

Management's Discussion and Analysis Quarterly Highlights

Six months ended November 30, 2020

Management Discussion & Analysis- Quarterly Highlights Six months ended November 30, 2020

The following quarterly highlights management discussion and analysis (the "MD&A Highlights") of the financial condition and results of the operations of Geomega Resources Inc. (the "Corporation", "Company" or "Geomega") constitutes management's review of the factors that affected the Corporation's financial and operating performance for Q2-21. This MD&A Highlights should be read in conjunction with the Corporation's unaudited condensed interim financial statements as at November 30, 2020 prepared in accordance with the International Financial Reporting Standards ("IFRS"), as well as with the management discussion and analysis for the year ended May 31, 2020. All figures are in Canadian dollars unless otherwise noted.

Further information regarding the Corporation and its operations are filed electronically on the System for Electronic Document Analysis and Retrieval (SEDAR) in Canada and can be found on <a href="https://www.sedar.com">www.sedar.com</a>.

Abbreviation	Period		
Q1-20	June 1, 2019 to August 31, 2019		
Q2-20	September 1, 2019 to November 30, 2019		
Q2-20 YTD	June 1, 2019 to November 30, 2019		
Q3-20	December 1, 2019 to February 28, 2020		
Q4-20	March 1, 2020 to May 31, 2020		
Fiscal 20	June 1, 2019 to May 31, 2020		
Q1-21	June 1, 2020 to August 31, 2020		
Q2-21	September 1, 2020 to November 30, 2020		
Q2-21 YTD	June 1, 2020 to November 30, 2020		
Q3-21	December 1, 2020 to February 28, 2021		
Q4-21	March 1, 2021 to May 31, 2021		
Fiscal 21	June 1, 2020 to May 31, 2021		

#### 1. NATURE OF ACTIVITIES

Geomega is a mineral exploration and evaluation corporation focused on the discovery and sustainable development of economic deposits of metals in Quebec. Geomega is committed to meeting the Canadian mining industry standards and distinguishing itself with innovative engineering, high stakeholder engagement and dedication to local transformation benefits. On the TSX Venture Exchange (the "Exchange"), common shares of the Corporation are trading under the symbol GMA.

As society moves from consumption of fossil fuels to more sustainable energy sources, Geomega believes that the future of clean energy resides in one of the rare earth elements ("REE") called neodymium. Neodymium is vital for the production of high-performance permanent magnets used in a wide variety of electrical motors. Such motors are in increasing demand with the growth of sustainable-energy initiatives such as hybrid and electric vehicles and direct-drive wind turbines.

Innord Inc. ("Innord") is the innovation arm of Geomega and was created in March 2015 to optimize the value of the separation technology by facilitating its development through direct investments of key financial partners. Innord is a subsidiary of Geomega that holds all the technology rights and laboratory equipment. The primary goal of Innord is to perform research, development and scale up activities of the company's ISR Technology ("Innord Separation of Rare Earths - ISR Technology") and to evaluate opportunities to apply the technology to other ore types, mining and industrial waste feeds.

#### 2. CORPORATE UPDATE

### 2.1 Financial Highlights

Geomega has \$2,476,239 of cash and cash equivalents as at November 30, 2020 (\$485,780 as at May 31, 2020) and a working capital of \$2,540,209 (working capital of \$460,470 as at May 31, 2020).

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## 2. CORPORATE UPDATE (CONT'D)

For Q2-21 YTD, the Corporation recorded a net loss of \$608,636 compared to a net loss of \$580,377 for Q2-20 YTD. Excluding the effects of fluctuations from the investment in an associate, a net loss of \$550,439 was realized in Q2-21 YTD compared to a net loss of \$507,122 in Q2-20 YTD. The main variations are as follows:

