

A New Mine for New Times

The Graphite Creek Project

Resource Development Council

February 15, 2024

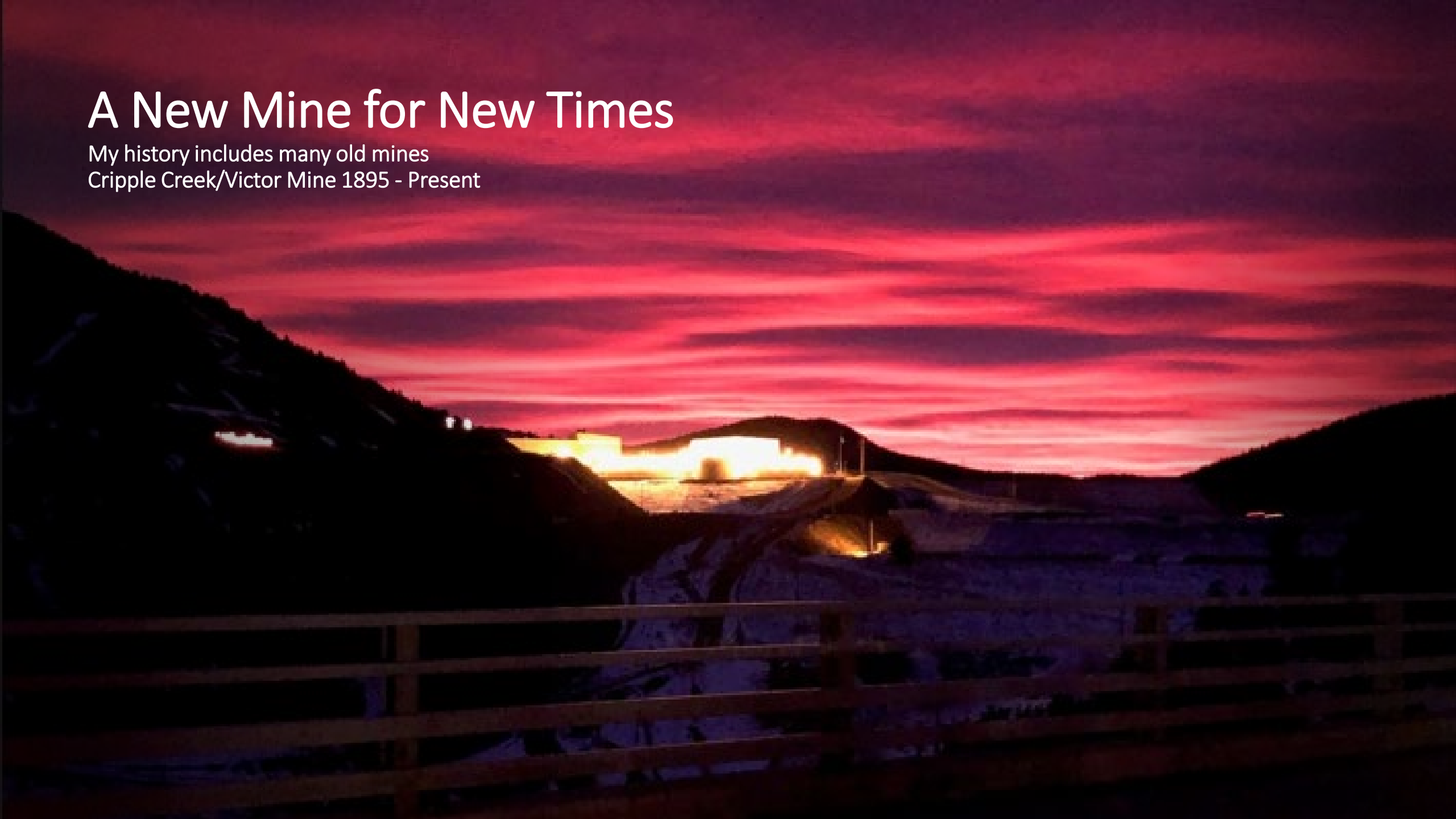
Mike Schaffner

Forward looking statements

All statements in this presentation, other than statements of historical facts, including those related to the timing and completion of the anticipated Feasibility Study, future production, establishment of a processing plant and a graphite manufacturing plant, establishment of a battery materials recycling facility, and events or developments that the Company intends, expects, plans, or proposes are forward-looking statements. Generally, forward-looking information can be identified by the use of forward-looking terminology such as “proposes”, “expects”, “is expected”, “scheduled”, “estimates”, “projects”, “plans”, “is planning”, “intends”, “assumes”, “believes”, “indicates”, “to be” or variations of such words and phrases that state that certain actions, events or results “may”, “could”, “would”, “might” or “will be taken”, “occur” or “be achieved”. The Company cautions that there is no certainty that tests of the Company’s material will be successful or that such tests will result in the development of successful products. Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from those in the forward-looking statements. Factors that could cause actual results to differ materially from those in forward-looking statements include market prices, exploitation and exploration successes, continuity of mineralization, uncertainties related to the ability to obtain necessary permits, licenses and title and delays due to third party opposition, changes in government policies regarding mining and natural resource exploration and exploitation, and continued availability of capital and financing, and general economic, market or business conditions. Readers are cautioned not to place undue reliance on this forward-looking information, which is given as of the date it is expressed in this press release, and the Company undertakes no obligation to update publicly or revise any forward-looking information, except as required by applicable securities laws. For more information on the Company, investors should review the Company's continuous disclosure filings that are available at www.sedar.com.

