

**NI 43-101 TECHNICAL REPORT
UPDATED MINERAL RESOURCE ESTIMATE
LOGAN PROPERTY
WATSON LAKE MINING DISTRICT, YUKON, CANADA**



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1 Summary

1.1 Overview

This Technical Report (the “Report”) on the Logan Property (“Logan” or the “Property”) was prepared by APEX Geoscience Ltd. (“APEX”) at the request of Almadex Minerals Ltd. (“Almadex” or the “Company”). The purpose of the Report is to provide an updated mineral resource estimate (“MRE”), and Property technical summary. The Logan Property is a Zinc and Silver polymetallic vein-style deposit 100% owned by Almadex.

APEX personnel take responsibility for all sections of the Technical Report. Mr. Alfonso Rodriguez, MSc, P. Geo. is responsible for sections 1.1 to 1.6, 1.8, 2 to 9, 12 and 13, 25.1, 25.2, 25.4 to 27. Mr. Kristopher Raffle, B.Sc. P. Geo., is responsible for sections 10 and 11. Mr. Michael Dufresne, M.Sc., P.Geol., P.Geo. is responsible for sections 1.6, 14 and 25.3. Mr. Dufresne., Mr. Raffle and Mr. Rodriguez, have jointly prepared sections 1, 25 and 26. Mr. Rodriguez performed a site visit to the Logan Property from July 22 to 24, 2022. The APEX authors are independent of Almadex and the Property and have prepared this Technical Report in accordance with Form 43-101F1 Technical Report format. The APEX authors were charged with the responsibility for all sections of the Report, and with the responsibility for validation of all the data and the assembly of the complete document.

The Property is located in the Watson Lake Mining District, Yukon Territory, Canada and is part of the Rancheria District, known for a number of Silver-Lead-Zinc (Ag-Pb-Zn) vein and skarn mineral occurrences.

1.2 Property Description and Ownership

The Logan Property comprises 156 contiguous quartz mineral claims covering a combined area of 3,230.79 Ha. The claims are held 100% by Almadex. The Property is located in the Watson Lake Mining District, Yukon Territory, Canada, 108 kilometres (km) northwest of Watson Lake, 260 km east of Whitehorse, and 38 km north of the Alaska Highway.

The Property is currently accessible year round via helicopter. A previous winter road requires an updated permit and maintenance. An airstrip located on the Property requires grading, although a small aircraft may be able to land on it currently.

1.3 Geology and Mineralization

The Property is located within the Cassiar Platform of the Omineca morphogeological terrane, part of the Rancheria District of southeast Yukon. The main rock types on the Property are variably altered granodiorite of the Cretaceous Marker Lake batholith which intrudes deformed Lower Cambrian siliclastic metasedimentary rocks and secondary dykes and veining occurring locally. Mineralization occurs as a structurally shear-hosted tabular body bounded by two faults, composed of veining, breccias, stockworks, and

fracture infills within the granodiorite. Zinc-silver mineralization is defined along the NE-trending fault-related shear-hosted structure for approximately 8 km that encompasses Main Zone and flanking West and East Zones identified through trenching, drilling, geophysics, and geological surveys. The majority of the mineralization occurs within the principal Main Zone which dips 70 degrees to the northwest, extends for 1,100 m along strike, drilled to a depth of 275 m with variable widths of 50 – 150 m.

1.4 Historical Exploration

Surface exploration took place during 1979 – 1988, including soil and rock sampling, geological mapping, geophysics, trenching and drilling. All drilling completed during 1986 – 1988 achieved a total of 16,438.92 m within the Logan Property and its vicinity. The 1988 exploration program included additional trenching, induced polarization geophysics and soil sampling. An additional geophysical gravity and magnetometry survey was done in 2006.

No substantial work has been done since that time, and due to the exploration pre-dating NI 43-101, no quality assurance and quality control data was collected during historic drilling programs. In 2012 Tetra Tech calculated a mineral resource estimate on the Logan Property for Yukon Zinc. The 2012 mineral resource estimate is superseded by the updated MRE published in this Report.

1.5 Data Verification

The co-author of this Report, Mr. Rodriguez, completed a site inspection of the Property from July 22nd to 24th, 2022. The site visit consisted of a tour of the Property to confirm the geology and mineralization and to verify historical exploration results by means of a drillhole resampling program and surface sampling carried out by APEX. A total of four grab samples were collected from trenches and outcrops with samples yielding from 0.07 to 0.71% Zn and 4.99 to 252 g/t Ag. The data verification resampling included core intervals (approximately 5% of the drill database) from four historical drill holes (86-L-8, 87-L-32, 87-L-44, 88-L-103) and collection of specific gravity (SG) data. Absolute difference between historical and verification assays for composited assayed intervals ranged between 0.04 and 0.63 % for zinc and between 0.08 and 4.54 g/t for silver.

Based upon a review of available information, historical exploration data, the data verification program and the author's site visit, Mr. Rodriguez considers the Logan Property to be a property of merit that is prospective for zinc and base metals mineralization. The Logan Property has exploration, advancement, and development potential. The Property is hosted by units exhibiting structurally controlled base metal mineralization in an area with a long history of mineral exploration.

1.6 Current Mineral Resource Estimate

The updated Mineral Resource Estimate (MRE) completed for the Logan Property was completed in 2023 by Mr. Warren Black, M.Sc., P.Geo. and Mr. Tyler Acorn, M.Sc. of

APEX Geoscience Ltd. (APEX) of Edmonton, Alberta, Canada under the direct supervision of Mr. Michael Dufresne, M.Sc., P.Geol., P.Geo.. Mr. Dufresne is the QP responsible for Section 14. Co-author Mr. Rodriguez visited the property most recently in July 2022.

The drillhole database for this MRE consisted of 58 drillholes totalling 5,129.44 m. There has been no additional drilling completed since the 2012 MRE (Harder and O'Brien, 2012). However, the current MRE differs in that it was based on additional specific gravity (SG) data collected by APEX during 2022, which resulted in a change in the SG used in the MRE. The database was supplied by the issuer in the form of Excel files.

Grade estimation domain wireframes were created by means of implicit modelling using the grade estimation domain coding. It was an iterative process utilizing many geological inputs. The critical inputs used to define the boundaries and orientation of the grade estimation domains were: 1) Drillhole logging of sulphide mineralized stockwork veining, brecciation and shear zone alteration, and lithology; and 2) Silver and zinc assays. Based on these mineralization characteristics, two mineralization domains, Main and Main-HG ("high-grade"), were defined at Logan. Each mineralization domain is defined by a combination of mappable geological characteristics associated with mineralization.

A volume percent (block factor) style block model was used to calculate the Logan Property MRE. Each grade estimation domain used for the Mineral Resource estimation was populated with a block model. All block models used the same block size of 6 m x 6 m x 6 m. Ordinary kriging (OK) was used to estimate zinc and silver grades for the Logan Project block model. Only blocks that intersect the mineralization domain were estimated for zinc and silver grades.

A total of 201 bulk density samples are available from the Logan Property drillhole database. APEX personnel performed exploratory data analysis (EDA) of the bulk density samples available and the density was assigned for each domain in the Logan Property. The EDA resulted in a change in the SG used in the MRE from 2.95 g/cm³ for mineralized material and 2.7 g/cm³ for waste (2012) to 2.66 g/cm³ for the high-grade domain, 2.63 g/cm³ for the Main zone mineralization, and 2.57 g/cm³ for waste, and 1.8 g/cm³ for overburden (2023).

The Project MRE discussed in this Technical Report has been classified in accordance with guidelines established by the CIM "Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines" dated November 29, 2019, and CIM "Definition Standards for Mineral Resources and Mineral Reserves" dated May 14, 2014.

The updated 2023 Logan Property MRE is reported in Table 1.1 for Indicated and Inferred categories. The Indicated and Inferred Mineral Resources are undiluted and use a cut-off grade of 1.6% Zn, which is constrained within an optimized pit shell and includes an Indicated Mineral Resource of 2,620,000 tonnes at 5.1% Zn, 23.1 g/t Ag and an Inferred Mineral Resource of 16,930,000 tonnes at 4.3% Zn, 18.2 g/t Ag (Table 1.1).

Table 1.1 – Logan Project Open Pit Constrained Mineral Resource Estimate

Classification	Zn Cut-off (%)	Tonnes	Zn (%)	Ag (g/t)	Zn (Mlb)	Ag (Moz)
Indicated	1.6	2,620,000	5.1	23.1	294	1.94
Inferred	1.6	16,930,000	4.3	18.2	1,622	9.98

Notes:

1. Mr. Mike Dufresne, P.Geol., P.Geo. of APEX Geoscience Ltd., who is deemed a qualified person as defined by NI 43-101 is responsible for the completion of the updated mineral resource estimation, with an effective date of January 17, 2023.
2. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
3. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
4. The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could potentially be upgraded to an Indicated Mineral Resource with continued exploration.
5. The Mineral Resources were estimated in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions (2014) and Best Practices Guidelines (2019) prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council.
6. The cut-off grade of 1.6% Zn is based on metal prices of US\$1.30/lb Zn and US\$19/oz Ag and 0.77 US\$ per C\$, with process recoveries of 95% Zn and 80% Ag.
7. The constraining pit optimization parameters assumed C\$3.50/t mineralized and waste material mining cost, 45° pit slopes and a process + G&A cost of C\$35/t, using a 1.5 revenue factor that equates with metal price assumptions of US\$1.95/lb Zn, US\$28.50/Oz Ag and 0.77 US\$ per C\$.
8. The effective date of the Mineral Resources Estimate is January 17, 2023.

1.7 Conclusions and Recommendations

Based on the historical data compilation, interpretation of geology, the data verification program, Mr. Rodriguez' site visit and the updated mineral resource estimate, the Logan Property is considered by the authors to be a property of merit that is prospective for zinc, silver and base metals mineralization. Additional exploration work is recommended, including drilling, relogging and updated metallurgical studies:

- Drilling:
 - A follow up drilling program is recommended to test lateral and down dip extension of mineralization along the Main zone.
 - Infill drilling to confirm mineralization and grade continuity and to increase confidence within inferred resource zones, and to convert some of the inferred resource into an indicated category.
 - Collection of geotechnical and structural information during drilling or consider geotechnical drill holes for development evaluation.
 - Systematic collection of density data during these drilling programs is strongly recommended.
- Historical core relogging: Additional strategic relogging should be considered for the historical core. This will aid keeping standard parameters while processing

core for upcoming programs as well as reconciling historical information with current.

- Metallurgical Studies: An updated orientation study on representative metallurgical samples from the different zones and representative ore from different levels of the Logan mineralization should be considered to determine recovery of zinc and silver.
- It was noted that values of indium for verified drill hole samples ranged between 0.474 parts per million (ppm) and 273 ppm, with the interval for drillhole 86-L-8 from 67.1 m to 153.65 m averaging 38.38 ppm In over 86.55 m. In is considered important to analyze for in further drilling programs and to include metallurgical testing for recovering indium as a byproduct of zinc given the current demand of indium in the electronics market.

As part of Phase 1, relogging, mapping and sampling, updated metallurgical testing as well as an initial follow up infill drilling program of approximately 2,000 m are recommended. The estimated cost of the Phase 1 program is CDN \$1,000,000.

Phase 2 exploration is dependent on the results of Phase 1 and includes additional follow up diamond drilling (~3,660 m), and preliminary economic assessment (PEA) studies to advance the project. The recommended Phase 2 drilling at the Logan Property will test targets generated in Phase 1. The estimated cost of the Phase 2 program is CDN\$1,998,500.

Collectively, the proposed exploration program has a total estimated cost of CDN\$ 2,998,500, not including GST. The estimated cost of the recommended work program at the Logan Property is presented in Table 1.2.

Table 1.2. Proposed budget for the recommended exploration program at the Logan Property.

Phase 1	
Activity Type	Cost
Relogging, Sampling, Mapping	\$25,000
Metallurgical testing	\$25,000
Diamond Drilling (Approximately 2000 m at \$475/m)	\$950,000
Phase 1 Activities Subtotal	\$1,000,000
Phase 2	
Diamond Drilling (Approximately 3660 m at \$475/m)	\$1,738,500
Preliminary Economic Assessment studies	\$260,000
Phase 2 Activities Subtotal	\$1,998,500
Grand Total	\$2,998,500

2 Introduction

2.1 Issuer and Purpose

This Technical Report (the “Report”) on the Logan Property (“Logan” or the “Property”) was prepared by APEX Geoscience Ltd. (“APEX”) at the request of Almadex Minerals Ltd. (“Almadex” or the “Company”). Almadex is a Vancouver, British Columbia based mining company listed on the TSX Venture Exchange (TSX-V) under the stock symbol “DEX”. The purpose of the Report is to provide an updated mineral resource estimate (“MRE”), and technical summary of the Logan Property. The Effective Date of the Report is January 17th, 2023.

The Logan Property is situated within the Watson Lake Mining District, Yukon, Canada. The Property comprises 156 contiguous quartz mineral claims covering a combined area of 32.31 square kilometres (3,230.79 hectares) located 38 kilometres (km) north of the Alaska Highway, 108 km northwest of Watson Lake, and 260 km east of Yukon’s capital city, Whitehorse (Figure 2.1). The Logan claims are held 100% by Almadex.

This Report was prepared by Qualified Persons (“QPs”) in accordance with disclosure and reporting requirements set forth in the National Instrument 43-101 (“NI 43-101”) Standards of Disclosure for Mineral Projects (effective May 9, 2016), Companion Policy 43-101CP Standards of Disclosure for Mineral Projects (effective February 25, 2016), Form 43-101F1 (effective June 30, 2011) of the British Columbia Securities Administrators, the Canadian Institute of Mining, Metallurgy and Petroleum (“CIM”) Mineral Exploration Best Practice Guidelines (November 23, 2018), the CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (November 29, 2019), and the CIM Definition Standards (May 10, 2014).

2.2 Authors and Site Inspection

Mr. Alfonso Rodriguez, M.Sc., P.Geo., Senior Geologist of APEX, Mr. Michael Dufresne, M.Sc., P.Geol., P.Geo., President and Principal of APEX, and Mr. Kristopher Raffle, B.Sc., P. Geo., Principal and Consultant of APEX, are the Authors of this Report (the “Authors”).

The Authors are independent of Almadex and the Property and are QPs as defined by NI 43-101. The CIM defines a QP as “an individual who is a geoscientist with at least five years of experience in mineral exploration, mine development or operation or mineral project assessment, or any combination of these; has experience relevant to the subject matter of the mineral project and the technical report; and is a member or licensee in good standing of a professional association.”

Mr. Dufresne is a Professional Geologist with the Association of Professional Engineers and Geoscientists of Alberta (APEGA; License # 48439), a Professional Geoscientist with the Association of Professional Engineers and Geoscientists of British Columbia (EGBC; License # 37074) and has worked as a mineral exploration geologist for more than 35

years since his graduation from university. Mr. Dufresne has been involved in all aspects of mineral exploration and mineral resource estimations for precious and base metal mineral projects and deposits in Canada and internationally. Mr. Dufresne, M.Sc., P.Geol., P.Geo., is responsible for Sections 1, 14, 25 and 26 of the Report.

Mr. Raffle is a Professional Geologist with the Association of Professional Engineers and Geoscientists of British Columbia (EGBC; License # 31400) and has worked as a geologist for more than 20 years since his graduation from university. Mr. Raffle has experience with exploration for precious and base metal mineralization of various deposit types in North and South America, including porphyry and epithermal, polymetallic veins, and sediment-hosted precious and base metals. Mr. Raffle, M.Sc., P.Geo., is responsible for Sections 10 and 11 of the Report.

Mr. Rodriguez is a Professional Geologist with the Association of Professional Engineers and Geoscientists of British Columbia (EGBC; License # 44993) and has worked as a geologist for more than 15 years since his graduation from university. Mr. Rodriguez has experience with exploration for precious and base metal mineralization of various deposit types in North and South America, including porphyry and epithermal, polymetallic veins, and sediment-hosted precious and base metals. Mr. Rodriguez, M.Sc., P.Geo., is responsible for Sections 1.1 to 1.5, 1.7, 2 to 9, 12 to 13, 24, 25.1, 25.2, 25.4 to 27 of the Report.

Mr. Rodriguez conducted a site inspection of the Property for verification purposes on July 22 to 24, 2022. The site inspection included an assessment of current site access and conditions, collection of verification samples from historical drill core and trenches, and verification of drill collar locations. Mr. Dufresne did not visit the Property, as Mr. Rodriguez visit was deemed sufficient by the QP.

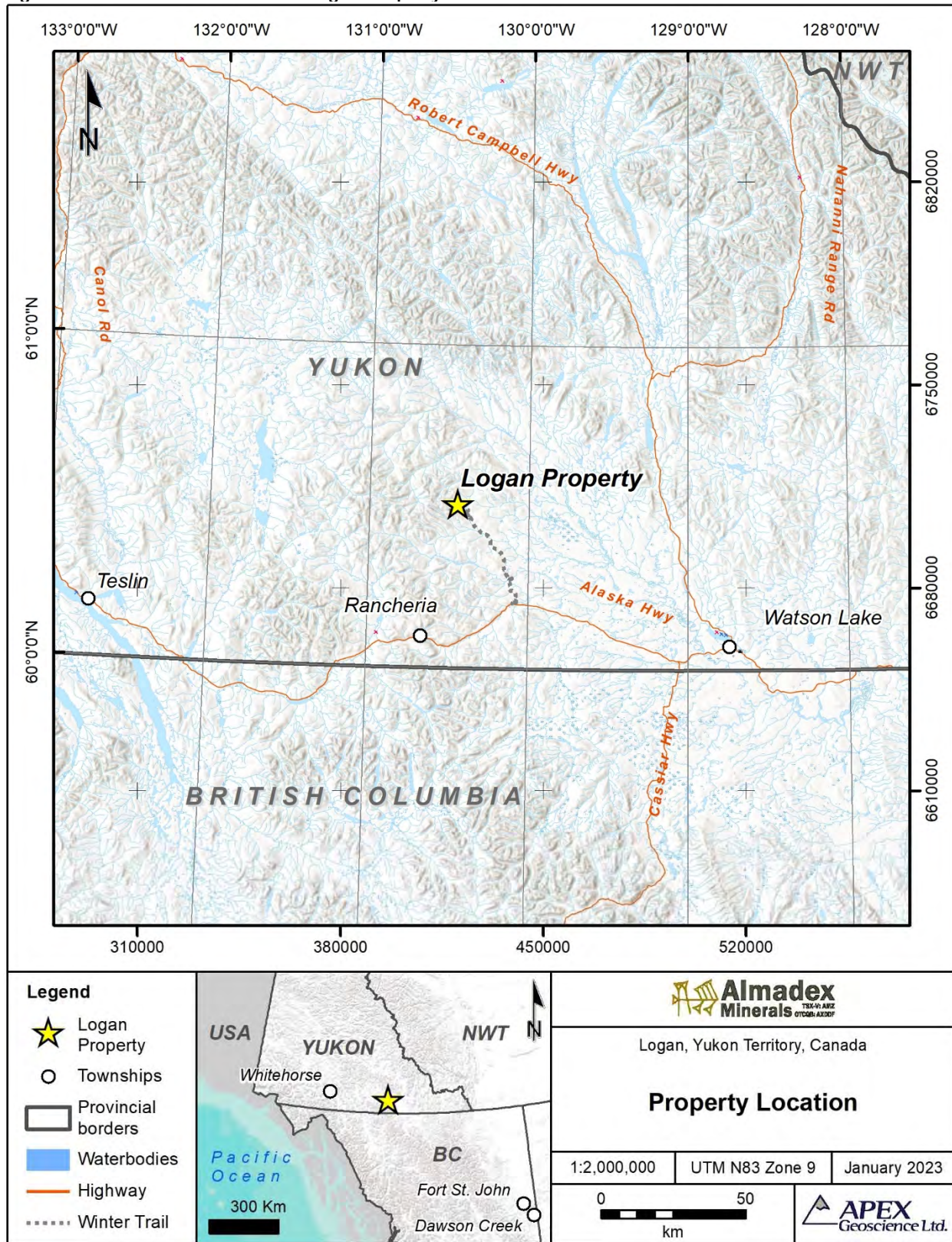
2.3 Sources of Information

This Report is a compilation of proprietary and publicly available information. Additional information regarding historical exploration work was sourced from publicly available Yukon mining assessment report files.

In support of the technical sections of this Report, the Authors have independently reviewed reports, data, and information derived from work completed by Almadex and previous operators. Journal publications listed in Section 27 “References” were used to verify background geological information regarding the regional and local geological setting and mineral deposits of the Logan Property. The Authors have deemed these reports, data, and information as valid contributions to the best of their knowledge.

Based on the Property visit and review of the available literature and data, the Authors take responsibility for the information herein.

Figure 2.1. General location of the Logan Property.



2.4 Units of Measure

With respect to units of measure, unless otherwise stated, this Technical Report uses:

- Abbreviated shorthand consistent with the International System of Units (International Bureau of Weights and Measures, 2006);
- 'Bulk' weight is presented in both United States short tons ("tons"; 2,000 lbs or 907.2 kg) and metric tonnes ("tonnes"; 1,000 kg or 2,204.6 lbs.);
- Geographic coordinates are projected in the Universal Transverse Mercator ("UTM") system relative to Zone 9 of the North American Datum ("NAD") 1983; and,
- Currency in Canadian dollars (CAD\$), unless otherwise specified (e.g., U.S. dollars, USD\$).

3 Reliance on Other Experts

The Authors did not investigate any legal, political, environmental, or tax matters associated with the Logan Property, and are not experts with respect to these issues, including the assessment of the legal validity of mineral claims, mineral rights, private lands, and property agreements. The Authors have relied upon the information provided by Almadex and the Yukon government regarding Property status and legal title for the Property and believe there is a reasonable basis for this reliance.

Background information and details regarding the nature and extent of mineral tenure (Section 4.1) was provided by Doug MacDonald Executive Vice President of Almadex on June 23, 2022. Title for the Logan Property was confirmed by independently reviewing the digital tenure records listed on the Government of Yukon's "GeoYukon" digital map service (<https://mapservices.gov.yk.ca/GeoYukon/>). As of the Effective Date of the Report, all 156 claims are listed as 100% owned by Almadex and are active and in good standing until December 31, 2024.

4 Property Description and Location

4.1 Description and Location

The Property is located in the Watson Lake Mining District of southeast Yukon, approximately 108 km northwest of Watson Lake and 260 km east of Whitehorse. It is situated within the 1:50,000 National Topographic System ("NTS") map sheets 105B/07, 08, 09 and 10. The Property is centred at approximately 60°30'32" N latitude 130°27'31" W longitude, or 419900 mE, 6708965 mN (NAD 83, UTM Zone 9).

The Logan Property comprises 156 contiguous quartz mineral claims covering a combined area of 3,230.79 Ha (Table 4.1; Figure 4.1). The claims are held 100% by Almadex Minerals Ltd. The Authors did not independently verify the legal status of the Logan claims. However, according to digital tenure records listed on the Government of Yukon’s “GeoYukon” digital map service (<https://mapservices.gov.yk.ca/GeoYukon/>), as of the Effective Date of the Report, all 156 claims are listed as 100% owned by Almadex, and are active and in good standing until December 31, 2024.

