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Nikolai Mineral Resource Estimate Technical Report

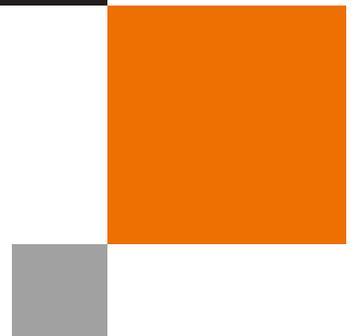
Revision 0

Alaska Energy Metals
Nikolai Nickel Project
Mineral Resource Estimate (MRE)
Eureka Property
Project No. 182923706

5 January 2024



Stantec Consulting Services Inc.
3133 West Frye Road, Suite 300
Chandler, Arizona 85226
USA



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IMPORTANT NOTICE

This notice is an integral component of the Nikolai Mineral Resource Estimate Technical Report (“Technical Report” or “Report”) and should be read in its entirety and must accompany every copy made of the Technical Report. The Technical Report has been prepared in accordance with the requirements of National Instrument 43-101 Standards of Disclosure for Mineral Projects.

The Technical Report has been prepared for Alaska Energy Metals Corporation (AEMC) by Stantec Consulting Services Inc. (Stantec). The Technical Report is based on information and data supplied to Stantec by AEMC. The quality of information, conclusions, and estimates contained herein are consistent with the level of effort involved in the services of Stantec, based on: (i) information available at the time of preparation of the Report, and (ii) the assumptions, conditions, and qualifications set forth in this Report.

Each portion of the Technical Report is intended for use by AEMC subject to the terms and conditions of its contract (182923706) with Stantec. Except for the purposes legislated under Canadian provincial and territorial securities law, any other uses of the Technical Report, by any third party, is at that party’s sole risk.

The results of the Technical Report represent forward-looking information. The forward-looking information may include pricing assumptions, sales forecasts, projected capital and operating costs, mine life and production rates, and other assumptions. Readers are cautioned that actual results may vary from those presented. The factors and assumptions used to develop the forward-looking information, and the risks that could cause the actual results to differ materially are presented in the body of this Report.

Stantec has used their experience and industry expertise to produce the estimates in the Technical Report. Where Stantec has made these estimates, they are subject to qualifications and assumptions, and it should also be noted that all estimates contained in the Technical Report may be prone to fluctuations with time and changing industry circumstances.

CERTIFICATE OF QUALIFICATIONS

I, Derek J. Loveday, P.Ge., do hereby certify that:

1. I am currently employed as a Project Manager by Stantec Services Inc. (Stantec), 2890 East Cottonwood Parkway Suite 300, Salt Lake City UT 84121-7283.
2. I graduated with a Bachelor of Science Honors Degree in Geology from Rhodes University, Grahamstown, South Africa in 1992.
3. I am a licensed Professional Geoscientist in the Province of Alberta, Canada, #159394. I am registered with the South African Council for Natural Scientific Professions (SACNASP) as a Geological Scientist #400022/03.
4. I have worked as a geologist for a total of thirty years since my graduation from university, both for mining and exploration companies and as a consultant specializing in resource evaluation for precious metals and industrial minerals. I have many years' experience exploring and modelling polymetallic metal deposits in the United States, Canada, and South Africa.
5. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101), and past relevant work experience, I meet the requirements to be a "Qualified Person" for the purposes of NI 43-101.
6. I am responsible for the preparation of all Sections of this Technical Report titled "Nikolai Mineral Resource Estimate Technical Report" (the "Technical Report") dated January 5, 2024, Effective Date November 20, 2023.
7. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
8. I have not personally inspected the Property but have relied on the observations of another Stantec employee under my direct supervision that inspected the Property in August 2023.
9. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
10. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Report, the omission to disclose which makes the Report misleading.
11. I am independent of the issuer applying all of the tests in Part 1.5 of NI 43-101CP.
- 12.

Dated January 5, 2024

"Original Signed and Sealed by Author"

Derek J. Loveday, P.Ge.

Manager Geologic Services

1.0 EXECUTIVE SUMMARY

1.1 Introduction

The Eureka Property (the Property) forms a portion of the Nikolai Nickel Project (the Project), which includes both the Eureka and Canwell properties. This Technical Report and maiden Mineral Resource Estimate (MRE) for the Eureka Property was prepared by Stantec Consulting Services Inc. (Stantec) for Alaska Energy Metals Corporation (AEMC). The Technical Report and MRE was prepared in accordance with the requirements of National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101).

1.1.1 Independent Inspections

Stantec representatives, under the direct supervision of the independent author and Qualified Person (QP), have inspected the Property and historic core samples in August and September 2023, respectively. The independent Stantec representatives verified drill hole locations, reviewed core, geological logs, logging procedures and sample handling, sample assay, and security procedures.

1.1.2 Property Description

The Eureka Property, located on the southern flank of the central Alaska Range, is approximately 281 road km southeast of Fairbanks and 400 road km northeast of Anchorage (63° 15' 14" N, 146° 12'). The Eureka portion of the Property consists of 106 160-acre State of Alaska mining claims, totaling 16,960 acres (6,863 Ha), all owned by AEMC. The MRE is not located on any claims that would be subject to royalty agreements.

1.1.3 Geology and Mineralization

The Eureka Property covers the highly prospective Eureka ultramafic-mafic intrusive complex, which intrudes into the Tangle Lakes Formation, a sequence of sedimentary and pyroclastic rocks to tuffaceous sedimentary rocks. Mineralization found to date in the ultramafic-mafic complexes on the Eureka Property is primarily hosted by gabbro, clinopyroxenite, and serpentinized dunite/wehrlite units. The mineralization is separated into three mineralized zones (Eureka Zone 1 (EZ1), Eureka Zone 2 (EZ2) and Eureka Zone 3 (EZ3) dipping towards the southwest between 45 and 50 degrees. The approximate length, width, and depth of the EZ1 is 4,200 m, 350 m, 1,350 m (L x W x D), EZ2 is 7,000 m, 290 m, 1,250 m (L x W x D), and EZ3 is 2,200 m, 170 m, 1,000 m (L x W x D). Mineral Resources are only reported from the EZ2 and EZ3 zones.

1.1.4 Exploration and Development History

Mineral exploration on the Project area dates to the turn of the century and took place in three "waves" which saw exploration efforts focused first on gold (1903 to 1950), then on copper and

nickel (1963 to 1988), and then on copper, nickel, and platinum group metals (1989 to present). Most recent exploration has been undertaken by Millrock Resources from 2021 to present. In 2023, Millrock Resources was renamed to Alaska Energy Metals Corporation. Exploration methods included surface mapping and sampling, geophysical surveys, drilling, and sampling.

1.1.5 Metallurgical Testing

Preliminary department assessments for the EZ2 mineralization indicate that an average of 83.4% of the total nickel is in potentially recoverable phases of Ni-sulfides and Ni-Fe alloys. Copper department tests show an average of 74% of the total copper in potentially recoverable phases of Cu-sulfides and Cu-oxides. Additional department studies, grindability and flotation studies are on-going with core samples from the 2023 resource step-out drill program. Results from on-going studies will be released when completed.

1.1.6 Resource Model

AEMC exploration data used to calculate a MRE included 31 historic drillholes from a purchased exploration dataset and six (6) AEMC drill holes. All 37 drill holes were used to inform a geologic lithology and mineralization model. Eight (8) of the historic dataset comprising 31 holes had validated assay data and these were used for mineral resource grade estimation. Assay results from the six (6) AEMC drill holes were still pending as of the effective date of the MRE.

The geologic model used for reporting of mineral resources is a 3D block model that was developed using Hexagon Mining's geological modelling and mine planning software, MinePlan version 16.0.4 (MinePlan). The block model captures the three mineralized ultramafic intrusive bodies (EZ1, EZ2 and EZ3). The three mineralization zones are further divided into west and east areas separated by interpreted faulting.

1.1.7 Nickel Equivalent Grade Calculations

Mineral sample assays have been validated in eight (8) of the 37 drillholes, and assay data from these holes has been used to estimate grades for nickel (Ni), copper (Cu), cobalt (Co), platinum (Pt), palladium (Pd), gold (Au), silver (Ag), iron (Fe) and chromium (Cr). All metals, excluding Ag, Fe and Cr, have been used to calculate an in-situ Ni equivalent grade (NiEQ) based on average (24 month) market prices. A recovered Ni equivalent grade (NiEQR) was also calculated by factoring in a 60% recovery for Ni and a 50% recovery for all other metals. NiEQ was used for reporting the in-situ metal tonnes and grades, and NiEQR was used for calculating block revenue.

1.1.8 Maiden Mineral Resource Estimate

NiEQ, Ni, Cu, Co, Pt, Pd, and Au resources are contained within the EZ2 and EZ3 mineralized zones. The mineral resources are considered an inferred resource due to the number of drill holes used and current drill hole spacing. The inferred resource has been estimated out to 350 m from the nearest sample. The mineral resource estimates are presented in Table 1.1. The

resource estimates are contained within an economic pit shell at constant 45° pit slope. All resources on the Nikolai Nickel Project are surface mineable at a stripping ratio of 3.7 (waste tonnes: resource tonnes). The effective date of the resource estimate is 20 November 2023.

1.1.9 Potential Risks

The accuracy of resource estimates is, in part, a function of the quality and quantity of available data and of engineering and geological interpretation and judgment. Given the data available at the time; the estimates presented herein are considered reasonable. However, they should be accepted with the understanding that additional data and analysis available after the date of the estimates may necessitate revision. These revisions may be material. Mineral resources are not mineral reserves and there is no assurance that any mineral resources will ultimately be reclassified as Proven or Probable reserves. Mineral resources which are not mineral reserves do not have demonstrated economic viability.

The following items outline other specific potential risks that may impact accuracy of the mineral resource estimates.

- Nickel is approximately 76% of the total value of the metals included in the equivalent grade. As such, future market price fluctuations in nickel would disproportionately impact reasonable prospects for economic extraction relative to other metals in the mineral resource.
- Sensitivity analysis of the mineral resource shows a significant drop in available resource from 319.5 Mt at a base case cut-off grade of 0.2% NiEQ to 129.2 Mt using at 0.3% NiEQ cut-off.
- Further metallurgical testing is required to determine practical recovery and costs more accurately for all the metals listed in the mineral resource. Processing costs are a significant component of overall costs to mine and as a result resource cut-off grade grades may be higher than the base case cut-off grade of 0.2% NiEQ.

Table 1.1: Nikolai Project Eureka Property Maiden Mineral Resource Estimate (MRE) – effective 20 November 2023

Inferred Mineral Resource Tonnes and Grade										
Area	Mineralized Zone	NiEQ Cut-off	Tonnes	Base and Battery Metals			PGM and Precious Metals			Total
				Ni	Cu	Co	Pt	Pd	Au	NiEQ*
				(%)	(MT)	(%)	(%)	(%)	(g/T)	(g/T)
Eureka East	Eureka Zone 2 (EZ2)	>= 0.200	88.6	0.24	0.08	0.02	0.056	0.124	0.012	0.35
Eureka West	Eureka Zone 2 (EZ2)	>= 0.200	182.8	0.21	0.05	0.02	0.036	0.071	0.013	0.28
	Eureka Zone 3 (EZ3)	>= 0.200	48.2	0.23	0.02	0.01	0.031	0.021	0.004	0.27
Total E	EZ2 + EZ2 + EZ3	>= 0.200	319.6	0.22	0.05	0.02	0.041	0.078	0.012	0.30
Inferred Mineral Resource Tonnes and Metal Content										
Area	Mineralized Zone	NiEQ Cut-off	Tonnage	Base and Battery Metals			PGM and Precious Metals			Total
				Ni	Cu	Co	Pt	Pd	Au	NiEQ*
				(%)	(MT)	(Mlbs)	(Mlbs)	(Mlbs)	(tOz)	(tOz)
Eureka East	Eureka Zone 2 (EZ2)	>= 0.200	88.6	471	165	34	160,373	353,993	34,359	676
Eureka West	Eureka Zone 2 (EZ2)	>= 0.200	182.8	841	189	65	210,018	415,335	79,036	1,135
	Eureka Zone 3 (EZ3)	>= 0.200	48.2	240	19	16	48,816	32,694	6,495	287
Total	EZ2 + EZ2 + EZ3	>= 0.200	319.6	1,552	373	115	419,138	802,003	119,915	2,098

CIM definitions are followed for classification of Mineral Resource.

Base case cut-off grade is 0.20% Ni calculated from a Ni price of US\$23.946/tonne (US\$10.9 US\$/lb), surface mining cost of US\$2.50 per tonne, and processing costs US\$25.00 per tonne.

Mineral Resource are reported from within an economic pit shell whose extent has been estimated using a Ni price of US\$23,946/tonne (US\$10.9 US\$/lb) and mining cost of US\$2.50 per tonne, from a Ni equivalent grade calculated from Ni, Cu, Co, Pt, Pd, and Au, Ni recovery of 60% and 50% for other metals, fixed density of 2.80- and 45-degree constant slope angle.

Equivalent grade formula is $NiEQ = Ni/1 + Cu/2.7309 + Co/0.5321 + Pt/0.0008 + Pd/0.0004 + Au/0.0004$.

Metal pricing used to calculate NiEQ is based on observation of monthly metal pricing for the past 24 months up to end-October 2023 with Ni at US\$23,946/tonne (US\$10.9/lb) (World Bank), Cu at US\$ 8,768/tonne (US\$4.0/lb) (World Bank), Co 45,000 US\$/tonne (US\$24/lb) (Trading Economics), Pt at US\$970/toz (World Bank), Pd at US\$1,700/toz (Kitco), and Au at 1,855 (World Bank). Totals may not represent the sum of the parts due to rounding.

The Mineral Resource estimate has been prepared by Derek Loveday, P. Geo. of Stantec Consulting Services Inc. in conformity with CIM

"Estimation of Mineral Resource and Mineral Reserves Best Practices" guidelines and are reported in accordance with the Canadian Securities Administrators NI 43-101. Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that any mineral resource will be converted into mineral reserve.

1.1.10 Recommendations

The Nikolai mineral resource estimate has relied on exploration drilling results. The following development path is recommended for the Nikolai Nickel Project.

Phase 1 Work Program for MRE Update

Pending assay results from the eight-hole 2023 drill campaign holes are to be included in an update of the current resource model. This additional information will improve the confidence of the current geologic model and associated MRE. Estimated costs for updating the geologic model and MRE in a revised NI 43-101 Technical Report are listed in Table 1.2. Time to complete Phase 1 after receiving pending assay results is approximately 6 weeks.

Table 1.2: Phase 1 MRE Update Costs

Activity	Cost (US\$)
Model Update	20,000
Technical Report and MRE	30,000
Total	50,000

Phase 2 Work Program Preliminary Economic Assessment

The proposed Phase 2 program is not dependent on the successful results of the Phase 1 program. For Phase 2 a preliminary economic assessment (PEA) is recommended. The PEA will be supported by a high-level mining and processing study that be used to determine to what extent additional information would be required to advance the Nikolai Nickel Project towards declaring a mineral reserve estimate. This information would include, but not limited to; number, location and type of infill drill holes; metallurgical testing; and infrastructure and market studies. Estimated costs for the Phase 2 program is outlined in Table 1.3. Time to complete Phase 2 is approximately 4 months.

Table 1.3: Phase 2 Preliminary Economic Assessment

Activity	Cost (US\$)
Mining and Processing Study	100,000
PEA Technical Report	30,000
Total	130,000

2.0 Introduction

The Eureka Property (the Property) forms a portion of the Nikolai Nickel Project (the Project), which includes both the Eureka and Canwell properties. This Technical Report and maiden Mineral Resource Estimate (MRE) for the Eureka Property was prepared by Stantec Consulting Services Inc. (Stantec) for Alaska Energy Metals Corporation (AEMC). The Technical Report and MRE was prepared in accordance with the requirements of National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101).

The information used in the compilation of the Technical Report was provided by AEMC as well as from public domain sources. All sources of information in addition to AEMC's exploration data are listed in Section 27 References.

A Stantec representative, under the direct supervision of the independent Author and Stantec Qualified Person (QP), has inspected the Property in August 2023. The Stantec representative verified drill hole locations, reviewed core, geological logs, logging procedures and sample handling and security procedures. A personal inspection has not been completed by the Author and Stantec QP due to the unavailability of the above Stantec representative to take responsibility for the site inspection as of the effective date of the MRE.

The "Effective Date" mentioned in the Technical Report refers to the date of the most recent scientific or technical information.

2.1 List of Abbreviations

Alaska Energy Metals Corporation (AEMC)
aluminum (Al)
American Copper and Nickel Company (ACNC)
Anglo American Exploration Inc. (AAEUS)
arsenic (As)
Canadian Institute of Mining, Metallurgy and Petroleum (CIM)
Celsius (C)
centimeter (cm)
certified reference materials (CRMs)
chromium (Cr)
Circum-Superior Belt (CSB)
cobalt (Co)
Controlled-source Audio-frequency Magnetotellurics (CSMAT)
copper (Cu)
depth (D)

digital terrain model (DTM)
end of hole (EOH)
Eureka Property (the Property)
Eureka Zone 1 (EZ1)
Eureka Zone 2 (EZ2)
Eureka Zone 3 (EZ3)
Fahrenheit (F)
Fort Knox Gold Resources (Fort Knox)
Frequency distribution chart (histogram)
Geologic Materials Center (GMC)
gold (Au)
grams per tonne (g/T)
hectares (Ha)
hydrogen (H)
inch (in)
in-situ Ni equivalent grade (NiEQ)
iron (Fe)
kilometer (km)
length (L)
M.A.N. Resource, Inc. (M.A.N.)
magnesium (Mg)
meter (m)
million pounds (Mlbs)
million tonnes (MT)
MinePlan version 16.0.4 (MinePlan)
Mineral Resource Estimate (MRE)
National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101)
Nevada Star (NSR)
nickel (Ni)
Nikolai Mineral Resource Estimate Technical Report (Technical Report or Report)
Nikolai Nickel Project (the Project)
oxygen (O)
palladium (Pd)
parts per billion (ppb)
parts per million (ppm)
percent (%)

platinum (Pt)
platinum group elements (PGE)
platinum group metals (PGM)
pound (lb)
preliminary economic assessment (PEA)
Qualified Person (QP)
recovered Ni equivalent grade (NiEQR)
SGS Laboratories (SGS)
silver (Ag)
South African Council for Natural Scientific Professions (SACNASP)
specific gravity (SG)
Stantec Consulting Services Inc. (Stantec)
sulfur (S)
Temporary Water Use Authorization (TWUA)
troy ounce (tOz)
U.S. Bureau of Land Management (BLM)
United States Dollar (US\$)
degrees (°)
width (W)
zinc (Zn)

3.0 RELIANCE ON OTHER EXPERTS

The Qualified Person(s) did not rely on a report, opinion or statement of another expert who is not a qualified person, or on information provided by the issuer, concerning legal, political, environmental, or tax matters.

4.0 PROPERTY DESCRIPTION AND LOCATION

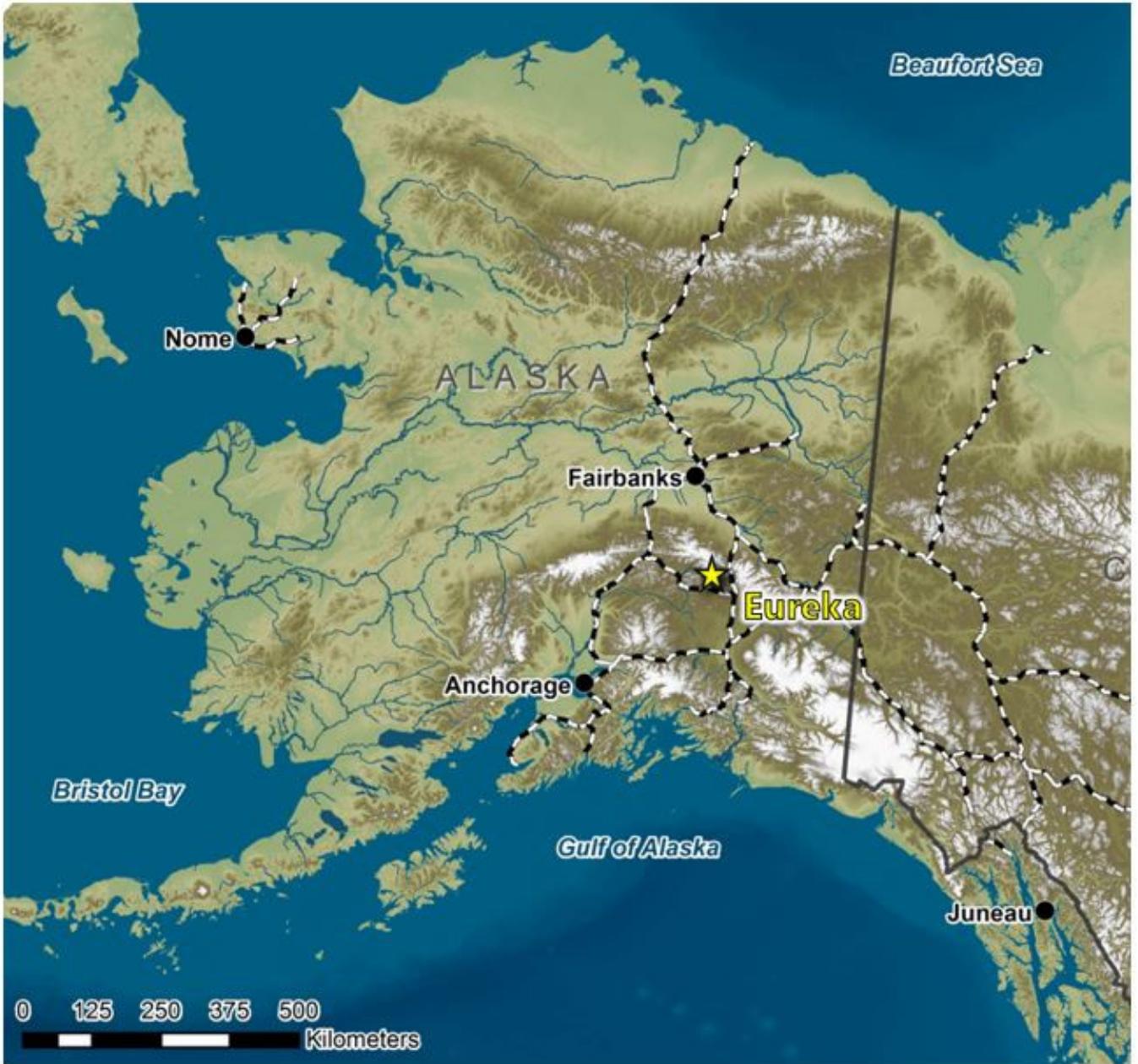
4.1 Location

The Eureka Property, located on the southern flank of the central Alaska Range, is approximately 281 road km southeast of Fairbanks and 400 road km northeast of Anchorage (63° 15' 14" N, 146° 12'). The location of the Property is shown in Figure 4-1.

Locally, the Property is within the Delta River Mining District in the southwest portion of the Mt. Hayes quadrangle, Alaska. The claims are currently accessible by helicopter, however, an old mining trail (Figure 4-2) leads from the Richardson Highway close to the Eureka property which may serve as future access onto the claims.

4.2 Mineral Rights

The Eureka Property consists of 106, 160-acre State of Alaska mining claims, totaling 16,960 acres (6,863 Ha), all owned by Alaska Energy Metals Corporation. Locations of the claims are shown in Figure 4-2



Notes
 Data Source: Internal ESRI GIS Figure, Alaska Energy Metals Corporation, 2023



TECHNICAL REPORT AEMC NIKOLAI PROJECT

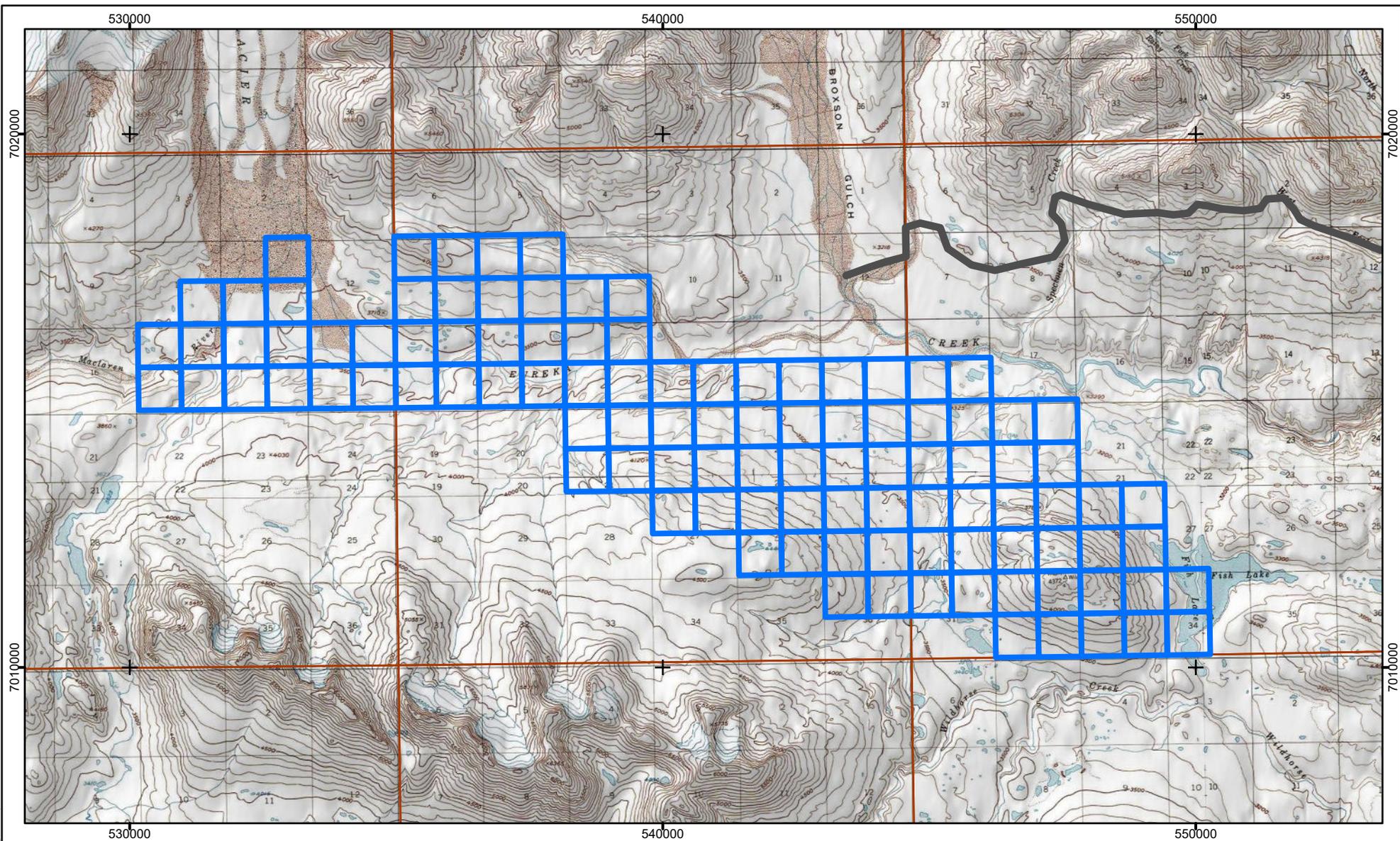
**Eureka Property
 General Location Map**

Figure 4-1

DRAWN BY: J.K.
 CHK'D BY: D.L.
 DATE: 24/01/04

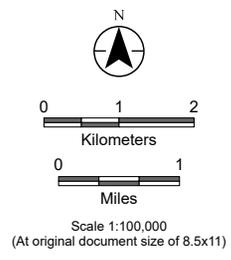
Project Location: T19S R8E, Alaska, USA
 Client: Alaska Energy Metals Corp. (AEMC)
 Project: 182923706

C:\Data\NIK\data\ArcPro\Fig_4-1_Nik_GenLocMap_Dec21_2023.aprx



- Legend**
- AEMC Eureka Claims
 - Rainy Creek Mining Road

Notes
 1. Coordinate System: NAD 1983 UTM Zone 6N; Units: Meter
 2. Data Source: USA_Topo_Maps: Copyright:© 2013 National Geographic Society, i-cubed



TECHNICAL REPORT AEMC NIKOLAI PROJECT

Eureka Project Claim Map

Figure 4-2

DRAWN BY: J.K. CHK'D BY: D.K. DATE: 24/ 01/ 04	Project Location: T19S R8E, Alaska, USA Client: Alaska Energy Metals Corp. (AEMC) Project: 182923706
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C:\Data\Nikolai\ArcPro\Fig_4-2_Nik_ClaimsMap_Dec21_2023.aprx

The Property includes 106 160-acre State of Alaska mining claims, (Figure 4-2, Table 4.1). The claims are located within the Fairbanks and Talkeetna recording districts. Mineral rights in this part of Alaska are administered by the State of Alaska (state claims) and the U.S. Bureau of Land Management (BLM) (federal claims). Annual rents vary according to type of claim, claim size, and age and are due and payable by November 30th of each year for state mining claims. The total 2022 to 2023 rents due for state mining claims is \$17,820, with annual labor commitment on state mining claims of \$42,400 per year. State mining claims will continue to stay active if rent and the labor commitments are met yearly. Amounts spent above these levels are bankable on state mining claims for up to 4 years into the future. The claims of the Property have not been surveyed by a registered land or mineral surveyor and there is no state or federal law or regulation requiring such surveying.

Table 4.1: Mineral Tenures - Eureka Property

ADL Number	Claim Name	Owner	MTRS	Acres
ADL 736162	FC 001	ALASKA ENERGY METALS HOLDING LLC	F019S007E11	160
ADL 736163	FC 002	ALASKA ENERGY METALS HOLDING LLC	F019S008E07	160
ADL 736164	FC 003	ALASKA ENERGY METALS HOLDING LLC	F019S008E07	160
ADL 736165	FC 004	ALASKA ENERGY METALS HOLDING LLC	F019S008E08	160
ADL 736166	FC 005	ALASKA ENERGY METALS HOLDING LLC	F019S008E08	160
ADL 736167	FC 006	ALASKA ENERGY METALS HOLDING LLC	F019S007E10	160
ADL 736168	FC 007	ALASKA ENERGY METALS HOLDING LLC	F019S007E11	160
ADL 736169	FC 008	ALASKA ENERGY METALS HOLDING LLC	F019S007E11	160
ADL 736170	FC 009	ALASKA ENERGY METALS HOLDING LLC	F019S008E07	160
ADL 736171	FC 010	ALASKA ENERGY METALS HOLDING LLC	F019S008E07	160
ADL 736172	FC 011	ALASKA ENERGY METALS HOLDING LLC	F019S008E08	160
ADL 736173	FC 012	ALASKA ENERGY METALS HOLDING LLC	F019S008E08	160
ADL 736174	FC 013	ALASKA ENERGY METALS HOLDING LLC	F019S008E09	160
ADL 736175	FC 014	ALASKA ENERGY METALS HOLDING LLC	F019S008E09	160
ADL 736176	FC 015	ALASKA ENERGY METALS HOLDING LLC	F019S007E13	160
ADL 736177	FC 016	ALASKA ENERGY METALS HOLDING LLC	F019S007E14	160
ADL 736178	FC 017	ALASKA ENERGY METALS HOLDING LLC	F019S007E14	160
ADL 736179	FC 018	ALASKA ENERGY METALS HOLDING LLC	F019S007E15	160
ADL 736180	FC 019	ALASKA ENERGY METALS HOLDING LLC	F019S007E15	160
ADL 736181	FC 020	ALASKA ENERGY METALS HOLDING LLC	F019S008E18	160
ADL 736182	FC 021	ALASKA ENERGY METALS HOLDING LLC	F019S008E17	160
ADL 736183	FC 022	ALASKA ENERGY METALS HOLDING LLC	F019S008E17	160
ADL 736184	FC 023	ALASKA ENERGY METALS HOLDING LLC	F019S008E16	160
ADL 736185	FC 024	ALASKA ENERGY METALS HOLDING LLC	F019S008E16	160
ADL 736186	FC 025	ALASKA ENERGY METALS HOLDING LLC	F019S008E18	160
ADL 736187	FC 026	ALASKA ENERGY METALS HOLDING LLC	F019S007E13	160

ADL Number	Claim Name	Owner	MTRS	Acres
ADL 736188	FC 027	ALASKA ENERGY METALS HOLDING LLC	F019S007E13	160
ADL 736189	FC 028	ALASKA ENERGY METALS HOLDING LLC	F019S007E14	160
ADL 736190	FC 029	ALASKA ENERGY METALS HOLDING LLC	F019S007E14	160
ADL 736191	FC 030	ALASKA ENERGY METALS HOLDING LLC	F019S007E15	160
ADL 736192	FC 031	ALASKA ENERGY METALS HOLDING LLC	F019S007E15	160
ADL 736193	FC 032	ALASKA ENERGY METALS HOLDING LLC	F019S008E18	160
ADL 736194	FC 033	ALASKA ENERGY METALS HOLDING LLC	F019S008E17	160
ADL 736195	FC 034	ALASKA ENERGY METALS HOLDING LLC	F019S008E17	160
ADL 736196	FC 035	ALASKA ENERGY METALS HOLDING LLC	F019S008E16	160
ADL 736197	FC 036	ALASKA ENERGY METALS HOLDING LLC	F019S008E16	160
ADL 736198	FC 037	ALASKA ENERGY METALS HOLDING LLC	F019S008E15	160
ADL 736199	FC 038	ALASKA ENERGY METALS HOLDING LLC	F019S008E15	160
ADL 736200	FC 039	ALASKA ENERGY METALS HOLDING LLC	F019S008E14	160
ADL 736201	FC 040	ALASKA ENERGY METALS HOLDING LLC	F019S008E14	160
ADL 736202	FC 041	ALASKA ENERGY METALS HOLDING LLC	F019S008E13	160
ADL 736203	FC 042	ALASKA ENERGY METALS HOLDING LLC	F019S008E13	160
ADL 736204	FC 043	ALASKA ENERGY METALS HOLDING LLC	F019S009E18	160
ADL 736205	FC 044	ALASKA ENERGY METALS HOLDING LLC	F019S009E18	160
ADL 736206	FC 045	ALASKA ENERGY METALS HOLDING LLC	F019S008E21	160
ADL 736207	FC 046	ALASKA ENERGY METALS HOLDING LLC	F019S008E21	160
ADL 736208	FC 047	ALASKA ENERGY METALS HOLDING LLC	F019S008E22	160
ADL 736209	FC 048	ALASKA ENERGY METALS HOLDING LLC	F019S008E22	160
ADL 736210	FC 049	ALASKA ENERGY METALS HOLDING LLC	F019S008E23	160
ADL 736211	FC 050	ALASKA ENERGY METALS HOLDING LLC	F019S008E23	160
ADL 736212	FC 051	ALASKA ENERGY METALS HOLDING LLC	F019S008E24	160
ADL 736213	FC 052	ALASKA ENERGY METALS HOLDING LLC	F019S008E24	160
ADL 736214	FC 053	ALASKA ENERGY METALS HOLDING LLC	F019S009E19	160
ADL 736215	FC 054	ALASKA ENERGY METALS HOLDING LLC	F019S009E19	160
ADL 736216	FC 055	ALASKA ENERGY METALS HOLDING LLC	F019S009E20	160
ADL 736217	FC 056	ALASKA ENERGY METALS HOLDING LLC	F019S009E20	160
ADL 736218	FC 057	ALASKA ENERGY METALS HOLDING LLC	F019S008E21	160
ADL 736219	FC 058	ALASKA ENERGY METALS HOLDING LLC	F019S008E21	160
ADL 736220	FC 059	ALASKA ENERGY METALS HOLDING LLC	F019S008E22	160
ADL 736221	FC 060	ALASKA ENERGY METALS HOLDING LLC	F019S008E22	160
ADL 736222	FC 061	ALASKA ENERGY METALS HOLDING LLC	F019S008E23	160
ADL 736223	FC 062	ALASKA ENERGY METALS HOLDING LLC	F019S008E23	160
ADL 736224	FC 063	ALASKA ENERGY METALS HOLDING LLC	F019S008E24	160
ADL 736225	FC 064	ALASKA ENERGY METALS HOLDING LLC	F019S008E24	160

