

**APPIA ENERGY CORP.**

**MANAGEMENT'S DISCUSSION AND ANALYSIS**

**For the three months ended December 31, 2020**

# **APPRIA ENERGY CORP.**

## **Management's Discussion and Analysis – December 31, 2020 As of February 23, 2021**

The following management's discussion and analysis ("MD&A") of the financial condition and results of operations of Appria Energy Corp. ("Appria" or the "Company") constitutes management's review of the factors that affected the Company's financial and operating performance for the three months ended December 31, 2020. The MD&A was prepared as of February 23, 2021 and should be read in conjunction with the unaudited condensed interim financial statements for the three months ended December 31, 2020, the ("Financial Statements") and the audited financial statements for the year ended September 30, 2020, including the notes thereto. Unless otherwise stated, all amounts discussed herein are denominated in Canadian dollars. These Financial Statements of the Company have been prepared in accordance with International Financial Reporting Standards ("IFRS") as described in Note 2 to the Financial Statements.

### **Executive Summary**

Appria is a Canadian mineral exploration company listed on the Canadian Securities Exchange under the trading symbol "API", and in the USA the shares trade on the OTCQB platform as OTCQB: "APAAF". In Germany the shares trade under the symbols A0I.F, A0I.MU and A0I.BE. Appria is focused on the rare earth element ("REE") deposits at Alces Lake, particularly high priced "critical REE's", and on exploring high-grade, near-surface uranium deposits in the Athabasca Basin area.

On February 11, 2021 the Company announced that James Sykes will be resigning as Vice-President, Exploration & Development of the Company, effective May 31, 2021 and that Nicolas Guest has been appointed as Project Manager of the Alces Lake Project, to actively advance the project on all aspects of an expanding resource and metallurgical testing of the mineralization to determine the eventual recovery and separation processes for REE oxide ("REO") recoveries. Nicolas has had extensive experience and responsibility for the exploration and development of the resources at the Goldcorp/Newmont-Musselwhite Mine, including mine expansion and record annual reserve replacement.

The Company also announced that it has engaged the services of Dr. David London, a world-renowned pegmatite expert and authority, to help better understand the REE Mineral System, (the "System"). Identifying key components of the System, such as origins, mineralogical vectors, and structural influences will provide for better exploration targeting for additional high-grade REE zones that might exist at Alces Lake.

The Company is planning to be very active advancing the Project in 2021. Prior to the anticipated start of the Alces Lake summer exploration program, the Company plans to start metallurgical bench-scale testing at the Saskatchewan Research Council ("SRC") facilities using rock samples from the WRCB zone to test physical separation of monazite from the host rocks, to separate and produce isolated uranium oxide ( $U_3O_8$ ), to produce a mixed REE-carbonate, and to eventually produce Nd and Pr oxides. A microprobe study has confirmed monazite as the mineralogical host for the high-grade gallium observed within the Alces Lake results.

The suite of airborne and ground geophysical survey data acquired on the property since 2011 are being re-analyzed and re-interpreted by three independent contractors and consultants. Each re-analysis is using different data sets, such as magnetic, electromagnetic ("EM"), gravity and audiomagnetotelluric ("AMT") geophysical results. The objective of the re-analyses is to constrain and model the geophysical data sets to the current geological model defined by diamond drilling and surface mapping in an attempt to better target high-grade mineralization.

Planned field activities for the Alces Lake property during the summer 2021, include additional ground radiometric surveying and geological mapping, additional ground magnetics and VLF-EM geophysical surveying within the main geological hinge area that hosts the high-grade occurrences discovered to date and an aggressive diamond drilling program of at least 5,000 m to explore the property for additional sub-surface high-grade REO occurrences.

## **Financing**

During the fiscal year to September 30, 2020 the Company raised \$2,746,545 through private placements and exercise of warrants, and in the three months ended December 31, 2020 \$2,650,000 in private placements and \$1,711,002 through the exercise of share purchase warrants.

In October, 2020, the Company closed non-brokered private placements with the sale of 2,737,500 FT Units at \$0.40 per FT Unit for gross proceeds of \$1,095,000 and 597,285 WC Units at \$0.35 per WC Unit for proceeds of \$209,050, for an aggregate \$1,304,050.

In November, 2020, the Company closed non-brokered private placements with the sale of 1,315,000 FT Units at \$0.40 per FT Unit for gross proceeds of \$526,000 and 57,000 WC Units at \$0.35 per WC Unit for proceeds of \$19,950, for an aggregate \$1,850,000.

In December, 2020, the Company closed non-brokered private placements with the sale of 1,000,000 FT Units at \$0.40 per FT Unit for gross proceeds of \$400,000 and 1,000,000 WC Units at \$0.40 per FT Unit for gross proceeds of \$400,000 for an aggregate \$800,000.

## **Exploration**

On November 5, 2019 Appia announced the discovery of a new high-grade\*\* sub-surface zone at Alces Lake, ("Richard"). The Richard zone returned 7.58 wt% TREO\* over 8.9 m starting within 10 m of the surface. The Richard zone discovery was targeted based on small surface showings and a working geological model. Assay results for all 2019 drill holes are included in Appendix - Table 2 (page 19) to this report.

On November 20, 2019 Appia announced the discovery of eight new surface outcrop zones and showings in the prospecting program carried out during the summer. The new discoveries expanded known surface REE mineralization within an area of 500 m by 500 m and the new Biotite Lake discovery expanded the 2,500 m<sup>2</sup> footprint to over 1.8 km west of the Wilson zone, the most distal high-grade REO occurrence discovered on the property by Appia to date. A grab sample from the Biotite Lake zone returned 2.57 wt% TREO\*. Assay results for all 2019 sampled surface discoveries are included in Appendix - Table 3 (page 20) to this report.

The REE mineralization system within the Alces Lake area is considered to be far more widespread than previously thought, with more discoveries of surface mineralization beneath the overburden. Since detailed exploration began at Alces Lake in 2017, a total of seventy-four (74) REE and uranium bearing surface zones and occurrences over 45 km strike of the REE mineralization system have been discovered.

At the end of June, 2020, a field crew started Phase 1 of the 2020 Alces Lake exploration activities, designed to discover additional surface and subsurface high-grade REE occurrences outlined in the two previous years.

Phase 1 included;

- regional ground prospecting, mapping and sampling over historic REE occurrences and along two 2 km-long trends with previously identified radiometric showings of interest;
- ground geophysical surveys (audiomagnetotellurics, ground penetrating radar) to attempt to map the REE minerals and structural system beneath the surface in order to prioritize drill targets.

Highlights from the Phase 1 program include:

- the discovery of biotite-rich pegmatites (i.e., the host rocks of REE-bearing mineral system) in five new areas of exploration (Ermacre, Mason, Sean, Ken and Scott zones),
- the identification of the historic Oldman zone (previously Oldman River zone), and
- a site visit to the Hawker zone 3 uranium veins surface zone.

Five new surface exposures exhibiting high to off-scale radioactivity associated with biotite-rich pegmatites, and possible monazite mineralization, were discovered on the property; the Ermacre, Mason, Sean, Ken and Scott showings. The Ermacre and Ken zones are ~600 m and ~7.5 km northwest and southwest of the main high-grade

REE Alces Lake outcrop area(s), respectively. Biotite-rich pegmatites are the rock types hosting high concentrations of monazite within the main outcrops. More investigation is required within each of these newly discovered areas.

The Appia field crew visited historic reported occurrences and anomalies previously identified by ground prospecting and radiometric surveying conducted over parts of the property between 1955 and 1969, and again by the Saskatchewan Geological Survey in 2011.

On August 4, 2020 the Company announced that it had acquired by way of online staking 3,243 hectares (8,014 acres) additional contiguous claims at Alces Lake, expanding the project size to 17,577 hectares (43,434 acres), of which less than 15% of the area has been tested to date.

On August 17, 2020 the Company announced that diamond drilling had commenced and that Phase 2 of the summer ground exploration program was progressing at Alces Lake.

The Company maintains a 100% interest in 12,545 hectares (31,000 acres), including rare earth element and uranium deposits over five mineralized zones in the Elliot Lake Camp, Ontario, which historically produced over 300 million pounds of  $U_3O_8$  and is the only Canadian camp that has had significant rare earth element (yttrium) production. The deposits are largely unconstrained along strike and down dip.

## ***Saskatchewan Properties***

### **Alces Lake**

On November 20, 2019 Appia announced the discovery of eight new surface outcrop zones and showings in the prospecting program carried out during the summer. The new discoveries have expanded known surface REE mineralization within an area of 500m by 500m with the new Biotite Lake discovery expanding the 2,500 m<sup>2</sup> footprint to over 1.8 km west of the Wilson zone, the most distal high-grade REO occurrence discovered on the property by Appia to date. A grab sample from the Biotite Lake zone returned 2.57 wt% TREO\*. Assays of the channel samples and grab samples taken from the different zones and showings are included in Appendix - Table 3 (page 20).

The REE mineralization system within the Alces Lake area is considered to be far more widespread than previously thought, with more discoveries of surface mineralization beneath the overburden.

High concentrates of gallium oxide were identified in the 2017 prospecting litho-geochemical results. Ten samples with a variety of TREO grades from the 2018 Alces Lake exploration program were sent in 2019 to ACT Labs in Ancaster, Ontario, for inter-lab quality assurance element grade checks. ACT Labs confirmed high concentrations of gallium, but the ACT Labs results returned much higher values than those from the 2017 samples simply due to the different analytical digestion techniques used.

The ACT Labs gallium results were as expected, with a range of 21.51 ppm to 1,150.64 ppm  $Ga_2O_3$  and showing a positive linear correlation with TREO (see Appendix - Table 4, page 21). Five samples with greater than 4.0 wt% TREO produced an average value of 599.78 ppm (0.060 wt%)  $Ga_2O_3$ . Gallium is one of the few elements that exhibits a similar positive linear correlation with TREO, suggesting that gallium is part of the mineralization system and could be directly related to monazite.

Gallium is one of several elements deemed “critical” by the United States Government, and is used in numerous modern technological applications, in wireless communications such as 5G, cell phones, laser diodes, semiconductors, solar energy, magnetic materials, and military defense. Gallium is scarce and expensive. Appia will continue its gallium studies in the coming months, starting with re-analysing its high-grade TREO samples for the presence of gallium.

At the end of June, 2020, a field crew started the Alces Lake Phase 1 summer exploration program, designed to discover previously outlined additional surface and subsurface high-grade REE occurrences.

Phase 1 included;

- regional ground prospecting, mapping and sampling over historic REE occurrences and along two 2 km-long trends with previously identified radiometric showings of interest;
- ground geophysical surveys (audiomagnetotellurics, ground penetrating radar) to attempt to map the REE minerals and structural system beneath the surface in order to prioritize drill targets.

Highlights from the Phase1 program include:

- the discovery of biotite-rich pegmatites (i.e., the host rocks of REE-bearing mineral system) in five new areas of exploration (Ermacre, Mason, Sean, Ken and Scott zones),
- the identification of the historic Oldman zone (previously Oldman River zone), and
- a site visit to the Hawker zone 3 uranium veins surface zone.

