

Appia well-positioned with recent Critical Materials Executive Order, the 'planned nearby' SRC Rare Earths Processing Facility, and a recent round of drilling completed at Alces Lake

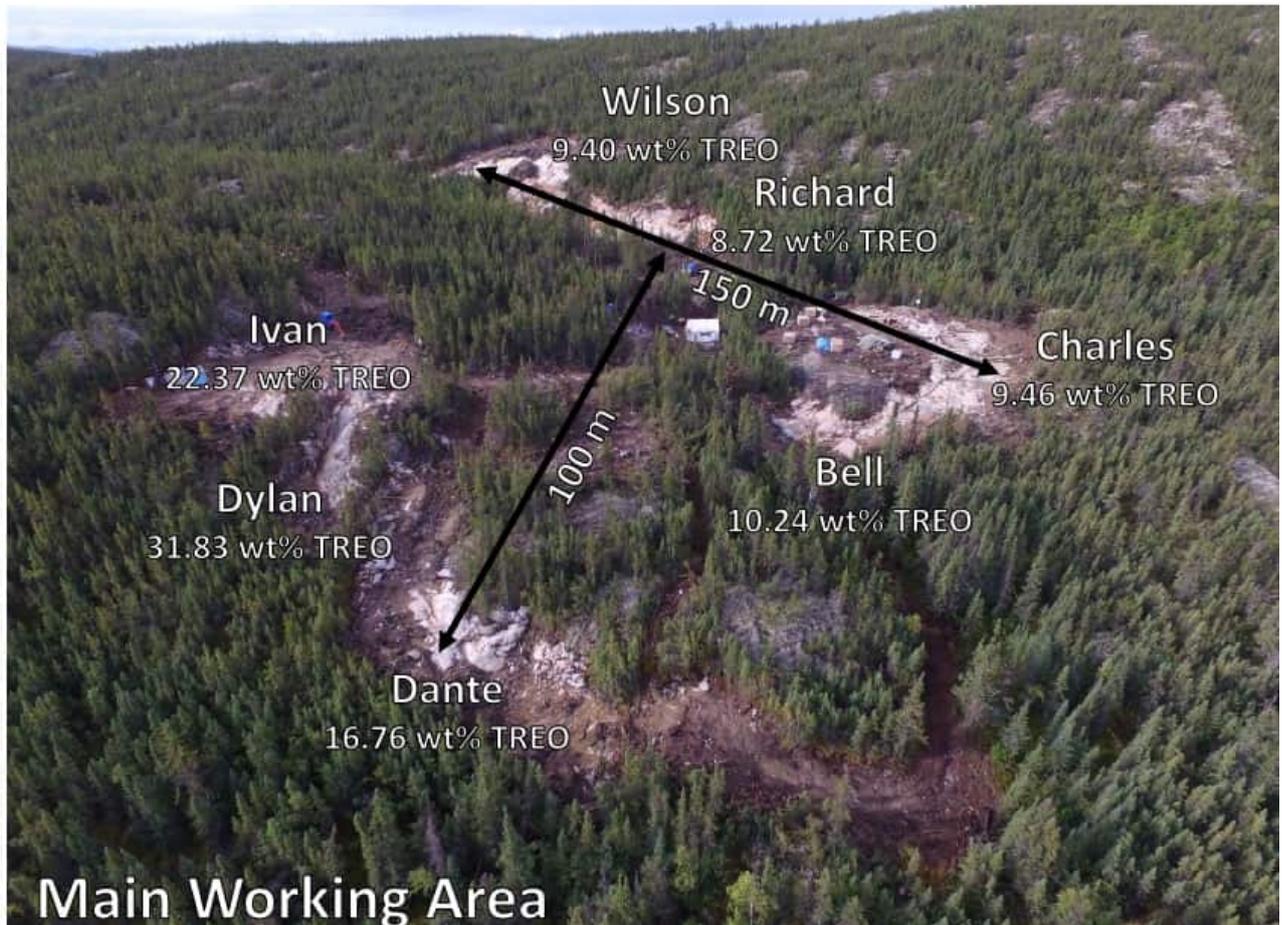
Appia Energy Corp. (CSE: API | OTCQB: APAAF) ('Appia') has just completed a round of drilling at their 100% owned Alces Lake Property, in the Athabasca Basin area of northern Saskatchewan, Canada. The project has monazite ore containing valuable rare earths Neodymium (Nd), Praseodymium (Pr), Dysprosium (Dy), and Terbium (Tb). Alces Lake hosts the 2nd highest average rare earth element (REE) grade in the world at 16.65 wt% TREO.