- Directors fees of nil (\$22,250 in Q2-20 YTD). Since Q3-20, the Corporation has changed the remuneration package given to its directors. There is no more cash remuneration, but a share-based compensation package only.
- Exploration and evaluation expenses, net of tax credits of \$81,771 (\$231,294 in Q2-20 YTD). See the expenses summary in Section 4.1. During Q2-20 YTD, the Corporation sold its warehouse they owned at Lebel-sur-Quevillon. To complete this transaction, some expenses needed to be incurred in order to move the material that was stored there, including the Montviel core, which explains an expense of 68,882\$ included in "transport and lodging" in Q2-20 YTD. As for the evaluation expenses, while the Corporation didn't incur any costs for external engineers (\$94,460 in Q2-20 YTD) it hired 4 new staff members to help advance the project, which explains a portion of the \$91,654 increase in salaries for the separation process. Finally, while the 2019 SR&ED tax return was filed later during Fiscal 2020, the 2020 SR&ED report was filed in November 2021 and a provision of \$79,939 was recorded for the expected provincial tax credit to be received.
- Professional fees of \$116,479 (\$57,855 during Q2-20 YTD). The Corporation incurred \$42,982 in legal fees in Q2-21 YTD in regard to the debt financing, the private placement and various other transactions. Audit and fiscal fees were also slightly higher than in Q2-20 YTD due to an increase in activities.
- Depreciation of right-of-use asset of \$40,146 (nil in Q2-20 YTD). This expense represents the
  amortization of the long-term lease signed in February 2020 for the demonstration plant to be built in
  Saint-Bruno-de-Montarville. The expense for renting of the new place in St-Bruno-de-Montarville is
  split between the depreciation of right-of-use asset, the rent (for the utility portion) and the finance
  costs (interests on the lease obligation) which explains an increase of \$24,000 in rent expense and
  an increase of \$27,000 in finance costs.
- Share of loss of an associate of \$20,130 (\$161,462 in Q2-20 YTD) and net loss on dilution of investment in an associate of \$38,067 (net gain of \$65,085 in Q2-20 YTD). Kintavar is the only associate of the Corporation and this investment is accounted for using the equity method. There was no major change in Kintavar's equity during Q2-21 YTD and its expenses were significantly lower compared to Q2-20 YTD, both due to the COVID-19 which delayed some field work and the nature of the work performed itself which consisted in 2021 of more exploration works and no drilling.
- Gain on disposal of property and equipment of \$50,000 (\$111,523 in Q2-20 YTD). The Corporation sold in Fiscal 2021 the dorms that were located on the Montviel property for a total of \$50,000 (see section 2.4). In Fiscal 2021, the warehouse located in Lebel-sur-Quevillon was sold for \$175,000 and some rolling equipment were sold for \$19,501. These transactions are in line with the Corporation's strategy to focus on its rare earths recycling plant.

#### 2.2 Demonstration Plant

On July 16, 2020 the Corporation, along with USA Rare Earth, LLC, the funding and development partner of the Round Top Heavy Rare Earth and Critical Minerals Project in West Texas, announced that they have entered into a Letter of Intent (LOI) to recycle rare earth-containing production waste from USA Rare Earth's future production of sintered neodymium iron boron (NdFeB) permanent magnets (sintered neo magnets) in the United States.

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# 2. CORPORATE UPDATE (CONT'D)

On August 6, 2020, the Corporation provided an update on engineering and development activities for the demonstration plant. Geomega received from Hatch process flow diagrams, equipment list, utilities, stream tables and a heat and mass balance. Several modifications and improvements were made on the process, which will be undergoing several demonstration test runs using the Corporation's pilot unit at its facilities in Boucherville, Quebec. The test runs of the updated process will also be used to collect data on emissions for permitting purposes. The modifications and improvements include a simplification of several units of operation, validation of various parameters for equipment selection and by-product recovery.

On January 12, 2021, the Corporation announced the successful completion of testing and optimization of its 2<sup>nd</sup> generation pilot plant, confirming the validity of its technology to recycle rare earths magnets. The Corporation at the same time reported that the next engineering phase will begin shortly followed by the ordering and receipt of equipment for the construction of the larger demonstration plant located in Saint-Bruno, Quebec.