Five new surface exposures exhibiting high to off-scale radioactivity associated with biotite-rich pegmatites, and possible monazite mineralization, were discovered on the property; the Ermacre, Mason, Sean, Ken and Scott showings. The Ermacre and Ken zones are ~600 m and ~7.5 km northwest and southwest of the main high-grade REE Alces Lake outcrop area(s), respectively. Biotite-rich pegmatites are the rock types hosting high concentrations of monazite within the main Outcrops. More investigation is required within each of these newly discovered areas.

The Appia field crew visited historic reported occurrences and anomalies identified by ground prospecting and radiometric surveying conducted over parts of the property between 1955 and 1969, and again by the Saskatchewan Geological Survey in 2011.

On August 17, 2020 the Company announced that diamond drilling had commenced and that Phase 2 of the summer ground exploration program was progressing at Alces Lake.

Phase 2 of the 2020 summer program included:

- 2,506 m of diamond drilling following the strike extension of the Wilson, Charles and Ivan zones, and reconnaissance drilling on select regional geological and geophysical targets of interest;
- additional regional ground prospecting, mapping and sampling over areas of interest
- excavated overburden removal and outcrop washing.

Highlights from the drill program include:

- the intersection of the REE minerals system (the "System") over 875 m strike length, as deep as 340 m from surface, still open in all directions (3D space), and in two sub-parallel trends;
- confirmed extension of high-grade REE mineralization over a distance of 145 m within the 875 m strike length, which represents the amalgamation of the Wilson, Richard, Charles and Bell high-grade zones, now referred to as the WRCB zone;
- diamond drilling successfully correlated the ground audiomagnetotellurics ("AMT") geophysical survey interpretations with the System, and;
- a high success rate of drilling with 15 out of 18 drill holes intersecting the System.

Individual drill hole highlights include:

- RI-20-004 (Richard zone): 6.546 wt% total rare earth oxide\* ("TREO") and 0.016 wt% gallium oxide ("Ga<sub>2</sub>O<sub>3</sub>") over 5.80 metres ("m") core length starting at 7.60 m down hole depth, including 11.035 wt% TREO\* and 0.025 wt% Ga<sub>2</sub>O<sub>3</sub> over 2.80 m core length starting at 10.60 m down hole depth.
- RI-20-005 (Richard zone): 5.268 wt% TREO\* and 0.014 wt% Ga<sub>2</sub>O<sub>3</sub> over 1.10 m core length starting at 9.80 m down hole depth, including 10.322 wt% TREO\* and 0.024 wt% Ga<sub>2</sub>O<sub>3</sub> over a 0.40 m core length starting at 10.15 m down hole depth.

- HN-20-001 (Hinge zone): three separate uranium intersections between 265.5 and 308.05 m drill hole depth could indicate potential for uranium mineralization on the Property that is unrelated to the System (0.046 wt% U<sub>3</sub>O<sub>8</sub> over 0.10 m core length, 0.016 wt% U<sub>3</sub>O<sub>8</sub> over 0.15 m core length and 0.028 wt% U<sub>3</sub>O<sub>8</sub> over 0.30 m core length).

Assay results for all 2020 drill holes are included in Appendix - Table 5 (page 22) to this report.

### **Alces Lake Summary**

Since detailed exploration began at Alces Lake in 2017, a total of seventy-four (74) REE and uranium bearing surface zones and occurrences of the System have been discovered on the Property. To date, less than 1% of the Property has been explored with diamond drilling. The Property is located in Saskatchewan, the provincial jurisdiction that is planning to develop a “first-of-its-kind” rare earth processing facility in Canada, scheduled to become operational in 2022.

The Property encompasses some of the highest-grade total and critical rare earth elements (“CREE”) mineralization in the world. CREE is defined here as those rare earth elements that are in short-supply and high-demand for use in permanent magnets and modern electronic applications such as electric vehicles and wind turbines, (i.e: neodymium (Nd), praseodymium (Pr) dysprosium (Dy), and terbium (Tb)). The Alces Lake project area is 17,577 hectares (43,434 acres) in size and is 100% owned by Appia. The project is located close to an old mining camp with existing support services, such as transportation (i.e., 15 km from the nearest trail), energy infrastructure (hydroelectric power), a 1,200 m airstrip that receives daily scheduled services, and access to heavy equipment.

Drill core lithogeochemical assay results were provided by Saskatchewan Research Council’s Geoanalytical Laboratory, an ISO/IEC 17025:2005 (CAN-P-4E) certified laboratory in Saskatoon, SK, for multi-element and REE analysis.

### **2021 Exploration plans**

The Company is planning to be very active in advancing the Alces Lake Project in 2021. Prior to the anticipated start of the summer exploration program, the Company will start metallurgical bench-scale testing at the Saskatchewan Research Council (“SRC”) facilities using rock samples from the WRCB zone to test physical separation of monazite from the host rocks, to separate and produce isolated uranium oxide (U<sub>3</sub>O<sub>8</sub>), to produce a mixed REE-carbonate, and to eventually produce Nd and Pr oxides. A microprobe study is currently underway at SRC to determine the mineralogical host for the high-grade gallium observed within the Alces Lake results. The Company believes the host is monazite, and if so, gallium oxide extraction will also be investigated at SRC during the uranium and RE oxide extraction processes.

The suite of airborne and ground geophysical survey data acquired on the property since 2011 are being re-analyzed and re-interpreted by three independent contractors and consultants. Each re-analysis is using different data sets, such as magnetic, electromagnetic (“EM”), gravity and audiomagnetotelluric (“AMT”) geophysical results. The purpose of the re-analyses is to constrain and model the geophysical data sets to the current geological model defined by diamond drilling and surface mapping in an attempt to better target high-grade mineralization.

Planned field activities for the Alces Lake property during the summer 2021, include additional ground radiometric surveying and geological mapping, additional ground magnetics and VLF-EM geophysical surveying within the main geological hinge area that hosts the high-grade occurrences discovered to date and an aggressive diamond drilling program of at least 5,000 m to explore the property for additional sub-surface high-grade REO occurrences.

### **Athabasca Basin Area**

#### **Loranger and Eastside**

The Loranger group of mineral claims in the Athabasca Basin area was acquired by staking in March 2016, and shares similar geological and geophysical signatures to known high-grade, high-tonnage uranium deposits in the

Basin such as NexGen Energy's Arrow deposits, Cameco's Rabbit Lake/Collins Bay/Eagle point deposits which have produced over 300 M lbs U<sub>3</sub>O<sub>8</sub>, and others.

In April 2017 the Company reported the completion of the first seven holes of the diamond drilling program on the Loranger property with the geochemical assay results reported in a news release on May 24, 2017. Six of the seven holes intersected U<sub>3</sub>O<sub>8</sub> for up to 70+ metres. In June 2017 a 117 km ground prospecting and a radiometric survey was completed, identifying far more radioactive occurrences than reported in historical records.

In March 2019 a total of 1,063 metres was drilled in eight holes on the Loranger property. A combination of radioactivity, alteration, structural styles, and characteristic mineral assemblages share visual similarities with nearby basement-hosted Athabasca high-grade uranium deposits. Highlights of the winter drilling include 3.15 m of 0.032 wt% U<sub>3</sub>O<sub>8</sub> at 96.75 m drill hole depth in hole LOR-19-03 and 0.7 m grading 0.066 wt% U<sub>3</sub>O<sub>8</sub> at 105.5 m drill hole depth in hole LOR-19-02. The program has identified a new 900 metre-long uranium mineralization trend which is open along strike and at depth.

Together with the 2017 drill program, only 5 of the 22 gravity low targets on Loranger have now been tested with 15 drill holes totalling 2,524 metres. Only 2.3 km of the total 94 km of conductive strike length has so far been tested.

### **Eastside**

The Eastside property was acquired by staking in June 2017. Historic prospecting identified three outcrop samples along a 1.7 km geological strike which returned 2,538 ppm, 6,650 ppm and 7,575 ppm uranium. Five boulders of similar lithological provenance to the outcrops, and located down-ice from the outcrops, returned greater than 1,000 ppm uranium. A detailed airborne radiometric, magnetic and VLF-EM survey of 1,178 line-kilometres was flown over the property in September 2017 and identified new radiometric anomalies that were not identified in historic prospecting reports.

Highlights of the 2020 summer exploration activities on the Loranger and Eastside properties include the following:

- a composite sample length of 65.75 metres returning 0.018 wt% U<sub>3</sub>O<sub>8</sub> from within area 51 of the Eastside property
- a 1.0 metre channel sample returning 0.471 wt% TREO\* from Area D of the Loranger property

At Eastside, the Company successfully identified numerous pegmatite dykes ("dykes") in outcrops ranging in thickness from 1 metre to greater than 20 metres width exhibiting elevated radioactivity (>300 counts-per-second ("cps")). A majority of the dykes could typically be followed for more than 10 metres along strike-length before being lost underneath overburden. Discrete trends (from 1 metre to 3 metres thick) within the dykes contained spotty anomalous radioactivity (>1,000 cps) to "off-scale" radioactivity (>9,999 cps). Two dykes with the most radioactivity rock exposure (Area 51 and Area 7575) were channel sampled and returned composite sample grades with uranium concentrations exceeding 0.01 wt% U<sub>3</sub>O<sub>8</sub>. Areas 51 and 7575 are on strike with each other but are separated by 1.5 km which is covered by overburden.

Four separate occurrences of "off-scale" radioactivity was identified along four different dyke trends, however only one of those was exposed well-enough at surface to be channel sampled (Area 51, Line 3 channel sample). Helicopter reconnaissance identified three large areas (>500 m x >500 m) with many dykes exposed at surface, however time was limited and those outcrops were not visited.

### **Loranger**

At Loranger, eight outcrop areas were visited over a total of 3 days. Similar to the Eastside property, pegmatite dykes with elevated radioactivity were discovered within outcrops. Of particular interest was a pegmatite-rich outcrop area (Area D) with anomalous and elevated radioactivity trends observed within 100 to 300 m of a bifurcating and bending conductor. As has been observed on the property in previous exploration programs, radioactivity levels tend to increase with proximity to graphitic conductors suggesting the graphitic structural trends remain the primary focus for continued exploration on the property. No conductive outcrops were exposed on the property.

Area D was channel sampled, with no significant uranium values >0.01 wt% U<sub>3</sub>O<sub>8</sub> obtained. The observed radioactivity was emanating from thorium rather than uranium. One sample line (line 7) did return anomalous rare earth element (“REE”) results of interest; 0.471 wt% TREO\* over 1.0 m.

The same geological formations at the southern end of the property can be inferred (by airborne magnetic signatures) to continue over 45 km to the north end of the property within the RCV and gravity low target areas that were drilled in 2017. Diamond drilling in the RCV area returned 72.9 m at 0.012 wt% U<sub>3</sub>O<sub>8</sub> (see news release dated May 24, 2017).