The key result of the drilling campaign was that Appia was able to confirm the REE minerals system over a **875m strike length, as deep as 340m from surface, still open in all directions and in two sub-parallel trends.**

The original trend includes the high grade REE zones of Wilson, Richard, Charles and Bell which now look to be all joined at depth over a strike length of 145m. As a result the 4 zones have now been combined into one larger zone and named the WRCB zone.

Another positive was that 15 out of the 18 drill holes intersected the REE mineralized system. Assay results from the drill campaign are expected to be released soon.

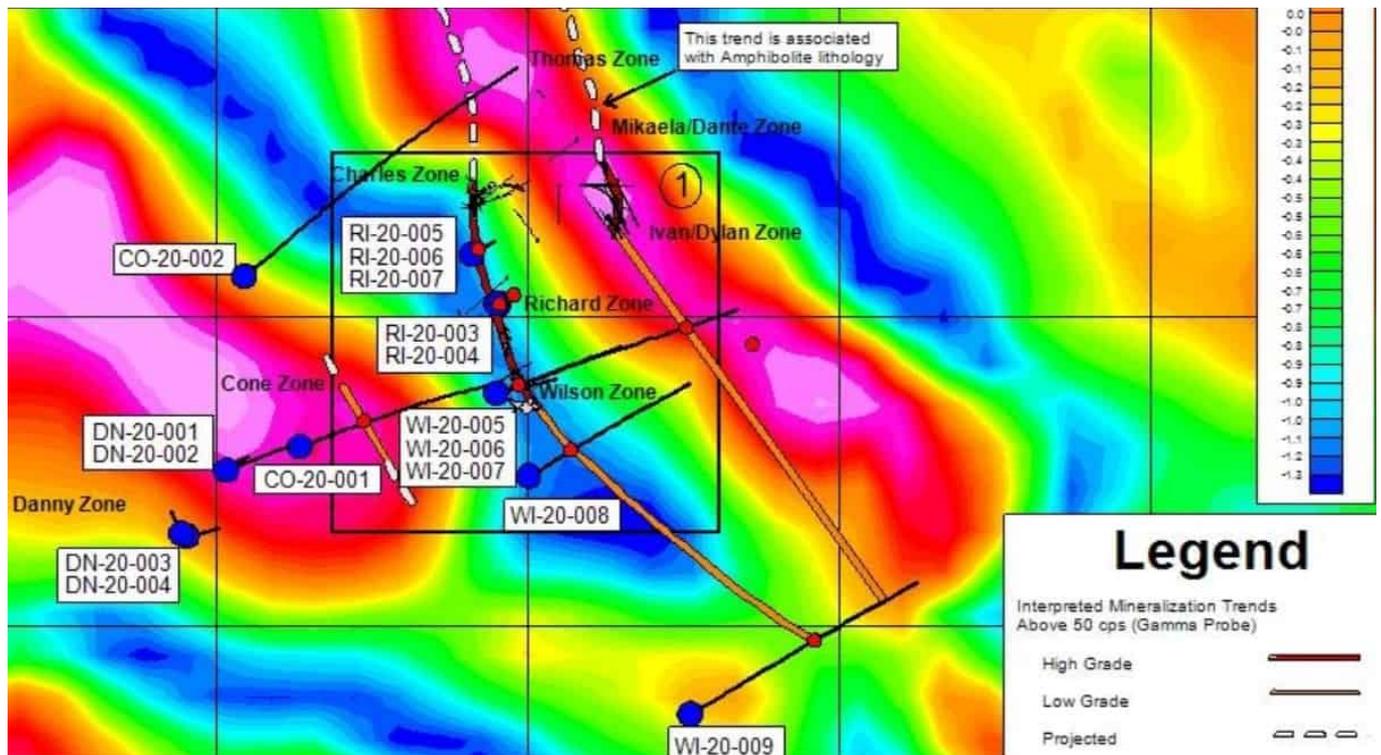
Alces Lake – High-Grade REE Zones



Source

Shown below from a different rotation is one of the newer trends which includes the Ivan/Dylan and the Mikaela/Dante zones. The other has the Cone Zone.

