

Avalon Expands Resource Potential at Separation Rapids Lithium Project, Kenora ON

written by Raj Shah | May 4, 2023

May 4, 2023 ([Source](#)) – [Avalon Advanced Materials Inc.](#) (TSX: AVL) (OTCQB: AVLNF) (“Avalon” or the “Company”) announces that the preliminary results from the winter 2023 diamond drilling program has potentially expanded the lithium resource at the Company’s Separation Rapids Lithium Project. Thirteen holes totalling 4179 metres were drilled on the central main mass depth extensions of the resource. Of note, the final hole totalled 570 metres vertically through the deposit and confirmed visual petalite mineralization to a depth of 565 metres. This increases the potential depth of the deposit by 80% from the previously tested 315 metres deepest intercept. The other twelve holes intersected mineralization to the east, west and at depth from the existing resource and justify completion of an updated resource estimate for the Separation Rapids lithium deposit. Assays from four of the holes are pending.

Drilling Program Details

The winter 2022/23 diamond drilling program included twelve drill holes on the existing resource and one vertical drill hole on the main centre of the deposit designed to examine the potential depth extent of the petalite mineralization. Twelve holes were designed to undercut historic maximum-known mineralized drill intercepts on the widest part of the Separation Rapids as step outs to expand the existing resource. The main deposit consists of a large, zoned vertical pegmatite dyke averaging 50-70m in thickness that has been structurally flattened, that includes both petalite and lepidolite

accompanied by many narrower mineralized dykes of similar but variable lithium mineralogy. The dominant lithium mineral is petalite. The dykes tend to be lepidolite-rich on both the east and west extensions. Lepidolite is a lithium mica typically containing 7-8% Li_2O content while petalite typically contains 4-4.5% Li_2O , but with no impurities.

The twelve holes were drilled over a total strike length of about 300 metres. Six holes (SR-22-81 to SR-23-86, assays for SR-23-85 pending) were designed to intersect the main part of the zone below existing drilling and were successful in extending the mineralization to depth (Table 2). Four holes (SR-23-87 to SR-23-90) were on the eastern extension of the deposit, which hosts both the lithium-bearing mica, lepidolite, as well as petalite; three of these were successful in extending the eastern mineralization (SR-23-90 assays pending). Finally, two holes (SR-23-91 to SR-23-92) were drilled on the western edge of the deposit. With SR-23-92 intersecting lithium mineralization, the deposit was extended to the west (SR-23-91 assays pending).

In summary, drilling tested the deposit to depth, over a 300 metre strike length in the main part of the deposit ("The Big Whopper") with mineralization exceeding the 0.5% Li_2O cutoff grade encountered in all but one of the holes. Notable mineralized intervals (all widths estimated true width unless otherwise stated) include 1.67% Li_2O over 19.6 metres (SR-22-81), 1.20% Li_2O over 27.5 metres (SR-23-83) and 1.8% Li_2O over 9.63 metres contained within 0.96% Li_2O over 45 metres (SR-23-86). For the eastern extension of the deposit, SR-23-89 intersected 1.61% Li_2O over 5.74 metres and for the western extension SR-23-92 intersected intervals of 0.89% Li_2O over 12.4 metres and 1.49% Li_2O over 4.5 metres. These grades are typical of the Big Whopper resource as it also includes Rb-K feldspars which are a

significant potential by-product along with tantalum and cesium.

Drill hole SR-23-93 was set up near the geographic centre of the deposit and drilled vertically to 570 metres. As mentioned above, the objective was to explore geologically the depth extent of the Big Whopper pegmatite assuming it continues with a vertical dip. The deepest intercept prior to this drill program was about 315 metres from surface. The vertical drill hole intersected pegmatite to a depth of 565 metres with continuous visible petalite mineralization similar to previous assayed core intervals along its entire length. The drill hole exited pegmatite entering amphibolite host rock at 565 metres but it is not known whether this was due to the hole exiting the main body due to dip, or entering a narrow zone of amphibolite which is commonly observed within the deposit. However, the drill hole has increased the vertical depth of known petalite mineralization by 80%. Conclusions as to the grade of lithium is contingent on the pending assay results. Please note that this intercept does not represent a true width.

