

**Gratomic Inc.**  
**(Formerly CKR Carbon Corporation)**  
**MANAGEMENT DISCUSSION AND ANALYSIS**  
**(Form 51-102F1)**  
**For the three months ended March 31, 2019**



**This MD&A is dated May 27, 2019**

On December 22, 2017, the Company changed its name to Gratomic Inc. (formerly CKR Carbon Corporation) (hereafter the “Company” or “Gratomic Inc.”), which was incorporated under the Business Corporations Act (Ontario), R.S.O. 1990, on February 27, 2007 and is listed on the TSX Venture Exchange (TSX-V: GRAT). The Company’s corporate office is located at 130 Spadina Avenue, Suite 401, Toronto ON, M5V 2L4. The Company is a junior exploration company primarily engaged in the acquisition and exploration of exploration assets located in Canada and Namibia.

The following is the management discussion and analysis (“MD&A”) of the financial condition, changes in financial condition and results of operations of Gratomic Inc. for the three months ended March 31, 2019. The MD&A should be read in conjunction with the interim unaudited condensed consolidated financial statements of the Company for the three months ended March 31, 2019 ([www.sedar.com](http://www.sedar.com)) which have been prepared using accounting policies consistent with International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board (“IASB”).

The Company’s ability to realize the costs it has incurred to date on its properties is dependent upon it being able to identify economically recoverable reserves; to finance their exploration and evaluation costs; to resolve any environmental, regulatory, or other constraints which may hinder the successful development of the reserves; and to attain profitable operations.

The business of mining and exploration for minerals involves a high degree of risk and there can be no assurance that current exploration programs will result in profitable mining operations. The recoverability of the carrying value of exploration and evaluation assets and the Company’s continued existence is dependent upon the preservation of its interest in the underlying properties, the discovery of economically recoverable reserves, the achievement of profitable operations, or the ability of the Company to raise alternative financing, if necessary, or alternatively upon the Company’s ability to dispose of its interests on an advantageous basis. These conditions indicate the existence of material uncertainties which cast significant doubt on the Company’s ability to continue as a going concern. Changes in future conditions could require material write downs of the carrying values.

Although the Company has taken steps to verify title to the properties on which it is conducting exploration and in which it has an interest, in accordance with industry standards for the current stage of exploration of such properties, these procedures do not guarantee the Company’s title. Property title may be subject to government licensing requirements or regulations, unregistered prior agreements, unregistered claims, aboriginal claims, and non-compliance with regulatory, environmental and social requirements.

The interim consolidated statements have been prepared using accounting policies applicable to a going concern, which contemplates the realization of assets and settlement of liabilities in the normal course of business as they become due. The Company has incurred a loss for the three months ended March 31, 2019 of \$1,336,863 and has an accumulated deficit of \$14,991,051. The Company is a junior mining company and is subject to risks and challenges similar to other companies in a comparable stage. These risks include, but are not limited to, dependence on key individuals, investment risks, market risks, and the ability to

**Gratomic Inc.**  
**(Formerly CKR Carbon Corporation)**  
**MANAGEMENT DISCUSSION AND ANALYSIS**  
**(Form 51-102F1)**  
**For the three months ended March 31, 2019**

maintain adequate cash flows, and continuing as a going concern. Cash on hand is currently not adequate to cover expected expenditures for the 12-month period ended March 31, 2020 and therefore the Company will be required to secure additional funding. These challenges and the continued cumulative operating losses cast significant doubt on the Company's ability to continue as a going concern. These consolidated statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts nor to the amounts or classification of liabilities that might be necessary should the Company not be able to continue as a going concern. Such adjustments can be material.

Unless otherwise specified, all dollar amounts herein are expressed in Canadian currency.

Additional information on the Company may be found on SEDAR on [www.sedar.com](http://www.sedar.com)

### **Forward-Looking Information**

In making and providing the forward-looking information included in this MD&A the Company's assumptions may include among other things: (i) assumptions about the price of metals; (ii) that there are no material delays in the optimisation of operations at the exploration and evaluation assets; (iii) assumptions about operating costs and expenditures; (iv) assumptions about future production and recovery; (v) that there is no unanticipated fluctuation in foreign exchange rates; and (vi) that there is no material deterioration in general economic conditions. Although management believes that the assumptions made and the expectations represented by such information are reasonable, there can be no assurance that the forward-looking information will prove to be accurate. By its nature, forward-looking information is based on assumptions and involves known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance or achievements, or results, to be materially different from future results, performance or achievements expressed or implied by such forward-looking information. Such risks, uncertainties and other factors include among other things the following: (i) decreases in the price of base metals; (ii) the risk that the Company will continue to have negative operating cash flow; (iii) the risk that additional financing will not be obtained as and when required; (iv) material increases in operating costs; (v) adverse fluctuations in foreign exchange rates; and (vi) environmental risks and changes in environmental legislation.

This MD&A (See "Risks and Uncertainties") contains information on risks, uncertainties and other factors relating to the forward-looking information. Although the Company has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in the forward-looking information, there may be other factors that cause actual results, performances, achievements or events not to be anticipated, estimated or intended. Also, many of the factors are beyond the Company's control. Accordingly, readers should not place undue reliance on forward-looking information. The Company undertakes no obligation to reissue or update forward looking information as a result of new information or events after the date of this MD&A except as may be required by law. All forward-looking information disclosed in this document is qualified by this cautionary statement.