Alces Lake REE mineralization is running in two sub-parallel trends to the original trend



Source

Appia Vice-President, Exploration and Development, James Sykes, commented:

“This suggests that the System (total REE mineralized zones at Alces Lake), and both first-order lithological emplacement controls, could be present across the entire 45 km geological strike length of the Property at/near surface and continuing at depth.”

The Alces Lake Project’s rare earths start from or near surface and hence are suitable for an open pit mine. Permitting should be smooth being in northern Saskatchewan Canada and the CapEx and OpEx should be reasonably low given the good grades and near surface resource. The fairly recent development by the Government of Saskatchewan to develop a “first-of-its-kind” Rare Earth Processing Facility in Saskatchewan is also very promising for Appia.

Other properties owned by Appia (rare earths and uranium)

In total at Appia’s Athabasca Basin properties Appia has

57,048 hectares which includes Alces Lake, Loranger, North Wollaston, and Eastside properties. They all have uranium.

At Elliot Lake Camp, Ontario, Canada, Appia has 12,545 hectares with both rare earth element and uranium deposits over five mineralized zones.

Appia Energy Corp. is currently trading on a market cap of just C\$27m. Given the high rare earths grades at Alces Lake, the planned nearby Saskatchewan Government Rare Earth Processing Facility, renewed interest by governments (the recent US Executive Order on critical materials), and Appia's potential also with uranium; things are looking very promising for Appia Energy.

Jack Lifton with Tom Drivas on the Saskatchewan Research Council's Rare Earths Processing Facility

InvestorIntel's Tracy Weslosky moderates a discussion with the Technology Metals Show host Jack Lifton and Appia Energy Corp.'s (CSE: API | OTCQB: APAAF) CEO, President and Director Tom Drivas on the Saskatchewan Research Council's (SRC) plans to develop a "first-of-its-kind" Rare Earth Processing Facility in Saskatchewan, Canada.

In an InvestorIntel interview that can also be viewed on our InvestorIntel YouTube channel, Jack started, "This is the first time it has been done in North America," he continued, "The Canadian companies that are associated with the SRC are

going to be the leading companies in Canada in the rare earths space.”

Tom went on to say that Appia has a high-grade rare earths project in Saskatchewan. “Having a rare earths processing plant in Saskatchewan, in the same area where we are and in the same jurisdiction, is a game changer,” he added. Tom also explained how the processing facility is going to benefit Appia Energy and its shareholder.

To watch the full interview, [click here](#)

To learn more about Appia Energy Corp., [click here](#)

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Tom Drivas on Appia’s high grade critical materials (rare earths, uranium) and MP Materials

“Alces Lake, Appia’s project which is located in northern Saskatchewan, has a number of surface and near surface zones with very unusual mineralization. There is upto 85% monazite right on the surface and upto 50% total weight percent rare earths. It is unique. It is high grade and it has the right mineralogy. All of the rare earths are contained in one mineral which is monazite, in the right province, in the right area and very close to pilot plant processing facilities...What we are working and like to see next is come up with our first

resource and follow up with a PEA and prove to the market that we have an economically viable project.” States Tom Drivas, CEO, President and Director of Appia Energy Corp. (CSE: API | OTCQB: APAAF), in an interview with InvestorIntel’s Tracy Weslosky.

Tom went on to say that Appia’s has both rare earths and uranium assets and the company is on track with its exploration and drilling programs. He also said that MP Materials’ listing on NYSE will be very good for the rare earths industry and it will bring a lot of attention to Appia Energy. Appia’s market cap is less 1% of that of MP Materials but Appia has a similar project in Canada the initial grades of which look much better than MP Materials’ rare earths grade.

To access the complete interview, [click here](#)

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The EV sector sizzles, will rare earths be next? Spotlight on Appia Energy...

The electric vehicle (EV) sector has been one of the hottest sectors the past 3 months as investors chase everything ‘electric’. For example, Tesla (NASDAQ: TSLA) is up over 7 fold the past 14 months and is now the world’s most valuable car company. The past 3 months NIO is up 3 fold and Nikola is up 5 fold. The battery manufacturers have also surged.