### **North Wollaston**

The North Wollaston property was re-staked on April 7, 2020. The property encompasses 16,681 hectares (41,220 acres). Plans to cover the full property, or partially, with airborne magnetics, EM and radiometric geophysical coverage are currently being considered.

All three uranium exploration properties remain underexplored.

## **Overall Outlook**

### **Saskatchewan**

The REE Minerals System at Alces Lake has been discovered as far as 12 km away from the Company’s previous areas of diamond drilling, and the cumulative showings represent approximately 10 km of a 45 km-long regional strike length. The scale and high number of surface discoveries suggests the Minerals System is widespread at surface, but it is not readily detectable by eye or other surface geophysical methods due to overburden cover. The Company believes that the Minerals System is even more connected, widespread, and voluminous beneath the surface.

Considerable work has gone into defining the Minerals System. The addition of 3,243 hectares (8,014 acres) expanded the property area to a total of 17,577 hectares (43,434 acres). The two new land acquisitions now provide Appia with an additional 11 km of prospective trends to explore for additional high-grade rare earth element and uranium zones, bringing the total to 45 km along a continuous regional geological trend. Appia is the largest landholder in an emerging rare earth Minerals System district in northern Saskatchewan.

The “off-scale” radioactivity identified on Eastside, as well as the REE discovery on Loranger require follow-up. Both Loranger and Eastside remain underexplored at this time.

### **Health and safety**

The declaration by the World Health Organization that the COVID-19 infectious virus is a global pandemic delayed the start of the 2020 exploration program. Although Saskatchewan has not experienced the dire results in other Provinces, there are government-imposed restrictions on access to the properties and regulation of proposed activity. It is uncertain what restrictions may be applied in the summer of 2021.

To ensure safe work conditions are met for the workforce, the Company developed exploration guidelines that comply with the Saskatchewan Public Health Order and the specific Northern Saskatchewan Administration District Order in order to maintain social distancing and help prevent the transmission of the COVID-19 infectious virus.

### **Uranium and REEs Outlook**

On December 1, China announced the imposition of REE export controls, widely seen to be in retaliation for recent actions taken by the USA restricting the supply of electronic materials to China and for the ban on Huawei’s G5 broadband equipment.



The trade war between the USA and China is jeopardizing the availability of critical REEs. The Company's Alces Lake project contains some of the highest-grade total critical REE mineralization in the world.

A shortage of critical REEs has developed, largely a result of the increase in electric vehicle production. China continues to control the pricing of REEs, as it reportedly supplies up to 80% of the world's REE production. Some of the REE material is imported, processed in China to final form and re-exported.

For the supply of critical REEs required by the defence industry and for electronics, Washington is working on plans to reduce the dependence on China for the supply of critical REEs. There is a growing cooperation between Canada and USA in finding and producing REEs in North America, a long-term objective.

The Saskatchewan Research Council, ("SRC") announced in late August that with Canadian Federal and Provincial support, it will build the first North American rare earth processing and separation plant in Saskatoon, expected to be fully operational by the end of 2022. SRC has the processing resources, capabilities and proven team expertise to produce REOs from the monazite mineralization hosting the REEs at Alces Lake.

Cameco indefinitely shut down the McArthur River uranium mine and recently suspended operations at Cigar Lake, the world's largest single largest uranium mine. Cameco is using its inventory of mined uranium and is expected to be purchasing 5 million pounds on the spot market this year in order to satisfy its contractual delivery requirements.

The uranium demand forecast shows an increase from China, and in 2021 known supply sources are projected to be unable to match demand. Industry opinion is that a contract price of US\$60 per pound is needed before any new mining project advances. The World Nuclear Association recently projected an annual production shortfall of 50 million pounds in the near future.

The political stability of countries supplying the US with uranium and REEs has caused concern in the United States, as it relies on imports of uranium for reactors and for the supply of REEs required by the defence industry, for electronics and high strength magnets needed in the electric vehicle and wind farm applications.

### ***Ontario Properties***

Appia holds over 13,008 hectares (32,143 acres) encompassing five mineralized zones in the Elliot Lake area of northern Ontario. The zones are called Teasdale, Banana Lake, Canuc, Bouck Lake and Buckles Lake. The Elliot Lake area produced some 360 M lbs. of U<sub>3</sub>O<sub>8</sub> from 13 underground mines between 1955 and 1996 and is the only mining camp in Canada that had significant historical commercial REE production.

No work has been carried out in recent years, as the current market price for uranium oxide does not warrant additional work at this time.

#### ***Teasdale Lake Zone***

The following two tables set out the resources reported in the NI 43-101 report entitled "Update Report on the Appia Energy Corp. Uranium-Rare Earth Property, Elliot Lake District, North-Central Ontario, Canada," by Watts Griffis and McQuat ("WGM") dated July 30, 2013 which has been filed on SEDAR ([www.sedar.com](http://www.sedar.com)). It should be noted that the contents for the rare earth components are for rare earth metals, whereas it has become more common to report the contents as equivalent rare earth oxides.

Table 1  
Summary of Teasdale Zone Uranium and Rare Earth Mineral Resource Estimate

Zone	Tonnes ('000)	Tons ('000)	TREE (lbs/ton)	U <sub>3</sub> O <sub>8</sub> (lbs/ton)	Average Thickness (m)	Contained TREE ('000 lbs)	Contained U <sub>3</sub> O <sub>8</sub> ('000 lbs)
INDICATED RESOURCES							
UR	6,733	7,422	4.20	0.484	4.61	31,199	3,593
IQ	3,006	3,314	1.98	0.259	2.27	6,578	0.857
LR	3,355	3,699	2.68	0.958	2.60	9,912	3,544
Total	13,095	14,435	3.30	0.554	9.48	47,689	7,995
INFERRED RESOURCES							
UR	18,326	20,201	3.87	0.421	4.33	78,080	8,498
IQ	10,209	11,254	1.64	0.184	2.78	18,464	2,070
LR	9,972	10,992	3.33	0.869	2.71	36,631	9,564
Total	38,507	42,447	3.14	0.474	9.82	133,175	20,115

- Note:
1. Mineral Resources effective July 30, 2013
  2. Mineral Resources are estimated at a cut-off value of \$100 per tonne, using a uranium price of US\$70/lb U<sub>3</sub>O<sub>8</sub>, a TREE price of \$78/kg, and a C\$:US\$ exchange rate of 1:0.9. TREE includes all the REE elements from lanthanum to lutetium plus yttrium.
  3. Mineral Resources, which are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues. There are no known specific problems at this date.
  4. The quantity and grade of reported Inferred Resources in this estimation are uncertain in nature and there has been insufficient exploration to define these Inferred Resources as an Indicated or Measured Mineral Resource and it is uncertain if further exploration will result in upgrading them to an Indicated or Measured Mineral Resource category.
  5. The Mineral Resources were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council December 11, 2005.
  6. Specific Gravity of 2.85 tonnes/m<sup>3</sup> (or 3.14 tons/m<sup>3</sup>) was used.
  7. Indicated amounts may not precisely sum due to rounding.

Table 2  
Individual REE Resource Grade Composition Summary

Zone	Light REE (grams/tonne)						Heavy REE (grams/tonne)									
	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Y
INDICATED RESOURCES																
UR	540	951	93.9	313	51.7	1.9	32.8	3.9	17.2	2.7	7.0	0.9	5.5	0.8	6.8	72.9
IQ	256	452	44.9	148	24.4	1.0	14.7	1.8	7.7	1.2	3.1	0.4	2.5	0.4	3.6	30.6
LR	332	596	59.4	201	35.1	1.7	23.2	3.0	14.2	2.3	5.9	0.8	4.5	0.6	3.3	58.1
<b>Average</b>	<b>422</b>	<b>745</b>	<b>73.8</b>	<b>247</b>	<b>41.1</b>	<b>1.7</b>	<b>26.2</b>	<b>3.2</b>	<b>14.3</b>	<b>2.3</b>	<b>5.8</b>	<b>0.8</b>	<b>4.6</b>	<b>0.7</b>	<b>5.2</b>	<b>59.4</b>
INFERRED RESOURCES																
UR	498	876	85.9	285	47.2	1.8	29.3	3.5	15.9	2.5	6.5	0.9	5.3	0.8	6.8	67.9
IQ	213	374	37.0	122	20.0	0.8	12.3	1.4	6.4	1.0	2.6	0.4	2.2	0.3	3.3	26.5
LR	417	747	73.9	249	43.4	1.9	28.5	3.6	16.4	2.6	6.6	0.9	5.2	0.7	4.5	66.4
<b>Average</b>	<b>401</b>	<b>709</b>	<b>69.9</b>	<b>232</b>	<b>39.0</b>	<b>1.6</b>	<b>24.6</b>	<b>3.0</b>	<b>13.5</b>	<b>2.1</b>	<b>5.5</b>	<b>0.7</b>	<b>4.4</b>	<b>0.6</b>	<b>5.3</b>	<b>56.5</b>

## Historical Estimates

Table 3

### 1979 Historical U<sub>3</sub>O<sub>8</sub> Estimates on Appia's Elliot Lake Properties

<u>Zone</u>	<u>Quantity</u> (tons)	<u>Grade</u> (lbs U <sub>3</sub> O <sub>8</sub> /ton)	<u>Contained U<sub>3</sub>O<sub>8</sub></u> (lbs)
Teasdale Lake Zone	17,458,200	1.206	20,787,200
Buckles Zone	42,800,000	0.38	16,264,000
(Gemico Block #3)			
Bouck Zone	20,700,000	0.75	15,525,000
(Gemico Block #10)			
Banana Lake Zone	175,800,000	0.76	133,608,000
Canuc Zone	<u>7,000,000</u>	<u>1.86</u>	<u>13,020,000</u>
<b>Total</b>	<b>263,758,200</b>	<b>0.76</b>	<b>199,204,200</b>

The foregoing historical resources were not estimated in accordance with definitions and practices established for the estimation of Mineral Resources and Mineral Reserves by the Canadian Institute of Mining and Metallurgy. As such, the historical resources are not compliant with Canada's security rule NI 43-101 and are unreliable for investment decisions. Neither Appia nor its Qualified Persons have done sufficient work to classify the historical resources as mineral resources under current mineral resource terminology and are not treating the historical resources as current mineral resources. Nevertheless, most of the historical resources were estimated by mining companies active in the Elliot Lake camp using assumptions, methods and practices that were accepted at the time, and based on corroborative mining experience.

### Banana Lake Zone

Based on drilling by Appia during 2007, a subsequent Mineral Resource estimate for the Banana Lake Zone was prepared in 2011 by WGM in accordance with the provisions of NI 43-101. Some of Appia's drilling included holes that were wedged from historical drill holes that Appia re-entered. This resource, first reported in Workman and Breede (2011), is summarized in Table 4. A single hole drilled in 2012 to 1,647 metres did not encounter the typical geological formation with assays returning no significant values of U<sub>3</sub>O<sub>8</sub>, thorium or REEs. WGM, however, is of the belief that this hole did not materially impact the potential for additional resources in the Banana Lake Zone.