### **Annual Information**

	2018	2017	2016
	\$	\$	\$
Revenue	-	-	-
Loss and comprehensive loss for the year	(3,397,169)	(1,837,992)	(612,313)
Loss per common share	(0.03)	(0.03)	(0.02)
Working capital (deficit)	3,041,563	2,206,886	(15,945)
Total assets	10,609,220	7,353,080	2,816,063
Weighted average number of common shares	125,149,387	70,112,442	32,858,114

**Gratomic Inc.**  
**(Formerly CKR Carbon Corporation)**  
**MANAGEMENT DISCUSSION AND ANALYSIS**  
**(Form 51-102F1)**  
**For the three months ended March 31, 2019**

## **Outlook and Performance Highlights**

### Outlook

Gratomic Inc. is an advanced materials company focused on mine to market commercialization of graphite products most notably high value graphene based components for a range of mass market products. With its unique Aukam graphite asset the Company is poised to replace a large part of declining production capacity of vein graphite from Sri Lanka

#### Aukam graphite asset

Gratomic currently owns 63% of the historical Aukam graphite mine in Southern Namibia. Aukam graphite has been tested in several high value applications including nano engineered graphenes. The Aukam graphite when converted to graphenes have proven suitable for inks & pastes for the printed electronics industry, super hydrophobic graphene variants for architectural and marine coatings, elastomers for cycle and passenger vehicle tires, and elements for resistive heaters. There is year round road access to the Aukam project from paved Highway B4 that runs between Luderitz and Keetmanshoop via district gravel roads south from the Highway. The infrastructure in the area is good with nearby power from the national grid, water from underground aquifers and a rail link to Luderitz and Keetmanshoop adjacent to Highway B4 approximately 70 km north of the project.

In addition to the underground workings on the Aukam property, there are five unprocessed stockpiles that remain from the historical mining. These stockpiles still contain significant graphite with assays of samples taken during detailed sampling on a 10m x 10m grid ranged between 3.98 and 57.07% Cg (carbon as graphite) and averaged 20.04% Cg (see Technical Report on the Aukam Graphite Deposit, Bethanie District, Karas Region, Namibia - September 12, 2016, gratomic.ca ). The stockpiles provide the company with a supply of high grade graphite that is ready to be processed.

### Performance highlights

During the three months ended March 31, 2019 –

- On January 19, 2019, the Company announced the development of Gratomic's new Graphene Ultra Fuel Efficient Tires with certification and terrain testing targeted for completion in Q3, 2019.
- On February 1, 2019 a renewal application for EPL 3895 was prepared and submitted to the Ministry of Mines and Energy (MME) together with all supporting documentations.
- On February 5, 2019 the Company announced the submission of two additional Exclusive Prospecting License applications along the strike from its Aukam Graphite mine in Namibia.
- February 14, 2019 the new rod mill arrived at site. Once installed the rod mill will have an annual capacity of 50,000 tonnes.
- February 15, 2019 the large floatation columns were completed locally for Aukam mine site and installed the following week.
- On March 4, 2019, company announced it had submitted a full mining license application to the Namibian Ministry of Mines and Energy.

Subsequent to March 31, 2019 –

- On May 3, 2019 the Company provided an update on the following –
  - Details of, and progress made on construction of the Company's commercial scale graphite processing plant.
  - The Company reported on its 2018 exploration activities at its Aukam mine in Namibia.
  - The Company advised "that two Company drills had been deployed to Aukam in March 2019 with diamond drilling commencing in April. The Company is currently operating a Longyear 38 with a 2-cylinder XY-1 drill for a backup. Initial targets being drilled are proximal to the Aukam Mine and are spaced at 25 metres with infill drill planned to follow

**Gratomic Inc.**  
**(Formerly CKR Carbon Corporation)**  
**MANAGEMENT DISCUSSION AND ANALYSIS**  
**(Form 51-102F1)**  
**For the three months ended March 31, 2019**

based on results. Five holes have been completed at the time of this release”. See the May 3, 2019 news release on [www.sedar.com](http://www.sedar.com).

- On May 14, 2019 the Company announced it had signed an agreement with Phu Sumika to be its exclusive marketing agent, in continental Europe, for the sale of graphite concentrate to the refractory, lubricant and battery markets. Pursuant to the agreement, which is conditional on Gratomic being able to bring the Aukam into a production phase, and for any graphite being produced to meet certain technical and mineralization requirements, Phu Samika will purchase up to 7,500 dry metric tonnes annually, for a period of five years from the date commercial production commences at Aukam. The contract contemplates the sales of graphitic product ranging from 80% carbon to 99.9% carbon at prices ranging between US\$500-US\$2800 per metric tonne, the price depending on grade, moisture content and industry use. See the May 14, 2019 news release on [www.sedar.com](http://www.sedar.com).
- On May 21, 2019 the Company announced a non-Brokered Private placement for up to \$1,500,000.
- On May 23, 2019 the Company launched its first Graphene from Gratomic Graphite derived product. The “Gratink” product is formulated specifically to meet the needs of the printed flexible electronics and EMI (electromagnetic interference) shielding markets. To the best of the Company’s knowledge, the “Gratink” product is amongst the most conductive carbon inks and pastes currently available within the global market place.

## Exploration and Evaluation Expenditures

Exploration and evaluation expenditures for the three months ended March 31, 2019 and 2018 are summarized as follows:

Outlays by expenditure category, by project, for the three months ended March 31, 2019 and 2018 are as follows:

	Aukam Namibia project		Montpellier Quebec project		Buckingham Quebec project		Total	
	2019	2018	2019	2018	2019	2018	2019	2018
	\$	\$	\$	\$	\$	\$	\$	\$
Drilling	-	-	-	-	-	-	-	-
Field work, supplies and other	47,484	133,609	-	4,160	-	225,921	47,484	363,690
Assays	-	-	-	-	-	-	-	-
Geological and other consulting	277,681	47,310	-	-	-	-	277,681	47,310
Bulk sampling	-	-	-	-	-	-	-	-
Transport	-	410	-	-	-	-	-	410
Travel and accomodation	41,034	71,893	-	-	-	-	41,034	71,893
	366,199	253,222	-	4,160	546	225,921	366,199	483,303

## Results of Operations

The following table provides selected financial information for the three months ended March 31, 2019 and 2018.