So what's next? Following the EV thematic one would say the EV metal miners should be next, and that includes the rare earths miners, as rare earths are a key component in the most powerful magnets used in EV motors. Last year Roskill reported that "Tesla extends EV range using '*permanent magnets*' motors in Models S, X, and 3. This resulted in a 10% increase in the overall drivetrain efficiency of Tesla's EVs, and hence an improvement in range. Roskill then expressed the following view:

"Permanent magnets that offer the best performance and optimisation potential in electric motors are rare earth neodymium-iron-boron (NdFeB) magnets. Over 90% of EV models currently use NdFeB-based permanent magnet motors as part of the EV drivetrain."

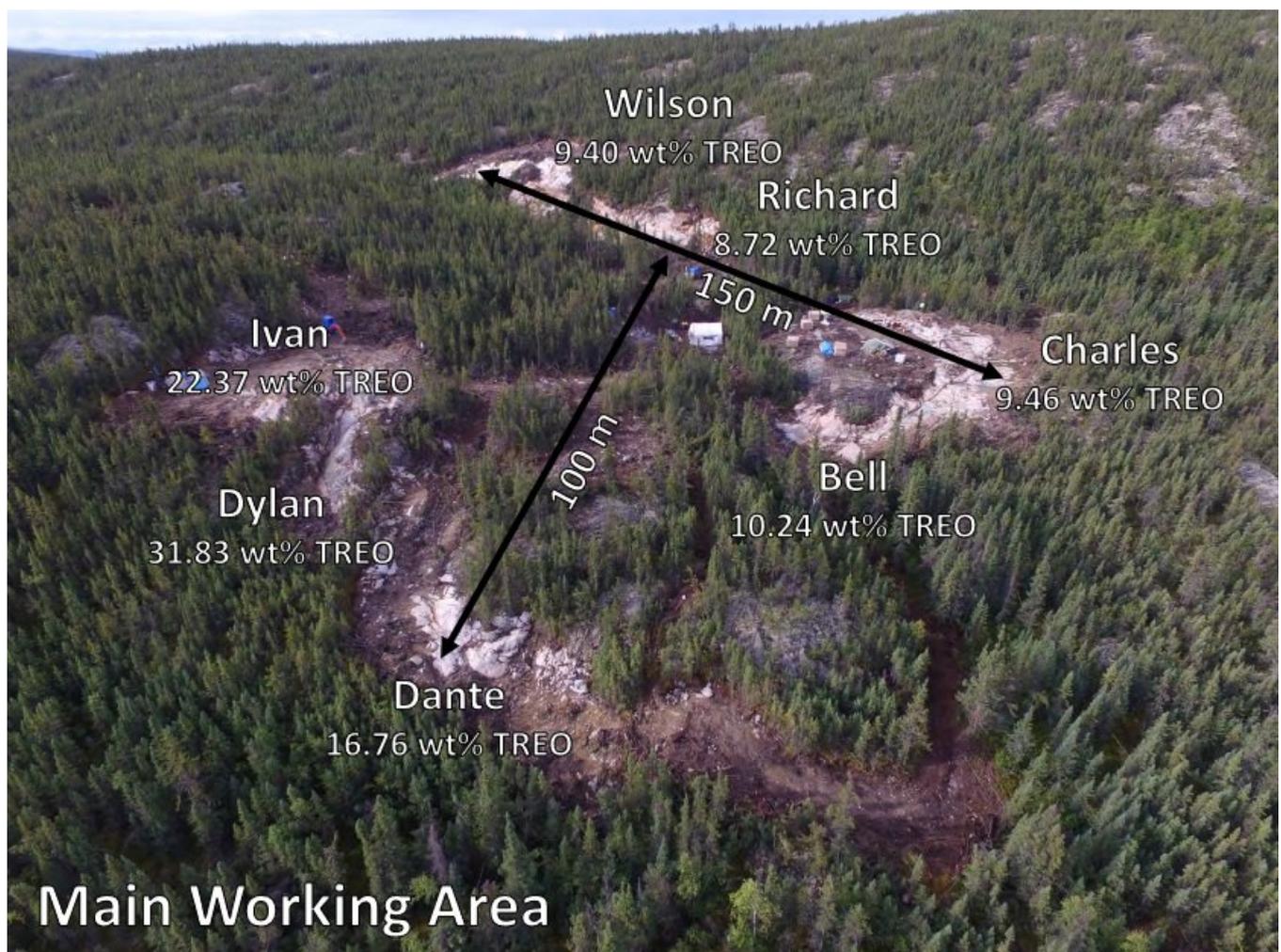
Additionally, the US Senate will soon consider various Acts, including the ORE Act, that aim to secure US supply of critical elements such as rare earths. This has the potential to be another catalyst for the rare earths sector in the near future.