A New Mine for New Times

My history includes many old mines
Cripple Creek/Victor Mine 1895 - Present



America's Mining Challenge

1. Mining was used to supply the industrial revolution at the turn of the century establishing the U.S. position as a superpower often leaving environmental issues.
2. As our quality of life improved, we developed a not-in-my-backyard attitude.
3. Other countries were happy to take over the mining/industrial manufacturing role.
4. Anti-mining groups have become well organized and self-sustaining needing to raise funds often by distorting/exaggerating facts.
5. Mines are needed for America's economy and security.
6. Technology and Regulations have improved exponentially since the 1900's.



America's Graphite Challenge

100%

U.S. import reliance on China
as primary graphite import
source

U.S. GEOLOGICAL SURVEY

70%

of the world's graphite
supply comes from China

REUTERS

95%

of anode materials in
lithium-ion batteries is
based on graphite

EUROPEAN CARBON & GRAPHITE ASSOCIATION

494%

Expected growth of the
graphite market by 2050

WORLD BANK GROUP

2,500%

Expected growth of graphite
demand by 2040

JOE BIDEN'S 100-DAY REPORT

15:1

Ratio of graphite to lithium in
electric car batteries

LOMIKO METALS⁽¹⁾

Oct 20, 2023 – China's Ministry of Commerce announces that it would require companies to apply for licenses to export Natural/Synthetic graphite.

Graphite One's Supply Chain Solution

Meet graphite demand to decrease dependency on China



Graphite One (Alaska) Inc.
Advance America's largest graphite deposit

- Raw material
- Graphite Creek is the largest natural flake graphite deposit in the US
- 300+ jobs created in rural Alaska
- Foster partnerships
- Community engagement



Create America's first advanced anode manufacturing AND battery recycling facilities

- Plan to produce both natural graphite and artificial graphite anode materials
- 400+ est. high-tech jobs created in the US
- Hydro power – Clean and renewable energy
- Technology License Agreement (TLA)
- G1 to own 100% of the Infrastructure and Plant