Table 4.1 List of Logan Property Quartz Mineral Claims

Claim Name	Grant Number	Tenure Type	Status	Owner	Recording Date	Expiry Date
LOGAN 1	YA45047	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-07-31	2024-12-31
LOGAN 2	YA45048	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-07-31	2024-12-31
LOGAN 3	YA45049	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-07-31	2024-12-31
LOGAN 4	YA45050	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-07-31	2024-12-31
LOGAN 5	YA45051	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-07-31	2024-12-31
LOGAN 6	YA45052	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-07-31	2024-12-31
LOGAN 7	YA46254	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-10-09	2024-12-31
LOGAN 8	YA46255	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-10-09	2024-12-31
LOGAN 9	YA46256	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-10-09	2024-12-31
LOGAN 10	YA46257	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-10-09	2024-12-31
LOGAN 11	YA46258	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-10-09	2024-12-31
LOGAN 12	YA46259	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-10-09	2024-12-31
LOGAN 13	YA46260	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-10-09	2024-12-31
LOGAN 14	YA46261	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-10-09	2024-12-31
LOGAN 15	YA46262	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-10-09	2024-12-31
LOGAN 16	YA46263	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-10-09	2024-12-31
LOGAN 17	YA46264	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-10-09	2024-12-31
LOGAN 18	YA46265	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-10-09	2024-12-31
LOGAN 19	YA46266	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-10-09	2024-12-31
LOGAN 20	YA46267	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-10-09	2024-12-31
LOGAN 21	YA46268	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-10-09	2024-12-31
LOGAN 22	YA46269	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-10-09	2024-12-31
LOGAN 23	YA46270	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-10-09	2024-12-31
LOGAN 24	YA46271	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-10-09	2024-12-31
LOGAN 25	YA46272	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-10-09	2024-12-31
LOGAN 26	YA46273	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-10-09	2024-12-31
LOGAN 27	YA46274	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-10-09	2024-12-31
LOGAN 28	YA46275	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-10-09	2024-12-31
LOGAN 29	YA46276	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-10-09	2024-12-31
LOGAN 30	YA46277	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-10-09	2024-12-31
LOGAN 31	YA46278	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-10-09	2024-12-31
LOGAN 32	YA46279	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-10-09	2024-12-31
LOGAN 33	YA46280	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-10-09	2024-12-31
LOGAN 34	YA46281	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-10-09	2024-12-31
LOGAN 35	YA46282	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-10-09	2024-12-31
LOGAN 36	YA46283	Quartz	Active	Almadex Minerals Ltd. - 100%	1979-10-09	2024-12-31

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Claim Name	Grant Number	Tenure Type	Status	Owner	Recording Date	Expiry Date
LOGAN 37	YA71027	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 38	YA71028	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 39	YA71029	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 40	YA71030	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 41	YA71031	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 42	YA71032	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 43	YA71033	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 44	YA71034	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 45	YA71035	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 46	YA71036	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 47	YA71037	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 48	YA71038	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 49	YA71039	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 50	YA71040	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 51	YA71041	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 52	YA71042	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 53	YA71043	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 54	YA71044	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 55	YA71045	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 56	YA71046	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 57	YA71047	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 58	YA71048	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 59	YA71049	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 60	YA71050	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 61	YA71051	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 62	YA71052	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 63	YA71053	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 64	YA71054	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 65	YA71055	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 66	YA71056	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 67	YA71057	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 68	YA71058	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 69	YA71059	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 70	YA71060	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 71	YA71061	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 72	YA71062	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 73	YA71063	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 74	YA71064	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 75	YA71065	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 76	YA71066	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 77	YA71067	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 78	YA71068	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 79	YA71069	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 80	YA71070	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 81	YA71071	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 82	YA71072	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31

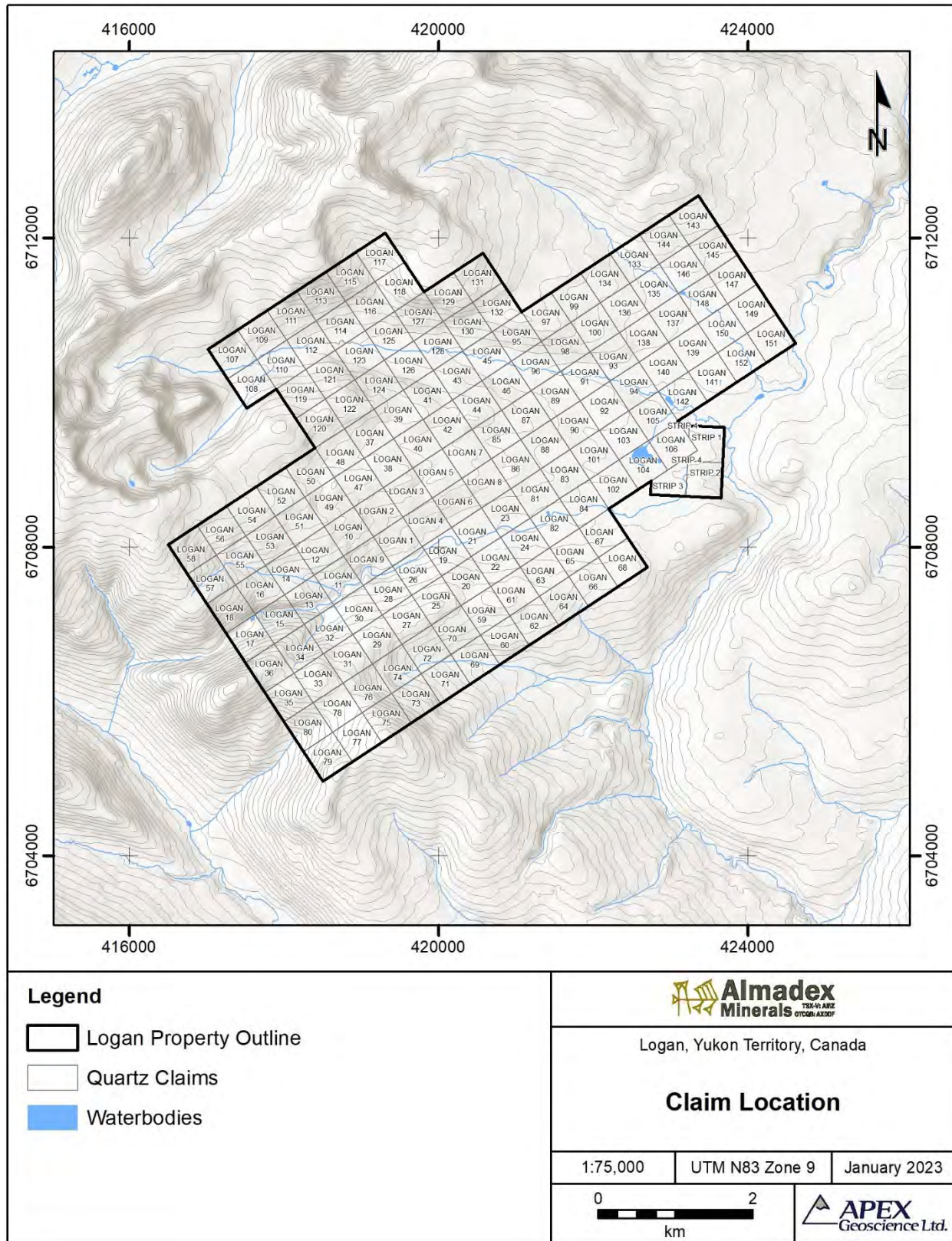
Updated Mineral Resource Estimate of the Logan Property, Yukon

Claim Name	Grant Number	Tenure Type	Status	Owner	Recording Date	Expiry Date
LOGAN 83	YA71073	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 84	YA71074	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 85	YA71075	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 86	YA71076	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 87	YA71077	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 88	YA71078	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-06-08	2024-12-31
LOGAN 89	YA71360	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-07-26	2024-12-31
LOGAN 90	YA71361	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-07-26	2024-12-31
LOGAN 91	YA71362	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-07-26	2024-12-31
LOGAN 92	YA71363	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-07-26	2024-12-31
LOGAN 93	YA71364	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-07-26	2024-12-31
LOGAN 94	YA71365	Quartz	Active	Almadex Minerals Ltd. - 100%	1984-07-26	2024-12-31
LOGAN 95	YA91214	Quartz	Active	Almadex Minerals Ltd. - 100%	1986-07-30	2024-12-31
LOGAN 96	YA91215	Quartz	Active	Almadex Minerals Ltd. - 100%	1986-07-30	2024-12-31
LOGAN 97	YA91216	Quartz	Active	Almadex Minerals Ltd. - 100%	1986-07-30	2024-12-31
LOGAN 98	YA91217	Quartz	Active	Almadex Minerals Ltd. - 100%	1986-07-30	2024-12-31
LOGAN 99	YA91218	Quartz	Active	Almadex Minerals Ltd. - 100%	1986-07-30	2024-12-31
LOGAN 100	YA91219	Quartz	Active	Almadex Minerals Ltd. - 100%	1986-07-30	2024-12-31
LOGAN 101	YA91220	Quartz	Active	Almadex Minerals Ltd. - 100%	1986-07-30	2024-12-31
LOGAN 102	YA91221	Quartz	Active	Almadex Minerals Ltd. - 100%	1986-07-30	2024-12-31
LOGAN 103	YA91222	Quartz	Active	Almadex Minerals Ltd. - 100%	1986-07-30	2024-12-31
LOGAN 104	YA91223	Quartz	Active	Almadex Minerals Ltd. - 100%	1986-07-30	2024-12-31
LOGAN 105	YA91224	Quartz	Active	Almadex Minerals Ltd. - 100%	1986-07-30	2024-12-31
LOGAN 106	YA91225	Quartz	Active	Almadex Minerals Ltd. - 100%	1986-07-30	2024-12-31
LOGAN 107	YC24422	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 108	YC24423	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 109	YC24424	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 110	YC24425	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 111	YC24426	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 112	YC24427	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 113	YC24428	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 114	YC24429	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 115	YC24430	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 116	YC24431	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 117	YC24432	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 118	YC24433	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 119	YC24434	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 120	YC24435	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 121	YC24436	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 122	YC24437	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 123	YC24438	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 124	YC24439	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 125	YC24440	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 126	YC24441	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 127	YC24442	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 128	YC24443	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31

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Claim Name	Grant Number	Tenure Type	Status	Owner	Recording Date	Expiry Date
LOGAN 129	YC24444	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 130	YC24445	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 131	YC24446	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 132	YC24447	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 133	YC24448	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 134	YC24449	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 135	YC24450	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 136	YC24451	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 137	YC24452	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 138	YC24453	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 139	YC24454	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 140	YC24455	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 141	YC24456	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 142	YC24457	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 143	YC24458	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 144	YC24459	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 145	YC24460	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 146	YC24461	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 147	YC24462	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 148	YC24463	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 149	YC24464	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 150	YC24465	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 151	YC24466	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
LOGAN 152	YC24467	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-11-07	2024-12-31
STRIP 1	YC24040	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-04-28	2024-12-31
STRIP 2	YC24041	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-04-28	2024-12-31
STRIP 3	YC24042	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-04-28	2024-12-31
STRIP 4	YC24043	Quartz	Active	Almadex Minerals Ltd. - 100%	2003-04-28	2024-12-31

Figure 4.1 Logan Property Quartz Mineral Claims



The Quartz Mining Act (“QMA”) is the primary legislation governing hard rock mining and exploration activities in the Yukon. The holder of a mineral claim acquires the exclusive right to or interest in the publicly owned mineral substances from the surface of the claim to an unlimited extension downward vertically from the boundary of the claim or lease.

A claim is a parcel of land located or granted for hard rock mining and includes any ditches or water rights used for mining the claim, and all other things belonging to or used in the working of the claim for mining purposes. Claims must be rectangular and must not exceed 1,500 by 1,500 feet in size. In most cases all corners must be right angles. A fractional claim is a plot of ground lying between and bounded by previously located mineral claims and measuring less than 1,500 by 1,500 feet. A fractional claim does not need to be rectangular or have corners at right angles.

Claims are valid for one year after the date of recording. To renew and maintain a claim in good standing the claim holder must, on or before the expiry date of the claim, either: (a) perform and report sufficient representation work on that claim; or (b) pay cash in lieu of work. The value of work required to renew a mineral claim for one year is \$100 per claim, based on the Schedule of Representation Work outlined in the QMA. Additional work above the \$100 per claim per year requirement can be used for future years. A claim can be renewed up to 5 years if it expires in the current year or 4 years if it does not expire in the current year. The fee for payment in lieu of work is \$100 per claim per year plus \$5 per claim per year for the certificate of work. Adjoining claims may be grouped up to a maximum of 750 claims. Grouping allows work to be performed on one or more claims and credit distributed to any or all other claims in the group.

When representation work is done to renew a claim, the renewal application must be submitted to the Mining Recorder no later than 14 days after the expiry date of the claim. The submission must include the Application for Certificate of Work form (Form 4 of Schedule 1 of the QMA), a certified statement of expenditures, a map of the claim(s) on which work was performed showing work locations, type of work and equipment used, start and end dates of work, any required grouping applications and maps, and the prescribed fees set out in Schedule 2 of the QMA. In most cases the application must be accompanied by an assessment report including all the information outlined in the Yukon Assessment Report Checklist. The assessment report must be submitted to the Mining Recorder within 6 months of the renewal application. A renewal certificate will not be issued until the report and/or survey is approved for the value requested.

4.2 Royalties and Agreements

The Authors are not aware of any royalties, back-in rights, payments, or other agreements and encumbrances to which the Logan Property is subject.

The QMA requires royalty payments to the Yukon Government based on annual mineral production and sales minus eligible expenses on net mine profits exceeding \$10,000 during a calendar year as follows:

- 3% on annual profits exceeding \$10,000 up to \$1 million.
- 5% on annual profits exceeding \$1 million up to \$5 million.
- 6% on annual profits exceeding \$5 million up to \$10 million.
- A proportional increase of 1% for each additional \$5 million up to a maximum rate of 12% up to \$35 million.

Annual royalty returns are required to be filed by April 1 and paid by October 1 for the preceding calendar year.

4.3 Environmental Liabilities, Permitting and Significant Factors

4.2.1 Permitting

4.2.1.1 Exploration

In Yukon, mineral exploration activities fall into four classes under the Quartz Mining Land Use Regulations. As the class increases, so does the potential environmental impact of the program and the associated permitting requirements. Class 1 and 2 programs are considered “grassroots” small-scale exploration while Class 3 and 4 programs are considered more advanced and are larger in scale and duration. Program class criteria are detailed in the Quartz Mining Land Use Regulations. Most exploration activities are assessed under the Yukon Environmental and Socio-economic Assessment Act (“YESAA”). The Yukon government, via the Department of Energy, Mines and Resources acts as the decision maker for most mineral projects and is responsible for regulating and enforcing permits and licenses for exploration and development projects falling under its legislative authority. The Mining Recorder’s Office guides proponents through the assessment and permit/authorization stages.

Class 1 programs are defined as grassroots exploration with low potential to cause adverse environmental impacts, and where activities and reclamation are completed within a year. Class 1 exploration programs require submission of a Class 1 Notification form either online or to the Mining Recorder’s Office. A YESAA assessment is not required for a Class 1 program. The nominal review period for a Class 1 notification is 25 days.

Class 2 programs are considered to represent the upper level of grassroots exploration with moderate potential to cause adverse environmental impacts. Class 2 exploration programs are subject to YESAA assessment and require submission of a Class 2 Notification form. A Class 2 program must be completed within 12 months of the program’s start date, including reclamation and closure requirements.

Class 3 and 4 exploration programs are subject to YESAA assessment and require the preparation of a detailed Operating Plan including a description of all project activities, details of First Nations and stakeholder engagement, and environmental mitigation measures. A Class 3 or 4 Operation Plan can cover a multi-year exploration program up to 10 years in duration. Pre- and post-season annual reporting requirements apply to any multi-year programs.

Class 2, 3 and 4 programs require assessment through Yukon Environmental and Socio-economic Assessment Board ("YESAB"), and a Class 4 program may require the proponent to undertake public consultation. Proponents communicate directly with the mining recorder's office to submit the application form and ensure the program meets the criteria of the requested class. First Nation engagement by the proponent is recommended, and the proponent must contact the YESAB Designated Office ("DO") to complete the application process. YESAB assesses the project proposal by seeking input from government agencies, First Nations, interested parties, and the public. Once the DO has determined the application is complete, it must publish the notice of assessment on YESAB's online registry within six days. A public input period of 14 days begins and can be extended up to an additional 56 days, if required. Upon completion of the assessment, YESAB provides a recommendation to either: (a) proceed as is; (b) proceed with terms and conditions; or (c) not proceed. A decision will be made within 30 days of receiving the recommendation, with the option to extend an additional 7 days if it requires consultation with First Nations without a final agreement.

Mineral exploration programs in Yukon are subject to regular, periodic inspections to confirm compliance with operating conditions and to ensure exploration activities fall within the thresholds of its program class.

Security may be required of any proponent where it is determined that there may be risk of adverse environmental effect. The security cannot total more than the costs of restoring the site. The amount varies based on the degree of risk, financial ability of the proponent, past performance of an operator, and any security deposited under the Waters Act.

The Yukon Water Board issues licences for the use of water and/or deposit of waste to water, in accordance with the Waters Act and Waters Regulations. A Water Licence is not required for use of water and/or deposit of waste by a quartz mining undertaking if: (a) there is no potential for significant adverse environmental effects; (b) it would not interfere with existing rights of other water users or waste depositors; (c) it uses less than 300 cubic metres per day; and (d) satisfies the criteria set out in Schedule 7 of the Waters Regulations. Any person who proposes to use water or deposit waste without a licence must fill out the form in Schedule 3 of the Waters Regulations (Notice of Water Use/Waste Deposit Without Licence) a minimum of 10 days prior to commencing operations.

A prohibition of entry order for prospecting and staking was placed in the Watson Lake Area between February 1, 2017 (OIC#2017/26) and was extended until April 30, 2020, by an amendment made on April 18, 2018 (OIC2018/71). For the period between February 1, 2020, until January 31, 2021, relief from representation of work or payment in lieu was granted on January 16, 2020. As of April 1, 2020, claimholders, at minimum, require a Class 1 Notification to perform exploration work. Currently, the Government of Yukon is processing applications for authorizations required to access and explore the mineral potential on existing mineral claims in the Watson Lake Area. All notification and permitting requirements apply if work is to be performed.

On February 14, 2023 the Company submitted a Class 1 Notification to the Mining Lands officer of the Yukon territory for exploration at the Logan Property. On February 16th, 2023, this Class 1 Notification was determined to be technically complete and the notification is considered open for comment by potentially affected First Nations and stakeholders. The information associated is expected to be received and reviewed by March 14, 2023.

4.2.1.2 Mining

Major hard rock mines in Yukon moving to development and/or production require detailed environmental and socio-economic assessment via YESAB and various regulatory approvals, including but not limited to a Quartz Mining Licence and a Type A or B Water Licence.

Depending on the size of the mining project, YESAB assessment includes three levels of assessment: (1) a designated office evaluation; (2) an executive committee screening; or (3) a panel of the board review. The assessment includes a public comment period and consultations with affected First Nations. Upon completion of the assessment, YESAB provides a recommendation to either: (a) proceed as is; (b) proceed with terms and conditions; or (c) not proceed.

A Quartz Mining Licence is required to construct a facility or do physical work in support of commercial production of most minerals, excluding placer gold and coal. It is required before any development or production commences. Detailed mine plans must be submitted to the Department of Energy, Mines and Resources detailing plans for development, operations, environmental monitoring and mitigation, and decommissioning. Proponents should undertake consultations with First Nations early in project planning and continue throughout the life of the mine.

Financial security is required for mines in Yukon, covering the full outstanding mine reclamation and closure liability. A 2-year liability estimate prepared by a professional engineer licensed to practice in Yukon must be submitted to the Department of Energy, Mines and Resources for review.

Schedule 7 of the Waters Regulations details the application process and lists the licensing criteria for quartz mining undertakings. A Type B Water Licence is required for any operation using water or depositing waste for milling at a rate of less than 100 tonnes of ore per day, use for leaching other than production or use of 300 or more cubic metres per day for any other activities. A Type A Water Licence is required for any operation using water or depositing waste for milling at a rate of 100 tonnes or more of ore per day or use for production leaching. Several other criteria are also considered in determining the type of water licence required. Licensees are also required to pay annual water use fees as prescribed in the Waters Regulations.

4.2.2 First Nations

The Property is located within the traditional territory of the Kaska Dena Nation. There are five Kaska Nations located in their traditional territory comprising the Ross River Dena Council (Ross River) and Liard First Nation (Watson Lake) in Yukon, as well as the Daylu Dena Council (Lower Post), Dease River First Nation (Good Hope Lake) and Kwadacha Nation (Fort Ware) in northern British Columbia.

The Kaska Collaboration Agreement, signed by the five Kaska Dena Nations in October 2011, facilitates negotiation and implementation of agreements with proponents pursuing resource development located within or adjacent to Kaska traditional territory. The Kaska Nation is represented in negotiation of agreements by three bodies: the Kaska Dena Council members, the Liard First Nation, and the Ross River Dena Council. Community engagement should be completed prior to future exploration activities.

Almadex has introduced the Company to the Liard First Nation and Ross River Dena Council through an initial letter explaining the involvement with the Logan Property and their commitment to the principles of shared prosperity and advancing reconciliation with Indigenous Nations in whose territory they operate. These letters were submitted on July 14th, 2022. Additionally, a Class 1 Notification was submitted on February 14, 2023, and as mentioned above, the notification opened for comments by potentially affected First Nations and stakeholders starting February 16th, 2023.

4.2.3 Environmental Liabilities and Significant Factors

The Authors are not aware of any social, political, or environmental liabilities to which the Property is subject, or any other significant factors and risks that may affect access, title, or the right or ability to perform work on the Logan Property.

5 Accessibility, Climate, Local Resources, Infrastructure and Physiography

5.1 Accessibility

The Logan Property is located in the northeastern Cassiar Mountains, within the Watson Lake Mining District of southeast Yukon. It is approximately 108 km northwest of Watson Lake and 260 km east of Whitehorse. The Property boundary is approximately 38 km north of the Alaska Highway and 22 km northeast of the northern terminus of the limited-use road providing access to CMC Metals Ltd.'s Silver Hart Property, also known as the Daughne and Northwind Lakes four-wheel drive road.

Current access to the Property is via helicopter. A 700 metre (m) long gravel airstrip was constructed at Logan in 1987 but has not been used in recent years. Future use of the airstrip would require surface levelling; however, small, short runway aircraft may be able to land on the strip in its current condition.

A 52 km long winter road was permitted and constructed for the 1988 drill program allowing November to April access to the Property for track-equipped vehicles (Stammers, 1989). The Logan winter road heads north from the Alaska Highway at milepost 687, approximately 80 km west of Watson Lake and 355 km east-southeast of Whitehorse, by road. The winter road permit was not renewed past 2009 and re-opening the road would require additional permitting and restoration. Alternatively, an extension could be constructed from the northern terminus of the Daughne and Northwind Lakes four-wheel drive road.

The Logan Property can be accessed year-round. The best time of year to explore the Property is from late May to mid-September, when snow cover has abated.

5.2 Climate

Like most of Yukon, the region has a subarctic climate (Dfc) in the Köppen climate classification system, characterized by short, mild to warm summers and long, cold winters. Climate data for nearby Watson Lake show an average July mean temperature of 15.3 °C and an average January mean temperature of -22.5 °C. Average annual rainfall is 262.0 mm and annual average snowfall is 196.1 cm. Precipitation falls evenly throughout the year, with snowfall mainly occurring from October through April (Environment and Climate Change Canada, 2022).

5.3 Local Resources and Infrastructure

Infrastructure on the Property is limited to the deactivated 52 km access road and unmaintained 700 m airstrip. With additional permitting, both could be reactivated to support exploration at Logan. Past programs were based out of a field camp located in the central claims area west of the airstrip. No camp buildings remain on site. The historical drill core is stored near the camp site.

The Logan access road meets the Alaska Highway at milepost 687, approximately 80 km west of Watson Lake and 350 km east-southeast of Whitehorse. According to the 2021 Census of Population conducted by Statistics Canada (2022), Watson Lake supports a population of 1,133. All basic services are available, including housing, hotels, groceries, restaurants, supplies, outfitters, general labour, and other goods and services. Limited industry services such as construction and heavy equipment operators are also available. The Watson Lake Community Hospital provides 24-hour, year-round emergency services, as well as basic hospital care.

The city of Whitehorse, with a metro population of 28,201 (Statistics Canada, 2022), offers significant infrastructure and support for the mining industry. Whitehorse General Hospital is a full-service hospital that provides specialized care in addition to 24-hour, year-round emergency services. Full industry services are available, including multiple drilling contractors, heavy equipment operators, fixed and rotary wing charter companies, sample preparation labs, mining and exploration supplies, skilled labour, and technical services. Additional industry and technical services can be contracted out of Vancouver, Edmonton, or Calgary. Several small communities, some offering fuel, food, and/or lodging, are located along the Alaska Highway between Whitehorse and Watson Lake.

The Pine Lake Aerodrome, located along the Alaska Highway between the communities of Swift and Rancheria, services the local region with a 914 m (3,000 foot) gravel airstrip suitable for small aircraft. The Watson Lake Airport has a 1,687 m (5,500 ft) paved runway capable of handling larger turboprop aircraft. Currently no commercial air service is available to Watson Lake. The Erik Nielsen Whitehorse International Airport is serviced by several commercial airlines including Air Canada, Air North, and WestJet with regularly scheduled year-round service to Vancouver, BC, Calgary, AB and Edmonton, AB, as well as smaller cities and towns in Yukon, Northwest Territories and British Columbia. Seasonal flights are available to Ottawa, ON, Toronto, ON, Yellowknife, NT, Juneau, Alaska, and Frankfurt, Germany. Several fixed wing and helicopter charter companies operate out of Whitehorse.

The nearest port is in Skagway, Alaska, approximately 430 km west-southwest by road via the Alaska Highway, Tagish Road (Yukon Highway 8), and the Klondike Highway (Yukon Highway 2 and Alaska Route 98). The Canadian port at Stewart, BC is located approximately 690 km south by road via the Alaska Highway and the Stewart-Cassiar Highway (BC Highway 37 & 37A). The rail head at Fort Nelson is 600 km southeast by road via the Alaska Highway.

Electrical power for the Logan camp would be supplied by diesel generators and fuel mobilized to the Property by plane or winter road. Diesel electrical power stations are located in Watson Lake (5.0 MW) and at Swift River (0.3 MW), located 60 km southwest of the Logan Property along the Alaska Highway. The nearest power transmission lines (<138 kV) connected to Whitehorse hydroelectric power terminate in Teslin, 130 km west-southwest of the Property.

5.4 Site Topography, Elevation and Vegetation

The Logan Property lies in the Pelly Mountain ecoregion of the Boreal Cordillera ecozone, within the Upper Liard watershed. The area is characterized by mixed forest, sub-alpine to alpine terrain, poor to fair outcrop exposure, and gentle to steep relief. Elevations at Logan range from 1,220 m above sea level (masl) in the east up to 1,650 masl in the west. Glacial sediments, including a prominent east-west trending esker and a large outwash fan situated near the airstrip, cover parts of the Property. The area has localized permafrost, moist depressional areas containing peat plateaus, patterned fen, and bog complexes. Talus slopes are most prominent in areas underlain by sedimentary bedrock. Deep colluvium occurs on lower regions of steep slopes.

The Property is mostly forested, except for topographic highs in the north and west parts of the claim block. Black and white spruce are the most common tree types. Black spruce is more common in wetter areas, with white spruce dominating in drier areas. Paper birch, aspen, balsam, and lodgepole pine also occur. Alpine fir occurs at the treeline (1,350 to 1,500 masl). In dense coniferous stands, feather moss dominates the understory. Willows and heath-like shrubs become prevalent in more open areas. Sedge or sphagnum tussocks are common in wetlands and under black spruce. Shrub birch and willow occur in the sub-alpine and extend well beyond the treeline.

Bedrock exposure is poor across the Property with less than 5% outcrop, except in areas of steep relief which have about 10% outcrop exposure. Overburden is extensive and shows a varied thickness within the drilling area ranging from less than 1 m up to 36.6 m (Stammers, 1989).

5.5 Surface Rights

The Logan Property is located on Yukon Territorial Lands (non-Settlement Lands). Surface rights to the Property are provided pursuant to Part 1 Section 78 of the Quartz Mining Act, wherein the recorded holder of a mineral claim is entitled to the right to enter on and use and occupy the surface of the claim for the efficient and miner-like operation of the mines and minerals contained in the claim.

In the opinion of the authors, the Property is of sufficient size to accommodate potential exploration and mining facilities, including waste rock disposal and processing infrastructure. There are no other significant factors or risks that the authors are aware of that would affect access or the ability to perform work on the Property

6 History

The Logan Property has been explored intermittently since the late 1970s by several operators, including Cordilleran Engineering Ltd., Getty Resources Ltd., Fairfield Minerals Ltd., Total Energold Minerals Inc., Expatriate Resources Ltd., and Yukon Zinc Corp. Exploration activities included geochemical sampling, geological mapping, geophysics, hand and mechanical trenching, and diamond drilling. Work completed to date defined three areas of sulphide mineralization, known as the Main, East, and West zones, along an approximately 8,000 m northeast-trending fault structure. Table 6.1 summarizes the historical work completed on the Property.

Table 6.1 Logan Property Historical Work

Year	Activities	Samples Collected / DDH metres	General Results	Report
1979	Grid and reconnaissance soil sampling, geological mapping, prospecting, induced polarization (IP) geophysics	510 soil samples, 20 rock samples	750 m by 150 m copper-lead-zinc-silver-tin soil anomaly coincident with major geological structures and IP anomalies; 1.5 m chip sample of Main Vein averaged 5.29% zinc, 0.58% copper, 1.79 oz/st ¹ (61.37 g/t) silver	Verley (1980)
1980	Grid soil sampling	777 soil samples	Relatively low value copper, lead, zinc, silver, tin, and tungsten values	Verley (1981)
1982	Grid soil sampling, blast trenching	72 soil samples	Delineated elongate zinc-lead-tin soil anomalies; trench float returned up to 38.25% zinc, 7.76 oz/st ¹ (266.06 g/t) silver, 0.51% copper, and 0.20% lead	Rowe and Sanguinetti (1982)
1984	Grid soil sampling, geological mapping, hand trenching	1785 soil samples, 50 rock samples	North-east trending 1,200 m by 150 m copper-lead-zinc-silver-tin soil anomaly; Main Vein samples return up to 16.35 oz/st ¹ (560.57 g/t) silver, 1.42% tin, 3.24% zinc, 19.89% arsenic, 0.51% lead, and 0.70% copper	Stammers (1985)
1985	In-fill soil sampling, IP geophysics, geological mapping, hand trenching	128 soil samples, 39 rock samples	Strong silver-lead soil anomaly over a 300 m by 50 m area with coincident chargeability anomalies over 700 m by 200 m area; trench samples returned 6.33 oz/st ¹ (217.03 g/t) silver, 0.11% tin and 0.21% lead	Stammers (1986)
1986	Drilling of NQ diamond drillholes (86-L-1 to 86-L-15)	15 drill holes, totalling 1,897.68 m.	Most holes encountered mineralized stockwork, veins and breccia bodies up to 140 m wide; best result is 86.55 m of 5.15% zinc and 15.88 g/t silver (86-L-8)	Donkersloot (1986)

Year	Activities	Samples Collected / DDH metres	General Results	Report
1987	Drilling of NQ diamond drillholes (87-L-16 to 87-L-59) Construction of camp, winter access road and Logan gravel airstrip, soil sampling, IP geophysics, ground surveying	44 drill holes totalling 7,769.66 m. 1,254 soil samples	All drill holes completed in the Main Zone with most definition and eastern step out exploration holes intersecting stockwork, veins and breccia bodies; best result is 51.5 m of 6.71% zinc and 36.00 g/t silver (87-L-31)	Stammers (1988)
1988	Drilling of NQ diamond drillholes (88-L-60 to 88-L-103), grid soil sampling, IP geophysics, mechanical trenching, metallurgical test work, and ground control surveys	44 drillholes totalling 6,771.44 m, 1,107 grid soil samples; 1,368 trench samples, 113 trench soil samples	Mainly exploratory drilling along strike from Main Zone with overall discouraging results except for three deep Main Zone holes; best result is 35.0 m of 7.15% zinc and 11.31 g/t silver (88-L-103); metallurgical test work indicated recoveries of 20% for tin, 93-95% zinc and 85-90% silver	Stammers (1989)
2003	Digital data compilation; scoping study; baseline environmental survey; additional claim staking and core storage facility upgrading	13 water, 13 stream sediment samples	Environmental baseline sampling; Inventory of core and refurbishing core storage facility; Mineral Resource Estimate	Dunning (2004)
2006	Airborne full tensor gravity survey (Air-FTG) and Magnetometry	360 linear km; 30 lines	Survey flown in northeast-southwest direction, line spacing 200 m, tie lines 1,000 m; total of 30 survey lines	Dunning (2007, Reprocessed by Condor in 2012 according to Diorio (2011, 2013)

Notes:

1. Oz/st: Ounces per short ton (1 ounce per short ton equals 34.286 grams per metric tonne)

6.1 Ownership History

The original Logan 1-36 quartz mineral claims were staked in 1979 by Regional Resources Ltd. (“Regional Resources”), a predecessor of Almadex Minerals Ltd. and Almaden Minerals Ltd. The claim package covered a copper-lead-zinc-silver-tin (Cu-Pb-Zn-Ag-Sn) soil anomaly and gossan (Yukon Minfile 105B 099). In March 1980, Regional Resources added the Logan 37-114 claims southeast of the original block.

In December 1982, Regional Resources entered into a joint venture agreement with Getty Canadian Metals Ltd. (“Getty Canadian”) to explore the Property. The Logan 37-114 claims were allowed to lapse prior to the 1984 field season and the Logan 37-88 claims were re-staked in June 1984 surrounding the original 36 claims. The Logan 89-94 claims

were staked in July 1984 to cover a new silver-lead-zinc showing to the northeast of the existing claims.

The interest in the Property was assigned to Getty Resources Ltd. (“Getty Resources”) from Getty Canadian in 1985. In May of 1986 claim ownership was transferred from Regional Resources to Fairfield Minerals Ltd. (“Fairfield”) with the option agreement still in place with Getty Resources.

The Logan 95-106 claims were staked for Fairfield in July 1986 in the northeast of the Property, followed by staking of Logan 107-168 in September 1986. Logan 169-200 were staked in the southwest of the Property during December 1987, covering areas with favorable geology and geochemistry. In 1988 Fairfield optioned the Property to Total Energold Corporation (“Total Energold”) to earn a 50% interest in the Property. Total Energold assigned its interest to Total Erickson Resources Ltd., which later assigned its interest to Energold Minerals Inc. (“Energold”).

Almaden Minerals Ltd. (“Almaden”) assumed ownership of a 40% joint venture interest in the Property when it amalgamated with Fairfield in 2002. Under the terms of the agreement, Almaden was carried to a production decision and both parties had certain rights and restrictions regarding ownership transfer. In its spinout by way of Plan of Arrangement in 2015, Almaden was not able to secure the necessary waivers of rights or restrictions from the majority joint venture owner to transfer the minority Logan interest to Azucar Minerals Ltd. (“Azucar”) but undertook to Azucar to do so once these were attained. Likewise, when Azucar completed its spinout by way of Plan of Arrangement in 2018 to create Almadex (the spinouts of 2015 and 2018 are collectively referred to as the “Spinout Arrangements” below), Azucar undertook to complete the spinout of the Logan interest to Almadex once Azucar was able to do so (Almadex Minerals, 2022).

In 2003, Expatriate Resources Ltd. (“Expatriate Resources”, predecessor of Yukon Zinc Corp.) acquired the majority 60% interest in the Logan joint venture agreement from Energold. Due to the expiry of the Logan 107-200 claims, Logan 107-152 were staked by Expatriate Resources in April 2003 to cover areas of potential infrastructure including the airstrip and a tailing impoundment facility.

At the time, Expatriate was investigating the Project as part of a broader evaluation of the combined resources of Logan and its Wolverine property, located approximately 100 kilometers north of the Property. In 2004, Expatriate re-organized its business and changed its name to Yukon Zinc Corp. (“Yukon Zinc”), focused on the development of the Wolverine project. In 2008, Yukon Zinc was acquired by Jinduicheng Canada Resources Corporation Ltd. (“JCR”), which is majority-owned by Jinduicheng Molybdenum Group, which in turn is wholly owned by Shaanxi Non-ferrous Metals Holding Group Co., Ltd. (Almadex Minerals, 2022).

Yukon Zinc went on to construct and develop the Wolverine mine, which reached commercial production in 2012, but was put on care and maintenance in 2015. In 2019, PricewaterhouseCoopers Inc. was appointed Receiver over Yukon Zinc. Almaden, acting

on behalf of the Company under the terms of the Joint Venture Agreement and consistent with the Spinout Arrangements, was able to acquire the remaining 60% joint venture interest in the Property, dissolve the joint venture agreement, and transfer Logan to Almadex for CAD\$ 121,100 in cash, with the Company assuming all costs and obligations, including an indemnification to Almaden, related thereto (Almadex Minerals, 2022).

6.2 Historical Surface Exploration

The earliest surface work carried out on the Property was undertaken in 1979 by Cordilleran Engineering Ltd. (“Cordilleran”) on behalf of Regional Resources. The 1979 program comprised grid and reconnaissance soil sampling, geological mapping, prospecting, and geophysical surveys. The program primarily targeted a vein system associated with a “felsite” dyke, both of which cross-cut granodiorite.

A total of 360 grid soil samples were collected at 50 m intervals along 100 m spaced lines in the vicinity of the current Main Zone area. The sampling identified an approximately 750 metres by 150 metres zone of coincident copper (Cu), lead (Pb), zinc (Zn), silver (Ag), and tin (Sn) in soil coincident with major structures identified during geological mapping. Another 150 reconnaissance soil samples were collected to the southwest in the vicinity of the current West Zone area. Anomalous Cu, Pb, Zn, Ag and Sn values were returned in the northwest of the reconnaissance sample area (Verley, 1980).

Rock sampling during 1979 returned significant anomalous values including a 1.5 m (5 ft) vein chip sample averaging 5.29% Zn, 0.58% Cu, 1.79 oz/st (61.37 grams/tonne or g/t) Ag, with trace Pb, Sn, and tungsten (W) oxide. Typical mineralized float grab samples returned 8.15% Zn, 0.29% Cu, 5.01 oz/st (171.77 g/t) Ag with selected samples assaying up to 35.88% Zn, 1.42% Cu, 16.35 oz/st (560.57 g/t) Ag. Samples of silicified and brecciated “felsites” returned up to 1.42% Sn (Verley 1980).

Induced polarization (IP), electromagnetic, and magnetometer geophysical testing was completed on one line in the Main Zone, resulting in the identification of “definite” IP anomalies associated with fault structures and geochemical anomalies. Magnetometer and electromagnetic results were inconclusive (Verley, 1980).

From the work completed during the 1979 program, Verley (1980) concluded that the Logan Property hosts vein type Zn-Cu-Ag mineralization like greisen-type deposits, with the potential to support a small tonnage, high grade mining operation. The potential to host significant Sn and Ag mineralization was also noted (Verley, 1980).

A total of 777 grid soil samples were collected during the 1980 exploration program, covering the newly staked Logan 37-114 claims located southeast of the original block. Samples were collected at 50 m intervals along 200 m spaced lines. Results indicated an erratic distribution of locally weak “anomalies” in Cu, Pb, Zn, and Ag in soil. It was concluded that these results represented background values. Weakly anomalous Sn and W values were observed similarly spread across the grid (Verley, 1981).

No work was completed during the 1981 season. During 1982, Cordilleran undertook a short soil geochemical sampling and trenching program on behalf of Regional Resources. A total of 72 soil samples were collected at 50 m intervals along 100 m spaced lines, in the vicinity of the current West Zone area. Several zones of anomalous Zn, Pb, and Sn were identified through the central and southeastern parts of the grid. A parallel zone of Zn ± Pb was identified 200 m northwest. It was concluded that potential existed for two parallel mineralized structures exceeding 600 m in length in the West Zone area (Rowe and Sanguinetti, 1982).

Two trenches (TR-1 and TR-2) were blasted and hand dug in an area of sphalerite-rich float on the Logan 2 claim in the Main Zone area. Both trenches were abandoned upon encountering the water table prior to reaching solid bedrock. Trenched material comprised sandy, boulder till with abundant sphalerite-mineralized quartz boulders, possibly indicating proximity to a mineralized bedrock source. Grab samples of trench float returned values of 8.25% and 19.55% Zn, 0.76 oz/st (26.06 g/t) and 7.76 oz/st (266.06 g/t) Ag, 0.09% and 0.51% Cu, 0.01% and 0.20% Pb with minor gold, tin and tungsten. Granodiorite boulder float containing sphalerite-arsenopyrite mineralized quartz vein stockwork were located 50 m upslope from the trenches. One sample returned values of 3.24% Zn, 0.55 oz/st (18.86 g/t) Ag, 0.03% Cu, 0.01% Pb, 0.34% Sn with minor gold and tungsten. Results from the trenching indicated good potential for an extensive high-grade vein deposit (Rowe and Sanguinetti, 1982).

No work was completed during 1983. Exploration during 1984 was completed by Cordilleran on behalf of Regional Resources. The program comprised soil sampling, geological mapping, prospecting, geophysical surveys, and hand trenching. A total of 1,785 B-horizon soil samples were collected at 50 m intervals along 200 m spaced lines, covering the Logan 1-94 claims. The sampling identified geochemical anomalies over the Main, East, and West showings (zones). The most significant anomaly was associated with the Main Showing, characterized by a northeast-trending 1,200 m by 150 m area of elevated Cu-Pb-Zn-Ag-Sn in soil. The anomaly is truncated sharply at its western edge and disperses irregularly to the east and northeast, partly due to increased valley overburden. Anomalous arsenic and zinc values between the Main and East showings showed potential for additional mineralization from covered sources (Stammers, 1985).

An anomalous, northeast-trending zone of coincident Ag-Pb-As-Sn-Cu in soil was identified 1,100 m northeast of the Main Showing, leading to the discovery of the East Showing. To the southwest of the Main Showing, moderately anomalous Cu-Pb-Zn-Sn-As in soil outlined a broad region known as the West Showing. Several small, low priority soil geochemical anomalies are widely dispersed in the southwest and east-central claims area (Stammers, 1985).

Geological mapping was completed over the Logan 1-88 claim block at 1:5,000 scale. A total of 50 rock samples were collected concurrently. At the Main Showing, banded sphalerite with lesser chalcopyrite, pyrite, and arsenopyrite was identified in a 1.78 m wide vein known as the Main Vein. Disseminated arsenopyrite, tetrahedrite, pyrite,

sphalerite, galena, chalcopyrite, and possible cassiterite mineralization hosted in quartz veins, stockworks, and breccias was also identified at the Main Showing, within highly altered granodiorite or greisen-like rocks. Grab samples of this polymetallic mineralization returned values up to 16.35 oz/st (560.57 g/t) Ag, 1.42% Sn, 3.24% Zn, 19.89% As, 0.51% Pb, and 0.70% Cu. At the East Showing, tetrahedrite, galena, sphalerite, pyrite, and arsenopyrite mineralized grab samples returned values up to 23.67 oz/st (811.54 g/t) Ag, 6.2% Zn, 1.93% Pb, 0.1% Sn, and more than 0.1% As (Stammers, 1985).

Hand trench TR84-L-1 was excavated over a 6 m length with a width ranging from 1.3 to 3.2 m and up to 0.8 m depth. The trench reached highly altered granodiorite bedrock characterized by silicification, kaolinization and sericitization with cross-cutting quartz veins and veinlets up to 40 cm wide. Quartz veining and granodiorite exhibit arsenopyrite, pyrite, and minor tetrahedrite and chalcopyrite mineralization.

In 1985, Cordilleran Engineering completed an in-fill soil geochemistry survey, Induced Polarization (IP) ground geophysical surveys, hand trenching and geological mapping on behalf of Regional Resources and Getty Canadian. A total of 128 soil samples and 39 rock samples were collected, IP geophysical surveys at three different spacings were conducted (11.0 line-km of 100 m / 1.9 line-km of 50 m / 3.025 line-km of 25 m), 1:500 scale geological mapping over the East Zone, and two trenches (13.5 m and 10.0 m long) in the East Zone successfully reached bedrock and sampled. Continued positive results from the surface exploration work recommended a first phase 1986 diamond drilling program to test the best Main and East Zone mineralization, geophysical and geochemical anomalies.

Soil sampling covered the East Zone with 95 soil samples collected from a detailed 25 m by 25 m grid which identified a 300 m long by 50 m wide Ag-Pb anomaly, open to the north and east, coincident with geophysical anomalies and Ag-Pb-Zn-Sn-As mineralization. A second area, the South Anomalous Area, south of the Main Zone, was also targeted with 33 soil samples over an area of previously reported Tin anomalies, however no additional anomalous Tin results and discouraging Cu-Pb-Zn-Ag-As were reported.

Geophysical surveys in 1985 were conducted to the east and west of the previous grid established in 1984, resulting in coverage over a total length of 3.8 km through the Main and East Zones. Significant anomalies were delineated, and diamond drilling was recommended for the 1986 field season.

A summary of historical drilling is provided in Section 6.3 and is discussed in further detail in Section 10. Historical diamond drilling on the Property took place from 1986 to 1988. In 1986, an initial diamond drilling program was completed along the Main and East Zones, totalling 1,897.68 m in 15 drill holes. In 1987, additional exploration drilling of 7,769.66 m in 44 holes along the Main Zone were completed. In 1988, a total of 6,771.44 m in 44 drill holes were drilled along the Main, East and West Zones.

Figure 6.1. Trenching at the Logan property (1988).

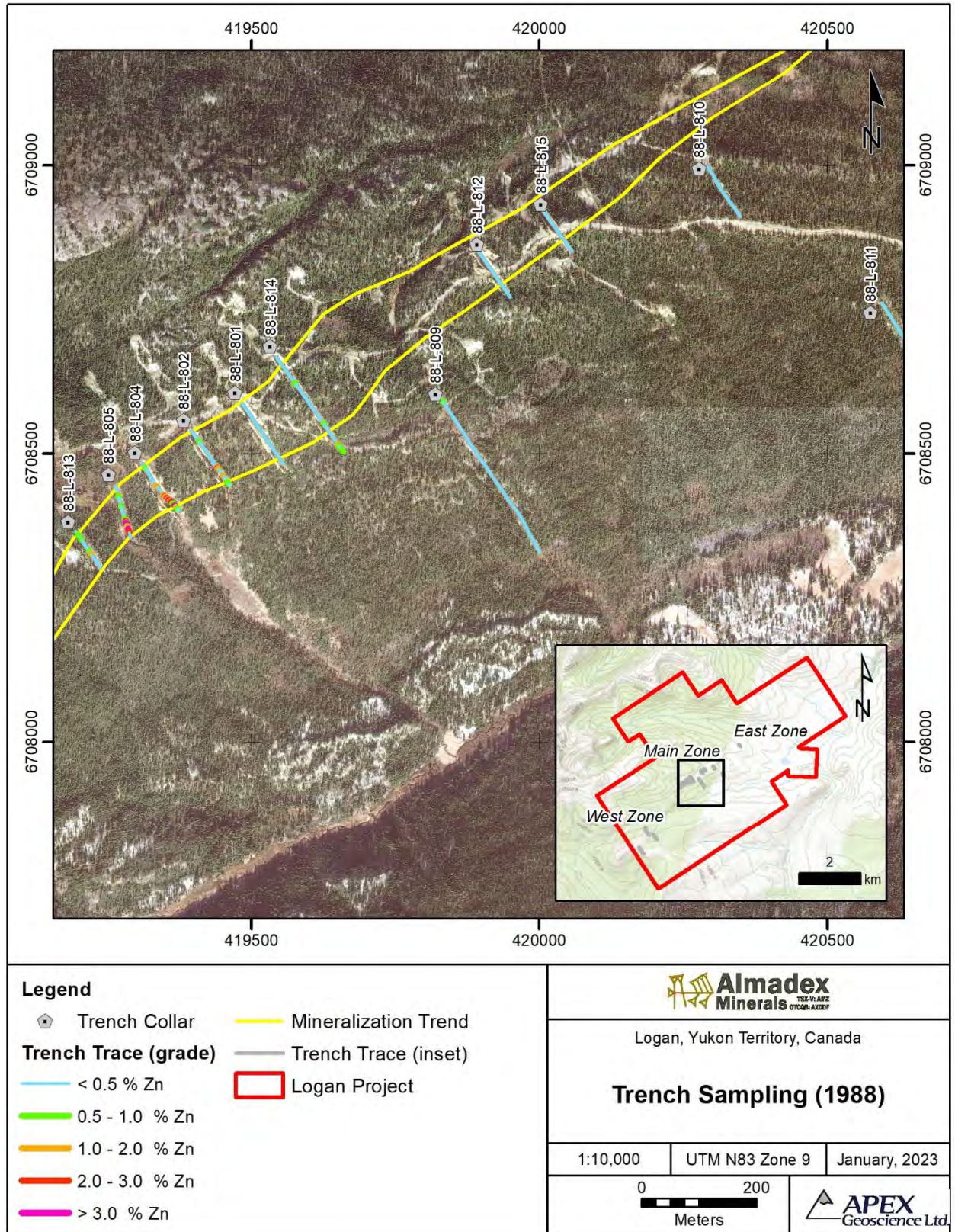


Figure 6.2. Soil geochemistry Zinc anomalies (>400 ppm) at the Logan property (1988).

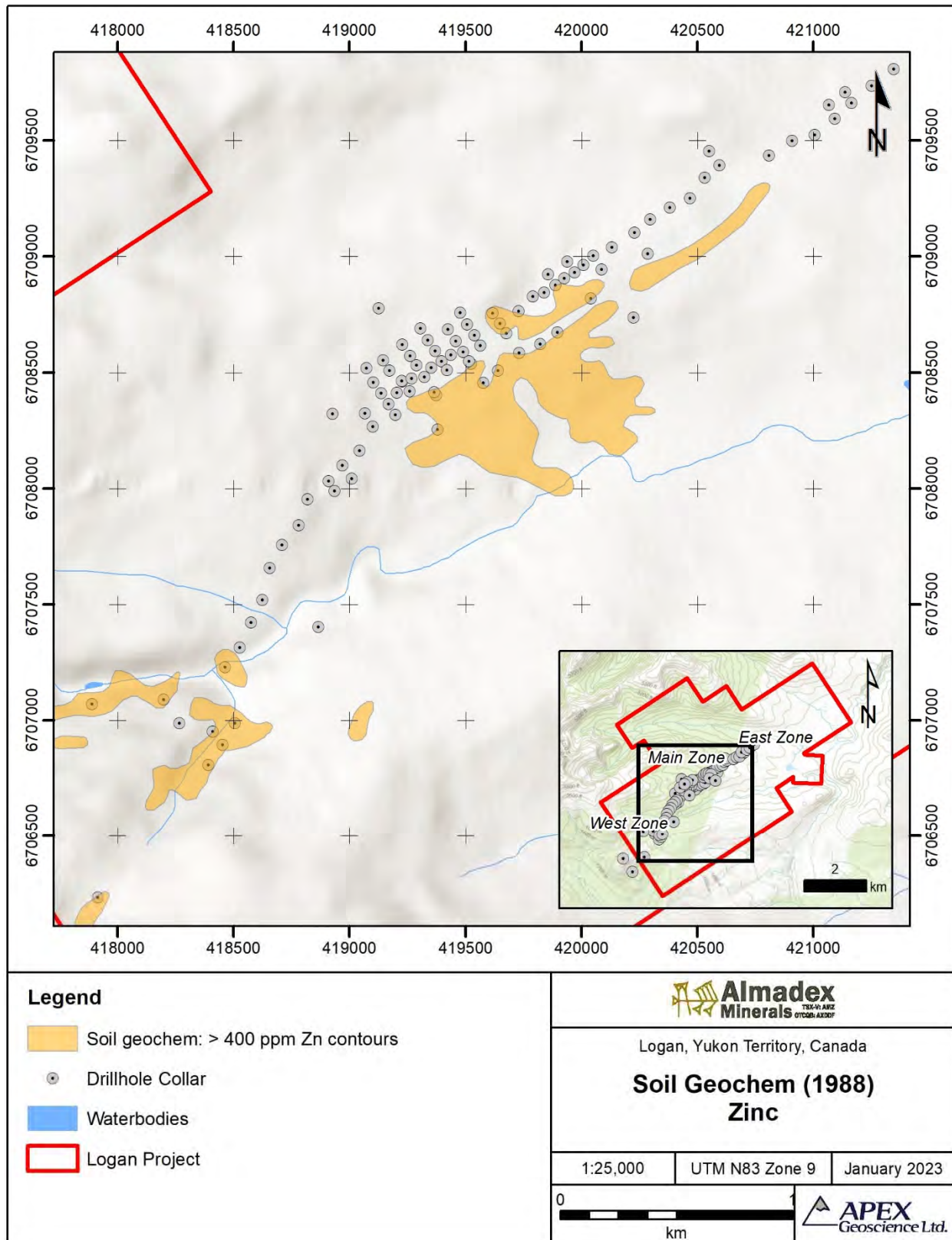
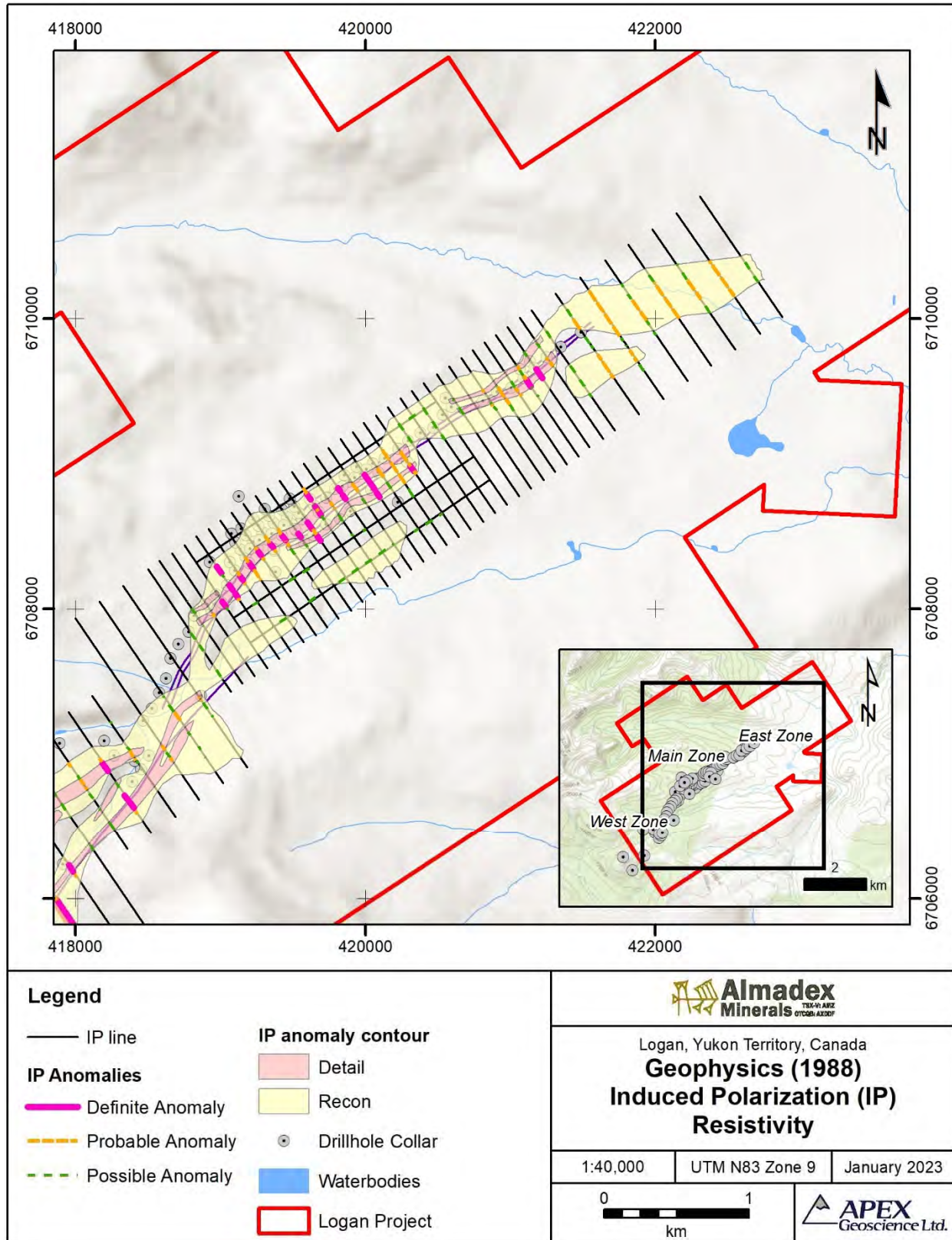


Figure 6.3. IP resistivity anomalies at the Logan property (1988).