One of the most promising rare earths junior miners is Appia Energy Corp. (CSE: API | OTCQB: APAAF). Appia is currently exploring and developing uranium and rare earth deposits at its Alces Lake Property, in the Athabasca Basin area of northern Saskatchewan, Canada. They also have a promising uranium-rare earths project in Ontario, Canada.

Appia 100% own the Alces Lake property spread over 14,334 hectares. The Alces Lake property has monazite ore that is enriched in valuable critical rare earth elements, particularly Neodymium (Nd), Praseodymium (Pr), Dysprosium (Dy), and Terbium (Tb). These 4 elements account for between 23-25% of the TREO, or ~85% of the potential value at Alces Lake. **Alces Lake hosts the 2nd highest average REE grade in the world.**

At a 4 wt% Total Rare Earth Oxides (TREO) cutoff, Alces Lake average grade is exceptionally high at 16.65 wt% TREO. By comparison rare earths producer Lynas Corporation's Mt Weld mine has an average grade ~10 wt% TREO, and is perhaps the most successful non-Chinese rare earth mine in the world today.

Appia Energy's Alces Lake property has exceptionally high grade critical rare earths in Northern Saskatchewan, Canada



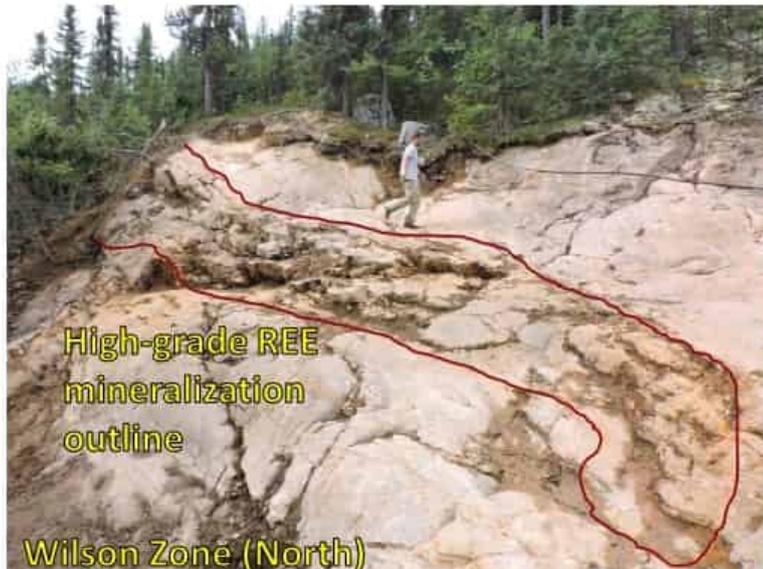
Source: Appia Energy company presentation

The high grade TREO at the Alces Lake Project hosted in monazite is an ideal potential western located source of the most valuable key rare earths needed in future industries such as EV motors and catalysts etc.

Rare earths key uses include powerful magnets (21% of demand

The Criteria for a Viable REE Project

- Grade
- Mineralogy
- Composition
- Pilot Plant
- Radiation and Environmental Management
- **Appia's Alces Lake project meets all of these criteria**



Appia Energy President and CEO, Tom Drivas, stated exclusively to InvestorIntel:

“Appia is currently exploring its Alces Lake project located in Saskatchewan Canada. Alces Lake has a number of surface zones with up to 85% monazite and can become one of the highest grade critical rare earth producer in the world. Appia could supply the critical rare earth needed to the developing industry in the US and Canada.”

Appia recently announced that they have begun further exploration at the Alces Lake property. It is expected that between late July and early August Appia will commence -2,000 to 3,000 m of a drilling program to potentially expand the resource.