Graphite Creek Project

Major Milestones

1

Preliminary economic assessment completed in 2017

2

Preliminary Feasibility Study completed in August 2022

3

Awarded US\$37.5 Million Department of Defense Grant in July 2023

4

Accelerated feasibility study schedule planned for completion by December 2024

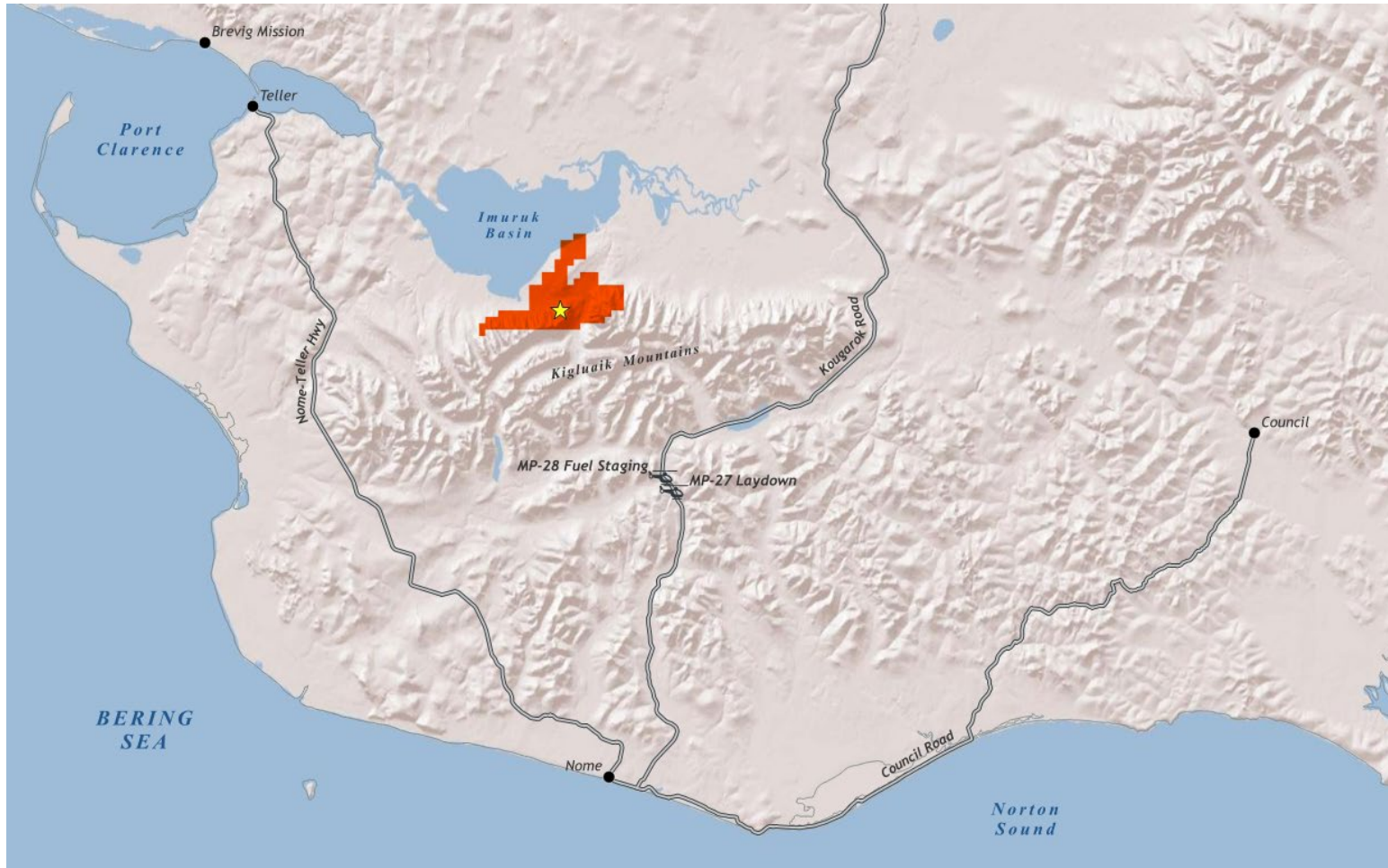
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Permitting to start following completion of feasibility study 2025-2026

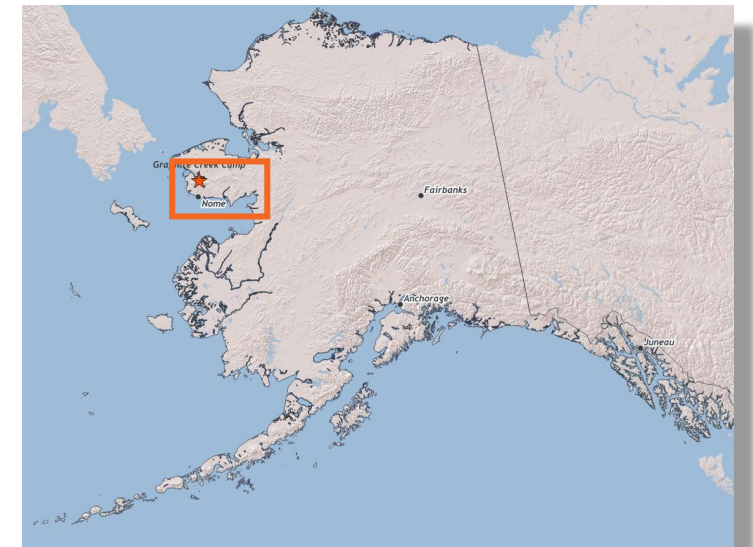
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Start of construction planned for 2027 with production in 2029

Graphite Creek Project Update



- 38 miles north of Nome
- Between the Imuruk Basin and the Kigluaik Mountains
- 176 State Mining Claims