In 1987, ground control surveys and aerial photography for ortho-rectification were carried out. Soil geochemistry and ground IP geophysical surveys were also conducted over the East Zone. Field site construction was undertaken on the access road, airstrip and camp location to facilitate future work on the Property (Dunning, 2003).

In 1988, a D-6 Cat and an excavator were mobilized to the Property via the 52 km winter road in mid-March to prepare drill and trench sites, construct access roads and to move the drills. Both machines were demobilized in November of the same year. A total of 15 trenches (totalling 2,412 m) along the Main (11 trenches), West (3 trenches) and East (1 trench) Zones were mapped and sampled for assays. In general, low levels of zinc mineralization (<0.10% Zn) were interpreted to be related to surface leaching of host rocks and encouraging silver results were returned from Main Zone trenching (Figure 6.1). No significant mineralization was intersected in the West and East Zone trenches. A total of 1,107 soil samples were collected every 50 m on 100 m line spacing in the West Zone and on 200 m line spacing in the western claims area. A compilation map from 1988 by Total Energold Corp., showing zinc higher than 400 ppm from soils is shown on Figure 6.2. Ground IP geophysical surveys were carried out over the Main and West Zones, totalling 9.0 km of 100-m, 6.0 km of 50-m and 10.0 km of 25-m dipole-dipole IP geophysical surveys with several moderate to strong IP anomalies outlined (Figure 6.3). However, diamond drill testing results of the best geophysical responses were negative with low concentration of pyrite observed downhole in the metasedimentary and granodiorite rocks interpreted to account for the strong geophysical IP response (Stammers, 1989).

In 2003, the Logan 107-152 claims were staked by Expatriate Resources to cover areas of potential infrastructure including the airstrip and a tailing impoundment facility. A baseline environmental study was initiated in advance of further exploration and engineering studies with 13 water and 13 stream sediment samples collected (Figure 6.4) and sent for analysis of trace elements (total metals and dissolved metals), physical tests (conductivity, hardness, total suspended solids, pH, and turbidity), dissolved anions (acidity/alkalinity, bromide, chlorite, fluoride, and sulphate) and dissolved nutrients (nitrate and nitrite). The report indicates that because of very cold-water temperatures at the time of sampling which caused freezing of the stream gauging turbine, stream gauging measurements had a higher-than-normal uncertainty. Additionally, very uneven and boulder stream cross-sections caused very uneven flow through the flow measurement panels, therefore flow measurements should be used with this limitation taken into consideration (Pearson, 2003 *in* Dunning, 2004)

In 2006, Yukon Zinc retained Bell Geospace to perform an airborne Full Tensor Gravity (Air-FTG) and magnetometry survey over the Logan Property. A total of 360 linear km was completed over 30 survey lines trending northeast-southwest (Figure 6.5 and Figure 6.6). The Air-FTG survey was carried out at elevations between 200 and 400 m above surface. According to a later report by Condor Consulting Inc. in 2011, the high terrain clearance and the lack of detailed topography of the Logan surface, prevents the clear determination of anomalies associated with the known zinc mineralization and the size of the Logan Main zone (Dioro, 2011).

Figure 6.4. Surface water sampling at the Logan property (2003).

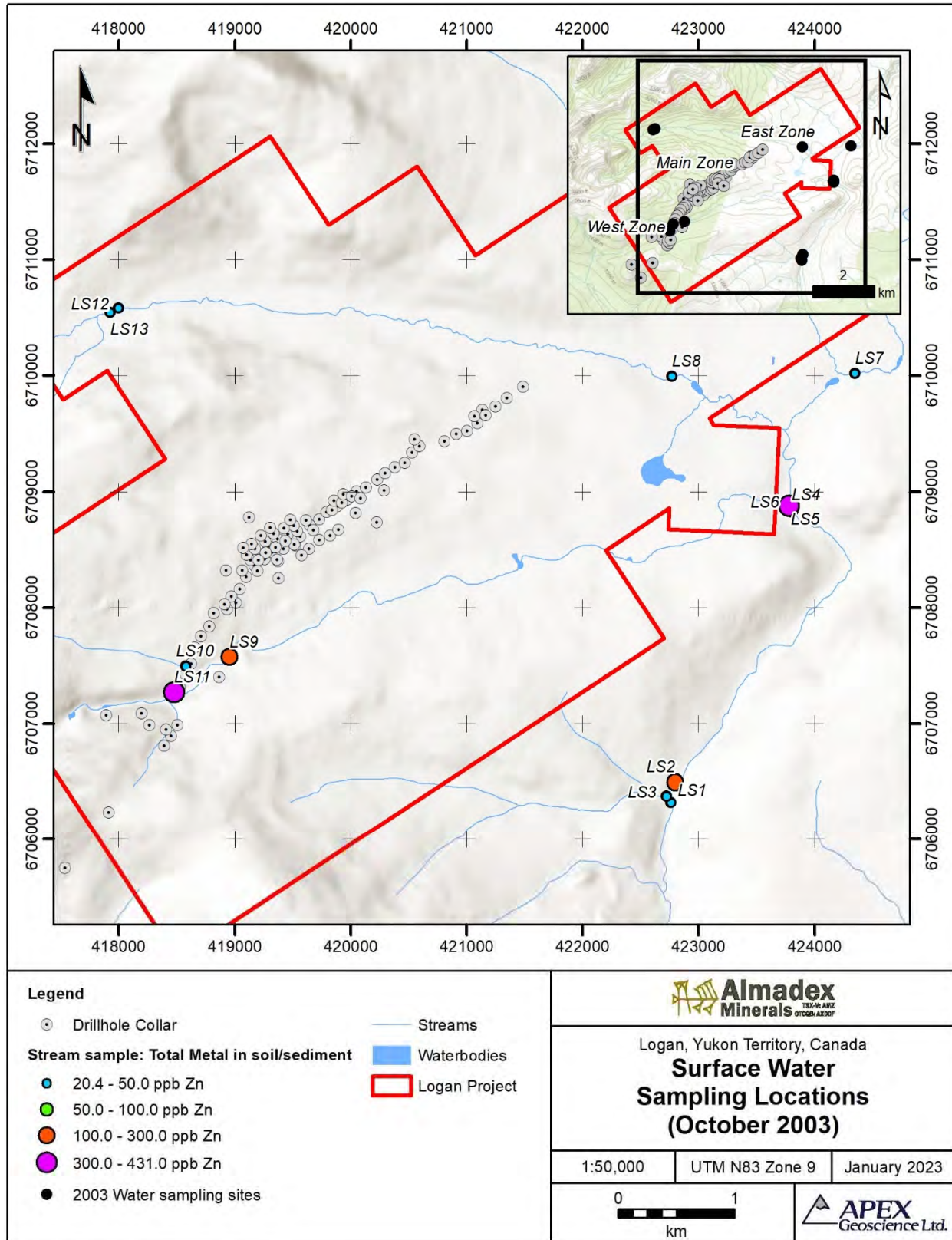


Figure 6.5. Geophysics Air Full Tensor (FTG) Gravity (Tzz) (2006).

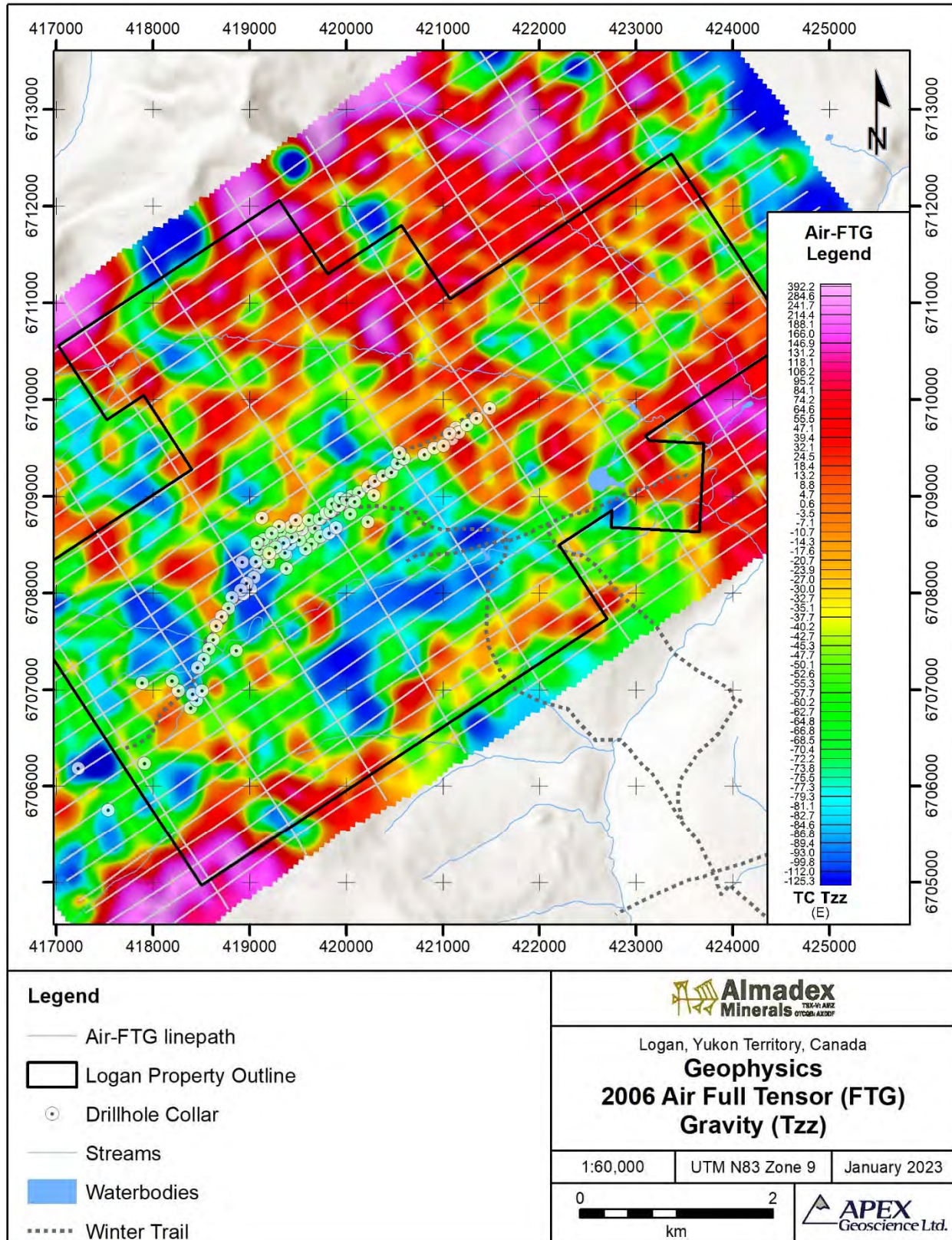
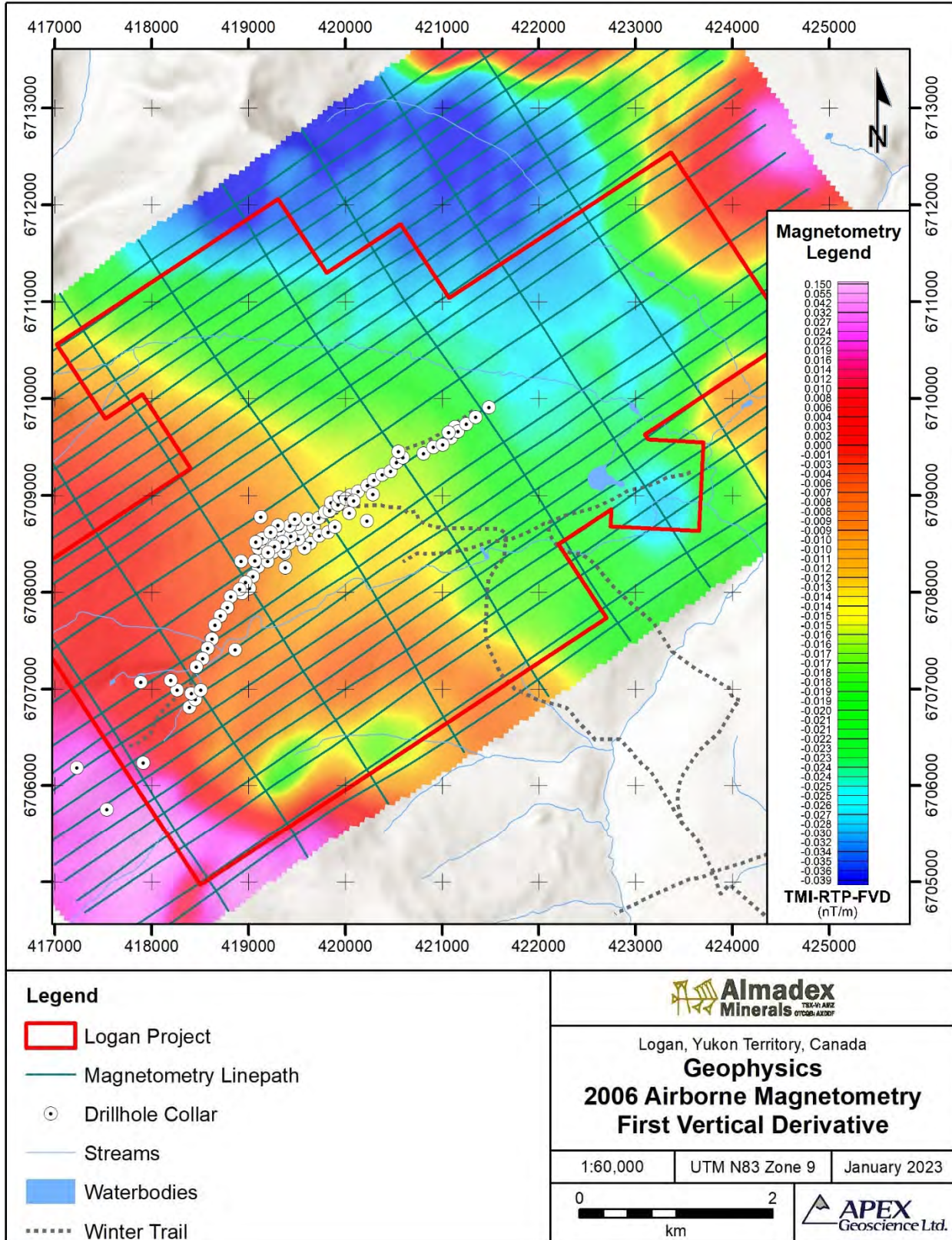


Figure 6.6. Total Magnetic intensity (TMI) – First Vertical Derivative (FVD) (2006).



6.3 Historical Drilling

All diamond drilling at the Property was undertaken between 1986 to 1988 while the Property was under ownership of Fairfield and Total Energold. All holes were NQ in size. Drilling was completed by Arctic Diamond Drilling Ltd. All three programs were conducted by consultants of Cordilleran Engineering Ltd. Most drilling was helicopter supported, while during 1988 a D6-CAT prepared drilling pads and access roads. Core was processed at the Logan camp, where core was logged on paper; segments of interest were selected for sampling and split in half mechanically. Details on historical drilling is further discussed in Section 10 of this Report.

During 1986, a total of 15 drill holes (1,897.68 m) were completed along the Main and East zones. Thirteen (13) holes targeted the Main Zone (1,682.49 m) and two were drilled at the East Zone (215.19 m). The Main Zone was defined by drilling along 700 m strike length.

In 1987, an additional 44 drill holes (7,769.66 m) were completed along the Main Zone. The extent of drilling within the Main Zone was extended to 1,700 m strike length up to 400 m wide with the best mineralization occurring within a 700 m strike length (Stammers, 1989).

In 1988, a further 44 drill holes (6,771.44 m) delineated the Main, West, and East Zones. A total of 11 drill holes were completed along the West Zone and a further 11 holes along the East Zone. The objective of the 1988 drill program was to target favourable geochemical, geophysical, and geological targets to test for eastward or westward extensions along the 5.8 km long, fault-related structure hosting the Main Zone. A second objective was to complete deep definition drilling within the Main Zone to test for the continuity of mineralization at depth. Positive results were received in three of five of the deep drill holes, with mineralization remaining open at depth over a 400 m length. However, results of the exploratory drilling outwards along the Main Zone structure testing for parallel or cross-cutting linear structures did not intersect significant mineralization (Stammers, 1989). East and West Zone holes generally returned low grade mineralization (<1% Zn).

6.4 Historical Resources at the Logan Property

The following section summarizes the historical MRE that has been completed on the Logan Property. The MRE discussed in this section was completed prior to the implementation of NI 43-101 and standards set forth in and Canadian Institute of Mining (“CIM”) Definition Standards for Mineral Resources and Mineral Reserves (May, 2014) and CIM Estimation of Mineral Resources & Mineral Reserves Best Practices Guidelines (November, 2019). The authors refer to this estimate as a “historical resource” and the reader is cautioned not to treat it, or any part of it, as a current mineral resource. The historical MRE is superseded by the current MRE reported in Section 14 of this Report.

6.2.1 Yukon Zinc Historical Mineral Resource (2012)

A mineral resource estimate was completed for Yukon Zinc by Tetra Tech in 2012 (Harder and O'Brien, 2012). The 2012 Tetra Tech report is treated as a historical mineral resource. A Qualified Person has not done sufficient work to classify the historical estimate as a current mineral resource and Almadex is not treating this historical estimate as current mineral resources.

The 2012 Logan historical mineral resource estimate is considered relevant and reliable. The Tetra Tech historical estimate for the Logan Main Zone deposit, used sample assay data from 56 drillholes which intersect the deposit containing 4,314 zinc and silver assays. Samples were composited to 2 m lengths and no assay values were capped. The Logan Main Zone deposit was modeled as a single mineralized geological wireframe bounded by two faults (the hanging wall and footwall faults) striking southwest and dipping moderately northwest. Where the position of the upper and lower faults bounds is uncertain a grade cut-off of 0.5% zinc was used to constrain the model. Bulk density values of 2.95 and 2.7 were assigned to mineralization and waste rock based on 53 separate SG determinations from drill core pulp composite samples representing 556 m of diamond drill core. Interpolation was done using Ordinary Kriging on blocks 10 m x 10 m x 10 m in size. Only zinc and silver were consistently assayed throughout the three years of drilling, and therefore these were the only metals estimated. At a 1% zinc cut-off grade, the Logan Main Zone was estimated to contain 42.7 Mt at an average grade of 2.76% zinc and 12.89 ppm silver.

The 2012 Tetra Tech historical estimate, reported at a % zinc cut-off grade, is summarized in Table 6.2 (highlighted in grey). The entire resource was classified as an inferred historical resource, based on a lack of QA/QC and specific gravity (SG) data, a lack of original assay certificates to validate the data, and an inability to confirm the locations of any drillholes. The Logan Main Zone historical estimate was classified using the definitions set out in CIM Definition Standards for Mineral Resources and Mineral Reserves (2010), which was superseded by CIM (2014). Similarly, the Main Zone estimate predates CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (2019). To verify the historical estimate as a current mineral resource a Qualified Person would need to prepare an updated MRE and NI 43-101 technical report with respect to the Logan Property.

Table 6.2 Historical (2012) Logan Main Zone Resource Estimate

Zn Cut-off (%)	Volume (m ³) > Cut-off	Tonnes > Cut-off	Grade > Cut-off	
			Zn Grade	Ag Grade
			(%)	(ppm)
0.5	19,369,095	57,138,829	2.25	10.6
1	14,462,266	42,663,685	2.76	12.89
2	7,830,622	23,100,336	3.88	17.45
3	4,832,848	14,256,903	4.77	20.82
4	2,882,300	8,502,785	5.65	23.76
5	1,575,225	4,646,915	6.64	25.7
7	457,511	1,349,657	8.74	31.52

Table 6.2 above illustrates the sensitivity of the historical mineral resource estimate to different cut-off grades for a potential open-pit operation scenario with reasonable outlook for economic extraction. The reader is cautioned that the figures provided in the above table, other than those relating to the 1.0% base case cut-off, should not be interpreted as a statement of historical or current mineral resources. Quantities and estimated grades for different cut-off grades are presented for the sole purpose of demonstrating the sensitivity of the historical resource model to the choice of a specific cut-off grade.

7 Geological Setting and Mineralization

7.1 Regional Geology

The following text on the regional geology of the Logan Property is a summary of previous studies and reports on the general Property area and the Rancheria District of the Omineca Belt and in southern Yukon by Poole, Roddick and Green (1960), Amukun and Lowey (1987), Murphy (1988), Stammers (1989), and Hart (2001).

The Property is located within the Yukon Omineca Belt morphogeological terrane, part of the Canadian Cordillera (Figure 7.1). The Omineca Belt is a Jurassic – Cretaceous volcanic arc terrane that extends from Alaska, through to the Yukon, British Columbia, and Washington state. Within the Omineca Belt, the Property is located in the Rancheria District of southeastern Yukon and is composed of two main tectonic units, the Slide Mountain Terrane and the Cassiar Platform (Hart, 2001). The Rancheria District is known for several Silver-Lead-Zinc (Ag-Pb-Zn) vein and skarn mineral occurrences.

Regional (1:250,000 scale) geological mapping of the Wolf Lake map area (NTS 105/B) by Poole (1951-1955) and Roddick and Green (1959) of the Geological Survey of Canada provides the initial regional framework. Subsequent mapping by Amukun and Lowey (1987; NTS 105/B-7 and 105/B-8) and Murphy (1988; NTS 105/B-10 and 105/B-11) was completed for the (then) Department of Indian and Northern Affairs Geology Division. An updated 2022 bedrock geology digital dataset is available through the Yukon Geological Survey (Figure 7.2).

The Property lies within the Cassiar Platform composed of slightly metamorphosed and folded Proterozoic and Paleozoic sedimentary siliciclastic and carbonate rocks host to numerous other silver-rich vein and replacement-style deposits (Hart, 2001; Abbott, 1983). The Cassiar Platform is underlain primarily by Lower Cambrian (Atan Group) miogeoclinal quartz-rich clastic and carbonate rocks and derived schists and gneisses, which are intruded by Cretaceous polyphase granitoid batholiths, and minor mafic and felsic dykes of presumed Tertiary age (Amukun and Lowey, 1987). The Cretaceous Cassiar batholith, Marker Lake batholith and Meister Lake stock are generally granitic, ranging in composition from quartz diorite through to granodiorite, quartz monzonite, pegmatite, aplite, “felsite” and related dykes and veins (Amukun and Lowey, 1987).

The dominant structures in the region are the major northwest-trending Cassiar, Tintina, and Kechika strike-slip faults. Related small-scale faults of variable orientations and age, in addition to folds, thrust faults and joints occur in the region (Amukun and Lowey, 1987). Rocks of the Cassiar Platform terrane have experienced two phases of regional ductile deformation with a locally important third phase due to the emplacement of the Marker Lake batholith (Murphy, 1987). All structures are cut by steep normal faults northwest to northeast trending. The first two phases of regional deformation pre-date the late Early Cretaceous intrusion of the Marker Lake batholith represented by observed bedding and structural features. Doming of bedding and structural features occur around the unfoliated Marker Lake batholith.

7.2 Property Geology

The property-scale geological units identified and described below were summarized by Stammers (1989) and provide the framework for the deposit geology and lithological varieties observed at surface and within drill core. Local geology map for the Logan property is presented in Figure 7.3

Table 7.1 Property Geology rock types and descriptions

Age	Rock Type	Rock Description	Alteration	Mineralization
Tertiary (?)	Breccia	Diatreme and tectonic breccias	Local to pervasive ankerite, chert, silicification	Occur within mineralized zone
Tertiary (?)	Veins	mm-cm to m-scale (<5 m), qtz, qtz-sulphide and late-stage veining	Late stage ankerite	Locally mineralized
Tertiary (?)	Andesite (Felsite) Dykes	1-15 m wide, green-grey color, fine-grained	Local sericite	Commonly mineralized
Tertiary (?)	Porphyry Dykes	Quartz feldspar monzonite / latite	Local sericite, chlorite, biotite	Commonly mineralized
Cretaceous (Cassiar Suite)	Granodiorite (Marker Lake batholith)	Sub-units GD, AGD, SAGD	Weak to pervasive sericite, clay, silicification	Mostly in SAGD, locally in AGD
Lower Cambrian	Siliciclastic Metasedimentary Rocks	Qtz-fspr-bt Muscovite Schist, meta-siltstones, quartzites, px-gnt skarn	Weak metamorphic grade	Locally mineralized

Bedrock exposure across the Logan property is poor and Stammers (1989) noted less than 5% rock outcroppings, apart from areas of steep terrain where rock outcrops may increase to 10%. Overburden is extensive within the Property, corroborated by diamond drilling with a range of thickness from less than one metre up to 36 m thick.

Property-scale geology shows the Cretaceous Marker Lake granodiorite batholith in contact with a deformed package of Lower Cambrian siliciclastic metasedimentary rocks in the southwest portion of the Property (Figure 7.2, 7.3). Stammers (1989) noted that later property-scale geological mapping established greater abundance of granodiorite relative to lesser pegmatitic phases of the Marker Lake batholith. Located about 15 km south of the Property, the northwest trending Cassiar batholith differs in composition from the Marker Lake batholith due to its higher proportion of muscovite content contrasted with biotite.

Recent surficial glacial deposits include widespread boulder till deposits, a prominent northeast-trending esker centred in the main valley of Logan Creek, and a fan-like deposit of sand and gravel in the vicinity of the Logan airstrip on the southeastern corner of the Property (Stammers, 1989). Faults on the Property are typically associated with topographic depressions dominated by northeast-trending features with minor northwest-trending secondary structures.

Figure 7.1. Regional geology: Morphogeological Belts and Terranes.

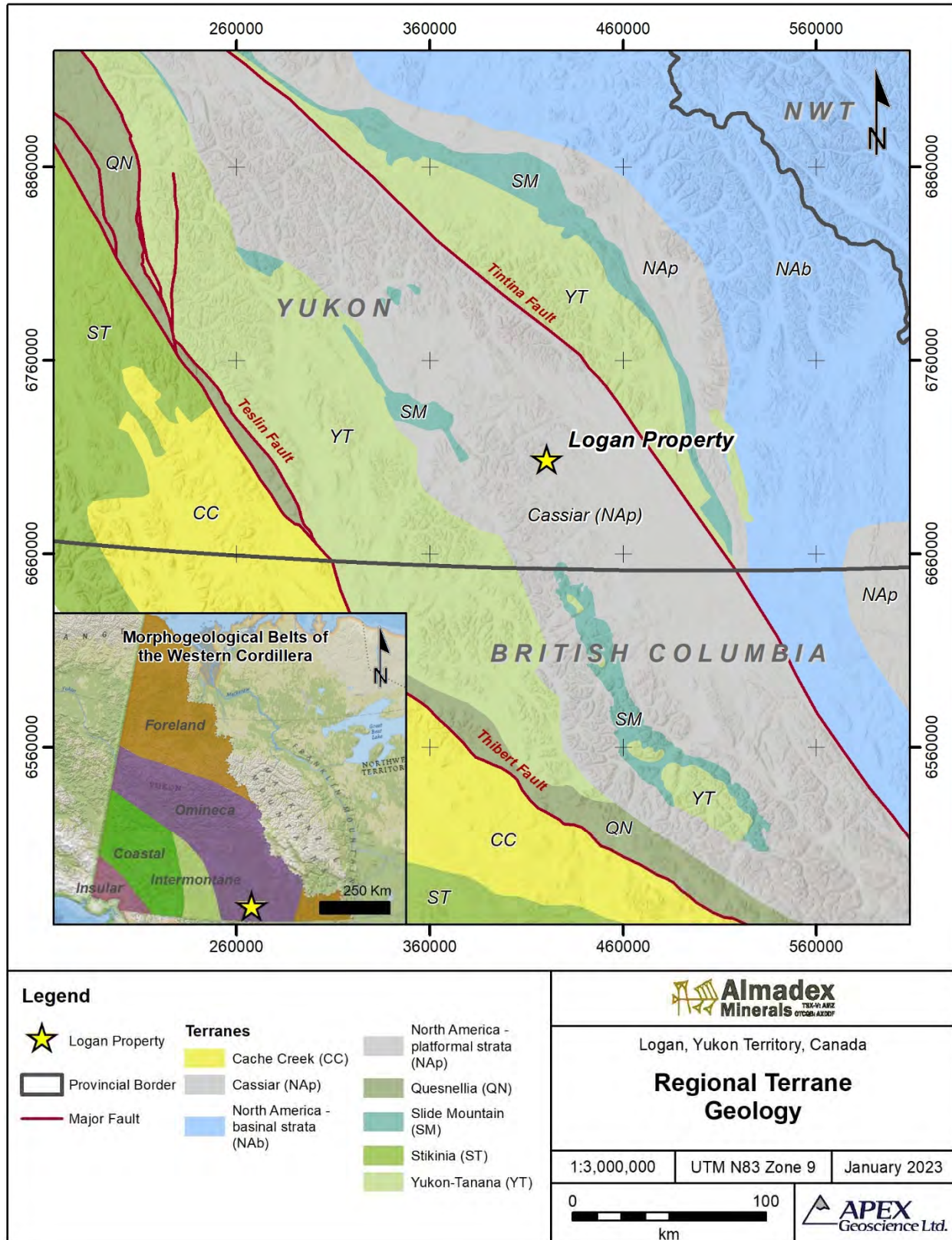


Figure 7.2. Regional Bedrock Geology of the Logan Property.

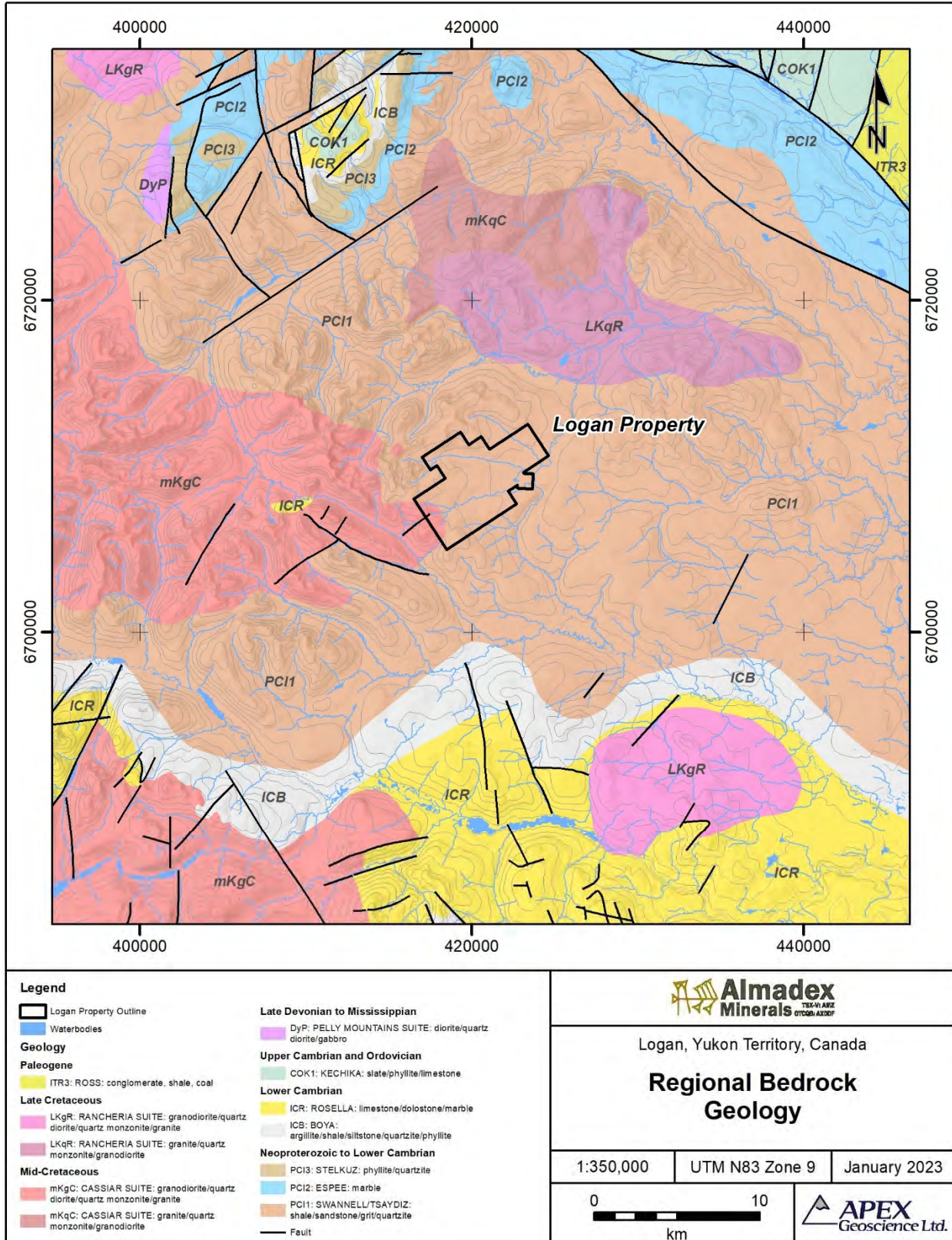
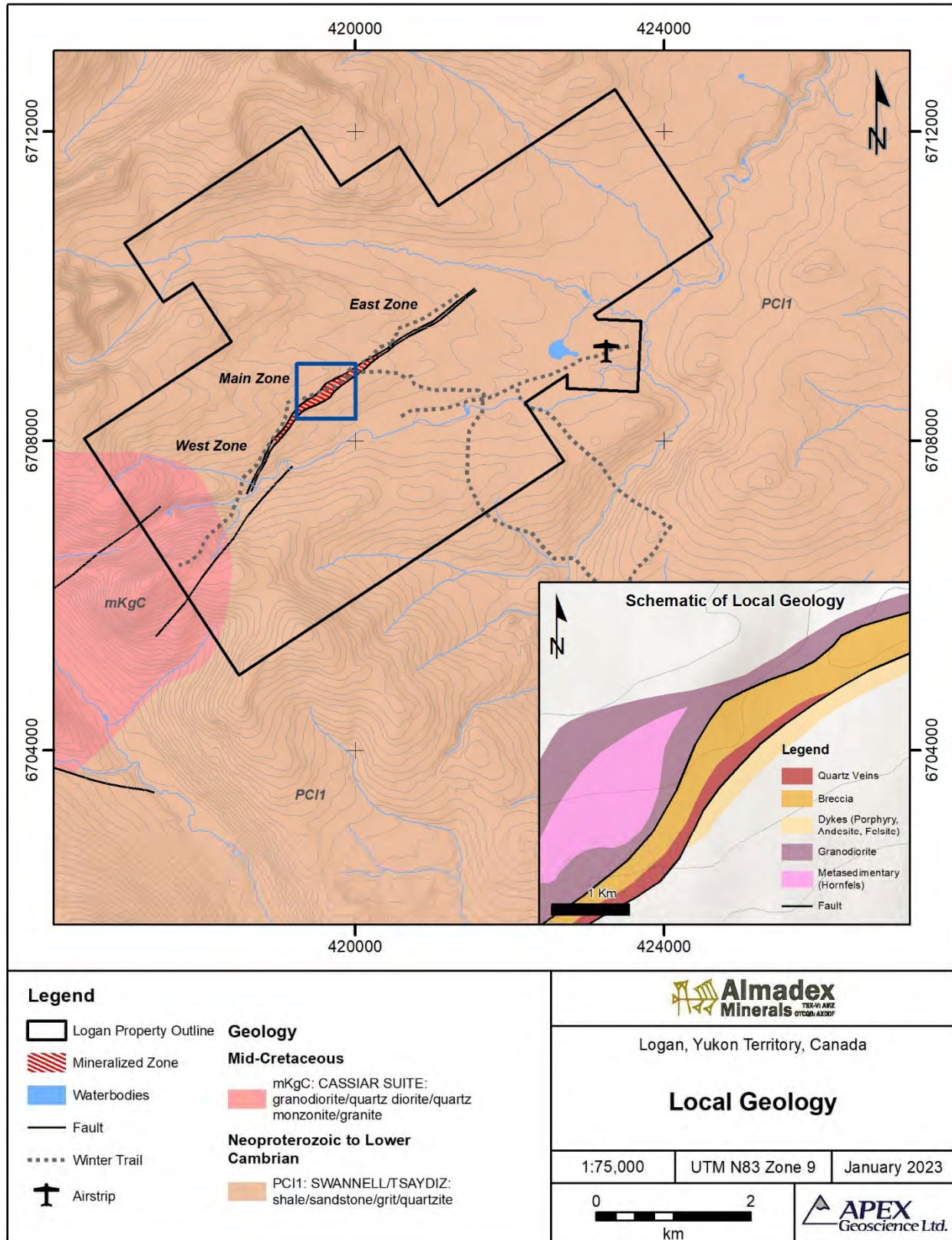


Figure 7.3. Local geology of the Logan Property (Schematic geology after Bremmer, 1990).



7.2.1 Lower Cambrian – Siliciclastic Metasedimentary Rocks

This unit is observed in the southwest portion of the Property and was intersected in several West Zone drill holes. Elsewhere on the Property, in outcrop and drill core, xenoliths of this unit occur in a range of sizes, shapes and orientations. The unit is described as quartz-feldspar-biotite muscovite schist, banded metasiltstone or hornfels and minor interbedded quartzite. Narrow lenses of pyroxene-garnet skarn have been observed at two locations on the Property within the schist unit. Granodiorite sills and dykes locally intrude and cross-cut the Lower Cambrian siliciclastic metasedimentary rocks.

7.2.2 Cretaceous – Marker Lake Granodiorite

The most common rock type on the Property is a granodiorite phase of the Marker Lake batholith. Granodiorite seen in drill core was divided into three sub-units based on alteration intensity: granodiorite, altered granodiorite and severely altered granodiorite.

Fresh granodiorite (unit GD), occurs mainly outside the altered mineralized zone, above and below the hangingwall and footwall faults, respectively. The unit is described as light grey weathered, with medium to coarse-grained quartz, plagioclase, and muscovite, locally exhibiting porphyritic intergrowth textures. Altered granodiorite (unit AGD) occurs proximal to mineralization within the bounding hangingwall and footwall fault structures. The AGD unit is the most common lithology within the Logan Main Zone and is described as pervasively altered granodiorite with feldspar crystals exhibiting sericite and/or minor clay replacement alteration, in addition to local chlorite, sausserite and rare epidote. Mineralization when present includes stockworks of mineralized quartz veins and veinlets.

Severely altered granodiorite (unit SAGD) is most associated with sulphide mineralization prevalent within the hangingwall and footwall fault zones. All primary igneous mineralogy except for quartz have been replaced by sericite and clay alteration (Stammers, 1989).

7.2.3 Tertiary (?) – Quartz Feldspar Monzonite/Latite Porphyry Dykes

Porphyritic dykes are described as dark green, aphanitic (latite) to fine-grained (monzonite) with quartz and feldspar phenocrysts. Dykes are locally altered with sericite, chlorite and biotite alteration minerals associated with mineralized quartz-sulphide veining (Stammers, 1989). The unit has been identified along the western margin of the Main Zone deposit and at depth in drill core.

7.2.4 Tertiary (?) – Andesite (Felsite) Dykes

Intermediate to felsic composition dykes referred to as andesite or felsite are described as pale to medium grey-green, aphanitic to fine-grained, and weakly porphyritic (less than 5% quartz phenocrysts). These dykes generally strike sub-parallel to major faults, ranging from 1 – 15 m thickness, and are frequently mineralized and brecciated (Stammers, 1989).

7.2.5 Tertiary (?) - Quartz, Quartz Sulphide, Late-Stage Veining

Multiple phases of quartz and quartz-sulphide veining of possible Tertiary age crosscut the granodiorite, quartz feldspar porphyry and andesite dyke units (Stammers, 1989). Veins are clear to milky-white to medium grey with occasional chalcedonic quartz, quartz-sulphide veins/veinlets that contain minor to high concentrations of sphalerite and other sulphides. Late-stage veining identified through cross-cutting relationships comprise of quartz-ankerite with and without sulphides. Vein(let) thicknesses range from hairline (< mm) fracture fillings up to 5 m, with most of the quartz and quartz-sulphide veins confined within the mineralized zones.

7.2.6 Tertiary (?) – Diatreme and Tectonic Breccias

Within the mineralization zone, two types of breccias have been described: tectonic or cataclastic breccia and a diatreme breccia pipe (Stammers, 1989). The tectonic or cataclastic breccia is composed of angular to subangular clasts of various rock types including granodiorite, andesite dyke, quartz veining and sulphides that are cemented by a quartz, quartz-ankerite or quartz-sulphide matrix. The diatreme breccia pipe has been intersected in deep drill holes in the centre of the Main mineralized zone and is described as light cream-coloured consisting of subangular to subrounded clasts of ankerite chert, sphalerite and silicified granodiorite within a cryptocrystalline micritic ankerite and/or dolomite matrix. Sphalerite mineralization was observed as re-brecciated, suggesting that mineralization mainly preceded the brecciation.

7.3 Mineralization

The first observed mineralization at the Property was associated with a transported gossan near a vegetation kill zone which returned anomalous Zinc-Silver-Tin-Copper (Zn-Ag-Sn-Cu) values (Yukon Minfile 105B 099). Subsequent trenching confirmed in-place mineralization, corroborated by multi-element soil geochemical anomalies and a strong induced polarization geophysical anomaly (Westerman, 1985).

Mineralization at the Property is spatially related to an 8 km long fault and shear zone complex that strikes about 60°, dipping about 70° to the northwest with massive veins up to several metres thick, associated with tectonic breccias, and as stockworks in highly brecciated zones (Germann et al., 1992). Drilling has tested approximately 5.8 km strike length of the 8 km long fault zone (Stammers, 1989). The geometry of mineralization is described as a tabular fault-bounded body 1,100 m long, 50 – 140 m wide and down to a vertical depth of 275 m within the fault zone (Yukon Minfile 105B 099; Stammers, 1989). All mineralization is hosted within the altered and severely altered granodiorite (AGD, SAGD) units, andesite dykes, quartz feldspar monzonite/latite porphyry dykes, quartz-ankerite-sulphide veins and tectonic diatreme breccia lithologic units described in Section 7.2 above. Increased permeability through structures, dykes and veins facilitated a multi-phase mineralizing system apparent due to overlapping alteration assemblages observed.

The mineralization occurs within three zones: the Main Zone, and the along-striking East and West Zones. Most mineralization dominantly occurs within the Main Zone, with higher grade mineralization consisting of sulphides that have been brecciated and remobilized through the formation of a late-stage diatreme breccia pipe in the centre of the deposit (Yukon Minfile 105B 099).

Table 7.2 Logan deposit Main, West, and East zone descriptions

Zone	General Zone Extent	Mineralization Extent	Width (m)
Main	1,500 m	1,000m; 92% of high-grade mineralization along 600 m Average grade 6.17% Zn, 26 g/ton Ag	100 m average; 50 – 140 m
West	600 m	Low to moderate grades (<2% Zn)	
East	700 m	Low grades (<1% Zn)	75 m average

Germann et al. (1992) described four phases of mineralization (Figure 7.4) within the Logan deposit based on previous work and drilling completed. Mineralization follows a distinct vertical mineral zonation, reflecting a downward increase in the temperature of mineralization. For example, in the upper mineralized levels pyrite occurs instead of pyrrhotite, and chalcopyrite and arsenopyrite increase with depth. The main sulphide minerals are sphalerite, galena, pyrrhotite, pyrite, chalcopyrite and arsenopyrite. Silver is mostly confined to galena, but also occurs in stannite, and Lead-Silver-Bismuth (Pb-Ag-Bi) sulphosalts.

7.2.1 East Zone

The East Zone extends over a 700 m long by 75 m wide area, located approximately 1 km east of the Main Zone. Outcrop exposure is poor and limited to a few outcrops and frost-heaved boulder fields of variably altered, medium grained, equigranular granodiorite (Stammers, 1986). Two linear structures cross the East Zone at 040° and 065°, the latter associated with a normal fault. Mineralization consists of tetrahedrite, sphalerite, galena, pyrite and arsenopyrite with quartz veins, stockworks and silicified granodiorite hosting the disseminated sulphides. Reported results from grab samples include values up to 23.67 oz/st (811.54 g/t) Ag, 6.20% Zn, and 1.93% Pb (Stammers, 1986).

7.2.2 West Zone

The West Zone was identified through soil geochemical anomalies and moderate to strong IP geophysical anomalies extending over a 600 m length by 200 m wide area. Trenching was completed over the target anomalies; however, no significant mineralization was encountered. Drill testing of the best responses were generally not encouraging, with the strong IP geophysical anomalies being attributed to a low-level concentration of pyrite mineralization in the metasedimentary and granodiorite rocks.

Figure 7.4 Logan Property mineralization phases (Germann et al., 1992)

Logan Property					
Mineral	Phase I	Phase II	Phase III	Phase IV	Oxidation Phase
Pyrrhotite	██████████	██████████			
Arsenopyrite 1	██████████				
Pyrite 1*	██████████	██████████			
Sphalerite 1	██████████				
Chalcopyrite		██████████			
Cubanite		██	██████████		
Stannite		██████████	██		
Fahlore		██	██████████		
Jamesonite			██████████		
Galena		██████████	██████████	██████████	
Pb-Ag-Bi-Sulfo-salts		██████████	██████████	██	
Pyrite 2			██	██████████	██
Arsenopyrite 2				██████████	
Sphalerite 2			██	██████████	
Empectite			██████████	██████████	
Marcasite			██	██████████	██
Siderite				██████████	██████████
Covellite					██████████
Digenite					██████████
Bornite				██████████	██████████
Chalcocite					██████████
Limonite					██████████
Note: * pyrite occurs instead of pyrrhotite in the upper levels					

8 Deposit Types

Deposit models to describe the nature of mineralization at the Logan Property include primarily the silver-bearing veins of the Rancheria District (Abbott, 1983), and more generally polymetallic vein deposits (Lefebure and Church, 1996; Cox, 1986), and the granophile deposit style (Strong, 1981). These deposit models have two common characteristics:

- 1) Vein, fracture, fault, breccia and/or shear hosted mineralization.
- 2) Possible spatial association with felsic intrusions, with mineralization usually occurring post-intrusion.

It is not clear whether emplacement of the Marker Lake batholith at the Logan Property is genetically linked to the dominantly structurally related mineralization observed (Abbott, 1983; Amukun and Lowey, 1987; Stammers, 1989). Furthermore, fine-grained sulphide disseminations unrelated to veining have been observed at Logan (Stammers, 1989), which is not typical of polymetallic vein deposits (Lebeure and Church 1996; Cox, 1986). Further systematic structural, alteration and multi-element geochemical analysis as work continues will provide a better understanding and characterization of the genetic model of the deposit.

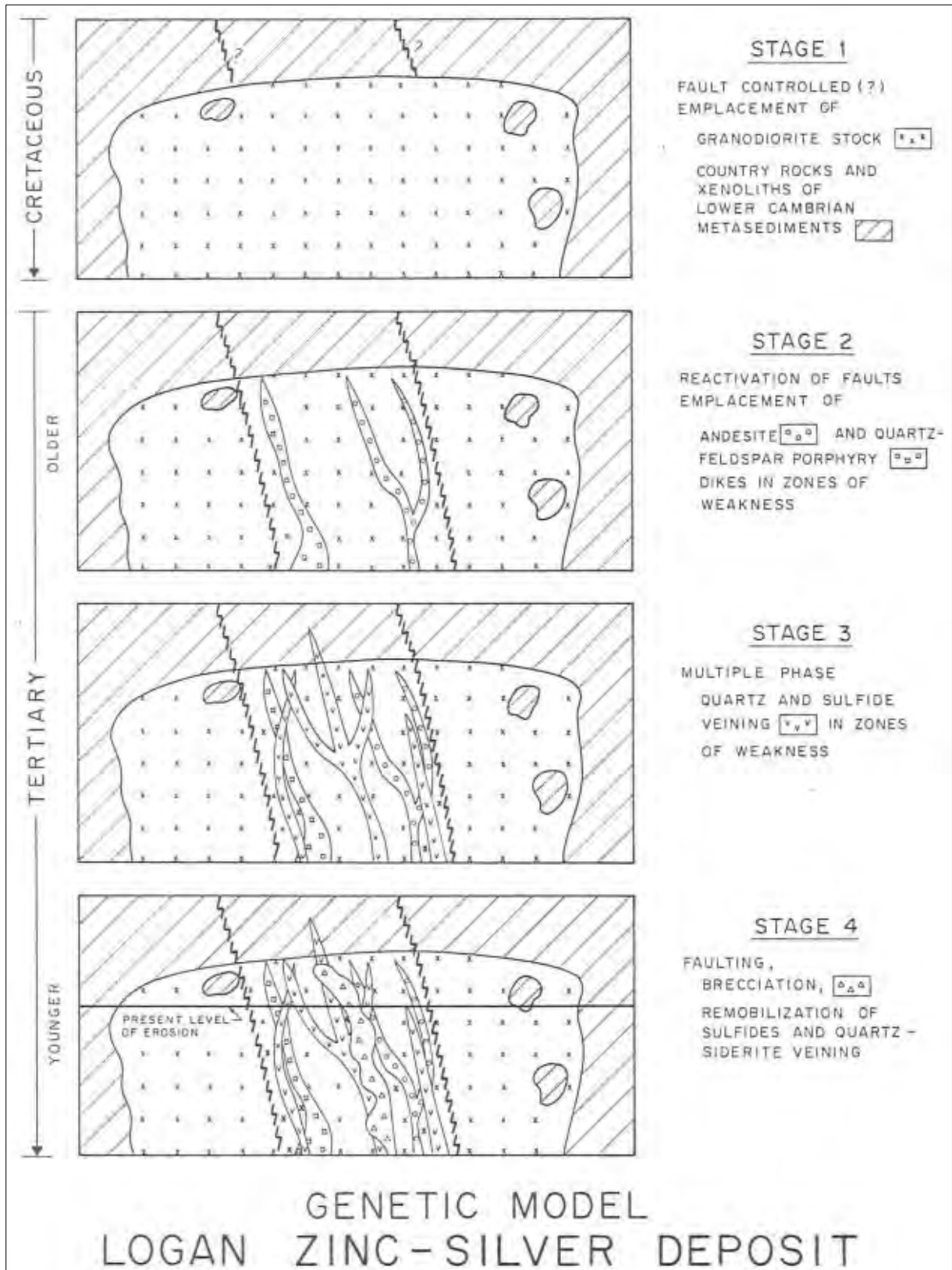
During the work completed in the 1980's, a property-specific genetic model for the Logan deposit was introduced by Stammers (1989). Government reports have also included Logan as an example of a typical silver-bearing vein associated with the Rancheria district of northeast BC and southeast Yukon.

8.1 Empirical Genetic Model

Stammers (1989) proposed a 4-stage time-related empirical genetic model (Figure 8.1) for the Logan deposit based on a series of observed geological relationships present in drill core supported by regional age dating from published maps and reports (Poole et al. 1960, Amukun and Lowey, 1987; Abbott, 1983).

Stage 1 of the genetic model began with the emplacement of granitoid intrusions (Marker Lake, Cassiar batholiths and nearby Cabin Creek, Gravel Creek and Meister Lake stocks). During this period, metamorphism and folding of the Lower Cambrian and other strata into a broad antiform structure occurred, with the axis of the antiform centred in the Cassiar batholith. It is proposed that in the Logan area, the intrusive rocks were emplaced along a major, northeast (NE) trending, pre-Cretaceous fault connecting the Marker Lake batholith with the Cabin Creek stock. Xenoliths of metasedimentary country rocks were incorporated as emplacement of the intrusive batholiths occurred (Stammers, 1989).

