Brisbane, Australia (ABN Newswire) - <u>Sayona Mining Ltd.</u> (ASX:SYA) (OTCMKTS:DMNXF) ("Sayona" or the "Company") is pleased to announce an updated indepedent JORC Mineral Resource estimate for the Authier lithium project.

Highlights

- New JORC-compliant Mineral Resource of 13.74 Mt @ 1.07% Li20 (146,700 tonnes)
- Total contained lithium dioxide Mineral Resource increased 68% to 146,700 tonnes
- New drilling expands high-grade zones of mineralisation throughout the deposit
- 86% of the new Mineral Resource in the Measured and Indicated categories
- Strong potential to expand the resource, drilling planned to commence in early 2017

The significantly expanded, JORC 2012 compliant Mineral Resource estimate, tabulated (see the link below), follows a successful 3,967 metre drilling campaign. The contained lithium dioxide Mineral Resource has increased by 68% from 87,302 tonnes to 146,700 tonnes compared to the July 2016 JORC Mineral Resource estimate. The average grade has increased from 0.96% Li20 to 1.07% Li2O, and 86% of the contained Mineral Resource is categorised within the Measured and Indicated Mineral Resource categories.

The Mineral Resource has been estimated and reported in accordance with the guidelines of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012). A summary of the estimation methodology and competent person statement is included in this announcement.

Corey Nolan, Chief Executive Officer, commented, "The 2016 drilling program has significantly expanded the size of the Mineral Resource and improved the average grade of the deposit, especially at shallow levels which would be mined first in a future operation. The size of the contained lithium dioxide Mineral Resource has increased 68%, and mineralisation within the Measured and Indicated Mineral Resource categories has also increased from 77% to 86% compared to the previous July 2016 JORC Mineral Resource. Mineralisation remains open in all directions and more drilling is planned in early 2017 to expand the resource for the Definitive Feasibility Study".

JORC Mineral Resource Estimate Overview

The Authier project area comprises 19 mineral claims totalling 653 hectares, and extends 3.4 kilometres in an east-west, and 3.1 kilometres in a north-south direction, respectively. The mineral claims are located over Crown Lands. The tenure is all in good standing and there is no known impediment to obtaining a licence to operate. The claims are subject to a number of underlying vendor royalties.

The Authier project is situated 45 kilometres north-west of the city of Val d'Or, a major mining service centre, situated in the Province of Quebec. Val d'Or is located approximately 466 kilometres north-east of Montreal. The project is easily accessed by a rural road network connecting to a national highway a few kilometres east of the project site.

The deposit is hosted in a spodumene-bearing pegmatite intrusion. The dimensions of the deposit drilled to date are 825 metres long, striking east-west, with an average thickness of 25 metres, ranging from 4 metres to 55 metres, dipping at 40 degrees to the north. The deposit outcrops in the eastern sector and then extends under up to 10 metres of cover in the western sector. The lithium mineralisation at Authier project is related to multiple pulses of spodumene bearing quartz-feldspar pegmatite. Higher lithium grades are related with high concentrations of mid-to-coarse spodumene crystals (up to 4 cm long axis) in a mid-to-coarse grained pegmatite facies.

The project has more than 18,000 metres of diamond drilling in 141 holes. The project was initially drilled between 1991 and 1999, and then by Glen Eagle between 2010 and 2012, and Sayona has recently completed 3,967 metres of drilling in 18 holes. Holes were typically drilled perpendicular to the strike of the mineralised pegmatite to provide high confidence in the grade, strike and vertical extensions of the mineralisation.

Prior to Sayona's 2016 drilling program, NQ size diamond core was halved, 1.5 metre sections were assayed for Li20 content at an ALS laboratory in Vancouver using Inductively Coupled Plasma Mass Spectrometry. Glen Eagle had a rigorous "good industry practise" quality control process, including routine assaying of standards, duplicates and blanks. During the preparation of the Glen Eagle 43-101, SGS recommended that Glen Eagle twin 3 historical drill holes. The program demonstrated strong correlations with historical drill assays. During Sayona's 3,926 metre 2016 drilling program, HQ holes were drilled at near 100% core recovery, and 1.0 metre sections were assayed for Li20 content at an ALS laboratory in Vancouver using Inductively Coupled Plasma Mass Spectrometry. The Company's quality control program included regular assaying of standards, duplicates and blanks. In addition, the program has had oversight of SGS Canada's internal quality controls.