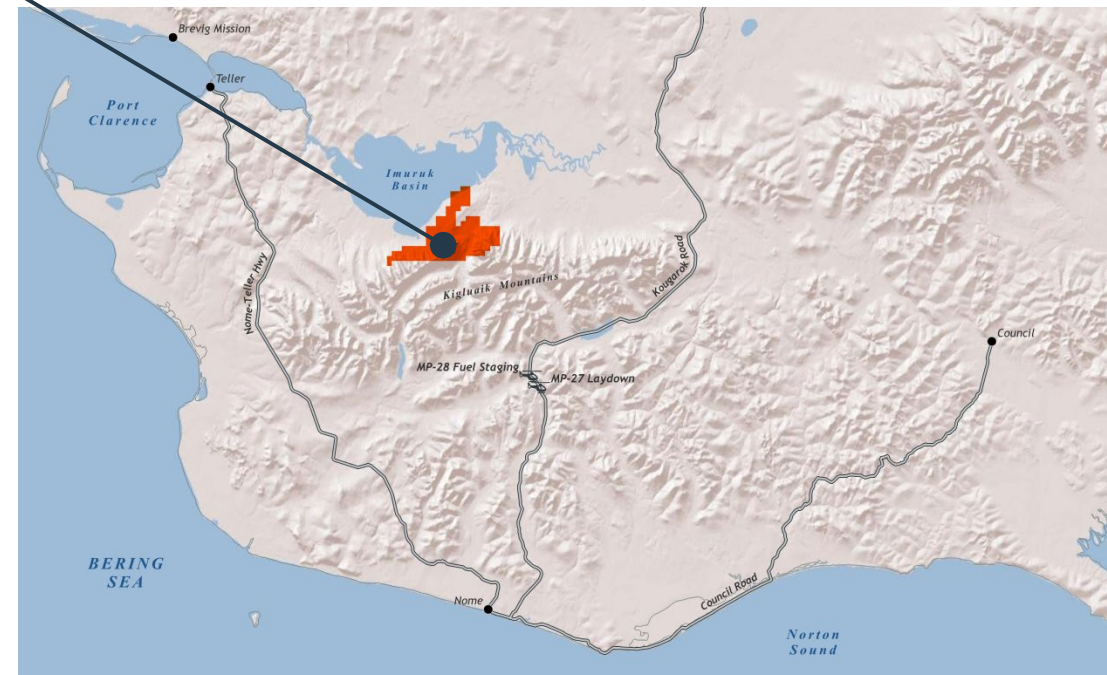


Graphite Creek Camp



Graphite Creek Camp Facing NW

- 60-person capacity, supporting
 - Drilling
 - Helicopter support
 - Environmental baseline monitoring