ADL Number	Claim Name	Owner	MTRS	Acres
ADL 736226	FC 065	ALASKA ENERGY METALS HOLDING LLC	F019S009E19	160
ADL 736227	FC 066	ALASKA ENERGY METALS HOLDING LLC	F019S009E19	160
ADL 736228	FC 067	ALASKA ENERGY METALS HOLDING LLC	F019S009E20	160
ADL 736229	FC 068	ALASKA ENERGY METALS HOLDING LLC	F019S009E20	160
ADL 736230	FC 069	ALASKA ENERGY METALS HOLDING LLC	F019S008E27	160
ADL 736231	FC 070	ALASKA ENERGY METALS HOLDING LLC	F019S008E27	160
ADL 736232	FC 071	ALASKA ENERGY METALS HOLDING LLC	F019S008E26	160
ADL 736233	FC 072	ALASKA ENERGY METALS HOLDING LLC	F019S008E26	160
ADL 736234	FC 073	ALASKA ENERGY METALS HOLDING LLC	F019S008E25	160
ADL 736235	FC 074	ALASKA ENERGY METALS HOLDING LLC	F019S008E25	160
ADL 736236	FC 075	ALASKA ENERGY METALS HOLDING LLC	F019S009E30	160
ADL 736237	FC 076	ALASKA ENERGY METALS HOLDING LLC	F019S009E30	160
ADL 736238	FC 077	ALASKA ENERGY METALS HOLDING LLC	F019S009E29	160
ADL 736239	FC 078	ALASKA ENERGY METALS HOLDING LLC	F019S009E29	160
ADL 736240	FC 079	ALASKA ENERGY METALS HOLDING LLC	F019S009E28	160
ADL 736241	FC 080	ALASKA ENERGY METALS HOLDING LLC	F019S009E28	160
ADL 736242	FC 081	ALASKA ENERGY METALS HOLDING LLC	F019S008E26	160
ADL 736243	FC 082	ALASKA ENERGY METALS HOLDING LLC	F019S008E26	160
ADL 736244	FC 083	ALASKA ENERGY METALS HOLDING LLC	F019S008E25	160
ADL 736245	FC 084	ALASKA ENERGY METALS HOLDING LLC	F019S008E25	160
ADL 736246	FC 085	ALASKA ENERGY METALS HOLDING LLC	F019S009E30	160
ADL 736247	FC 086	ALASKA ENERGY METALS HOLDING LLC	F019S009E30	160
ADL 736248	FC 087	ALASKA ENERGY METALS HOLDING LLC	F019S009E29	160
ADL 736249	FC 088	ALASKA ENERGY METALS HOLDING LLC	F019S009E29	160
ADL 736250	FC 089	ALASKA ENERGY METALS HOLDING LLC	F019S009E28	160
ADL 736251	FC 090	ALASKA ENERGY METALS HOLDING LLC	F019S009E28	160
ADL 736252	FC 091	ALASKA ENERGY METALS HOLDING LLC	F019S008E36	160
ADL 736253	FC 092	ALASKA ENERGY METALS HOLDING LLC	F019S008E36	160
ADL 736254	FC 093	ALASKA ENERGY METALS HOLDING LLC	F019S009E31	160
ADL 736255	FC 094	ALASKA ENERGY METALS HOLDING LLC	F019S009E31	160
ADL 736256	FC 095	ALASKA ENERGY METALS HOLDING LLC	F019S009E32	160
ADL 736257	FC 096	ALASKA ENERGY METALS HOLDING LLC	F019S009E32	160
ADL 736258	FC 097	ALASKA ENERGY METALS HOLDING LLC	F019S009E33	160
ADL 736259	FC 098	ALASKA ENERGY METALS HOLDING LLC	F019S009E33	160
ADL 736260	FC 099	ALASKA ENERGY METALS HOLDING LLC	F019S009E34	160
ADL 736261	FC 100	ALASKA ENERGY METALS HOLDING LLC	F019S009E32	160
ADL 736262	FC 101	ALASKA ENERGY METALS HOLDING LLC	F019S009E32	160
ADL 736263	FC 102	ALASKA ENERGY METALS HOLDING LLC	F019S009E33	160

ADL Number	Claim Name	Owner	MTRS	Acres
ADL 736264	FC 103	ALASKA ENERGY METALS HOLDING LLC	F019S009E33	160
ADL 736265	FC 104	ALASKA ENERGY METALS HOLDING LLC	F019S009E34	160
ADL 725111	LYKN 1	ALASKA ENERGY METALS HOLDING LLC	F019S007E13	160
ADL 725112	LYKN 2	ALASKA ENERGY METALS HOLDING LLC	F019S008E18	160

4.3 Encumbrances

The Delta River has a wild and scenic designation. Narrow corridors surrounding the upper portion of the Delta River and along the Alaska Pipeline are closed to mineral entry. Both corridors lie to the east of the Property. The State of Alaska, Department of Natural Resources, and the United States BLM administer these lands. The Tangle Lakes Archaeological District lies to the south of the Property.

4.4 Royalties

On 28 June 2023 Alaska Energy Metals Corporation purchased the LYKN 1 and LYKN 2 (Table 4.1) state of Alaska mining claims from Vista Minerals. Royalties on these two claims equal 1% (Precious Metals) and 1% (Other Minerals) Net Smelter Returns realized on metals and minerals extracted, removed, recovered, and sold or otherwise disposed of. The Mineral Resource Estimate described within this report is not located on the two claims described in the previous section. The remaining 104 state of Alaska mining claims, comprising the Eureka Property, are free from any royalties.

4.5 Permits and Status

Exploration permits for the Property have been acquired from the Alaska Department of Natural Resources and/or the U.S. BLM on an as-needed basis. At present, there are approved exploration permits on the Property, including Alaska State Multi-Year (2022 to 2026) Hardrock Exploration and Reclamation Permit No. 9742, authorizing drilling activities, and Temporary Water Use Authorization (TWUA) F2022-024 and F2022-025, authorizing removal of water from streams / ponds / lakes for drilling activities.

It has been reported by AEMC that all permits are in good standing for reporting of a Mineral Resource with state and federal agencies.

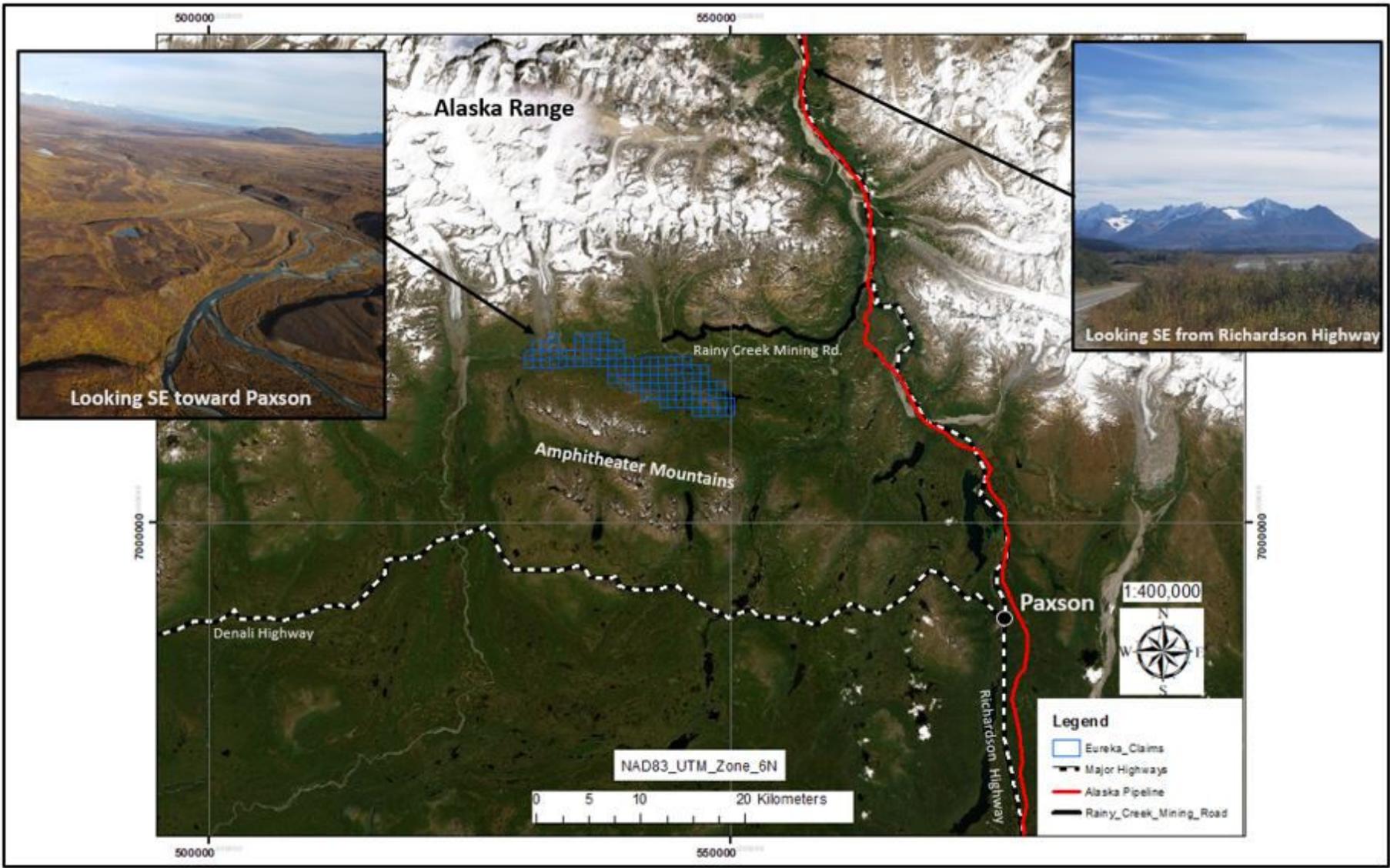
4.6 Other Significant Factors and Risks

Other than as set out in the following section of the report, to the extent known, there are no environmental liabilities to which the Property is subject and no significant factors that may affect the access, title, or the right or ability to perform work on the Property.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY

5.1 Accessibility

The area is accessible by road from the Richardson Highway, located approximately 16 km to the east, and the Denali Highway, located approximately 16 km to the south, as seen in Figure 5-1. The Richardson Highway is maintained year-round by the Alaska Department of Transportation, while the Denali Highway is seasonal and maintained by the Alaska Department of Transportation from May to September. The Trans-Alaska Pipeline runs parallel to the Richardson Highway. The only Census-Designated-Place near the Property is Paxson, located at the junction of the Richardson and Denali highways. The 2020 census indicated 26 residents. Although there are major highways near the Property, unmaintained trails currently provide access to the Property. The West Fork Rainy Creek trail provides access to old placer mines in Rainy Creek and Broxson Gulch and is within 2.5 kilometers of the property.



C:\Data\Nikolai\ArcPro\Fig_5-1_Nik_Loc_Access_2023.aprx

Notes
Data Source: Internal ESRI GIS Figure, Gabe Graf, Alaska Energy Metals Corporation, 2023



TECHNICAL REPORT AEMC NIKOLAI PROJECT

**Eureka Project
Location and Access**

Figure 5-1

DRAWN BY: J.K. CHK'D BY: D.K. DATE: 24/ 01/ 04	Project Location: T19S R8E, Alaska, USA Client: Alaska Energy Metals Corp. (AEMC) Project: 182923706
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An approximate 366 m runway, located at the Broxson Gulch camp, provides summer fixed wing access to this camp. The Broxson Gulch camp is currently not owned by Alaska Energy Metals Corporation. Float planes can land on the two larger lakes in the area, mainly Fish Lake and Seven Mile Lake, but they only provide access to a limited portion of the Property. As a result, helicopter provides the best alternative to access the entire Property.

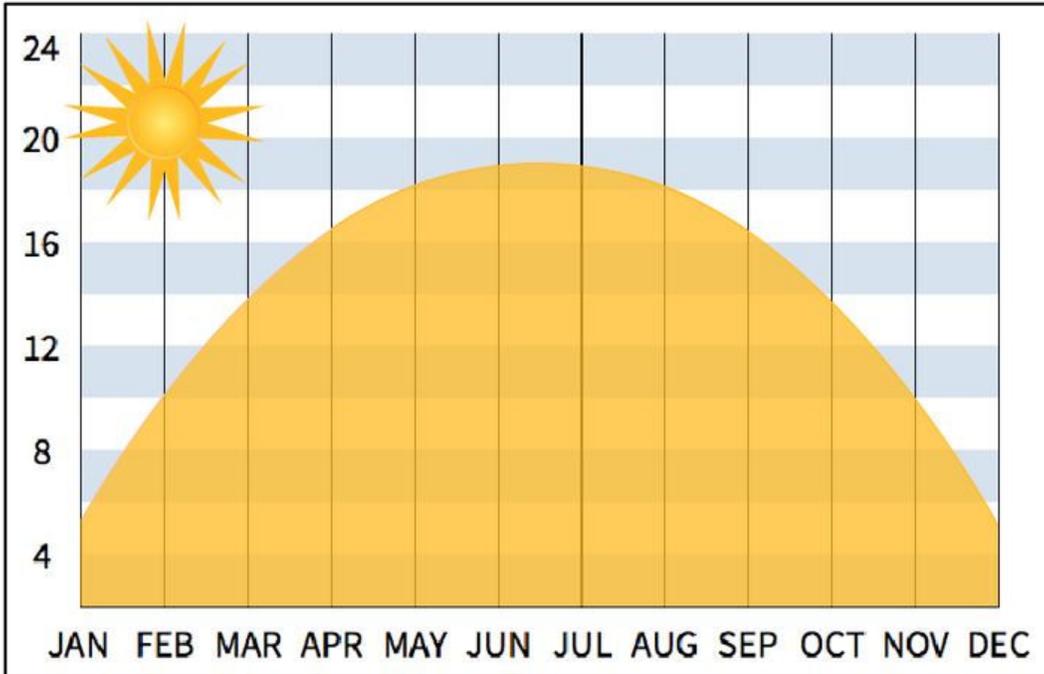
5.2 Vegetation (Habitats / Species of Conservation Importance)

The Eureka Property of the Nikolai project is located along the southern flank of the Alaska Range. Vegetation consists largely of alpine tundra and brush; areas of thick alders can be found in low lying areas along creeks and in ravines. Elevations range between 1,000 m to 1,500 m above sea level. Portions of the Property area is covered by approximately 5 m to 15 m of glacial till resulting in areas of no outcrop.

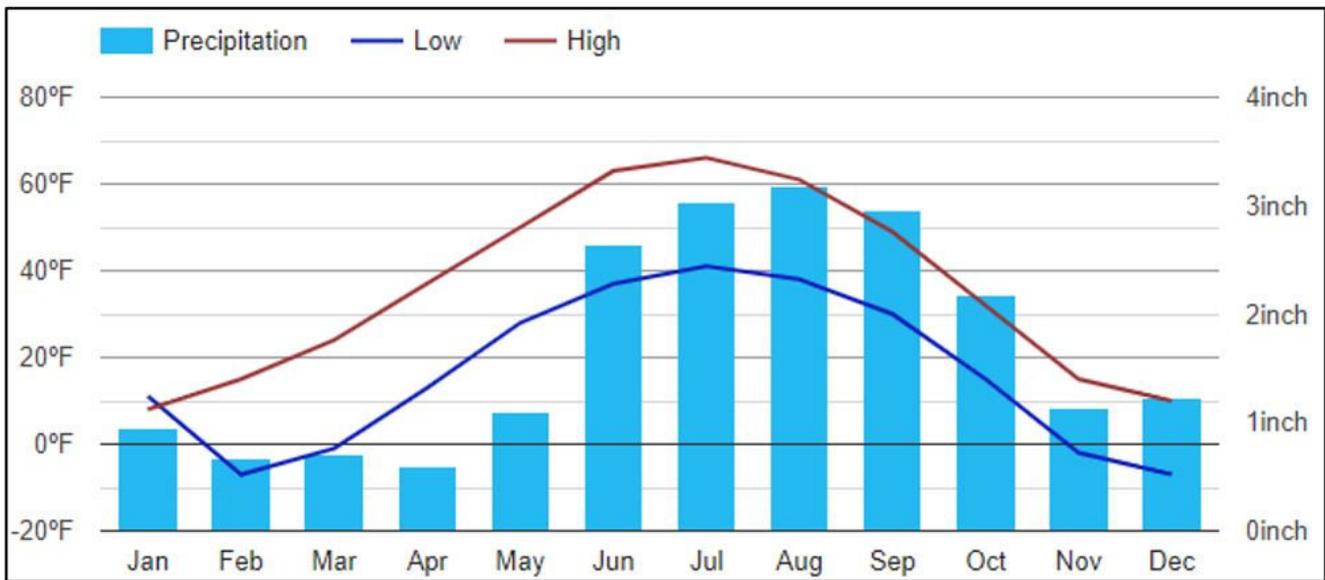
5.3 Climate

The regional climate is semi-arid, sub-arctic with relatively warm, dry summers and winters characterized by cold interior conditions. Extended summer daylight hours (due to high northern latitude, Figure 5-2) occur from approximately the beginning of May to the end of August. Approximate mean high and low temperatures are 18.9 °C (66 °F) and 5 °C (41 °F) in July, and -13.3 °C (8 °F) and -23 °C (-11 °F) in January. Average monthly precipitation varies between 2.5 cm (1 inch) in April to 7.6 cm (3 inch) in August. Figure 5-2 detail the weather at Paxson, Alaska located at the junction of the Richardson and Denali Highways. Exploration drilling is typically conducted from May until September, before and after significant snowfall and cold temperatures occur. However, year-round drilling could be accomplished with road access to the Property.

Sunlight Hours for South Central Alaska



Weather Statistics for Paxson, Alaska; Temperature and Precipitation



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Notes

Data Sources: 5-2. www.travelalaska.com
 5-3. <https://www.usclimatedata.com/climate/paxson/alaska/united-states/usak0181>



TECHNICAL REPORT AEMC NIKOLAI PROJECT
Sunlight Hours and Weather Statistics, South Central Alaska

Figure 5-2

DRAWN BY: J.K.
 CHK'D BY: D.L.
 DATE: 24/01/04

Project Location: T19S R8E, Alaska, USA
 Client: Alaska Energy Metals Corp. (AEMC)
 Project: 182923706

5.4 Local Resources

Skilled labor and equipment for exploration and mining operations are available in the city of Fairbanks (population of 95,655), Delta Junction (population of 918) and Anchorage (population of 291,247). Population statistics are sourced from the 2020 census completed by the United States Census Bureau.

5.5 Infrastructure

Public power lines and fiber-optic cable parallel the Richardson Highway, stopping north of the project area. The 48-inch diameter Trans Alaska petroleum pipeline also transects to the east of the Property and currently carries crude oil to the deep-water port of Valdez. The property is 322 km north of the all-season deep-water port at Valdez and 160 km east along the Denali Highway from a commercial railhead at Cantwell.

6.0 HISTORY

6.1 Prior Ownership

Mineral exploration on the Nikolai Nickel Project area dates to the early 1900's and is summarized in Table 6.1. Some of this work was done outside of the boundaries of the Eureka Property and the current Nikolai Nickel Project. Previously, the project was called the MAN project by other exploration companies.

Table 6.1: Nikolai Nickel Project Prior Ownership and Work

Year	Company	Type of Work
1903 – 1950	Various Prospectors	Sporadic placer gold mining in Broxson Gulch and Rainy Creek. Prospecting finds several copper showings in the area however none have significant work performed on them.
1953-1963	Various Prospectors	Early 1950's Emerick Ni-Cu-PGE Showing discovered, trenched by Newmont in the early 1960's. Glacier Lake (Canwell Showing) Ni-Cu showing discovered in 1962 and hand trenched.
1963-1977	Alaska State Geologists	General Prospecting and mapping of showings, area. Airborne Magnetic survey, 1.2 km line spacing and 302 m elevation flown in 1971.
1980-1983	USGS	AMIRAP geologic study of Mt. Hayes Quadrangle.
1987-1988	USBM	PGE distribution with UM complexes
1989-1994	Cominco Alaska Exploration	Worked the Emerick's and Glacier Lake showings.
1993-1996	Placer Mining	Intermittent activity on Rainy Creek and Broxson Gulch.
1995-1996	North East Mining Ltd.	Prospecting on claim group peripheral to ACNC Ltd. Project in the Fish Lake Complex.
1997	Falconbridge Exploration USA	Options North East Mining Ltd. Claims in the Canwell area. Fly Airborne magnetics/EM survey, completes ground geophysics and drill 1 hole in the Emerick's showing area.
Exploration by ACNC (American Copper and Nickel Company) / Inco		
1991-1993	ACNC	Nikolai Project commences, recon Mapping, litho-geochemical sampling, and prospecting
1994	ACNC	No field work
1995	ACNC	Airborne EM Survey, Recon mapping, ground geophysical surveys.
1996	ACNC	UTEM Ground Geophysics (47-line miles). Follow-up mapping / prospecting
1997	ACNC / Fort Knox	JV with Fort Knox Resources. Completed 6 drill holes (2001 m), surface UTEM and borehole pulse EM on 3 holes. 2 additional holes (365 m) on Canwell project late in the summer.
Exploration by Nevada Star Resources Corp. (U.S.)		
1998-2004	Nevada Star	Geological Mapping (collaboration between NSR and GSC, Larry Hulbert)

Year	Company	Type of Work
1999	Nevada Star	AEM Survey (Hummingbird) over the northern and southern portion of the project area.
2003	Nevada Star	UTEM (30 Hertz) at Dunite Hill followed by 3 drill holes at Fish Lake (565 m)
Exploration by Anglo American Exploration (USA) Inc. (AAEUS)		
2004	AAEUS	Geological mapping / prospecting, surface soil sampling, TEM ground geophysics and SPECTREM Airborne Geophysics.
2005	AAEUS	Ground TEM Surveys, 8 holes / 2220 metre drill program, ground HLEM, ground magnetics and soil geochemistry.
Exploration by Nevada Star Resources Corp. (U.S.)		
Winter 2005	Nevada Star	SQUID B-field TEM (39.5 km) over 5 loops, 7.29 km conventional TEM over 4 loops.
Summer 2005	Nevada Star	TEM (35.45 km) over 4 loops, 6 km HLEM MaxMin, 177 km ground magnetics, 1057 soil samples, 8 diamond drill holes in Alpha complex.
2006	Nevada Star	3 diamond drill holes.
Exploration by Pure Nickel Inc. (PNI, Itochu Corporation, and MAN Alaska LLC Joint Venture)		
2007	PNI	8 diamond drill holes, airborne VTEM survey
2008	PNI	4 diamond drill holes.
2009	PNI and Itochu	9 diamond drill holes, mapping, airborne (ZTEM) survey and ground geophysics (Fluxgate EM)
2010	MAN Alaska	11 diamond drill holes, Fluxgate EM, Lidar and orthophoto surveys, ZTEM 2D inversion modeling
2011	MAN Alaska	11 diamond drill holes, ground geophysics (Fluxgate EM, magnetics) and mapping
2012	MAN Alaska	7 diamond drill holes, detailed mapping, ground geophysics (IP) and soil sampling.
2013	MAN Alaska	8 diamond drill holes totalling 2,291 m (Eureka Zone), mapping and prospecting

6.2 Exploration and Development History

Mineral exploration on the Nikolai Nickel Project and surrounding areas dates to the turn of the century and took place in three “waves” which saw exploration efforts focused first on gold (1903 to 1950), then on copper and nickel (1963 to 1988) and then on copper, nickel, and platinum group metals (1989 to present). Unless otherwise noted, historical information presented in the following section was derived from ACNC (1999), Gall (2000), Ellis (2002), Carlson (2004), Freeman (2004), and Stone (2005). Some of this work was done outside of the boundaries of the Eureka Property and the current Nikolai Nickel Project. Exploration and development history is summarized below.

- 1900-50: Mineral exploration in the vicinity of the project dates to the turn of the century when prospecting parties worked north from the port city of Valdez in search of gold

- (Dessauer and Harvey, 1980). Copper mineralization was discovered in the Rainy Creek basin sometime before 1915 and between then and 1930 limited copper and placer gold exploration and mining took place (Brooks, 1918; Martin, 1920; Smith, 1930; Smith, 1932; Rose, 1965).
- 1950-63: The Emerick Ni-Cu-PGE prospect was discovered by Rollie Emerick in the early 1950's and hand trenched prior to 1961 (Saunders, 1961, Hanson, 1963). Newmont Mining conducted mapping, sampling, and trenching on the prospect in 1962 (Rose, 1965). The Glacier Lake (now referred to as the Forbes) Ni-Cu prospect was discovered in 1962 and was hand trenched but not otherwise explored (Forbes, 1962, Hanson, 1963: Rose, 1965).
 - 1963-88: During this period, most of the work conducted in the Canwell project area was public sector geological and geophysical studies. Hanson (1963), Rose (1965, 1966a, 1966b), Stout (1976), Bond (1976), Jones and Hillhouse (1977), Nokleberg et. al. (1982), Nokleberg and Aleinikoff (1985), Nokleberg et al. (1985), Barker (1988) and Petocz (1970) described mineral prospects, conducted geological mapping, conducted tectonic studies, and completed biostratigraphic studies.
 - 1989-93: Generative fieldwork in 1992 and 1993 by American Copper and Nickel Company (ACNC, an Inco subsidiary) confirmed the geologic similarities of the Wrangellia flood basalts of the Canwell project area to the Noril'sk District in Siberia.
 - 1994-98: INCO / American Copper and Nickel Company (ACNC) completed an airborne EM and magnetic survey followed by reconnaissance mapping and ground geophysical surveys of the ultramafic complexes that led to discoveries of several magmatic sulfide Cu-Ni-PGE occurrences ACNC formed a joint venture with Fort Knox Gold Resources (Fort Knox). The joint venture conducted a drill program consisting of eight holes on the Fish Lake property.
 - 1998-2002: Fort Knox acquired 100% of the ACNC properties subject to a 2% Net Smelter Return to INCO, however no fieldwork was completed. In 1998 M.A.N. Resource, Inc. (M.A.N.) was formed to explore the properties acquired by Monty Moore controlled companies (PRJ and Nevada Star).
 - 2003-2012: Nevada Star (NSR) completed geological Mapping program plus AEM survey over the northern and southern portion of the project area followed by three drill holes at Fish Lake totaling 565 m. In 2005, NSR completed SQUID B-field TEM (39.5 km) over five loop areas, 7.29 km conventional TEM coil over four loop areas. Additionally, NSR completed a TEM (35.45 km) survey over four loop areas, 6 km HLEM Max-Min, 177 km ground mag, 1,057 soil samples, 8 diamond drill holes on Alpha. In 2008, NSR formed a Joint Venture with ITOCHU of Japan and additional drilling, geochemical sampling and geophysical surveys were completed. In total, 21 diamond drill holes were drilled into the Eureka Zone during this time period.
 - 2013-2020: MAN Resources Inc. announced the discovery of the Eureka Zone, a large zone of disseminated Ni-Cu-PGE mineralization over a minimum of 15 km of strike length, with intersections ranging up to 320 m and grades of up to 0.36% NiEQ. ITOCHU withdrew from the project in November 2013, and no additional drilling was completed on the project. In 2014, MAN Resources completed a nickel department study of a composite from the Eureka Zone, with 75.3% of the nickel occurring in potentially recoverable phases of Ni-Fe sulfides

- and alloys. The MAN Resources mining claims were abandoned in 2015 for failure to pay the ADNR annual rent. The project's mining claims remained open until 2021.
- 2021-2023: Millrock Resources stake one hundred and four mining claims over the Eureka Zone in 2021. In 2022, they completed data compilation over the project area, and resampled historical core to verify grades of the previous explorers. They also completed a nickel deportment study over two mineralogically different zones of the Eureka Zone, with 80.8 – 94.3% of the nickel occurring in potentially recoverable phases of Ni-Fe sulfides and alloys and 72.4 – 75.5% of the copper occurring in potentially recoverable Cu phases. In 2023, Millrock Resources announced the company would be renamed to Alaska Energy Metals Corporation, becoming an energy metals explorer-developer focused on the project.

6.3 Past Production

No production has occurred at the Nikolai Nickel Project.

7.0 GEOLOGICAL SETTING AND MINERALIZATION

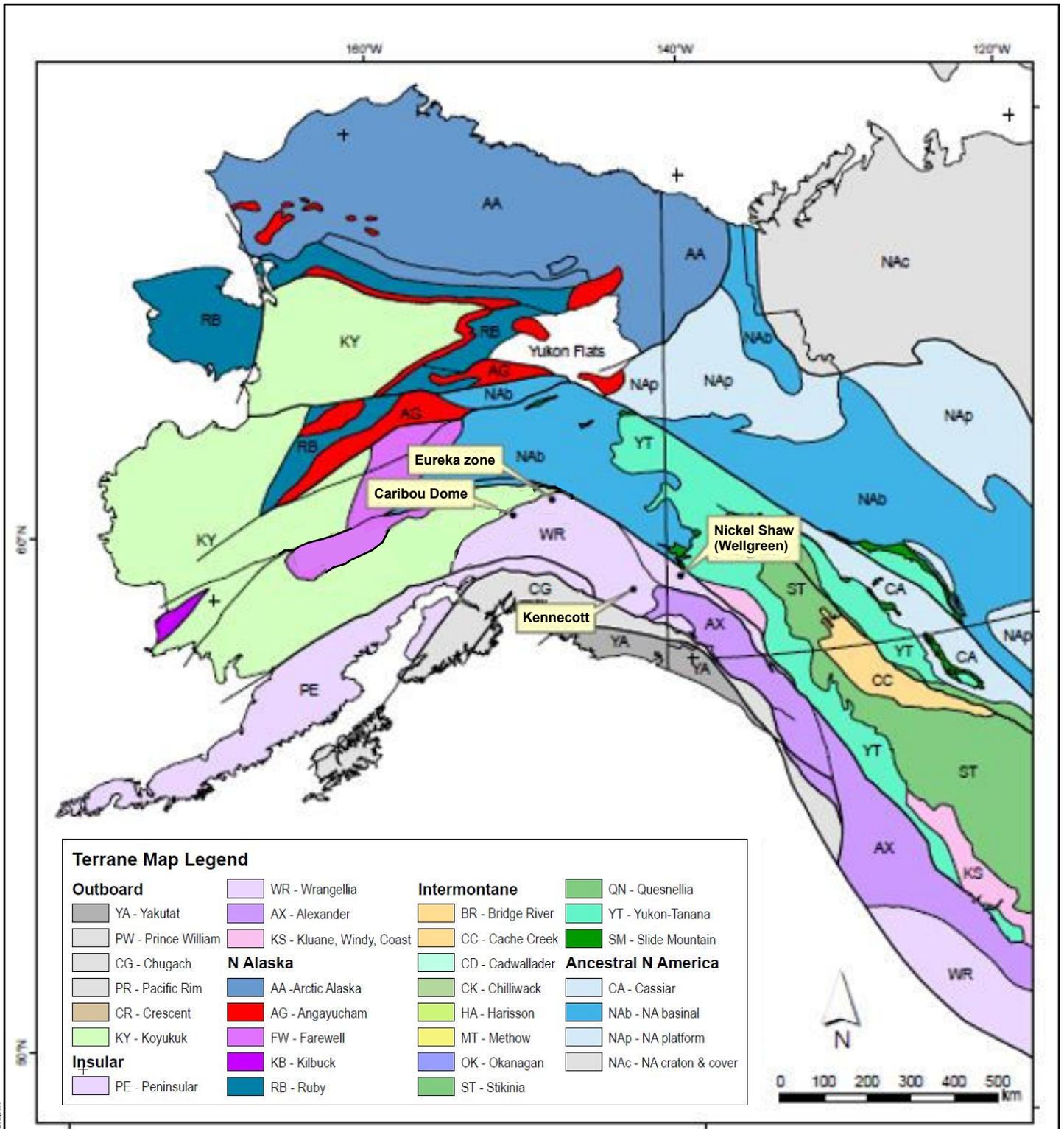
7.1 Regional Geology

The Eureka Property is located along the southern flank of the Central Alaska Range that is underlain by the Wrangellia Terrane as shown in Figure 7-1. Wrangellia was accreted to ancestral North America in the late Cretaceous and is composed of a rifted Paleozoic arc overlain by Triassic flood basalt that extends over 2,400 km. Portions of Wrangellia can be found along the North American Pacific margin from Oregon to Alaska. The Denali Fault bounds Wrangellia to the north and east, abutting it with the Devonian Yukon-Tanana Terrane. A wedge of Mesozoic Maclaren Terrane lies between Wrangellia and the Denali Fault north of the Property.

The Yukon-Tanana Terrane, north of the Denali Fault, is composed primarily of deformed and metamorphosed Devonian to Carboniferous igneous rocks that formed an island-arc along a continental margin (Nokleberg and Aleinikoff, 1985). The Wrangellia and Maclaren Terranes are of more immediate concern since they lie, respectively, within and along the north edge of the Property area. Part of the Maclaren Terrane, between the Meteor Peak and Broxson Gulch thrust faults, consists of pre-late Jurassic, metamorphosed sedimentary and volcanic rocks referred to as the Maclaren metamorphic belt. Regional metamorphism increases from low-grade in the south to high-grade in the north, and the rocks are highly tectonized throughout.

Wrangellia is interpreted to be a late-Paleozoic island-arc which underwent rifting during the Triassic, forming the overlying flood-basalt package and related intrusions. Wrangellia consists of time-equivalent Tangle and Slana River Subterrane formed and amalgamated near the Triassic equator (15° N) prior to accretion to North America (Nokleberg et al., 1985). The Tangle Subterrane is a thick sequence (+5,000 m) of Triassic Nikolai submarine and subaerial basalt flows deposited unconformably on upper Paleozoic aquagene tuff, limestone, chert, and andesitic volcanic rocks. The Slana River Subterrane is a sequence of upper Paleozoic andesite and dacite overlain by marine limestone, argillaceous chert, tuff, and Nikolai basalt. Gabbroic intrusions are common and interpreted to be cogenetic with the Nikolai basalt. Layered ultramafic complexes and dismembered ultramafic intrusions occur within the Slana River Subterrane and along major deep-seated faults within both subterrane.

Compressional tectonics has affected Wrangellia with increasing intensity northward to the Denali Fault, a major crustal suture and tectono-stratigraphic boundary that extends from southeast Alaska to the Bering Sea. Over 400 km (250 miles) of right-lateral movement and substantial vertical movement occurred along the Denali Fault, which remains active to the present (Hulbert, 1995; Nokleberg et al., 1985). A regional seismic transect through the Nikolai area indicates that the crust is considerably thicker on the south side of the Denali Fault (50 km vs. 20 km). Other major subsidiary faults include the Broxson Gulch Fault (which juxtaposes the Maclaren and Wrangellia Terranes) and the Eureka Creek Fault, which separates the Slana River and Tangle Subterrane. Wrangellia has undergone greenschist facies metamorphism, with local amphibolite facies near the Denali and Broxson Gulch faults.



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Notes
Data Source: Modified from Tweiker et al., 2020



TECHNICAL REPORT AEMC NIKOLAI PROJECT
**Regional Geology of Alaska,
Yukon, and British Columbia**

Figure 7-1

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 24/01/04

Project Location: T19S R8E, Alaska, USA
Client: Alaska Energy Metals Corp. (AEMC)
Project: 182923706

7.2 Local Geology

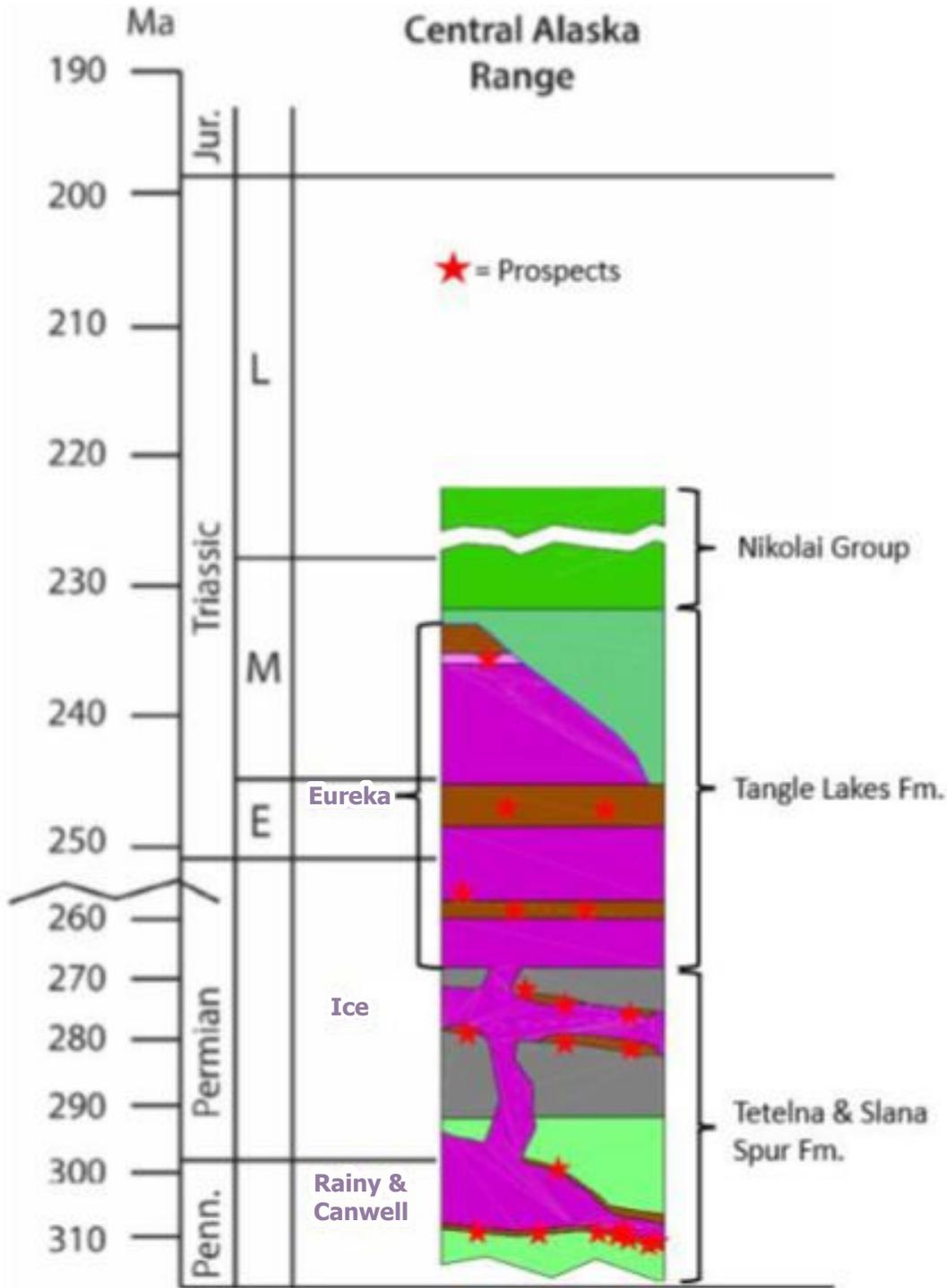
Wrangellia lithologies are described in ascending stratigraphic order as shown in Figure 7-2. The description of the Project geology is based on previous work by Rose (1965, 1966, 1966a), Petocz (1970), Stout (1976), and Nokleberg et al. (1982). Although the description of the lithologic units remains essentially unchanged, their stratigraphic order has been modified to reflect the widespread, characteristic stratigraphy found elsewhere in Wrangellia, as described by Hulbert (1997).

The Tetelna volcanics are comprised of volcanic andesite to dacite flows with subordinate basalt, and pyroclastic, sandstone and limestone interbeds. The Tetelna volcanics pass up section into the Slana Spur Formation, a volcanoclastic sandstone dominated sequence with subordinate conglomerate, volcanic flows, and limestone interbeds. The Tetelna volcanics and Slana Spur Formation are exposed in the northern part of the Project area between the Broxson Gulch thrust fault and Permian Eagle Creek Formation. A sequence of sedimentary and pyroclastic rocks to tuffaceous sedimentary rocks of the Tangle Lakes Formation underlies the Nikolai Group volcanics in the Amphitheater Mountains.

The Nikolai Group includes submarine to subaerial basalt flows, mafic to ultramafic intrusions and minor argillaceous sedimentary rocks. Dunitic to gabbroic intrusions in the Project area are coeval and cogenetic with the Nikolai Group basalt flows and, consequently, are included in the Nikolai Group. In other areas, fossils from sedimentary rocks intercalated with basalt flows, and radiometric dating, indicate that the Nikolai Group is Triassic in age (Hulbert, 1997). Although faulting and folding has produced deformed and isolated sections of the Nikolai Group, the total thickness of the Nikolai Group is estimated to be over 5,000 m.

Generally, the Nikolai Group volcanic rocks consist of dark grey, green, or maroon, tholeiitic basalt flows, with rare picritic intervals. Minor intercalated sulfidic greywacke/argillite occurs towards the base of the Nikolai Group. The basalt may be massive or pillowed, columnar jointed and amygdaloidal. Amygdule minerals may include quartz, chlorite, epidote, or a zeolite. The basalt has been affected by very low- to low-grade metamorphism (prehnite pumpellyite to chlorite-actinolite stable), network micro-fracturing, and epidote alteration.

The Nikolai Group intrusions consist of cumulate-textured dunite, peridotite and clinopyroxenite layered intrusions with subordinate marginal gabbro (ultramafic-mafic intrusions), and gabbro intrusions. The ultramafic-mafic intrusions characteristically weather to an orange-brown color, are generally serpentinized in tectonized zones, and may contain chromiferous magnetite, chromite and/or disseminated sulfides. The Eureka, Tangle, and Rainy intrusions are from 15 km to 40 km in length by 0.8 km to 2.4 km in thickness. Other intrusions typically average 15 m to 300 m in thickness. The airborne magnetic survey suggests feeder-like connections between the complexes, which have intruded at different stratigraphic levels. Lithochemistry indicates that they could have been derived from a common magma source.



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Notes
Data Source: Schmidt and Rogers, 2007, Ellis, 2002 and Lande, 2016



TECHNICAL REPORT AEMC NIKOLAI PROJECT
**Stratigraphy of the Wrangellia
Terrain in Central Alaska**

Figure 7-2

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 24/01/04

Project Location: T19S R8E, Alaska, USA
Client: Alaska Energy Metals Corp. (AEMC)
Project: 182923706

The gabbroic intrusions are typically massive and ophitic textured, and commonly occur juxtaposed with the ultramafic-mafic intrusions, and, in some places, may constitute the marginal phase to an ultramafic-mafic intrusion. Some gabbro intrusions are slightly younger than the ultramafic-mafic intrusions. These younger gabbro intrusions are adjacent to (intrude?) the Nikolai Group basalts, have 'fresher' mineralogy than the Nikolai Group gabbro, and commonly contain magnetite, large clinopyroxene phenocrysts, and are granophyric. Northwest-trending (302° to 360°) gabbroic dykes dissect the basalt sequence in the Amphitheater Mountains and are likely part of the younger gabbro intrusive suite.

The upper volcanic sequences of the Nikolai Group are well exposed in the Amphitheater Mountains area; whereas in the northern Project area, few volcanics occur and more Nikolai Group intrusions are present hosted by the Slana Spur / Tetelna volcanics. In the Amphitheater Mountains, the Nikolai Group and underlying sedimentary-volcanic rocks appear to be folded about the west trending, and plunging, Amphitheater Synform. This sequence thins to the east of Tangle Lakes, where more Nikolai Group ultramafic-mafic intrusions are exposed. Coincident with the exposed intrusions east of Tangle Lakes is an area of increased magnetism (>5500 gamma). The strongest aeromagnetic anomalies (>7000 gamma) correlate well with the exposed intrusions.

There is only one exception to the predictable geology found across the Eureka Creek and Tangle Lakes Ni-Cu-PGE Project area. Approximately 2 miles east of the toe of the Eureka Glacier, in Landslide Creek is a subcircular area, hundreds of feet in diameter, containing unique exposures of a dunitic breccia. The boulder to pebble size breccia fragments are predominantly dunite to feldspathic peridotite in composition. The poorly sorted fragments lie in fractured, serpentine and talc-rich, sand to silt matrix. Yard sized areas of well-sorted, imbricate fragments are also present. Although originally mapped as a Quaternary landslide, there are large areas of intact dunitic breccia suggesting that it may be in-situ and older. The distribution and composition of the breccia suggests that it may be a magmatic ingression breccia (diatreme) and part of the Triassic Nikolai Group igneous suite, partly disrupted by a more recent landslide.

Cretaceous-Tertiary plutons intrude the Slana Spur Formation and the intrusive and extrusive components of the Nikolai Group, particularly in the northwestern part of the overall Project area. The Cretaceous to Tertiary age plutons range in composition from granodiorite to diorite to quartz monzonite. The intrusions are moderately to intensely fractured and sheared. In the most northwesterly Project area, the north dipping Broxson Gulch thrust fault transposed a quartz monzonite intrusion atop Nikolai Group volcanic rocks. Commonly, intrusive mineralogy is retrogressively altered to sericite, chlorite, and epidote. In the Amphitheater Mountains, hornblende-porphyr dacitic dikes intrude the Nikolai Group volcanics.

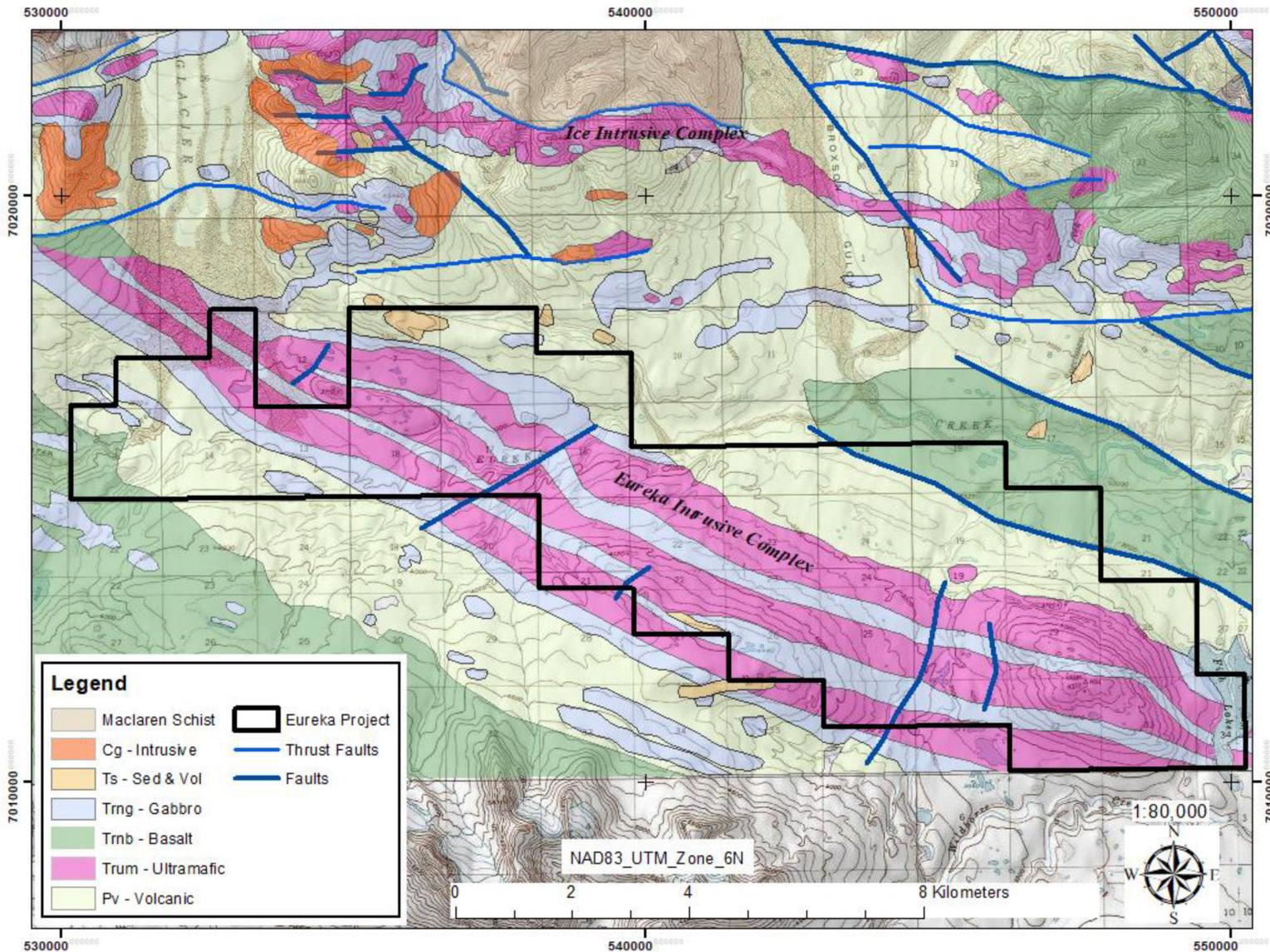
7.3 Property Geology

The property covers the highly prospective Eureka ultramafic-mafic intrusive complex, which intrudes into the Tangle Lakes Formation, a sequence of sedimentary and pyroclastic rocks to tuffaceous sedimentary rocks. The ultramafic-intrusive complex is ~25 km long and ranges from 1.5 km to 3.2 km in thickness. Figure 7-3 displays the geologic map and the Eureka Property boundaries.

The ultramafic rock intrusions consist of cumulate-textured dunite, peridotite and clinopyroxenite layered intrusions with subordinate marginal gabbro. The ultramafic-mafic intrusions characteristically weather to an orange-brown color, are generally serpentinized in tectonized zones, and may contain chromitiferous magnetite, chromite and/or disseminated sulfides. The mafic components range from gabbro to olivine norite and minor anorthosite. They are typically massive and ophitic textured, and commonly occur juxtaposed with the ultramafic-mafic intrusions, and, in some places, may constitute the marginal phase to an ultramafic-mafic intrusion. Some gabbro intrusions are slightly younger than the ultramafic-mafic intrusions and are adjacent to the Nikolai flood basalts.

Litho-geochemical studies suggest these mafic-ultramafic intrusions are comagmatic with and were derived from a common mantle magma source that fed the Nikolai flood basalts as shown in Figure 74 Schematic Stratigraphy. The tectonically dismembered northern complexes were intruded at deeper stratigraphic levels as primitive dunite dikes and sills with gabbro margins (such as the Canwell, Ice and Rainy Complexes) and as more evolved, undeformed, multi-cycled, lopolithic, layered sills higher stratigraphically (Eureka Complex). Feeder-like connections between the complexes are indicated by interpretation of airborne magnetic data acquired in 1995 by ACNC. The olivine of the Eureka staging chamber is substantially depleted in nickel and copper (on average >50%). Extreme Pt and Pd depletion (two orders of magnitude) in portions of the basal volcanic flows is present in the Tangle complex area. The implications of this metal depletion are that a tremendous amount of metal was scavenged from the magma prior to crystallization, supporting economic mineralization on the Property.

Geologic mapping, litho-geochemical sampling, diamond drilling, and interpretation of airborne magnetic data has confirmed the Eureka Complex consists of up to four distinct magmatic cycles C-1 through C-4, as shown in Figure 74. This complex was intruded as a lopolithic sill that extends beneath the Nikolai flood basalts. The basal intrusive contact is preserved on the north side of the Eureka complex and at least two feeder like features are present, the Wild and Eureka Embayments. Magnetic surveys indicate that magma was injected as a turbulent influx in these two areas disrupting the layering and indicating mixing of magma occurred on a large scale. Magnetic inversion modeling indicates that the complex dips from 35° to 60° to the southwest and trails of magnetically susceptible material extend 2,000 ft to 3,500 ft into the footwall of the complex in the Wild and Eureka Embayment areas.



Notes

Data Source: Internal ESRI GIS Figure, Alaska Energy Metals Corporation, 2023
 Geologic Map: Hulbert and Howell, 2011 and Rankin, 2005



TECHNICAL REPORT AEMC NIKOLAI PROJECT

**Eureka Project
 Geological Map**

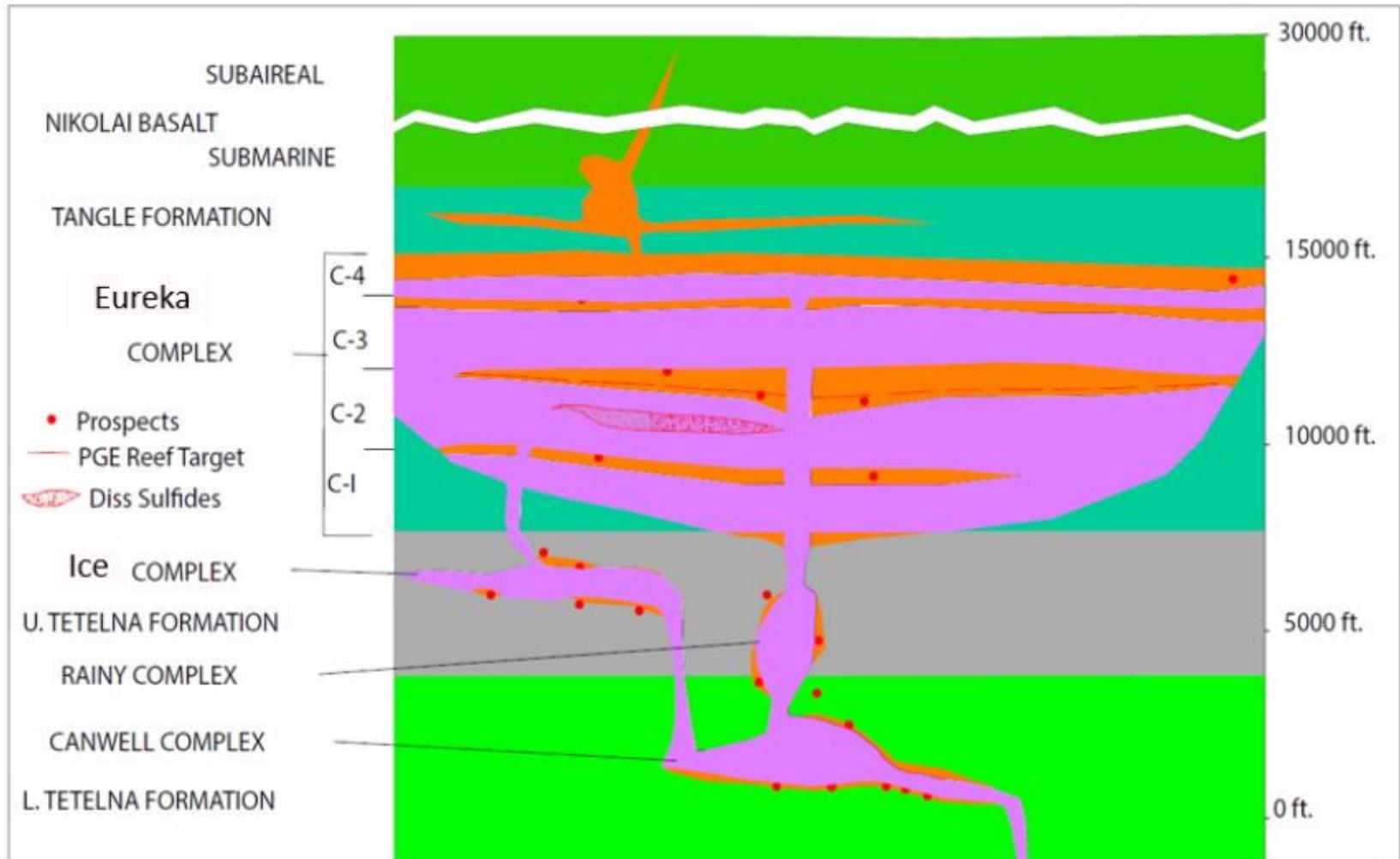
Figure 7-3

DRAWN BY: J.K.
 CHK'D BY: D.K.
 DATE: 24/ 01/ 04

Project Location: T19S R8E, Alaska, USA
 Client: Alaska Energy Metals Corp. (AEMC)
 Project: 182923706

NIKOLAI PROJECT

SCHEMATIC STRATIGRAPHY PGE REEF & Ni/Cu TARGETS



TECHNICAL REPORT AEMC NIKOLAI PROJECT

Schematic Stratigraphy of Mineralized Geology Targets

Figure 7-4

DRAWN BY: J.K.
CHK'D BY: D.K.
DATE: 24/ 01/ 04

Project Location: T19S R8E, Alaska, USA
Client: Alaska Energy Metals Corp. (AEMC)
Project: 182923706

Notes
Data Source: Internal Schematic, W.T. Ellis, American Copper and Nickel Corporation, 1998

7.4 Mineralization

Similarities are noted in the Eureka Complex with other layered complexes, such as Stillwater, Montana, and the Merensky Reef in South Africa, the two world's largest primary platinum-palladium producers. The Eureka Complex:

- Represents a large layered mafic / ultramafic complex with cyclic magma influxes. If connected at depth the Eureka Complex underlies an area of 545 km² and 800 m to 2,400 m thick.
- Sulfide-PGE showings and drill intersections have been discovered at a variety of stratigraphic levels, indicating that sulfur saturation occurred throughout emplacement and that the magma carried PGE.
- Zones of coarse-grained magmatic sulfides carrying anomalous PGE occur near the top of the second magmatic cycle above the first appearance of cumulate plagioclase in gabbro and in coarse-grained pyroxenite (Figure 7-4).

Investigation of Triassic mafic-ultramafic intrusions along the eastern margin of "Wrangellia" in northern British Columbia, the Yukon and east-central Alaska has resulted in the recognition of a Ni-Cu-PGE metallogenic belt that can be traced along strike for at least 500 miles. This belt of mineralized mafic to predominantly ultramafic rocks is referred to as the "Kluane Mafic-Ultramafic Belt" in the Yukon and as the "Nikolai Mafic-Ultramafic Belt" in the Central Alaska Range. On a North American scale this belt is second only, in size and extent, to the nickeliferous Circum-Superior Belt (CSB) of Canada and has many similar features with respect to lithological zonation, silicate mineralogy, distribution of ores and Ni-Cu-PGE grades. However, unlike the CSB intrusions, which are Proterozoic in age and of a komatiitic origin, the Wrangellia intrusive complexes are clearly younger in age, tholeiitic in origin, and generally much larger in size. Extensive studies of the Kluane Belt reflect what might be expected in Alaska, however the much larger scale of the Alaskan intrusive bodies suggest that deposit size might also be much larger.

In the Yukon the best massive sulfide mineralization appears to be concentrated as a result of riffling of sulfide-bearing magma flowing over irregularities at the base of intrusions. However, other styles of mineralization are present such as:

- The Ni-rich "Offset" ores that occur well within the footwall strata of the White River Complex.
- "Skarn" ores juxtaposed the Permian carbonates at the Quill Creek Complex.
- Disseminated sulfides within or above the gabbro-ultramafic contact in most Kluane intrusions,
- PGE + Au-rich zones associated with hydrothermal (metasomatic) quartz-carbonate alteration that envelop the extremities of many intrusions.

Mineralization found to date in the ultramafic-mafic complexes on the Eureka Property is primarily hosted by gabbro, clinopyroxenite and serpentized dunite/wehrlite units. Rock samples collected to date are from drill core and grab samples from outcrop or angular float samples

believed to be close to source. Magmatic mineralization varies from weakly disseminated, to net-textured sulfides in ultramafic rocks, to massive sulfides in gabbro-norite. The predominant sulfide phases are pyrrhotite, pentlandite and chalcopyrite. Platinum and palladium values are elevated in very weakly sulfidic intrusive rocks and attain high values in the massive sulfides.

Nickel, copper, and PGE mineralization is associated with chrome and iron oxides, and with magmatic sulfides in the ultramafic-mafic complexes. Accumulations of sulfides were formed as the magma from the lower crust intruded into and interacted with sulfidic marine shales of the Tangle Formation and Tetelna volcanics, promoting formation of immiscible sulfide melts. Sulfur isotope studies suggest that the Tangle Formation could have contributed up to 50% of the sulfur in the magmatic sulfide showings.

Table 7.1 list the Ni, Cu, Fe and sulfide minerals and Table 7.2 list the Au and PGM minerals that have been identified within the Eureka ultramafic complex to date.

Table 7.1: Identified Ni, Cu, Fe and Sulfide Minerals Identified in the Eureka Ultramafic Complex

Identified Ni, Cu, and Fe Bearing Minerals	
Mineral	Chemical Formula
Pyrrhotite	FeS
Pentlandite	(Fe,Ni) ₉ S ₈
Tetrataenite	NiFe
Valleriite	(Fe,Cu) ₄ (Mg,Al) ₃ S ₄ (OH,O) ₆
Chalcopyrite	CuFeS ₂
Bornite	Cu ₅ FeS ₄
Chalcocite	Cu ₂ S
Covellite	CuS
Native Copper	Cu
Magnetite	Fe ₃ O ₄
Chromite	FeCr ₂ O ₄
Pyrite	FeS
Arsenopyrite	FeAsS
Sphalerite	ZnS

Table 7.2: Identified Au and PGM Minerals in the Eureka Ultramafic Complex

Identified Au and PGM Bearing Minerals	
Mineral	Chemical Formula
Native Au	Au
Weishanite	(Au,Ag) ₃ Hg ₂
Auricupride	Cu ₃ Au
Tetra-auricupride	AuCu
Platinum	Pt
Godlevskite	(Ni,Fe) ₉ S ₈
Chalcopyrite	CuFeS ₂
Daomanite	CuPtAsS ₂
Sobolevskite	PdBi
Stannopalladinite	(Pd,Cu) ₃ Sn ₂
Paolovite	Pd ₂ Sn
Stibiopalladinite	Pd ₅ Sb ₂
Cuprite	Cu ₂ O
Unidentified	Pt(Cu,As)X
Unidentified	(Pd,Pt)Cu ₃

Geologic modeling, described in Section 14 of the report, has identified three (3) mineralized ultramafic intrusive bodies (zones) that dip between 45° to 50° towards the southwest. The three (3) zones are named Eureka Zone 1, 2, and 3 from south to north across the deposit, respectively. The three mineralization zones are further divided into west and east areas separated by interpreted faulting. The approximate length, width, and depth of the EZ1 is 4,200 m, 350 m, 1,350 m (L x W x D), EZ2 is 7,000 m, 290 m, 1,250 m (L x W x D), and EZ3 is 2,200 m, 170 m, 1,000 m (L x W x D). Mineral Resources are only reported from the EZ2 and EZ3 zones as shown in Section 14.

8.0 DEPOSIT TYPES

Based on the results of fieldwork completed by Nevada Star (Stone, 2005; Carlson, 2004; Ellis 2002, Gall, 2000), ACNC (ACNC, 1997,1999) and Hulbert (1995, 1997) Cu-Ni-PGE mineralization on the Project is associated with Late Triassic mafic to ultramafic intrusive rocks of the Wrangellia terrane. This conclusion is supported by general geological and petrological work conducted on Wrangellia terrane volcanic and igneous rocks by numerous investigators (Jones and Hillhouse, 1977, Plafker and Berg, 1994, Nokleberg et. al., 1994b, Richards et al., 1991) The extrusive equivalent of these intrusive rocks is represented by 3,000 to +4,500 m of tholeiitic and lesser picritic basalt flows of the Nikolai Group. Mineralization is dominated by disseminated, net textured and massive sulfides containing pyrrhotite \pm chalcopyrite \pm pentlandite with a wide variety of secondary copper, nickel, tellurium, bismuth, and PGE minerals. The Project area has been modeled after a type of Ni-Cu-PGE mineralization (Hulbert, 1997, 2001) associated with Triassic age Nikolai Group intrusions within Eastern Wrangellia that can be traced for over 800 km.

In the Kluane Mountain Range, Yukon territory, where Hulbert (1997) has described the mineralized Kluane mafic-ultramafic belt of intrusions, Ni-Cu-PGE sulfide mineralization is frequently found near the base of peridotite and marginal gabbro sills which are cogenetic and coeval with the overlying Triassic age Nikolai Group basalt. The sills have a greater ultramafic than mafic component, and typically intrude along the unconformity between Permian and Pennsylvanian age sedimentary rocks. Contamination of the magma, particularly with sulfur, by assimilation of the sedimentary country rocks is considered to have been a key factor in the formation of Ni-Cu-PGE sulfide mineralization. As well, the distribution of mineralization in the footwall and floor of the sills suggest that structures (e.g., faults) at the base of the sills were important focal points for mineralization. The past-producing Wellgreen deposit in the Kluane range, is an example of this type of Ni-Cu-PGE mineralization in Eastern Wrangellia. The geology, structural deformation, and nature of deposition and associated grades on the Project have been found to be like those found in the Yukon Territory.

The Eureka ultramafic-mafic intrusive complexes, though not well exposed, can be traced by scattered outcrops and a positive magnetic signature for 19 km. These intrusions flank a 4500-m-thick cover sequence of Triassic tholeiitic volcanics and are believed to be dipping under the thick volcanic cover and are undoubtedly the subvolcanic magma chambers from which the overlying volcanics erupted. The following are considered favorable indicators of the economic potential of this area:

- High-grade massive and disseminated magmatic Ni-Cu-PGE sulfide mineralization has been identified in, or adjacent to, the ultramafic-mafic intrusions in the northern fold and thrust terrane.
- The large Eureka intrusions bear a striking resemblance to the PGE enriched intrusions of the northern fold and thrust terrane which are, in fact, comagmatic detached counterparts.

- The presence of magmatic sulfides in these intrusives indicates a chemical environment favorable for the precipitation of Ni-Cu-PGE's.
- Extreme Pd depletion (two orders of magnitude) in portions of the coeval basal volcanic flows indicates PGEs were concentrated elsewhere.
- An average 50% Ni depletion in olivine associated with high-level ultramafic sills (subvolcanic magma chambers) indicates Ni (and Cu) were concentrated elsewhere.
- Abundant sulfides in the surrounding sediments and volcanic rocks could have supplied the sulfur to form the base metal and PGE enriched sulfides.

There are also distinct similarities in geologic setting, including age and nature of the mafic-ultramafic intrusive-extrusive complex with the giant and rich Noril'sk Ni-Cu-PGE deposits in Russia. Total Proven and Probable reserves at Noril'sk are estimated at 1,219 million tonnes grading 0.68% Ni, 1.25% Cu, 3.36 gpt Pd, 0.93 gpt Pt and 0.18 gpt Au (Nornickel, 2021). Some of the key characteristics shared by Noril'sk and the known mineralization in the Project area include:

- Triassic age: Noril'sk has been dated at between 237 and 242 Ma, while the Nikolai basalts have been dated at between 228 and 232 Ma.
- Proximity to regional deep-seated faults: Geophysical studies indicate embayment and deep feeder features in intrusive complexes (Ellis, 2002).
- Mantle-sourced, near surface intrusion: Primitive source magmas are indicated by the picritic composition of zoned subvolcanic intrusions and related olivine-bearing fragmental volcanics (Hulbert, oral comm., 2004).
- Voluminous co-magmatic flood basalts: The Siberian Traps at Noril'sk and the Nikolai basalts both contain more than 3,500 ft of basaltic lavas overlying the intrusive complexes.
- Nickel and PGE depletion: The depletion of Pd in the basal volcanic flows in the Amphitheatre Mountains is much greater than the depletion noted at Noril'sk (Brugmann and others, 1993). Depletion of nickel and copper from olivine in the Dunite Hill and Fish Lake complexes are on the same order of magnitude of the depletion at Noril'sk (Ellis, 2002).
- Numerous sulfide occurrences: Hanson (1963), Cobb (1979) and Ellis (2002) document numerous nickel-copper-PGE sulfide occurrences within and near the Project, most of which are high-grade disseminated and net textured magmatic sulfides within Triassic-age mafic-ultramafic intrusions.
- Sulfur source in country rocks: At Noril'sk, sulfur is believed to have been derived from older evaporate units (Lightfoot and Naldrett, 1994). In the Project area, Paleozoic host rocks for the Nikolai intrusions contain abundant pyritic black shales, argillites and mafic volcanics that are the probable source for the sulfur (Ellis, 2002).
- Sulfur isotopes from Noril'sk and from the Emerick prospect are distinctly magmatic (Lightfoot and Naldrett, 1994, Barker, 1988).