All drill hole data will be brought into Avalon's database and resource block model in order to develop an independent updated resource estimate for the deposit.

Commenting on the recent drilling results, Avalon's Chief Operating Officer, Rickardo Welyhorsky, says: "The early visual result of drill hole SR-23-93 demonstrates the depth potential of the deposit and shows the necessity of an extensive drill program to bring forward the mineralization between 315 and 565 metres from surface into the Separation Rapids lithium resource."

This news release was reviewed by the Dr. Bill Mercer, P. Geo. (ON). Dr. Mercer is a qualified person for the purposes of National Instrument 43-101, who has reviewed and approved the

technical information included in this news release.

Director Appointment

The Company is also pleased to announce the appointment of Mr. Scott Monteith to the Company's Board of Directors. He is the son of a previous director, Joe Monteith.

Mr. Monteith is an experienced clean tech executive, entrepreneur and business owner with a successful track record of moving inventions from ideation to commercial success. He is currently the Chair of Monteco Ltd., Cable House Capital Ltd. and Imtex Membranes Corporation. Mr. Monteith has extensive experience in the areas of chemical manufacturing, international businesses, M&A, government affairs and strategic planning.

Commented Avalon CEO, Don Bubar, "We are thrilled that Mr. Monteith has agreed to join Avalon's Board of Directors. His vast array of experience with start ups, especially in the area of chemicals manufacturing, will bring valuable guidance to the Company as we transition towards development of the critical minerals supply chain in Ontario."

About Avalon Advanced Materials Inc.

Avalon Advanced Materials Inc. is a Canadian mineral development company specializing in sustainably-produced materials for clean technology. The Company now has four advanced stage projects, providing investors with exposure to lithium, tin and indium, as well as rare earth elements, tantalum, cesium and zirconium. Avalon is currently focusing on developing its Separation Rapids Lithium Project near Kenora, Ontario while continuing to advance its other projects, including its 100%-owned Lilypad Cesium-Tantalum-Lithium Project located near Fort Hope, Ontario. Social responsibility and environmental stewardship are corporate cornerstones.

For questions and feedback, please e-mail the Company at ir@AvalonAM.com, or phone Zeeshan Syed, President, at 416-364-4938.

Table 1: Drill hole locations

Drill hole	UTM (NAD83 Zone 15)		Dip	Azimuth	End of hole (metres)
	Easting	Northing			
SR-22-81	388480	5568845	-65	360	486
SR-23-82	388400	5568875	-69	360	450
SR-23-83	388370	5568885	-70	360	447
SR-23-84	388425	5568900	-70	360	417
SR-23-85	388450	5568900	-66	360	450
SR-23-86	388525	5568900	-70	360	300
SR-23-87	388651	5569017	-60	180	132
SR-23-88	388648	5568968	-60	180	126
SR-23-89	388570	5569033	-55	180	201
SR-23-90	388570	5569033	-65	180	252
SR-23-91	388300	5568980	-50	360	177
SR-23-92	388300	5568980	-65	360	171
SR-23-93	388444	5569000	-90	NA	570
			TOTAL		4179

Table 2: Significant drill intersections

Drill hole	From (m)	To (m)	Drilled Width (m)	Estimated True Width (m)	Li20 %
SR-22-81	325.00	371.50	46.50	19.65	1.67
SR-23-82	325.00	452.50	127.50	45.69	0.73
including	325.00	371.50	46.50	16.66	1.67
SR-23-83	336.00	412.75	76.75	26.25	1.10