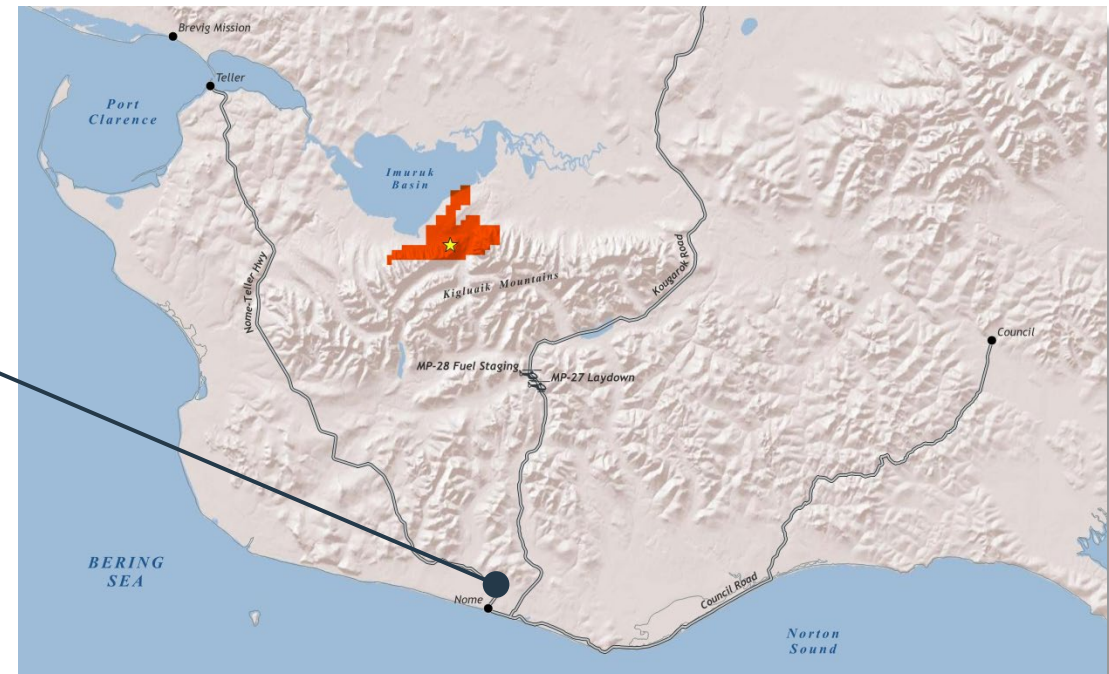


Nome Camp



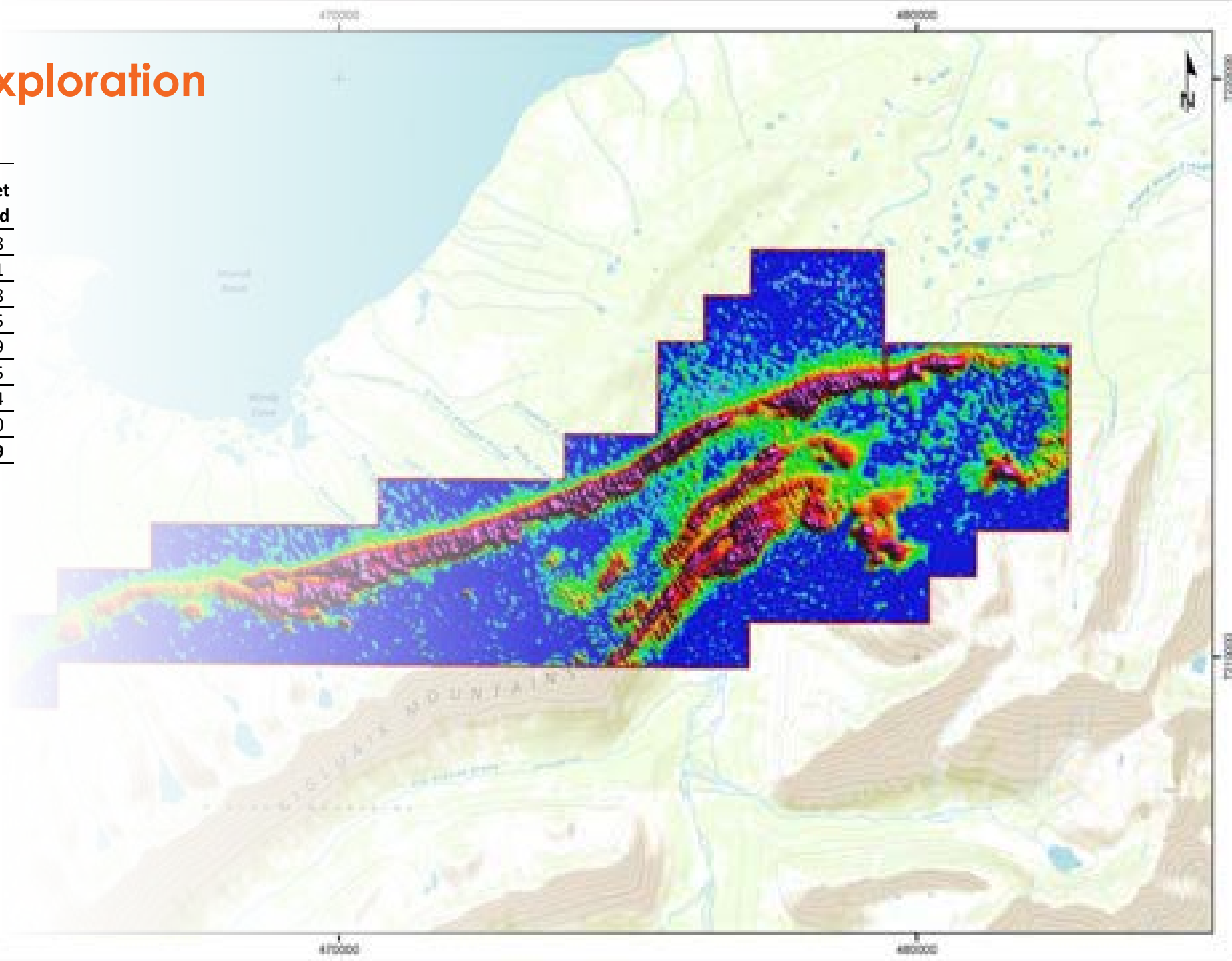
Nome Camp Facing WNW

- 24-person capacity, supporting
 - Core logging
 - Core cutting
 - Sample preparation
 - Expediting
 - Transitional housing