Authier has been subject to two metallurgical test work progr ams in 1999 and 2012. Bumigeme Inc, processing consultants, conducted metallurgical testing on a 40 tonne sample and produced Li20 concentrate grades between 5.78% and 5.89% at metallurgical recoveries between 67.52% and 70.19%, with an average head assay of 1.14% Li20. At an average head grade of 1.35% Li20, test work demonstrated a recovery of 75% and a concentrate grade of 5.96% Li20. In 2012, Glen Eagle completed further metallurgical testing and designed a flow sheet based on the concept of producing a 5-6% Li20 concentrate at an 85% recovery rate using conventional processing routes. The target market for the concentrates are the lithium carbonate conversion plants that supply feed-stock to the lithium battery manufacturers (the iron content of Authier concentrate is too high to supply the ceramics or glass industry). Sayona is currently undertaking a detailed metallurgical testing program using core from nine diamond holes totalling 430 kilo rams, representing of the average grade and entire deposit geometry, at SGS Lakefield in Canada. The results will be included in the Pre-Feasibility Study which is currently underway and due for completion in late

2016.

Future mining or mineral extraction of the Authier deposit will be by open cut mining methods using drilling and blasting, and a conventional truck and shovel operation. Prior to Sayona acquiring Authier, the project had been thoroughly studied. In 2013, a Canadian NI43-101 Technical Report, Preliminary Economic Assessment, was completed demonstrating the technical and economic viability of mining and producing a spodumene concentrate from the project.

The independent resource estimate was undertaken using reported intercepts calculated using arithmetic averages, no top-cut, and a 0.5% Li2O cut-off grade. The estimation was based on an Inverse Distance Squared interpolation using Micromine software. The parent block dimensions used were 5 metres x 5 metres x 5 metres with sub-blocks of 2.5 metres x 2.5 metres x 2.5 metres in accordance with the drill spacing and pegmatite body geometry.

The resource has been estimated and reported in accordance with the guidelines of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012). The JORC compliant resource estimate at 0.5% Li20 cut-off grade is tabulated in the link below.

The 2016 drilling program (see Table 4 in the link below for a full compilation of the drilling results, and Figure 1 (in the link below) for drill hole location plan and significant intercepts) has significantly expanded the size of the Mineral Resource and improved the average grade of the deposit, especially at shallow levels which would mined first in a future operation. The size of the contained lithium dioxide Mineral Resource has increased 68%, and the level of mineralisation within the Measured and Indicated Mineral Resource categories has also increased from 77% to 86% (see Figure 2 in the link below) compared to the July 2016 JORC Mineral Resource.

The Measured Mineral Resource was defined within areas of close spaced diamond drilling of less than 35 metres by 35 metres, and where the continuity and predictability of the spodumene bearing pegmatite was high. The Indicated Mineral Resource was assigned to areas where drill hole spacing was less than 50 metres by 50 metres. The Inferred Mineral Resource was assigned to areas where drill hole spacing was greater than 50 metres by 50 metres generally in the edges of the known mineralisation mostly in the down-dip extensions beyond the last drill holes in each section.

The following solid and cross-sections, Figures 3 to 8 (in the link below), demonstrate the strong geological and grade continuity of the deposit.

The JORC compliant Mineral Resource estimate is based on 0.5% Li20 cut-off grade. Figure 9 and Table 3 (in the link below) demonstrate the grade and tonnage sensitivity to variation in the cut-off grade. Typically, the tonnage and grade variation is not significant to variations between 0.4% and 0.6% Li20 in the base case cut-off grade estimate, reflecting the low co-efficient of variation in the grade of the deposit.

The mineralisation remains open in all directions (see Figure 10 in the link below). Follow up drilling is being planned for early 2017 with the objectives, including:

- Defining the mineralised boundaries and lifting the resource categories in the western sector that was not accessible during the summer months;

- Testing for mineralisation in the east and west strike extensions; and

- Assessing the resource potential of the new northern pegmatite. Any new mineralisation within the new pegmatite is likely to fall within the main Authier open-cut pit shell. Any new resources will significantly improve the waste to ore ratio in a future operation.

To view tables and figures, please visit: http://abnnewswire.net/lnk/9A021568

About Sayona Mining Ltd:

<u>Sayona Mining Ltd.</u> (ASX:SYA) is a 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. Please visit us as at www.sayonamining.com.au

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Sayona Mining Ltd.

Contact: