

23 January 2017

# ASX ANNOUNCEMENT



## AVALON MINERALS LTD DECEMBER 2016 QUARTERLY REPORT

**ASX: AVI**

### Gold Portfolio, Scandinavia (Avalon earning 80%)

- Large gold system identified at Satulinmäki gold prospect in Finland;
  - 147.0m at 0.8 g/t gold from 73m in SMDD007,
    - Including 23.5m at 3.3g/t from 143m
      - including 9.0m at 7.3 g/t from 147m
- Multiple intervals of gold mineralisation in other holes drilled by Avalon and GTK
- Results define a significant near-surface gold system with both narrow high grade intervals and wide lower grade intervals, all within 150m of surface that remains open in all directions;
- A detailed Induced Polarisation (“IP”) program is scheduled to commence in January with follow-up drilling planned once the results of the IP program are known;
- Avalon (100%) is building a strong land position over areas considered to be prospective for gold in Finland.

### Viscaria Copper Project, Sweden (Avalon - 100%)

- Low risk copper development opportunity – will add significant value within an increasing copper price environment;
- Environmental and Social Impact Assessment (ESIA) process is progressing, and represents the critical path to final permitting;
- Considerable exploration upside exists and low technical risk extensional drill targets have been defined to increase the resource estimate.

#### REGISTERED OFFICE

Avalon Minerals Ltd  
ABN 68 123 184 412  
9 Gardner Close  
Milton Qld 4064 Australia  
P + 61 7 3368 9888  
F + 61 7 3368 9899  
[info@avalonminerals.com.au](mailto:info@avalonminerals.com.au)  
[www.avalonminerals.com.au](http://www.avalonminerals.com.au)



23 January 2017

# ASX ANNOUNCEMENT



ASX: AVI

## Lithium Portfolio, Scandinavia (Avalon's 80% subsidiary Scandian Metals Pty Ltd (Scandian) earning 80%)

- Diamond drilling at Kietyönmäki returned 24.2m at 1.4% Li<sub>2</sub>O, including 9m at 2.0% Li<sub>2</sub>O (refer ASX Announcement dated 12 September 2016);
- Channel sampling at Kietyönmäki returned 16.25m at 1.72% Li<sub>2</sub>O;
- Next phase being planned.

### REGISTERED OFFICE

Avalon Minerals Ltd  
ABN 68 123 184 412  
9 Gardner Close  
Milton Qld 4064 Australia  
P + 61 7 3368 9888  
F + 61 7 3368 9899  
info@avalonminerals.com.au  
www.avalonminerals.com.au

### Corporate Highlights

- A\$2.7 million in cash at 31 December 2016;
- Placement of approximately \$2.5M before fees to new and existing sophisticated investors completed during the quarter;
- Participation in the placement by two directors is subject to shareholder approval at a General Meeting to be held on 14 February 2017.

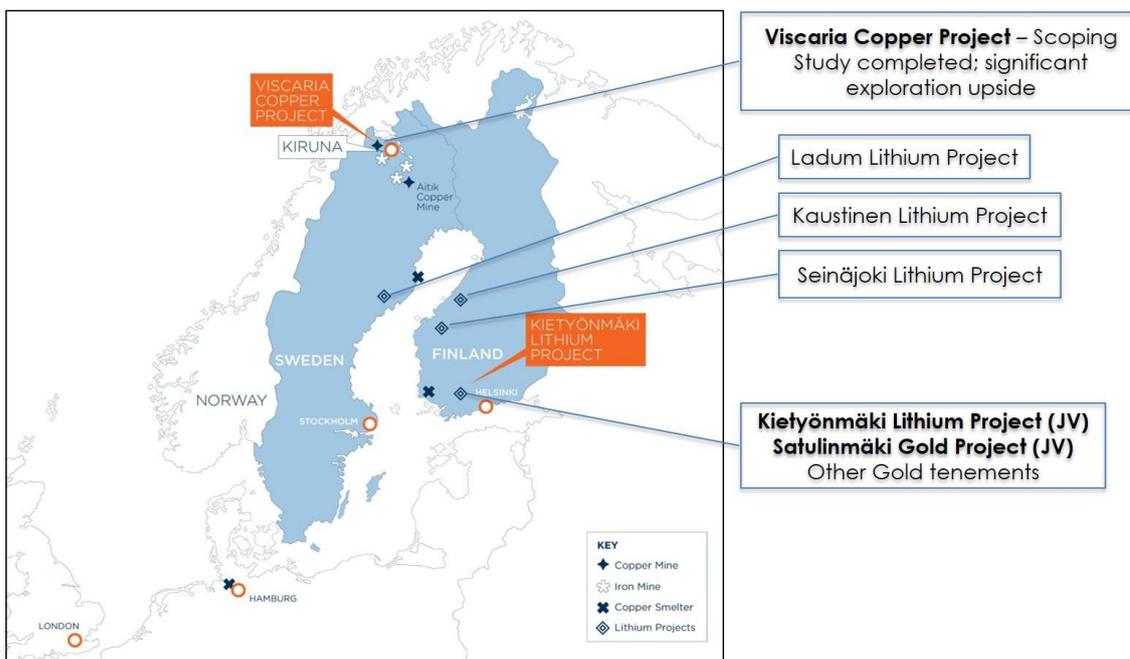


Figure 1: Project Locations

## Exploration and Development Activities

### Gold Portfolio

#### Tammela Gold Opportunity, Finland (Avalon earning 80% from Nortec Minerals)

The Nortec earn-in agreement includes two known gold opportunities, Satulinmäki and Riukka, held within the claim areas. All historical drilling is shallow and has only tested to ~70m below surface. Historical assays from diamond drilling by the Finnish Geological Survey (GTK) **included 22m @ 3.6 g/t Au from 50 metres** (hole 391) at Satulinmäki.

At Satulinmäki Avalon completed seven diamond drill holes during the quarter for 1,401.6m. Results are presented in Table 1 and highlights include (refer ASX Announcement dated 14 November 2016);

- **7.0m at 1.2g/t gold from 9m in SMDD001**
- **10.0m at 1.1 g/t gold from 33m in SMDD001**
- **1.0m at 15.2g/t gold from 57m in SMDD001**
- **42.0m at 0.9 g/t gold from 112m in SMDD002**
- **2.0m at 2.1 g/t gold from 237m in SMDD003**
- **13.4m at 2.0 g/t gold from 15.6m in SMDD004**
- **0.8m at 3.5 g/t from 170.5m in SMDD004**
- **2.0m at 10.5 g/t gold from 7m in SMDD005**
- **147.0m at 0.8 g/t gold from 73m in SMDD007,**
  - **Including 23.5m at 3.3g/t from 143m**
    - **including 9.0m at 7.3 g/t from 147m**

The results from Avalon's drilling, together with the historical drilling results of the Finnish Geological Survey, clearly show a large gold system of broad mineralised zones and sub-parallel narrow veins. The system is open in all directions, and has a length of at least 400m, a vertical extent of at least 150m, and ranges up to approximately 50m thick. There is clear evidence of likely extensions to the northeast and southwest, and an historic working from the 1980's was found in the southeast corner which has seen only one historic drill hole as follow-up.

The deepest hole drilled by Avalon, SMDD003, explored to only 200m below surface and was still in anomalous gold levels at that depth.

Historical diamond drilling by the Geological Survey of Finland (GTK) was undertaken from 2001 to 2005. GTK drilled 60 holes for 4727m but did not explore below 70m. Detailed review of results has highlighted multiple intervals above 1 g/t, and other highly anomalous intervals in areas of very limited drilling. Additionally, not all intervals were sampled by GTK and Avalon has completed a sampling program to test these other structures.

Within the main system, gold mineralisation has been identified as narrow high grade zones within quartz veins and breccias, and as wide low grade intervals within veined and altered rock. Figures 3 and 4 illustrate the currently interpreted structures and assay results at two different elevations. Figure 4 shows very clearly the sparsity of drilling below 55m depth, and hence the opportunity to expand the gold mineralised area with further drilling.

The area shown in figures 3 & 4 represents only a portion of the Satulinmäki Prospect, with the broader Satulinmäki Prospect and the zone between Satulinmäki and Riukka (Figures 5 & 6) requiring exploration.

The combination of thick lower grades and narrow higher grades at Satulinmäki represents significant opportunities for follow-up drilling and consideration of development options.

A detailed geophysical Induced Polarisation ("IP") program will commence in January. Follow-up drilling is expected to commence following the results of this IP program.

At Riukka, located 4km to the south-east, Avalon has completed 3 diamond drill holes.

The holes intersected quartz veins at depth below quartz vein hosted gold mineralised intervals drilled by the Finnish Geological Survey and containing up to 2m at 16.6 g/t gold. GTK drilled 41 diamond drill holes for 3,404 meters during the period 2001-2005 in the broader Riukka area.

Assay results from Riukka received to date are shown below in Table 4. Mineralisation was weak but was targeted on a narrow sub-vertical plunge. This interpretation has now been modified based on these results, and work at Satulinmäki, with further drilling at Riukka planned for 2017 to explore the historical high grade results to depth once the structural geology is clarified.

#### **Other Gold Opportunities (Avalon 100%)**

Based on Avalon's regional assessment of gold prospectivity in southern Finland, several applications have been lodged for Exploration Reservations covering known gold occurrences. These areas are held 100% by Avalon and will be explored systematically.