Graphite One Exploration

Year	Drillhole Count	Meters Drilled	Feet Drilled
2012	18	4,248.84	13,939.8
2013	10	1,023.84	3,359.1
2014	22	2,313.98	7,591.8
2018	6	800.87	2,627.5
2019	3	357.80	1,173.9
2021	19	2,146.54	7,042.5
2022	16	2,124.88	6,971.4
2023	57	8,735.87	28,661.0
Total	151	21,752.62	71,366.9



2022 Prefeasibility Study Mineral Resource

Resource Category	Tonnage (M tonnes)	Cg%	Contained Graphite (M tonnes)
Measured	4.67	5.83%	0.27
Indicated	27.87	5.15%	1.44
Inferred	254.67	5.11	13.00
Measured + Indicated	32.54	5.25%	1.71

Prefeasibility Study Financials

\$1.9B

NPV pre-tax

-
- Pre-tax net present value of \$1.93 billion (8% discount rate)
 - Post-tax net present value of \$1.36 billion (8% discount rate) before accounting for tax credits enacted by the U.S. Inflation Reduction Act of 2022, effective December 31, 2022

26%

IRR pre-tax

-
- Pre-tax 26% internal rate of return with a payback period of 4.6 years
 - Post-tax internal rate of return 22% and a payback period of 5.1 years before accounting for tax credits enacted by the US Inflation Reduction Act of 2022, effective December 31, 2022

26-year

Project life

-
- The PFS assumes the STP's operational life is 26 years based on it startup with purchased graphite and continued operation with graphite from the Mine
 - The average production over 26 years in the PFS is 75,026 tonnes of advanced graphite products per year
 - Project life based on exploration of 1 km² of 16 km deposit

Where to next?

2022 Prefeasibility Study

- 2,800 tpd mill
- 9,436 tpd mine
- 53,000 tpy graphite concentrate
- STP 26-year annual production 75,026 tpy including 49,624 tpy anode materials

More Drilling



Feasibility Study

- 10,000 tpd mill
- 33,700 tpd mine
- 183,000 tpy graphite concentrate
- 22-year mine life

Feasibility Study targets improving economics

- Significantly lowers the operating cost per tonne of graphite concentrate produced
- Minimal increase in headcount but with up to 3.6 x increased throughput

2023 Drilling

- Winter trail to mobilize heavy equipment
- >6 miles drill trail constructed
- Major Drilling
 - 2 drills from late June to early Aug
 - 3rd drill added Aug 5
- All 52 core holes in the resource area encountered visual graphite
- Access road and source rock geotechnical drilling was completed.



2023 Significant Intercepts as of 10/15/23

SIGNIFICANT INTERCEPTS REPORT								
Parameters: Lower Cutoff = 6% Min Interval Length= 6 m Max Length of Internal Dilution = 1.5 m								
Hole ID	Project	Intercept	From (m)	To (m)	Length (m)	Length (ft)	C-Graphite (%)	Containing
23GC081	GRAPHITE	1	91.11	101.46	10.35	34.0	8.90	5.39 m @10.36 pct
23GC084	GRAPHITE	1	97.10	103.80	6.70	22.0	7.95	
23GC084	GRAPHITE	2	109.05	120.96	11.91	39.1	10.93	5.33 m @13.36 pct
23GC086	GRAPHITE	1	81.40	88.14	6.74	22.1	6.40	
23GC087	GRAPHITE	1	108.32	126.50	18.18	59.6	9.25	2.00 m @18.40 pct
23GC088	GRAPHITE	1	70.60	80.23	9.63	31.6	13.19	2.98 m @27.37 pct
23GC090	GRAPHITE	1	71.00	79.50	8.50	27.9	8.43	2.60 m @11.37 pct
23GC091	GRAPHITE	1	98.00	107.00	9.00	29.5	9.64	2.00 m @12.45 pct
23GC091	GRAPHITE	2	199.03	208.00	8.97	29.4	8.39	
23GC092	GRAPHITE	1	35.00	44.00	9.00	29.5	14.89	3.50 m @27.74 pct
23GC094	GRAPHITE	1	86.72	95.35	8.63	28.3	9.83	3.90 m @10.83 pct
23GC094	GRAPHITE	2	104.00	113.60	9.60	31.5	9.14	6.60 m @10.45 pct
23GC096	GRAPHITE	1	54.43	71.00	16.57	54.4	9.71	3.12 m @23.62 pct
23GC096	GRAPHITE	2	73.00	83.00	10.00	32.8	7.97	
23GC096	GRAPHITE	3	140.97	149.00	8.03	26.3	12.76	5.00 m @15.18 pct
23GC097	GRAPHITE	1	31.87	39.14	7.27	23.9	8.76	
23GC099	GRAPHITE	1	20.00	35.02	15.02	49.3	10.76	4.02m @13.072pct
23GC102	GRAPHITE	1	0.00	10.88	10.88	35.7	11.14	3.13 m @23.37 pct
23GC102	GRAPHITE	2	66.14	74.17	8.03	26.3	10.56	4.36 m @14.04 pct



