

30 April 2019

QUARTERLY REPORT – MARCH QUARTER 2019

Highlights

- **Production rate for Authier Lithium Project, Quebec to increase under revised mining lease application as development plans continue for sustainable and profitable new mine**
- **Positive drilling results boost prospects for new lithium deposit at Tansim Lithium Project, Quebec; project expands further with Lac Simard acquisition**
- **Agreement to acquire 100% of Great Sandy Option in WA finalised, in world-class Pilgangoora lithium district.**

Emerging lithium miner Sayona Mining Limited (ASX: SYA) announced today its quarterly report for the March quarter 2019, as it continues to advance its lithium projects in Canada and Australia amid growing demand for the metal of the 21st century and constrained supply.

Authier Project

Authier is a hard rock spodumene lithium deposit scheduled for development as an open cut mine producing a 6% spodumene concentrate. Construction is planned to commence in 2020.

The new mine could create 150 jobs in construction and up to 160 jobs in operation, with the Company giving priority to local employment and suppliers. Sayona is targeting a number of potential markets for its product, which is in increasing demand due to the role of lithium-ion battery technology in the clean energy revolution for cars and electricity.

In December 2018, the Company announced its participation in a joint study on the development of a lithium- ion battery industry in Quebec

The study, which will be carried out with the financial support of the Quebec Ministry of Economy and Innovation and other partners, represents a major step forward by Quebec in the fast-growing lithium-ion battery industry for energy and transport.

It will assess how Quebec can leverage its competitive advantages, including low-cost hydro-electric power and access to major markets, to ensure the province is strategically positioned to benefit from the clean energy revolution that is driving demand for lithium-ion battery technology.

Permitting

On March 5, the Quebec Environment Minister announced that the Authier project the project would be subject to the environmental impact assessment and review procedures under the BAPE (bureau d'audiences publiques en environnement). (Refer ASX announcements 6 March and 28 March, 2019). The minister said the process would enable Sayona to “present the environmental protection measures likely to ensure the acceptability of its project, both socially and environmentally as well as economically.”

Following the announcement, Sayona decided to undertake further community engagement and environmental studies, including an Environmental Impact Assessment (EIA) as per Article 31.1 of the Environment Quality Act. Sayona has already completed an Environmental Assessment Study for the project, which showed it would have no impact on the water quality of the Esker Saint-Mathieu-Berry.

Sayona will now seek approval, based on a sustainable development approach, to process in the order of 2,600 tonnes per day, providing for an approximate mine life of 14 years and estimated annual average spodumene concentrate production of around 115,000 tonnes (at 6% Li₂O).

In September 2018, a Definitive Feasibility Study was completed, confirming the project’s potential to deliver a profitable and sustainable new lithium mine, with an estimated pre-tax net present value of C\$184.8 Million and initial capital expenditure of C\$89.9 million (ref ASX announcement 24 September 2018). This study will now be revised in accordance with the new parameters, and will be based on an optimised final production level.

Other permitting items are currently ongoing. Sayona’s team has begun the preparation of the documents related to the prerequisites of the Environmental Assessment Study. Fieldwork is planned to be undertaken during the June and September quarters.

Test Work

During the quarter, further process engineering and test work studies were undertaken on site at Authier.

Three process studies were completed as part of Ausenco's bridging engineering mandate:

- 1) Flotation circuit sizing review,
- 2) Spodumene conditioning review,
- 3) Grinding circuit review.

Ausenco's mandate was completed on March 27th and Ausenco delivered a data package with all documentation from the bridging phase.

The SGS testwork from the bridging phase is complete (magnetic separation, spodumene conditioning and flotation kinetics tests) and data files have been issued. The Company is now awaiting the final report for the testwork.

Also, McGill University delivered their final report in February on flotation studies using alternate flotation reagents (Arrmaz products) on a low-grade sample (pilot plant commissioning sample).

Tansim Prospect

Tansim is situated 82 kilometres south-west of the Authier lithium project in Quebec. The project comprises 139 mineral claims covering 8,500 hectares, and is prospective for lithium, tantalum, and beryllium.

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. The main prospects are Viau-Dallaire, Viau and Vezina.

In February, Sayona completed the Phase 1 diamond drilling program at Viau-Dallaire outcrop comprising 11 NQ diameter holes for 1,219m. The program had the following objectives:

- Testing the outcropping spodumene bearing pegmatite at Viau Dallaire prospect along strike and to depth;
- Exploring for other potential mineralised dykes within the prospect; and
- Starting the collection of data for further metallurgical test work.