Drill hole	From (m)	To (m)	Drilled Width (m)	Estimated True Width (m)	Li20 %
including	336.00	367.70	31.70	10.84	1.44
and	378.10	390.80	12.70	4.34	1.66
SR-23-84	187.00	410.00	223.00	76.27	0.96
including	203.00	321.25	118.25	40.44	1.46
and	329.00	332.20	3.20	1.09	1.65
and	406.00	410.00	4.00	1.37	1.87
SR-23-86	167.25	300.00	132.75	45.40	0.96
including	167.25	185.25	18.00	6.16	1.22
and	216.00	244.00	28.00	9.58	1.49
and	271.85	300.00	28.15	9.63	1.80
SR-23-87	40.10	54.80	14.70	7.35	1.16
and	62.30	72.00	9.70	4.85	0.94
SR-23-88	84.25	93.00	8.75	4.38	1.13
SR-23-89	7.00	17.00	10.00	5.74	1.61
and	47.55	52.05	4.50	2.58	1.44
SR23-92	42.80	71.30	28.50	12.04	0.89
and	77.10	87.80	10.70	4.52	1.49

Notes to Table 2:

1. True widths are estimated assuming the mineralized zones are vertical and true width is horizontal. The calculation was completed using the collar angle of the drill hole. The near vertical nature is clearly apparent in drill sections.
2. For interval calculations a cutoff grade of 0.50% Li₂O was utilized which is similar to that used in previous

resource estimates. Mineralized intervals with overall grades considerably below 1% Li₂O are not quoted.

3. All drill core was split by Avalon staff on site near Kenora and shipped to ALS Global in Thunder Bay for preparation and on to ALS Vancouver for analysis by methods ME-MS81, ICP-06, and ME-4ACD81 for multi-element analysis including Li, Ta, Cs and Rb.
4. Some drill core samples had lithium values over limits for the analytical method (>10,000 ppm Li) were entered as 1% Li for calculation purposes. In these cases the interval grades will be underestimates. Samples over 10,000 ppm lithium are to be reanalyzed by Li-0G63, a lithium specific analytical method conducted by ALS Global.
5. Avalon inserted company certified lithium standards and blanks into the sample stream for QA/QC purposes. The results of the Avalon and laboratory standards and blanks were reviewed for acceptance by the QP, Dr. Bill Mercer, P. Geo. (ON), qualified person for the purposes of National Instrument 43-101, prior to accepting the laboratory results.
6. Lithium (Li) analyses in ppm were converted to Li₂O values by multiplying by 2.1527.
7. The drill program was supervised in the field by J.C. Pedersen (P. Geo) and A. Meek (P. Geo).

This news release contains "forward-looking statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995 and applicable Canadian securities legislation. Forward-looking statements include, but are not limited to, statements that winter 2023 diamond drilling program has potentially expanded the lithium resource at the Company's Separation Rapids Lithium Project, that the potential depth of the deposit may be increased by 80% from the previously tested 315 metres deepest intercept, and that all drill hole data will

be brought into Avalon's database and resource block model in order to develop an independent updated resource estimate for the deposit. Generally, these forward-looking statements can be identified by the use of forward-looking terminology such as "potential", "scheduled", "anticipates", "continues", "expects" or "does not expect", "is expected", "scheduled", "targeted", "planned", or "believes", or variations of such words and phrases or state that certain actions, events or results "may", "could", "would", "might" or "will be" or "will not be" taken, reached or result, "will occur" or "be achieved". Forward-looking statements are subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of Avalon to be materially different from those expressed or implied by such forward-looking statements. Forward-looking statements are based on assumptions management believes to be reasonable at the time such statements are made. Although Avalon has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking statements, there may be other factors that cause results not to be as anticipated, estimated or intended. Factors that may cause actual results to differ materially from expected results described in forward-looking statements include, but are not limited to market conditions, and the possibility of cost overruns or unanticipated costs and expenses as well as those risk factors set out in the Company's current Annual Information Form, Management's Discussion and Analysis and other disclosure documents available under the Company's profile at www.SEDAR.com. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Such forward-looking statements have been provided for the purpose of assisting investors in understanding the Company's plans and objectives and may not be appropriate

for other purposes. Accordingly, readers should not place undue reliance on forward-looking statements. Avalon does not undertake to update any forward-looking statements that are contained herein, except in accordance with applicable securities laws.