#### **Lithium Portfolio**

##### **Kietyönmäki Lithium Project (Avalon's 80% subsidiary Scandian Metals Pty Ltd (Scandian) earning 80%)**

The Nortec earn-in agreement area includes the Kietyönmäki lithium occurrence which was discovered by the Finnish Geological Survey (GTK) in the mid-1980's. Lithium mineralisation at Kietyönmäki is hosted in a spodumene-bearing pegmatite dyke swarm. The Kietyönmäki lithium pegmatite deposit was drilled by GTK during the period 1987 and 1988. Seventeen shallow diamond drill holes were completed to test down to 70m below surface across three traverses, including one traverse of very shallow holes to identify bedrock.

A total of six diamond drill holes for 1,171.9m have been drilled by Avalon at Kietyönmäki and have confirmed a high grade spodumene-bearing pegmatite dyke swarm. Assay results for the six holes drilled are shown in Table 2.

Channel sampling has also been completed on 7 traverses – 3 over the main dyke, and 4 over smaller dykes and has returned up to 16.25m at 1.72% Li<sub>2</sub>O (see table 3 below, and figure 9).

The results suggest continuation of a thickened pegmatite dyke to the south-east and this trend is expected to be tested with future drilling. Further work is required to better understand the geology,

however initial results are encouraging. Further work is being done on characterising the geochemical components of the dyke swarm to assist with future targeting of drill holes. Nb<sub>2</sub>O<sub>5</sub> and Ta<sub>2</sub>O<sub>5</sub> are both anomalous (in places highly anomalous) within logged pegmatite dykes and may help characterise other dykes for further exploration. There are several dykes with known lithium anomalism that have not been explored to date and these will be targeted in future drilling programs.

### **Kaustinen Lithium Project**

Avalon, through Scandian has been granted an Exploration Reservation covering 299 km<sup>2</sup>, in the Kaustinen area within the Central Ostrobothnia district, home to several known lithium pegmatites some of which are at an advanced stage of Pre-Feasibility Study and held by private Finnish company Keliber Oy.

Scandian has also applied for smaller Exploration Permit applications directly adjacent to two defined lithium deposits.

### **Seinäjoki Lithium Project**

One Exploration Reservation has been granted to Scandian over an area of 206 km<sup>2</sup> covering a documented lithium pegmatite occurrence, and at the southern end of the regional geological province that includes the Kaustinen district in the north. Reconnaissance exploration will now be undertaken in this area.

### **Ladum Lithium Project**

**In Sweden** Avalon, through Scandian, has entered into a Heads of Agreement with private Australian interests to explore three approved Exploration Concessions and an application for an Exploration Concession in Vasternorrlands, collectively referred to as the Ladum Project.

The Ladum Project covers areas within a regional pegmatite district that has seen minor historical exploration, primarily for tin. Most of this exploration was undertaken by LKAB in the 1980's. The exploration work included geophysics, till-sampling, and general geological mapping and investigations. This work resulted in a number of tin, niobium, tantalum and lithium bearing pegmatites being defined.

Data compilation and an initial field program on the Ladum Project have been completed. Results will be reviewed and further mapping and sampling is expected to be undertaken in the northern hemisphere spring (Q2, 2017).

### **Tenements**

During the quarter, the following tenement applications were approved in Sweden and Finland, by Avalon's 80% owned subsidiary Scandian Metals Pty Ltd (through its 100% owned Swedish subsidiary Scandian Metals AB):

- Fannbyasen nr 2 Exploration Concession, Vasternorrlands, Sweden
- Ypäjä Exploration Reservation, Somero, Finland

In addition, the tenement Viscaria 113 has not been renewed and has therefore lapsed.



## **Viscaria Copper Project**

### **Environmental and Social Impact Assessment (ESIA) and Permitting**

The Viscaria ESIA process is being progressed. These activities will deliver the necessary documents for application for a Permit to Mine from the Swedish Land and Environmental Court. The process is focussed on the immediate Viscaria area and supports planning for mine development initially within the approved Exploitation Concessions K3 and K4.

The environmental permitting is the primary focus of activities at this stage to further de-risk the project and support ongoing studies.

### **Viscaria Scoping Study**

Additional drilling is planned on targeted D Zone underground, and A & B Zone open pit areas. A resource update will occur at the completion of this drilling, together with an update to the Scoping Study.

## **Corporate**

**Cash Resources** - The Company's unaudited cash position for 31 December, 2016 was A\$2.7 million.

### **Capital Raising**

On 7 December 2016 the Company announced a placement to raise approximately A\$2.5 million before fees.

Funds raised by the Placement will be applied to:

- Exploration and development activities at the large Viscaria Copper Project in the Kiruna mining region of Northern Sweden, and a number of high priority near mine exploration targets.
- Advancing exploration activities comprising geophysics and drilling at the Satulinmäki gold prospect.

The placement consisted of 125,500,000 shares to new and existing sophisticated investors under the Company's available capacity, at 2 cents per share.

Participation in the placement by two directors is subject to shareholder approval at a General Meeting to be held on 14 February 2017.

Following approval at the AGM held in November 2016, 2,578,125 shares were issued to directors in lieu of cash directors fees.

### **Shareholder Information**

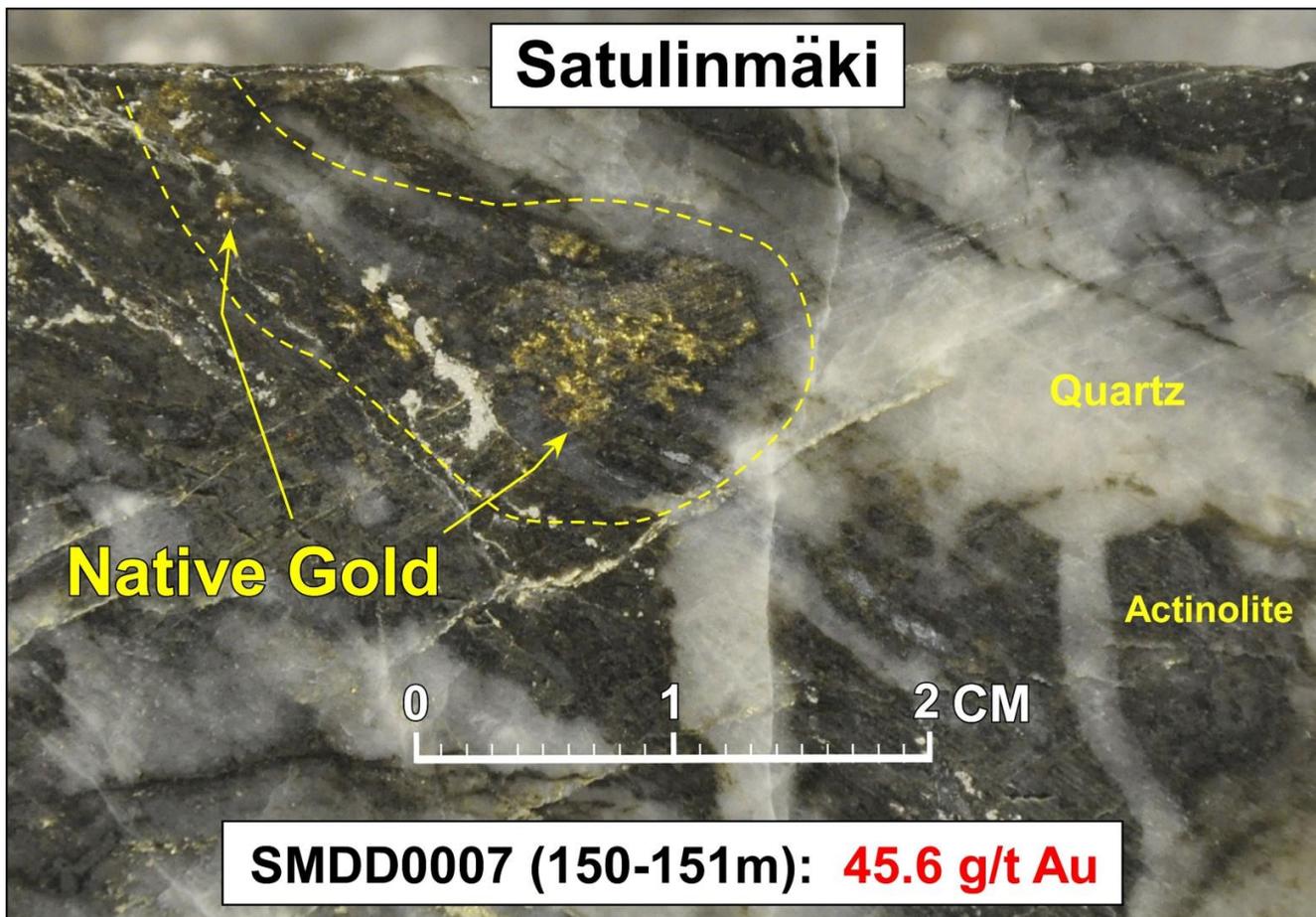
As at 31 December 2016, the Company had 648,517,561 fully paid ordinary shares on issue and 892 shareholders.