In early April, subsequent to period end, positive results were announced from the Tansim drilling program. These results are summarised in Table 1 (ref ASX announcement 9 April 2019).

Six drill holes successfully tested the outcropping Viau-Dallaire pegmatite at near-surface levels, while five step back drill holes tested the vertical extension of the shallow dyke.

Four of the latter intercepted a second non-outcropping deeper pegmatite dyke 40 to 50m wide and sub-parallel to the shallow one. The system is open in all directions with potential for additional sub-parallel hidden pegmatites.

These results confirm the prospects of an additional lithium deposit in close proximity to Authier.

Table 1 – Drill hole collar location and intercept information (downhole Intersections in metres)

Drill Hole	East	North	RL	Azimuth	Dip	Depth	From (m)	To (m)	Thickness (m)	Grade (%Li ₂ O)	
VD19-00	670812.9	5285796.2	309.7	180	-45	72	19	22	3	0.95	
							19	20	1	1.33	
VD19-01	670772.2	5285780.1	311.7	180	-45	72	3.9	10.2	6.3	1.28	
							including	6	8	2	1.66
								13.5	20	6.5	1.28
including							13.5	17	3.5	1.78	
VD19-02	670731.3	5285783.0	309.8	180	-45	75	10	20	10	0.71	
							including	15	16	1	1.64
							including	22	25	3	0.85
VD19-03	670720.6	5285817.5	307.2	180	-50	99	46	54	8	1.17	
							including	46	47	1	2.03
							including	50	54	4	1.38
VD19-04	670683.0	5285771.0	308.5	180	-45	72	13.9	18	4.1	1.37	
							including	13.9	15	1.1	2.22
								21	30	9	0.95
including							24	27	3	1.6	

Table 1 – Drill hole collar location and intercept information (downhole Intersections in metres)

Drill Hole	East	North	RL	Azimuth	Dip	Depth	From (m)	To (m)	Thickness (m)	Grade (%Li ₂ O)
VD19-05	670628.0	5285758.8	304.9	180	-45	81	4	16.35	12.35	1.29
including							4	6.1	2.1	1.61
And							5	6.1	1.1	2.24
including							9	14	5	1.63
And							12	14	2	2.02
VD19-06	670573.3	5285749.9	300.8	180	-45	75	3.85	5.9	2.05	0.89
including							3.85	4.9	1.05	1.08
							12	14.8	2.8	0.76
							20.2	24.45	4.25	0.87
including							22	23	1	1.2
VD19-07	670627.7	5285813.5	296.3	180	-50	172	42.75	46.0	3.25	1.25
							49	58	9	0.95
including							51	53	2	2.02
							109.5	115.0	5.5	0.77
including							112	113	1.0	1.38
							134.0	141.0	7.0	1.35
including							135	136	1.0	2.15
VD19-08	670627.5	5285816.4	296.2	180	-75	174.1	67	77.25	10.25	1.05
including							67	69	2	1.55
including							72	75	3	1.22
							119	126.1	7.7	0.67
including							124	126.1	2.1	1.09
							142	149.8	7.8	1.04
including							146	149.8	3.8	1.54
							155	163.5	8.5	0.91
including							155	156	1	1.98
including							158	162	4	1.16
VD19-09	670576.6	5285795.4	297.4	180	-55	162	43.8	51.25	7.45	1.05
including							49.95	51.25	1.3	2.17
							110.35	119.55	9.2	0.72
including							118.25	119.55	1.3	1.25
							124.75	127.4	2.65	1.44
VD19-10	670528.3	5285788.0	295.7	180	-55	165	45.5	58.8	13.3	1.04
including							48.15	49.75	1.6	2.13
including							55.4	56.45	1.05	2.00
							108.2	151.9	43.7	0.82
including							135.8	151.9	16.1	1.26

Note: Downhole widths are not true widths.

Follow-up drilling at Viau-Dallaire prospect to extend existing pegmatite dyke and test for additional sub-parallel dykes is being planned, in addition to further exploration at the Viau prospect and metallurgical test work.

Also, in April, Sayona announced an agreement for an option to acquire 100% of the Lac Simard lithium prospect from Exiro Minerals Corporation (ref ASX announcement 15 April 2019). The Lac Simard prospect is immediately adjacent to the existing Tansim claims and will increase the project size. The acquisition will increase the company's potential to supply the growing lithium battery industry in Quebec.