	Three months ended	
	March 31,	
	2019	2018
	\$	\$
Operating expenses	(1,394,331)	(379,504)
Net loss	(1,336,863)	(379,504)
Net loss per share	(0.01)	(0.00)
Exploration and evaluation assets	5,274,462	4,683,366
Total assets	9,106,428	7,343,276

**Gratomic Inc.**  
**(Formerly CKR Carbon Corporation)**  
**MANAGEMENT DISCUSSION AND ANALYSIS**  
**(Form 51-102F1)**  
**For the three months ended March 31, 2019**

Comments on source and use of funds

During the three months ended March 31, 2019

1. During the quarter \$98,130 was raised as a result of warrants exercised.
2. Cash used in operating activities amounted to \$1,863,788 comprised of a loss of \$1,336,863 of which \$35,541 was a non-cash item, and \$562,466 used due to increases in working capital.
3. Investment in plant and equipment and exploration and evaluation assets amounted to \$335,656 and \$271,400 respectively.

The Company has cash of \$185,830 at March 31, 2019 and will need to raise additional cash during 2019 to meet its operating plans for the year.

Revenues

At this time, the Company has no sales or revenues. From time to time the Company will earn interest from funds on deposit and other income.

The major expense items for the three months and three months ended March 31, 2019 and 2018 are summarized as follows:

	Three months ended	
	March 31,	
	\$	\$
	2019	2018
Consulting	198,515	600
Filing fees and permits	30,309	14,679
Investor relations	15,000	68,963
Management fees	442,000	69,000
Marketing	371,242	120,764
Office and other	147,311	21,545
Professional fees	30,925	65,944
Share-based compensation	35,541	29,577
Travel, meals and accomodation	123,488	11,440
Other	-	(23,008)
	1,394,331	379,504

Operating expenses for 2019 are higher than 2018 due to Gratomic developing its business model, progressing with its mining activities and making the market aware of its progress. Explanations of significant line items driving increased costs are as follows –

- Consulting fees for Q1 2019 include; business consultants \$111k; marketing consultants \$25k; graphene product consulting \$35k.
- Management fees include a bonus in Q1 of \$350k in recognition of progress made by the business and the success of private placements.
- Marketing fees in Q1 2019 include fees for; Advertising services \$180k; Marketing services for email data base generation \$60k; On-line and social media marketing, email and website services \$21k; European marketing services \$18k; Advertising campaign services \$40k; Marketing campaign services \$15k.
- Travel meals and accommodation, and office and other expenses reflect higher activity levels during 2019 progressing with mining activities and developing market aware of progress.

**Gratomic Inc.**  
**(Formerly CKR Carbon Corporation)**  
**MANAGEMENT DISCUSSION AND ANALYSIS**  
**(Form 51-102F1)**  
**For the three months ended March 31, 2019**

## **Exploration and Evaluation Assets**

The technical content of the mineral property disclosure in this MD&A has been reviewed and approved by Steven Gray, B.Sc., P. Geo, Gratomic's QP and a qualified person as defined by National Instrument 43-101. Except where noted the property disclosure in this MD&A has not been the subject of a National Instrument 43-101 report.

### **Description of properties:**

#### **Aukam Graphite Project, Namibia**

The Aukam property is comprised of Exclusive Prospecting License (EPL) 3895 in respect of base and rare metals, industrial minerals, and precious metals. The license covers an area of 27,870 hectares on the farm Aukam104 and Harichab121 located in the district of Bethanie, Karas region of southern Namibia.

The Aukam Graphite project is a property located in Namibia's Karas Region in Africa. The rights to explore and develop parts of the property, which are of primary interest, are owned by Gazania Investments Two Hundred and Forty Two (Pty) Ltd ("Gazania"). The Company purchased a 63% interest in Gazania. Under certain terms of the purchase agreements, the Company is required to complete the plant and infrastructure set up (which in progress) necessary to process 5,000 tonnes of graphite per year, and obtain government authorization to begin commercial operations (in progress); the timeline for these activities is referred to herein as the Farm-Out period.

Should completion of the plant and infrastructure set up necessary to process 5,000 tonnes of graphite per year extend six months beyond receipt of the mining license, the vendor will be paid USD\$25,000, per quarter that it is so extended, until the plant and infrastructure set-up are complete. In the event that the necessary plant and infrastructure set up is extended, and the revenue is less than USD\$100,000 per month, the Company will loan the vendor US\$25,000 per quarter. Interest on the loan will be compounded monthly at a rate equal to one-month term LIBOR plus one.

Should the Company fail to make any required payments until the Farm-Out period is complete or fail to complete the plant infrastructure 6 months after receipt of the mining license, it will forfeit 2% of its interest for each 30-day delay.

Following conclusion of the Farm-Out period the Company will fund all operations to run all plant related activities and expenditures for the first five months. Thereafter, the Company and the vendor will contribute funding proportionate to their respective holdings.

The Company has the option to buy an incremental 10% of the vendor's remaining interest for a cash payment of USD\$180,000.

A 2% revenue royalty is payable to the individual who farms the property.

Under Namibian laws royalties are payable in connection with the Aukam Graphite Project as follows:

- a) A 3% revenue royalty is payable the Namibian government.
- b) A 6% net profit incentive, required under the Namibian Economic Empowerment Framework, is payable to employees working on the project.

#### **Montpellier Graphite Property, Quebec**

The Montpellier property consists of claims located in the Hartwell Township, Casse Laurentides Region in Quebec. The vendors have been granted a 2% net smelter royalty ("NSR"). The Company has the right to repurchase a 1% NSR from the vendors for \$1,000,000. No exploration activities were undertaken during Q1/2019.

**Gratomic Inc.**  
**(Formerly CKR Carbon Corporation)**  
**MANAGEMENT DISCUSSION AND ANALYSIS**  
**(Form 51-102F1)**  
**For the three months ended March 31, 2019**

**Buckingham Property, Quebec**

The 100%-owned Buckingham Graphite Property consists of eight claim blocks totaling 480 hectares. The property lies within the Central Metasedimentary Belt of the Grenville Geologic Province 82 km south of Imerys Graphite & Carbon's operating Lac des Iles graphite mine. No exploration activities were undertaken during Q1/2019.

**Activities during Q1 2019**

Gratomic has been developing Graphene capability and products. The significant accomplishments during Q1 2019 were as follows:

**Graphene Reactors**

Gratomic continued to work with Perpetuus Advanced Material to build and commission three new triple chain reactors to enable annual graphene capacity to exceed 2000 tpa.



Triple chamber reactor – 500 tpa capacity

**Perpetuus Vittoria Deal**

On February 28, 2019 Perpetuus Advanced Material announced a long-term supply agreement with Vittoria Tires to supply nano surface engineered graphenes utilizing Gratomic's Aukam Mine sourced graphite.

**Gratomic Ultra Fuel Efficient Tires**

Jan 16, 2019 Gratomic announced the development of Gratomic's new Graphene Ultra Fuel Efficient Tires (GUET) from graphite sourced from Gratomic's Aukam Graphite Deposit. Certification and terrain testing is targeted for completion in Q3, 2019. Cycle and car tires enhanced with Perpetuus graphenes are currently and simultaneously being road tested on bikes, light commercial vehicles and taxis in Asia and Europe and are used on a daily basis.

**GratInk**

May 23, 2019 Gratomic the launching of its first Graphene from Gratomic Graphite derived product. The Gratink product is formulated specifically to meet the needs of the printed flexible electronics and EMI shielding markets. Electromagnetic interference (EMI), sometimes referred to as radio-frequency interference (RFI) is a disturbance generated by an external source that affects an electrical circuit by electromagnetic induction, electrostatic coupling, or conduction.

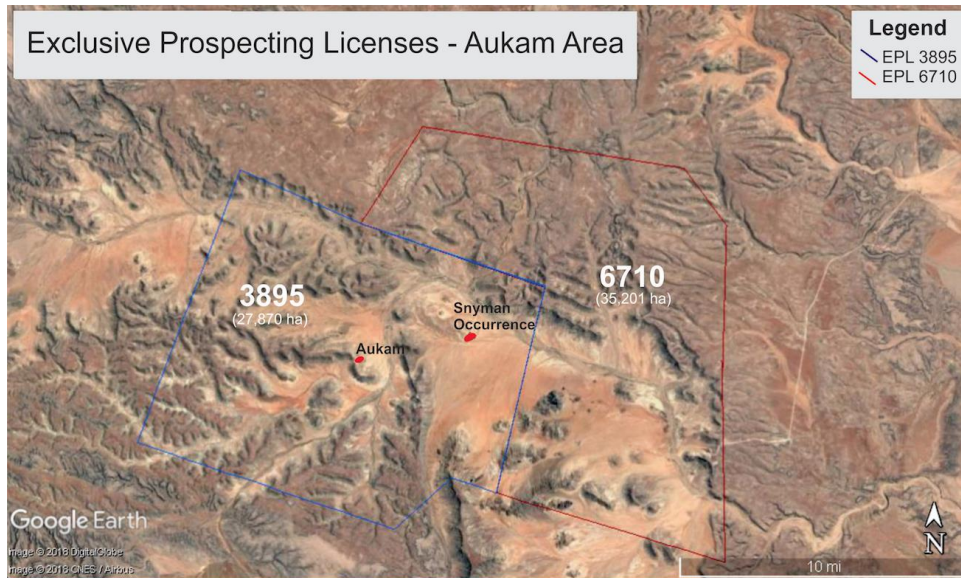
**Licensing, Exploration, Processing and Camp Construction Activities**

Licensing update



**Gratomic Inc.**  
**(Formerly CKR Carbon Corporation)**  
**MANAGEMENT DISCUSSION AND ANALYSIS**  
**(Form 51-102F1)**  
**For the three months ended March 31, 2019**

During Q1/2019 an application for EPL 6710 was submitted in order to cover the potential strike extension of the Snyman graphite occurrence to the east. In addition, EPL 6710 covers an additional area considered prospective for graphite within the “Aukam window” where rocks hosting the Aukam and Snyman graphite are exposed beneath the regional unconformity at the base of the Nama Group sedimentary rocks. When the addition of the new EPL is approved it will increase the area of prospective geology covered from 27,870 hectares to 63,072 hectares (630 square kilometres).



**Figure 2 showing Exclusive Prospecting License EPL 3895 & EPL 6710**

During Q1/2019 a renewal application for EPL 3895 was prepared and submitted to the Ministry of Mines and Energy (MME) together with all supporting documentations.