These positive indicators suggest that the Eastern Wrangellia exploration model described in the previous section and the Noril'sk model are applicable to the Project area.

Exploration by Fort Knox and ACNC on the property has identified (1997-2001 news releases) massive and disseminated Ni-Cu-POE sulfide mineralization in Nikolai Group mafic-ultramafic intrusions. Table 8.1 lists nickel, copper, gold, platinum, and palladium values for surface samples from several showings within the property that demonstrate the occurrence of Wrangellia-style mineralization in the area.

Table 8.1: Magmatic Sulfide Surface Sample Showings of the Eureka Property Areas

Complex	Occurrence Name	Sulfide Mineralization	Ni	Cu	Au	Pt	Pd
			%	%	(ppb)	(ppb)	(ppb)
Eureka	Antler	disseminated	0.14	0.17	26	45	90
	BM75	disseminated	0.21	0.09	6	75	92
	Lucky 7	disseminated	0.16	0.14	24	85	94
	LFF	disseminated	1.05	0.19	9		1,580
	W. Eureka Glacier	disseminated	0.17	0.12	52	50	58
	Wild One	disseminated	0.13	0.14		40	36

9.0 EXPLORATION

Alaska Energy Metals Corporation completed an exploration program during the summer of 2023 that consisted of the following items:

- Eight drill holes totaling 4,138 m on a 1.2 km strike length of the Eureka Zone.
- 7-line km of ground-based Controlled-source Audio-frequency Magnetotellurics (CSMAT) surveys over the Eureka Property.
- These geophysical survey and diamond drilling, along with the recently purchased historical data set are being used to analyze and prioritize drill targets for the 2024 exploration program.

Full results have yet to be received by the company, however results from four drill holes have been received and are summarized in section 10.0 Drilling. Results from the geophysical program are pending. Table 9.1 contains the 2023 completed drill hole details.

Table 9.1: Nikolai 2023 Completed Drill Holes

Drill hole No.	Easting (m)	Northing (m)	Elevation (m)	Dip	Azimuth	End of Hole Depth (m)
EZ-23-001	540781	7013747	1242	-60	26	641.6
EZ-23-002	540753	7014036	1217	-60	26	385.3
EZ-23-003	540997	7013645	1241	-60	26	588.9
EZ-23-004	541247	7013770	1223	-60	26	434.3
EZ-23-005	540498	7013854	1244	-60	26	608.4
EZ-23-006	540467	7014155	1217	-60	26	480.7
EZ-23-007	540307	7014013	1236	-60	26	552.8
EZ-23-008	540214	7014314	1194	-60	26	446.2
					Total:	4,138.2

(Source: Alaska Energy Metals: Press Release, October 16, 2023)

10.0 DRILLING

10.1 American Copper and Nickel Corporation (1993 - 1997)

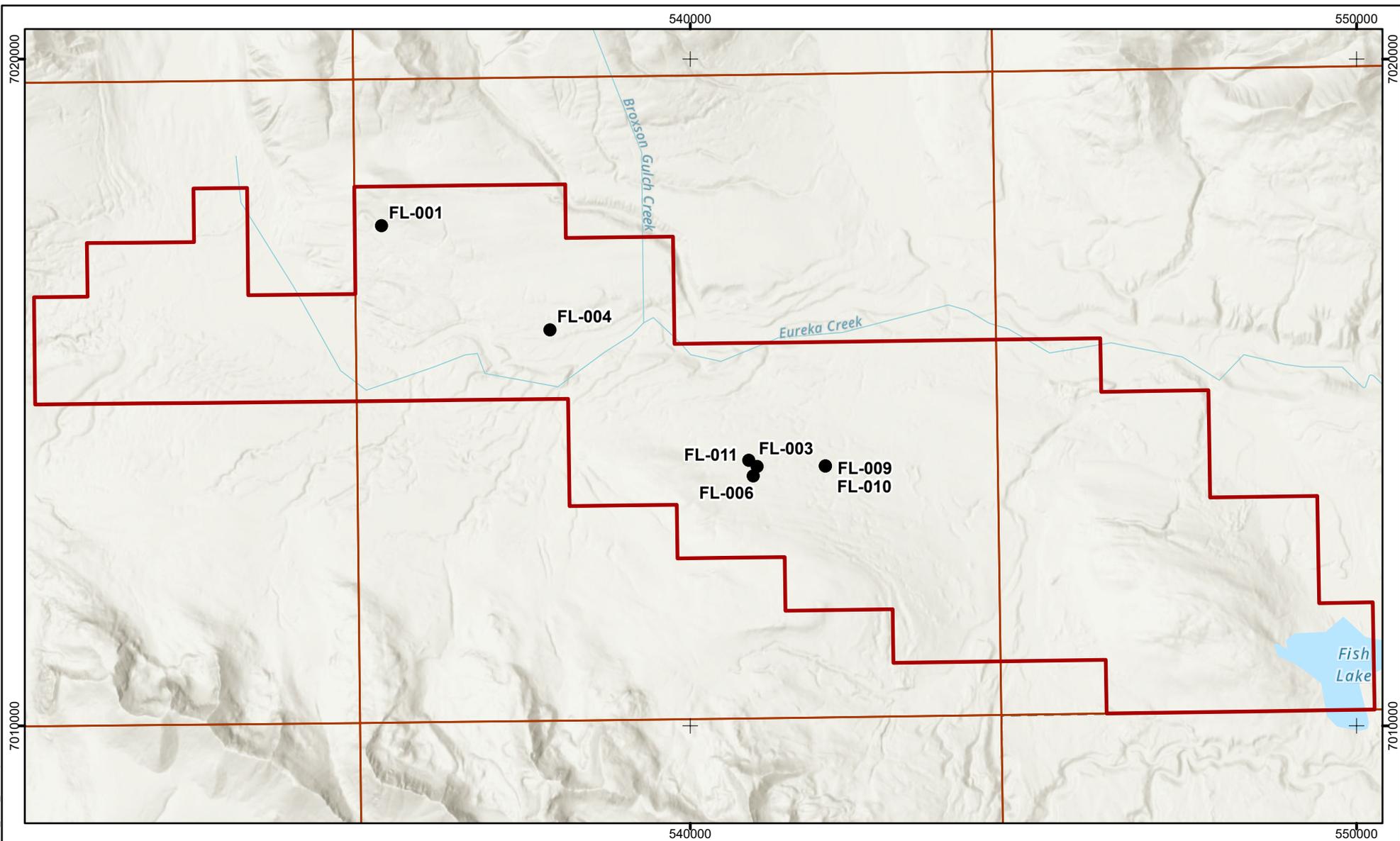
American Copper and Nickel Corporation (ACNC) initiated the Nikolai Project resulting from Alaska Task Force work completed from 1991 through 1993. The project was initiated based on similarities between the Nikolai flood basalt and the Siberian Trap flood basalts and intrusions of the Noril'sk District of Russia. Twenty-five Ni-Cu sulfide occurrences were supported by airborne magnetic and EM surveys, ground-based VLF and HLEM surveys, ground mapping and sampling. Drill targets were generated based on UTEM and magnetic geophysical surveys, detailed geologic mapping, trenching and litho-chemical sampling in 1996. Figure 10-1 displays the 1997 drill hole locations with respect to the current property position.

ACNC and Fort Knox Gold Resources (Fort Knox) formed a strategic alliance in 1997 and conducted an exploration campaign in 1997 through 1998. The exploration campaign consisted of geologic mapping and prospecting, drilling and additional UTEM geophysical survey. The drilling results of interest that intersected ore are along strike from the Eureka Zone on the current property position include the following items.

- Hole FL-003: 333 m (60.2 m – 393.2 m) @ 0.21% Ni, 0.08% Cu, 117 ppb Pd, and 54 ppb Pt
- Hole FL-006: 197.8 m (185.0 m – 382.8 m) @ 0.24% Ni, 0.09% Cu, 115 ppb Pd, and 57 ppb Pt
- Hole FL-004: 133.8 m (108.8m – 242.6 m) @ 0.20% Ni, 0.05% Cu, 35 ppb Pd and 52 ppb Pt

10.2 Anglo American Exploration (USA), Inc. (2004 - 2006)

Anglo American Exploration (USA), Inc. (AAEUS) completed an exploration program in 2005 on the MAN project in accordance with the Exploration, Development and Mine Operating Agreement between Nevada Star Resource Corp. (U.S.) and Anglo American Exploration (USA), Inc. (AAEUS) dated 02 July 2004. The primary objective of the 2005 exploration program was to intersect ore grade mineralization over potential mining widths (> 2.0 % nickel equivalent over 3 m true width). The 2005 exploration program consisted of an early spring geophysical program that included ground TEM surveys using the high temperature SQUID B-field sensor and a conventional coil. The geophysics program was followed by an 8 hole / 2,220 m drill program. Figure 10-2 displays the 2005-2006 drill hole locations with respect to the current property position.

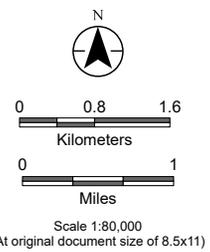


Legend

- AEMC Eureka Claims Boundary
- 1997 ACNC and Fort Knox Drilling

ACNC American Copper and Nickel Corporation
 Fort Knox Fort Knox Gold Resources

Notes
 1. Coordinate System: NAD 1983 UTM Zone 6N; Units: Meter
 2. Data Source: World Topographic Map: State of Alaska, Esri, TomTom, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, USFWS
 World Hillshade: Esri, USGS



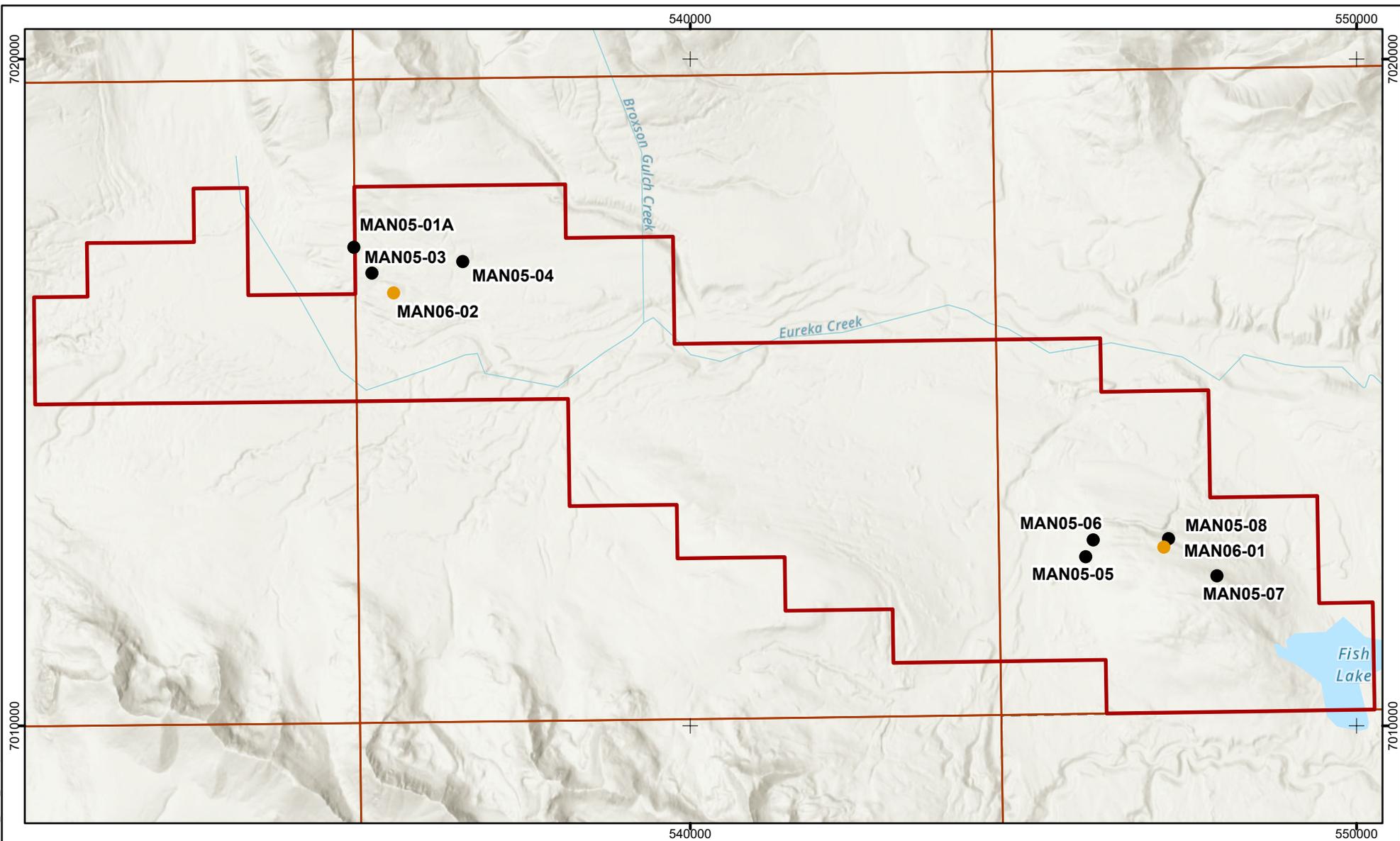
TECHNICAL REPORT AEMC NIKOLAI PROJECT

**1997 Drilling Campaign
 ACNC and Fort Knox**

Figure 10-1

DRAWN BY: J.K. CHK'D BY: D.K. DATE: 24/ 01/ 04	Project Location: T19S R8E, Alaska, USA Client: Alaska Energy Metals Corp. (AEMC) Project: 182923706
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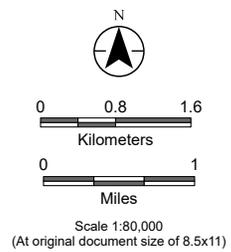


Legend
 AEMC Eureka Claims Boundary

- 2005 AAEUS Drilling
- 2006 AAEUS Drilling

AAEUS Anglo American Exploration (USA), Inc.

Notes
 1. Coordinate System: NAD 1983 UTM Zone 6N; Units: Meter
 2. Data Source: World Topographic Map: State of Alaska, Esri, TomTom, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, USFWS
 World Hillshade: Esri, USGS



TECHNICAL REPORT AEMC NIKOLAI PROJECT
**2005-2006 Drilling Campaign
 AAEUS**

Figure 10-2

DRAWN BY: J.K. CHK'D BY: D.K. DATE: 24/ 01/ 04	Project Location: T19S R8E, Alaska, USA Client: Alaska Energy Metals Corp. (AEMC) Project: 182923706
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During the 2005 drill program no significant high-grade nickel-copper mineralization was intersected, however, there were three anomalous drill core intersections along strike from the Eureka Zone in this program;

- Hole MAN05-01A: 101.8 m (35 m to 136.8 m) @ 0.25% Ni, 0.08% Cu, 49 ppb Pd, and 79 ppb Pt
- Hole MAN05-008: 0.22 m of 0.97% Ni, 0.14% Cu over 1.0 m including 3.22% Ni, 0.38% Cu over
- Hole MAN05-06: 3.0 m over 0.35% Ni

The narrowly mineralized interval reported in hole MAN05-008 includes 2 cm of massive sulfide containing approximately 30% coarse grained pentlandite eyes in a pyrrhotite matrix. Although narrow, this interval demonstrates that high grade massive sulfide mineralization is locally developed within the Eureka Intrusive Complex.

10.3 Joint Venture of Itochu and Pure Nickel (2007 – 2013)

2007

The drill program began on 14 July 2007 and ended on 03 October 2007. There were 15 holes from 13 setups that were drilled into the Eureka Complex, for a total of 3,359 m. Figure 10-3 shows the drill hole locations for the 2007-2013 drilling program with respect to the current property position and past drilling programs on the Eureka Complex.

The 2007 drilling program was successful in intersecting disseminated to small bleb sulfides within picritic to gabbroic rocks in all the holes, and over a strike length of at least 19.8 km within the Eureka Complex. The drill results indicate that the targeted electromagnetic conductors can be attributed to sulfide mineralization within the Eureka ultramafic-mafic complex. Favorable assay results that intersected or are along strike from the Eureka Zone include:

- Hole PNI-07-001: 261.6 m (397.5 m – 659.1 m) @ 0.24% Ni, 0.08% Cu, 114 ppb Pd and 50 ppb Pt.
- Hole PNI-07-002: 287.4 m (100.6 m – 388.0 m) @ 0.21% Ni, 0.02% Cu, 37 ppb Pd and 54 ppm Pt.
- Hole PNI-07-006: 11.28 m (200.55-211.83 m) @ 0.22% Ni, 0.06% Cu, 52 ppb Pt, 33 ppb Pd and 15 ppb Au.

2009

The following is a summary of the 2009 diamond drill program as outlined in the Exploration Activity Summary for the MAN Project: A Joint Venture of Itochu and Pure Nickel by C. Scherba, L. Hulbert and P. Murdy, 2009.

One water well, and nine diamond drill holes, PNI-09-018 to 026, comprising 4208 m of diamond drilling were completed from 01 June to 13 September 2009 on the MAN Property as part of the

Pure Nickel- Itochu JV. The objective of the drill program was to investigate several geochemical, geophysical, and/or geological targets defined during exploration programs completed on the property. While nine holes were drilled during the year, only three holes (PNI-09-020, 21 and 22) were on the Eureka Complex, the others were drilled at Dunite Hill (Southeast of the Eureka Complex).

The three holes drilled into the Eureka complex all intersected lithologies dominated by dunite to peridotite that were commonly highly fractured, fault gouged and sheared with local mylonite zones identified.

Assay results are as follows.

- Hole PNI-09-020: 201.5m (192.5 m – 394.0 m) @ 0.24% Ni, and 0.02% Cu, PGM's were not assayed.
- Hole PNI-09-021: No significant mineralization.

2010

Eleven diamond drill holes, PNI-10-027 to 036, comprising 6973.55 m of diamond drilling were completed from 01 June to 23 September 2010 on the MAN Property as part of the JV project between Itochu and Pure Nickel. The objective of the drill program was to investigate several geochemical, geophysical, and/or geological targets defined during exploration programs completed on the property. It should be noted that six of the eleven holes (PNI-10-028, 029, 030, 033, 035 and 036) were drilled on the Eureka Complex while the other 5 were drilled on the Beta Complex (Dunite Hill).

The biggest success for 2010 was the discovery for the first time on the property of stratigraphic horizons in the Eureka complex that have elevated platinum and palladium values in distinct horizons suggesting that stratiform PGE mineralization "REEFS" are present on the property. These reefs appear to be like other stratiform PGE bearing complexes elsewhere in the world. In addition, it is the first time that narrow intersections of high grade semi-massive sulfide seams were discovered returning economic grades up to 3.42% nickel and 4.27% copper. Nickel and copper results highlights from the 2010 drilling program are as follows.

- Hole PNI-10-028: 70m (383 m - 453 m) @ 0.25% Ni
- Hole PNI-10-028 (SMS): 0.07m (462.38 m - 462.45 m) @ 0.7% Ni and 0.4% Cu
- Hole PNI-10-028: 66m (615 m - 681 m) @ 0.23% Ni
- Hole PNI-10-029: 48m (309 m - 357 m) @ 0.25% Ni
- Hole PNI-10-029: 41m (358 m - 399 m) @ 0.24% Ni
- Hole PNI-10-029: 88m (564 m - 652 m) @ 0.28% Ni
 - including: 7m (624 m - 631 m) @ 0.35% Ni
- Hole PNI-10-030: 32m (479 m - 511 m) @ 0.24% Ni
- Hole PNI-10-033: 41.3m (350 m - 391.3 m) @ 0.23% Ni
- Hole PNI-10-035: 14.9m (308.1 m - 323 m) @ 0.25% Ni and 0.08% Cu
- Hole PNI-10-035: 17.7m (345 m - 362.7 m) @ 0.28% Ni

- Hole PNI-10-035: 16m (363 m - 379 m) @ 0.31% Ni
- Hole PNI-10-035: 24m (391 m - 415 m) @ 0.3% Ni
- Hole PNI-10-035: 139.75m (600 m - 739.75 m) @ 0.23% Ni
 - including (SMS): 0.11m (713.74 m - 713.85 m) @ 3.42% Ni and 4.27% Cu
- Hole PNI-10-036: 67.55m (188 m - 255.55 m) @ 0.25% Ni
- Hole PNI-10-036: 27m (284 m - 311 m) @ 0.33% Ni and 0.13% Cu
 - including: 2m (288 m - 290 m) @ 0.44% Ni and 0.33% Cu
- Hole PNI-10-036: 35m (319 m - 354 m) @ 0.28% Ni and 0.15% Cu
 - including: 14m (319 m - 333 m) @ 0.3% Ni and 0.15% Cu
- Hole PNI-10-036: 30m (396 m - 426 m) @ 0.31% Ni and 0.14% Cu
- Hole PNI-10-036: 32m (451 m - 483 m) @ 0.23% Ni
- Hole PNI-10-036: 50m (503 m - 553 m) @ 0.24% Ni

The platinum and palladium results are as follows.

- Hole PNI-10-028: 19m (349 m - 368 m) @ 164 ppb Pt + Pd
- Hole PNI-10-028: 19m (426 m - 445 m) @ 167.7 ppb Pt + Pd
- Hole PNI-10-029: 54m (253 m - 307 m) @ 158.3 ppb Pt + Pd
- Hole PNI-10-030: 5m (407 m - 412 m) @ 172.6 ppb Pt + Pd
- Hole PNI-10-030: 46m (471 m - 517 m) @ 185 ppb Pt + Pd
- Hole PNI-10-035: 8m (197 m - 205 m) @ 161.5 ppb Pt + Pd
- Hole PNI-10-035: 12.9m (308.1 m - 323 m) @ 195.8 ppb Pt + Pd
- Hole PNI-10-036: 7m (121 m - 128 m) @ 408.1 ppb Pt + Pd
- Hole PNI-10-036: 17m (219 m - 236 m) @ 200.1 ppb Pt + Pd
- Hole PNI-10-036: 165.9m (260.5 m - 426 m) @ 252.8 ppb Pt + Pd
 - including: 24 (DS)m (286 m - 310 m) @ 318.1 ppb Pt + Pd
 - including: 6m (317 m - 323 m) @ 310.4 ppb Pt + Pd
 - including: 8m (327 m - 335 m) @ 297.1 ppb Pt + Pd
 - including: 17m (337 m - 354 m) @ 273.3 ppb Pt + Pd
 - including: 3m (383 m - 386 m) @ 340.6 ppb Pt + Pd
 - including: 30m (396 m - 426 m) @ 261.1 ppb Pt + Pd

The six holes drilled into the Eureka complex all intersected lithologies dominated by serpentinized dunite to peridotite that were commonly highly fractured, fault gouged and sheared with local mylonite zones identified.

The 2010 exploration program was devised to establish if the ultramafics/mafics observed on the MAN Property have potential to host volumetrically significant nickel, copper, platinum, and palladium, semi to massive sulfide, as well as potential economic PGE reef horizons. To accomplish this goal, the entire length of the drill holes was analyzed for 42 elements using Acme Laboratories 1EX method and Fire assay for Pt, Pd and Au.

2011

Eleven (11) diamond drill holes, PNI-11-037 to 039, PNI-11-042 to 044, PNI-11-058 to 060, and ER-11-001 to 002, comprising 2580.13 m of diamond drilling were completed from 06 June to 05 September 2011 on the MAN Property. The objective of the drill program was to investigate a combination of geological, geophysical, and geochemical targets defined from prior exploration programs as well as targets generated from fieldwork performed during the 2011 field season.

Drill holes intersecting the Eureka Complex include PNI-11-037 to 039, PNI-11-042 and PNI-11-059, Drill holes PNI-11-043, PNI-11-044 and PNI-11-060 were drilled on the current property but were drilled to far north to intersect the Eureka Complex. Drill holes ER-11-001 to 002 were drilled on the Rainy Complex and are not on the current Eureka Property. Favorable assay results that intersected or are along strike from the Eureka Zone include:

- Hole PNI-11-037: 33.3 m (4.8 m – 38.1 m) @ 0.19% Ni, 0.02% Cu, 24 ppb Pd, and 15 ppb Pt
- Hole PNI-11-038: 118.9 m (10.5 m – 129.4 m) @ 0.16% Ni, 0.03% Cu, 38 ppb Pd and 21 ppb Pt
- Hole PNI-11-039: 158.3 m (9.0 m – 167.3 m) @ 0.21% Ni, 0.04% Cu, 50 ppb Pd, and 22 ppb Pt
- Hole PNI-11-042: 47.1 m (10.0 m – 57.1 m) @ 0.20% Ni, 0.05% Cu, 55 ppb Pd, and 30 ppb Pt
- Hole PNI-11-059: 291.7 m (88.2 m – 379.9 m) @ 0.20% Ni, 0.01% Cu, 27 ppb Pd, and 43 ppb Pt

Joint Venture of Itochu and Pure Nickel 2012

A total of 1,831.5 m of diamond core drilling was completed in five holes between June 18 and August 14 on the South Eureka Complex. The first hole was a general stratigraphic hole to test lithological variations in the southern part of the Eureka Complex, as well as to test an AEM conductor. The remaining holes primarily targeted soil geochemical, IP or geological features identified in the field.

Drill hole PNI-12-063 was the only hole to intersect the main Eureka Zone mineralization for the 2012 drill program, The remaining holes were drilled too far to the south to intersect the main Eureka Zone mineralization. Besides the results from PNI-12-063, the drill results from the 2012 program were generally low with only local elevated metal values encountered as follows.

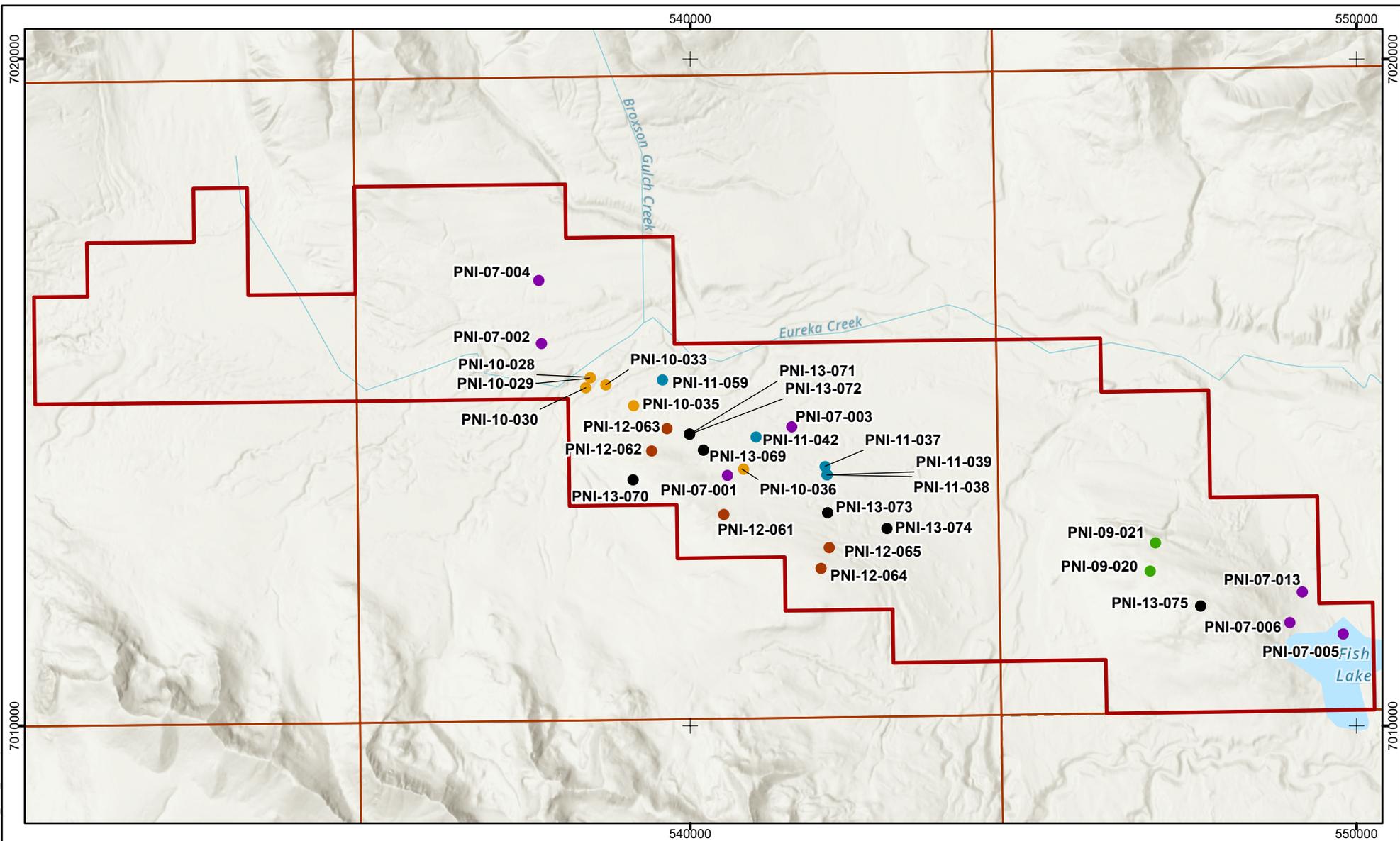
- PNI-12-063: highly anomalous sulfide mineralization between approximately 136m and 226m, with metal values over this interval averaging approximately 270 ppb Pt + Pd (maximum 549 ppb), 1500 ppm Cu (maximum 3,071 ppm) and 2,300 ppm Ni (maximum 3,742 ppm).
- PNI-12-061: Weakly mineralized peridotite: highest Ni result being 3,144 ppm, and the highest Pt + Pd result being 202 ppb.

- PNI-12-062: Metal values in the hole were generally very low, with the only interval of interest occurring between 366.15 m and 369.5 m (Gabbroic Sill). Pt + Pd values were typically in the range 150-350 ppb in this interval, with weakly elevated Cu values.
- PNI-12-062: Gabbro grading into dunite before ending in peridotite. Highly anomalous sulfide mineralization between approximately 136 m and 226 m, with metal values over this interval averaging approximately 270 ppb Pt + Pd (maximum 549 ppb), 1,500 ppm Cu (maximum 3,071 ppm) and 2,300 ppm Ni.
- PNI-12-064: No anomalous metal values
- PNI-12-065: Metal concentrations were generally very low in this hole, with only slightly elevated Ni and Cu values in the interval from 250 m to 279 m, with maximums of 691 ppm and 3,788 ppm, respectively.

2013

A total of 2,990.9 m of diamond core drilling was completed in 8 holes between June 6 and August 24 in the Central Eureka region. 7 of the 8 drill holes were designed to target Eureka Zone mineralization, one drill hole targeted the coincident IP / soil anomaly in Central Eureka. The first 3 holes targeting Eureka Zone mineralization were in Central Eureka, in proximity to hole PNI-12-063. Two drill holes targeted the same mineralization stepping out to the East in 1 km increments. The final drill hole was located west of Fish Lake, approximately 7.5 km east of Central Eureka and targeted the same zone of mineralization.

The 2013 drill program successfully intersected the Eureka Zone in 6 of the 7 holes that were drilled, with one hole being abandoned in a fault zone. The drill results confirm the presence of a continuous zone of mineralization having elevated concentrations of Ni, Cu, and PGE. Intersection apparent widths for drill holes cutting the entire zone in the central Eureka Complex range from 73 m to 347 m and average grades range from 120 ppb to 300 ppb Au + Pt + Pd, 0.05- 0.15% Cu, and 0.18-0.26% Ni. Recoverable amounts of Ag and Co are also present. Smaller but higher-grade intervals are present in most of the holes.



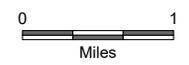
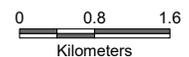
Legend

AEMC Eureka Claims Boundary

PNI Pure Nickel- Itochu JV

PNI Drilling Year

- | | |
|------|------|
| 2007 | 2011 |
| 2009 | 2012 |
| 2010 | 2013 |



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TECHNICAL REPORT AEMC NIKOLAI PROJECT

**2007-2013 Drilling Campaign
PNI**

Figure 10-3

Notes

1. Coordinate System: NAD 1983 UTM Zone 6N; Units: Meter
2. Data Source: World Topographic Map: State of Alaska, Esri, TomTom, Garmin, SafeGraph, MET/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, USFWS
World Hillshade: Esri, USGS

DRAWN BY: J.K.
CHK'D BY: D.K.
DATE: 24/ 01/ 04

Project Location: T19S R8E, Alaska, USA
Client: Alaska Energy Metals Corp. (AEMC)
Project: 182923706

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10.4 Alaska Energy Metals Corporation (2021 – Present)

Alaska Energy Metals Corporation completed an eight-hole, 4,138 m drill program during the summer of 2023. The 2023 diamond drill program was completed utilizing one surface diamond drill rig. Assay results from holes EZ-23-001, 002, 003 and 005 have been received, the results for the remaining 4 holes are pending. Hole EZ-23-001 was drilled approximately 100m southwest of historical drillhole PNI-10-036 to validate geology and historical assay results. The remaining seven holes in the program were drilled at approximately 250 m to 300 m offsets to test the continuity of grade and thickness along a 1.2 km strike length of the Eureka Zone. Figure 10-4 displays a map of the 2023 drillhole locations. Geologic and mineralization zone modelling utilized six (EZ-23-001, through EZ-23-006) of the eight 2023 holes, but not all 2023 assay data were available and were excluded from the 2023 mineral resource estimation.

Hole EZ-23-001

Below overburden, hole EZ-23-001 collared into a poorly mineralized gabbro to 148 m before transitioning into a weakly mineralized pyroxenite unit from 148.0 m to 220.1 m. The main Eureka Zone was intersected from 220.1 m to 561.7 m downhole, with assays grading:

- 341.6m (315.8m estimated true thickness) @ 0.23% Ni, 0.08% Cu, 0.02% Co, 0.32% Cr, 9.94% Fe, 0.107 g/t Pd, 0.051 g/t Pt and 0.011 g/t Au.

Below the main zone a low grade serpentized peridotite unit was intersected that assayed:

- 49.4 m @ 0.15 Ni%, 0.02 Cu%, 0.02% Co, 0.44 Cr%, 10.25% Fe, 0.017 g/t Pd, 0.031 g/t Pt and 0.008 g/t Au.

This lower mineralized unit remains open at depth.

EZ-23-002

Below overburden (7.5 m), the hole EZ-23-002 collared directly into the main Eureka Zone to a depth of 304.1 m. The zone assayed is:

- 296.6 m (281.1m estimated true thickness) @ 0.23% Ni, 0.09% Cu, 0.02% Co, 0.30% Cr, 9.92% Fe, 0.115 g/t Pd, 0.052 g/t Pt and 0.013 g/t Au.

Below the main zone the hole intersected a pervasively serpentized peridotite containing finely disseminated sulfides from 323.5 m to 385.3 m (EOH) that assayed:

61.8 m @ 0.15 Ni%, 0.03 Cu%, 0.01% Co, 0.43 Cr%, 9.87% Fe, 0.019 g/t Pd, 0.028 g/t Pt and 0.009 g/t Au. This lower mineralized unit is open at depth.

EZ-23-003

EZ-23-003 intersected 19.8 m of overburden followed downhole by a poorly mineralized gabbro unit to 149.5 m. The gabbro unit then transitioned into a weakly mineralized pyroxenite rich unit from 149.5 m to 230.1 m. Below this pyroxenite unit the hole intersected the main Eureka Zone from 230.1 m to 554.7 m that assayed:

- 324.6m (308.8m estimated true thickness) @ 0.23% Ni, 0.08% Cu, 0.02% Co, 0.31% Cr, 9.79% Fe, 0.119 g/t Pd, 0.053 g/t Pt and 0.013 g/t Au.

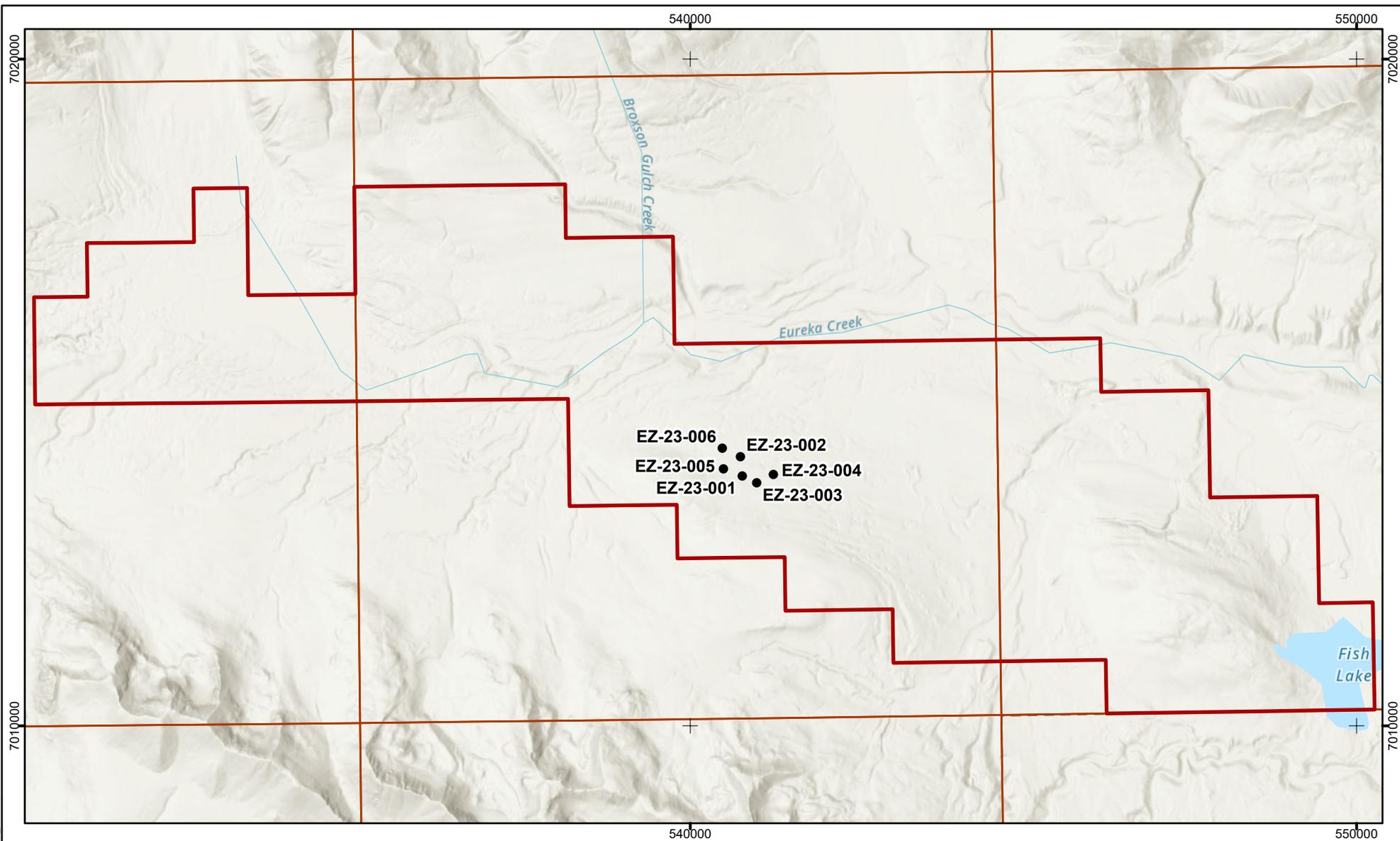
The mineralized zone host rock is a pervasively serpentinized peridotite with varying amounts of sulfides, locally up to 10% sulfide within the core Eureka Zone 2. The hole ended in a un-mineralized pyroxenite unit at 588.9m. The mineralization is currently open in all directions from hole EZ-23-003.

EZ-23-005

Drillhole EZ-23-005 drilled 13.1 m of overburden followed downhole into a poorly mineralized gabbro unit from 19.8 m to 186.2 m. This gabbro unit transitioned into a weakly mineralized pyroxenite rich unit to 252.2 m. Below this weakly mineralized pyroxenite unit the main mineralized Eureka Zone was intersected from 252.2.1 m to 608.4 m and assayed:

- 356.2 m (334.0 m estimated true thickness) @ 0.22% Ni, 0.08% Cu, 0.02% Co, 0.33% Cr, 9.60% Fe, 0.122 g/t Pd, 0.057 g/t Pt and 0.014 g/t Au.

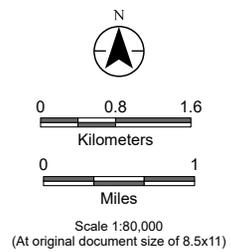
The main Eureka Zone is hosted within a pervasively serpentinized peridotite with varying amounts of sulfides, locally up to 10% sulfide within the Core Eureka Zone 2. This hole did not intersect the lower pyroxenite intrusive phase and ended in the Lower Eureka Zone 2 mineralization. The mineralization is currently open in all directions from hole EZ-23-005.



- Legend**
- AEMC Eureka Claims Boundary
 - 2023 AEMC Drilling

Notes

1. Coordinate System: NAD 1983 UTM Zone 6N; Units: Meter
2. Data Source: World Topographic Map: State of Alaska, Esri, TomTom, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, USFWS
World Hillshade: Esri, USGS



 	
TECHNICAL REPORT AEMC NIKOLAI PROJECT	
<h2>2023 Drilling Campaign AEMC</h2>	
<h3>Figure 10-4</h3>	
DRAWN BY: J.K. CHK'D BY: D.K. DATE: 24/ 01/ 04	Project Location: T19S R8E, Alaska, USA Client: Alaska Energy Metals Corp. (AEMC) Project: 182923706

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11.0 SAMPLE PREPARATION, ANALYSES, AND SECURITY

Alaska Energy Metals has implemented Quality Assurance – Quality Control (QA/QC) standards for its Nikolai Nickel Project to ensure the best practices for logging, sampling, and analysis of samples.

Unless otherwise noted, details in Section 11.0 pertain to the 2023 exploration program.

Drill core samples are labeled by geologists and sawn in half with a diamond blade, with half being inserted into a labeled, bar coded, sample bag. The other half of the core was returned to the wooden boxes for archive at a secure location. Samples are transported in sealed bags to SGS Laboratories in Burnaby, B.C. utilizing a contracted transportation carrier.

11.1 Specific Gravity Sample Preparation and Analysis

Natural moisture basis specific gravity (sg) was used for tonnage calculations. On drill core from 2010-2013, the sg was derived using the wet / dry immersion weight technique taken from hard rock core samples. Core selected for sg testing had a minimum length requirement of twice the width of the core diameter. The core selected for testing was solid and unfractured and no adjustments were made to the data values.

Beginning in 2023, Alaska Energy Metals completed specific gravity testing using SGS's pycnometer (G_PHY06V) method on core sample pulps. The results of the pycnometer testing, for all rock types on the Property, were consistent with historical methods of specific gravity collection.

11.2 Sample Preparation and Analysis

Once samples are received at the laboratory, they are weighed, dried, and crushed to 75% passing 2 mm. The samples are then riffle split and pulverized to 85% passing 75 microns. The samples are pulverized in a zirconia bowl, to prevent the contamination of Fe and Cr. Au, Pt, and Pd are analyzed by fire assay with ICP-AES finish (SGS, 2023, GE_FAI30V5). Ag is analyzed using a 4-acid digest with AAS finish (GE_AAS42E50). The remaining 30 elements are analyzed using sodium peroxide fusion with ICP-AES finish (GE_ICP90A50).

11.3 Quality Assurance and Quality Control

Anglo American Exploration (USA), Inc (2004-2005)

Anglo American Exploration (USA) Inc. has standard sampling protocols that conform to international standards so that the data can be used for reserve calculations should the need arise. Samples were collected on a regular basis and commonly continuous sampling is completed when drilling ultramafic rocks in areas where little or no previous drilling has been

completed. In thick ultramafic bodies, samples are commonly collected at 1 m to 1.5 m intervals throughout the unit. Sampling never crosses a rock type boundary.

During drill core sampling, standards and blanks were inserted at a rate of not less than 1 in 25 to test the lab for analytical procession and preparation. Quality control charts are generated for the standards sent within each batch and must be within one standard deviation of the accepted value for that element or the batch will not be passed. All drill core sample shipments passed QA/QC procedures.

During this program, the core was logged, sampled, and cut by a diamond saw in the Broxson Gulch Camp. A total of 1,246 core samples, including 63 standards, 63 duplicate pairs, and 32 blanks were collected. All samples were shipped to Alaska Assay Labs for sample preparation. Upon completing the crushing and pulverizing, Alaska Assay Labs shipped the sample pulps to ALS Chemex for assay. The samples were assayed using ICP 23 for PGE and ICP 81 for base metals. Samples collected for whole rock analysis were shipped to Acme Analytical Laboratories Ltd. and analyzed using AAeus' proprietary G 4Ni package. All drill core was stored at the Broxson Gulch Camp in a newly constructed storage facility.

Joint Venture of Itochu and Pure Nickel 2007

The core was logged, sampled, and cut by a diamond saw at the drill site. A total of 2,174 core samples, including 288 CANMET, Geostat, OREAS and field standards, and 77 blanks were collected and sent to Alaska Assay Laboratories in Fairbanks for sample preparation. Upon completing the crushing and pulverizing, Alaska Assay Laboratories shipped the sample pulps to Acme Analytical Laboratories in Vancouver for assay. The samples were assayed using ICP-MS for base metals and Pd, Pt and Au. Half the drill core was retained and stored in a secure building in Delta Junction, Alaska. Blanks and standards from drill hole PNI-07-001 were available to AEMC for data verification.

Joint Venture of Itochu and Pure Nickel 2009

An extensive QA/QC program was followed throughout the program consisting of the insertion of standards and blanks. Certified Reference Material Standards were inserted approximately every 20 samples, as well as two pulp duplicates and one geological blank in every batch with FA / ICP work, three pulp duplicates for FA / Gravimetric work. Random additional repeats may also be analyzed as required. A total of 83 certified standards (4.6% of samples), and 34 blanks (1.9% of samples), were inserted within the diamond drill core sample sequence. The blank material consisted of fine-grained silica sand marketed as 'Play Sand' by the construction material company Sakrete. All the results for the certified standard fell between the minimum and maximum ranges of acceptable values. Therefore, TSL was not required to reanalyze any certificates because of unacceptable standard values.

Joint Venture of Itochu and Pure Nickel 2010 - 2013

From 2010 through the 2013 exploration programs, one of Pure Nickel protocols for a quality assurance and quality control program consisted of the insertion of international standards within the core sample stream. A total of 94 certified standards (18.2% of samples), and 95 blanks

(18.2% of samples), were inserted within the diamond drill core sample sequence. The blank material consisted of fine-grained silica sand marketed as 'Play Sand' by the construction material company Sakrete. Except for a few samples, most of the results for the certified standard fell between the minimum and maximum ranges of acceptable values. When there was a batch of samples required to re-analyze the new certificates fell in the acceptable standard values. Blanks, duplicates, and standards from five (5) drill holes from this series were available to AEMC for data verification.

11.3.1 Blanks

In 2007, a diabase rock (mafic gabbro) was used for the blank sample material. It was recognized that the diabase rock had potential for elevated Ni and Cu, as seen in the subsequent test result figures. In 2009, the blank sample material was switched to commercial play sand and results improved as evidenced from the test results shown in Figure 11-1 through 11-3..

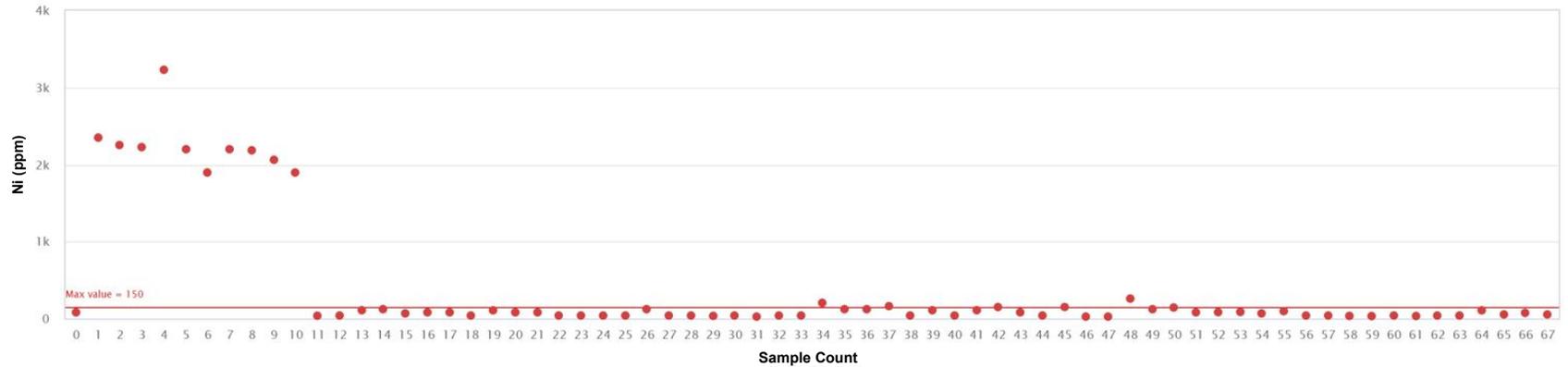
A total of 68 blank samples were inserted into the sample stream for the six (6) PNI-series resource drill holes. A failure threshold of 150 ppm was used for Ni and Cu and a failure threshold of 10 ppb was used for Au, Pd, and Pt.

Figure 11-1 contains the summary of blank material for Ni and Cu test results. Of the 68 total Ni samples, 54 passed and 14 failed. Of the 68 total Cu samples, 64 passed and 4 failed. The failures were attributed to the use of the diabase rock. Figure 11-2 contains the summary of blank material for Au and Pd test results. Of the 68 total Au samples, 67 passed and 1 failed. Of the 68 total Pd samples, 65 passed and 3 failed. Figure 11-3 contains the summary of blank material for Pt test results. Of the 68 total samples, 58 passed and 10 failed. All failures were attributed to the use of the diabase rock.

Blanks : Ni (ppm)



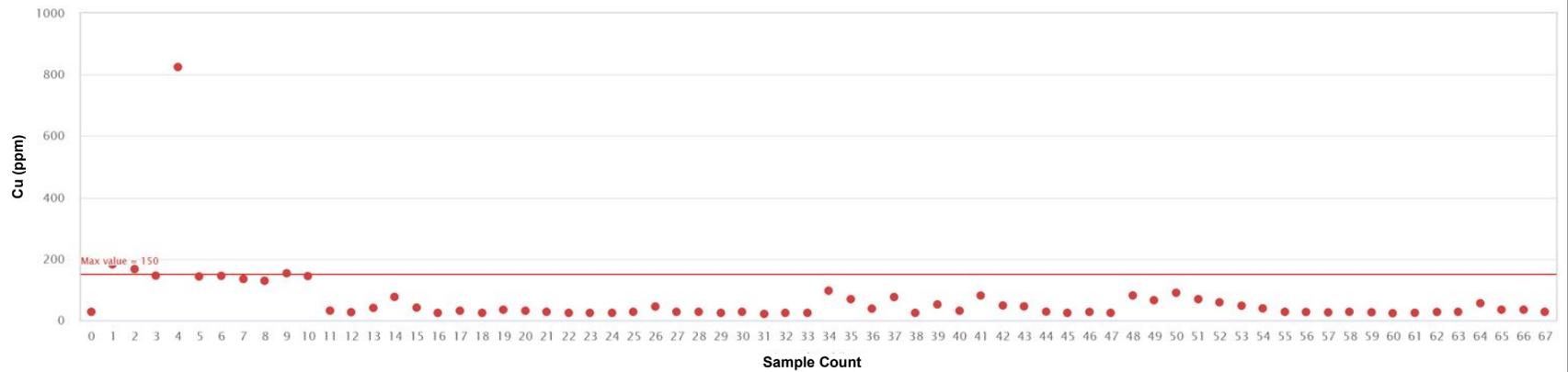
- Passed (54)
- Failed (14)



Blanks : Cu (ppm)



- Passed (64)
- Failed (4)



Notes

Cu Copper
 Ni Nickel
 ppm parts per million



TECHNICAL REPORT AEMC NIKOLAI PROJECT

**Ni and Cu
 Blank Material Test Results**

Figure 11-1

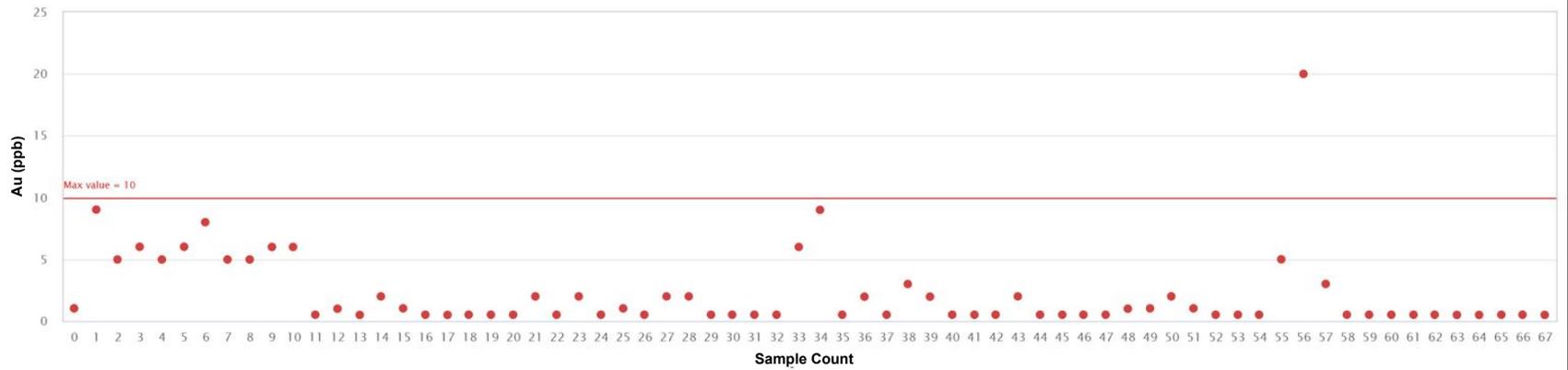
DRAWN BY: J.K.
 CHK'D BY: D.K.
 DATE: 24/ 01/ 04

Project Location: T19S R8E, Alaska, USA
 Client: Alaska Energy Metals Corp. (AEMC)
 Project: 182923706

Blanks : Au (ppb)



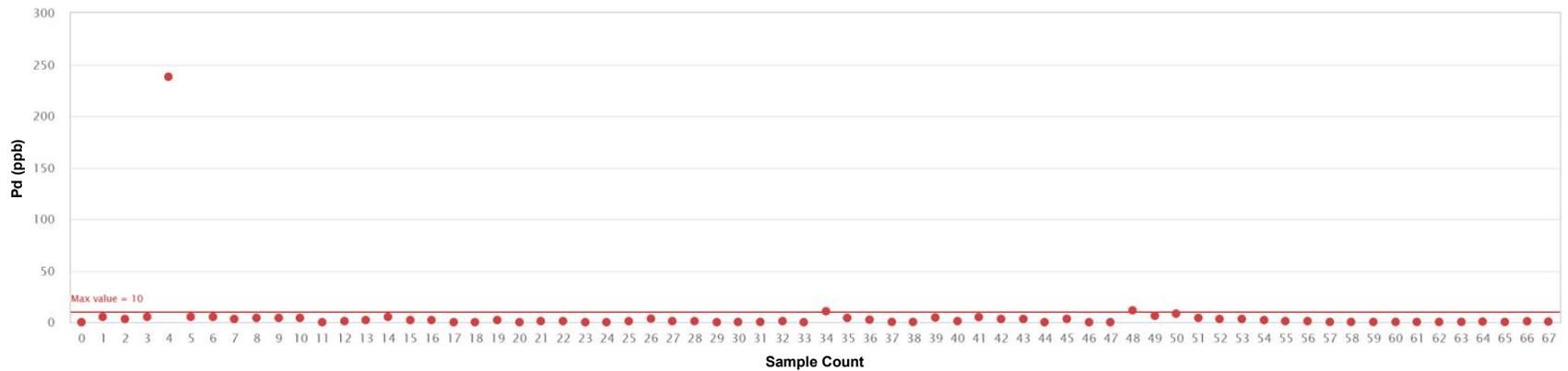
- Passed (67)
- Failed (1)



Blanks : Pd (ppb)



- Passed (65)
- Failed (3)



Notes

Au Gold
Pd Palladium
ppb parts per billion



TECHNICAL REPORT AEMC NIKOLAI PROJECT

**Au and Pd
Blank Material Test Results**

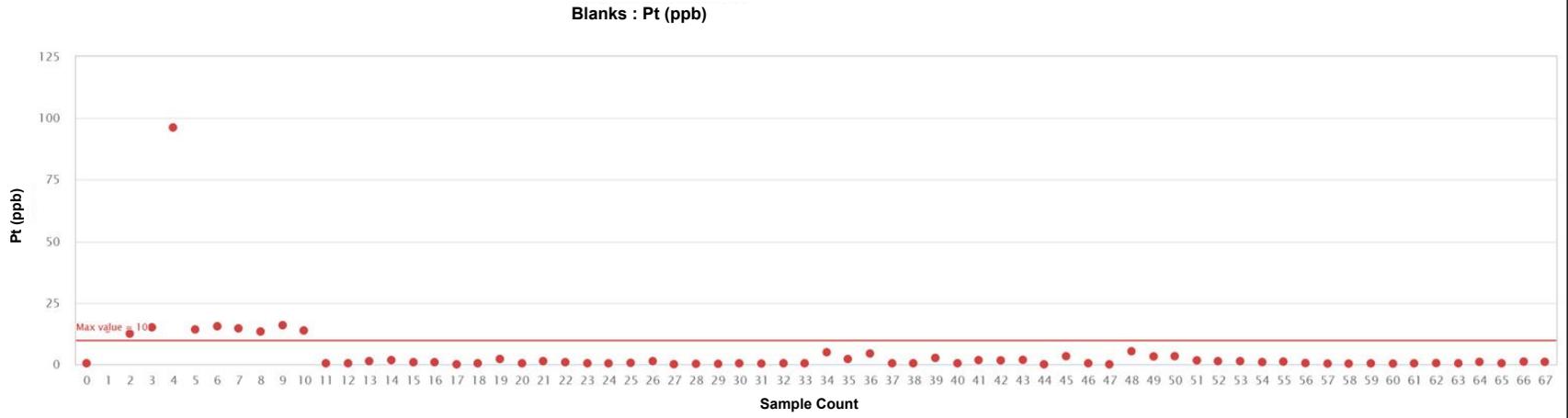
Figure 11-2

DRAWN BY: J.K.
CHK'D BY: D.K.
DATE: 24/ 01/ 04

Project Location: T19S R8E, Alaska, USA
Client: Alaska Energy Metals Corp. (AEMC)
Project: 182923706



Passed (58)
Failed (10)



C:\Data\Nik\data\ArcPro\Fig_11-3_Nik_Pt_Blanks.aprx

Notes

ppb parts per billion
Pt Platinum




TECHNICAL REPORT AEMC NIKOLAI PROJECT

Pt Blank Material Test Results

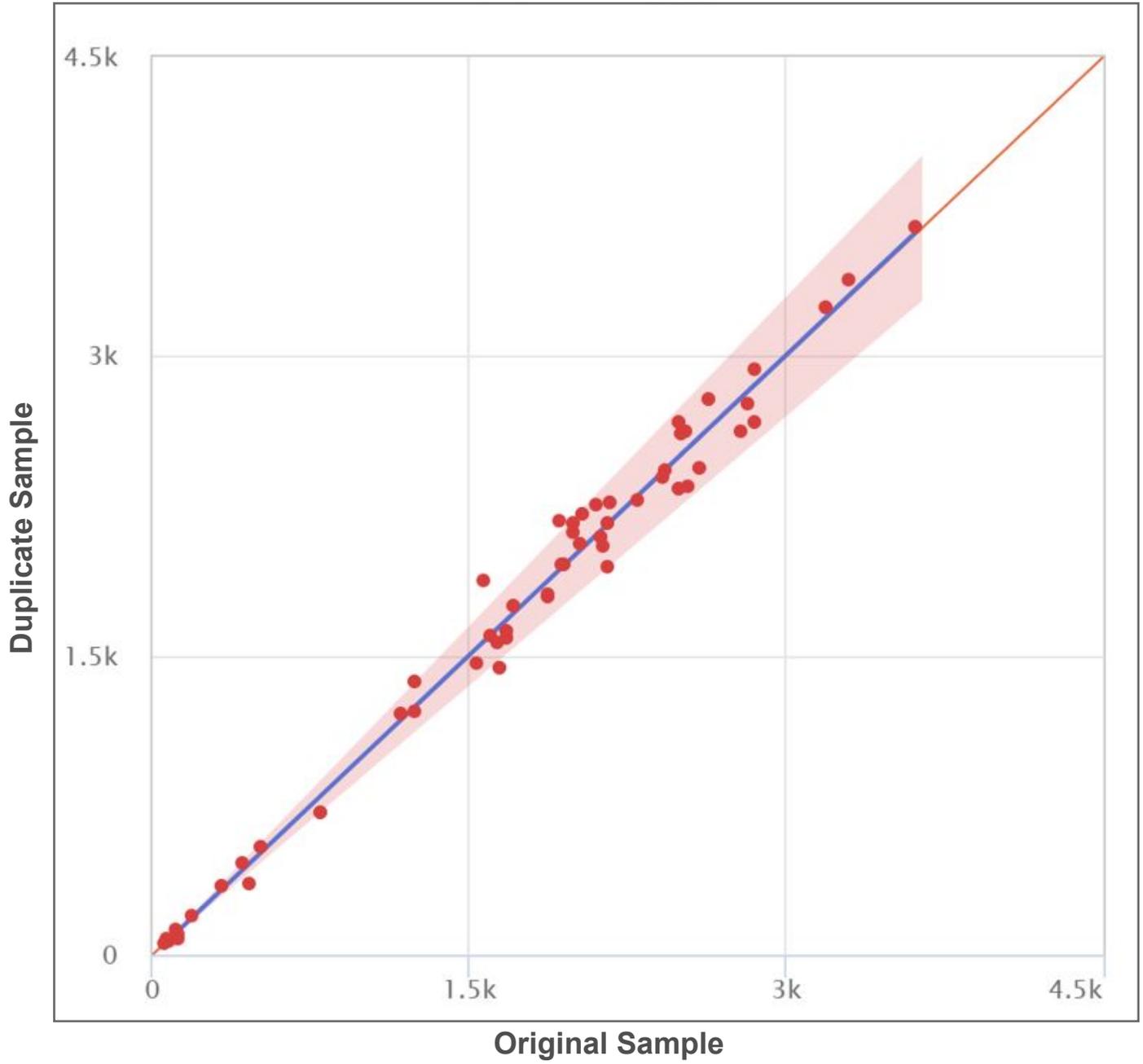
Figure 11-3

DRAWN BY: J.K. CHK'D BY: D.K. DATE: 24/ 01/ 04	Project Location: T19S R8E, Alaska, USA Client: Alaska Energy Metals Corp. (AEMC) Project: 182923706
--	--

11.3.2 Duplicates

No duplicate samples are available from 2007 drilling. Duplicate samples began in 2010 as field duplicates. The field duplicates comprise of one half of the sampled core (one quarter of the total core). There are a total of 56 duplicate samples in the sample stream from five (5) PNI-series resource drill holes. A $\pm 10\%$ variance was used as the acceptable target limit. Figures 11-4 through 11-8 contain the duplicate results for Ni, Cu, Au, Pd and Pt.

Ni (ppm)



● Original vs Duplicate — 1:1 line — Regression line

■ Tolerance Buffer 10 %

Notes

k thousand
 Ni Nickel
 ppm parts per million



TECHNICAL REPORT AEMC NIKOLAI PROJECT

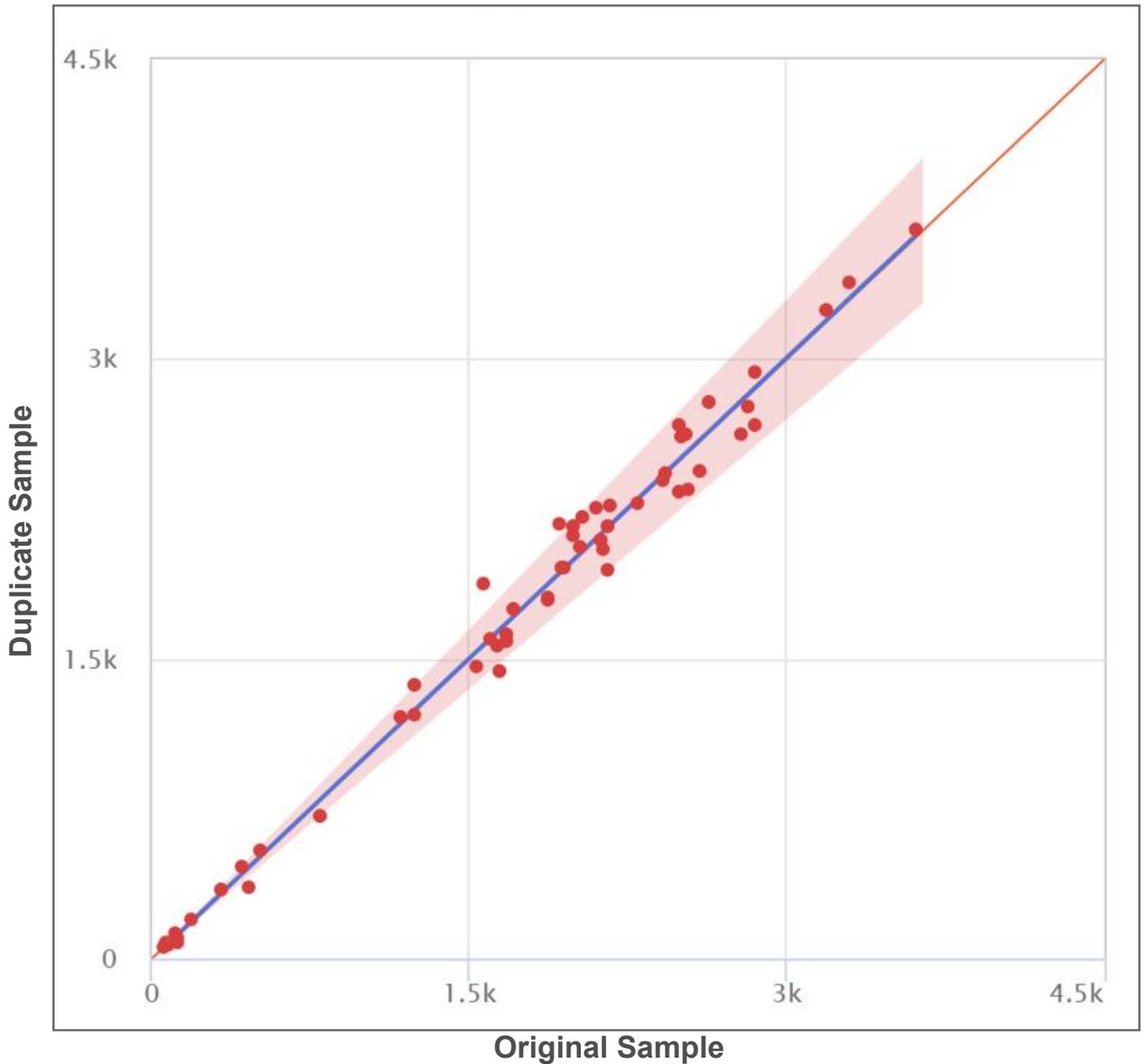
Ni Duplicate Results

Figure 11-4

DRAWN BY: J.K.
 CHK'D BY: D.L.
 DATE: 24/01/04

Project Location: T19S R8E, Alaska, USA
 Client: Alaska Energy Metals Corp. (AEMC)
 Project: 182923706

Cu (ppm)



● Original vs Duplicate — 1:1 line — Regression line

Tolerance Buffer 10 %

Notes

Cu Copper
ppm parts per million



TECHNICAL REPORT AEMC NIKOLAI PROJECT

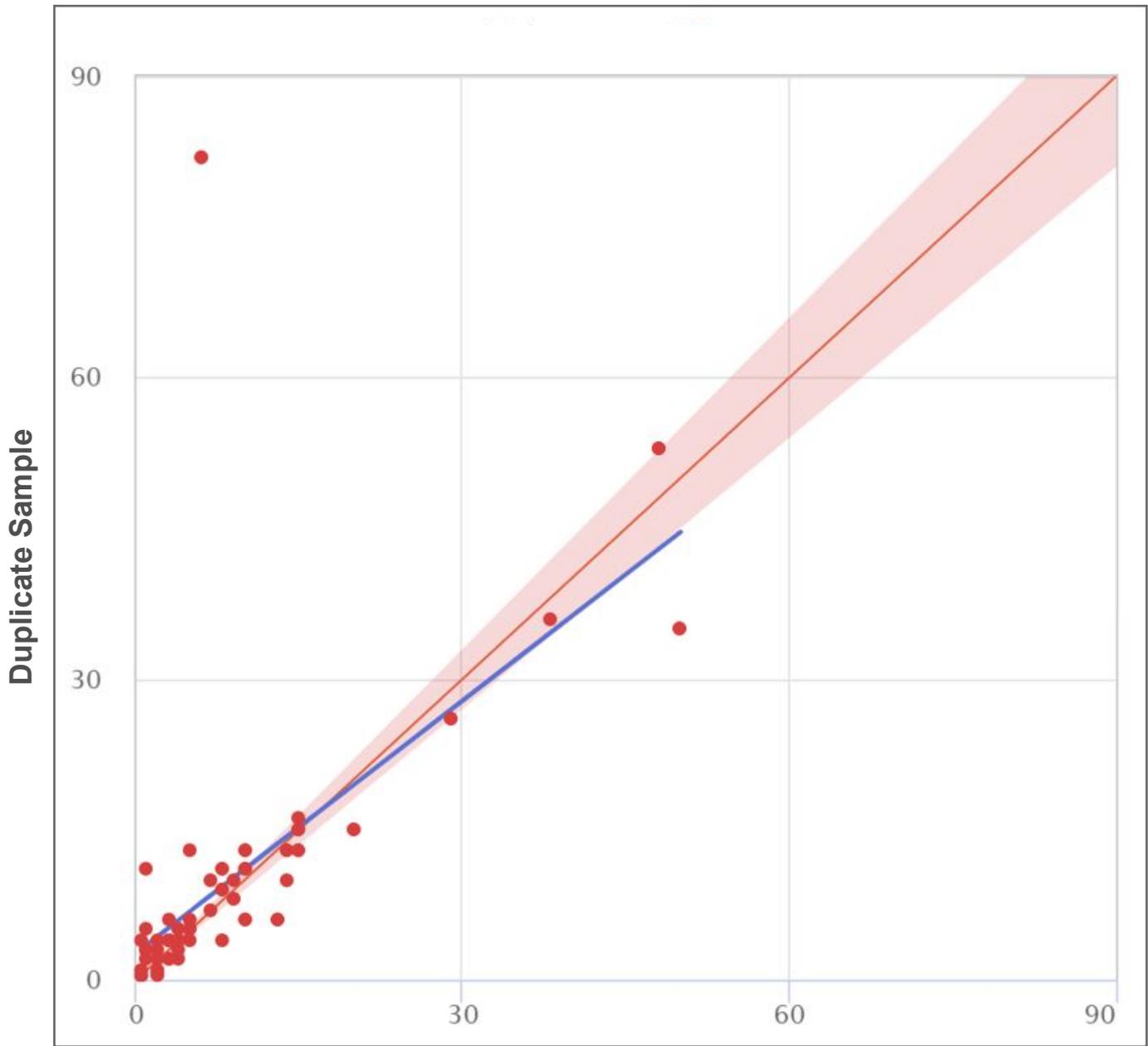
Cu Duplicate Results

Figure 11-5

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 24/ 01/ 04

Project Location: T19S R8E, Alaska, USA
Client: Alaska Energy Metals Corp. (AEMC)
Project: 182923706

Au (ppb)



● Original vs Duplicate — 1:1 line — Regression line

 Tolerance Buffer 10 %

Notes

Au Gold
ppb parts per billion



TECHNICAL REPORT AEMC NIKOLAI PROJECT

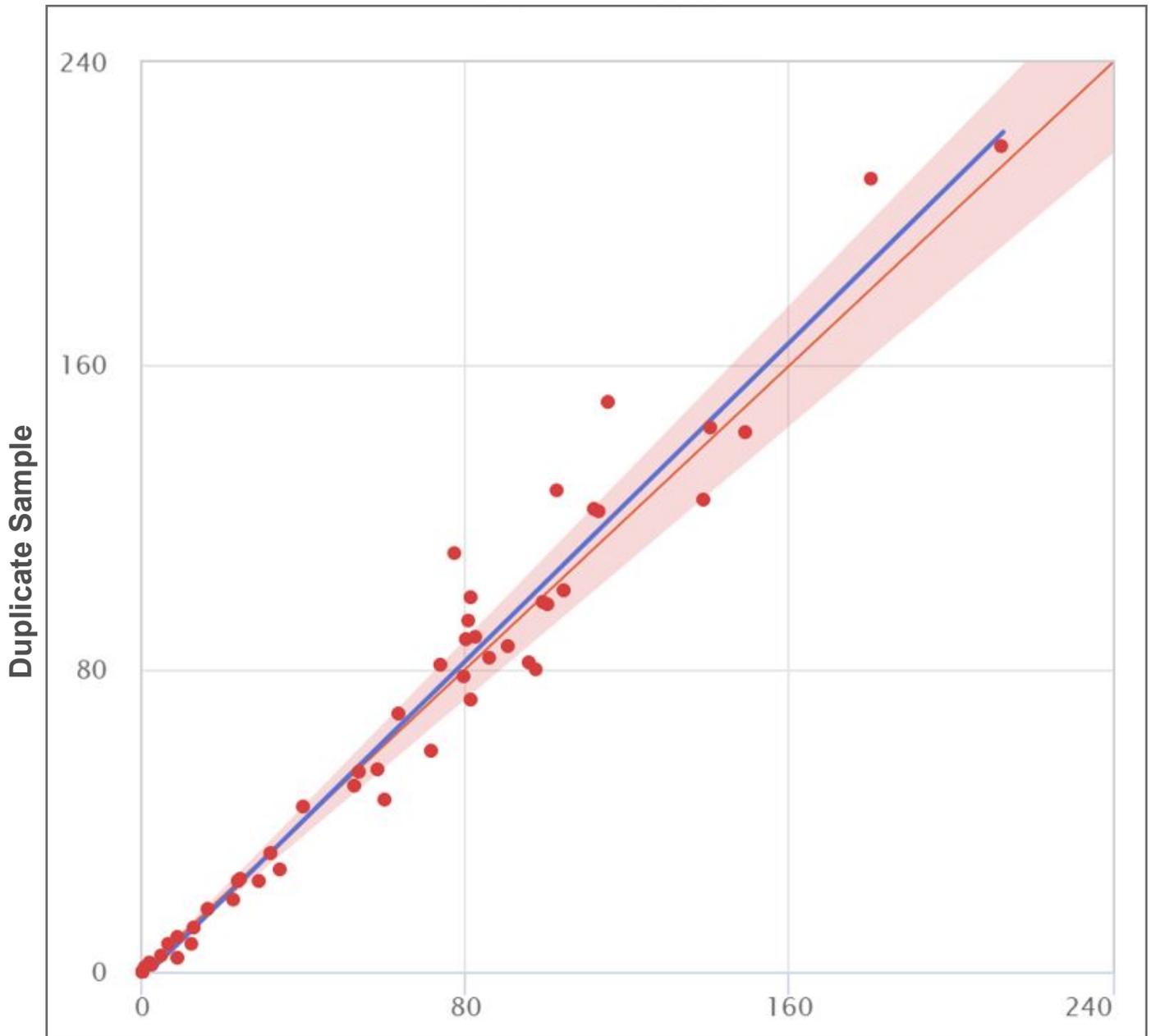
Au Duplicate Results

Figure 11-6

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 24/01/04

Project Location: T19S R8E, Alaska, USA
Client: Alaska Energy Metals Corp. (AEMC)
Project: 182923706

Pd (ppb)



● Original vs Duplicate — 1:1 line — Regression line

 Tolerance Buffer 10 %

Notes

Pd Palladium
ppb parts per billion



TECHNICAL REPORT AEMC NIKOLAI PROJECT

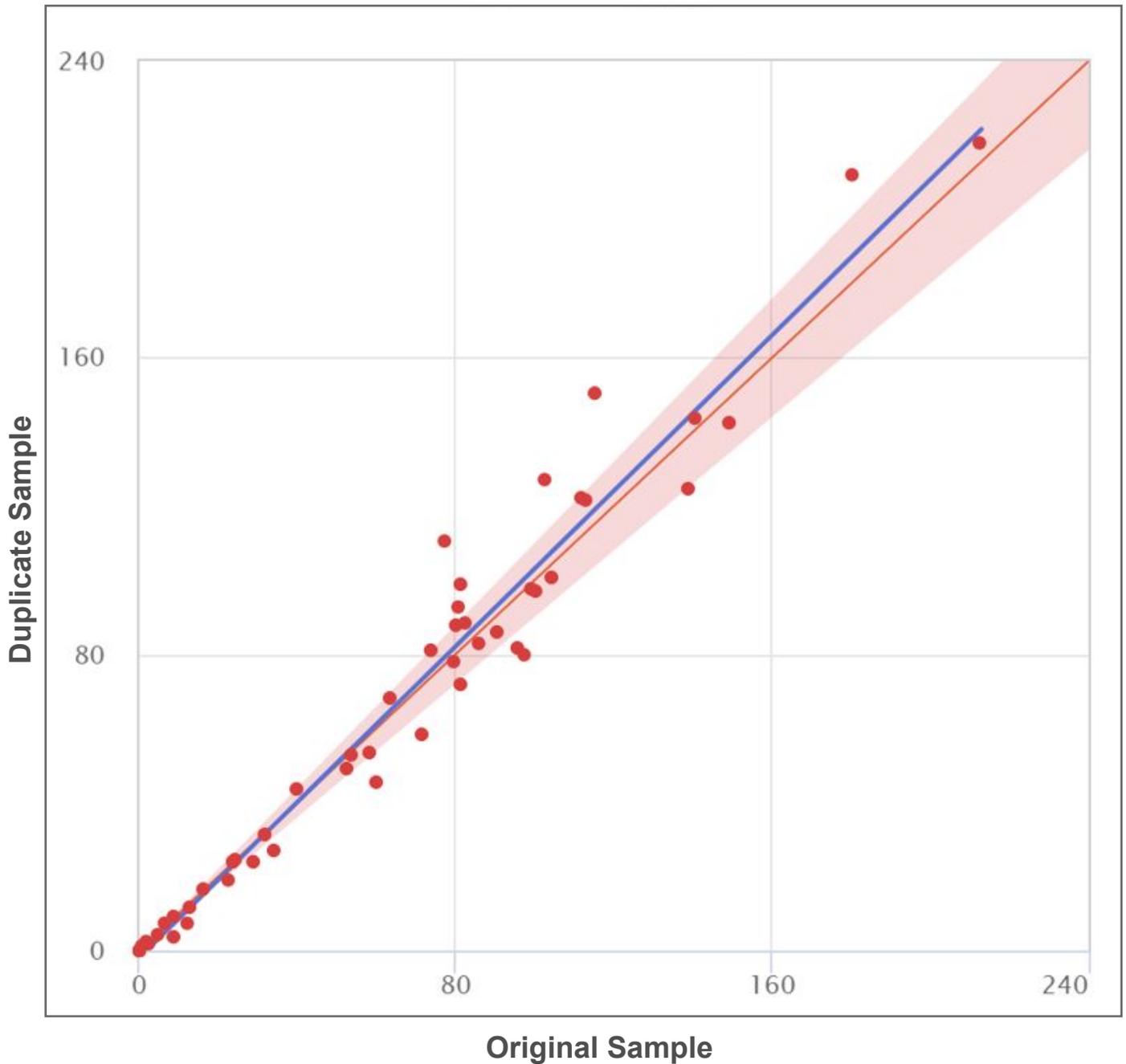
Pd Duplicate Results

Figure 11-7

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 24/01/04

Project Location: T19S R8E, Alaska, USA
Client: Alaska Energy Metals Corp. (AEMC)
Project: 182923706

Pt (ppb)



● Original vs Duplicate — 1:1 line — Regression line

 Tolerance Buffer 10 %

Notes

Pt Platinum
ppb parts per billion



TECHNICAL REPORT AEMC NIKOLAI PROJECT

Pt Duplicate Results

Figure 11-8

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 24/01/04

Project Location: T19S R8E, Alaska, USA
Client: Alaska Energy Metals Corp. (AEMC)
Project: 182923706

11.3.3 Standards

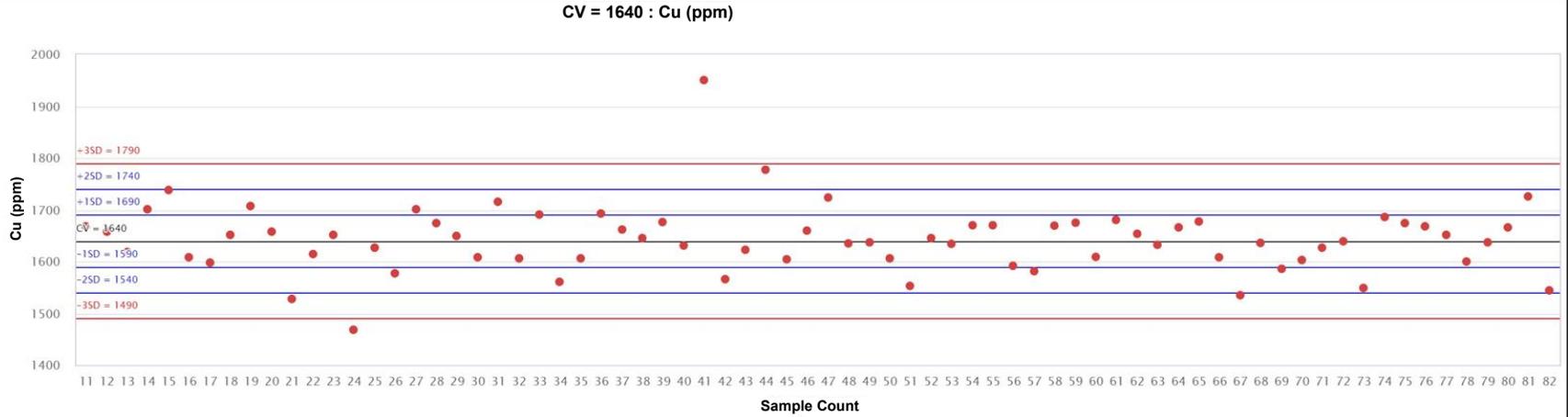
A total of 72 certified reference materials (CRMs) from CANMET Mining and Mineral Sciences Laboratory were used in the drill hole sample stream targeting “mineralized” zones from six (6) PNI-series resource drill holes. CANMET, a division of Natural Resources Canada, is a leading Canadian R&D organization with world-class expertise in a variety of areas related to minerals, metals and energy. The WPR-1 CRM was chosen to match similar deposit types to the Nikolai Nickel Project. Figure 11-9 contains the summary of CRM test result for Cu and Au. Out of the 72 total Cu samples, 67 passed, 3 had warnings and 1 failed. Out of the 72 total Au samples, 66 passed, 5 had warnings and 1 failed. Figure 11-10 contains the summary of CRM test result for Pd and Pt. Out of the 72 total Pd samples, all 72 passed. Out of the 72 total Pt samples, all 72 passed.

11.4 Sample Security

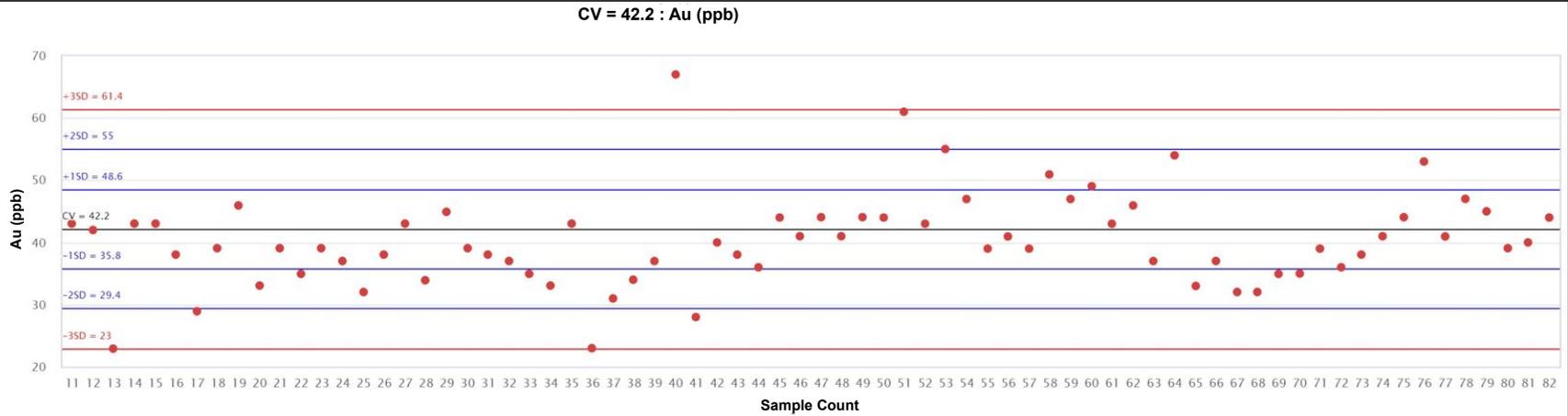
Drill core was flown by helicopter daily from drill sites to the Richardson Highway and then transported in secure wooden core boxes to AEMC’s controlled access core logging facilities in Delta Junction, Alaska. Detailed logging and sampling data was captured on computer tablets using MX Deposit software.



- Passed (67)
- Warning (3)
- Failed (2)



- Passed (66)
- Warning (5)
- Failed (1)



Notes

Au	Gold
CRM	Certified Reference Material
Cu	Copper
CV	Certified Value
ppb	parts per billion
ppm	parts per million
SD	Standard Deviation



TECHNICAL REPORT AEMC NIKOLAI PROJECT

**Cu and Au
CRM Test Results**

Figure 11-9

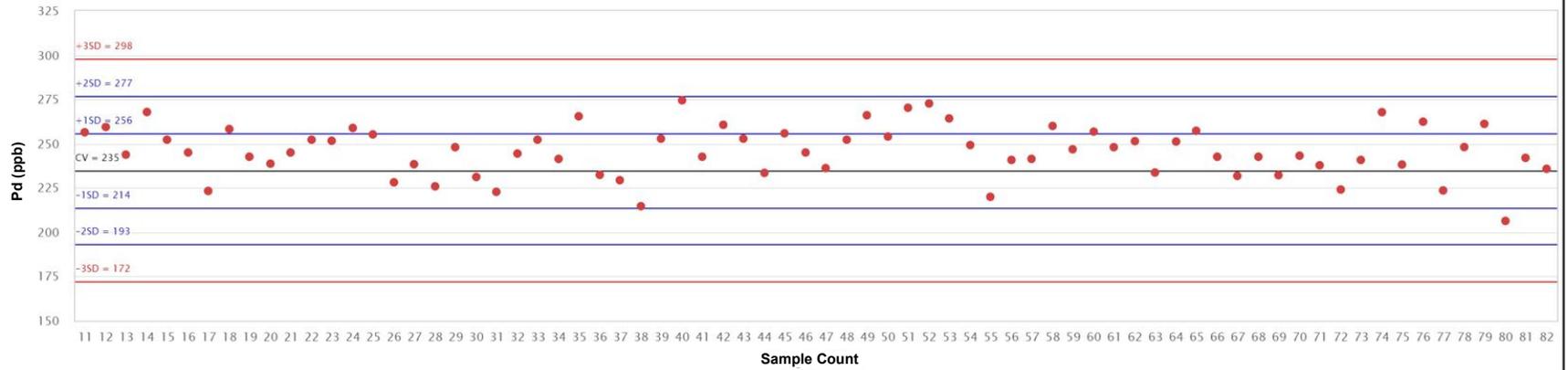
DRAWN BY: J.K.
CHK'D BY: D.K.
DATE: 24/ 01/ 04

Project Location: T19S R8E, Alaska, USA
Client: Alaska Energy Metals Corp. (AEMC)
Project: 182923706

72

Passed (72)

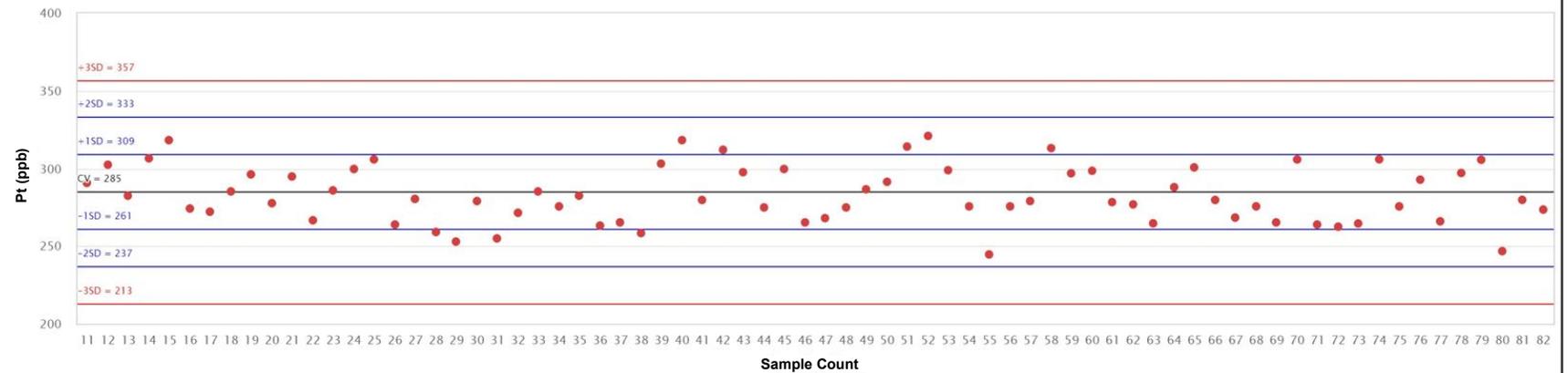
CV = 235 : Pd (ppb)



72

Passed (72)

CV = 285 : Pt (ppb)



Notes

- CRM Certified Reference Material
- CV Certified Value
- Pd Palladium
- ppb parts per billion
- Pt Platinum
- SD Standard Deviation



TECHNICAL REPORT AEMC NIKOLAI PROJECT

**Pd and Pt
CRM Test Results**

Figure 11-10

DRAWN BY: J.K.
CHK'D BY: D.K.
DATE: 24/ 01/ 04

Project Location: T19S R8E, Alaska, USA
Client: Alaska Energy Metals Corp. (AEMC)
Project: 182923706

12.0 DATA VERIFICATION

12.1 Alaska Energy Metals Data Verification

Alaska Energy Metals announced on 16 August 2023, that the company had closed a deal to purchase an exclusive database of historic information concerning the Nikolai Nickel Project in Alaska. The Company purchased the data from a private company, Alaska Critical Metals (“ACM”) for \$1,050,000 and 2,000,000 Alaska Energy Metals shares at a deemed price of \$0.50 per share. The shares have a statutory hold period until 21 February 2024, at which time up to 50% of the share can be sold. The remaining shares may not be sold until after 21 August 2024.

This data purchase was necessary as Alaska does not have an assessment file system where-by historic data can be accessed by current claim owners free of charge.

The database that was purchased for the Eureka property is comprehensive and includes the following items.

- Digital files in MapInfo (.tab), ArcGIS (.shp) and Excel (.xls) formats historic diamond drilling, Geochemistry, Geology, field mapping and topography.
- Additional digital files included within the database include DEM-LIDAR and Orthophotos of the Property and surrounding area.
- Raw geophysical data for Airborne and ground geophysical surveys completed over the years and includes data for Gravity, IP, MaxMin, MT, PEM, SQUID-MS, TEM, UTEM and Walking Mag. Geophysical reports by the contractors are also included.
- The reports directory is comprehensive and includes archeology, environmental, exploration, government, safety, satellite, and topography. The Exploration directory includes reports for the Anglo JV, Itochu JV (both JV’s with Nevada Star), Nevada Star, MAN and Pure Nickel.
- A Drill Hole Database including Assay certificates.

The purchased database is of extremely high quality and detail, therefore the QP is of the opinion that the historic data completed on the Property is more than acceptable for the purpose used in this technical report.

No data or core is stored on the property. Drill core during the 2023 summer program is transported via helicopter to the Richardson highway, loaded on a truck and transported to a processing facility in Delta Junction.

The digital database of Alaska Energy Metals, where all digital files for the property are stored, was also examined to ensure the exploration data is stored in an acceptable manner. A search of company new releases, financial statements and the Alaska State mining website has confirmed that no new material scientific or technical information regarding the property has been acquired since the effective date of this report and therefore, no material change has occurred on the property since the effective date of this report.

All information pertaining to Eureka Property was provided to the Qualified Person from a combination of inputs from the Vendor and its consultants. Mineral claim data for the property were obtained from the Mineral Titles On-line website, an internet website managed and maintained by the State of Alaska.

12.2 Stantec Laboratory and Project Site Inspection

Stantec representative Allan Schappert conducted a site inspection of AEMC's primary assay laboratory SGS Laboratories (SGS) and the Property area between 14 August through 18 August 2023.

12.2.1 SGS Assay Lab

Stantec visited SGS located in Vancouver Canada on 14 August 2023. SGS in Vancouver is an ISO certified facility that does the sample preparation, fire assays, and multi-element analysis for the ½ core samples provided by AEMC. Stantec were given a tour of SGS facilities from the loading bay where the samples are received through sample preparation and analysis. Figure 12-1 shows several photographs taken in the SGS facilities.

The Qualified Person (QP) is of the opinion that laboratory procedures witnessed during the site inspection appeared to emulate best practice. One noteworthy departure from standard practice in sample preparation was the application of zirconia puck and ring for pulverizing to avoid possible contamination of nickel and other element grades from standard steel pulverizers. This change in procedure was at the request of AEMC and the QP is in agreement with this precautionary measure.

12.2.2 AEMC Core Storage and Nikolai Nickel Project Area

After traveling from Vancouver, Canada to Delta Junction, Alaska, USA, Stantec inspected the AEMC's core storage and cutting facilities nearby Delta Junction and the Nikolai Nickel Project area located approximately 85 km due SSE of Delta Junction. At the core storage facilities, AEMC's drill cores samples were observed to be securely stored in solid wood core boxes that were protected from elements. Core was split using a diamond saw that was operating during the visit. Core logging was completed in the core shack with adequate lighting provided from fluorescence bulbs. Logging, sampling, and drilling progress was recorded on whiteboards at the entrance to the core shack. On the Property, Stantec was able to confirm that there was exploration in progress by AEMC. Active drilling was observed at drill hole EZ-23-005 and recently completed EZ-23-001 drill site was confirmed in the field. Remaining surface drill casing marking the locations of historic holes FL-003 and FL-006 were also observed. Figure 12-2 shows photographs taken from the AEMC's core storage facilities and Nikolai Nickel Project area.

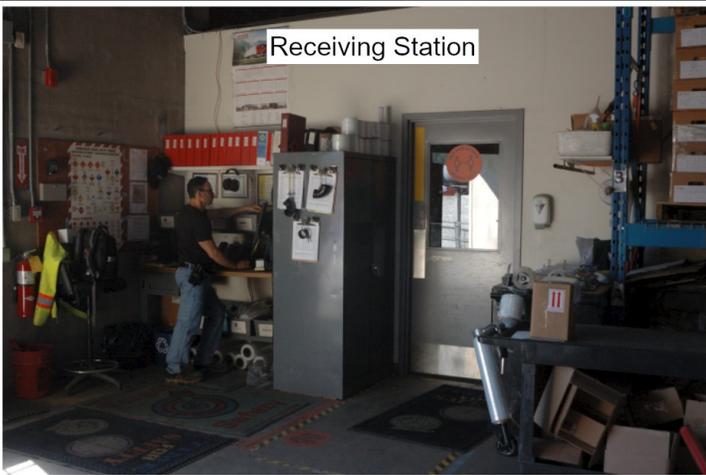
The Qualified Person is satisfied that the exploration field operating procedures observed by Stantec were industry standard and that there was clear evidence of historic and current exploration activity on the Property.

12.3 Historic Core at Geologic Materials Center

On 11 September 2023, Stantec representatives Allen Schappert and Johnny Marke visited the Geologic Materials Center (GMC) located in Anchorage, Alaska. The purpose of the GMC visit was to observe historic core samples from the PNI and FL series holes that were stored at the GMC. Core was observed to be in good condition and properly stored. Core recovery was generally complete with only occasional missing intervals. Sawn half-core was generally available for the length of observed holes. Randomly chosen assay intervals from the database were compared visually to the sawn half-core interval, and it was observed that mineralized zones in the database corresponded to visible sulfide mineralization. Lithologic changes in the core were compared to AEMC's modeled lithologic boundaries and showed general agreement.

12.4 Data Validation Limitations

The Author and Qualified Person (QP) did not complete a personal inspection of the SGS laboratory, AEMC and GMC core storage facilities and the Nikolai Nickel Project area. Instead, the QP has relied on the observations of Stantec geologists Allan Schappert and Johnny Marke who at the time of the inspections were supervised by the QP.



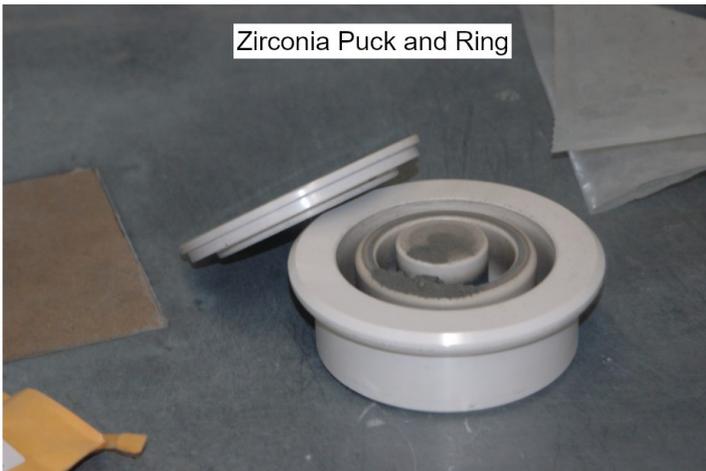
Receiving Station



Received Samples



Pulverizing Station



Zirconia Puck and Ring



Crucibles

C:\Data\Nik\data\Area\Frog\Fig_12-1_Nik_Field1_Dec20_2023.aprx



TECHNICAL REPORT NIKOLAI PROJECT MRE
**SGS Laboratory Inspection
Photographs**

Figure 12-1

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 12/ 21

Project Location: T19S R8E, Alaska, USA
Client: Alaska Energy Metals Corp.
Project: 182923706



Stacked Core



AEMC Hole
EZ-23-001 Location



Cutting Core



Drilling Hole EZ-23-005



Historic Hole FL-003



Core Logging and Photography Setup

C:\Data\Nik\data\ArcPro\Fig_12-2_Nik_Field2_Dec20_2023.aprx



TECHNICAL REPORT NIKOLAI PROJECT MRE

AEMC Core Storage and Project Area Photographs

Figure 12-2

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 23/ 12/ 21

Project Location: T19S R8E, Alaska, USA
Client: Alaska Energy Metals Corp.
Project: 182923706

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

The Mineral Resource contains desirable nickel sulfide mineralization consisting of thick, layered horizons of nickel and copper sulfides, which are enriched in cobalt, platinum, palladium, and gold. Preliminary department assessments for the EZ2 mineralization have been completed by Pure Nickel Inc. in 2014 (press release dated 22 April 2014) and Millrock Resources in 2022 (press release dated 29 September 2022). Results from these two assessments, shown in Table 13.1, indicate that an average of 83.4% of the total nickel is in potentially recoverable phases of Ni-sulfides and Ni-Fe alloys. Millrock Resources also analyzed copper department, with an average of 74% of the total copper in potentially recoverable phases of Cu-sulfides and Cu-oxides. Additional department studies, grindability and flotation studies are on-going with core samples from the 2023 step-out drill program. Results from on-going studies will be released when completed.

Table 13.1: Summary of Ni-Cu Department work complete on the Nikolai Nickel Project.

	PNI Composite (PNI-12-063)	Millrock Composite 1 (FL-003)	Millrock Composite 2 (FL-003)
% Ni	0.28	0.25	0.23
% Ni in sulfides and alloys	75.3	94.3	80.8
% Ni in silicates	20	5.1	18.9
% Cu	0.12	0.16	0.07
% Cu in sulfides and oxides	NA	72.4	75.5
% Sulfur	0.77	1.32	0.49
Notes: Pure Nickel department study focused on Ni and Fe sulfides, with no results for Cu sulfides and oxides			

14.0 MINERAL RESOURCE ESTIMATES

14.1 Approach

In accordance with the requirements of NI 43-101 and the Canadian Institute of Mining, Metallurgy and Petroleum Definition Standards, Stantec validated the drill hole and sample data set and created a geologic model for the purposes of generating nickel, copper, cobalt, platinum, palladium, and gold resource estimates from the mineralized ultramafic intrusive bodies within the Nikolai Nickel Project. The geologic model described in the following section was used as the basis for estimating mineral resources for the Nikolai Nickel Project.

14.2 Basis for Resource Estimation

NI 43-101 specifies that the definitions of the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Guidelines be used for the identification of resources. The CIM Resource and Reserve Definition Committee have produced the following statements which are restated here in the format originally provided in the CIM Reserve Resource Definition document: “Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated, and Measured categories. An Inferred Mineral Resource has a lower level of confidence than that applied to an Indicated Mineral Resource. An Indicated Mineral Resource has a higher level of confidence than an Inferred Mineral Resource but has a lower level of confidence than a Measured Mineral Resource.”

The Definition of Resources is as follows: “A Mineral Resource is a concentration or occurrence of material of economic interest in or on the Earth’s crust in such form, quality, and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, continuity, and other geological characteristics of a Mineral Resource are known, estimated, or interpreted from specific geological evidence and knowledge, including sampling.” “Material of economic interest refers to diamonds, natural inorganic material, or natural fossilized organic material including base and precious metals, coal, and industrial minerals.” The Nikolai Project deposit type mineralization under the industrial, base and precious minerals’ category. The committee went on to state that: “The term Mineral Resource covers mineralization and natural material of intrinsic economic interest which has been identified and estimated through exploration and sampling and within which Mineral Reserves may subsequently be defined by the consideration and application of technical, economic, legal, environmental, social, and governmental factors.

14.3 Socioeconomic and Government Factors

The phrase ‘reasonable prospects for eventual economic extraction’ implies a judgment by the Qualified Person in respect of the technical and economic factors likely to influence the prospect of economic extraction.

14.4 Data Sources

The resource estimation described within this report utilized the following data and information provided by Alaska Energy Metals:

- Surface topography digital terrain model (DTM); Digital terrain model was access from the Alaska Division of Geological and Geophysical Surveys Elevation Portal (<https://elevation.alaska.gov/>);
- 2,673 core samples from eight (8) holes (6 PNI and 2 FL series holes);
- 3D geologic model lithology and mineralized zone wireframes generated from 37 drill holes; and
- 684 specific gravity samples (tonne/m³).