Under the terms of the agreement Sayona can acquire a 100% interest by making cash and share payments, and undertaking work on the property over a three-year period.

Western Australian Projects

Western Australia is a premium lithium province with world-class, high-grade lithium deposits associated with rare metal pegmatites.

Sayona's leases in the Pilbara region cover some 1806km² and are centred in the world class Pilgangoora lithium district.

During the quarter exploration data was assessed following the 100% acquisition of the Great Sandy Option tenement package in December 2018. Work focussed on geochemical data to vector into areas of fractionated pegmatite systems with potential to host spodumene pegmatites. Sayona has developed an algorithm using seven elements, including LCT pegmatite indicators including cesium and tantalum as well as others such as thallium and gallium. A large number of areas have been selected for detailed exploration within other tenement areas.

The White Springs tenement was surrendered during the period due to downgraded perspective. No field exploration was carried out in the Pilbara during the quarter.

Mallina Project

Of the Pilbara tenements, the Mallina project is the most advanced with multiple zones of spodumene pegmatite identified within a 25km² zone.

No activities were undertaken at the Mallina project during the quarter.

Tabba Tabba Project

The Tabba Tabba project comprises six tenements covering 588km², located 40km to the north of the Pilgangoora. The main Tabba Tabba tenement, E45/2364, is centred in an area of historic tin and tantalum mining.

No activities were undertaken on the project during the quarter.

Moolyella and Other Pilbara Project Areas

The Moolyella project is located to the east of Marble Bar in an area of historic tin and tantalum mining. Mineralisation is associated with the nearby Moolyella monzogranite and spodumene pegmatites have been identified by other workers in the area.

Within Sayona's tenure (three tenements covering 334km²) a number of lithium-cesium-tantalum (LCT) albite pegmatites have been identified. These fringe the Moolyella monzogranite and other similar fertile intrusions. Fifteen rock samples were collected from the northern portion of E45/4700. Three returned above 0.1% Li₂O with the highest, sample, SP555945, assaying 1.40% Li₂O

with elevated tin (198ppm) and rubidium. All the samples were of mica rich pegmatite. Project geology is displayed in the figure below.

Further exploration is being planned to follow up these encouraging results and to test more broadly the prospective margins of the source intrusions.