**Notes Specific – December 2016 Quarter ASX Announcements**

The following announcements, which relate to information in this Quarterly Report, were lodged with the ASX during the Quarter. Further details (including JORC 2012 Code Reporting Tables, where applicable) for the results summarised above can be found in the announcements:

Large Gold System Identified at Satulinmaki Prospect	17/10/2016
Multiple Gold Bearing Structures Drilled at Satulinmaki	14/11/2016
Managing Director's Presentation to AGM	16/11/2016
Investor Update Presentation	1/12/2016
Avalon Minerals to Complete Placement	7/12/2016
Appendix 3B and LR 3.10.5A disclosure	14/12/2016



**Figure 2:** Visible gold in hole SMDD007 from Satulinmäki at 150m



**Table 1: Intersections from Avalon diamond drill holes from Satulinmäki gold prospect, holes SMDD001 to SMDD007, include:**

<b>Drill Hole Number</b>	<b>From (m)</b>	<b>To (m)</b>	<b>Interval (m)</b>	<b>Au (g/t)</b>	
<b>SMDD001</b>	9.0	16.0	7.0	1.2	
	33.0	43.0	10.0	1.1	
	57	58	1.0	15.2	
<b>SMDD002</b>	10.0	11.0	1.0	1.7	
	71.0	72.0	1.0	1.3	
	85.0	86.8	1.8	1.6	
	112.2	113	0.8	1.3	
	121.4	163.3	41.9	0.9	
	<i>includes</i>	121.4	126.0	4.6	2.5
		121.4	122.3	0.9	7.6
		129.0	130.0	1.0	1.3
		135.0	138.5	3.5	2.4
		154.0	156.0	2.0	1.8
	161.0	163.3	2.3	1.3	
<b>SMDD003</b>	18.0	19.0	1.0	1.2	
	76.0	77.0	1.0	1.3	
	117.7	118.4	0.7	1.1	
	233.0	234.0	1.0	1.3	
	237.0	239.0	2.0	2.1	
<b>SMDD004</b>	15.6	29.0	13.4	2.0	
	<i>includes</i>	27.1	28.1	1.0	19.5
		122.0	123.0	1.0	1.0
		170.5	171.3	0.8	3.5
		175.0	177.0	2.0	1.1
<b>SMDD005</b>	7.0	9.0	2.0	10.5	
	74.0	75.0	1.0	1.7	
	80.4	81.4	1.0	1.2	
	122.2	123.2	1.0	1.6	
	162.4	163.1	0.7	1.0	
<b>SMDD006</b>	13.0	14.0	1.0	2.6	
	23.9	25.9	2.0	1.0	
	41.1	44.1	3.0	1.1	

<b>SMDD007</b>	73.0	220.0	147.0	0.8	
<i>includes</i>					
	73.0	78.9	5.9	1.2	
	143.0	166.5	23.5	3.3	
<i>includes</i>					
	147.0	156.2	9.2	7.3	
	150.0	151.0	1.0	45.6	
	176.0	177.0	1.0	3.7	
	196.9	205.9	9.0	1.6	
	209.0	214.5	5.5	0.5	
	218.5	220.0	1.5	0.6	
	275.0	277.0	2.0	1.4	
	298.7	299.4	0.7	0.4	<i>EOH, open anomalism</i>

**Table 2: Intersections from Avalon diamond drill holes from Kietyönmäki lithium prospect, holes KMDD001 to KMDD006, include:**

Drill Hole Number	From (m)	To (m)	Interval (m)	Li <sub>2</sub> O (%)	Nb <sub>2</sub> O <sub>5</sub> (ppm)	Ta <sub>2</sub> O <sub>5</sub> (ppm)
<b>KMDD001</b>	14.0	15.0	1.0	0.6	131.8	111.4
	17.9	60.0	<b>42.1</b>	<b>1.1</b>	73.6	76.0
<i>includes</i>	17.9	42.1	<b>24.2</b>	<b>1.4</b>	85.4	91.8
<i>includes</i>	29.0	38.0	<b>9.0</b>	<b>2.0</b>	92.4	99.5
	60.7	65.7	5.0	0.2	29.8	19.3
	97.5	100.5	3.0	0.4	107.3	128.2
<b>KMDD002</b>	15.5	18.6	<b>3.1</b>	<b>1.0</b>	166.9	282.0
	115.1	121.1	<b>6.0</b>	<b>0.9</b>	95.9	95.0
<b>KMDD003</b>	no significant assays over 0.5% Li <sub>2</sub> O; several thin pegmatites highly anomalous in Nb <sub>2</sub> O <sub>5</sub> and Ta <sub>2</sub> O <sub>5</sub>					
<b>KMDD004</b>	drilled on north side of faulted-off section of dyke swarm; minor thin pegmatites anomalous in Nb <sub>2</sub> O <sub>5</sub> and Ta <sub>2</sub> O <sub>5</sub>					
<b>KMDD005</b>	drilled on north side of faulted-off section of dyke swarm; minor thin pegmatites anomalous in Nb <sub>2</sub> O <sub>5</sub> and Ta <sub>2</sub> O <sub>5</sub>					
<b>KMDD006</b>	161.0	163.0	<b>2.0</b>	<b>1.9</b>	49.0	85.9
	167.0	176.0	9.0	0.8	57.7	58.6
<i>includes</i>	167.0	172.0	<b>5.0</b>	<b>1.0</b>	65.3	60.1

**Table 3: Intersections from Avalon channel sampling from Kietyönmäki lithium prospect, channels 1 to 7:**

Channel Number	Width (m)	Li <sub>2</sub> O (%)	Nb <sub>2</sub> O <sub>5</sub> (ppm)	Ta <sub>2</sub> O <sub>5</sub> (ppm)
1	<b>16.3</b>	<b>1.7</b>	115.6	130.2
2	<b>7.7</b>	<b>1.2</b>	100.2	111.3
3	2.0	0.1	74.6	94.3
4	<b>3.4</b>	<b>1.7</b>	78.7	87.4
5	2.8	0.3	96.3	156.5
6	<b>2.3</b>	<b>1.1</b>	105.4	163.5
7	2.1	0.2	95.8	129.7

**Table 4: Intersections from Avalon diamond drill holes from Riukka gold prospect, holes RIDD001 to RIDD003, include:**

Drill Hole Number	From (m)	To (m)	Interval (m)	Au (g/t)
<b>RIDD001</b>	88	89	1.0	0.2
	104.1	104.3	0.2	0.8
	108.2	109.2	1.0	1.5
<b>RIDD002</b>	75.5	78.5	3.0	0.2
<b>RIDD003</b>	169.1	170.2	1.1	0.2
	179.2	181.8	2.6	0.2



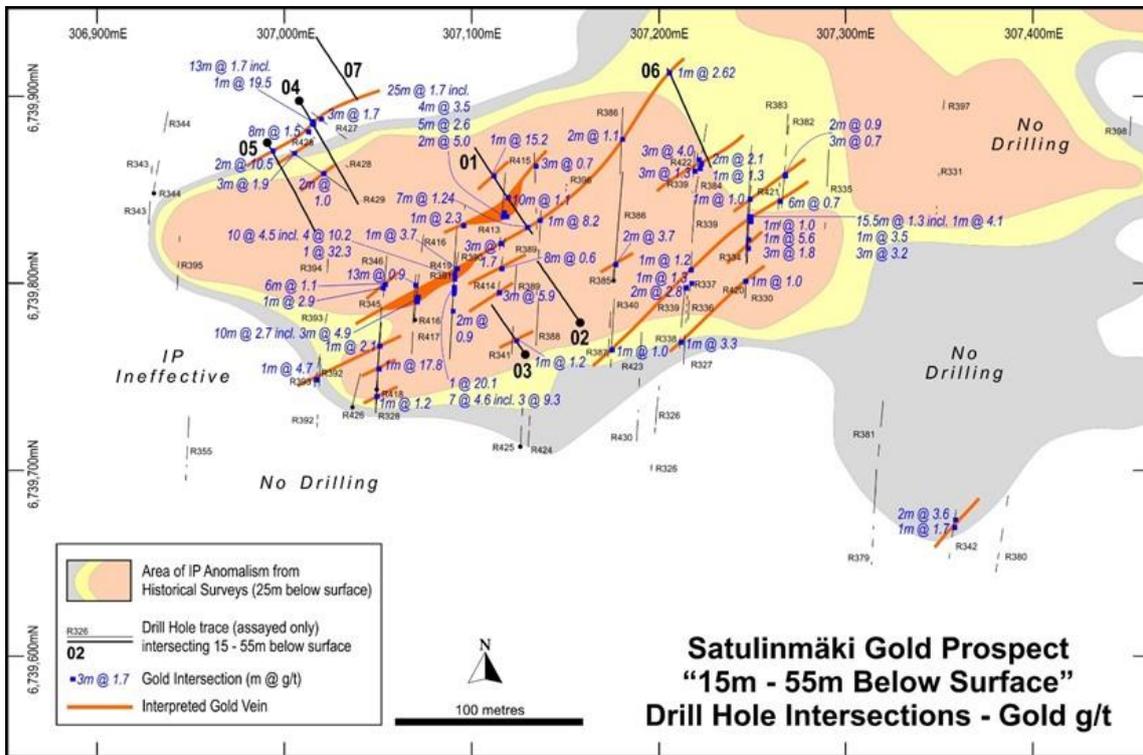


Figure 3: Plan map of assay results from Avalon and GTK drilling at 15m to 55m below surface