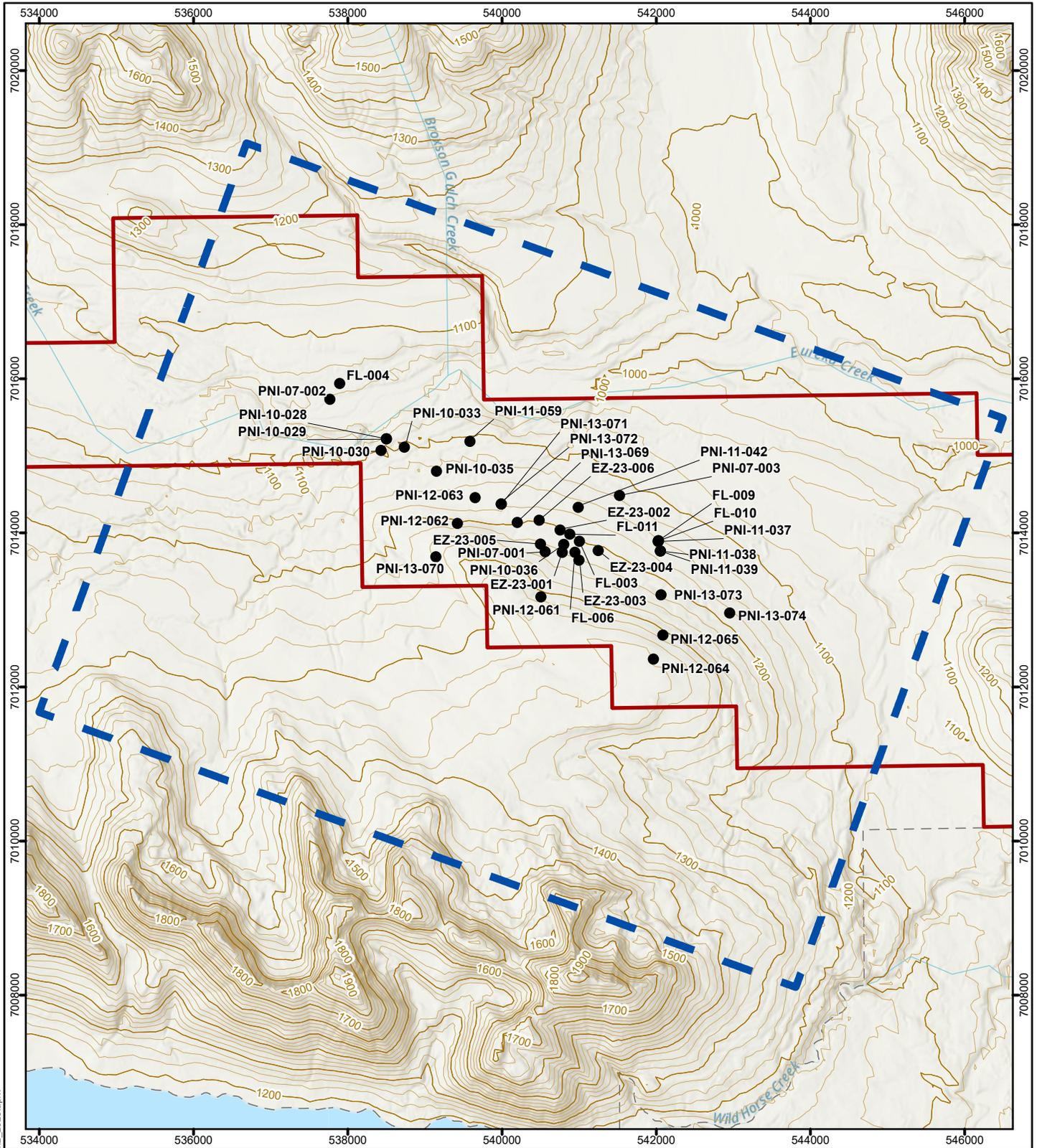
There were 8 historic (pre-2023) holes out of 37 total drill holes were used for resource model grade estimation. The drill holes not used for grade estimation consisted of 23 historic holes and 6 AEMC holes completed in 2023 that have assays pending. In total 37 drill holes were used by Alaska Energy Metals to generate the 3D geologic lithology and mineralized zone wireframes. Details of applied drilling and sampling methods are explained in Sections 10 and 11 of this report. The provided data was deemed accurate for the purposes of estimating resources on the Property.

14.5 Model

The geologic model used for reporting of mineral resources is a 3D block model that was developed using Hexagon Mining's geological modelling and mine planning software, MinePlan version 16.0.4 (MinePlan). The block model was developed using NAD 1983 UTM Zone 6N and is in metric units. The model limits and block size are outlined in Table 14.1, Block Model Parameters, and the plan view extent of the block model is shown on Figure 14-1, Surface Topography and Model Limits Map. The block model was rotated by 20° towards the east to align the X-axis along general strike of the mineralized zones at 110°.

Table 14.1: Block Model Parameters

Coordinate	Minimum (m)	Maximum (m)	Range (m)	Block (m)	Rotation Origin (m)
Easting	533,976	546,519	10,480	40	533,976
Northing	7,008,085	7,019,075	7,880	20	7,011,670
Elevation	250	1,750	1,750	5	250

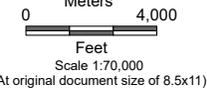
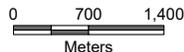


Legend

- Drill Holes
- Model Extent
- Topographic Contour 100 meters
- Topographic Contour 25 meters
- AEMC Eureka Claims Boundary

Notes

1. Coordinate System: NAD 1983 UTM Zone 6N; Units: Meter
2. Data Source: World Topographic Map: State of Alaska, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, World Hillshade: Esri, USGS



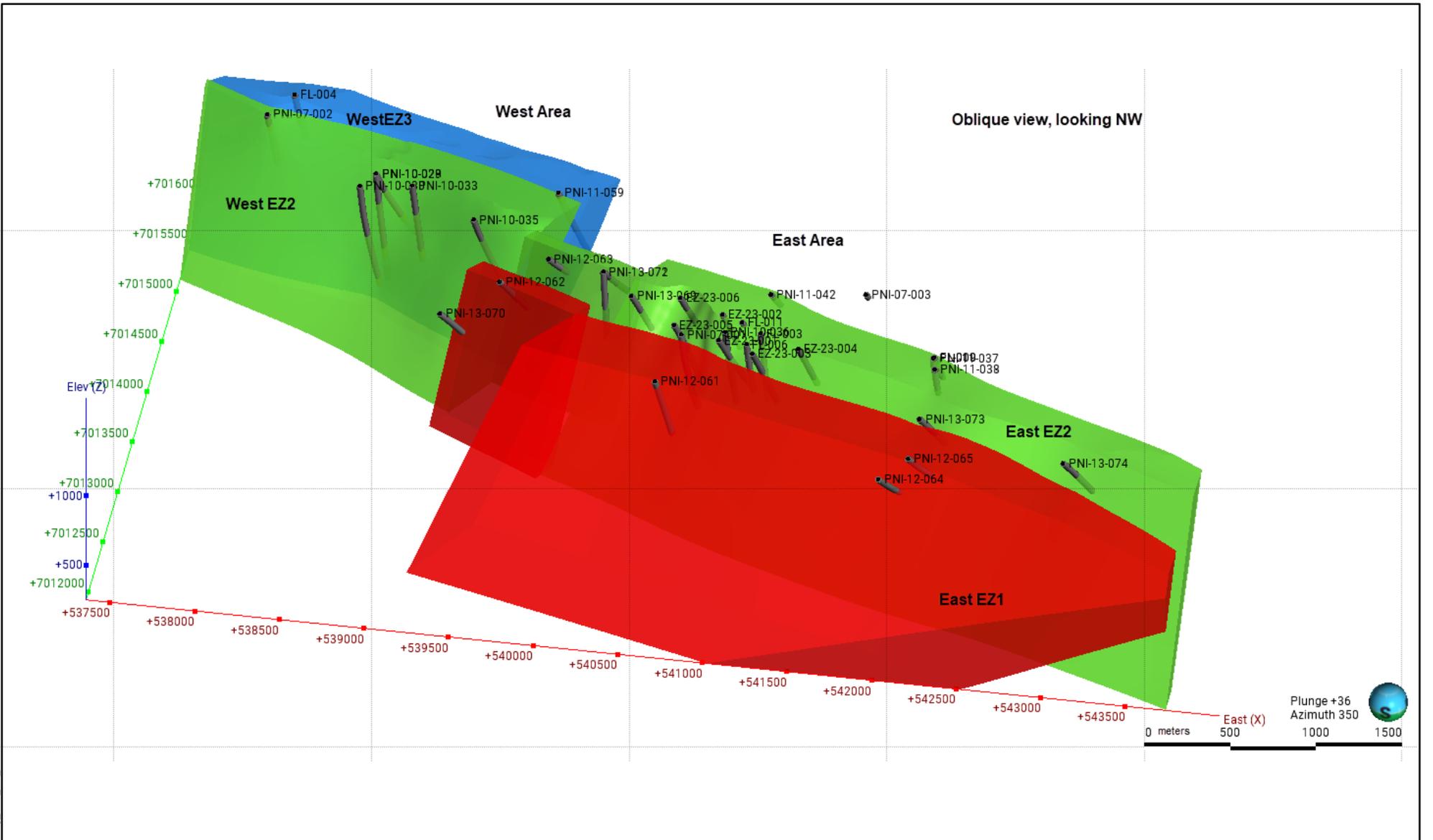
TECHNICAL REPORT AEMC NIKOLAI PROJECT
**Model Drill Holes, Model Limits
and Surface Topography Map**

Figure 14-1

DRAWN BY: J.K.
CHK'D BY: D.L.
DATE: 24/01/04

Project Location: T19S R8E, Alaska, USA
Client: Alaska Energy Metals Corp. (AEMC)
Project: 182923706

The block model captures three mineralized ultramafic intrusive bodies (zones) that dip between 45° to 50° towards the southwest. The three zones are named Eureka Zone 1, 2, and 3 from south to north across the deposit, respectively. The three mineralization zones are further divided into west and east areas separated by interpreted faulting as shown in Figure 14-2. Resource modeling method and approach is the development of a standard block model with interpretation of geologic controls on mineralization based on exploration data.



- Legend**
- Model Zones
- EZ1 Eureka Zone 1
 - EZ2 Eureka Zone 2
 - EZ3 Eureka Zone 3

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TECHNICAL REPORT AEMC NIKOLAI PROJECT

**All Drill Holes
and Model Zones**

Figure 14-2

DRAWN BY: J.K. CHK'D BY: D.K. DATE: 24/ 01/ 04	Project Location: T19S R8E, Alaska, USA Client: Alaska Energy Metals Corp. (AEMC) Project: 182923706
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14.5.1 Model Inputs

Inputs used in the construction of the geologic model and resource estimation include the following items.

- Surface topography;
- 2,673 core samples from eight (8) hole sample data;
- 3D geologic model lithology and mineralized zone wireframes;
- 684 specific gravity samples (tonne/m³).

14.5.2 Surface Topography

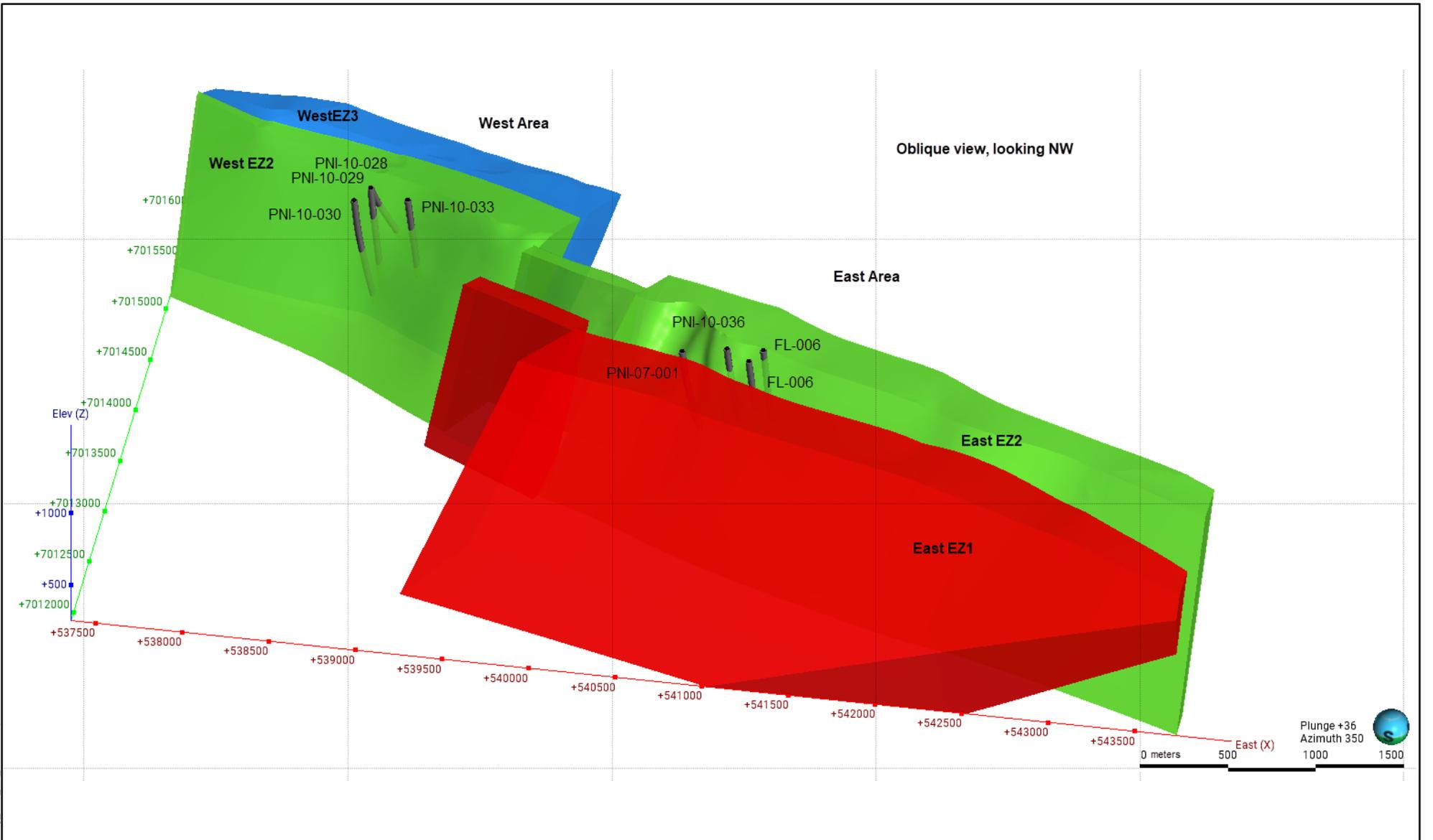
A digital terrain model (DTM) was developed by AEMC from data accessible on the Alaska Division of Geological and Geophysical Surveys Elevation Portal (<https://elevation.alaska.gov/>) and provided to Stantec for use in development of the resource estimation. The DTM was reviewed in MinePlan for accuracy and was deemed by the Author to be valid for use in developing the resource estimation model.

14.5.3 Structural Features

The Eureka ultramafic / mafic Complex is bounded to the north by a thrust fault tending NW-SE, which sets the Triassic intrusive suite against the Permian basement rocks. Locally, within the ultramafic complex, surficial mapped faults indicate an antithetic structural NE-SW orientation that separate parts of the intrusive complex. Based on interpretation to date, none of these NE-SW faults are district bounding faults, but slightly offset the intrusive complex, likely both vertically and horizontally. Based on the current drill density available for interpretation, the East and West mineralized zones are structurally separated by these NE-SW fault structures. Structural evaluation of the deposit is ongoing.

14.5.4 Model Zones

The resource estimation model is separated into three mineralized zones named Eureka Zone 1, 2, and 3 (EZ1, EZ2, and EZ3) from south to north across the deposit, respectively. The mineralized zones are further separated into east and west areas based on digitized area solids that split the model area approximately in half, as shown in Figure 14-2. The eight core holes used for generating the resource estimation only penetrate EZ2 and EZ3, as show in in Figure 14-3, Resource Drill Holes and Model Zones. EZ2 is modeled across the entire strike length of the deposit, and EZ3 is only modeled in the west area of the deposit. Table 14.2, Model Zone Orientations, shows the approximate dip and dip directions for EZ2 and EZ3 broken out by east and west areas, which was used for the anisotropic search during estimation.



- Legend**
- Model Zones
- EZ1 Eureka Zone 1
 - EZ2 Eureka Zone 2
 - EZ3 Eureka Zone 3

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TECHNICAL REPORT AEMC NIKOLAI PROJECT

**Resource Drill Holes
and Model Zones**

Figure 14-3

DRAWN BY: J.K. CHK'D BY: D.K. DATE: 24/ 01/ 04	Project Location: T19S R8E, Alaska, USA Client: Alaska Energy Metals Corp. (AEMC) Project: 182923706
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Table 14.2: Model Zone Orientations

Area	Mineralized Zone	Dip Direction (°)	Dip (°)
East	EZ2	200	45
West	EZ2	200	50
	EZ3	200	50

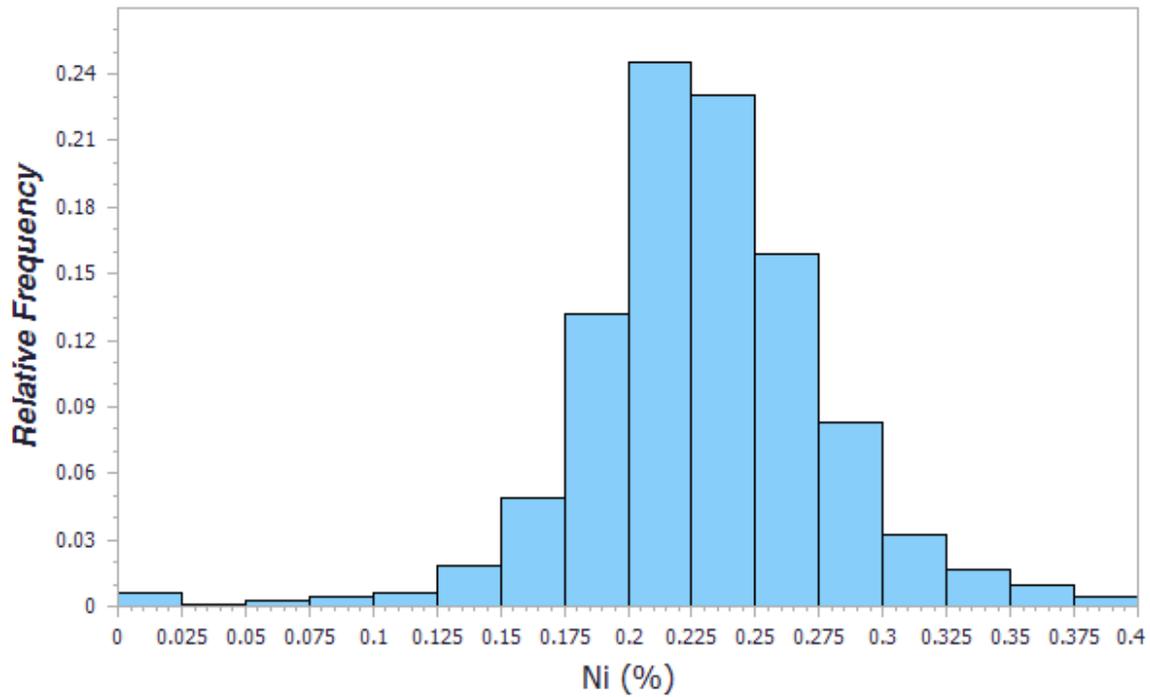
14.5.5 Metal Grade Statistics within the Mineralized Zone

Prior to estimation, drill hole samples were composited at regular 1.5 m intervals given that the majority (91%) of the drill hole samples assessed were derived from 1.0 m to 3.0 m interval drill core samples. Statistics on the number of 1.5 m composites for the eight resource holes for Ni, Cu, Co, Au, Ag, Pt, Pd, Cr, and Fe concentrations within EZ2 and EZ3 are shown in Table 14.3, Composite and Capping Metal Grades from Resource Drill Holes. Frequency distribution chart (histogram) generated from the regular 1.5 m composites for Ni are shown in Figure 14-4, Ni Grade Distribution, for EZ2 and EZ3. Metal grade outliers for Au and Ag were capped as shown in Table 14.3 following observation of grade frequency distribution.

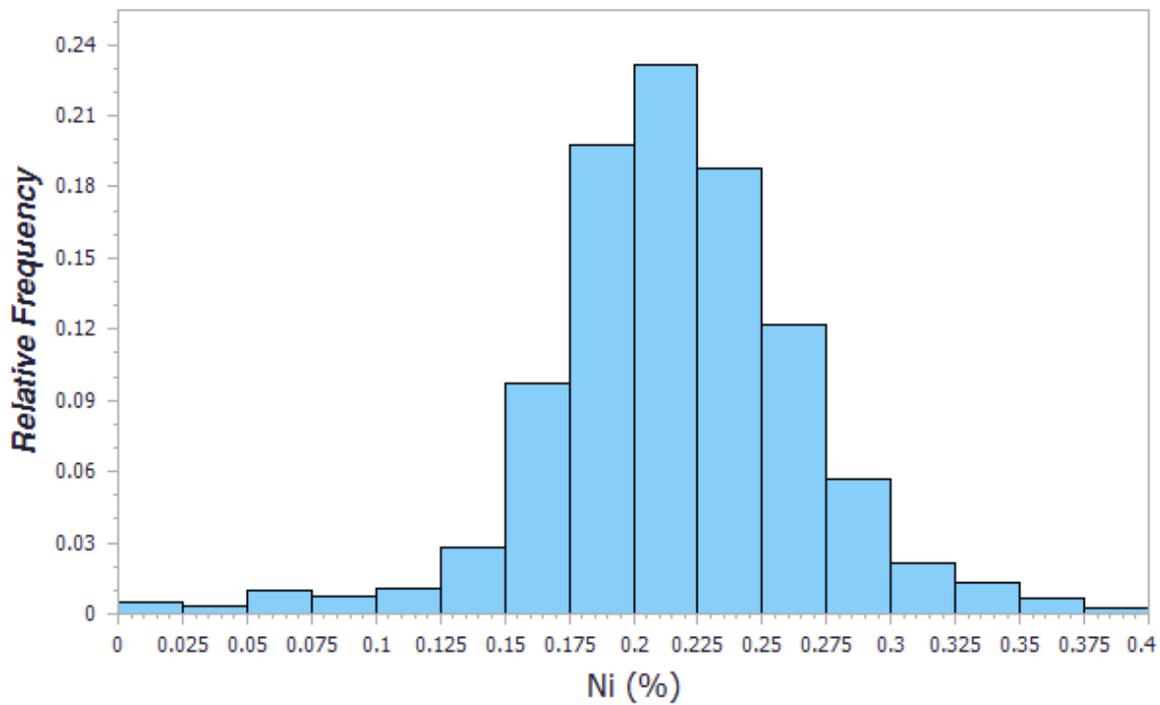
Table 14.3: Composite and Capping Metal Grades from Resource Drill Holes

Area	Zone	Composite	Count	Min	Max	Capping	Average
East	EZ2	Ni (%)	840	0.01	0.44	NA	0.23
		Cu (%)	840	0.01	0.35	NA	0.08
		Co (ppm)	840	40.00	289.24	NA	176.05
		Pt (ppb)	840	7.33	233.97	NA	49.45
		Pd (ppb)	840	10.00	303.57	NA	109.14
		Au (ppb)	840	0.50	104.33	55.0	11.92
		Ag (ppm)	764	0.00	16.70	1.5	0.34
		Cr (ppm)	840	81.33	3,945.66	NA	1,584.93
		Fe (%)	281	5.50	15.51	NA	9.56
West	EZ2	Ni (%)	845	0.02	0.36	NA	0.20
		Cu (%)	845	0.00	0.25	NA	0.05
		Co (ppm)	845	41.51	269.20	NA	162.37
		Pt (ppb)	845	0.30	106.17	NA	38.05
		Pd (ppb)	845	0.25	166.70	NA	68.74
		Au (ppb)	845	0.50	1,348.00	55.0	11.82
		Ag (ppm)	845	0.05	1.60	1.5	0.39
		Cr (ppm)	845	212.00	5,309.00	NA	2,076.25
		Fe (%)	845	3.95	14.23	NA	9.69
	EZ3	Ni (%)	262	0.02	0.52	NA	0.23
		Cu (%)	262	0.00	0.13	NA	0.02
		Co (ppm)	262	57.62	202.63	NA	151.93
		Pt (ppb)	262	0.05	124.72	NA	38.36
		Pd (ppb)	262	0.25	79.80	NA	26.00
		Au (ppb)	262	0.50	51.00	30.0	4.63
		Ag (ppm)	262	0.05	0.70	NA	0.26
		Cr (ppm)	262	293.13	4,061.33	NA	2,981.70
		Fe (%)	262	7.36	11.59	NA	9.24

Ni (%) in EZ2



Ni (%) in EZ3



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**Nickel (Ni)
Histogram**

Figure 14-4

DRAWN BY: J.K.
CHK'D BY: D.K.
DATE: 2024/ Jan/ 04

Project Location: T19S R8E, Alaska, USA
Client: Alaska Energy Metals Corp. (AEMC)
Project: 182923706

14.5.6 Density

In situ densities were determined based on statistical review of 684 specific gravity (SG) samples provided by AEMC. SG samples were composited on regular 1.5 m intervals resulting in an average density for the mineralized zones of 2.8 tonne/m³. A fixed density of 2.8 tonne/m³ was assigned for both mineralized and waste rock.

14.5.7 Comparable Projects

Similar nickel exploration projects were reviewed to determine a reasonable search distance for estimation based on drill hole spacing. The comparable projects are listed in Table 14.4, Comparable Project Drill Hole Spacing.

Table 14.4: Comparable Project Drill Hole Spacing

Company	Project	Commodity	Measured	Indicated	Inferred
Nickel Creek Platinum Corp.	Nickel Shaw Ni-Cu-PGE Project (Wellgreen)	Ni, Cu, Co, PGE	145	240	380
EV Nickel	CarLang Nickel Property	Ni, Co, Fe	NA	100	300
Poly Met Mining	NorthMet Copper-Nickel Project	Ni, Cu, PGE	91	183	274
Weda Bay Mineral Inc	Weda Bay	Ni, Co	NA	200	400
Geovic Mining Corp	Nkamouna Cobalt-Nickel-Manganese Project	Co, Ni, Mn	100	200	300
		Average	112	185	331

14.5.8 Nickel Equivalent Grade Calculations

Mineral sample assays have been validated in eight (8) of the 37 drillholes, and assay data from these holes has been used to estimate grades for nickel (Ni), copper (Cu), cobalt (Co), platinum (Pt), palladium (Pd), gold (Au), silver (Ag), iron (Fe) and chromium (Cr). All metals, excluding Ag, Fe and Cr, have been used to calculate an in-situ Ni equivalent grade (NiEQ) based on average (24 month) market prices. A recovered Ni equivalent grade (NiEQR) was also calculated by factoring in a 60% recovery for Ni and a 50% recovery for all other metals. NiEQ was used for reporting the in-situ metal tonnes and grades, and NiEQR was used for calculating block revenue. The calculation for NiEQ is shown in Equation 14-1 and the calculation for NiEQR is shown in Equation 14-2.

Equation 14-1 NiEQ Calculation

$$NiEQ = Ni/1 + Cu/2.7309 + Co/0.5321 + Pt/0.0008 + Pd/0.0004 + Au/0.0004$$

Equation 14-2 NiEQR Calculation

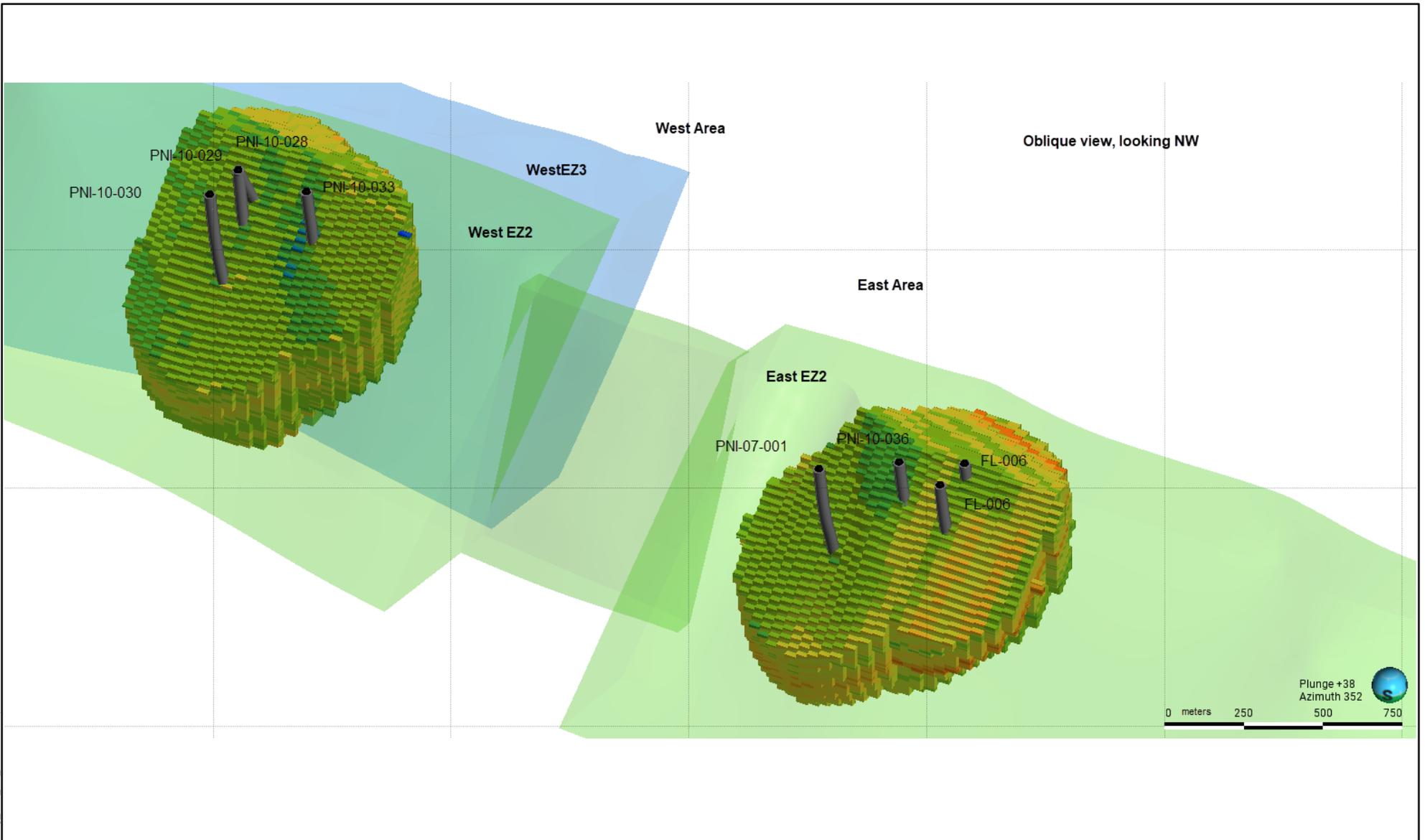
$$NiEQR = 0.6(Ni/1) + 0.5(Cu/2.7309) + 0.5(Co/0.5321) + 0.5(Pt/0.0008) + 0.5(Pd/0.0004) + 0.5(Au/0.0004)$$

14.5.9 Model Build

The procedures followed in building the resource model are outlined in the following items.

- Topography was coded as a block percent using the provided wireframe;
- The three mineralized zone solids (EZ1, EZ2, and EZ3) were coded into blocks as a zone item;
- The model was divided into east and west areas by digitizing a solid for each side, splitting the model approximately in half;
- Regular 1.5 m composites from within the mineralized zone were estimated into mineralized zone blocks using an inverse distance squared (IDW²) algorithm and anisotropic search;
- The anisotropic search modeled the dip and dip direction of the EZ2 and EZ3 zones as shown in Table 14.2;
- The maximum range for metal grade estimates for resource determination was set at 350 m based on drillhole spacing studies of other comparable projects as shown in Table 14.4;
- Prior to estimation Au and Ag grade outliers were capped as shown in Table 14.3.
- Maximum number of samples for block estimates was set to the nearest 12 samples with a maximum of 12 samples per hole to simulate the grade trends as observed from drill hole records.
- Model grade estimates were validated against input drill hole grades using cross-sections and swath plots through the block model.
- A nickel equivalent grade (NiEQ) and a nickel equivalent recovered grade (NiQRP) was calculated from the estimated metal grades and stored in the blocks.

Figure 14-5, Resource Block Model, shows an oblique view of the estimated resource block model. Figure 14-6, and Figure 14-7, display cross sections through the mineralized zones (EZ1, EZ2, and EZ3), resource block model, and economic pit shell. The economic pit shell is discussed in Section 14.7.