Figure 8.1 Genetic model diagram of Logan Zinc-Silver deposit



Stages 2 to 4 are assumed Tertiary events associated with a major deep-seated linear fault structure that trends northeast (NE) through the Logan property that experienced repeated structural reactivation (Stammers, 1989). Stage 2 was a second phase of emplacement of andesite and quartz-feldspar (latite/monzonite) porphyry dykes along the reactivated faulted structure within zones of weakness. Stage 3 represents multiple-phase injections of quartz, quartz-sulphide, and massive sulphide veins along the reactivated faulted structure and introduction of alteration minerals sericite, chlorite, biotite and minor clay and epidote which continued into Phase 4. The final Phase 4 stage is highlighted by overall further structural fault movement, including brecciation and remobilization of sulphides, followed by the deposition of barren quartz-ankerite veins, as well as the development of a deep source diatreme breccia pipe in the centre of the deposit.

8.2 Rancheria district Silver-bearing veins (Abbott, 1983)

Numerous silver, galena and sphalerite bearing veins and stratabound lenses have been identified on both sides of the Yukon – British Columbia border in the Rancheria District (Abbott, 1983). Although the mineral occurrences are often associated with nearby Cretaceous batholiths (such as the Marker Lake batholith at the Logan Property), mineralization typically post dates the emplacement of the intrusions. Rather, a close relationship is more often related to steeply dipping faults, dykes and breccias that may be related to the regionally extensive, large scale, northwest-trending faults that were active during Late Cretaceous to Tertiary time, which is also apparent at the Logan Property. The close association of mineral occurrences, dykes and breccias with faults suggests that faulting and structural features are an important mineralization control at Logan as well as other nearby Rancheria district-style silver-rich vein mineral occurrences (Abbott, 1983).

9 Exploration

Almadex has not conducted any surface exploration on the Property, other than drill core verification sampling described in Section 11. All surface exploration work is historic in nature and has been summarized in Section 6.

10 Drilling

Almadex has not conducted any drilling on the Property. The updated mineral resource estimate presented in Section 14 was completed using historical data from 1986 to 1988 diamond drilling. Historical drill data was supplemented with a 2022 drill core verification re-sampling program that incorporated quality assurance and quality control data with the insertion of drill core duplicates, lab standards and blank material (Section 11). A summary of historical drilling is presented below.

10.1 Historical Drilling Summary

A description of the historical drilling completed within the Property is considered relevant as it relates to the current updated mineral resource estimate with respect to the Logan Property (this Report). A detailed discussion of historical drilling completed on the Property is included in Sections 6.3, 11 and 12 and it is summarized below and in Section 14.

Historical diamond drilling on the Property was conducted in three programs in 1986, 1987, and 1988, while the Property was under ownership of Fairfield and Total Energold. All holes were NQ in size. Average recovery was 79%. Drilling was completed by Arctic Diamond Drilling Ltd. and all three programs were conducted by consultants of Cordilleran Engineering. In total, 103 historical drillholes were completed on or in the immediate vicinity of the current Logan Property totalling 16,438.92 m. This information is compiled in the drillhole database for the Project. The number of historical drill holes in the database drilled within the current boundary of the Logan Property is 101 totalling 16,184.72 m (Appendix 1, Figure 10.1). Most holes drilled have their splits stored at two core storage facilities on the Property.

Drilling between 1986 and 1988 was helicopter supported. For the 1988 program a D6-CAT prepared drilling pads and project roads. Core was processed at the Logan camp, where core was logged on paper and segments of interest were selected for sampling, split in half mechanically and submitted for analysis. Due to the historic nature of the diamond drilling and the lack of historic documentation, there is limited information about the sampling and assaying methodology conducted for the Logan diamond drilling.

A data verification program was carried out in 2022 which included resampling and re-assaying full and half core of a subset of drill holes. Details on this data verification program are provided in sections 11 and 12.

A summary of drill intercepts returning uncapped composite grades of greater than or equal to 5.00% Zn is provided in Appendix 2. Illustrative intersections from the Main zone are shown in Figures 10.2, 10.3 and 10.4. Drilling from the 1980s at Logan defined a sub-tabular polymetallic body composed of breccias, massive sulphide veins and stockworks, bounded by fault and fault breccias.

Figure 10.1. Logan Property's drill hole collar locations by year.

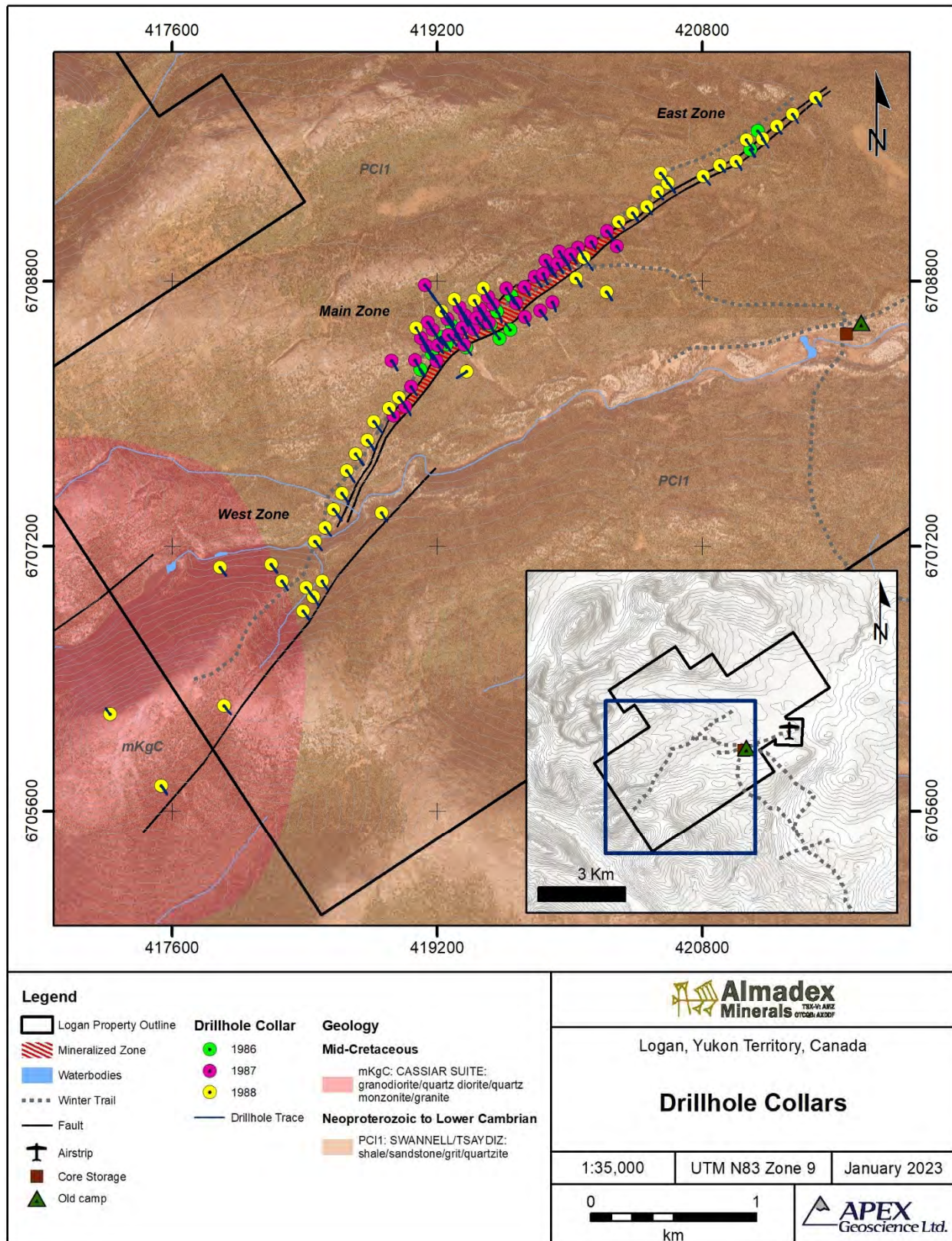


Figure 10.2. Northwest section looking northeast crossing Logan's Main Zone (center)

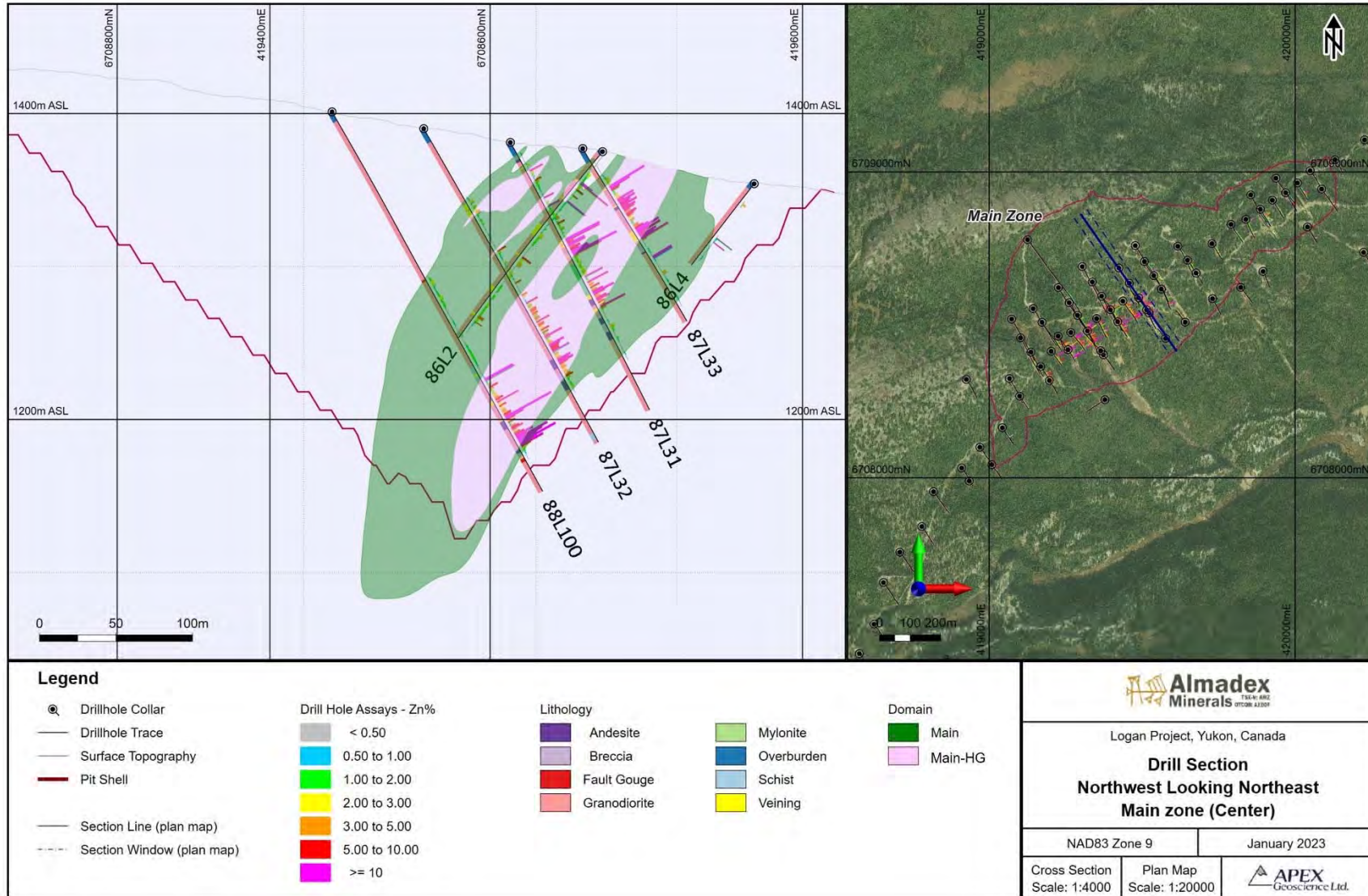


Figure 10.3. Northwest section looking northeast crossing Logan’s Main Zone (northeast)

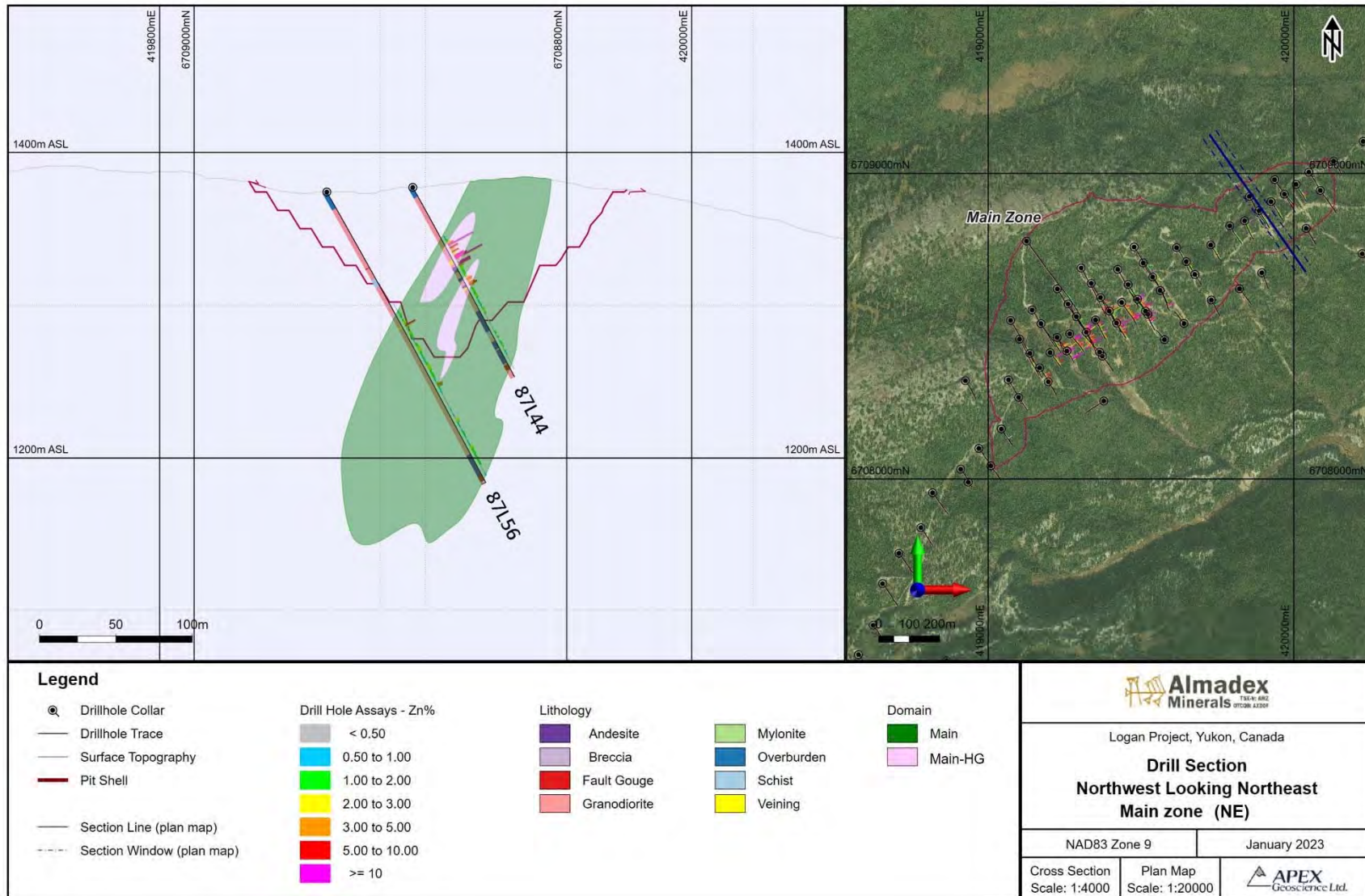
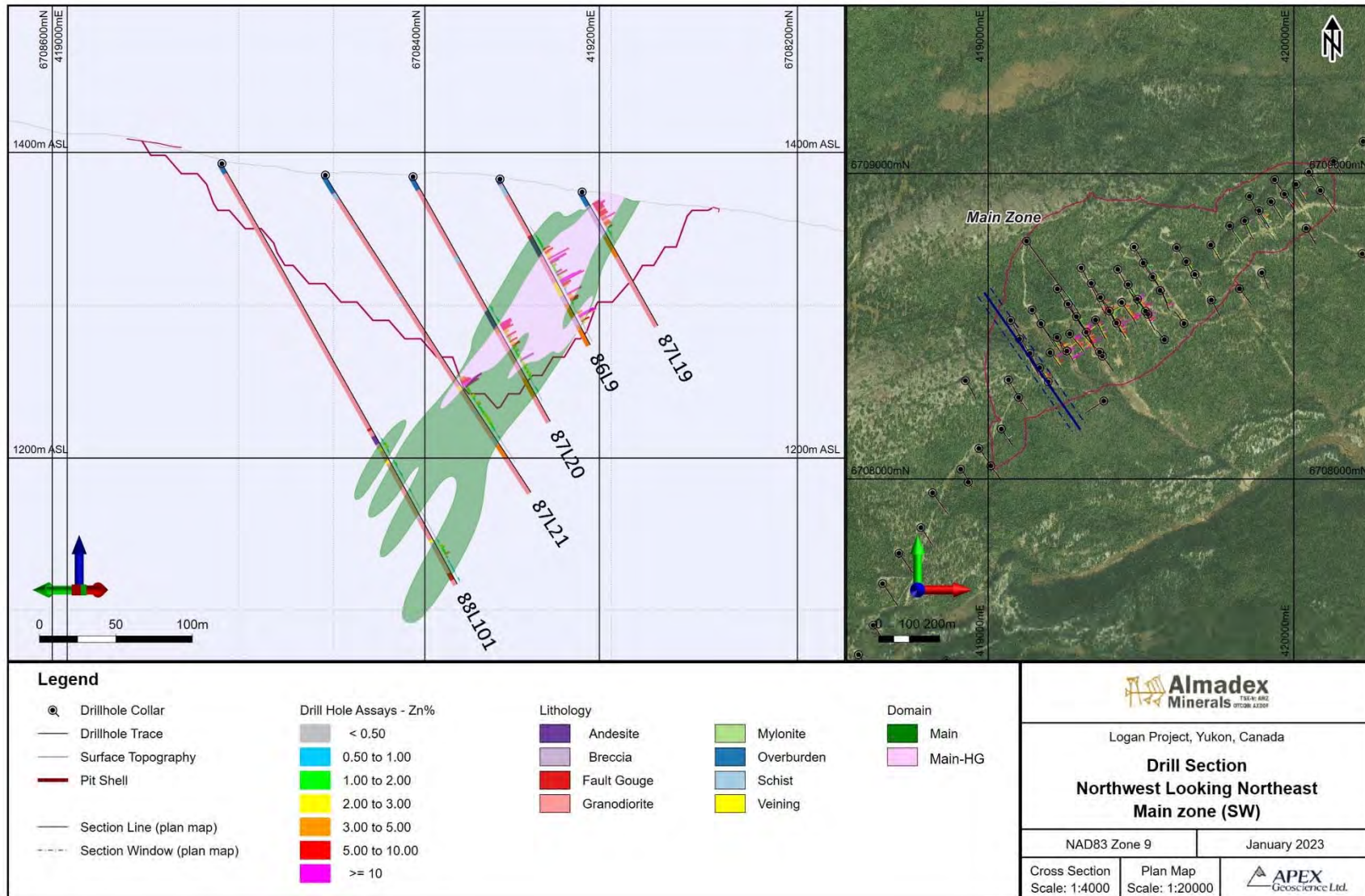


Figure 10.4. Northwest section looking northeast crossing Logan's Main Zone (southwest)



11 Sample Preparation, Analyses and Security

11.1 Historical 1986-1988 Core Sampling

Specific details regarding historical drill core sampling are not known, however it is known that the historical zinc and silver analyses which underpin the MRE were carried out at Bondar Clegg and ALS Chemex Laboratories at North Vancouver, British Columbia. Preparation of samples for assaying is assumed to have involved standard crushing, grinding and pulverization to produce pulps for assaying via hot aqua-regia and analysis via atomic absorption (Stammers, 1989; and Grant and Giroux, 2004).

A comprehensive program of drill core re-sampling initiated during 2022 by the Authors and described below was completed to verify the historically reported drill core assays.

11.2 Core Re-Sampling 2022

11.2.1 Sample Collection and Shipping

In July of 2022, a total of 197 core samples (approximately 5% of the drill database) were re-sampled in the field by APEX geologists from existing historic core present on the Logan property. A half-core samples were bagged into plastic sample bags. On approximately every 6th to 7th sample, a QA/QC sample (Standard, Blank, or Duplicate) was inserted into the stream of samples, for a total of 35 QA/QC samples added, resulting in 232 samples submitted for analysis.

Sample identifiers were written on the outside of each bag and part of the sample card with the sample number was placed in the bag with the rock sample number written on it. All sample bags were closed using zip ties. Upon completion of sampling, the 232 (including QA/QC) samples were placed in poly-woven bags and sent to ALS in Whitehorse, Yukon for processing. The authors have no reason to believe that the security of the samples was compromised. Although an exhaustive re-sampling was not conducted, the samples collected represent selected mineralized and unmineralized intervals based on previous historic data. All core samples collected on the property had their sample numbers recorded along with the drill hole identification depth interval (from-to) in metres. Any missing sections within the sampled intervals were recorded and are noted.

11.2.2 Sample Preparation and Analytical Procedures

Samples at ALS are received, sorted, and verified according to a Sample Submittal Form. The shipment is assigned an ALS reference number, after which a worksheet with analyses requested is generated. Excessively wet samples are first dried in drying ovens and then crushed. Large rock or core samples are typically coarse crushed using an oscillating jaw crusher to 70% passing a Tyler 9 mesh (2.0mm) screen. The sample is then split using a riffle splitter. A sample split of up to 250g is then ring-mill pulverized to better than 85% of the sample passing a Tyler 200 mesh (75 microns) screen. At the

beginning of each shift and/or the start of a new group, samples are screened to ensure correct particle sizes. Crushers, riffers, and pans are cleaned with compressed air between samples. Pulverizing pots and rings are brushed, hand cleaned, and air blown.

A prepared 0.25 gram minus fraction was sent for multi-acid ICP-AES and inductively coupled plasma mass spectrometry (ICP-MS) analysis (ALS method ME-MS61). The ICP analysis detects 48 elements, and the use of the multi-acid (HNO₃-HClO₄-HF-HCl) digestion liberates more elements than the Aqua Regia partial leaching process. The four acid digestions are able to dissolve most minerals; however, although the term “near-total” is used, depending on the sample matrix, not all elements are quantitatively extracted. The elements are then detected by their characteristic wavelength specific light, which can then be measured by the ICP Spectrometer, and the results are corrected for spectral interelement interferences.

The assay procedure ME-OG62 is the default overlimit method for ore grade analytes. The evaluation of ores and high-grade materials are optimized for accuracy and precision at high concentrations using conventional ICP-AES analysis which provides greater upper limits. The samples are similarly decomposed by the same four acid digestion and the results from the Spectrometer are equally corrected for spectral interelement interferences.

ALS is an ISO 9001:2008 certified laboratory and is also accredited by the Standards Council of Canada (SCC) and has been found to conform to the requirements of ISO/IEC 17025:2005.

11.2.3 Quality Assurance and Quality Control

Laboratory pulp standards inserted into the sample stream by the field crew were compared to the expected certified values and if the lab results fell significantly outside the established third standard deviation confidence levels, the internal batch or the entire sample shipment was requested to be re-run. In addition, an analytical batch was considered a failure if two or more values from that same analytical batch fell outside the +/- 2 standard deviation (SD) lines.

Quality assurance and quality control (QA/QC) measures at ALS include routine screen tests to verify crushing and pulverizing efficiency, sample preparation duplicates, and analytical quality controls (blanks, standards, and duplicates). Quality control samples are inserted on each analytical run, based on the rack sizes associated with the method. Regular AAS, ICP-AES and ICP-MS methods use a rack size of 40 and are allocated 2 standards, 1 duplicate and 1 blank. Regular fire assay methods use a rack size of 84 and are allocated 2 standards, 3 duplicates, and 1 blank. The blank is inserted at the beginning, standards are inserted at random intervals, and duplicates are analyzed at the end of the batch. ALS in-house standards are tested by internal round robin exchanges and by external proficiency tests.

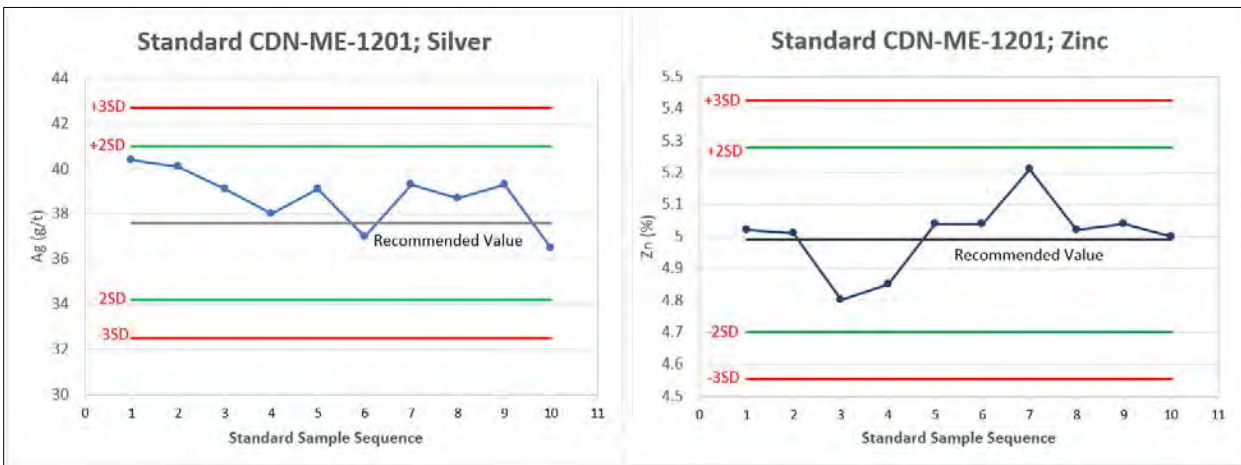
The QA/QC measures employed in the field by APEX during the 2022 core re-sampling program comprised inserting analytical standards, blanks, and prep duplicate samples

into the sample stream, each at an approximate rate of 1 type of QA/QC sample per 6 to 7 samples. Standards and blanks are compared to expected values to ensure the laboratory results fall within the acceptable margin of error. Similarly, duplicate sample results are compared to originals to test the repeatability of laboratory results. In the author’s opinion, the QA/QC procedures are reasonable for this type of deposit and the current level of exploration. Based on the results of the QA/QC sampling summarized below, the analytical data is accurate; the analytical sampling is considered to be representative of the drill core sample, and the analytical data to be free from contamination.

