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>However, Ressources Minérales Mistassini Inc. holds, on certain claims, a 1.25% royalty that can be bought back anytime by Matamec for the amount of \$300,000.</li> <li>Ressources Minérales Mistassini holds a nontransferable right to collect mineralized material up to a weight of five (5) tons on certain claims forming the Tansim property.</li> <li>The aforementioned royalty also applies to any claims acquired or staked by Matamec within a 1 km radius of certain claims composing the Tansim property. In the eventuality one or certain claims owned by Matamec and forming the Tansim property are let to lapse, Matamec will transfer this or these claims to Ressources Minérales Mistassini with a renewal period of one year.</li> <li>Sayona is working to achieve all the valid work permits at Tansim property.</li> <li>There are no impediments that have been identified for operating in the project areas.</li> <li>The earliest discoveries were made during the late 50s early 60s on the Dallaire, Viau-Dallaire and Viau showings where zoned granitic pegmatite dykes containing spodumene, beryl, colombo-tantalite were found.</li> <li>Then, in 1977, the discovery of Ta and U-rich granitic pegmatite samples from the lle du Refuge site (5.8 wt.% Ta2O5 and 83 wt. % U3O8), sparked new interest from Noranda and particularly SOQUEM, the latter conducting geophysical surveys, mapping campaigns and litho-geochemical sampling during the early 1980s.</li> <li>A hiatus of 42 years (1981-2003) was followed by the acquisition by Matamec Explorations Inc. of a large tract of land (the Tansim property) located north of Lake Simard and encompassing most of the previously investigated rare metal showings.</li> <li>The project has also small scale overburden stripping and sawn blade channels.</li> <li>Other exploration activities includes soil sampling, grab sampling, scintiliometer prospecting, ground mag, heli mag and geological mapping.</li> </ul>
Ge	ology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul> <li>Mineralisation is hosted within spodumene- bearing pegmatite intrusions striking East-West, dipping to the north and hosted by metasedimentary – metavolcanic rocks of the Pontiac sub-province.</li> </ul>



		<ul> <li>The Tansim property is part of the Pontiac subprovince; a Late Archean metasedimentary-metavolcanic-granitoid-gneiss terrane situated along the southeastern margin of the Superior Province of Quebec.</li> <li>The Pontiac subprovince comprises schist, paragneiss and migmatite derived from terrigeneous sedimentary rocks (Card et Ciesielski, 1986) with a substantial portion composed, however, of granitoid rocks.</li> <li>The Lake Simard area exposes a suite of granodiorite, biotite-muscovite monzogranites, aplites and granitic pegmatites. The aplites and granitic pegmatites occur at the margins of the Réservoir Decelles Batholith and within the enclosing volcanosedimentary and plutonic rocks.</li> <li>There, the pegmatites display variable rare metal mineralization (Li, Be, Ta). Simple (muscovite-bearing) pegmatites are barren and oriented NS. Complex and zoned granitic pegmatites (spodumene bearing) are EW-oriented. These pegmatites show white-pink to greenish spodumene (up to 30%), quartz almost black, albite and perthite (10-20%), muscovite (&lt; 5%), garnet (&lt; 1%), epidote (apatite?), and colombotantalite.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</li> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul> <li>The vendor supplied a database of historical drilling (445 metres) performed in 1961, 1974 and 1979.</li> <li>Sayona has not carried out drilling at the property.</li> </ul>
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade</li> </ul>	<ul> <li>No weight averaging or high-grade cut has been applied to any of the sample assay results.</li> <li>Metal equivalent values have not been reported.</li> </ul>



	truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.  • Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.  • The assumptions used for any reporting of metal equivalent values should be clearly stated.	
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	Not applicable at this stage.
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	Geological and geochemical maps are included in the body of the 43-101 provided by vendor geologist.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	The reporting is considered to be balanced.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock	<ul> <li>The exploration reported herein is at a very early stage but results are consistent with geological and geophysical data;</li> <li>Sayona coordinated an airborne magnetic geophysics program in March 2018.</li> </ul>



	characteristics; potential	
	deleterious or contaminating	
Further work	<ul> <li>substances.</li> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Future exploration work by Sayona Mining on the Tansim property must be focused in order of importance on:</li> <li>1) The Viau-Dallaire, 2) Viau, 3) Gauthier and, 4) the Vézina showings.</li> <li>The first two showings must be submitted to: 1) ground-based magnetic/radiometric and IPsurveys, 2) overburden stripping followed by grab and channel sampling and, 3) limited drilling to confirm the historical drill results and expand the width and length of the main rare metal bearing pegmatite dykes.</li> <li>It is recommended the Gauthier showing undergoes 1) a ground-based magnetic and radiometric surveys, 3) overburden stripping around the lake shore and expanded to north and, 3) exploratory drilling within the established grid, their position coinciding with the extension of the spodumene-bearing pegmatites of the Viau showing.</li> <li>The more "grassroot" nature of the Vézina showing leads the author to recommend geological mapping and thorough rock sampling in a 1,200 m by 325 m area exposing several outcrops to recognize the real economic potential for rare metal. The results of this first phase of exploration will dictate the nature of the second phase of work which logically will involve an extensive campaign of diamond drilling to define resources material.</li> </ul>
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