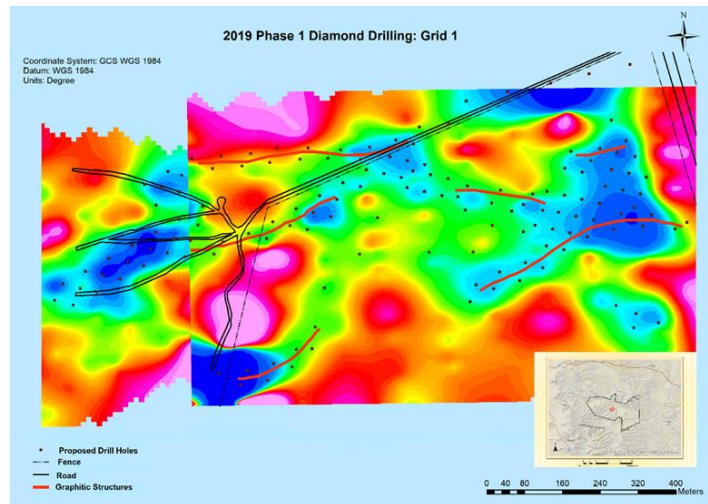
#### Exploration update

Regional exploration during Q1/2019 continued with mapping and sampling of graphite occurrences throughout the Company’s license areas with emphasis on the recently submitted EPL 6710 license area. The additional data combined with existing geologic interpretations assist in the optimization process for drill targeting.

Two surface company drills were deployed to Aukam in March 2019 with diamond drilling commencing in April. The company is currently operating a Longyear 38 with a 2-cylinder XY-1 drill for a back up. Initial targets to be drilled are proximal to the Aukam Mine and spaced initially at 25 metres apart. Infill drilling will follow based on results. Five holes have been completed at the time of this release.



**Gratomic Inc.**  
**(Formerly CKR Carbon Corporation)**  
**MANAGEMENT DISCUSSION AND ANALYSIS**  
**(Form 51-102F1)**  
**For the three months ended March 31, 2019**



Phase 1 Diamond Drilling – East of Aukam Mine



One Bullion's Longyear-38 Diamond Drill



One Bullion's XY-1 Diamond Drill

**Processing Plant update**

During Q1/2019 upgrades to the processing plant continued with the arrival of additional commercial scale equipment including; industrial sized generator, screw conveyors, shaker screens, rod mill, conveyors, and boom truck.

Gratomic is continuing with its' systematic assembly of the commercial scale graphite processing plant. Next steps will include:

- Completion of the pilot acid wash. This circuit will be used to collect engineering data to design the industrial scale plant. This is an addition to the plant that will allow the company to produce upwards of 98.5% graphite based on its latest pilot testing results in the lab. All clients to the point of completion will take grades of between 88 %-92 %,
- Modifications are currently being made to the jaw crusher to allow it to more effectively crush graphite,
- Rod mill support systems such as maintenance cradles and cranes, rod loading equipment and control systems are currently being engineered,

**Gratomic Inc.**  
**(Formerly CKR Carbon Corporation)**  
**MANAGEMENT DISCUSSION AND ANALYSIS**  
**(Form 51-102F1)**  
**For the three months ended March 31, 2019**

- Flotation circuit mass balances are being explored using pilot plant data in order to size the pumps and flow lines of the flotation system,
- Dewatering circuit equipment are currently being specified,
- Water conditioning systems are currently being designed to allow close to 100% recycle of water. This includes pH control, removal of fine suspended solids and removal of dissolved iron,
- Control systems are being designed for each sub-circuit of the industrial scale plant.
- The Company has recently been produced N-90 material at 99.9% Cg for battery products. The Company is currently doing a cost analysis to include circuit modifications on the Aukam Processing facility to be able to produce battery graphite in Bulk.



**Aukam Plant commercial scale rod mill, screeners and conveyance systems**

**Camp Construction Update**

Construction of the onsite Management Camp consisting of offices, laboratory, kitchen, and living quarters, continued throughout Q1/2019.

**Gratomic Inc.**  
**(Formerly CKR Carbon Corporation)**  
**MANAGEMENT DISCUSSION AND ANALYSIS**  
**(Form 51-102F1)**  
**For the three months ended March 31, 2019**

**Summary of Quarterly Results**

The following table sets out selected consolidated quarterly information for the last eight quarters.

<b>Three Months Ended</b>	<b>March 31 2019 \$</b>	<b>December 31 2018 \$</b>	<b>September 30 2018 \$</b>	<b>June 30 2018 \$</b>
Exploration and evaluation assets	5,274,462	5,003,062	5,577,891	4,643,188
Deficit	14,991,051	13,654,188	11,783,761	11,259,275
Total Assets	9,106,428	10,609,220	8,698,001	6,884,582
Net and Comprehensive Loss	1,336,863	1,870,427	524,486	622,752
Basic and Diluted Loss Per Share	0.008	0.018	0.006	0.006

<b>Three Months Ended</b>	<b>March 31 2018 \$</b>	<b>December 31 2017 \$</b>	<b>September 30 2017 \$</b>	<b>June 30 2017 \$</b>
Exploration and evaluation assets	4,683,366	4,200,063	2,850,842	2,407,074
Deficit	10,636,523	10,257,019	9,415,008	9,181,470
Total Assets	7,343,276	7,353,080	3,931,211	4,055,982
Net and Comprehensive Loss	379,504	841,914	233,634	676,983
Basic and Diluted Loss Per Share	0.000	0.010	0.003	0.010

**Q1 2019**

During the quarter the Company incurred a loss of \$1,336,853 (2018 – \$379,504). Major differences are explained as follows; expenditures on consulting fees amounted to \$198,515 (2018 - \$600); management fees amounted to \$442,000 (2018 - \$69,000); expenditures on marketing fees amounted to \$371,242 (2018 - \$120,764) and travel meals and accomodation amounted to \$123,488 (2018 – \$11,440).