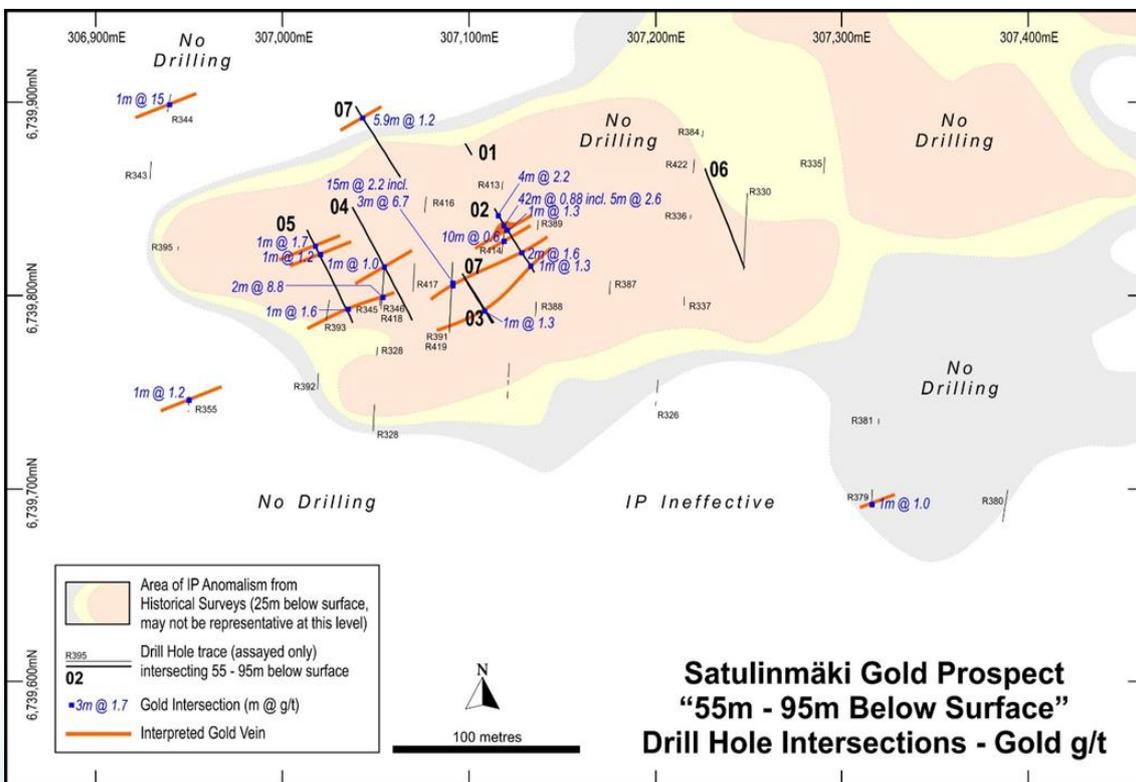
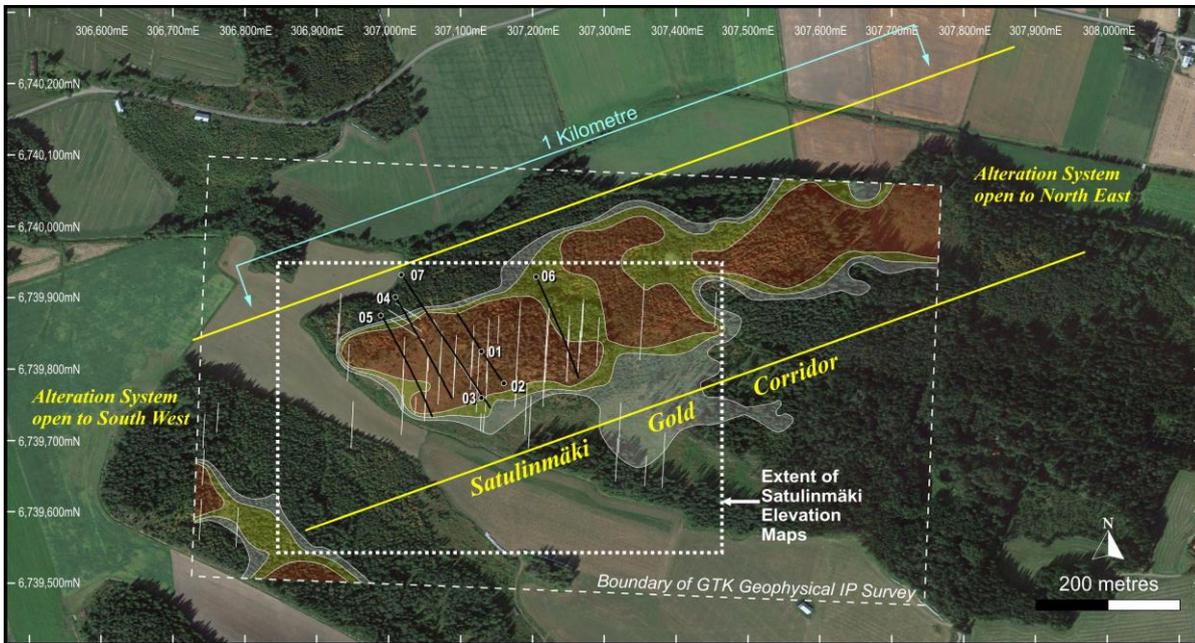
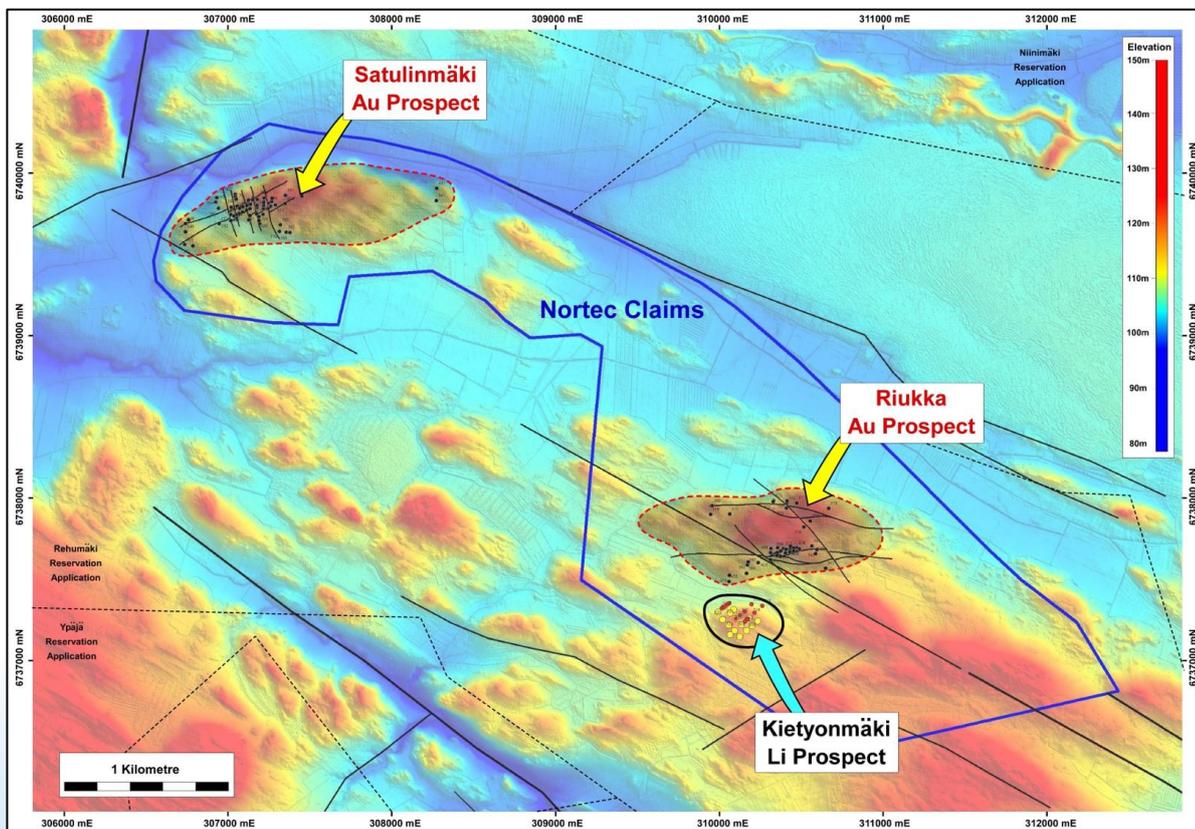


Figure 4: Plan map of assay results from Avalon and GTK drilling at 55m to 95m below surface. The area of IP anomalism is shown at 25m below surface and was ineffective below this depth.



**Figure 5:** Plan view of Satulinmäki Prospect showing extent of drilling, existing IP survey, structural corridor and extent of Satulinmäki Elevation Maps.



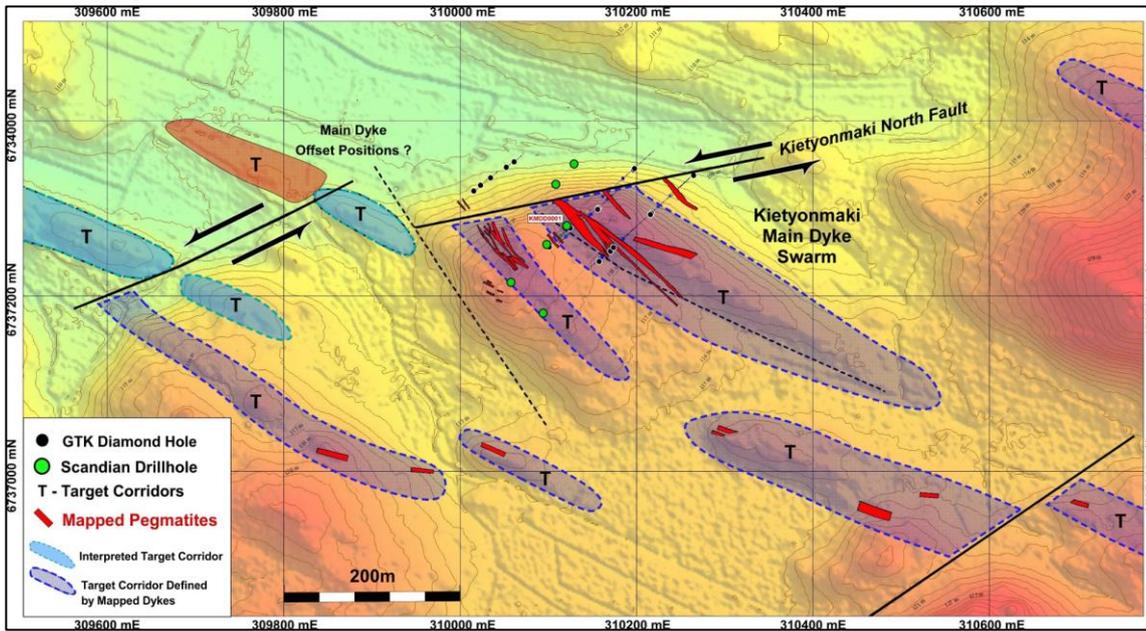
**Figure 6:** location of Satulinmäki and Riukka showing small areas tested by drilling to date.