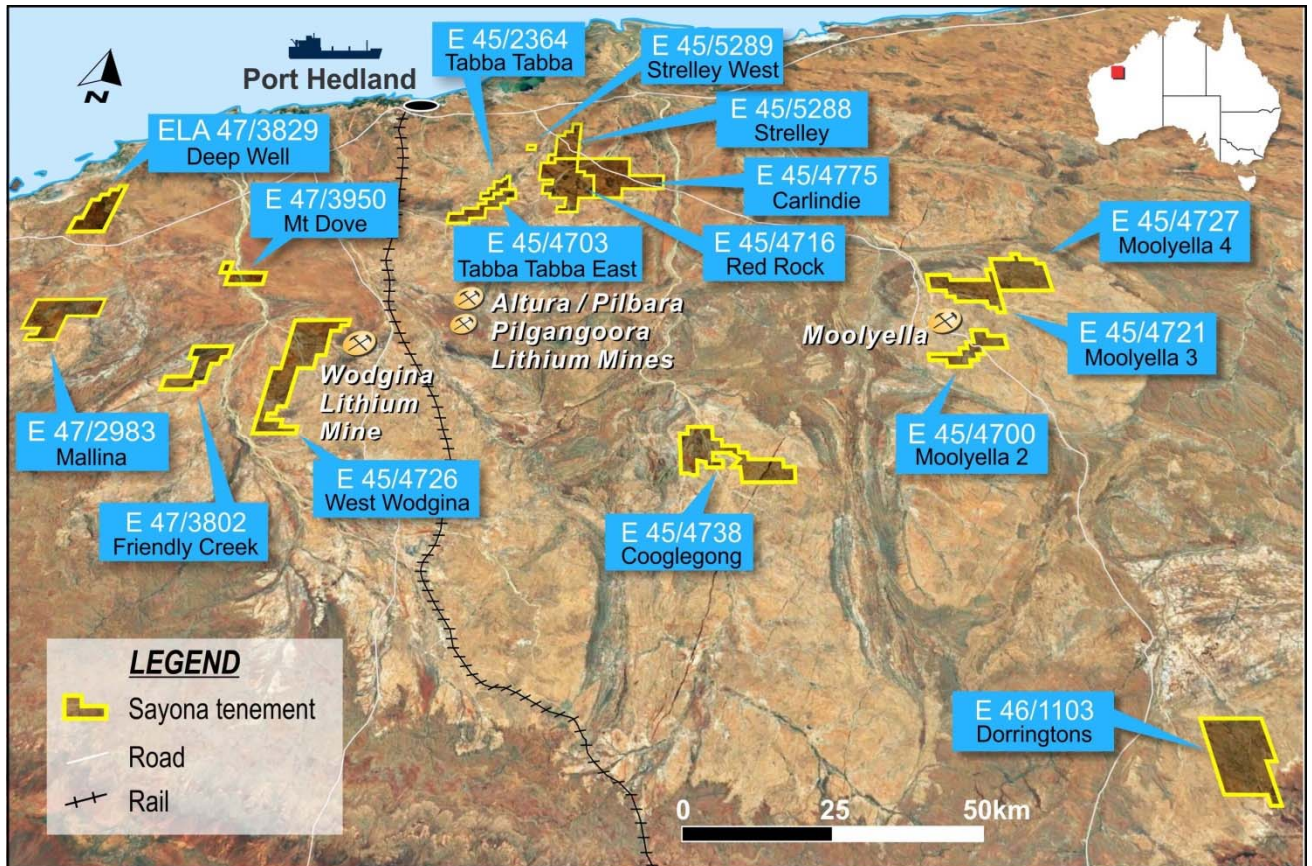


Figure 1: Sayona Lithium Tenements in Western Australia

East Kimberley Graphite Exploration

The Corkwood project secures a 24km strike length of graphitic sediments of the Tickalara Metamorphics, a known host to high purity, coarse flake graphite deposits in the region.

No work was carried out at the Corkwood graphite project during the quarter. A review of recent rock results and airborne electromagnetics (VTEM) data was commenced to identify potentially high grade graphite targets.

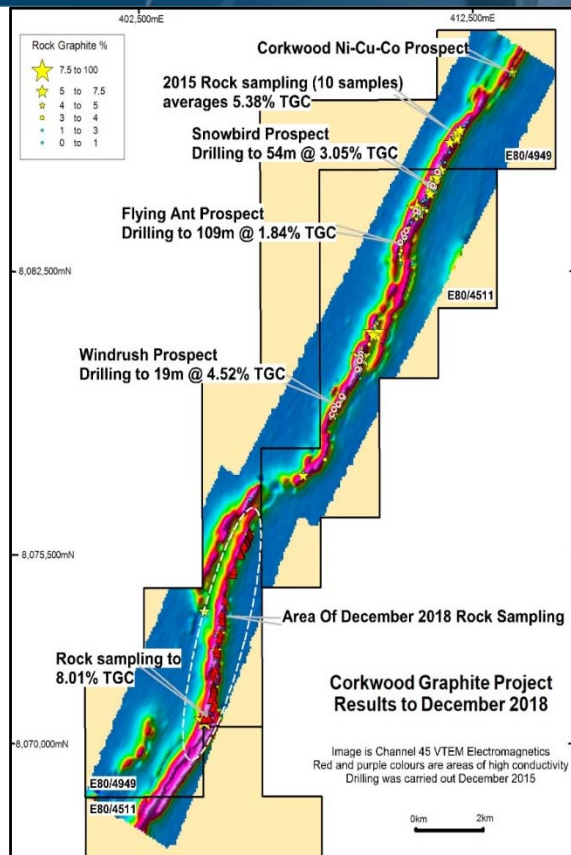


Figure 2 East Kimberley Graphite Project, Results and VTEM Imagery

Mt Edon Project

The Mt Edon project secures pegmatite rights over some 80km² in the South Murchison province, Western Australia. The project hosts a large number of pegmatites which invade the Paynes Find greenstone belt. Past small scale mining of eluvial tantalum indicates the areas prospectivity to host LCT pegmatites. Past rock sampling has identified up to 1.57% Li₂O in lepidolite bearing pegmatite.

A sampling programme at the Mt Edon project commenced during the quarter. Work was focussed over the western portion of the pegmatite field where results indicate the pegmatites become progressively more fractionated. A total of 59 rock samples were collected. Assay results are awaited.

Other Project Areas

No further work was carried out at the company's Deep Well Gold project during the quarter.