**Q4 2018**

During the quarter the Company incurred a loss of \$1,870,427 (2017 – \$841,914). During the quarter expenditures on consulting fees amounted to \$102,060 for graphene compound development fees (2017 - \$7,000); management fees amounted to \$377,200 (2017 - \$152,000); indicative of the Company actively raising money during the quarter, expenditures on marketing fees amounted to \$365,949 (2017 - \$98,819) and travel meals and accomodation amounted to \$192,536 (2017 – 17,494); share-based compensation amounted to \$628,055 (2017 - \$473,000).

**Q3 2018**

During the quarter the Company incurred a loss of \$524,486 (2017 – 233,634). The loss is indicative of the Company’s efforts to make investors more aware of the positive prospects it has with its Aukam graphite project. In addition the Company was actively raising money during the quarter which also increased costs in a number of areas. During the quarter expenditures on investor relations amounted to \$140,755 (2017 - \$33,910); management fees amounted to \$93,800 (2017 - \$33,910); expenditures on travel meals and accomodation amounted to \$101,069 (2017 – Nil); office and other expenses amounted to \$108,839 (2017 – a recovery of \$1,181) which includes a foreign exchange loss of \$59,000; stock based compensation amounted to Nil (2017 - \$48,000).

**Q2 2018**

During the three months ended June 30, 2018, the Company incurred a loss and comprehensive loss of \$655,020 (2017 - \$676,983).

- i) \$808,159 was invested in exploration and evaluation and infrastructure at the Company’s Aukam graphite project in Namibia to bring the total investment in the property to \$3,349,003.
- ii) \$541,470 was invested in the purchase of three specialized process tooling chambers to be used solely for processing graphite from the Aukam property.

**Gratomic Inc.**  
**(Formerly CKR Carbon Corporation)**  
**MANAGEMENT DISCUSSION AND ANALYSIS**  
**(Form 51-102F1)**  
**For the three months ended March 31, 2019**

- iii) Investor relations fees paid during the quarter were \$42,076 compared to \$3,137 paid during the second quarter of 2017.
- iv) Marketing expenses of \$230,200 were incurred during the quarter to develop markets and products for the Company's graphite. Marketing expenses incurred in the same period in 2017 totaled \$2,000.
- v) Management fees paid during the quarter totalled \$81,500 compared to management fees of \$30,413 incurred in the same three months of 2017.
- vi) During the quarter the Company issued 1,150,000 stock options with a fair value \$138,150 to purchase common shares of the Company at a weighted average exercise price of \$0.145. The options vested immediately and have a term of five years.

### Liquidity

The Company has no significant revenues at this time. In order to manage this risk, the Company closely monitors its cash requirements and expenditures to maintain sufficient liquidity.

As at March 31, 2019, the Company had current assets of \$1,398,055 (December 31, 2018 - \$3,507,903) to settle current liabilities of \$166,739 (December 31, 2018 - \$466,340). All of the Company's accounts payable and accrued liabilities have contractual maturities that are subject to normal trade terms.

Future exploration programs will depend on the Company's ongoing ability to raise funds. Gratomic Inc. is an exploration stage company and continues to rely on equity offerings and other partnership arrangements to fund its exploration activities. There can be no assurance that funds will be available.

### Capital Resources

Other than the private placement as disclosed under Performance Highlights herein, during Q1 2019 there were no unusual factors that affected the Company's capital resources.

### Off Balance Sheet Arrangements

The Company is not a party to any off balance sheet arrangements or transactions.

### Transactions With Related Parties

The Company has determined that key management consists of the Company's Board of Directors and corporate officers, including the Company's Chief Executive Officer and Chief Financial Officer. The Company paid or accrued the following amounts to key management, and private corporations owned by them:

	March 31,	
	2019	2018
	\$	\$
Fees charged to management fees	442,000	69,000
Fees charged to professional and other expenses	27,217	
Fees charged to exploration and evaluation assets	25,000	-
Share-based payments	-	29,577
	494,217	98,577

During the three months ended March 31, 2019, legal fees in the amount of \$13,881 (2018 – 32,972) were paid or payable to a law firm whose partner is an officer of the Company.

Included in accounts payable and accrued liabilities at March 31, 2019 was \$30,889 (2018 – Nil) owing for

**Gratomic Inc.**  
**(Formerly CKR Carbon Corporation)**  
**MANAGEMENT DISCUSSION AND ANALYSIS**  
**(Form 51-102F1)**  
**For the three months ended March 31, 2019**

services to directors, and officers, companies owned by directors and officers, and a law firm whose partner is a director and an officer of the Company.

The Company agreed to prepay the 2019 salary of one of its Co-CEO's. The prepaid amount was treated as a prepaid expense and it is being expensed as services are provided. The remaining prepaid balance at March 31, 2019 amounts to \$150,000.

During the three months ended March 31, 2019 the Company paid office rent to ThreeD Capital Inc., a company of which one of the Company's co-CEO's is the CEO, an amount of \$18,000 (2018 - \$9,000).

### **Events Affecting the Company's Financial Condition**

During Q1 2019, there were no unusual factors that affected the Company's financial condition.

### **Critical Accounting Judgements and Key Sources of Estimation Uncertainty**

Critical judgements exercised in applying accounting policies that have the most significant effect on the amounts recognized in the interim unaudited condensed consolidated financial statements are as follows:

i) Determination of functional currency

The Company determines the functional currency through an analysis of several indicators such as expenses and cash flows, financing activities, retention of operating cash flows, and frequency of transactions with the reporting entity.

ii) Capitalization of deferred exploration costs

Minority interest and equity are adjusted to reflect the ownership interest of consolidated subsidiaries in which a minority interest shareholder has a carried interest.