Table 5 listing current holes drilled at Satulinmäki (SMDD), Kietyönmäki (KMDD), and Riukka (RIDD) by Avalon.

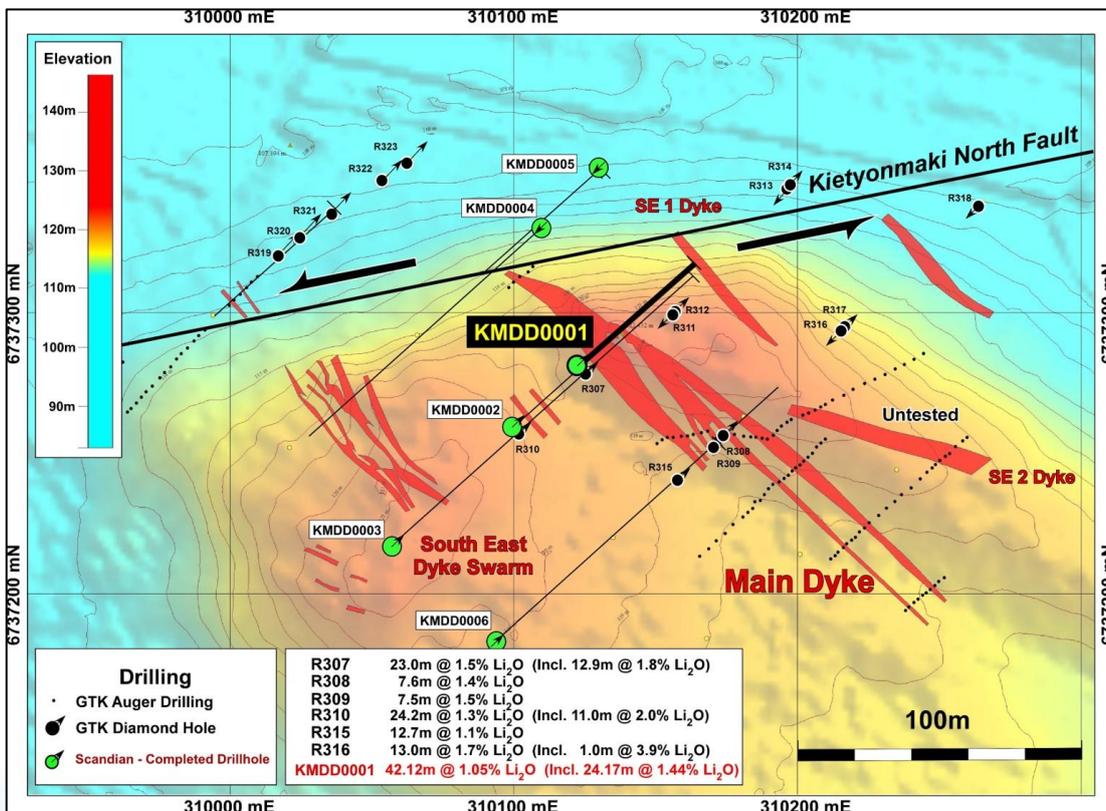
Hole ID	Collar Easting (m)	Collar Northing (m)	RL (m)	Magnetic Azimuth (deg.)	Dip (deg.)	EOH Length (m)
SMDD0001	307130	6739825	122	313.86	-48	92.9
SMDD0002	307160	6739780	116	313.86	-52	169.6
SMDD0003	307130	6739760	114	313.86	-60	242.7
SMDD0004	307010	6739900	113	138.86	-35	194.2
SMDD0005	306990	6739875	111	138.86	-40	206.3
SMDD0006	307205	6739930	120	143.86	-40	196.5
SMDD0007	307018	6739932	113	135.86	-46	299.4

Hole ID	Collar Easting (m)	Collar Northing (m)	RL (m)	Magnetic Azimuth (deg.)	Dip (deg.)	EOH Length (m)
KMDD0001	310125	6737279	119.50	36.86	-60	110
KMDD0002	310101	6737257	120.00	36.86	-60	170
KMDD0003	310057	6737217	121.20	36.86	-55	253.4
KMDD0004	310108	6737328	113.32	216.86	-60	221.7
KMDD0005	310129	6737351	109.14	216.86	-60	182.4
KMDD0006	310094	6737183	119.86	36.86	-55	234.4

Hole ID	Collar Easting (m)	Collar Northing (m)	RL (m)	Magnetic Azimuth (deg.)	Dip (deg.)	EOH Length (m)
RIDD001	310371	6737599	112.00	351.86	-40	170
RIDD002	310403	6737621	114.00	351.86	-39	151.6
RIDD003	310368	6737535	111.00	351.86	-40	225



**Figure 7:** Kietyönmäki lithium project. Current interpretation of pegmatite dyke distribution, target areas and fault offsets. Image background is topography.



**Figure 8:** Plan view of Kietyönmäki lithium deposit showing collar positions for KMDD001 – 006 in green. The red domains are the outcrop positions of spodumene bearing lithium pegmatites. The background image is topography. The Kietyönmäki North Fault is interpreted to offset the main pegmatite dyke to the west. Figures 9 and 10 are cross sections on the lines of holes KMDD001-003, and KMDD006.



Figure 9: Channel sampling across the main Kietyönmäki lithium pegmatite dyke



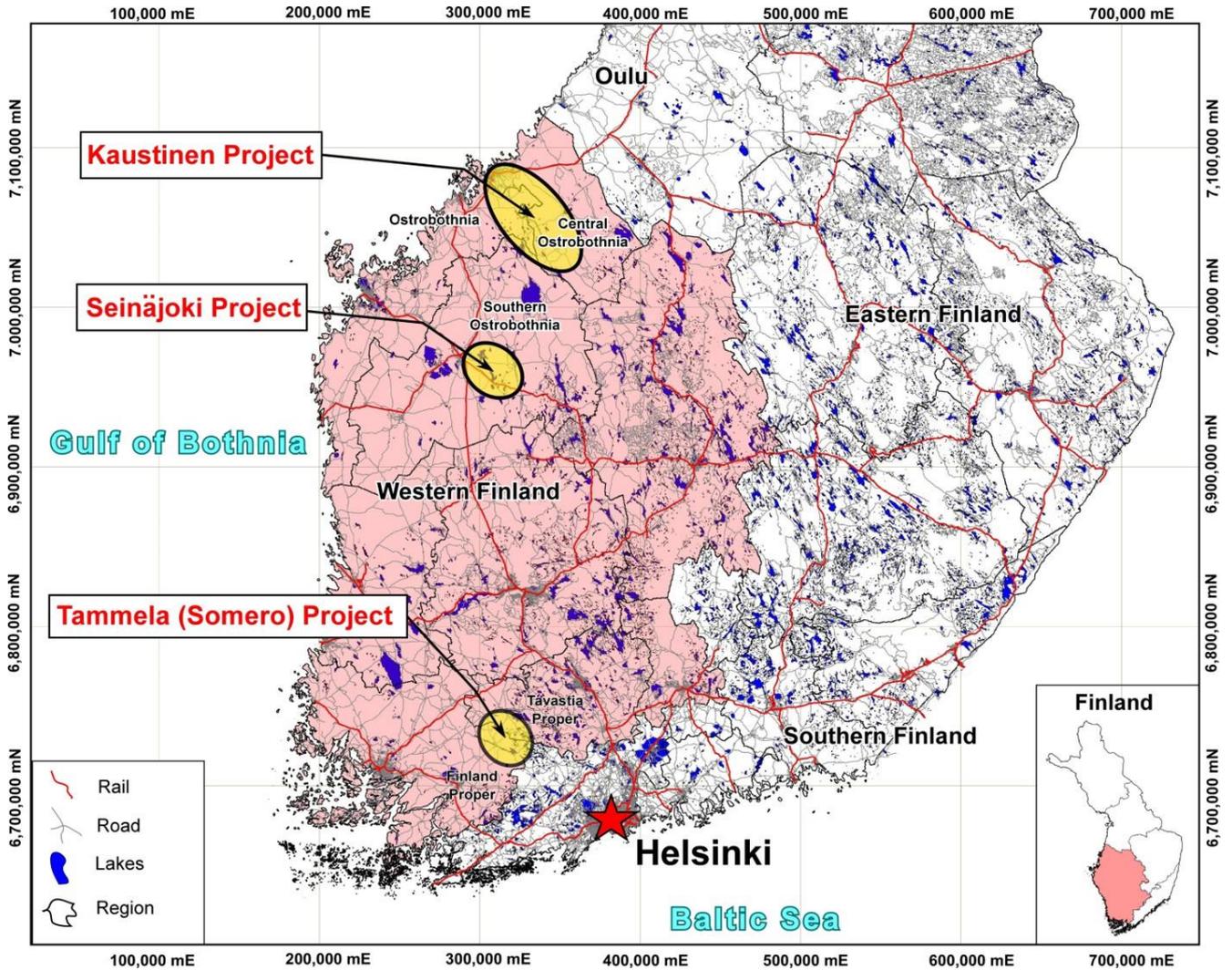


Figure 10: Locations of lithium projects in Finland within the Avalon portfolio.