Table 4  
Summary of Banana Lake Zone Mineral Resource Estimate

Category	Tons ( <sup>'000</sup> )	Specific Gravity (tons/m <sup>3</sup> )	lbs. U <sub>3</sub> O <sub>8</sub> /ton	Total lbs U <sub>3</sub> O <sub>8</sub> ( <sup>'000</sup> )
Inferred Resources	30,315	3.14	0.912	27,638

- :
1. Effective, April 1, 2011
  2. Mineral Resources, which are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
  3. The quantity and grade of reported Inferred Resources in this estimation are uncertain in nature and there has been insufficient exploration to define these Inferred Resources as an Indicated or Measured Mineral Resource and it is uncertain if further exploration will result in upgrading them to an Indicated or Measured Mineral Resource category.
  4. The Mineral Resources were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council December 11, 2005.
  5. A cut-off grade of 0.6 lb. U<sub>3</sub>O<sub>8</sub> was used
  6. Specific Gravity of 2.85 tonnes/m<sup>3</sup> (or 3.14 tons/m<sup>3</sup>) was used.
  7. Indicated amounts may not precisely sum due to rounding.

### *Summary:*

The Company is considering the next stage of the Teasdale exploration and evaluation. The longer-term outlook for uranium prices is positive and the successful recovery of the REEs, particularly the critical elements of the total rare earths encountered, is very encouraging. Factors favourable for the project include the following:

- new mine infrastructure development would be in brownfield areas already disturbed by industrial and mining activity;
- water, electrical, transportation and communications infrastructure are in place or close at hand;
- the recovery of uranium from Elliot Lake ore is well known. Based on Teasdale Lake test results, the recovery of REEs appears to face no significant technical uncertainties;
- Appia is not responsible in any manner for potential future environmental impacts arising out of historical mining operations or waste disposal; and,
- The Cameco uranium refinery is located approximately 60 km away, near Blind River.

The National Instrument 43-101 (“NI 43-101”) report on the Elliot Lake properties completed in 2013 incorporated a new concept of simultaneously mining a nine-metre high underground zone, including the Upper Reef, the Rare Earth Elements in the Intermediate Quartzite Zone and the Lower Reef. With the REE content by weight being over six times the uranium content, the economic value of the mineralized zone has been greatly enhanced. A significant portion of the previously categorized Inferred Resources was upgraded to Indicated Resources, and additional resources were defined.

More work to expand the Resources at Teasdale and the preparation of a Preliminary Economic Analysis of the project will be contingent on an improved price for uranium and a clearer picture of supply and demand for REEs.

### **Results of Operations**

Exploration expenses incurred for the three months ended December 31, 2020 were \$71,642 (2019 - \$66,641) with \$61,388 spent on the Alces Lake Project (2019 - \$36,878).

Total general and administrative expenses for the three months ended December 31, 2020 were \$137,524 compared to \$114,043 in 2019. The increase in share-based compensation to \$14,887 from \$7,444, offset by a decrease in investor relations to \$29,273 compared to \$39,221 in 2019. The increase in management fees and salaries to \$48,099 (2019 - \$35,842) reflects an increase in activity as well as fund raising.

The Company’s net loss and comprehensive loss (exploration and administration costs) for the three months was \$215,960, compared to \$197,055 in 2019.

## Selected Quarterly Information

2020	Dec 31, 2020	Sep 30, 2020	Jun 30, 2020	Mar 31, 2020
	\$	\$	\$	\$
Net loss and comprehensive loss	(215,960)	(1,183,370)	(274,213)	(141,348)
Net loss per share – basic and diluted	(0.00)	(0.00)	(0.00)	(0.00)
Total assets	6,489,938	2,846,925	2,237,052	2,444,650
2019	Dec 31, 2019	Sep 30, 2019	Jun 30, 2019	Mar 31, 2019
	\$	\$	\$	\$
Net loss and comprehensive loss	(197,055)	(1,015,464)	(530,961)	(520,533)
Net loss per share – basic and diluted	(0.00)	(0.01)	(0.00)	(0.00)
Total assets	2,597,860	1,648,952	2,692,429	2,753,935

## Capital Resources and Liquidity

At December 31, 2020, the Company had working capital of \$4,408,693 (after providing \$714,806 owing to related parties) compared to a working capital of \$609,976 as at September 30, 2020 and had working capital of \$4,740,000 at February 23, 2021 (after providing for \$641,000 owing to related parties).

In October, 2020, the Company closed non-brokered private placements with the sale of 2,737,500 FT Units at \$0.40 per FT Unit for gross proceeds of \$1,095,000 and 597,285 WC Units at \$0.35 per WC Unit for proceeds of \$209,050, for an aggregate \$1,304,050.

In November, 2020, the Company closed non-brokered private placements with the sale of 1,315,000 FT Units at \$0.40 per FT Unit for gross proceeds of \$526,000 and 57,000 WC Units at \$0.35 per WC Unit for proceeds of \$19,950, for an aggregate \$1,850,000.

In December, 2020, the Company closed non-brokered private placements with the sale of 1,000,000 FT Units at \$0.40 per FT Unit for gross proceeds of \$400,000 and 1,000,000 WC Units at \$0.40 per FT Unit for gross proceeds of \$400,000 for an aggregate \$800,000.

The Company has no operating revenue and has historically funded its operations with equity based private placements. The Company's future exploration plans are contingent on raising capital but has financial resources to fund its planned exploration program and administration costs for the next twelve months.

The Company's ability to meet its obligations and continue as a going concern is dependent on the ability to identify and complete future financings. While the Company has been successful in raising financings, there can be no assurance that it will be able to do so in the future.

## Common Share Data

The Company is authorized to issue an unlimited number of no-par value common shares. The following table provides the details of changes in the number of issued common shares.

	Number #	Amount \$
Balance, September 30, 2019	65,312,468	12,206,321
Working capital units private placement December 16, 2019	43,500	6,525
Flow-through units private placement December 16, 2019	5,087,500	814,000
Finder's fee shares issued December 16, 2019	322,467	48,370
Flow-through units private placement December 31, 2019	2,991,500	478,640
Working capital units private placement September 14, 2020	500,000	100,000
Flow-through units private placement September 14, 2020	2,640,000	660,000
Working capital units private placement September 24, 2020	200,000	40,000
Flow-through units private placement September 24, 2020	660,000	165,000
Warrants exercised	1,919,283	482,380
Allocated to flow-through premium	-	(245,790)
Less: Value associated with warrants issued	-	(568,714)
Share issue costs	-	(123,267)
Balance, September 30, 2020	79,676,718	14,063,465
Warrants exercised	5,716,730	1,711,102
Flow-through units private placement October 28, 2020	2,737,500	1,095,000
Working capital units private placement October 28, 2020	597,285	209,050
Flow-through units private placement November 18, 2020	1,315,000	526,000
Working capital units private placement November 18, 2020	57,000	19,950
Flow-through units private placement December 4, 2020	1,000,000	400,000
Working capital units private placement December 31, 2020	1,000,000	400,000
Less: Value associated with warrants issued	-	(206,306)
Allocated to flow-through premium (note 8)	-	(202,625)
Share issue costs	-	(167,740)
Balance, December 31, 2020	92,100,233	17,847,896
Warrants exercised	70,833	24,792
Less: Value associated with warrants issued	-	(1,835)
Balance, February 23, 2021	92,171,066	17,870,853

### Common share purchase stock options

The Company has a stock option plan (the "Plan") for the benefit of directors, officers and consultants. The total number of shares which may be reserved and set aside for issuance to eligible persons may not exceed 10% of the issued and outstanding common shares.

As at December 31, 2020, 4,950,000 common shares were reserved for the exercise of stock options granted under the Plan.

The following table provides the details of changes in the number of issued common share purchase options during the period:

	Options	Weighted-average exercise price \$
Outstanding at September 30, 2018	3,750,000	0.28
Granted	300,000	0.40
Outstanding at September 30, 2019	4,050,000	0.29
Expired	(300,000)	0.40
Granted, August 4, 2020	1,200,000	0.25
Outstanding at September 30, 2020 and December 31, 2020	4,950,000	0.27
Exercisable at September 30, 2020 and December 31, 2020	4,350,000	0.27
Granted	200,000	0.68
Outstanding at February 23, 2021	5,150,000	0.28
Exercisable at February 23, 2021	4,450,000	0.28

Number of stock options	Number exercisable	Remaining contractual life	Exercise price per share	Expiry date
500,000	500,000	3.5 months	\$0.10	April 14, 2021
100,000	100,000	7.7 months	\$0.30	August 22, 2021
2,950,000	2,950,000	13 months	\$0.30	February 1, 2022
200,000	200,000	31 months	\$0.30	August 1, 2023
1,200,000	600,000	55.1 months	\$0.25	August 4, 2025
200,000	100,000	61.4 months	\$0.68	February 11, 2026
5,150,000	4,450,000			

The weighted average fair value of all the options Issued in the year was calculated as \$0.20 per share option. The fair value was estimated at the date of grant using the Black-Scholes pricing model with the following assumptions: risk-free weighted-average interest rate of 0.30% expected dividend yield of nil expected volatility of 144.47 and expected life term of 60 months. Options that have been issued generally vest one-half immediately on the date of grant and one-half twelve months from the date of grant.

## Warrants

On certain issuances of common shares, the units include warrants entitling the holder to acquire additional common shares of the Company, and the Company also grants warrants as consideration for services associated with the private placement of such issues.