Management is required to assess impairment of intangible exploration and evaluation assets and property and equipment. The triggering events are defined in IFRS 6 and IAS 36 respectively. In making the assessment, management is required to make judgments on the status of each project and the future plans toward finding commercial reserves to which the exploration and evaluation assets and property and equipment relate to.

Management has determined that there were no triggering events present as at March 31, 2019 and 2018, as defined in IFRS 6 and IAS 36, as such, no impairment test was performed.

Critical estimates exercised are as follows:

i) Valuation of share-based compensation

The Company uses the Black-Scholes Option Pricing Model for valuation of share-based compensation. Option pricing models require the input of subjective assumptions including expected price volatility, interest rates, and forfeiture rate. Changes in the input assumptions can materially affect the fair value estimate and the Company's earnings and equity settled benefits.

ii) Income taxes

In assessing the probability of realizing income tax assets, management makes estimates related to expectations of future taxable income, applicable tax opportunities, expected timing of reversals of existing temporary differences and the likelihood that tax positions taken will be sustained upon examination by

**Gratomic Inc.**  
**(Formerly CKR Carbon Corporation)**  
**MANAGEMENT DISCUSSION AND ANALYSIS**  
**(Form 51-102F1)**  
**For the three months ended March 31, 2019**

applicable tax authorities. In making its assessments, management gives additional weight to positive and negative evidence that can be objectively verified.

Property and equipment

Management reviews the carrying value of long lived assets including plant and equipment and amortizable intangible assets for impairment to determine if the carrying value of an asset may not be recoverable due to changes in the current and expected future use of the asset, external valuations of the asset, and the obsolescence or physical damage to the asset. If such indicators of impairment exist, the asset's recoverable amount is estimated. An impairment loss is recognized if the carrying amount of an asset or its related cash generating unit exceeds its estimated recoverable amount.

Flow-through shares

Canadian Income Tax legislation permits an enterprise to issue securities, referred to as flow-through shares, whereby the investor can claim the tax deductions arising from the renunciation of the related resource expenditures. The Company accounts for flow-through shares whereby any premium paid for the flow through shares in excess of the market value of the shares without flow-through features at the time of issue is credited to flow-through premium liability and included in profit or loss at the same time the qualifying expenditures are made.

**Recent Accounting Pronouncements**

**Adoption of new standards**

The Company adopted all of the requirements of IFRS 9 Financial Instruments ("IFRS 9") as of January 1, 2018. IFRS 9 replaces IAS 39 Financial Instruments: Recognition and Measurement ("IAS 39"). IFRS 9 utilizes a revised model for recognition and measurement of financial instruments and a single, forward looking "expected loss" impairment model. As a result of the adoption of IFRS 9, management has changed its accounting policy for financial assets retrospectively, for assets that continued to be recognized at the date of initial application.

The table below summarizes the classification and carrying amount changes upon transition from IAS 39 to IFRS as at January 1, 2018.

	<u>Original under IAS 39</u>		<u>New under IFRS</u>	
	<u>Classification</u>	<u>Carrying amount</u>	<u>Classification</u>	<u>Carrying amount</u>
Cash	FVTPL	2,317,221	FVTPL	2,317,221
Restricted cash	FVTPL	16,329	FVTPL	16,329
Amounts receivable	Loans and receivables	166,616	Amortized cost	166,616
Amounts payable	Other financial liability	267,871	Amortized cost	267,871

As the standard permits on transition to IFRS 9, the Company has not restated prior periods with respect to the new amortized cost measurement for financial assets and impairment requirements.

The adoption of IFRS 9 resulted in no impact to the opening accumulated deficit or to the opening deficit on January 1, 2018.

On January 1, 2018, the Company adopted IFRS 15 Revenue from Contracts with Customers ("IFRS 15") which superseded IAS 18 Revenue. IFRS 15 establishes a single five-step model framework for determining the nature, amount, timing and uncertainty of revenue and cash flows arising from a contract with a customer. The standard is effective for annual period beginning on or after January 1, 2018. The Company adopted the

**Gratomic Inc.**  
**(Formerly CKR Carbon Corporation)**  
**MANAGEMENT DISCUSSION AND ANALYSIS**  
**(Form 51-102F1)**  
**For the three months ended March 31, 2019**

standard on January 1, 2018 using the cumulative effect adjustment method without applying any practical expedients.

The adoption of IFRS 15 resulted in no impact to the opening accumulated deficit or to the opening deficit on January 1, 2018.

## **Financial Instruments**

### **(i) Classification**

The Company classifies its financial instruments in the following categories: at fair value through profit and loss (“FVTPL”), at fair value through other comprehensive income (“FVOCI”) or at amortized cost. The Company determines the classification of financial assets at initial recognition. The classification of debt instruments is driven by the Company’s business model for managing the financial assets and their contractual cash flow characteristics. Equity instruments that are held for trading are classified as FVTPL. For other equity instruments, on the day of acquisition the Company can make an irrevocable election (on an instrument-by-instrument basis) to designate them as at FVOCI. Financial liabilities are measured at amortized cost, unless they are required to be measured at FVTPL (such as instruments held for trading or derivatives) or if the Company has opted to measure them at FVTPL.

### **(ii) Measurement**

Financial assets and liabilities at amortized cost are initially recognized at fair value plus or minus transaction costs, respectively, and subsequently carried at amortized cost less any impairment.