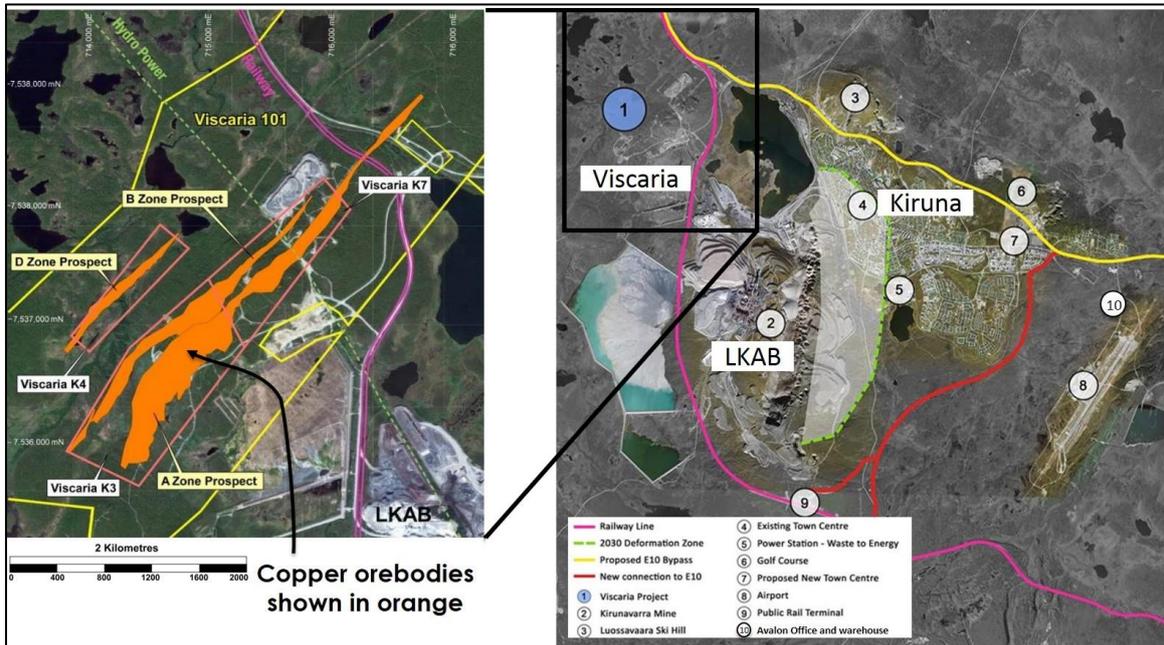


Figure 11: Location of the Viscaria Copper Project.

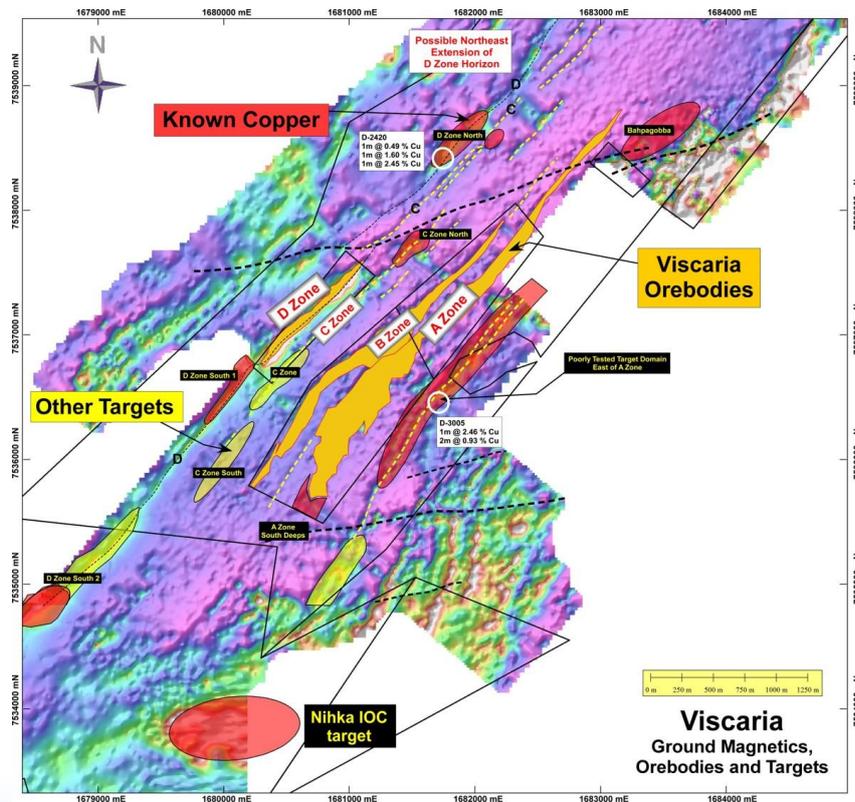


Figure 12: Location of targets relative to the Viscaria Copper Project development area (A, B and D Zones). Background image is airborne magnetic data.

### **Competent Persons Statement**

The information in this report that relates to exploration results is based upon information reviewed by Dr Bruce Rohrlach who is a Member of the Australasian Institute of Mining and Metallurgy. Dr Rohrlach is a full-time employee of Avalon Minerals Ltd and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr Rohrlach consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



**TENEMENT SCHEDULE**

At the end of the quarter, the Company holds the following tenements:

**Gold Tenements**

Tenement Holder	Tenement Name	Location	Status	Avalon Ownership
Tammela Minerals Oy	Somero 1-12	Somero, Finland	Granted	0%*
Tammela Minerals Oy	Rehumäki	Somero, Finland	Granted	0%*
Scandian Metals AB	Niinimäki	Somero, Finland	Granted	100%
Scandian Metals AB	Kaila	Somero, Finland	Granted	100%
Scandian Metals AB	Ypäjä	Somero, Finland	Granted	100%
Scandian Metals AB	Kukonharja	Somero, Finland	Application	100%
Scandian Metals AB	Paimio	Somero, Finland	Application	100%

**Lithium Tenements**

Tenement Holder	Tenement Name	Location	Status	Avalon Ownership
Scandian Metals AB	Ladumyrberget nr 1	Vasternorrlands, Sweden	Granted	80%
Scandian Metals AB	Ojaklacken nr 1	Vasternorrlands, Sweden	Granted	80%
Scandian Metals AB	Fannbyasen nr 1	Vasternorrlands, Sweden	Granted	80%
Scandian Metals AB	Fannbyasen nr 2	Vasternorrlands, Sweden	Granted	80%
Tammela Minerals Oy	Tammela 1-3	Somero, Finland	Granted	0%*
Tammela Minerals Oy	Rehumäki	Somero, Finland	Granted	0%*
Scandian Metals AB	Niinimäki	Somero, Finland	Granted	80%
Scandian Metals AB	Kaila	Somero, Finland	Granted	80%
Scandian Metals AB	Loulus	Kaustinen, Finland	Granted	80%
Scandian Metals AB	Kivijärvi	Seinäjäki, Finland	Granted	80%
Scandian Metals AB	Hietahauta	Kaustinen, Finland	Application	80%
Scandian Metals AB	Viitala	Kaustinen, Finland	Application	80%

### Copper Tenements

Tenement Holder	Tenement Name	Location	Status	Avalon Ownership
Avalon Minerals Viscaria AB	Viscaria No 1	Norrbottn, Sweden	Granted	100%
Avalon Minerals Viscaria AB	Viscaria No 2	Norrbottn, Sweden	Granted	100%
Avalon Minerals Viscaria AB	Viscaria No 101	Norrbottn, Sweden	Granted	100%
Avalon Minerals Viscaria AB	Viscaria No 107	Norrbottn, Sweden	Granted	100%
Avalon Minerals Viscaria AB	Viscaria No 112	Norrbottn, Sweden	Granted	100%
Avalon Minerals Viscaria AB	Viscaria No 113	Norrbottn, Sweden	Relinquished	0%^
Avalon Minerals Viscaria AB	Huornas No 1	Norrbottn, Sweden	Granted	100%
Avalon Minerals Viscaria AB	Huornas No 2	Norrbottn, Sweden	Granted	100%
Avalon Minerals Viscaria AB	Viscaria K No 3	Norrbottn, Sweden	Granted	100%
Avalon Minerals Viscaria AB	Viscaria K No 4	Norrbottn, Sweden	Granted	100%
Avalon Minerals Viscaria AB	Viscaria K No 7	Norrbottn, Sweden	Granted	100% <sup>x</sup>
Avalon Minerals Viscaria AB	Nihka East	Norrbottn, Sweden	Granted	100%
Avalon Minerals Adak AB	Goddevarri	Norrbottn, Sweden	Granted	100%

<sup>\*</sup>Subject to earn-in joint venture with Nortec Minerals Corp. (Tammela Minerals Oy).

<sup>x</sup>The approved, but under appeal, K7 Exploitation Concession at Viscaria has been returned to the Swedish Mines Inspectorate for further review as part of an industry wide review of appealed exploitation concessions in Sweden.

<sup>^</sup> Relinquished during the December 2016 quarter.