Four complete rounds of testing covering the entire recycling process were completed to date and these have confirmed the efficacy of the Corporation's technology to produce rare earths. Pilot Plant testing has also validated and facilitated equipment selection for the demonstration plant. In addition, an important part of the Pilot Plant was to validate process efficiencies:

- Rare earths recoveries >90%,
- Main reagent regeneration around 90%
- Product purities (>99.5% REO)
- Heating and cooling design update to confirm process schedule (3 batch process per 8-hour shift).

In addition, two new features were successfully tested and integrated into the Corporation's recycling process:

- Boron a small although important component in NdFeB magnets (Neodymium Iron Boron) can now be recovered as a by-product of the process. This will have a positive impact on both energy efficiency and anticipated revenues of the project.
- Hydrogen an emerging clean energy fuel in Quebec and globally. The process has demonstrated
  an ability to produce hydrogen as a by-product that could be collected. Hydrogen recovery is important
  because of its potential to reduce the overall energy consumption of the project. Most importantly,
  hydrogen recovery demonstrates the potential in applying the process to other metal rich feeds that
  lack valuables elements and are therefore not being recycled today due to poor economics.

See Section 3 for an outlook on upcoming activities.

#### 2.3 Private placement

On November 6, 2020, the Corporation closed a private placement consisting of 14,559,093 units at a price of \$0.17 CAD and 150,000 units at a price of \$0.13 USD for total gross proceeds of \$2,500,656. Each unit is composed of one share and one warrant, each warrant entitling the holder to acquire one share at a price of \$0.22 per share until the date that is 24 months from their issue and thereafter at a price of \$0.25 until the date that is 36 months from their issue.

The entire gross proceeds of units as well as issuance costs of \$155,887 were allocated to equity, using the residual method, as the market price was higher than the issuance price of the units on the day of issuance.

A total of 526,544 broker options were granted at a price of \$0.22 and included in the issuance costs. The value of the broker options was estimated using the Black-Scholes model with no expected dividend yield, 77.04% expected volatility, 0.24% risk-free interest rate and 2 years expected life.

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## 2. CORPORATE UPDATE (CONT'D)

#### 2.4 Other Sources of financing

Since the beginning of Fiscal 21 and up to January 27, 2021, the Corporation received a total of \$347,846 from the exercise of 2,487,439 warrants and 660,000 options. A total of 3,147,439 shares were issued.

On September 3, 2020, the Corporation announced that it has secured additional debt financing of \$1,326,000, which will be used to build the rare earth magnet recycling demonstration plant in Saint-Bruno-de-Montarville. The amount is in addition to the first tranche amount of \$1,720,000 that was announced on February 7, 2020, for a total financing of \$3,046,000.

On October 9, 2020, the Corporation sold the dorms that were located on the Montviel property for a total of \$50,000. These dorms have not been used by the Corporation for the past 3 years and were totally amortized in the books of the Corporation.

On December 18, 2020, the Corporation and its subsidiary Innord received an extra \$20,000 each from the emergency loans program in connection with the COVID-19 crisis, bringing the total of the loan received to \$120,000, bearing no interest until December 31, 2022, \$40,000 of which is non-refundable if the entire loan is repaid before this date.

#### 2.5 Various

On June 4, 2020, the Corporation announced that Mr. Matt Silvestro, President & Owner of Jobmaster Magnets, has joined the Board of Directors of the Corporation. This addition to the Board of Directors will bring significant experience and knowledge in the magnet industry.

On September 2, 2020, the Corporation announced that it is expanding and leveraging its Research & Development expertise. Geomega is currently evaluating the economic potential to extract and refine rare earths and other critical metals from a broader range of mining feeds, including mining and industrial waste streams (tailings). Geomega has begun to work with companies that are in production, and through testing at Geomega's R&D test centre in Boucherville, the company will be evaluating the potential to extract value that is otherwise being lost today. Geomega's intention is to apply its various technologies, through collaborative licensing and royalty agreements with several industrial partners, allowing for the extraction of valuable metals contained in their waste streams, which may not be economically, technologically, or environmentally feasible today.

On September 16, 2020, the Corporation announced that Mr. Nicholas Nickoletopoulos would be presented as a new nominee to the board of directors of Geomega. Director Jean Demers would not be standing for reelection. The new director was confirmed on October 21 at Geomega's Annual General Meeting. M. Nickoletopoulos brings with him operational, technical and executive management experience in the metals industry.