Financial assets and liabilities carried at FVTPL are initially recorded at fair value. Realized and unrealized gains and losses arising from changes in the fair value of the financial assets and liabilities held at FVTPL are included in profit or loss in the period in which they arise.

Financial assets and liabilities carried at FVOCI are initially recorded at fair value. Unrealized gains and losses arising from changes in the fair value of the financial assets and liabilities held at FVOCI are included in comprehensive income or loss in the period in which they arise.

### **(iii) Impairment of Financial Assets at Amortized Cost**

The Company recognizes a loss allowance for expected credit losses on financial assets that are measured at amortized cost. At each reporting date, the Company measures the loss allowance for the financial asset at an amount equal to the lifetime expected credit losses if the credit risk on the financial asset has increased significantly since initial recognition. If at the reporting date, the financial asset has not increased significantly since initial recognition, the Company measures the loss allowance for the financial asset at an amount equal to the twelve month expected credit losses. Regardless of whether credit risk has increased significantly, the loss allowance for trade receivables without a significant financing component classified at amortized cost, are measured using the lifetime expected credit loss approach. The Company shall recognize in the statements of net (loss) income, as an impairment gain or loss, the amount of expected credit losses (or reversal) that is required to adjust the loss allowance at the reporting date to the amount that is required to be recognized.

### **(iv) Derecognition**

The Company derecognizes financial assets only when the contractual rights to cash flows from the financial assets expire, or when it transfers the financial assets and substantially all of the associated risks and rewards of ownership to another entity. Gains and losses on derecognition are generally recognized in the statements of net (loss) income.



**Gratomic Inc.**  
**(Formerly CKR Carbon Corporation)**  
**MANAGEMENT DISCUSSION AND ANALYSIS**  
**(Form 51-102F1)**  
**For the three months ended March 31, 2019**

Financial instruments that are measured at fair value, which are classified within a hierarchy that prioritizes their significance. The three levels of the fair value hierarchy are:

Level 1 - Unadjusted quoted prices in active markets for identical assets or liabilities;

Level 2 - Inputs other than quoted prices that are observable for the asset or liability either directly or indirectly; and

Level 3 - Inputs that are not based on observable market data.

#### Credit Risk

The Company's credit risk is primarily attributable to amounts receivable. The Company has no significant concentration of credit risk arising from operations. Management believes that the credit risk concentration with respect to the financial instrument included in amounts receivable is remote.

#### Liquidity Risk

The Company's main source of liquidity is derived from its common stock issuances. As at March 31, 2019, the Company had current assets of \$1,398,055 (December 31, 2018 \$3,507,903) to settle current liabilities of \$166,739 (December 31, 2018 \$466,340). The Company's financial liabilities generally have contractual maturities that are subject to normal trade terms.

#### Interest Rate Risk

Interest rate risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate due to changes in market interest rates. The Company has cash balances and no interest-bearing debt. The Company's current policy is to invest excess cash in investment grade short term deposit certificates issued by its banking institutions. The Company monitors its cash balances and is satisfied with the creditworthiness of its banks. As a result, the Company's exposure to interest rate risk is minimal.

#### Market Risk

##### Foreign Currency Risk

The Company's functional and reporting currency is the Canadian dollar and all expenditures are transacted in Canadian dollars. As a result, the Company's exposure to foreign currency risk is minimal.

#### Price Risk

The Company is exposed to price risk with respect to commodity prices. The Company closely monitors commodity prices to determine the appropriate course of action to be taken by the Company. As the Company's properties are in the exploration stage and to date do not contain any identified mineral resources or reserves, the Company does not hedge against commodity price risk.

#### Sensitivity Analysis

Based on management's knowledge and experience of the financial markets, the Company believes the following movements are reasonably possible over a twelve-month period:

- (i) The Company receives low interest rates on its cash and cash equivalent balances and, as such, the Company does not have significant interest rate risk.
- (ii) The Company holds balances in foreign currencies that give rise to exposure to foreign exchange risk, however at any point in time the balances are not significant. The Company estimates that a 10% increase or decrease in the foreign currency would give rise to a gain or loss of approximately \$20,000 respectively.

#### **Subsequent Event**

On May 21, 2019, the Company announced the offering of a non-brokered private placement of up to 30,000,000 working capital units for up to \$1,500,000. Each working capital unit is priced at \$0.05 and consists of one common share and one common share purchase warrant. Each common share purchase warrant entitles the holder to purchase one common share at a price of \$0.10 per share until the earlier of: (i) three years following the closing of the offering; and (ii) in the event that the closing price of the common shares on the TSX Venture Exchange is at least \$0.30 for twenty consecutive trading days, and the 20th

**Gratomic Inc.**  
**(Formerly CKR Carbon Corporation)**  
**MANAGEMENT DISCUSSION AND ANALYSIS**  
**(Form 51-102F1)**  
**For the three months ended March 31, 2019**

trading day is at least four months from the closing of the offering, the date which is thirty days from the final trading day.

**Other Disclosures**

Share Capital

Common Shares -

As at March 31, 2019, and the date hereof, there were 169,671,739 common shares of the Company outstanding (December 31, 2018 – 168,678,739).

Warrants -

At March 31, 2019 and the date hereof there were a total of 97,793,433 warrants outstanding (December 31, 2018 – 100,610,933).

Options -

At March 31, 2019, and the date hereof, there were a total of 16,650,000 and 16,225,000 stock options respectively outstanding (December 31, 2018 – 16,250,000).

Additional Information -

Additional information about the Company including the financial statements, press releases and other filings are available on the internet at [www.sedar.com](http://www.sedar.com) and additional supplemental information is available on the Company website at [www.gratomic.ca](http://www.gratomic.ca).