Environmental Baseline Monitoring

- Various levels of environmental baseline monitoring since 2014.
- 2023 Season activities
 - Cultural
 - Surface & ground water
 - Raptor surveys
 - Aquatic species
 - Imuruk Basin bathymetry
 - Geochemical
 - Hydrogeologic
 - Meteorological
 - Wetlands mapping





Community Outreach

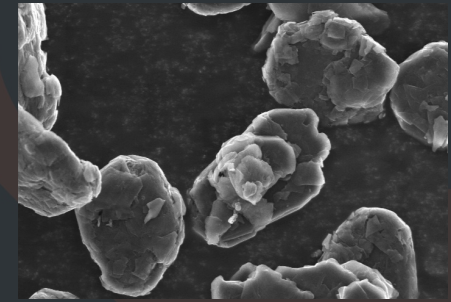
- Community meetings since 2014 with emphasis on Brevig Mission, Teller, and Nome.
- Subsistence Advisory Council established in 2018
 - Initially Brevig Mission, Teller, and Mary's Igloo.
 - Expanded to include BSNC, Nome Eskimo Community, and King Island Tribal Council in 2023
- BSNC Strategic Agreement – Community investments, Scholarships, Internships, Employment agreement, contractor agreements. Advisory committee membership

Anode Active Material Plant

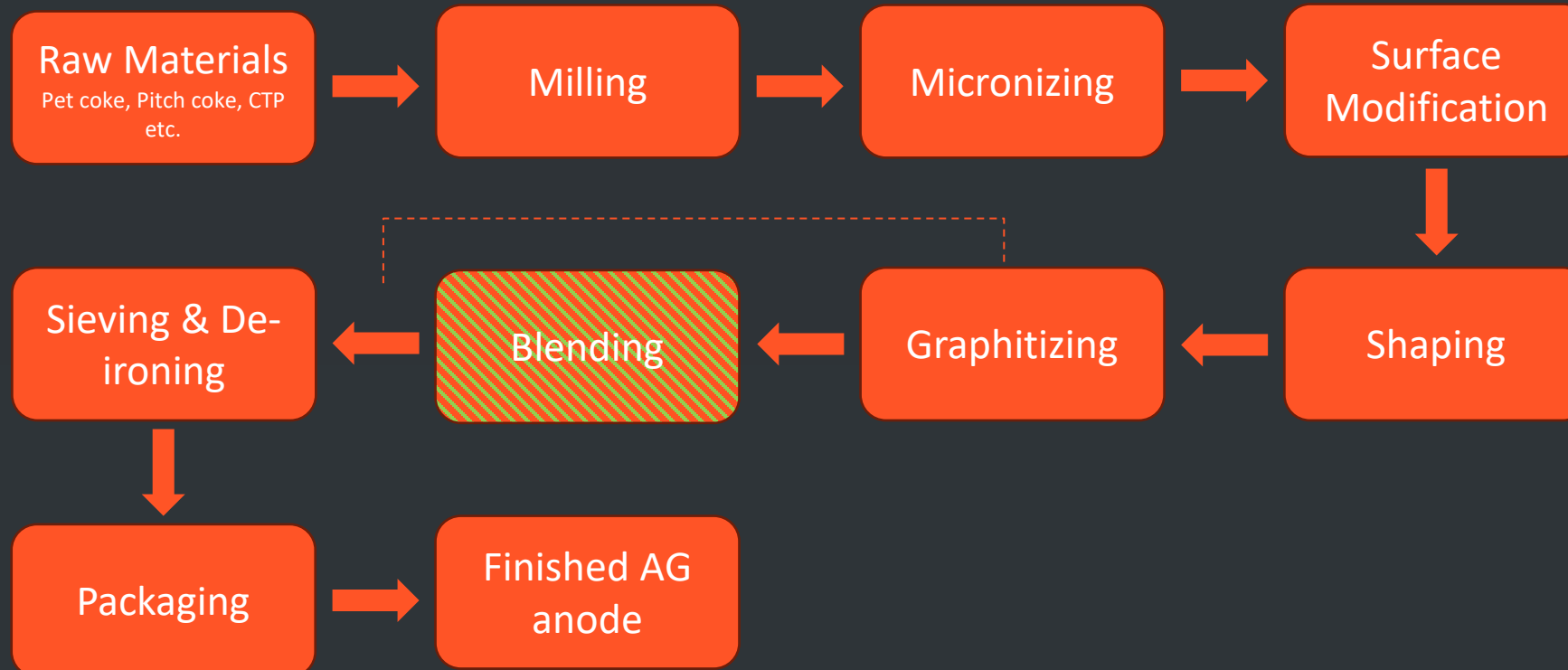
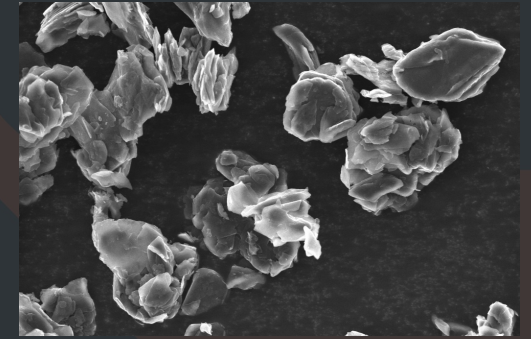
Anode Active Material (“AAM”) Plant