## DIRECTORY

**AVALON MINERALS LIMITED**  
**ABN 68 123 184 412**

**Web site:**

[www.avalonminerals.com.au](http://www.avalonminerals.com.au)

**Email:**

[info@avalonminerals.com.au](mailto:info@avalonminerals.com.au)

**Stock Exchange Listing**

Australian Stock Exchange

ASX Code: AVI

**Investor Information Contacts:**

Mr Gavin Leicht - Company Secretary  
Avalon Minerals Limited  
Tel: 07 3368 9888  
Email:  
[gavin.leicht@avalonminerals.com.au](mailto:gavin.leicht@avalonminerals.com.au)

**Shareholder Enquiries:**

Share registry matters should be directed to:

Computershare Investor Services  
Phone: 1300 850 505  
Website: [www.computershare.com.au](http://www.computershare.com.au)

**Registered Office:**

9 Gardner Close  
Milton Queensland 4064  
Phone: 07 3368 9888  
Fax: 07 3368 9899

**Issued capital:**

Ordinary shares: 648,517,561 (AVI)  
Quoted Options: 147,337,500 (AVIO)\*  
(at 31 December 2016)

\* exercisable at 3 cents on or before 31 August 2019

**Directors:**

Graham Ascough – Non-Executive Chairman  
Malcolm Norris – CEO/Managing Director  
Crispin Henderson – Non-Executive Director  
Don Hyma - Non-Executive Director

**Company Secretary:**

Gavin Leicht

For further information please visit [www.avalonminerals.com.au](http://www.avalonminerals.com.au) or contact:

Avalon Minerals Limited  
T: 07 3368 9888  
E: [info@avalonminerals.com.au](mailto:info@avalonminerals.com.au)  
[www.avalonminerals.com.au](http://www.avalonminerals.com.au)

## APPENDIX 2

The following Table and Sections are provided to ensure compliance with the JORC Code (2012 Edition)

**TABLE 1 – Section 1: Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</li> </ul>	<ul style="list-style-type: none"> <li>The results announced here are from recently completed diamond drill holes and historical diamond drill core samples drilled in 1985 by the Geological Survey of Finland (GTK) and subsequently re-logged and selectively re-sampled by Nortec Minerals Corp. 17 drill holes were completed by GTK and Nortec's check sampling was from one drill hole, R310.</li> <li>Assays for KMDD001-006 are from recently completed drilling undertaken by Avalon Minerals through subsidiary Scandian Metals at the Kietymäki lithium prospect.</li> <li>Assays for Channel sampling are from cut channels within the main Kietymäki lithium occurrence.</li> <li>Assays for RKDD001-003 are from recently completed drilling undertaken by Avalon Minerals at the Riukka gold prospect.</li> <li>Table 1 for Satulinmäki drilling has been previously released on 14 November 2016.</li> </ul>
	<ul style="list-style-type: none"> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> </ul>	<ul style="list-style-type: none"> <li>Core recovery has been measured by Avalon and is almost 100% across all intervals.</li> </ul>
	<ul style="list-style-type: none"> <li>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>RKDD001-003 diamond drill core samples were prepared using ALS procedure PREP-33D designed specifically for rocks containing high grade or coarse gold and/or silver. Samples were crushed to 90% less than 2mm, riffle split off 1 Kg (larger than normal), with the split pulverised to better than 95% passing 106 microns (a coarser pulverisation than normal, designed to counter the possibility of gold smearing).</li> <li>Au was assayed by Fire Assay on a 50-gram aliquot. The aliquot was cupelled to yield a precious metal bead, which was then underwent acid digestion prior to analysis by atomic absorption spectroscopy against matrix-matched standards.</li> <li>A total of 33 additional elements were analysed by ALS technique ME-ICP61 which involves HNO<sub>3</sub>-HClO<sub>4</sub>-HF-HCl digestion and HCl Leach (GEO-4ACID) with analysis by Inductively Coupled Plasma - Atomic</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>Emission Spectroscopy (ICP - AES).</p> <ul style="list-style-type: none"> <li>• KMDD001-006 diamond drill core samples were analysed for: <ul style="list-style-type: none"> <li>○) Lithium plus a selection of 18 major and minor elements were analysed by Peroxide Fusion followed by ICP-AES analysis (ME-ICP81x).</li> <li>○2) Niobium and tantalum plus a selection of 12 trace elements were analysed by lithium borate fusion followed by ICP-AES analysis (ME-MS85).</li> </ul> </li> <li>• In addition, a selection of samples from pegmatite were also analysed for lithium by a second method involving a 4-acid digestion followed by ICP-AES analysis (Li-OG63).</li> <li>• Assays for the cut channel samples were under the same specifications as the lithium drilling above. The cut channels were sampled over approximate 1m samples.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>• <i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).</i></li> </ul>	<ul style="list-style-type: none"> <li>• Diamond drill core.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Diamond core recovery was measured against drilled intervals and is of high quality.</li> <li>• Good core recovery has been delivered from the recently completed drilling. A comprehensive selection of historical drill holes has been viewed and also shows good core recovery.</li> <li>• No relationship between sample recovery and grade is evident.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drill samples have been logged for lithology and geotechnical data by contracting group Palsatech Oy under the guidance of Avalon Minerals.</li> <li>• Drill samples were logged for lithology and hence logging is qualitative.</li> <li>• The logging procedure includes core photography, geological and geotechnical logging, and representative specific gravity measurements.</li> <li>• All drill holes were logged in full from start to finish of the hole.</li> </ul>
	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Half core was sampled and the remaining core is stored in a secure core storage facility operated by Palsatech.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li><i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i></li> </ul>	<ul style="list-style-type: none"> <li>Core samples.</li> </ul>
	<ul style="list-style-type: none"> <li><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> </ul>	<ul style="list-style-type: none"> <li>Half drill core samples received by ALS Minerals (Pitea) were logged in on receipt, weighed, dried at high temperature in drying ovens and then coarse crushed with 90% passing 3.36mm. The crushed samples were then individually split using a rotary splitter, with a 500g split sent to ALS in Ireland for pulverisation in an Agate Mill. The remaining coarse reject was stored at ALS Minerals in Pitea for future metallurgical work requirements.</li> </ul>
	<ul style="list-style-type: none"> <li><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> </ul>	<ul style="list-style-type: none"> <li>Avalon has used an industry standard QAQC programme involving Certified Reference Materials “standards” (with Li grades ranging from near cut-off, average grades and high grades) and blank samples, which were introduced in the assay batches.</li> <li>Standards, blanks and duplicates were each submitted at an approximate rate of 1 in 30 samples or one standard, blank and duplicate per hole if the hole has less than 20 samples.</li> <li>The check assay results are reported along with the sample assay values in the preliminary and final analysis reports.</li> </ul>
	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>For diamond core, the routine sampling procedure is to collect the half/quarter core to the right of the orientation line (looking down hole) or the cut line (in cases where the orientation line was not reliable).</li> <li>Once assay results are received the results from duplicate samples are compared with the corresponding routine sample to ascertain whether the sampling is representative.</li> <li>For cut channels the entire sample was submitted for assay.</li> </ul>
	<ul style="list-style-type: none"> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>Sample sizes are considered to be appropriate and correctly represent the style and type of mineralisation.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> </ul>	<ul style="list-style-type: none"> <li>Au was assayed by Fire Assay on a 50 gram aliquot. The aliquot was cupelled to yield a precious metal bead, which was then underwent acid digestion prior to analysis by atomic absorption spectroscopy against matrix-matched standards.</li> <li>A total of 33 additional elements were analysed by ALS technique ME-ICP61 which involves HNO<sub>3</sub>-HClO<sub>4</sub>-HF-HCl digestion and HCl Leach (GEO-4ACID) with analysis by Inductively Coupled Plasma - Atomic Emission Spectroscopy (ICP - AES).</li> <li>Lithium samples were analysed by two methods. <ul style="list-style-type: none"> <li>o 1) Lithium plus a selection of 18 major and minor elements were analysed by Peroxide Fusion followed by ICP-AES analysis (ME-ICP81x).</li> </ul> </li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>o2) Niobium and tantalum plus a selection of 12 trace elements were analysed by lithium borate fusion followed by ICP-AES analysis (ME-MS85).</li> <li>In addition, a selection of samples from pegmatite were also analysed for lithium by a second method involving a 4-acid digestion followed by ICP-AES analysis (Li-OG63).</li> </ul>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No handheld XRF measurements were taken on this hole.</li> </ul>
	<ul style="list-style-type: none"> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>The values of the standards range from low to high grade and are considered appropriate to monitor performance of values near cut-off and near the mean grade of the deposit.</li> <li>The check sampling results are monitored and performance issues are communicated to the laboratory if necessary.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> </ul>	<ul style="list-style-type: none"> <li>Photographs of sampled intervals are taken and the Competent Person for exploration results for this announcement has viewed photographs of the core.</li> </ul>
	<ul style="list-style-type: none"> <li>The use of twinned holes.</li> </ul>	<ul style="list-style-type: none"> <li>Twin holes have not been drilled in this area in this program. However, hole KMDD001 was drilled adjacent to historical hole R307 and the geological and assay results are similar over common intervals.</li> </ul>
	<ul style="list-style-type: none"> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> </ul>	<ul style="list-style-type: none"> <li>Nortec data and the Finnish Geological Survey data have been sighted in reports for historical drilling.</li> <li>All documentation has been carried out under the direction of Avalon Minerals by contract geologists and Palsatech staff. Standard data entry procedures have been documented.</li> </ul>
	<ul style="list-style-type: none"> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>Assayed values of Li were converted to Lithium Oxide values (Li<sub>2</sub>O) for reporting purposes.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Surface collar co-ordinates have been surveyed by Differential GPS at the end of the drilling program.</li> <li>High quality down-hole dip and azimuth survey data are recorded.</li> </ul>
	<ul style="list-style-type: none"> <li>Specification of the grid system used.</li> </ul>	<ul style="list-style-type: none"> <li>The current projection used for map preparation in Finland is ETRS-TM35FIN, with Datum EUREF89</li> </ul>
	<ul style="list-style-type: none"> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>No reports of topographic control have been sighted.</li> </ul>
	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>At Kietyönmäki, the historical drilling was comprised of 17 drill holes on three traverses at approximately 30 and 60m apart. Current drilling is within the area of the historical drilling. Cut channels are also within the area of drilling.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Data spacing and distribution</b>		<ul style="list-style-type: none"> <li>At Riukka, 3 holes were drilled to intersect quartz veins below the level of the historical holes.</li> </ul>
	<ul style="list-style-type: none"> <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> </ul>	<ul style="list-style-type: none"> <li>Sufficient continuity in both geology and mineralisation has been established based on geological mapping and cross-section representation.</li> <li>No JORC 2012 mineral resource has yet been estimated for the Kietyönmäki and Riukka prospects.</li> </ul>
	<ul style="list-style-type: none"> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>No sample compositing was done.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> </ul>	<ul style="list-style-type: none"> <li>Drilling orientations were appropriate for the predominantly high angle of the mineralised intersections providing representative samples.</li> </ul>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The company does not believe that any sample bias had been introduced which could have a material effect.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>A secure sample management system has been established and documented and involves the drilling contractor, Avalon consultants, personnel from contracting group Palsatech, and the assay laboratories.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No audits were completed.</li> </ul>