The following table provides the details of changes in the number of outstanding common share purchase warrants:

	Number of shares	Value \$
Balance September 30, 2019	15,742,364	447,807
Expired, unexercised	(7,078,243)	(159,895)
Private placement warrants issued	6,436,014	568,714
Warrants exercised	(1,919,283)	(119,191)
Balance September 30, 2020	13,180,852	737,435
Private placement warrants issued	3,640,042	206,306
Warrants exercised	(5,716,730)	(256,629)
Balance December 31, 2020	11,104,164	687,112
Warrants exercised	(70,833)	(1,835)
Expired, unexercised	(113,289)	(2,951)
Balance February 23, 2021	10,920,042	682,326

A summary of the outstanding warrants is as follows:

	Number of shares	Remaining contractual life	Exercise price per share	Expiry date
Warrants	184,122	0.5 months	\$0.35	January 15, 2021
Warrants	4,875,000	12.7 months	\$0.30	January 20, 2022
Warrants	405,000	13 months	\$0.30	January 30, 2022
Warrants	1,320,000	14.5 months	\$0.35	March 14, 2022
Warrants	250,000	14.5 months	\$0.30	March 14, 2022
Warrants	330,000	14.8 months	\$0.35	March 24, 2022
Warrants	100,000	14.8 months	\$0.30	March 24, 2022
Warrants	1,368,750	15.9 months	\$0.50	April 28, 2022
Warrants	144,750	15.9 months	\$0.40	April 28, 2022
Warrants	298,642	15.9 months	\$0.50	April 28, 2022
Warrants	3,000	15.9 months	\$0.35	April 28, 2022

Warrants	657,500	16.6 months	\$0.50	May 18, 2022
Warrants	78,900	16.6 months	\$0.40	May 18, 2022
Warrants	28,500	16.6 months	\$0.50	May 18, 2022
Warrants	500,000	17.1 months	\$0.50	June 4, 2022
Warrants	60,000	17.1 months	\$0.40	June 4, 2022
Warrants	500,000	18 months	\$0.50	June 30, 2022
<b>Balance, December 31, 2020</b>	<b>11,104,164</b>			

A summary of the outstanding warrants as at February 23, 2021 is as follows:

	Number of shares	Remaining contractual life	Exercise price per share	Expiry date
Warrants	4,875,000	11.1 months	\$0.30	January 20, 2022
Warrants	405,000	11.4 months	\$0.30	January 30, 2022
Warrants	1,320,000	12.9 months	\$0.35	March 14, 2022
Warrants	250,000	12.9 months	\$0.30	March 14, 2022
Warrants	330,000	13.2 months	\$0.35	March 24, 2022
Warrants	100,000	13.2 months	\$0.30	March 24, 2022
Warrants	1,368,750	14.3 months	\$0.50	April 28, 2022
Warrants	144,750	14.3 months	\$0.40	April 28, 2022
Warrants	298,642	14.3 months	\$0.50	April 28, 2022
Warrants	3,000	14.3 months	\$0.35	April 28, 2022
Warrants	657,500	15 months	\$0.50	May 18, 2022
Warrants	78,900	15 months	\$0.40	May 18, 2022
Warrants	28,500	15 months	\$0.50	May 18, 2022
Warrants	500,000	15.5 months	\$0.50	June 4, 2022
Warrants	60,000	15.5 months	\$0.40	June 4, 2022
Warrants	500,000	16.4 months	\$0.50	June 30, 2022
<b>Balance, February 23, 2021</b>	<b>10,920,042</b>			

The number of common shares outstanding on February 23, 2021 was 92,171,066. Taking into account outstanding share purchase options and warrants, the fully diluted number of common shares that could have been outstanding on February 23, 2021 was 108,241,108.

## Related Party Transactions

During the three months ended December 31, 2020, the Company incurred related party expenses totaling \$56,863 (2019 – \$59,316). These expenses related to management fees paid or payable to key management personnel; Tom Drivas, Chief Executive Officer, Frank van de Water, Chief Financial Officer, James Sykes, Vice-President, Exploration and Development, and office administration services paid to Romios Gold Resources Inc., a company with a number of common directors and officers. The amount charged for office administration services is included under office and general expenses. At December 31, 2020, \$580,375 (2019 - \$611,730) of accumulated related party expenditures was payable to Tom Drivas and \$nil (2019 - \$15,371) was payable to the other officers and Romios Gold Resources Inc.

Two insiders subscribed for 518,750 FT units in the December 2019 private placements. Three insiders subscribed for 660,000 FT units and 200,000 WC units in the September 2020 private placements.

Key management personnel were not paid post-retirement benefits, termination benefits, or other long-term benefits during the periods ended December 31, 2020 and 2019.



During the three months ended December 31, 2020, the Company incurred expenses of \$4,000 (2019 - \$4,000) for independent directors' fees. At December 31, 2020, \$121,000 (2019 - \$101,000) of accrued directors' fees was outstanding.

During the three months ended December 31, 2020, the Company incurred expenses of \$51,656 (2019 - \$22,061) for legal fees to a law firm related to a director of the Company, William R. Johnstone. At December 31, 2020 \$13,431 (2019 – \$18,192) was payable to this related party.

As disclosed in Note 5 to the financial statements, the Elliot Lake exploration properties were acquired from a related party that holds a 1% Uranium Production Payment Royalty and a 1% NSR Royalty on any precious or base metals payable provided that the price of uranium is greater than US\$130 per pound.

### **Carrying value of exploration and evaluation assets**

The Company regularly reviews the carrying value of its properties to determine whether the cost of these assets will be recoverable from future cash flows or from the proceeds of their disposal. Assumptions underlying the cash flow estimates would include the forecasted prices for uranium and rare earth elements, planned production levels, and operating, capital, exploration and reclamation costs, which are all subject to risks and uncertainties. Management has determined that there is no impairment of the carrying value of its exploration properties.

### **Off-Balance Sheet Arrangements**

The Company does not have any off-balance sheet arrangements.

### **Financial Instruments and risk management**

The Company is required to disclose information about the fair value of its financial assets and liabilities. Fair value estimates are made at the balance sheet dates, based on relevant market information and information about the financial instrument. These estimates are subjective in nature and involve uncertainties in significant matters of judgment and therefore cannot be determined with precision. Changes in assumptions could significantly affect these estimates.

The Company's financial instruments recognized in the balance sheet consist of cash and cash equivalents, HST/GST receivable and current liabilities. The fair value of these financial instruments approximates their carrying value due to the short maturity or current market rate associated with these instruments.

### **Risk Factors**

There are a number of risks that could affect Appia's business prospects. They include the speculative nature and the ability to finance the exploration and development of the Company's mineral properties, operating hazards, environmental and other government regulations, competition in the marketplace, markets for the Company's securities and the demand for uranium and rare earth elements. The Company's viability will depend on defining recoverable and economic resources and establishing positive comprehensive feasibility studies leading to production decisions. After completion of positive feasibility studies, the Company's success is dependent on maintaining the title and beneficial interest in the properties, obtaining the necessary governmental approvals and the successful financing, construction and operation of a facility to profitably extract the contained metals.

### **Financial Capability and Additional Financing**

The Company had a cash position of \$5,324,000 and working capital of \$4,740,000 at February 23, 2021, (after providing for \$641,000 owing to related parties), has no source of operating income and has no assurance that additional funding will be available to it for further exploration and development of its projects. Although the Company has been successful in the past in financing its activities through the sale of equity securities, there can be no assurance that it will be able to obtain sufficient financing in the future to continue as a going concern.

### Pandemic COVID-19 risk

The declaration by the World Health Organization that the COVID-19 infectious virus is a global pandemic delayed the start of the 2020 exploration program this calendar year. Although Saskatchewan has not experienced the dire results in other Provinces, there are government-imposed restrictions on access to the properties and regulation of proposed activity. It is uncertain what restrictions may be applied in the summer of 2021.

To ensure safe work conditions are met for the workforce, the Company developed exploration guidelines that comply with the Saskatchewan Public Health Order and the specific Northern Saskatchewan Administration District Order, in order to maintain social distancing and help prevent the transmission of the COVID-19 infectious virus.

### Land access

Under the modified Mining Act (Ontario), the Company is required to obtain permits to conduct exploration and evaluation activities on its Ontario properties. The Ontario Government is required to consult with the First Nations in order to reach agreement to permit activity in areas considered to have been historically inhabited.

Similar restrictions have been enacted in Saskatchewan, requiring the Company to obtain permission to occupy the camp at Alces Lake. The impact of possible delays on the Company's intended exploration activity is not predictable.

### **Special Note Regarding Forward-Looking Statements**

Certain statements in this MD&A may constitute "forward-looking" statements which involve known and unknown risks, uncertainties and other factors which may cause the actual results to differ materially from the statements made. When used in this report, the words "estimate", "believe", "anticipate", "intend", "expect", "plan", "may", "should", and "will", are intended to identify forward-looking statements, and reflect the current expectations of the management of the Company with respect to future events, and are subject to risks and uncertainties, such as reduced funding and general economic and market factors. New risk factors may arise from time to time and it is not possible for management of the Company to predict all of those risk factors or the extent to which any factor or combination of factors may cause actual results, performance or achievements of the Company to be materially different from those expressed or implied in such forward-looking statements. Investors should not place undue reliance on forward-looking statements as a prediction of actual results. The Company does not undertake or assume any obligation to update these forward-looking statements to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events, except as required by law.

### **Additional Information**

Additional information may be found on the Company's website at [www.appiaenergy.ca](http://www.appiaenergy.ca) and on SEDAR.

The technical information included in this MD&A regarding Saskatchewan was reviewed and approved by Dr. Irvine Annesley, P.Geo, advisor to the Board of Directors of Appia, a Qualified Person as defined by National Instrument 43-101, and the technical information regarding the Elliot Lake properties has been reviewed and approved by Al Workman, P.Geo. Senior Geologist, Watts, Griffis and McQuat Ltd., a Qualified Person in accordance with the Canadian regulatory requirements as set out in NI 43-101.

Five tables are attached for individual REO grades supporting reported TREO grades in the text (Table 1), as well as lithochemical results for all 2019 diamond drill holes and all new surface discoveries (Tables 2 and 3, respectively). Table 4 reports recent lithochemical results on 2017 and 2018 select samples tested for gallium as well as TREO. Table 5 provides the lithochemical results for all 2020 diamond drill holes.

**Appendix – Table 1: Individual REO grades supporting reported TREO grades directly in the text**

Program Year	Sample Source	La <sub>2</sub> O <sub>3</sub> (wt%)	CeO <sub>2</sub> (wt%)	Pr <sub>6</sub> O <sub>11</sub> (wt%)	Nd <sub>2</sub> O <sub>3</sub> (wt%)	Sm <sub>2</sub> O <sub>3</sub> (wt%)	Eu <sub>2</sub> O <sub>3</sub> (wt%)	Gd <sub>2</sub> O <sub>3</sub> (wt%)	Tb <sub>4</sub> O <sub>7</sub> (wt%)	Dy <sub>2</sub> O <sub>3</sub> (wt%)	Ho <sub>2</sub> O <sub>3</sub> (wt%)	Er <sub>2</sub> O <sub>3</sub> (wt%)	Yb <sub>2</sub> O <sub>3</sub> (wt%)	Lu <sub>2</sub> O <sub>3</sub> (wt%)	Y <sub>2</sub> O <sub>3</sub> (wt%)	ThO <sub>2</sub> (wt%)	U <sub>3</sub> O <sub>8</sub> (wt%)	TREO (wt%)	CREO (wt%)
Reference - page 2																			
2019	RI-19-001	1.701	3.667	0.408	1.405	0.198	0.003	0.091	0.008	0.022	0.003	0.004	0.001	0.000	0.065	1.012	0.028	7.575	1.845
2019	Biotite Lake	0.562	1.241	0.137	0.462	0.074	0.002	0.042	0.003	0.011	0.001	0.002	0.001	0.000	0.032	0.403	0.019	2.568	0.614
Reference - page 3																			
2019	Biotite Lake	0.562	1.241	0.137	0.462	0.074	0.002	0.042	0.003	0.011	0.001	0.002	0.001	0.000	0.032	0.403	0.019	2.568	0.614
Reference - page 4																			
2020	RI-20-004	1.514	3.244	0.353	1.137	0.161	0.002	0.066	0.005	0.015	0.002	0.002	0.001	0.000	0.043	0.846	0.023	6.546	1.513
	includes	2.566	5.468	0.599	1.909	0.270	0.003	0.111	0.009	0.025	0.003	0.003	0.001	0.000	0.069	1.437	0.037	11.035	2.546
Reference - page 5																			
2020	RI-20-005	1.201	2.543	0.281	0.967	0.132	0.002	0.068	0.005	0.015	0.002	0.003	0.001	0.000	0.047	0.637	0.017	5.268	1.271
	includes	2.346	5.012	0.550	1.889	0.259	0.004	0.131	0.010	0.028	0.003	0.004	0.002	0.000	0.084	1.206	0.033	10.322	2.480
Reference – page 6																			
2020	Outcrop (cut)	0.111	0.220	0.024	0.080	0.011	0.000	0.007	0.001	0.003	0.000	0.001	0.001	0.000	0.012	0.092	0.005	0.472	0.107
Reference – page 7																			
2020	Outcrop (cut)	0.111	0.220	0.024	0.080	0.011	0.000	0.007	0.001	0.003	0.000	0.001	0.001	0.000	0.012	0.092	0.005	0.472	0.107