Corporate Activities

During the quarter, the Company settled the final option payment to Great Sandy Pty Ltd to acquire an 80% interest in six tenements covering 871 km² in the world-class Pilgangoora lithium district.

The Company also reached agreement to acquire the remaining 20% of the tenure to give Sayona a 100% unencumbered interest in the tenement package. The acquisition was settled through the issue of 5,235,602 fully paid ordinary shares in Sayona with an aggregate value of \$100,000.

For more information, please contact:

Dan O'Neill, Managing Director

Phone: +61 (7) 3369 7058

Email: info@sayonamining.com.au

Sayona Mining Limited is an Australian, 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. Please visit us as at www.sayonamining.com.au

Reference to Previous ASX Releases

This report refers to the following previous ASX releases:

- Step up of engagement following Quebec regulatory decision – 6 March 2019
- Authier project update – 28 March 2019
- Drilling boosts prospects for new lithium deposit at Tansim – 9 April 2019
- Sayona expands Tansim project with new acquisition – 15 April 2019

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and all material assumptions and technical parameters continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

Tenement Schedules

Australian Tenement Schedule				
Tenement	Name	Status	Interest at Beginning of Quarter	Interest at end of Quarter
E59/2092	Mt Edon	Granted	80%, with rights to 100% of pegmatite minerals*	80%, with rights to 100% of pegmatite minerals*
E59/2055	Mt Edon West	Granted	100% (pegmatite minerals)	100% (pegmatite minerals)
E45/2364	Tabba Tabba	Granted	100% (pegmatite minerals)	100% (pegmatite minerals)
E45/4703	Tabba Tabba East	Granted	100%	100%
E45/4716	Red Rock	Granted	100%	100%
E45/4726	West Wodgina	Granted	100%	100%
E45/4738	Cooglegong	Granted	100%	100%
E45/4775	Carlindie	Granted	100%	100%
E80/4511	Western Iron	Granted	100%	100%
E80/4949	Corkwood	Granted	100%	100%
ELA47/3802	Friendly Creek	Granted	100%	100%
ELA47/3829	Deep Well	Application	100%	100%
ELA47/3950	Mt Dove	Granted	100%	100%
E45/5288	Strelley	Application	100%	100%
E45/5289	Strelley West	Application	100%	100%
Great Sandy Pty Ltd Option				
E47/2983	Mallina	Granted	100%	100%
E46/1103	Dorringtons	Granted	100%	100%
E45/4687	White Springs	Granted	100%	0%
E45/4721	Moolyella	Granted	100%	100%
E45/4727	Moolyella	Granted	100%	100%
E45/4700	Moolyella	Granted	100%	100%

Canadian Tenement Schedule

Claim Number	Registered holder	Registration Date	Expiration Date	Area (hect)
2116146	Sayona Mining Limited	8/8/2007	7/8/2019	43.24
2116154	Sayona Mining Limited	8/8/2007	7/8/2019	42.88
2116155	Sayona Mining Limited	8/8/2007	7/8/2019	42.87
2116156	Sayona Mining Limited	8/8/2007	7/8/2019	42.86
2183454	Sayona Mining Limited	2/6/2009	1/6/2019	42.85
2183455	Sayona Mining Limited	2/6/2009	1/6/2019	42.84
2187651	Sayona Mining Limited	2/9/2009	1/9/2019	21.39
2187652	Sayona Mining Limited	39853	43474	21.29
2192470	Sayona Mining Limited	22/10/2009	21/10/2019	21.08
2192471	Sayona Mining Limited	22/10/2009	21/10/2019	21.39
2194819	Sayona Mining Limited	19/11/2009	18/11/2019	42.82
2195725	Sayona Mining Limited	27/11/2009	26/11/2019	29.03
2219206	Sayona Mining Limited	22/04/2010	21/04/2018	5.51
2219207	Sayona Mining Limited	22/04/2010	21/04/2018	17.06
2219208	Sayona Mining Limited	22/04/2010	21/04/2018	55.96
2219209	Sayona Mining Limited	22/04/2010	21/04/2018	42.71
2240226	Sayona Mining Limited	9/7/2010	8/7/2018	42.71
2240227	Sayona Mining Limited	40428	43319	42.71
2247100	Sayona Mining Limited	23/08/2010	22/08/2018	42.75
2247101	Sayona Mining Limited	23/08/2010	22/08/2018	53.77