#### 3. OUTLOOK ON THE UPCOMING MONTHS

Validation of the ISR Technology through processing industrial residues was and remains Geomega's main objective since 2015. The Corporation is focusing on producing rare earth oxides, which are used in the production of permanent magnets, from high grade industrial residues.

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#### 3. OUTLOOK ON THE UPCOMING MONTHS (CONT'D)

The Corporation's objectives over the next months include:

- Complete detail engineering
- Permitting
- Select construction firm
- · Vendor selection and equipment ordering
- Separation tests to obtain a purity of 99.9% and higher
- Secure more supply to ensure long-term profitability of commercial plant operations
- Secure offtake agreements with potential clients
- R&D on different feed (mining and industrial waste) to recover REE and other metals efficiently using Innord's proprietary technology
- Monitor the impact of COVID-19 on the market and adjust activities accordingly

#### 4. EXPLORATION AND VALIDATION OF THE SEPARATION TECHNOLOGY ACTIVITIES

#### 4.1 Expense summary - Montviel property

	Three months ended November 30		Six months ended November 30	
Montviel	2020	2019	2020	2019
	\$	\$	\$	\$
Acquisition and maintenance	418	552	418	813
Exploration				
Salaries and benefits	-	8,472	-	13,073
Share-based compensation	4,095	2,283	9,183	3,111
Geology	-	84	-	611
Transport and lodging	(1,792)	62,067	(954)	68,882
Depreciation of property and equipment	· -	950	-	3,343
Taxes, permits and insurances	-	1,849	360	4,360
Billing - rental	-	(2,002)	-	(22,741)
Total exploration	2,303	73,703	8,589	70,639
Evaluation				
Salaries and share-based compensation -				
separation process	137,131	82,148	250,938	159,284
Separation process	13,178	10,095	30,238	35,089
Depreciation of property and equipment	4,430	7,600	8,860	14,057
Engineering	-	72,450	-	94,460
Total Evaluation	154,739	172,293	290,036	302,890
Total gross E&E expenses	157,460	246,548	299,043	374,342
Government grants	(95,526)	(54,844)	(134,016)	(105,472)
Net tax credits	(79,497)	(37,576)	(83,256)	(37,576)
Net E&E expenses - Montviel	(17,563)	154,128	81,771	231,294

Alain Cayer, P. Geo., M.Sc., Vice-President Exploration of Geomega, a qualified person as defined in NI 43-101 supervised the preparation of the technical information in sections 4.1, 4.2 and 4.3.

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# 4. EXPLORATION AND VALIDATION OF THE SEPARATION TECHNOLOGY ACTIVITIES (CONT'D)

The Corporation owns 100% of the Montviel property, located approximately 100 km north of Lebel-sur-Quévillon and 45 km west of the Cree First Nation of Waswanipi. The Montviel property comprises 161 mining claims totalling 8,942 hectares as at November 30, 2020.

## 4.2 ISR Technology Development

Dr. Pouya Hajiani, process inventor, engineer and CTO of Geomega supervised and approved the technical information of this section.

Geomega develops innovative technologies for extraction and separation of rare earth elements and other critical metals essential for a sustainable future. With a focus on renewable energies, vehicle electrification, automation, reduction in greenhouse gas emissions and energy usage, rare earth magnets or neo-magnets (NdFeB) are at the center of all these technologies. Geomega's strategy revolves around gradually de-risking its innovative ISR Technology while working directly with the main players in these industries to recycle the magnets that power all those technologies.

The Corporation completed a successful pilot scale-up in 2019 and had its material validated by potential end users for manufacturing of permanent magnets and has since focused on the next scale up of the technology to a demonstration plant. Geomega received from Hatch the required documentation to proceed to the next step of engineering and was working since August 2020 on completing its 2<sup>nd</sup> pilot plant to validate and confirm some of the changes that were completed to the technology since 2019. That test work was completed successfully in January 2021.