Closing remarks

Appia Energy trades on a market cap of just C\$14 million, which is very low given their super high grades, valuable critical rare earths, and good location. The only possible explanation can be the relatively early stage of the project.

Rare earths expert Jack Lifton recently stated Appia Energy's Alces Lake "is probably the best choice for development into a producing rare earth magnet materials' mine in North America."

Finally, Appia also offer investors exposure to several other projects in Canada that are highly prospective for both rare earths and uranium. Early investors in junior miners such as Appia have the potential for tremendous returns, especially if the Alces Lake project achieves funding and production. The recent surge in EV related companies, the US Senate considering rare earths Acts, and Appia's potential for excellent near term news flow should all serve as strong catalysts for the stock in the year ahead.

As Chinese rare earths' stock prices rally, pressure rises for the rest of the world...

Rising US-China tension has resulted in some rare earths' stock prices rising sharply, particularly those in China. Given the recent US moves to introduce critical materials legislation it seems likely that the non-Chinese rare earth stocks will also rally strongly this year, particularly if the new bills and financial support are passed.

Let's start with a recap of the recent US support highlights for rare earths:

- May 18, 2018 – The US declared a list of 35 critical materials. A large part of the list includes rare earths.
- May 2, 2019 – U.S. Sen. Lisa Murkowski and others submitted the American Mineral Security Act
- In mid May, 2020, Senator Ted Cruz submitted the Onshoring Rare Earths Act – the ‘ORE Act’
- On May 28, 2020 US Representative Michael Waltz submitted the American Critical Mineral Exploration and Innovation Act of 2020

The ORE Act focuses on six critical materials – **Rare earths**, scandium, lithium, cobalt, graphite, and manganese. The Critical Mineral Exploration and Innovation Act directs the U.S.G.S. to complete updated resource assessments for each critical mineral. It has been reported that there will be a focus on **rare earths** and other so-called strategic minerals.

Then just last week rare earths expert and Technology Metals Show host Jack Lifton stated exclusively to InvestorIntel: “The US Defense Department has announced last week that it will seek \$1.7 billion for rare earths purchases in the 2021 National Defense Authorization Act that means the budget for fiscal 2021. In addition they will ask for another \$300 million (**a total of \$2 billion**), for rare earths for specialized weapons which they name as hypersonic missiles...”

Given all of the above proposed support to the rare earths sector, it is abundantly clear that the US is now finally moving rapidly to secure critical rare earths supply, particularly from US deposits, where possible. Current rare earths producers and listed rare earths stocks stand to be beneficiaries. Especially if they have US rare earths projects, but quite likely any non-Chinese rare earth juniors that can achieve funding and production should find very strong western demand for their products. Most of the western world is now looking to diversify their supply chains especially after the trade war and COVID-19 problems of the

past 2 years.

Some rare earth miners with US projects include:

- MP Materials (private)
- Rare Element Resources Ltd. (OTCQB: REEMF)
- Texas Mineral Resources Corp. (OTCQB: TMRC)
- Ucore Rare Metals Inc. (TSXV: UCU | OTCQX: UURAF)

Some miners with US rare earth processing potential include:

- Energy Fuels Inc. (NYSE: UUUU | TSX: EFR) recently stated their White Mesa Mill in the USA could be used in future for rare earths processing.
- Lynas Corporation (ASX: LYC) has received US support for a planned US rare earths processing facility.
- Peak Resources (ASX: PEK) plan to have a US rare earths processing facility.

Some rare earth miners with Canadian projects include:

- Avalon Advanced Materials Inc. (TSX: AVL | OTCQB: AVLNF)
- Appia Energy Corp. (CSE: API | OTCQB: APAAF)
- Search Minerals Inc. (TSXV: SMY)

Some rare earth miners with Australian projects include:

- Alkane Resources Ltd. (ASX: ALK | OTCQX: ALKEF)
- Scandium International Mining Corp. (TSX: SCY)

Rare earths are vital ingredients for modern technology



Closing remarks

The massive recent news of two new rare earth/critical materials related Acts and a proposed “US\$2 billion towards rare earths in 2021”, appears to have been somewhat missed by the market. The Chinese rare earths stocks have already bounced leaving the potential rest of the world rare earth miners to play catch up.

News flow in future months should continue to be extremely promising for the rare earths sector following on from the tremendous news from the last few weeks.