- Developing 100% U.S. anode material will require developing the entire supply chain from mining to finished products.
- EV batteries are in a state of continuous development. Each EV manufacturer uses a different blend of artificial and natural graphites.
- Graphite One is designing the AAM plant to produce **both artificial and natural graphite anode materials** with state-of-the-art technology to meet/exceed all EV manufacturer’s requirements.
- The supply chain will be developed to obtain **a net zero carbon footprint**.

Natural Graphite (NG) Production Process



Artificial Graphite Production Process



Technology Investment Agreement

Department of Defense

Department of Defense Technology Investment Agreement

- July 17, 2023, Graphite One (Alaska) Inc. was awarded a \$37.5M Department of Defense (DoD) Technology Investment Agreement (TIA) under Title III of the Defense Production Act (DPA) funded through the Inflation Reduction Act.
- The goal of the TIA is to perform an accelerated Feasibility Study to modernize and expand domestic production capacity and supply for graphite battery anodes necessary for electronic vehicles and alternative energy batteries that are essential to our national defense.
- September 8, 2023 Graphite One (Alaska) Inc. was awarded \$4.7M Department of Defense Technology Investment Agreement (TIA) for the development of a graphite based Aqueous Film Forming Foams to replace the Polyfluoroalkyl substances (PFAS) currently being used.

State and Delegation Support



Hon. Mike Dunleavy GOVERNOR OF ALASKA

"Graphite Creek is the largest deposit of graphite in the Nation, and would be a superior domestic supply of this critical mineral, which is necessary for modern batteries, renewable energy technology, and many other high-tech uses."



Dan Sullivan U.S. SENATOR

*"I want to congratulate Graphite One for the diligent work that went into receiving this award, including **the company's strategy to mine, refine and recycle graphite here in the United States.** This award has the potential to open up significant opportunities for our state in terms of producing our abundant reserves of critical minerals and metals. It's also **significant for our country's national security.**"*



Mary Peltola CONGRESSWOMAN

*"Critical minerals like graphite will be key for the inventions of the future, from clean energy to advanced defense technologies, and **with this funding, Alaskans can build a crucial link in our nation's supply chains.** **This project will also bring needed jobs and economic development to a rural area of Alaska,** with opportunities for hundreds of local hires during construction and operation."*



**Senator Lisa Murkowski at the
Graphite Creek project**

Thanks to RDC, ARE, and AMA

The support and effort are appreciated and...
You do make a difference

Mike Schaffner

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Graphite One 