Geomega is advancing towards the construction of the demonstration plant that will be using the ISR technology to recycle rare earth magnets and produce rare earth oxides. On October 1st, 2019, the Corporation published the results of the Front-End Engineering & Design ("FEED") study. The updated design has been scaled up in order to operate on a single work shift of 8 to 10 hours. As a result of this sizing increase and process optimization by Geomega, the demonstration plant could reach a throughput capacity of 1.5 ton per shift, a 50% increase over the initial design. On a per hour basis, this demonstrates a 4.5X increase.

The engineering work to date confirmed that the ISR process that was developed by Innord, a subsidiary of Geomega, is technically feasible and uses off the shelf equipment thereby making it easier to scale up.

In September 2020, the Corporation provided updated capital costs (including working capital) for the demonstration plant which increased from \$3.2M to \$4.8M. Although the equipment cost remains the same as what was presented in the FEED study, the Corporation revised upwards the estimate for plant construction and for the remaining cost of engineering.

The Corporation published successful results of the pilot testing in January 2021 and is now continuing inhouse engineering work that will allow to start ordering equipment. In parallel, discussions are ongoing with external firms to complete the next stage of engineering that is required to begin construction. Discussions with vendors and construction companies are ongoing and the Corporation is looking to order the main long lead items as soon as possible.

### 4.3 Environmental Geochemistry

There are several environmental studies that are ongoing on Montviel. These are long term studies with repetitive sampling.

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### 4. EXPLORATION AND VALIDATION OF THE SEPARATION TECHNOLOGY ACTIVITIES (CONT'D)

# 4.4 Preliminary Economic Assessment ("PEA")

The corporate commitment to sustainable development dictated the following operational parameters for the Montviel project: i) underground mining scenario with paste backfill, ii) reduction in reagents to be transported by road and iii) electrical operations with a low voltage power line. It has taken more than three and a half years of metallurgical work and optimization to meet these three parameters.

In 2015, Montviel's flow sheet was greatly simplified. All of the acid required for hydrometallurgy was to be generated on site with the insertion of a closed loop acid regeneration unit. In addition, two physical processes at the beneficiation step significantly decrease the ore mass moving to hydrometallurgy.

The Corporation continues to evaluate the rare earth market and believes that the Montviel deposit, with the largest bastnaesite type mineralization 43-101 resource estimate in North America, could demonstrate solid economics based on its proprietary technology even at current market pricing.

To complete the PEA, the primary remaining work is the evaluation of the cost of the plant and infrastructure based on the May 2015 flow sheet (see press release dated May 20, 2015). The Company is focussing on scaling up its processing technologies prior to pursuing the remaining work for the PEA.

#### 5. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The accounting policies, methods of computation and presentation applied in the Financial Statements are consistent with those of the previous financial year ended May 31, 2020.

January 27,2021	
(s) Kiril Mugerman	(s) Mathieu Bourdeau
Kiril Mugerman	Mathieu Bourdeau
President and CEO	CFO

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### **Management**

Kiril Mugerman, President & CEO Alain Cayer, VP Exploration Mathieu Bourdeau, CFO Pouya Hajiani, CTO

### **Board of directors**

Gilles Gingras, President of the Audit Committee <sup>1</sup> Kosta Kostic<sup>1</sup> Mario Spino <sup>1</sup> Matt Silvestro Nick Nickoletopoulos Kiril Mugerman

#### Notes:

<sup>1</sup> Member of the Audit Committee

## **Head office**

75 boul. de Mortagne Boucherville (Quebec) J4B 6Y4

Tel.: (450) 641-5119

Website: https://ressourcesgeomega.ca

#### Lawyers

McMillan S.E.N.C.R.L., s.r.l./LLP 1000 Sherbrooke O., #2700 Montréal, Québec H3A 3G4

# **Auditors**

PricewaterhouseCoopers, s.e.n.c.r.l. 1250, boul. René-Lévesque Ouest, bureau 2500 Montréal (Quebec) H3B 4Y1

#### Transfer agents

Computershare Inc. 1500, rue Robert-Bourassa, bureau 700 Montréal (Quebec) H3A 3S8

Tel.: (514) 982-7888