Investors should not wait too long as any further increased US-China tensions, threats of China supply loss, or passing of rare earths related Bills, will likely send non-Chinese rare earth miners stock prices higher.

Tom Drivas on the competitive advantages of Appia Energy's high-grade rare earths

"Appia's Alces Lake project in northern Saskatchewan has world class high-grade rare earths, about a quarter of them are critical rare earths (neodymium, praseodymium, dysprosium, terbium). We think that Appia could be feeding the North America in terms of rare earths as you know North America is looking to have their own supply of rare earths...We have monazite on surface that is running upto 85%. We have shown it to people in the industry and they have seen most of the other projects and they are basically telling us that this is one of a kind – they haven't seen anything like it. So Alces Lake could be one of the better or best projects out there." States Tom Drivas, CEO, President and Director of Appia Energy Corp. (CSE: API | OTCQB: APAAF), in an interview with InvestorIntel's Tracy Weslosky.

Tom went on to say that rare earths are used in high-tech military applications, electric vehicles. He added "We think the demand is coming back. In long term there will increased demand for rare earths." Tom also said that Appia has both uranium and rare earths.

To access the complete interview, [click here](#)

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Jack Lifton says the 'best choice' for a producing rare earths mine in North America is...

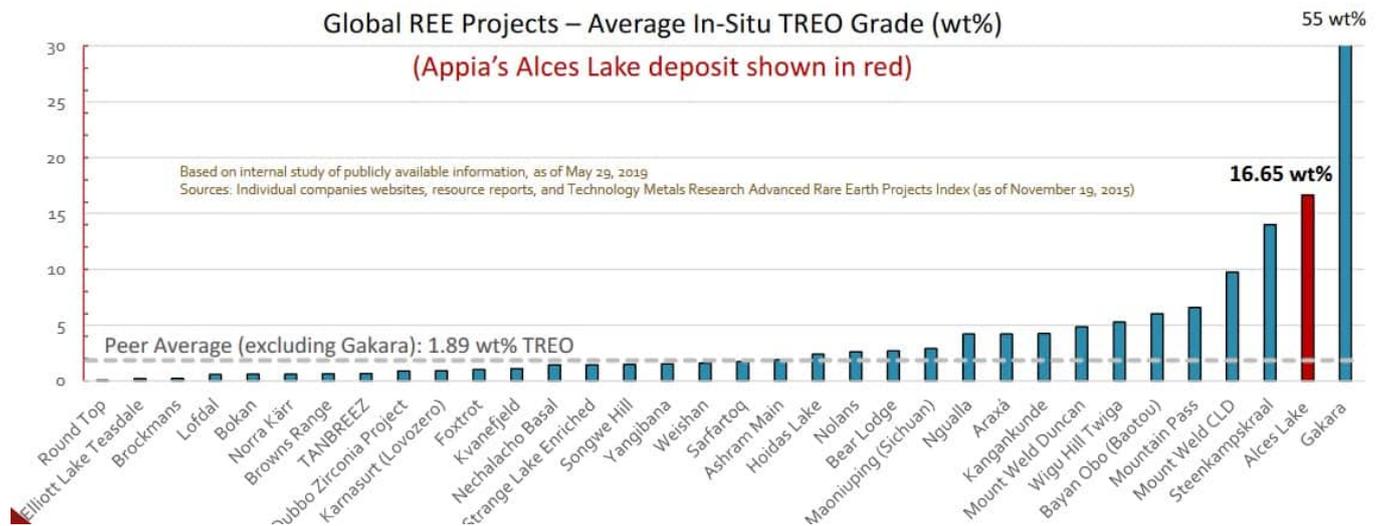
As the electric vehicles (EV) decade begins the need for quality rare earths in top tier locations is becoming a key focus for governments, OEMs, and electric motor manufacturers. Safer supply chains that can provide critical rare earths such as Neodymium (Nd) and Praseodymium (Pr) for electric motor magnets are becoming critically important, as we saw this week with the US Senate bill on rare earths.

Appia Energy Corp. (CSE: API | OTCQB: APAAF) is currently exploring and developing uranium and rare earth deposits in its Alces Lake property, in the Athabasca Basin area of northern Saskatchewan, Canada. They also have a promising uranium-rare earths project in Ontario, Canada.