**Appendix – Table 2: Lithochemical results for all Summer 2019 drill holes**

Zone	DDH	From (m)	To (m)	Interval (m)	La <sub>2</sub> O <sub>3</sub> (wt%)	CeO <sub>2</sub> (wt%)	Pr <sub>2</sub> O <sub>3</sub> (wt%)	Nd <sub>2</sub> O <sub>3</sub> (wt%)	Sm <sub>2</sub> O <sub>3</sub> (wt%)	Eu <sub>2</sub> O <sub>3</sub> (wt%)	Gd <sub>2</sub> O <sub>3</sub> (wt%)	Tb <sub>2</sub> O <sub>3</sub> (wt%)	Dy <sub>2</sub> O <sub>3</sub> (wt%)	Ho <sub>2</sub> O <sub>3</sub> (wt%)	Er <sub>2</sub> O <sub>3</sub> (wt%)	Yb <sub>2</sub> O <sub>3</sub> (wt%)	Lu <sub>2</sub> O <sub>3</sub> (wt%)	Y <sub>2</sub> O <sub>3</sub> (wt%)	ThO <sub>2</sub> (wt%)	U <sub>3</sub> O <sub>8</sub> (wt%)	TREO (wt%)	CREO (wt%)	
Charles	CH-19-009																						
																							No Significant Results
Charles	CH-19-010	7.60	9.80	2.20	1.809	3.954	0.434	1.500	0.212	0.003	0.095	0.007	0.018	0.002	0.003	0.001	0.000	0.047	1.009	0.029	8.085	1.963	
Charles	CH-19-011	7.80	8.80	1.00	0.833	1.865	0.208	0.715	0.101	0.001	0.046	0.004	0.010	0.001	0.002	0.001	0.000	0.027	0.507	0.013	3.813	0.938	
Charles	CH-19-012	9.70	10.10	0.40	0.312	0.654	0.078	0.272	0.036	0.001	0.016	0.001	0.005	0.001	0.002	0.003	0.000	0.025	0.217	0.005	1.405	0.357	
Charles	CH-19-013																						No Significant Results
Charles	CH-19-014	0.00	1.30	1.30	2.692	5.844	0.648	2.223	0.310	0.004	0.137	0.011	0.028	0.003	0.005	0.001	0.000	0.072	1.502	0.042	11.978	2.913	
Charles	CH-19-015	0.00	0.70	0.70	1.747	3.710	0.408	1.423	0.203	0.003	0.095	0.008	0.023	0.003	0.004	0.001	0.000	0.065	0.915	0.027	7.692	1.864	
Charles	CH-19-016	0.00	1.10	1.10	1.010	2.155	0.239	0.824	0.116	0.002	0.052	0.004	0.011	0.001	0.002	0.001	0.000	0.031	0.556	0.016	4.449	1.080	
Dante	DT-19-001																						No Significant Results
Dante	DT-19-002																						No Significant Results
Dante	DT-19-003																						No Significant Results
Dante	DT-19-004	16.90	17.70	0.80	3.086	6.713	0.714	2.577	0.357	0.004	0.176	0.013	0.031	0.003	0.004	0.001	0.000	0.080	1.826	0.047	13.758	3.338	
Dante	DT-19-004A																						No Significant Results
Dante	DT-19-004B	15.90	17.50	1.60	4.122	9.092	0.962	3.472	0.487	0.006	0.236	0.017	0.040	0.005	0.005	0.001	0.000	0.104	2.444	0.061	18.550	4.498	
Dante	DT-19-005																						No Significant Results
Dante	DT-19-006																						No Significant Results
Ivan	IV-19-002																						No Significant Results
Ivan	IV-19-003	10.25	21.90	11.65	3.55	7.82	0.86	3.08	0.41	0.00	0.22	0.02	0.04	0.00	0.00	0.00	0.00	0.09	2.07	0.05	16.10	4.00	
	Includes	13.30	16.00	2.70	6.792	15.050	1.673	5.990	0.797	0.009	0.430	0.034	0.071	0.007	0.009	0.001	0.000	0.178	3.900	0.107	31.044	7.777	
Ivan	IV-19-004																						No Significant Results
Ivan	IV-19-005																						No Significant Results
Ivan	IV-19-006																						No Significant Results
Ivan	IV-19-007																						No Significant Results
Ivan	IV-19-008	12.80	13.50	0.70	3.518	7.690	0.859	2.962	0.418	0.005	0.203	0.014	0.038	0.004	0.006	0.001	0.000	0.095	1.980	0.066	15.813	3.877	
Ivan	IV-19-009	12.60	13.80	1.20	5.340	11.583	1.278	4.361	0.618	0.008	0.304	0.021	0.055	0.006	0.010	0.002	0.000	0.137	2.992	0.083	23.722	5.723	
Ivan	IV-19-010																						No Significant Results
Ivan	IV-19-011	9.85	10.90	1.05	8.525	18.210	2.017	6.997	0.977	0.012	0.491	0.033	0.085	0.008	0.014	0.002	0.000	0.205	4.746	0.136	37.576	9.144	
Ivan	IV-19-012*	8.70	24.25	15.55	3.653	7.798	0.889	2.946	0.413	0.005	0.205	0.014	0.036	0.004	0.006	0.001	0.000	0.089	2.081	0.054	16.059	3.890	
	Includes	9.70	17.60	7.90	7.130	15.219	1.735	5.748	0.805	0.010	0.400	0.027	0.071	0.007	0.012	0.002	0.000	0.173	4.058	0.105	31.339	7.591	
	Includes	9.70	13.40	3.70	11.233	23.833	2.753	8.996	1.258	0.016	0.626	0.042	0.110	0.011	0.019	0.002	0.001	0.266	6.365	0.164	49.165	11.918	
Ivan	IV-19-013	9.90	11.95	2.05	2.753	6.121	0.685	2.360	0.338	0.004	0.169	0.011	0.031	0.003	0.005	0.001	0.000	0.075	1.653	0.042	12.556	3.091	
	And	22.60	24.40	1.80	5.031	10.985	1.203	4.148	0.579	0.007	0.290	0.020	0.051	0.005	0.009	0.001	0.000	0.127	2.886	0.073	22.457	5.430	
Ivan	IV-19-014																						No Significant Results
Ivan	IV-19-015																						No Significant Results
Ivan	IV-19-016																						No Significant Results
Ivan	IV-19-017																						No Significant Results
Ivan	IV-19-018																						No Significant Results
Ivan	IV-19-019	5.50	5.80	0.30	4.070	8.623	0.939	3.241	0.455	0.006	0.211	0.016	0.042	0.004	0.007	0.001	0.000	0.104	2.253	0.103	17.719	4.244	
Ivan	IV-19-020	24.10	25.05	0.95	8.007	16.667	1.803	6.257	0.858	0.011	0.388	0.030	0.078	0.008	0.013	0.002	0.001	0.197	4.387	0.108	34.318	8.178	
Ivan	IV-19-021	14.80	15.10	0.30	2.264	5.245	0.581	2.017	0.281	0.004	0.125	0.010	0.027	0.003	0.004	0.001	0.000	0.065	1.309	0.033	10.625	2.639	
Ivan	IV-19-022	15.20	17.80	2.60	1.468	3.147	0.337	1.191	0.165	0.002	0.075	0.006	0.016	0.002	0.003	0.001	0.000	0.042	0.801	0.021	6.453	1.552	
Ivan	IV-19-023	15.75	17.45	1.70	4.140	8.857	0.958	3.309	0.465	0.006	0.201	0.016	0.041	0.004	0.007	0.001	0.000	0.104	2.172	0.062	18.109	4.330	
Mikaela	MK-19-001																						No Significant Results
Mikaela	MK-19-002																						No Significant Results
Richard	RI-19-001	9.80	18.70	8.90	1.701	3.667	0.408	1.405	0.198	0.003	0.091	0.008	0.022	0.003	0.004	0.001	0.000	0.065	1.012	0.028	7.575	1.845	
Richard	RI-19-002																						No Significant Results
Regional	AL-19-003																						No Significant Results
Regional	AL-19-004																						No Significant Results

**Appendix – Table 3: Lithogeochemical results for 2019 new surface discoveries**

Zone	Sample Type (Grab, Channel)	From (m)	To (m)	Interval (m)	La <sub>2</sub> O <sub>3</sub> (wt%)	CeO <sub>2</sub> (wt%)	Pr <sub>6</sub> O <sub>11</sub> (wt%)	Nd <sub>2</sub> O <sub>3</sub> (wt%)	Sm <sub>2</sub> O <sub>3</sub> (wt%)	Eu <sub>2</sub> O <sub>3</sub> (wt%)	Gd <sub>2</sub> O <sub>3</sub> (wt%)	Tb <sub>4</sub> O <sub>7</sub> (wt%)	Dy <sub>2</sub> O <sub>3</sub> (wt%)	Ho <sub>2</sub> O <sub>3</sub> (wt%)	Er <sub>2</sub> O <sub>3</sub> (wt%)	Yb <sub>2</sub> O <sub>3</sub> (wt%)	Lu <sub>2</sub> O <sub>3</sub> (wt%)	Y <sub>2</sub> O <sub>3</sub> (wt%)	ThO <sub>2</sub> (wt%)	U <sub>3</sub> O <sub>8</sub> (wt%)	TREO (wt%)	CREO (wt%)
Thomas	CS 1	0.50	1.70	1.20	0.109	0.225	0.026	0.094	0.015	0.000	0.008	0.001	0.002	0.000	0.000	0.000	0.000	0.006	0.067	0.002	0.487	0.123
Quartzite	CS 1	0.45	2.06	1.61	0.116	0.233	0.026	0.090	0.011	0.000	0.004	0.000	0.001	0.000	0.000	0.000	0.000	0.002	0.071	0.001	0.485	0.118
Quartzite	CS 2	0.35	2.06	1.71	0.111	0.221	0.025	0.085	0.011	0.000	0.004	0.000	0.001	0.000	0.000	0.000	0.000	0.002	0.071	0.001	0.460	0.112
Quartzite	CS 3	0.00	1.92	1.92	0.109	0.224	0.025	0.087	0.011	0.000	0.004	0.000	0.001	0.000	0.000	0.000	0.000	0.002	0.074	0.001	0.464	0.114
Biotite Lake	Grab 1				0.562	1.241	0.137	0.462	0.074	0.002	0.042	0.003	0.011	0.001	0.002	0.001	0.000	0.032	0.403	0.019	2.568	0.614
Biotite Lake	Grab 2				0.538	1.107	0.128	0.441	0.068	0.001	0.039	0.003	0.010	0.001	0.002	0.001	0.000	0.028	0.382	0.016	2.367	0.583
Biotite Lake	Grab 3				0.305	0.623	0.073	0.250	0.038	0.001	0.021	0.002	0.005	0.001	0.001	0.001	0.000	0.017	0.214	0.010	1.336	0.330
Biotite Lake	Grab Avg				0.468	0.990	0.112	0.384	0.060	0.001	0.034	0.003	0.009	0.001	0.002	0.001	0.000	0.026	0.333	0.015	2.090	0.509