Legend

Model Zones

- E22 Eureka Zone 2
- E23 Eureka Zone 3

- Ni (%)**
- ≤ 0.1
 - ≤ 0.1
 - ≤ 0.2
 - ≤ 0.2
 - ≤ 0.3
 - ≤ 0.3
 - ≤ 0.4
 - > 0.4

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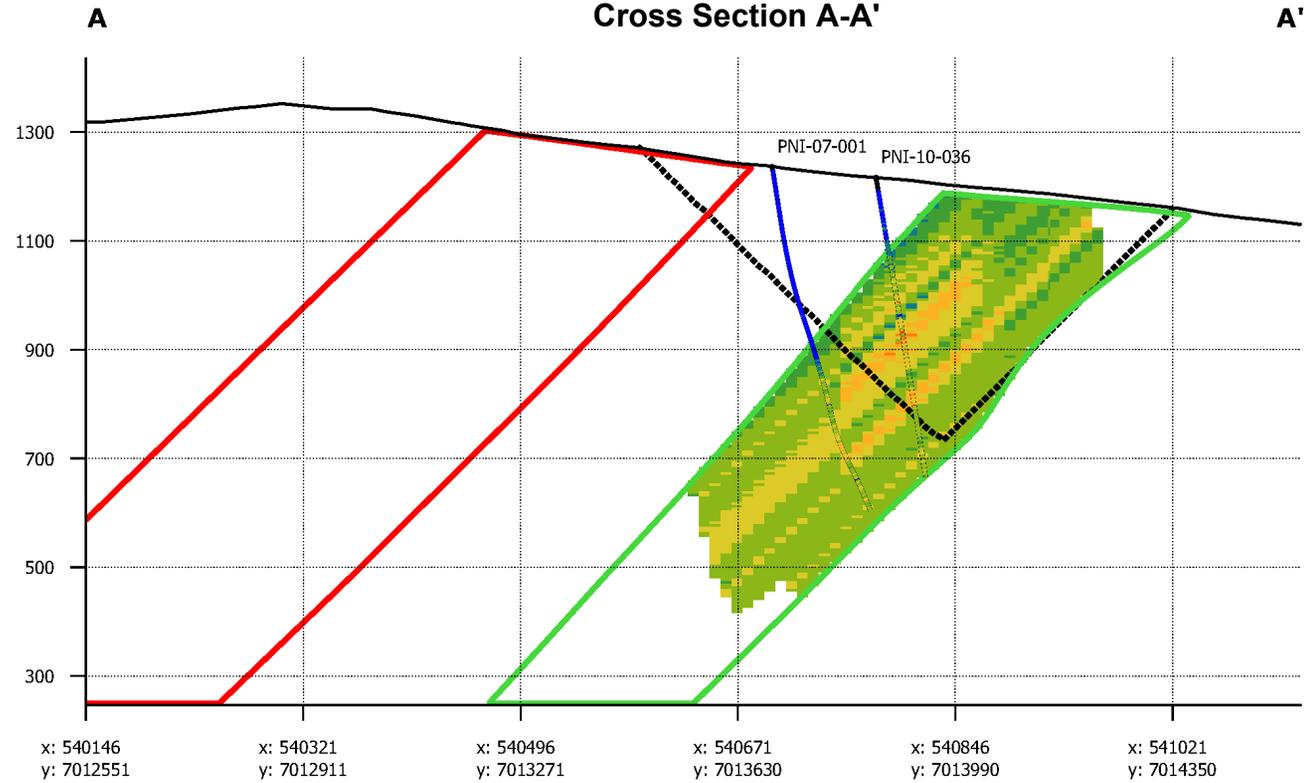
Resource Block Model

Figure 14-5

DRAWN BY: J.K. CHK'D BY: D.K. DATE: 24/ 01/ 04	Project Location: T19S R8E, Alaska, USA Client: Alaska Energy Metals Corp. (AEMC) Project: 182923706
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Cross Section A-A'



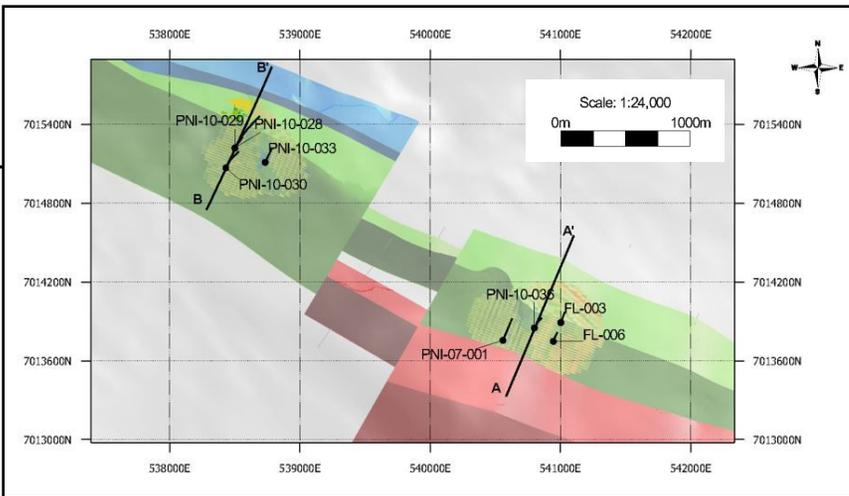
Ni (%)
■ ≤ 0.1 ■ ≤ 0.1 ■ ≤ 0.2 ■ ≤ 0.2 ■ ≤ 0.3 ■ ≤ 0.3 ■ ≤ 0.4 ■ > 0.4

Scale: 1:9,500
 Vertical exaggeration: 1x

Surfaces
 Pit Shell — EZ1 — EZ2 — Topography



Cross Section Location Map



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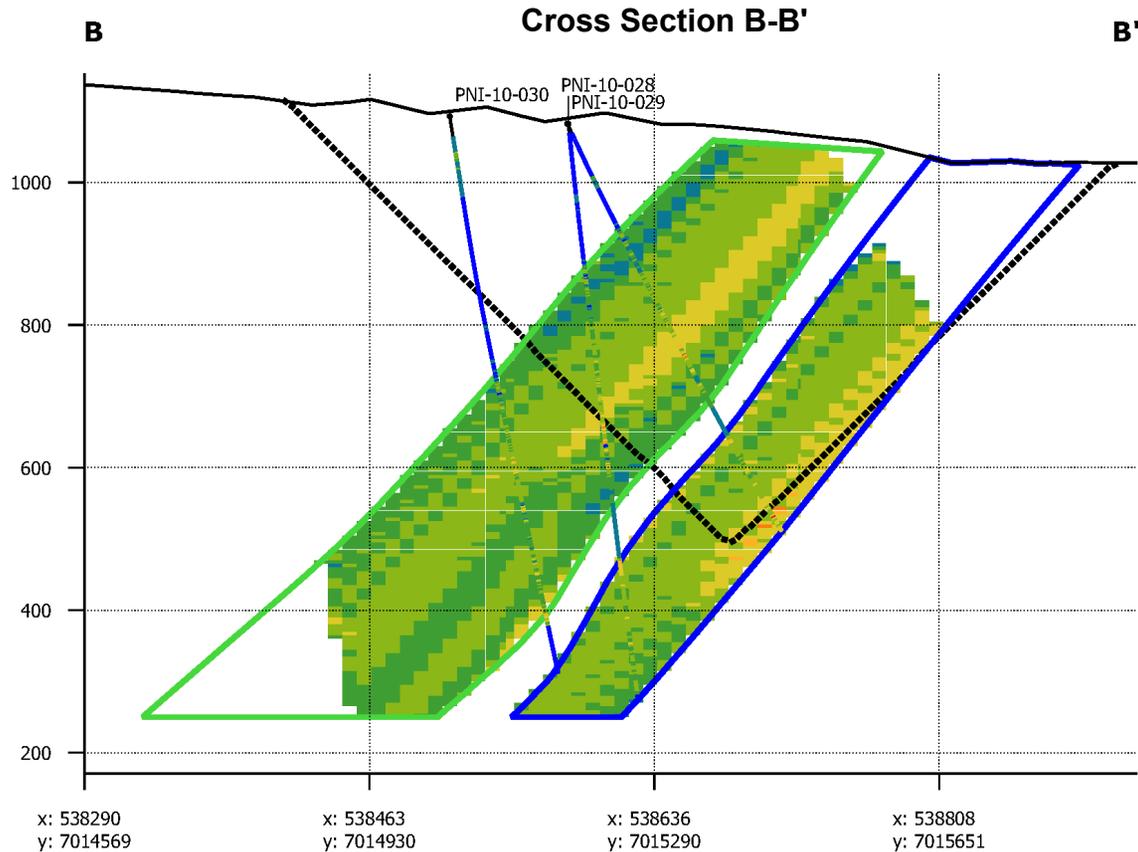
Resource Block Model Cross Section A-A'

Figure 14-6

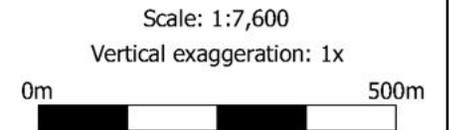
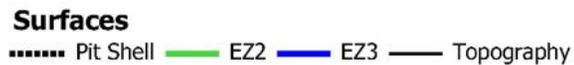
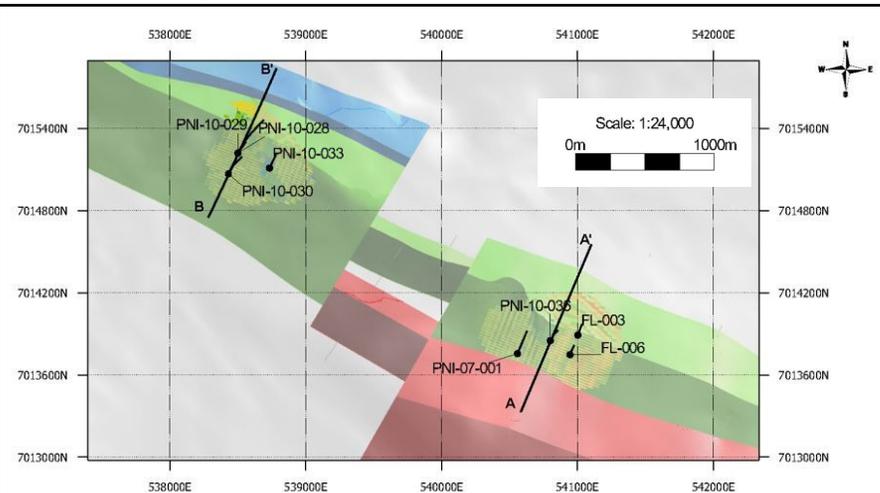
DRAWN BY: J.K.
 CHK'D BY: D.K.
 DATE: 24/ 01/ 04

Project Location: T19S R8E, Alaska, USA
 Client: Alaska Energy Metals Corp. (AEMC)
 Project: 182923706

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Cross Section Location Map



TECHNICAL REPORT AEMC NIKOLAI PROJECT

Resource Block Model Cross Section B-B'

Figure 14-7

DRAWN BY: J.K.
CHK'D BY: D.K.
DATE: 24/ 01/ 04

Project Location: T19S R8E, Alaska, USA
Client: Alaska Energy Metals Corp. (AEMC)
Project: 182923706

14.6 Assessment of Reasonable Prospects for Economic Extraction

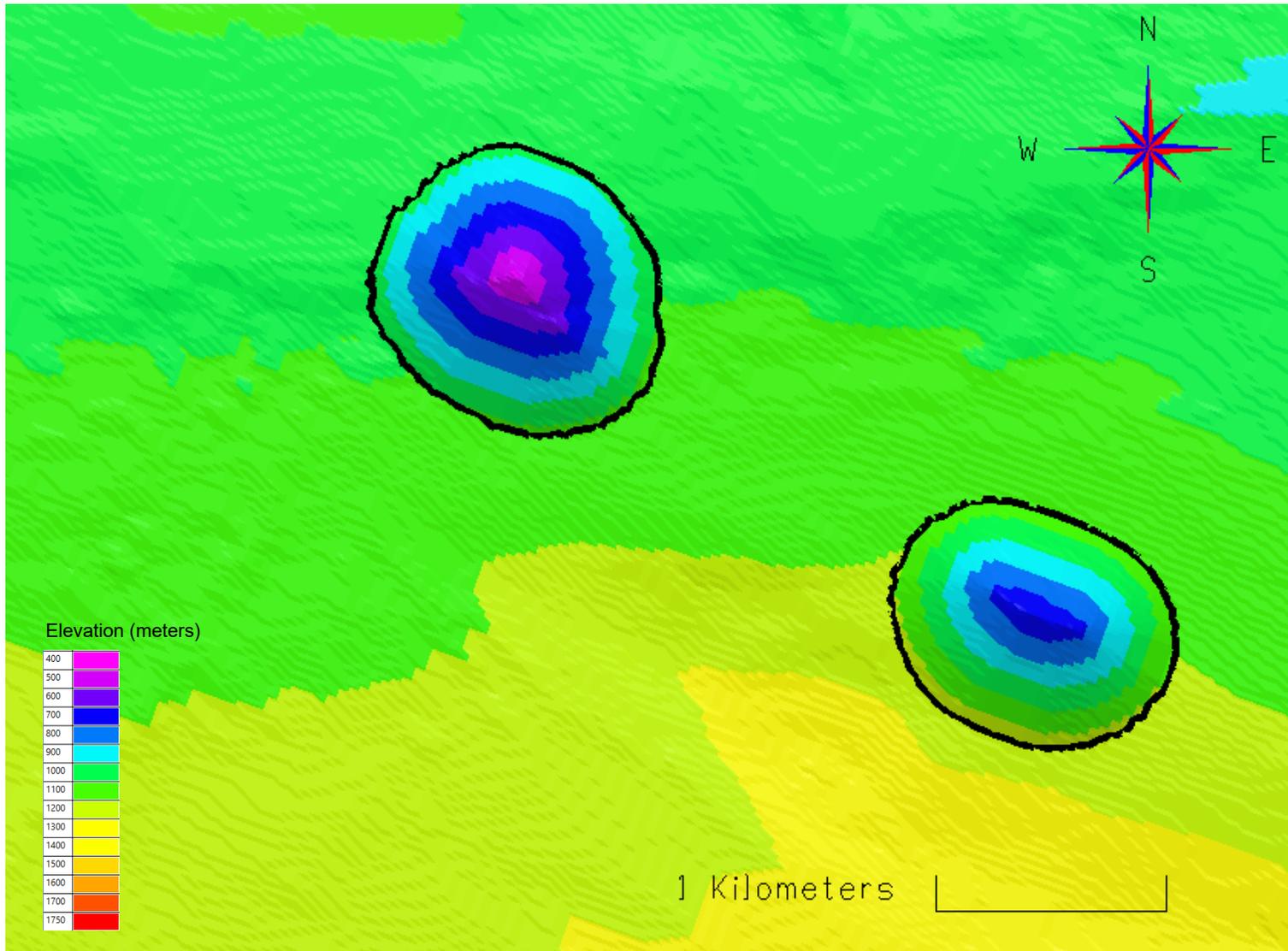
Resources are reported from within an economic pit shell at 45° constant slope using Hexagon Mining's Pseudoflow algorithm. No underground mining is considered. The following mining and processing costs (US\$); and recovery (%) assumptions, were used to derive a base case cut-off grade for in-situ NiEQ:

- Mining costs US\$2.5/tonne;
- Processing costs US\$25/tonne;
- Processing recovery of 60% for Ni and 50% for Cu, Co, Pt, Pd, and Au.

Using these inputs, a base case cut-off grade for NiEQ of 0.2% has been applied to the mineral resource.

14.7 Mineral Resource Estimates

NiEQ, Ni, Cu, Co, Pt, Pd, and Au resources are contained within the EZ2 and EZ3 mineralized zones. The mineral resources are considered inferred resource due to the number of drill holes used and current drill hole spacing. The inferred resource has been estimated out to 350 m from the nearest sample. The mineral resource estimates are presented in Table 14.5. The resource estimates are contained within an economic pit shell at constant 45° pit slope. The crest of the pit shell and pit shell elevation is shown on Figure 14-8, Economic Pit Shell. NiEQ, Ni, Cu, Co, Pt, Pd, and Au resources are presented for a range of cut-off grades to a maximum of 0.4% NiEQ. All resources on the Nikolai Nickel Project are surface mineable at a stripping ratio of 3.7 (waste tonnes: resource tonnes) using resource cut-off grade of 0.2% NiEQ. The effective date of the resource estimate is 20 November 2023.



Legend

— Pit Shell



TECHNICAL REPORT AEMC NIKOLAI PROJECT

Economic Pit Shell

Figure 14-8

DRAWN BY: J.K.
CHK'D BY: D.K.
DATE: 24/ 01/ 04

Project Location: T19S R8E, Alaska, USA
Client: Alaska Energy Metals Corp. (AEMC)
Project: 182923706

Table 14.5: Nikolai Project Eureka Property Maiden Mineral Resource Estimate (MRE) – Effective 20 November 2023

Inferred Mineral Resource Tonnes and Grade										
Area	Mineralized Zone	NiEQ Cut-off	Tonnes	Base and Battery Metals			PGM and Precious Metals			Total
				Ni	Cu	Co	Pt	Pd	Au	NiEQ *
				(%)	(MT)	(%)	(%)	(%)	(g/T)	(g/T)
Eureka East	Eureka Zone 2 (EZ2)	>= 0.200	88.6	0.24	0.08	0.02	0.056	0.124	0.012	0.35
Eureka West	Eureka Zone 2 (EZ2)	>= 0.200	182.8	0.21	0.05	0.02	0.036	0.071	0.013	0.28
	Eureka Zone 3 (EZ3)	>= 0.200	48.2	0.23	0.02	0.01	0.031	0.021	0.004	0.27
Total E	EZ2 + EZ2 + EZ3	>= 0.200	319.6	0.22	0.05	0.02	0.041	0.078	0.012	0.30
Inferred Mineral Resource Tonnes and Metal Content										
Area	Mineralized Zone	NiEQ Cut-off	Tonnage	Base and Battery Metals			PGM and Precious Metals			Total
				Ni	Cu	Co	Pt	Pd	Au	NiEQ *
				(%)	(MT)	(Mlbs)	(Mlbs)	(Mlbs)	(tOz)	(tOz)
Eureka East	Eureka Zone 2 (EZ2)	>= 0.200	88.6	471	165	34	160,373	353,993	34,359	676
Eureka West	Eureka Zone 2 (EZ2)	>= 0.200	182.8	841	189	65	210,018	415,335	79,036	1,135
	Eureka Zone 3 (EZ3)	>= 0.200	48.2	240	19	16	48,816	32,694	6,495	287
Total	EZ2 + EZ2 + EZ3	> 0.200	319.6	1,552	373	115	419,138	802,003	119,915	2,098

CIM definitions are followed for classification of Mineral Resource.

Base case cut-off grade is 0.20% Ni calculated from a Ni price of US\$23.946/tonne (US\$10.9 US\$/lb), surface mining cost of US\$2.50 per tonne, and processing costs US\$25.00 per tonne.

Mineral Resource are reported from within an economic pit shell whose extent has been estimated using a Ni price of US\$23,946/tonne (US\$10.9 US\$/lb) and mining cost of US\$2.50 per tonne, from a Ni equivalent grade calculated from Ni, Cu, Co, Pt, Pd, and Au, Ni recovery of 60% and 50% for other metals, fixed density of 2.80- and 45-degree constant slope angle.

Equivalent grade formula is $NiEQ = Ni/1 + Cu/2.7309 + Co/0.5321 + Pt/0.0008 + Pd/0.0004 + Au/0.0004$

Metal pricing used to calculate NiEQ is based on observation of monthly metal pricing for the past 24 months up to end-October 2023 with Ni at US\$23,946/tonne (US\$10.9/lb) (World Bank), Cu at US\$ 8,768/tonne (\$US4.0/lb) (World Bank), Co 45,000 US\$/tonne (US24/lb) (Trading Economics), Pt at US\$970/toz (World Bank), Pd at US\$1,700/toz (Kitco), and Au at 1,855 (World Bank). Totals may not represent the sum of the parts due to rounding.

The Mineral Resource estimate has been prepared by Derek Loveday, P. Geo. of Stantec Consulting Services Inc. in conformity with CIM "Estimation of Mineral Resource and Mineral Reserves Best Practices" guidelines and are reported in accordance with the Canadian Securities Administrators NI 43-101. Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that any mineral resource will be converted into mineral reserve.

14.8 Sensitivity Analysis

A sensitivity analysis is provided in Table 14.6, which demonstrates the variation in grade, metal content and tonnage in the deposit at various cut-off grades. Constrained Mineral Resources are reported at a base case cut-off grade of 0.20% NiEQ and are highlighted in brown in Table 14.6. The range in values reported in Table 14.6 should not be misconstrued with a Mineral Resource Statement and are meant to show the sensitivity of the block model estimates for a range of cut-off grades. All figures are rounded to reflect the relative accuracy of the estimate.

Table 14.6: Nikolai Project Eureka Property MRE Grade and Metal Content Sensitivity– Effective 20 November 2023

Inferred Mineral Resource Tonnes and Grade Sensitivity										
Area	Mineralized Zone	NiEQ Cut-off (%)	Tonnes (MT)	Base and Battery Metals			PGM and Precious Metals			Total NiEq* (%)
				Ni (%)	Cu (%)	Co (%)	Pt (g/T)	Pd (g/T)	Au (g/T)	
Total	EZ2 + EZ2 + EZ3	>= 0.100	329.9	0.22	0.05	0.016	0.04	0.077	0.011	0.29
		>= 0.150	329.5	0.22	0.05	0.016	0.04	0.077	0.011	0.29
		>= 0.200	319.6	0.22	0.05	0.016	0.041	0.078	0.012	0.3
		>= 0.225	299.9	0.22	0.05	0.016	0.042	0.08	0.012	0.3
		>= 0.250	261.5	0.23	0.06	0.017	0.043	0.085	0.013	0.31
		>= 0.275	204.3	0.24	0.06	0.017	0.045	0.094	0.015	0.33
		>= 0.300	129.2	0.25	0.07	0.018	0.051	0.108	0.019	0.35
		>= 0.325	78.3	0.27	0.09	0.019	0.058	0.126	0.019	0.38
		>= 0.350	46.1	0.28	0.11	0.019	0.069	0.153	0.018	0.4
		>= 0.375	30.4	0.29	0.12	0.02	0.076	0.174	0.021	0.43
		>= 0.400	22.3	0.3	0.13	0.02	0.079	0.187	0.023	0.44
Inferred Mineral Resource Tonnes and Metal Content Grade Sensitivity										
Area	Mineralized Zone	NiEQ Cut-off (%)	Tonnes (MT)	Base and Battery Metals			PGM and Precious Metals			Total NiEq* (Mlbs)
				Ni (Mlbs)	Cu (Mlbs)	Co (Mlbs)	Pt (tOz)	Pd (tOz)	Au (tOz)	
Total	EZ2 + EZ2 + EZ3	>= 0.100	329.9	1,581	380	118	425,278	814,488	121,356	2,140
		>= 0.150	329.5	1,581	381	118	425,018	814,018	121,298	2,139
		>= 0.200	319.6	1,552	373	115	419,138	802,003	119,915	2,098
		>= 0.225	299.9	1,482	358	109	402,929	772,884	116,665	2,006
		>= 0.250	261.5	1,328	333	96	360,130	715,889	110,796	1,804
		>= 0.275	204.3	1,075	289	77	298,687	614,584	99,847	1,474
		>= 0.300	129.2	719	213	51	210,593	446,741	77,788	1,001
		>= 0.325	78.3	458	156	32	146,992	318,318	48,846	651
		>= 0.350	46.1	282	112	19	102,277	226,807	26,878	412
		>= 0.375	30.4	193	83	13	73,920	169,681	20,638	287
		>= 0.400	22.3	146	65	10	57,047	133,925	16,321	219

CIM definitions are followed for classification of Mineral Resource.

Base case cut-off grade is 0.20% Ni calculated from a Ni price of US\$23,946/tonne (US\$10.9 US\$/lb), surface mining cost of US\$2.50 per tonne, and processing costs US\$25.00 per tonne.

Mineral Resource are reported from within an economic pit shell whose extent has been estimated using a Ni price of US\$23,946/tonne (US\$10.9 US\$/lb) and mining cost of US\$2.50 per tonne, from a Ni equivalent grade calculated from Ni, Cu, Co, Pt, Pd, and Au, Ni recovery of 60% and 50% for other metals, fixed density of 2.80 and 45 degree constant slope angle.

Equivalent grade formula is $NiEq = Ni/1 + Cu/2.7309 + Co/0.5321 + Pt/0.0008 + Pd/0.0004 + Au/0.0004$

Metal pricing used to calculate NIEQ is based on observation of monthly metal pricing for the past 24 months up to end-October 2023 with Ni at US\$23,946/tonne (US\$10.9/lb) (World Bank), Cu at US\$ 8,768/tonne (\$US4.0/lb) (World Bank), Co 45,000 US\$/tonne (US24/lb) (Trading Economics), Pt at US\$970/toz (World Bank), Pd at US\$1,700/toz (Kitco), and Au at 1,855 (World Bank).

Totals may not represent the sum of the parts due to rounding.

The Mineral Resource estimate has been prepared by Derek Loveday, P. Geo. of Stantec Consulting Services Inc. in conformity with CIM "Estimation of Mineral Resource and Mineral Reserves Best Practices" guidelines and are reported in accordance with the Canadian Securities Administrators NI 43-101. Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that any mineral resource will be converted into mineral reserve.

14.9 Potential Risks

The accuracy of resource estimates is, in part, a function of the quality and quantity of available data and of engineering and geological interpretation and judgment. Given the data available at the time; the estimates presented herein are considered reasonable. However, they should be accepted with the understanding that additional data and analysis available after the date of the estimates may necessitate revision. These revisions may be material. Mineral resources are not mineral reserves and there is no assurance that any mineral resources will ultimately be reclassified as Proven or Probable reserves. Mineral resources which are not mineral reserves do not have demonstrated economic viability.

The following is a list of other specific potential risks that may impact accuracy of the mineral resource estimates are:

- Nickel is approximately 76% of the total value of the metals included in the equivalent grade. As such, future market price fluctuations in nickel would disproportionately impact reasonable prospects for economic extraction relative to other metals in the mineral resource.
- Sensitivity analysis of the mineral resource shows a significant drop in available resource from 319.5 Mt at a base case cut-off grade of 0.2% NiEQ to 129.2 Mt using a 0.3% NiEQ cut-off as shown in Table 14.6.
- Further metallurgical testing is required to determine practical recovery and costs more accurately for all the metals listed in the mineral resource. Processing costs are a significant component of overall costs to mine and as a result resource cut-off grade grades may be higher than the base case cut-off grade of 0.2% NiEQ.

15.0 MINERAL RESERVE ESTIMATES

This Technical Report does not include an estimate of reserves.

16.0 MINING METHODS

There is no information for this section of the Technical Report as the Property is not presently producing and is not yet under development.

17.0 RECOVERY METHODS

There is no information for this section of the Technical Report as the Property is not presently producing and is not yet under development.

18.0 PROJECT INFRASTRUCTURE

There is no information for this section of the Technical Report as the Property is not yet under development.

19.0 MARKETS AND CONTRACTS

There is no information for this section of the Technical Report as the Property is not presently producing and is not yet under development.

20.0 Environmental Studies, Permitting and Social or Community Impact

There is no information for this section of the Technical Report as the Property is not presently producing and is not yet under development.

21.0 CAPITAL AND OPERATING COSTS

There is no information for this section of the Technical Report as the Property is not presently producing and is not yet under development.

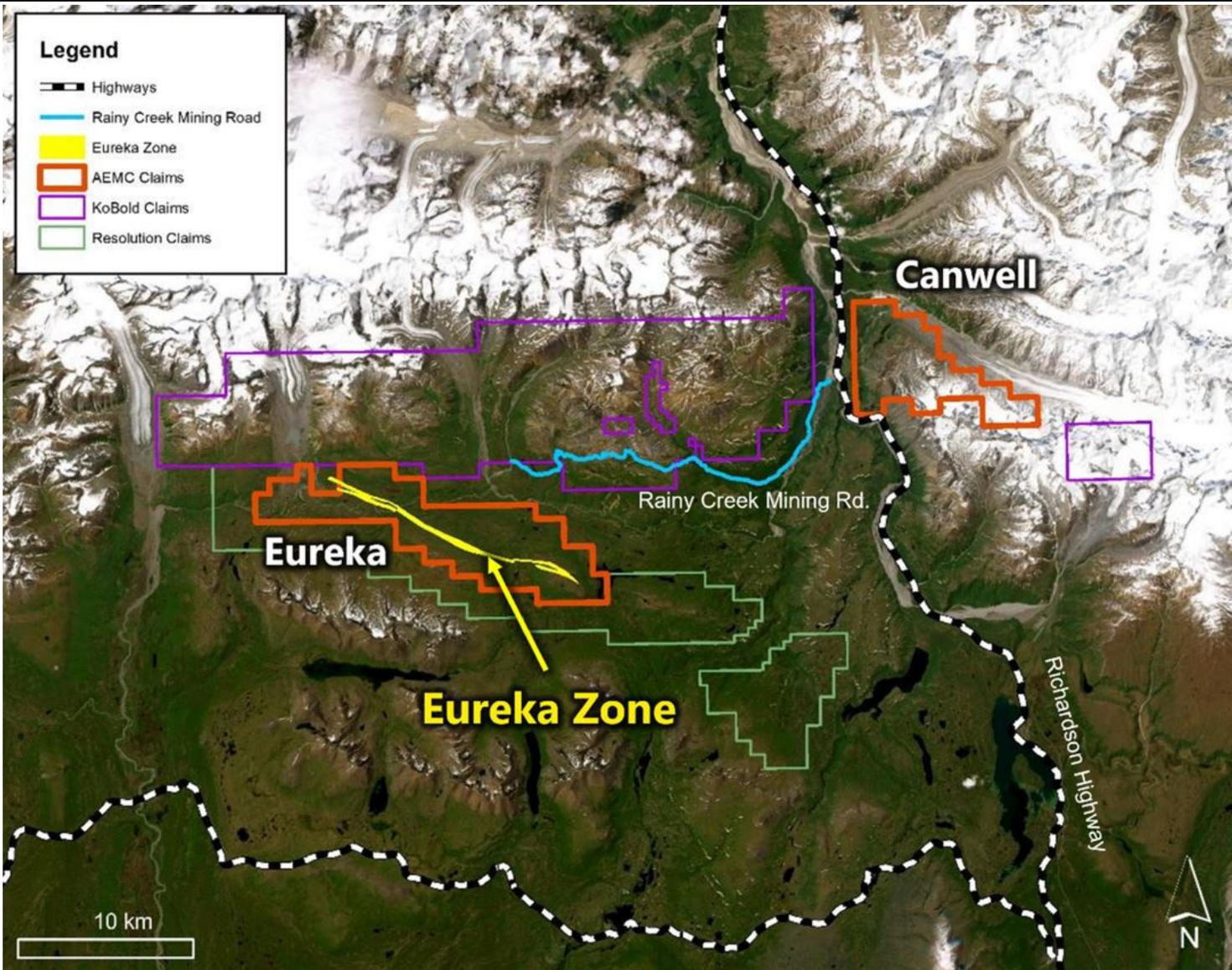
22.0 ECONOMIC ANALYSIS

There is no information for this section of the Technical Report as the Property is not presently producing and is not yet under development.

23.0 ADJACENT PROPERTIES

AEMC controls the Canwell claim block consisting of 59 State of Alaska mining claims (2720 Ha), with an option to purchase 100% interest in the claims from the underlying owner. Canwell lies approximately 20 km to the Northeast of the Eureka Property as shown in Figure 23-1. KoBold Metals Company Skolai Property runs adjacent to the north of the Eureka Property as shown in Figure 23-1. No new data has been published by KoBold Metals. Resolution Minerals Allegra property runs adjacent to the south of the Eureka Property as shown in Figure 23-1. No new data has been published by Resolution Minerals.

The Qualified Person has been unable to verify this information regarding the adjacent properties and thus, this information is not necessarily indicative of the mineralization on the Property that is the subject of the Technical Report.



Legend

- Highways
- Rainy Creek Mining Road
- Eureka Zone
- AEMC Claims
- KoBold Claims
- Resolution Claims

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Notes
Data Source: Internal ESRI GIS Figure, Gabe Graf, Alaska Energy Metals Corporation, 2023



TECHNICAL REPORT AEMC NIKOLAI PROJECT

**Property Locations within
the Nikolai Exploration District**

Figure 23-1

DRAWN BY: J.K. CHK'D BY: D.K. DATE: 24/ 01/ 05	Project Location: T19S R8E, Alaska, USA Client: Alaska Energy Metals Corp. (AEMC) Project: 182923706
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24.0 OTHER RELEVANT DATA AND INFORMATION

All relevant information is included in this report.

25.0 INTERPRETATION AND CONCLUSIONS

The 16,960-acre (6,863 Ha) Eureka Property covers the highly prospective Eureka ultramafic-mafic intrusive complex, which intrudes into the Tangle Lakes Formation, a sequence of sedimentary and pyroclastic rocks to tuffaceous sedimentary rocks. Mineralization found to date in the ultramafic-mafic complexes on the Eureka Property is primarily hosted by gabbro, clinopyroxenite and serpentinized dunite / wehrlite units.

Exploration undertaken by AEMC has been successful identifying a mineral resource on the Property up to an inferred level of assurance. AEMC exploration data used to calculate a MRE included eight AEMC drill holes, CSMAT and EM surveys, and purchase of historic exploration data that included an addition of 29 holes. Interpretation and modelling of the exploration data has separated the deposit into three (3) mineralized zones named Eureka Zone 1, 2, and 3 (EZ1, EZ2, and EZ3) from south to north, respectively. The mineralized zones are further separated into east and west areas due to faulting. The Eureka Zone East and Eureka Zone West defining the MRE are located approximately two kilometers away from each other.

Total Eureka Zone MRE contains an Inferred Mineral Resource of 1.5 billion pounds of nickel, 372 million pounds of copper, and 115 million pounds of cobalt, plus a total of 1.34 million ounces of platinum, palladium and gold in a constrained model totaling 319.6 million tonnes at an average grade of 0.30% total nickel equivalent (“NiEQ”) using a 0.20% NiEQ cut-off grade.

The Eureka Zone East MRE contains an Inferred Mineral Resource of 471 million pounds of nickel, 165 million pounds of copper, 34 million pounds of cobalt, plus 549 kozs of platinum, palladium and gold in a constrained model totaling 88.6 million tonnes at an average grade of 0.35% total NiEQ using a 0.20% NiEQ cut-off grade.

The Eureka Zone West MRE contains an Inferred Mineral Resource of 1,081 million pounds of nickel, 208 million pounds of copper, 81 million pounds of cobalt, plus 792 kozs of platinum, palladium and gold in a constrained model totaling 231 million tonnes at an average grade of 0.28% total NiEQ using a 0.20% NiEQ cut-off grade.

25.1 Potential Risks

The accuracy of resource estimates is, in part, a function of the quality and quantity of available data and of engineering and geological interpretation and judgment. Given the data available at the time; the estimates presented herein are considered reasonable. However, they should be accepted with the understanding that additional data and analysis available after the date of the estimates may necessitate revision. These revisions may be material. Mineral resources are not mineral reserves and there is no assurance that any mineral resources will ultimately be reclassified as Proven or Probable reserves. Mineral resources which are not mineral reserves do not have demonstrated economic viability.

Other specific potential risks that may impact accuracy of the mineral resource estimates are as follows.

- Nickel is approximately 76% of the total value of the metals included in the equivalent grade. As such, future market price fluctuations in nickel would disproportionately impact reasonable prospects for economic extraction relative to other metals in the mineral resource.
- Sensitivity analysis of the mineral resource shows a significant drop in available resource from 319.5 Mt at a base case cut-off grade of 0.2% NiEQ to 129.2 Mt using a 0.3% NiEQ cut-off.
- Further metallurgical testing is required to determine practical recovery and costs more accurately for all the metals listed in the mineral resource. Processing costs are a significant component of overall costs to mine and as a result resource cut-off grade grades may be higher than the base case cut-off grade of 0.2% NiEQ.

26.0 RECOMMENDATIONS

The Nikolai mineral resource estimate has relied on exploration drilling results. The following development path is recommended for the Nikolai Nickel Project.

Phase 1 Work Program for MRE Update

Pending assay results from the eight-hole 2023 drill campaign holes are to be included in an update of the current resource model. This additional information will improve the confidence of the current geologic model and associated MRE. Estimated costs for updating the geologic model and MRE in a revised NI 43-101 Technical Report are listed in Table 26.1. Time to complete Phase 1 after receiving pending assay results is approximately 6 weeks.

Table 26.1: Phase 1 MRE Update Costs

Activity	Cost (US\$)
Model Update	20,000
Technical Report and MRE	30,000
Total	50,000

Phase 2 Work Program Preliminary Economic Assessment

The proposed Phase 2 program is not dependent on the successful results of the Phase 1 program. For Phase 2 a preliminary economic assessment (PEA) is recommended. The PEA will be supported by a high-level mining and processing study to determine to what extent additional information would be required to advance the Nikolai Nickel Project towards declaring a mineral reserve estimate. This information would include, but not limited to number, location, and type of infill drill holes; metallurgical testing; and infrastructure and market studies. Estimated costs for the Phase 2 program is outlined in Table 26-2. Time to complete Phase 2 is approximately 4 months.

Table 26.2: Phase 2 Preliminary Economic Assessment

Activity	Cost (US\$)
Mining and Processing Study	100,000
PEA Technical Report	30,000
Total	130,000

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