Alces Lake Rare Earth Project

What is unique about Alces Lake is that it hosts some of the highest rare earth elements (REE) grades in the world (2nd highest average grade as shown on the chart below). At a 4 wt% total rare earth oxide cutoff, Alces Lake average grade is 16.65 wt% Total Rare Earth Oxides (TREO).

A grade comparison of global rare earth projects



Source

Alces Lake has excellent mineralogy with high value rare earths

At Alces Lake all the REEs have simple mineralogy and are hosted 100% within 'monazite', which means it can be economically extracted.

Even better is that the monazite is enriched in valuable critical rare earth elements, namely Neodymium (Nd), Praseodymium (Pr), Dysprosium (Dy), and Terbium (Tb). These 4 elements account for between 23-25% of the TREO, or ~85% of the potential value at Alces Lake.

Alces Lake has high-grade outcrops and drill hole intersections comprising an average of 27% monazite. Locally up to 85% monazite is naturally pre-concentrated



Source

Appia have access to a nearby pilot plant and extraction lab in Saskatchewan, Canada

The Alces Lake Project is located close to a pilot plant and REE extraction lab in Saskatoon, Saskatchewan, which is the same Provincial jurisdiction as the Project. It has a capacity of 2,000 tonnes of material per annum. This gives Appia a significant advantage by having a low start up CapEx to commence some production via a fully permitted plant and extraction facilities at the Saskatchewan Research Council (SRC). Unlike competitors this means the rare earths can be produced in North America and not China.

Considering environmental regulations, especially due to safe handling and disposal radioactive materials, the Province of Saskatchewan, and SRC, are miles ahead of other global jurisdictions because they permit high-grade uranium mines in the northern parts of the province. A country like India, or USA, has policies in-place that are detrimental to processing monazite for REEs because of the presence of Uranium/Thorium. In Saskatchewan, and working with SRC, a lot of these problems are already resolved, as Saskatchewan is a global jurisdiction that continuously leads efforts in safely working with radioactive materials.

Appia's projects summary and strategy

Alces Lake Rare Earths Project

Based on mineralization discovered to date, Appia would "ideally" consider a surface and near-surface operation to start production, smaller than open pit scenario, easier to permit and manage, potentially low CapEx and OpEx. Given the nearby pilot plant and extraction facility in Saskatchewan the Project will be easier to put into small scale production of rare earth oxides.

Saskatchewan Uranium Projects

Appia also holds surface rights to exploration for about 57,048 hectares (140,968 acres) in Saskatchewan. Within this area Appia has high-grade uranium deposits in the prolific Athabasca Basin area; including Loranger, Eastside and North Wollaston properties.

Elliot Lake Uranium-REE Project

This Project is located in northern Ontario. Elliot Lake has a NI 43-101 Mineral Resource Estimate of 8.0 million lbs contained metal U3O8 and 47.7 million lbs contained metal TREE Indicated; and 47.7 million lbs contained metal U3O8 and 133.2 million lbs contained metal TREE Inferred. Indicated TREE grades are 1,647ppm, and CRE 344ppm.

The next step for Appia is to raise additional capital to fully fund aggressive property-wide exploration on Alces Lake as well as the Saskatchewan uranium properties for the next 12 to 24 months, with a view of producing a mineral resource estimate at Alces Lake.

Experts view

Rare earths expert and host of the Technology Metals Show Jack Lifton quoted to InvestorIntel: "Appia Energy's Alces Lake deposit in Saskatchewan is probably the best choice for

development into a producing rare earth magnet materials' mine in North America.”

Closing remarks

The rare earths sector looks highly likely to follow in the foot-steps of uranium, which recently got a huge boost from the US Government. A rare earths funding bill has now been put to the US Senate with the intent to help revive the U.S. rare earths industry.

Investors can look to capitalize on the positive sentiment in the rare earths sector, especially those companies in safe countries with lower start-up CapEx.

Appia Energy offers a North American high grade rare earths project with a low CapEx pathway to production via a third party existing fully permitted plant and extraction facility in Saskatchewan. Plus Appia also has uranium projects.

Rare earths expert Jack Lifton and the man who coined the term “technology metals” is also very positive on Appia Energy, making them a top tier junior for investors to consider.

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