**Appendix – Table 4: Gallium (Ga<sub>2</sub>O<sub>3</sub>) and Total Rare Earth Oxide lithochemical results from select samples 2017 and 2018**

Sample	Zone	Year	Ga <sub>2</sub> O <sub>3</sub> (wt%)	La <sub>2</sub> O <sub>3</sub> (wt%)	CeO <sub>2</sub> (wt%)	Pr <sub>6</sub> O <sub>11</sub> (wt%)	Nd <sub>2</sub> O <sub>3</sub> (wt%)	Sm <sub>2</sub> O <sub>3</sub> (wt%)	Eu <sub>2</sub> O <sub>3</sub> (wt%)	Gd <sub>2</sub> O <sub>3</sub> (wt%)	Tb <sub>4</sub> O <sub>7</sub> (wt%)	Dy <sub>2</sub> O <sub>3</sub> (wt%)	Ho <sub>2</sub> O <sub>3</sub> (wt%)	Er <sub>2</sub> O <sub>3</sub> (wt%)	Yb <sub>2</sub> O <sub>3</sub> (wt%)	Lu <sub>2</sub> O <sub>3</sub> (wt%)	Y <sub>2</sub> O <sub>3</sub> (wt%)	TREO (wt%)	CREO (wt%)
102020	Hinge	2017	0.004	0.971	2.211	0.211	0.875	0.109	0.001	0.063	0.006	0.014	0.001	0.010	0.001		0.034	4.508	1.107
102021	Hinge	2017	0.011	1.888	4.263	0.454	1.679	0.225	0.001	0.111	0.009	0.024	0.001	0.017	0.001		0.055	8.729	2.168
102034	NW Wilson	2017	0.009	0.997	2.309	0.256	0.922	0.131	0.001	0.069	0.007	0.017	0.001	0.011	0.001		0.047	4.771	1.204
102035	NW Wilson	2017	0.008	1.082	2.432	0.324	0.960	0.146	0.001	0.075	0.007	0.016	0.001	0.011	0.001		0.038	5.095	1.308
102036	Wilson	2017	0.013	2.568	5.921	0.714	2.379	0.361	0.003	0.175	0.015	0.038	0.002	0.025	0.001		0.090	12.293	3.149
102037	Danny	2017	0.010	1.935	4.471	0.476	1.842	0.275	0.002	0.145	0.015	0.049	0.001	0.026	0.005		0.156	9.400	2.385
102038	Danny	2017	0.011	2.639	6.007	0.672	2.437	0.348	0.003	0.176	0.018	0.048	0.001	0.030	0.003		0.150	12.532	3.178
102039	Danny	2017	0.005	2.850	6.511	0.761	2.635	0.385	0.003	0.196	0.020	0.054	0.001	0.034	0.003		0.171	13.626	3.474
102041	Danny	2017	0.012	2.111	4.778	0.509	1.901	0.266	0.001	0.125	0.012	0.026	0.001	0.019	0.001		0.065	9.815	2.449
102042	Danny	2017	0.014	2.533	5.823	0.674	2.297	0.327	0.002	0.150	0.013	0.032	0.002	0.023	0.001		0.074	11.951	3.019
102044	Wilson	2017	0.019	5.266	11.977	1.402	4.746	0.705	0.006	0.325	0.028	0.062	0.006	0.047	0.001		0.146	24.716	6.243
102045	Wilson	2017	0.011	5.653	12.775	1.571	5.084	0.778	0.007	0.364	0.032	0.070	0.007	0.051	0.002		0.169	26.564	6.763
102046	Wilson	2017	0.013	2.451	5.565	0.668	2.215	0.331	0.003	0.158	0.014	0.032	0.002	0.023	0.001		0.074	11.538	2.933
102050	Wilson	2017	0.017	3.905	8.820	1.063	3.475	0.517	0.005	0.242	0.021	0.045	0.005	0.034	0.001		0.107	18.240	4.608
102051	Wilson	2017	0.015	6.556	14.864	1.788	5.865	0.882	0.008	0.413	0.035	0.085	0.007	0.058	0.002		0.193	30.756	7.781
102063	Wilson	2017	0.008	1.278	2.899	0.348	1.160	0.171	0.001	0.085	0.007	0.016	0.001	0.013	0.001		0.038	6.019	1.532
102064	Wilson	2017	0.015	3.213	7.297	0.865	2.903	0.434	0.003	0.206	0.019	0.042	0.003	0.030	0.001		0.095	15.113	3.833
102065	Wilson	2017	0.012	4.246	9.655	1.122	3.848	0.558	0.005	0.266	0.024	0.052	0.005	0.039	0.001		0.126	19.945	5.050
102066	Wilson	2017	0.012	6.075	13.881	1.607	5.492	0.815	0.007	0.382	0.034	0.075	0.007	0.056	0.002		0.179	28.612	7.214
102067	Wilson	2017	0.015	4.633	10.478	1.232	4.139	0.621	0.006	0.294	0.026	0.056	0.005	0.041	0.001		0.137	21.669	5.460
102068	Ivan	2017	0.031	10.731	23.708	3.008	9.503	1.427	0.016	0.662	0.056	0.124	0.011	0.091	0.003		0.292	49.634	12.708
102069	Ivan	2017	0.035	11.235	25.182	3.129	9.899	1.496	0.017	0.685	0.059	0.130	0.013	0.097	0.003		0.314	52.260	13.234
102070	Ivan	2017	0.020	7.283	16.461	2.030	6.518	1.009	0.010	0.466	0.040	0.087	0.009	0.062	0.002		0.208	34.185	8.685
102075	Richard	2018	0.002	0.113	0.237	0.026	0.083	0.011	0.000	0.007	0.000	0.001	0.000	0.000	0.000	0.000	0.004	0.485	0.112
102077	Charles	2018	0.003	0.005	0.010	0.001	0.004	0.001	0.000	0.001	0.000	0.001	0.000	0.000	0.001	0.000	0.005	0.029	0.006
102179	Charles	2018	0.014	0.917	1.953	0.209	0.646	0.085	0.001	0.051	0.003	0.009	0.001	0.004	0.002	0.000	0.034	3.915	0.868
102196	Charles	2018	0.029	2.369	4.963	0.529	1.644	0.220	0.003	0.136	0.007	0.021	0.002	0.007	0.001	0.000	0.062	9.964	2.204
102465	Wilson	2018	0.013	0.941	2.015	0.210	0.663	0.097	0.001	0.056	0.003	0.012	0.001	0.004	0.001	0.000	0.032	4.037	0.890
102672	Wilson	2018	0.008	0.477	1.004	0.110	0.351	0.049	0.001	0.027	0.001	0.005	0.001	0.001	0.000	0.000	0.013	2.040	0.468
102712	Ivan	2018	0.115	12.784	26.779	2.972	9.491	1.206	0.016	0.680	0.034	0.116	0.014	0.036	0.002	0.001	0.319	54.450	12.629
102749	Ivan	2018	0.049	4.574	9.803	1.070	3.463	0.441	0.006	0.249	0.012	0.041	0.005	0.013	0.001	0.000	0.110	19.788	4.593
102830	Dylan	2018	0.085	9.218	20.391	2.271	7.101	0.916	0.012	0.521	0.025	0.085	0.010	0.028	0.001	0.001	0.207	40.789	9.495
102833	Dante	2018	0.022	2.299	5.061	0.505	1.632	0.234	0.003	0.137	0.008	0.026	0.003	0.008	0.001	0.000	0.071	9.989	2.174