11.2.3.1 Standards

Analytical standards were inserted into the sample stream to verify the accuracy of the laboratory analysis. CDN-ME-1201 certified reference standards were selected for the core re-sampling program for Silver and Zinc values. QA/QC summary charts for Ag and Zn are presented in Figure 11.1. The charts indicate the measured values were all within the acceptable two Standard Deviation (2SD) limit.

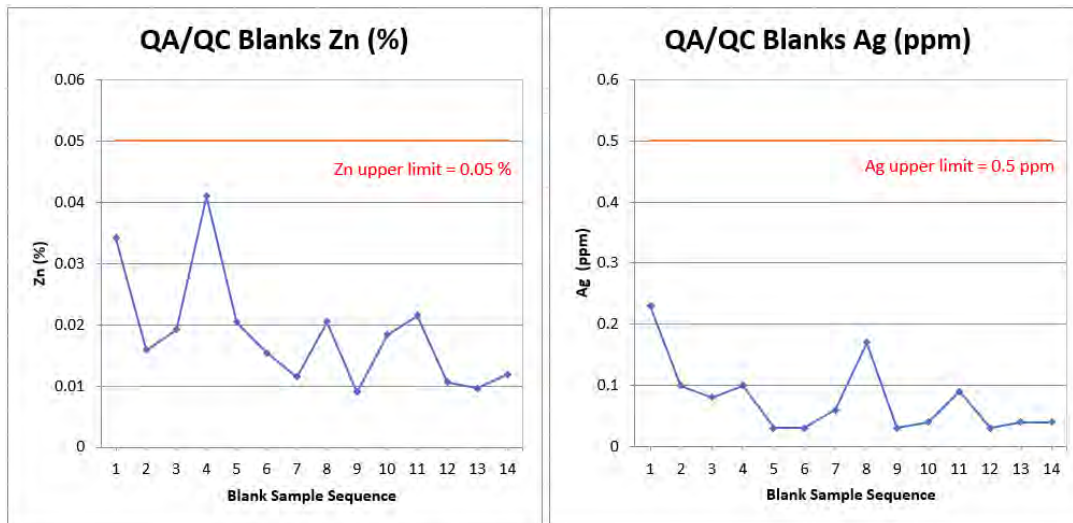
Figure 11.1 Standard CDN-ME-1201 performance for Logan core-resampling program



11.2.3.2 Blanks

Barren coarse material was used for coarse “blank” samples to monitor potential contamination during the sample preparation procedure. The assay for the blanks showed consistent results with <0.01% Cu, <0.01% Zn, <0.001% Pb, <1ppm Ag, and <0.01ppm (Figure 11.2).

Figure 11.2 Drill Core 2022 verification blank QA/QC results



11.2.3.3 Duplicates

The 2022 re-sampling included the collection of eleven (11) samples from which the laboratory split drill core samples into prep duplicates. A comparison of prep duplicate analysis permitted an assessment of Logan drill core mineralization heterogeneity (within sample variation) for the 2022 verification sampling. A comparison of 11 prep duplicate samples collected during 2022 indicates that no significant within sample variability exists for Zn (%) and Ag (ppm or g/t), as shown in Figure 11.3. Additionally, the assay for the duplicate verification samples was comparable to the assay of the primary historic samples considering the heterogeneity of core samples (Figure 11.4).

11.2 Adequacy of Sample Collection, Preparation, Security and Analytical Procedures

Based on the results of the data review, verification, validation, and results of the 2022 core re-sampling; it is the author's opinion that the current Logan Property drillhole database and 3D geological model is considered to be in good condition and suitable to use in ongoing resource estimation studies.

Figure 11.3 Drill core 2022 verification duplicate QA/QC sample comparison

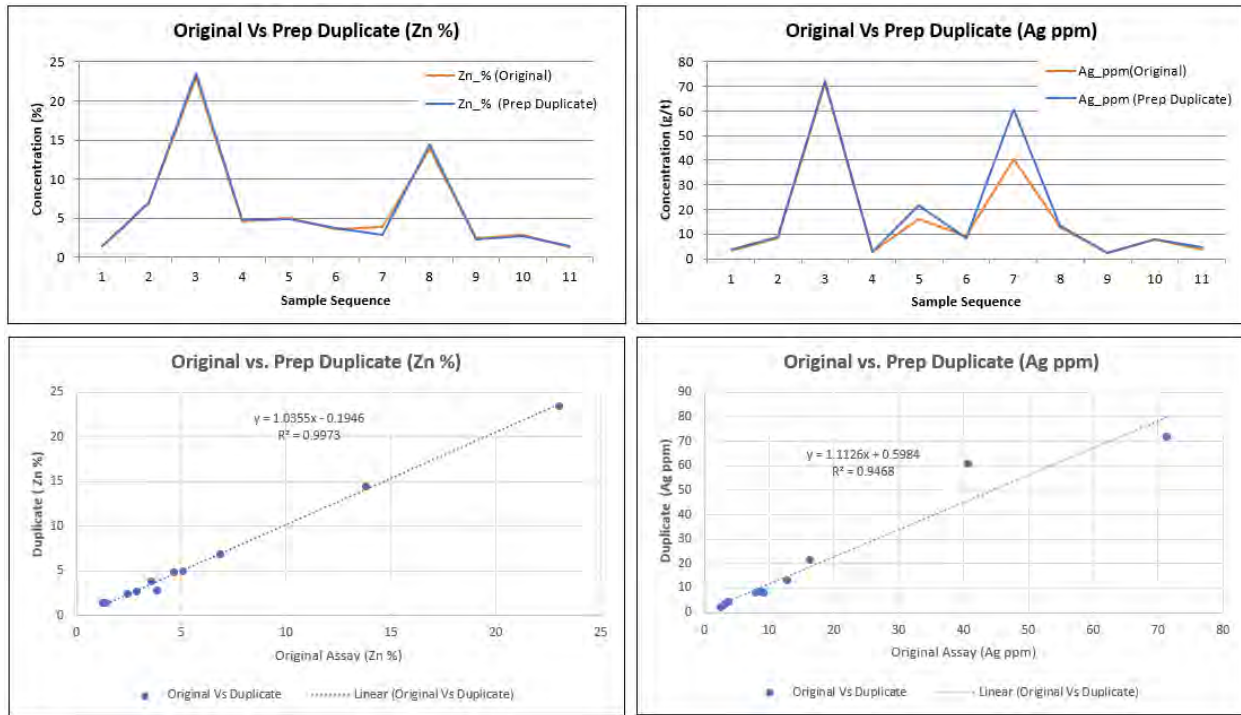
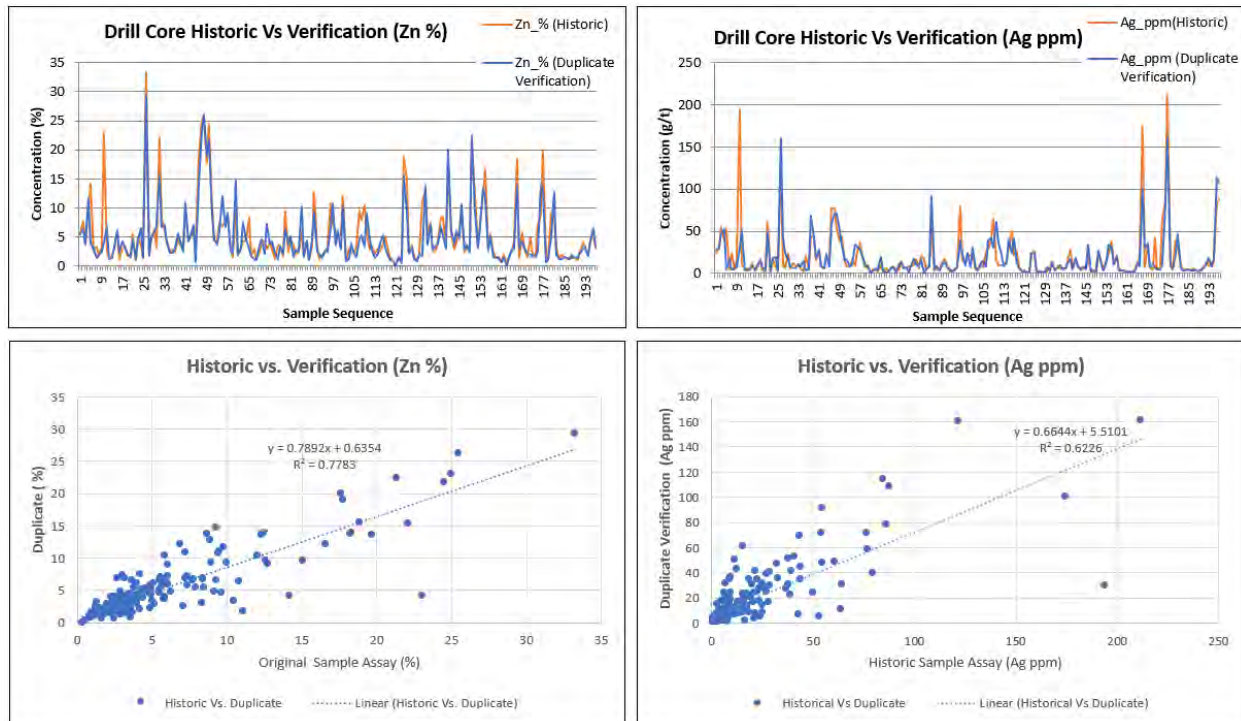


Figure 11.4 Drill core historic vs. 2022 verification assay comparison (Zn and Ag)



12 Data Verification

Mr. Alfonso Rodriguez, M.Sc., P. Geo., geologist with APEX completed a site visit between July 22nd and 24th, 2022. The site visit included a tour of the Property to verify historical exploration results and to confirm geology and mineralization of the Property.

12.1 Data Verification Procedures

Mr. Rodriguez located and recorded using a hand-held GPS seven historical drillhole collars, and one trench on the ground. Other trenches were spotted from the aircraft (Figures 12.1, 12.2). Drill site collars were identifiable by remnant pad disturbance, and in most cases by means of wood poles with the name of drill hole on aluminum tag. Locations of the historical collars were consistent with those reported and recorded in the drillhole database. The data verification included resampling of core intervals from four historical drill holes (86-L-8, 87-L-32, 87-L-44, 88-L-103, Table 12.1) and collection of specific gravity (SG) data. Drill core was found at two historical core yards where core was cross stacked within the Property near ruins of old camps (Figure 12.1).

APEX collected a total of 197 half core samples from four historical drillholes (approximately 5% of the drill database) and four rock grab samples from showings and one trench (Figure 12.1). The results of historical drill core sampling were compared to verification drill core sampling carried out by the author. Absolute difference between historical and verification assays for composited assayed intervals ranged between 0.04 and 0.63 % for zinc and between 0.08 and 4.54 g/t for silver. Composited interval geochemical results from samples collected during field visit samples are listed in Table 12.1, grab samples are listed in Table 12.2. For resampled core sections, indium ranged between 0.474 ppm and up to 273 ppm. Appendix 3 includes drill hole verification sampled intervals and assay results for elements of interest.

The QP site verification samples were collected, bagged, sealed, and delivered directly, to ALS Canada Ltd. (ALS) in Whitehorse, YT. ALS is an ISO 9001:2015 certified, ISO/IEC 17025:2005 accredited geo-analytical laboratory and is independent of Almadex and the Authors of this Report. At the independent laboratory, the samples were subjected to ALS' standard sample preparation and analytical practices. The samples were assayed for 48 element geochemistry using four-acid digestion with inductively coupled plasma mass spectrometry (ICP-MS) finish (ALS method ME-MS61) with overlimit analysis (>10,000 ppm, ore grade elements, with four acid digestion, ME-OG62) for zinc (Zn-OG62), silver (Ag-OG62), and copper (Cu-OG62).

Additionally, APEX collected 204 SG measurements from re-sampled drill holes. SG measurements were done by APEX personnel on core pieces of approximately 10 cm length that were collected across different lithologies, every 3 to 6 m in drill core intervals adjacent or within mineralized zones. The SG data were collected to provide verified SG measurements for resource estimates.

In August 2022, the Company commissioned a 100 km² AW3D (Advanced Land Observing Satellite “ALOS” World 3D) satellite survey with 2.5 m Digital Surface Model (“DSM”). The survey was produced from multiple image pairs of ALOS PRISM 2.5 optical satellite imagery circa from 2006 to 2011 covering the Logan Property area. The survey produced high-resolution digital elevation data and collected detailed orthophotography imagery, and a highly detailed, levelled topographic surface. This survey was used to further confirm drill hole and trench locations and to confirm drill hole elevations.

The APEX authors of this Technical Report checked and reviewed approximately 20% of the Logan Property’s historical drillhole geological and assay data. The updated drillhole database is considered by the authors to be acceptable for resource estimation.

12.2 Historic Core Re-sampling

The diamond drill core re-sampling was done respecting original drill hole sample intervals on record wherever possible. Sample intervals ranged between 0.33 m and 2.4 m maximum, while most samples had a length of either 1.00 m or 2.00 m. Core re-sampling consisted of split half NQ core. The core re-sampling program was carried out from four different historical holes, intersecting mineralization (Table 12.1). A total of 232 samples were collected including 197 half core samples and a total of 35 QA/QC samples including: 11 pulp duplicates inserted within the sample sequence for laboratory preparation and analysis, 14 coarse blanks (from Whitehorse local hardware store) and 10 standards (CDN-ME-1201), providing a frequency of ~15% for all QA/QC samples.

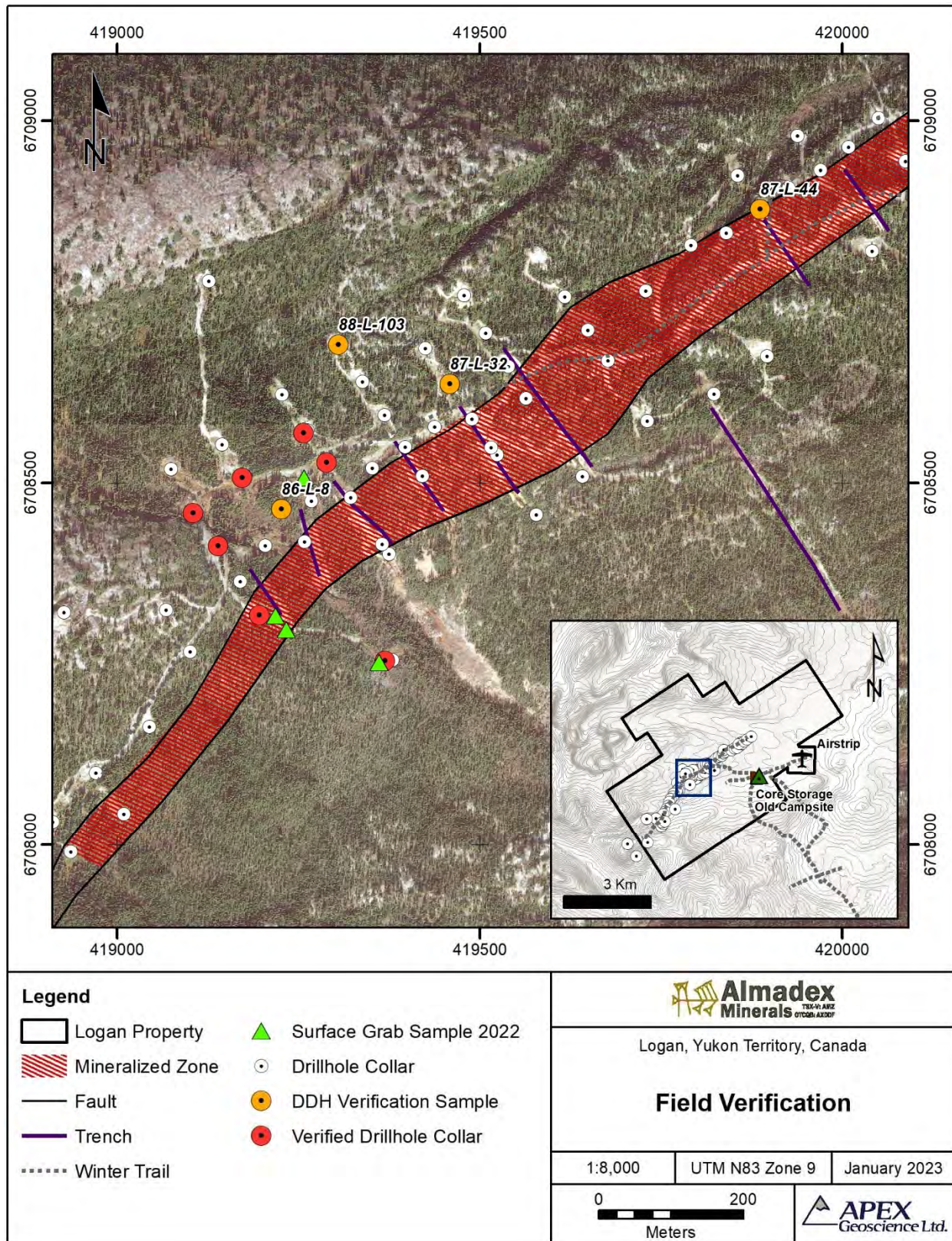
Laboratory pulp standards inserted into the sample stream by the field crew were compared to the expected certified values and if the lab results fell significantly outside the established third standard deviation confidence levels, the internal batch or the entire sample shipment was requested to be re-run. In addition, an analytical batch was considered a failure if two or more values from that same analytical batch fell outside the +/- 2 standard deviation (SD) lines.

According to Section 11, the assays for Zn and Ag were all within the two SD limits (Figure 11.1). The assays for the blanks showed consistent results with <0.01% Zn, and <1 g/t Ag (Figure 11.2). Additionally, the assay for the duplicate samples was comparable to the assay of the primary samples considering the heterogeneity of core samples (Figure 11.3). The assay for the duplicate verification samples was comparable to the assay of the primary historic samples considering the heterogeneity of core samples (Figure 11.4).

All samples taken were processed at ALS in which additional QA/QC measures are undertaken. As part of ALS’ in-house, quality QA/QC program, ALS inserts blank and standard samples in addition to repeat sample analysis. Quality control samples are inserted on each analytical run, based on the rack sizes associated with the method.

Regular AAS, ICP-AES and ICP-MS methods use a rack size of 40 and are allocated 2 standards, 1 duplicate and 1 blank. Regular fire assay methods use a rack size of 84 and are allocated 2 standards, 3 duplicates, and 1 blank. The blank is inserted at the

Figure 12.1. Logan field verification map.



beginning, standards are inserted at random intervals, and duplicates are analyzed at the end of the batch. ALS in-house standards are tested by internal round robin exchanges and by external proficiency tests.

Figure 12.2. Field data verification. A. Trench L-813, B. Grab Sample. C. Drill hole collar. D. Old camp. E. Core storage area. F. Core re-sampling. G. Air strip. H. Historical trenches.



Table 12.1 Compositated sampled intervals from four historical drill holes at Logan.

Drill Hole ID	From (m)	To (m)	Length (m)	Historical Zn (%)	Historical Ag (g/t)	Verification Zn (%)	Verification Ag (g/t)	Absolute Difference Zn (%)	Absolute Difference Ag (g/t)
86-L-8 Main	67.1	153.65	86.55	5.15	15.06	5.19	16.46	0.04	1.40
87-L-32 Main	132	195	63	3.84	13.82	3.41	14.60	0.44	0.78
87-L-44 East	41	75	34	4.20	30.31	3.69	25.77	0.52	4.54
88-L-103 Main	305	352	47	5.74	9.16	5.11	9.25	0.63	0.08

Table 12.2 Surface grab samples collected during data verification program at Logan.

Sample ID	Easting	Northing	Elevation (m)	Type	Description	Date	Zn (%)	Ag (g/t)
22ARP001	419,218	6,708,316	1,370	Grab	Trench L-813. Oxidized breccia	7/24/2022	0.71	252
22ARP002	419,258	6,708,506	1,377	Grab	Breccia with quartz cement, iron oxides and muscovite.	7/24/2022	0.01	1.25
22LFP001	419,233	6,708,298	1,363	Grab	Trench L-813. Silicified intrusive (granodiorite)	7/24/2022	0.73	22.8
22LFP002	419,361	6,708,252	1,344	Grab	Oxidized quartz vein	7/24/2022	0.07	4.99

12.3 Validation Limitations

Given the age of the drill sampling by historical operators, which occurred during the 1980's, the lack of information with respect to sampling procedures, security, and QAQC procedures is not unusual. Original assay certificates were not available and therefore the assay results could only be checked against the values entered in the paper logs and information available from assessment reports.

12.4 Adequacy of the Data

The QP reviewed the adequacy of the exploration information from the historical and recent exploration programs completed at Logan. The QP is of the opinion that a slight variation in assays is expected due to the variable distribution of ore minerals within a core section. Based on the data review along with the results of the traverse and the historical drill core verification sampling, the authors have no reason to doubt the reported exploration results from historical drilling programs.

The authors are satisfied, and take responsibility, to include the historical and recent exploration data including drill information as background information for this Technical Report.

13 Mineral Processing and Metallurgical Testing

The Company has not undertaken any metallurgical testing. Metallurgical testing that has been performed on the project is historical. Given its relevance to the updated MRE, a summary of the results of this initial metallurgical work is presented below.

13.1 Metallurgical Tests by Previous Operators

A metallurgical study was completed for Strathcona Mineral Services Ltd. on samples from the Logan deposit in 1989 (Salter et al., 1989). The study was completed by Lakefield Research (today known as SGS Mineral Services), formerly a division of Falconbridge Limited. The report indicates that two sets of composite samples were submitted and further combinations of these were used for the tests. Characteristics of the composite samples including lithology, provenance (i.e. trench or drill core), mineralization style are not clear.

Results indicate that both low-grade, fine-grained zinc and high-grade, coarse-grained zinc respond similarly to the flotation conditions investigated. The best results on the individual composites were obtained at a primarily grind of 74.5% - 80.5% minus 150 mesh with a regrind of 80.8% - 82.9% minus 30 μm . Zinc cleaner concentrates of approximately 50% Zn with 98% recovery of Zn and 80% recovery of Ag should be obtained under optimized conditions (Salter et al., 1989).

It is not known if the material is representative of the various rock types and mineralization styles on the Property, nor if there are other processing factors or deleterious elements that could impact economic extraction (Harder and O'Brien, 2012).

14 Mineral Resource Estimate

14.1 Introduction

The Mineral Resource Estimate (MRE) herein is based upon the historical drilling conducted on the Property between 1986 and 1988 and supersedes the prior Mineral Resource Estimate for the Logan Project (Harder and O'Brien, 2012) and is referred to as the 2023 Logan MRE. Previous historical Mineral Resource Estimates are discussed in Section 6 of this Technical Report and are all considered historical in nature and should not be relied upon.

This Technical Report section details an updated MRE completed for the Logan Project by Mr. Warren Black, M.Sc., P.Geo. and Mr. Tyler Acorn, M.Sc. of APEX Geoscience Ltd. (APEX) of Edmonton, Alberta, Canada under the direct supervision of Mr. Michael Dufresne, M.Sc., P.Geol., P.Geo. Mr. Kristopher Raffle, B.Sc., P.Geo., Principal and Consultant of APEX, performed a peer review of the MRE. Mr. Dufresne is the QP that takes responsibility for Section 14. Co-author Mr. Rodriguez has visited the property most recently in July 2022.

The workflow implemented for the calculation of the 2023 Logan Project MRE was completed using Micromine commercial resource modelling and mine planning software (v.22.0) and Resource Modelling Solutions Platform (RMSP; v.1.9.2). Supplementary data analysis was completed using the Anaconda Python distribution and a custom Python package developed by Mr. Black and Mr. Tyler Acorn, M.Sc., both of APEX.

The drillhole database was validated by APEX geologists under the supervision of Mr. Raffle, as summarized in Section 11. In the opinion of Mr. Raffle, the current Logan Project drillhole database is deemed to be reliable and suitable for use in ongoing Mineral Resource estimation.

Mineral Resource modelling was conducted in the UTM coordinate system relative to the North American Datum (NAD) 1983, and UTM zone 9N (EPSG:26909) The Mineral Resource block model utilized a selective mining unit (SMU) block size of 6 m (X) by 6 m (Y) by 6 m (Z) to honour the mineralization wireframes. The percentage of the volume of each block below the top of bedrock surface and within each mineralization domain was calculated using the 3-D geological models and a 3-D topographic surface model. The zinc and silver grades were estimated for each block using ordinary kriging with locally varying anisotropy (LVA) to ensure grade continuity in various directions is reproduced in the block model. The MRE is reported as undiluted within a series of optimized pit shells. Details regarding the methodology used to calculate the MRE are documented in this Technical Report section.

Definitions used in this section are consistent with those adopted by CIM's "Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines" dated November 29, 2019, and "Definition Standards for Mineral Resources and Mineral Reserves" dated May 10, 2014 and prescribed by the Canadian Securities Administrators' NI 43-101 and Form

43-101F1, Standards of Disclosure for Mineral Projects. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

14.2 Drillhole Data Description

All drilling and assay data were provided by Almadex in the form of Excel data files. The drillhole database for this MRE consisted of 58 drillholes (see Table 14.1). There has been no additional drilling completed since the 2012 MRE (Harder and O'Brien, 2012). However, the current MRE differs in that it was based on additional specific gravity (SG) data collected by APEX during 2022, which resulted in a change in the SG used in the MRE (see Section 14.2.1).

In total, 5,129.44 m of drilling intersects the estimation domains, of which 59.55 m (1.2% of the total) is unsampled intervals, assumed to be waste, and assigned a nominal waste value (half the detection limit of modern assay methods (0.0005 % Zn, 0.3429 g/t Ag).

Table 14.1. Logan Property drillhole summary.

Zone	Number of Drillholes	Total Metres
Logan (Main, Main-HG)	58	5,129.44

14.2.1 Data Verification

APEX validated the Mineral Resource database in Micromine by checking for inconsistencies in analytical units, duplicate entries, interval, length, or distance values less than or equal to zero, blank or zero-value assay results, out-of-sequence intervals, intervals, or distances greater than the reported drillhole length, inappropriate collar locations, survey and missing interval and coordinate fields. A small number of errors were identified and corrected in the database. Mr. Dufresne and Mr. Raffle consider the supplied database suitable for Mineral Resource estimation.