**TABLE 1 – Section 2: Exploration Results**

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <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> </ul>	<ul style="list-style-type: none"> <li>The Kietyönmäki lithium occurrence and Riukka gold prospect are covered by approved exploration claims, under the Finnish Mining Act.</li> </ul>
	<ul style="list-style-type: none"> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>Exploration claims are valid and are held by Nortec Minerals Corp. Avalon has an earn-in joint venture with Nortec to explore the claims.</li> </ul>

<b>Criteria</b>	<b>JORC Code explanation</b>	<b>Commentary</b>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>The historic drilling at Kietyönmäki was undertaken by the Finnish Geological Survey in 1985, and was re-logged and re-sampled by Nortec Minerals Corp. in 2010.</li> <li>The historic drilling at Riukka was undertaken by the Finnish Geological Survey in 2001-2005.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Kietyönmäki lithium occurrence occurs in a pegmatite dyke swarm.</li> <li>The Riukka gold occurrence is interpreted to be an orogenic gold system hosted by a series of quartz veins</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li><i>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:</i> <ol style="list-style-type: none"> <li><i>easting and northing of the drill hole collar</i></li> <li><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li><i>dip and azimuth of the hole</i></li> <li><i>down hole length and interception depth</i></li> <li><i>hole length.</i></li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>See text and tables in this report.</li> <li>Details of the historical drill holes are referenced to Nortec Minerals Corp reports at <a href="http://www.nortecminerals.com/index.php">http://www.nortecminerals.com/index.php</a>.</li> </ul>
	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Information included above.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Weighted Averaging method is used to calculate drill hole intersections for the lithium grade based on the assay results received, and the down hole width of the assayed interval.</li> </ul>
	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>The results in this announcement show both aggregated intercepts and specific higher grade intercepts within the broader interval. The aggregated intercepts are identified based on the start and finish of anomalous Li<sub>2</sub>O values typically greater than 0.5%, and defined on the basis of the presence of pegmatite dykes.</li> <li>The Weighted Averaging method is used to calculate drill hole intersections for the gold grade based on the assay results received, and the down hole width of the assayed interval.</li> </ul>
	<ul style="list-style-type: none"> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>Metal Equivalents have not been applied.</li> </ul>
	<ul style="list-style-type: none"> <li><i>If the geometry of the mineralisation with respect to the drill-hole angle is known, its nature should be reported.</i></li> </ul>	<ul style="list-style-type: none"> <li>The orientations of the mineralised horizons are interpreted to be sub-vertical based on geological mapping and cross-sectional interpretation.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li><i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i></li> </ul>	<ul style="list-style-type: none"> <li>See above – estimated true widths are approximately 60% of intersected widths based on cross section construction.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>See Figures in this announcement for maps and cross-sections showing distribution of drill collars.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>See Figures in this announcement that show the geological interpretation on plan and cross section of a selection of drill holes.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li><i>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 characteristics; potential deleterious or contaminating substances.</i></li> </ul>	<ul style="list-style-type: none"> <li>No other significant geological data has been reviewed at this stage.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> </ul>	<ul style="list-style-type: none"> <li>Phase 1 drilling is complete and Phase 2 drilling is currently being planned.</li> </ul>
	<ul style="list-style-type: none"> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>Additional exploration reservation areas have been applied for which cover the interpreted extensions of the prospective domains.</li> </ul>

## Appendix 5B

# Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

### Name of entity

Avalon Minerals Limited

### ABN

68 123 184 412

### Quarter ended ("current quarter")

31 December 2016

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers		
1.2 Payments for		
(a) exploration & evaluation	(805)	(1,317)
(b) development		
(c) production		
(d) staff costs	(458)	(747)
(e) administration and corporate costs	(161)	(360)
1.3 Dividends received (see note 3)		
1.4 Interest received	2	6
1.5 Interest and other costs of finance paid		
1.6 Income taxes paid		
1.7 Research and development refunds	0	125
1.8 Other (provide details if material)		
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(1,422)</b>	<b>(2,294)</b>

<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire:		
(a) property, plant and equipment		
(b) tenements (see item 10)		
(c) investments		
(d) other non-current assets		

<b>Consolidated statement of cash flows</b>	<b>Current quarter \$A'000</b>	<b>Year to date (6 months) \$A'000</b>
2.2 Proceeds from the disposal of: (a) property, plant and equipment (b) tenements (see item 10) (c) investments (d) other non-current assets		
2.3 Cash flows from loans to other entities		
2.4 Dividends received (see note 3)		
2.5 Other (provide details if material)		
<b>2.6 Net cash from / (used in) investing activities</b>	<b>0</b>	<b>0</b>

<b>3. Cash flows from financing activities</b>		
3.1 Proceeds from issues of shares	2,527	4,627
3.2 Proceeds from issue of convertible notes		
3.3 Proceeds from exercise of share options		
3.4 Transaction costs related to issues of shares, convertible notes or options	(176)	(328)
3.5 Proceeds from borrowings		
3.6 Repayment of borrowings		
3.7 Transaction costs related to loans and borrowings		
3.8 Dividends paid		
3.9 Other (provide details if material)		
<b>3.10 Net cash from / (used in) financing activities</b>	<b>2,351</b>	<b>4,299</b>

<b>4. Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1 Cash and cash equivalents at beginning of period	1,725	631
4.2 Net cash from / (used in) operating activities (item 1.9 above)	(1,422)	(2,294)
4.3 Net cash from / (used in) investing activities (item 2.6 above)	0	0
4.4 Net cash from / (used in) financing activities (item 3.10 above)	2,351	4,299
4.5 Effect of movement in exchange rates on cash held	18	36
<b>4.6 Cash and cash equivalents at end of period</b>	<b>2,672</b>	<b>2,672</b>

5. <b>Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1 Bank balances	160	180
5.2 Call deposits	2,512	1,545
5.3 Bank overdrafts		
5.4 Other (provide details)		
<b>5.5 Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>2,672</b>	<b>1,725</b>

**6. Payments to directors of the entity and their associates**

- 6.1 Aggregate amount of payments to these parties included in item 1.2
- 6.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

**Current quarter  
\$A'000**

172

Directors remuneration includes Managing Director salary and payment of deferred fees from June 2016 half.

**7. Payments to related entities of the entity and their associates**

- 7.1 Aggregate amount of payments to these parties included in item 1.2
- 7.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

**Current quarter  
\$A'000**

N/A

## Mining exploration entity and oil and gas exploration entity quarterly report

<b>8. Financing facilities available</b> <i>Add notes as necessary for an understanding of the position</i>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
8.1 Loan facilities		
8.2 Credit standby arrangements		
8.3 Other (please specify)		
8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.		
N/A		

<b>9. Estimated cash outflows for next quarter</b>	<b>\$A'000</b>
9.1 Exploration and evaluation	1,000
9.2 Development	
9.3 Production	
9.4 Staff costs	315
9.5 Administration and corporate costs	200
9.6 Other (provide details if material)	
<b>9.7 Total estimated cash outflows</b>	<b>1,515</b>

<b>10. Changes in tenements (items 2.1(b) and 2.2(b) above)</b>	<b>Tenement reference and location</b>	<b>Nature of interest</b>	<b>Interest at beginning of quarter</b>	<b>Interest at end of quarter</b>
10.1 Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced	Viscaria nr 113, Norrbotten, Sweden;	Exploration concession, renewed and relinquished.	100%	0%
10.2 Interests in mining tenements and petroleum tenements acquired or increased	Ypäjä Exploration Reservation, Somero, Finland;	Exploration Reservation granted	0%	80%
	Rehumäki Exploration Reservation, Somero, Finland	Exploration Reservation granted *subject to earn-in agreement with Nortec Minerals	0%	0%*

### **Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Sign here:   
(Director/Company secretary)

Date: 23 January 2017

Print name: GAVIN LEICHT

### **Notes**

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.