**Appendix – Table 5: Lithochemical results for all Summer 2020 drill holes**







Zone	DDH	From (m)	To (m)	Interval (m)	La <sub>2</sub> O <sub>3</sub> wt%	CeO <sub>2</sub> wt%	Pr <sub>6</sub> O <sub>11</sub> wt%	Nd <sub>2</sub> O <sub>3</sub> wt%	Sm <sub>2</sub> O <sub>3</sub> wt%	Eu <sub>2</sub> O <sub>3</sub> wt%	Gd <sub>2</sub> O <sub>3</sub> wt%	Tb <sub>4</sub> O <sub>7</sub> wt%	Dy <sub>2</sub> O <sub>3</sub> wt%	Ho <sub>2</sub> O <sub>3</sub> wt%	Er <sub>2</sub> O <sub>3</sub> wt%	Yb <sub>2</sub> O <sub>3</sub> wt%	Lu <sub>2</sub> O <sub>3</sub> wt%	Y <sub>2</sub> O <sub>3</sub> wt%	Ga <sub>2</sub> O <sub>3</sub> wt%	ThO <sub>2</sub> wt%	U <sub>3</sub> O <sub>8</sub> wt%	TREO wt%	CREO wt%	
Richard	RI-20-004	7.60	13.40	5.80	1.514	3.244	0.353	1.137	0.161	0.002	0.066	0.005	0.015	0.002	0.002	0.001	0.000	0.043	0.016	0.846	0.023	6.546	1.513	
	includes	8.60	9.10	0.50	2.533	5.479	0.570	1.936	0.270	0.003	0.113	0.009	0.025	0.003	0.003	0.001	0.000	0.067	0.028	1.377	0.039	11.011	2.543	
	and	10.60	13.40	2.80	2.566	5.468	0.599	1.909	0.270	0.003	0.111	0.009	0.025	0.003	0.003	0.001	0.000	0.069	0.025	1.437	0.037	11.035	2.546	
Richard	RI-20-005	6.90	7.30	0.40	0.035	0.077	0.009	0.031	0.005	0.000	0.003	0.000	0.003	0.001	0.003	0.003	0.000	0.021	0.002	0.028	0.001	0.192	0.044	
Richard	RI-20-005	9.80	10.90	1.10	1.201	2.543	0.281	0.967	0.132	0.002	0.068	0.005	0.015	0.002	0.003	0.001	0.000	0.047	0.014	0.637	0.017	5.268	1.271	
	includes	10.15	10.55	0.40	2.346	5.012	0.550	1.889	0.259	0.004	0.131	0.010	0.028	0.003	0.004	0.002	0.000	0.084	0.024	1.206	0.033	10.322	2.480	
Cone	CO-20-001	123.95	124.45	0.50	No Significant Results																			
Cone	CO-20-001	130.45	131.40	0.95	0.037	0.080	0.010	0.033	0.005	0.000	0.003	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.005	0.003	0.022	0.001	0.175	0.045
Cone	CO-20-001	231.45	231.80	0.35	No Significant Results																			
Cone	CO-20-002	249.95	250.15	0.20	0.057	0.117	0.014	0.045	0.006	0.000	0.002	0.000	0.001	0.000	0.000	0.000	0.000	0.002	0.003	0.037	0.001	0.244	0.060	
Danny	DN-20-001	Not Sampled																						
Danny	DN-20-002	58.85	59.10	0.25	0.164	0.355	0.043	0.147	0.022	0.000	0.009	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.005	0.005	0.103	0.003	0.750	0.193
Danny	DN-20-002	344.40	345.00	0.60	0.037	0.075	0.009	0.030	0.004	0.000	0.002	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.002	0.003	0.021	0.002	0.160	0.039
Danny	DN-20-002	349.50	350.00	0.50	No Significant Results																			
Danny	DN-20-003	3.25	3.40	0.15	0.090	0.194	0.024	0.081	0.013	0.000	0.008	0.001	0.003	0.000	0.001	0.000	0.000	0.010	0.003	0.046	0.003	0.425	0.109	
Danny	DN-20-003	20.80	21.60	0.80	0.041	0.091	0.011	0.038	0.005	0.000	0.003	0.000	0.001	0.000	0.000	0.000	0.000	0.002	0.002	0.029	0.001	0.193	0.050	
Danny	DN-20-003	23.80	23.90	0.10	0.051	0.111	0.013	0.046	0.007	0.000	0.003	0.000	0.001	0.000	0.000	0.000	0.000	0.002	0.002	0.035	0.001	0.235	0.061	
Danny	DN-20-003	26.20	26.90	0.70	0.041	0.093	0.012	0.042	0.007	0.000	0.003	0.000	0.001	0.000	0.000	0.000	0.000	0.002	0.003	0.037	0.002	0.201	0.055	
Danny	DN-20-004	22.35	22.95	0.60	0.049	0.104	0.013	0.042	0.006	0.000	0.003	0.000	0.001	0.000	0.000	0.000	0.000	0.002	0.003	0.030	0.001	0.219	0.056	
Ermacre	ER-20-001	4.80	6.90	2.10	0.061	0.138	0.017	0.058	0.009	0.000	0.005	0.000	0.002	0.000	0.001	0.001	0.000	0.008	0.003	0.041	0.002	0.300	0.077	
Hinge	HN-20-001	35.00	35.55	0.55	No Significant Results																			
Hinge	HN-20-001	128.65	129.10	0.45	0.022	0.047	0.006	0.020	0.003	0.000	0.002	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.003	0.003	0.000	0.001	0.105	0.027
Hinge	HN-20-001	253.15	262.60	9.45	No Significant Results																			
Hinge	HN-20-001	265.50	265.60	0.10	No Significant Results																			
Hinge	HN-20-001	306.00	306.15	0.15	No Significant Results																			
Hinge	HN-20-001	307.75	308.05	0.30	No Significant Results																			
Hinge	HN-20-001	310.80	311.50	0.70	No Significant Results																			
Hinge	HN-20-001	321.60	321.80	0.20	No Significant Results																			
Wilson	WI-20-005	8.90	11.35	2.45	0.079	0.161	0.019	0.067	0.010	0.000	0.004	0.000	0.001	0.000	0.000	0.000	0.000	0.004	0.004	0.047	0.002	0.347	0.088	
Wilson	WI-20-005	39.40	39.50	0.10	0.038	0.083	0.010	0.037	0.007	0.001	0.003	0.000	0.001	0.000	0.000	0.000	0.000	0.003	0.003	0.030	0.003	0.182	0.049	
Wilson	WI-20-005	109.35	115.20	5.85	0.120	0.244	0.029	0.096	0.013	0.000	0.005	0.000	0.001	0.000	0.000	0.000	0.000	0.003	0.005	0.072	0.003	0.511	0.126	
Wilson	WI-20-006	5.80	8.45	2.65	0.096	0.206	0.025	0.089	0.015	0.000	0.007	0.001	0.002	0.000	0.001	0.000	0.000	0.009	0.003	0.055	0.002	0.452	0.118	
Wilson	WI-20-006	11.70	12.00	0.30	No Significant Results																			
Wilson	WI-20-006	14.60	15.50	0.90	0.035	0.078	0.009	0.033	0.005	0.000	0.002	0.000	0.001	0.000	0.000	0.000	0.000	0.002	0.003	0.025	0.001	0.166	0.043	
Wilson	WI-20-006	21.45	21.95	0.50	0.028	0.058	0.007	0.023	0.003	0.000	0.002	0.000	0.001	0.000	0.001	0.001	0.000	0.005	0.003	0.015	0.001	0.128	0.031	
Wilson	WI-20-006	29.80	31.60	1.80	0.038	0.081	0.010	0.032	0.005	0.000	0.003	0.000	0.003	0.001	0.004	0.004	0.001	0.025	0.002	0.023	0.001	0.207	0.046	
Wilson	WI-20-006	39.20	40.30	1.10	0.045	0.097	0.012	0.041	0.006	0.000	0.003	0.000	0.002	0.000	0.002	0.002	0.000	0.012	0.003	0.031	0.001	0.223	0.055	
Wilson	WI-20-006	133.50	134.00	0.50	0.078	0.156	0.019	0.063	0.009	0.000	0.004	0.000	0.001	0.000	0.000	0.000	0.000	0.003	0.004	0.044	0.002	0.333	0.083	
Wilson	WI-20-007	9.60	10.90	1.30	0.032	0.067	0.008	0.026	0.004	0.000	0.002	0.000	0.001	0.000	0.000	0.000	0.000	0.003	0.003	0.018	0.001	0.143	0.035	
Wilson	WI-20-007	111.10	118.10	7.00	0.049	0.099	0.012	0.040	0.005	0.000	0.003	0.000	0.001	0.000	0.000	0.000	0.000	0.002	0.004	0.027	0.001	0.211	0.052	
Wilson	WI-20-007	120.45	120.90	0.45	0.055	0.112	0.013	0.043	0.005	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.033	0.001	0.233	0.056	
Wilson	WI-20-007	126.20	126.90	0.70	0.045	0.094	0.011	0.038	0.005	0.000	0.003	0.000	0.001	0.000	0.001	0.001	0.000	0.007	0.003	0.023	0.001	0.206	0.051	
Wilson	WI-20-007	130.05	130.50	0.45	No Significant Results																			
Wilson	WI-20-008	28.55	30.55	2.00	0.102	0.215	0.026	0.088	0.012	0.000	0.005	0.000	0.001	0.000	0.000	0.000	0.000	0.004	0.004	0.067	0.002	0.455	0.116	
Wilson	WI-20-008	135.00	138.65	3.65	0.045	0.093	0.011	0.038	0.005	0.000	0.002	0.000	0.001	0.000	0.000	0.000	0.000	0.002	0.003	0.027	0.001	0.198	0.050	
Wilson	WI-20-008	144.10	144.20	0.10	No Significant Results																			
Wilson	WI-20-008	145.75	147.80	2.05	No Significant Results																			
Wilson	WI-20-009	76.30	79.35	3.05	0.030	0.063	0.008	0.025	0.003	0.000	0.002	0.000	0.001	0.000	0.001	0.001	0.000	0.009	0.002	0.020	0.001	0.146	0.034	
Wilson	WI-20-009	146.70	147.15	0.45	No Significant Results																			
Wilson	WI-20-009	149.65	150.10	0.45	No Significant Results																			
Wilson	WI-20-009	154.10	154.45	0.35	No Significant Results																			
Wilson	WI-20-009	172.00	172.50	0.50	0.054	0.106	0.012	0.041	0.005	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.004	0.029	0.001	0.223	0.054	
Wilson	WI-20-009	214.75	215.15	0.40	No Significant Results																			

## Appendix – Notes

The REEs Thulium (Tm) and Promethium (Pm) are not reported because they are both extremely scarce in nature, and Pm forms as a product of spontaneous fission of U-238

TREO = Total Rare Earth Oxide = sum of  $\text{La}_2\text{O}_3 + \text{CeO}_2 + \text{Pr}_6\text{O}_{11} + \text{Nd}_2\text{O}_3 + \text{Sm}_2\text{O}_3 + \text{Eu}_2\text{O}_3 + \text{Gd}_2\text{O}_3 + \text{Tb}_4\text{O}_7 + \text{Dy}_2\text{O}_3 + \text{Ho}_2\text{O}_3 + \text{Er}_2\text{O}_3 + \text{Yb}_2\text{O}_3 + \text{Lu}_2\text{O}_3 + \text{Y}_2\text{O}_3$

CREO = Critical Rare Earth Oxide = sum of  $\text{Pr}_6\text{O}_{11} + \text{Nd}_2\text{O}_3 + \text{Eu}_2\text{O}_3 + \text{Tb}_4\text{O}_7 + \text{Dy}_2\text{O}_3$

	Highlighting Nd grades associated with high-grade TREO
	Highlighting Pr grades associated with high-grade TREO
	Highlighting "high-grade" TREO and CREO (i.e. >1.897 wt% TREO)
	Indicates light rare earth elements (LREEs; La, Ce, Pr, Nd, Sm)
	Indicates heavy rare earth elements (HREEs; Eu, Gd, Tb, Dy, Ho, Er, Yb, Lu, Y)
	Indicates radioactive elements (not a rare earth element)

### Conditions Used for Reporting Composite Results (Appendix – Table 1)

- all intervals are reported with cutoff grade = 4.0 wt% TREO
- maximum internal dilution along channel lines and/or drill holes does not exceed 2.0 m consecutively

### Conditions Used for Reporting Composite Results (Appendix – Table 2)

- all intervals are reported with cutoff grade = 1.0 wt% TREO, with exception of IV-19-012\* reported with cutoff grade = 0.1 wt% TREO
- maximum internal dilution along drill holes does not exceed 2.0 m consecutively
- drill hole "intervals" are reported as down-hole; true thickness has not been determined

### Conditions Used for Reporting Composite Results (Appendix – Table 3 and Table 5)

- all intervals are reported with cutoff grade = 0.1 wt% TREO
- maximum internal dilution along channel lines does not exceed 2.0 m consecutively
- true thicknesses have not been determined

[Note: >1.897 wt% TREO represents >75th percentile for global REO deposit grades of advanced stage-projects \(excluding Gakara, Steenkampskraal and Mount Weld CLD deposits\). The global REO deposit information was derived from publicly available information as of January 31, 2018, from individual company websites, SEDAR technical report filings, and the Technology Metals Research Advanced Rare Earth Projects Index \(http://www.techmetalsresearch.com/metrics-indices/tmr-advanced-rare-earth-projects-index/\)](http://www.techmetalsresearch.com/metrics-indices/tmr-advanced-rare-earth-projects-index/)