14.3 Grade Estimation Domain Interpretation

Grade estimation domain wireframes are created by means of implicit modelling using the grade estimation domain coding. It was an iterative process utilizing many geological inputs. Several modelling geologists intricately familiar with the deposit provided input and review through various stages of grade estimation domain modelling and the estimation domain coding is adjusted as needed. This peer-review process is repeated until the final grade estimation domains are created. The critical inputs used to define the boundaries and orientation of the grade estimation domains are:

- Drillhole logging of sulphide mineralized stockwork veining, brecciation and shear zones alteration, and lithology; and
- Silver and zinc assays.

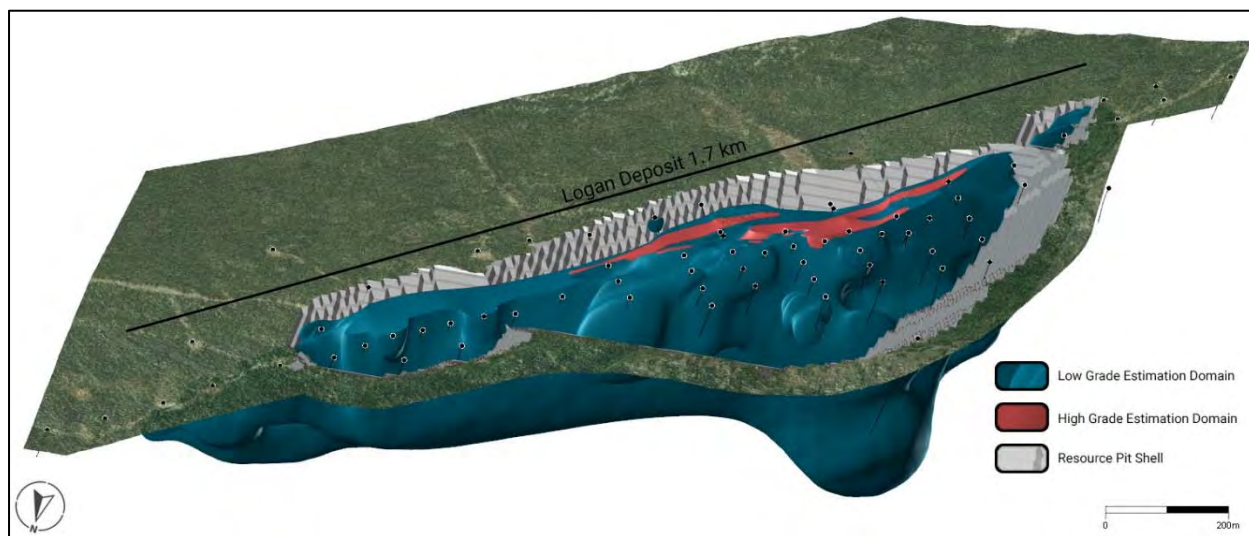
Mineralization at the Logan Property is primarily associated with breccias, sulphide veins and stockworks, hosted by granodiorites and bounded by sub-parallel steeply dipping faults and fault breccias. Based on these mineralization characteristics, mineralization domains were defined at Logan. Each mineralization domain is defined by a combination of mappable geological characteristics associated with mineralization. The resulting mineralization domain logging can be plotted in 3-D and allows visualization of mineralized orientation and spatial extent (Figure 14.1). Geological characteristics of the estimation domains at the Logan Property are presented in Table 14.2.

Modelling geologists assign mineralized intervals to a specific grade estimation domain code to create the grade estimation domains using the logging features described above, fault models, zinc and silver assays, and drill core photos. The primary goal is to ensure a single grade estimation domain connects similar style mineralization and honours structural and geological controls on their orientation and spatial continuity. Intervals that are not mineralized are categorized as waste.

Table 14.2. Logan grade estimation domain descriptions.

Grade Estimation Domains	Description
Main	Tabular, fault-bounded body defined by sulphide mineralized stockworks with lesser veins and breccia, localized along a northeast-trending shear structure.
Main-HG	Narrow, tabular mineralized bodies defined by massive sulphide veins and breccia with lesser stockworks within the larger low-grade body.

Figure 14.1. Orthogonal view of the 2022 Logan Mineral Resource Grade estimation domains.

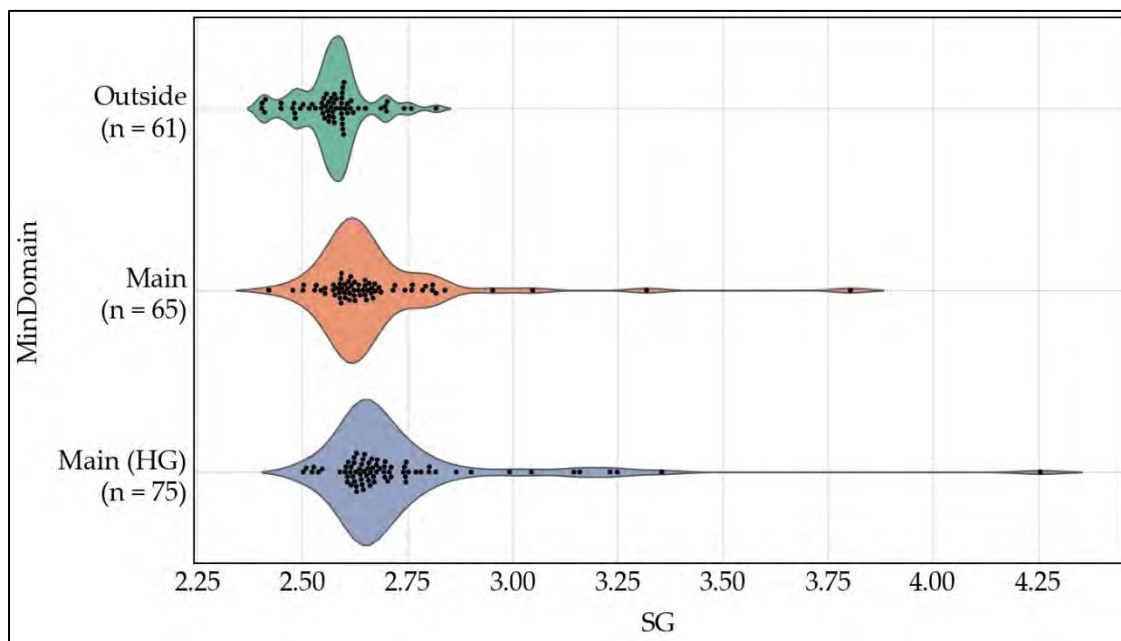


14.4 Exploratory Data Analysis

14.2.1 Bulk Density

A total of 201 bulk density samples are available from the Logan Property drillhole database. APEX personnel performed exploratory data analysis (EDA) of the bulk density samples available and the density was assigned for each domain in the Logan Property (Figure 14.2). The EDA resulted in a change in the SG used in the MRE from 2.95 g/cm³ for mineralized material and 2.7 g/cm³ for waste (2012) to 2.66 g/cm³ for the high-grade domain, 2.63 g/cm³ for the Main zone mineralization, and 2.57 g/cm³ for waste, and 1.8 g/cm³ for overburden (2023).

Figure 14.2. Constrained bulk density for Logan from drillholes.



14.2.2 Raw Analytical Data

Wireframe constrained assays were back coded in the assay database with rock codes that were derived from intersections of the mineralization solids and drillholes. The basic statistics of mineralization wireframe constrained assays are presented in Table 14.3.

Table 14.3. Raw zinc (% assay statistics for Logan Mineral Resource Area.

Description	Global	Main-HG	Main
Count	3867	1510	2357
Mean	2.802	5.641	0.983
Median	1.280	3.550	0.710
Standard Deviation	4.388	5.872	1.010
Variance	19.252	34.486	1.020
Coefficient of Variation	1.566	1.041	1.028
Minimum	0.001	0.001	0.001
25 Percentile	0.570	2.000	0.400
50 Percentile	1.280	3.550	0.710
75 Percentile	2.960	6.938	1.300
Maximum	48.000	48.000	15.410

Table 14.4. Raw silver (g/t) assay statistics for Logan Mineral Resource Area.

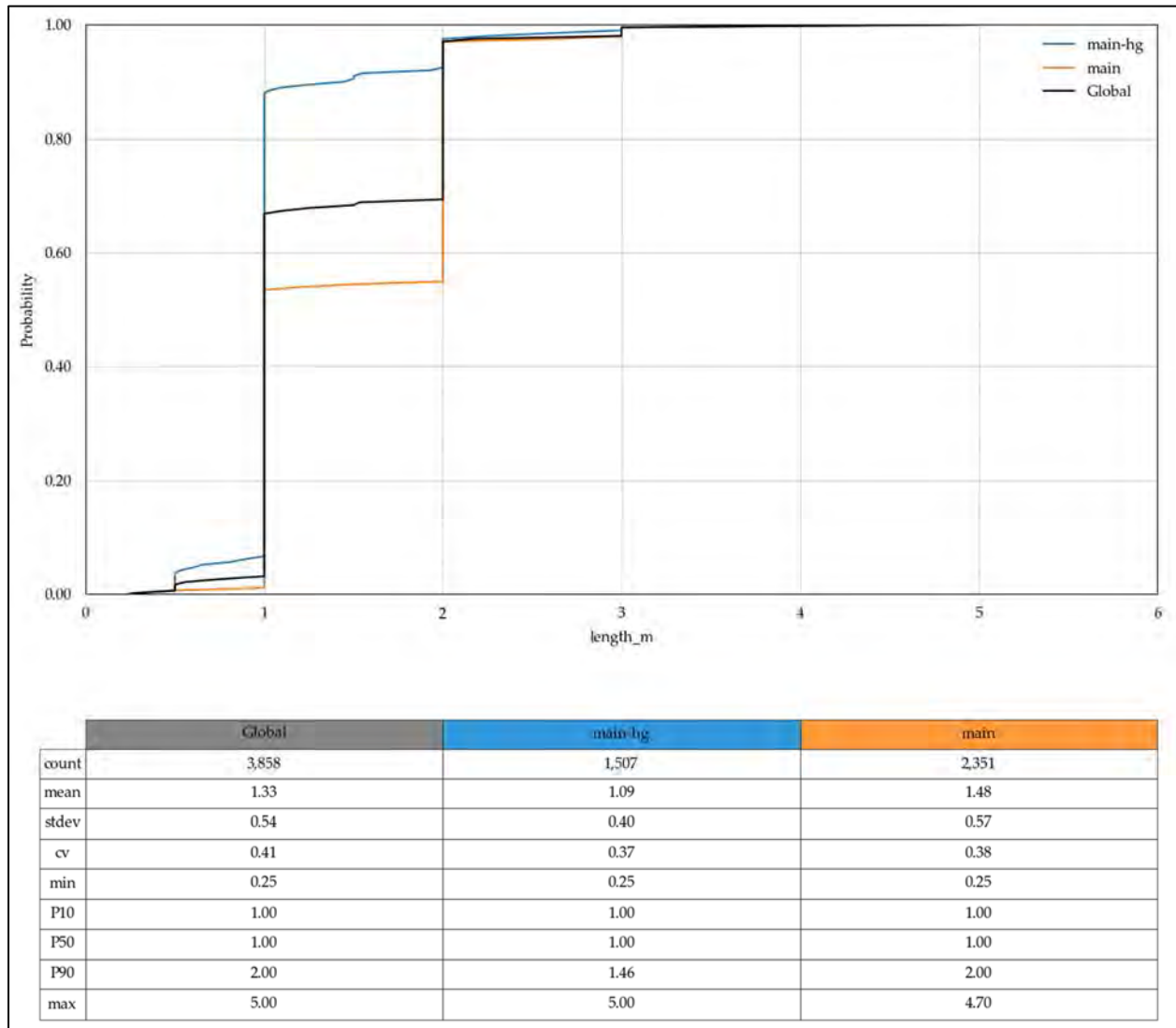
Description	Global	Main-HG	Main
Count	3867	1510	2357
Mean	13.019	25.517	5.011
Median	4.114	14.057	2.057
Standard Deviation	25.755	35.811	10.125
Variance	663.340	1282.455	102.508
Coefficient of Variation	1.978	1.403	2.020
Minimum	0.343	0.343	0.343
25 Percentile	1.371	5.486	0.686
50 Percentile	4.114	14.057	2.057
75 Percentile	13.371	30.086	4.800
Maximum	394.971	394.971	218.743

14.2.3 Compositing Methodology

Down hole assay sample length shows that sample interval lengths predominantly range from 1.0 to 2.0 m. A composite length of 2.0 m was selected as the majority of sample interval lengths are equal to, or less than that length.

The length-weighted compositing process starts from the drillhole collar and ends at the bottom of the hole. However, the final composite intervals along the drillhole cannot cross contacts between estimation domains. Therefore, composites extending down hole are truncated when one of these contacts are intersected. A new composite begins at these contacts and continues to extend down hole until the maximum composite interval length is reached, or another truncating contact is intersected. If the last composite interval was <1.0 m, the composite was not considered to avoid introducing short sample bias in the grade interpolation process.

Figure 14.3. Distribution and table of raw interval lengths within the estimation domains.



14.2.4 Grade Capping

To ensure metal grades are not overestimated by including outlier values during estimation, composites are capped to a specified maximum value. Probability plots illustrating each composite's values are used to identify outlier values that appear greater than expected relative to each estimation domain's zinc and silver distribution. Composites identified as potential outliers on the log-probability plots are evaluated in three dimensions (3-D) to determine if they are part of a high-grade trend or not. If identified, outliers are deemed part of a high-grade trend that still requires a grade capping level, the grade capping level used on them may not be as aggressive as the grade capping level used to control isolated high-grade outliers.

Grade capping was completed by assessing the composites within each domain. Table 14.5 and Table 14.6 indicate the grade capping levels determined using the log-

probability plots. Visual inspection of the potential outliers revealed they have no spatial continuity with each other. Therefore, the grade capping levels for zinc and silver detailed in Table 14.5 and Table 14.6 are applied to all composites used to calculate the MRE.

Table 14.5. Zinc grade capping levels applied to composites before estimation.

Mineral Resource Area	Grade Capping Domain	Zn Capping Level (%)	No. of Composites	No. of Capped Composites
Logan	Main	17	1,804	0
	Main-HG	28	847	3

Table 14.6. Silver grade capping levels applied to composites before estimation.

Mineral Resource Area	Grade Capping Domain	Ag Capping Level (g/t)	No. of Composites	No. of Capped Composites
Logan	Main	88	1,804	2
	Main-HG	132	847	7

14.2.5 Declustering

It is typical to collect data in a manner that preferentially samples high-value areas over low-value areas. This preferential sampling is an acceptable practice; however, it produces closely spaced data that are likely statistically redundant, which results in under-represented sparse data compared to the over-represented closer-spaced data. Therefore, it is desirable to have spatially representative (i.e., declustered) statistics for global Mineral Resource assessment and to check estimated grade models. Declustering techniques calculate a weight for each datum that results in sparse data having a higher weight than closely spaced data. The calculated declustering weights allow spatially repetitive summary statistics to be calculated, such as a declustered mean.

Cell declustering is performed globally on all composites within the grade estimation domains, which calculates a declustering weight for each composite. Cell declustering works by discretizing a 3-D volume into cells that are the same size. The sum of the weights of all the composites within the cell must equal 1. Therefore, the weight assigned to each composite is proportional to the number of composites within each cell. For example, if there are four composites within a cell, they are all assigned a declustering weight of 0.25.

As a rule of thumb, the cell size used to calculate declustering weights will ideally contain one composite per cell in the sparsely sampled areas. Visual evaluation of the sparsely sampled areas in a 3-D visualization software gives a rough idea of this size. Additionally, a high-resolution block model populated with the distance to each blocks nearest composite can help guide the declustering of the cell size. The 90-percentile of the distance block model, with a cell size much lower than the final declustering cell size, approximates the optimal cell size. Finally, plotting a series of declustered means for a range of declustering cell sizes will help determine the optimal cell size. The optimal cell

size will likely be when the declustered mean in the plot is locally low or high at a cell size that is very close to the two potential cell sizes that were determined from the visual review and calculated 90-percentile distance. Preferential sampling in high-grade zones results in a declustered mean that is likely within a local minimum. In contrast, preferential sampling in low-grade zones results in a declustered mean that is expected within a local maximum.

Calculated declustering weights for the grade estimation domain were constructed. Visual evaluation of the sparsely sampled areas in Micromine suggests similar cell sizes as the 90-percentiles from the distance block model for each grade estimation domain. Plots comprised of a series of declustered means for a range of declustering cell sizes were utilized to inform the final cell sizes. Table 14.7 details the cell size used, which was very close to the size indicated by the visual evaluation and distance block model.

Table 14.7. Cell size used to calculate declustering weights.

Mineral Resource Area	Cell Declustering Size (metre)
Logan (Main, Main-HG)	40

14.2.6 Final Composite Statistics

Summary statistics for the declustered and capped composites contained within the interpreted grade estimation domains, are presented in Table 14.9. The zinc and silver assays within the grade estimation domain generally exhibit coherent individual statistical populations.

Table 14.8. Composite Zn (%) statistics for Logan mineral resource area.

Description	Global	Main-HG	Main
Count	2651	847	1804
Mean	2.038	5.438	0.876
Median	0.920	4.135	0.660
Standard Deviation	3.099	4.511	0.792
Variance	9.604	20.345	0.627
Coefficient of Variation	1.520	0.829	0.904
Minimum	0.001	0.001	0.001
25 Percentile	0.477	2.571	0.400
50 Percentile	0.920	4.135	0.660
75 Percentile	2.060	6.501	1.135
Maximum	28.000	28.000	14.240

Note: Statistics consider declustering weights and capping.

Table 14.9. Composite Ag (g/t) statistics for Logan mineral resource area.

Description	Global	Main-HG	Main
Count	2651	847	1804
Mean	9.585	24.859	4.363
Median	3.086	16.114	1.833
Standard Deviation	16.935	25.308	7.670
Variance	286.797	640.512	58.832
Coefficient of Variation	1.767	1.018	1.758
Minimum	0.343	0.343	0.343
25 Percentile	1.029	7.886	0.686
50 Percentile	3.086	16.114	1.833
75 Percentile	10.000	32.183	4.637
Maximum	132.000	132.000	88.000

Note: Statistics consider declustering weights and capping.

14.5 Variography and Grade Continuity

Experimental semi-variograms for each domain are calculated along the major, minor, and vertical principal directions of continuity that are defined by three Euler angles. Euler angles describe the orientation of anisotropy as a series of rotations (using a left-hand rule) that are as follows:

1. Angle 1: A rotation about the Z-axis (azimuth) with positive angles being clockwise rotation and negative representing counterclockwise rotation;
2. Angle 2: A rotation about the X-axis (dip) with positive angles being counterclockwise rotation and negative representing clockwise rotation; and
3. Angle 3: A rotation about the Y-axis (tilt) with positive angles being clockwise rotation and negative representing counterclockwise rotation.

APEX personnel calculated standardized experimental correlograms using composites for each Mineral Resource area. Within each area, the orientation of the primary geological controls on mineralization informed the principal directions of continuity upon which the variograms were calculated. Experimental variograms were calculated for multiple domains within each Mineral Resource area to assess the parameters sensitivity. Modelled variogram ranges for both structures were reasonably consistent throughout the Logan Property, where the differences between major and minor direction ranges were minor. The most variation is observed in the vertical direction. The most stable and robust variogram from each area was selected and used for all domains within the Mineral Resource area.

Figure 14.4 to Figure 14.7 Figure 14.7 illustrate a silver and zinc variogram modeled using composites from Main and Main-HG. Table 14.10 details the variogram parameters used for kriging within each grade estimation domain.

During grade estimation, the standardized variogram model is scaled to the variance of the composites within each individual grade estimation domain. The scaled nugget effect and covariance contributions for each variogram structure are used as input parameters for ordinary kriging. The ranges used for each of the mineralized zones are not changed from the standardized variogram model. Locally varying anisotropy is used during grade estimation to define the orientation of the variogram on a per-block basis, which is explained in more detail in Section 14.7.

Table 14.10. Zinc and silver variogram parameters.

Variable	Domain	Ang 1	Ang 2	Ang 3	Sill	C0	Structure 1						Structure 2					
							Type	C1	Ranges (m)			Type	C2	Ranges (m)				
									Major	Minor	Vert			Major	Minor	Vert		
Ag	Main	38	-22	-40	54.3	10.9	sph	27.2	95	30	5	sph	16.3	140	80	8		
	Main-HG	38	-22	-40	573.1	114.6	sph	286.5	95	30	5	sph	171.9	140	80	8		
Zn	Main	38	-22	-40	0.6	0.1	exp	0.3	70	35	7	sph	0.2	100	80	8		
	Main-HG	38	-22	-40	20.4	2	exp	11.2	70	35	7	sph	7.1	100	80	8		

Abbreviations: C0 – nugget effect; C1 – covariance contribution of first structure; C2 – covariance contribution of second structure; Vert – vertical; sph – spherical variogram; exp – exponential variogram.

14.6 Block Model Grid Definition

A volume percent (block factor) style block model was used to calculate the Logan Project MRE. Each grade estimation domain used for the Mineral Resource estimation described in Section 14.3 was populated with a block model. All block models used the same block size of 6 m x 6 m x 6 m. Table 14.11 details the grid definition used.

Table 14.11. Logan block model definition.

Direction	Origin*	No. of Blocks	Block Size (m)
X	418,860	248	6
Y	6,707,890	208	6
Z	900	81	6
Rotation	No rotation		

Notes: *Origin for a block model in GEMSTM represents the coordinates of the outer edge of the block with minimum X and Y, and maximum Z.

Figure 14.4. Main zinc variogram.

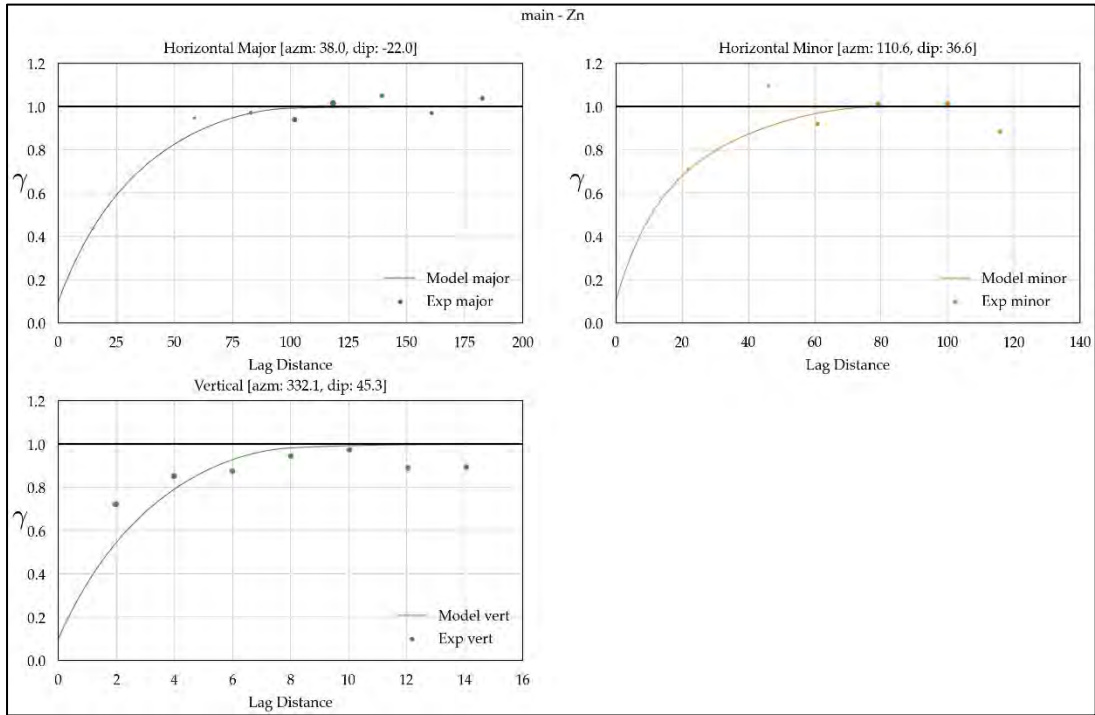


Figure 14.5. Main silver variogram.

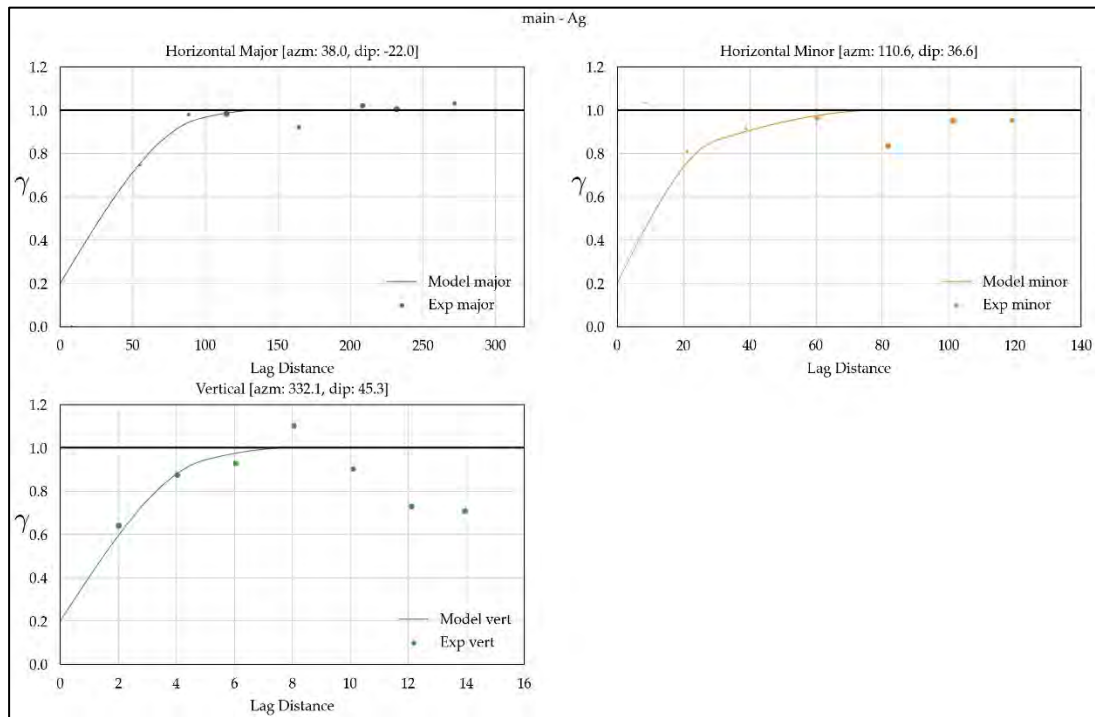


Figure 14.6. Main-HG zinc variogram.

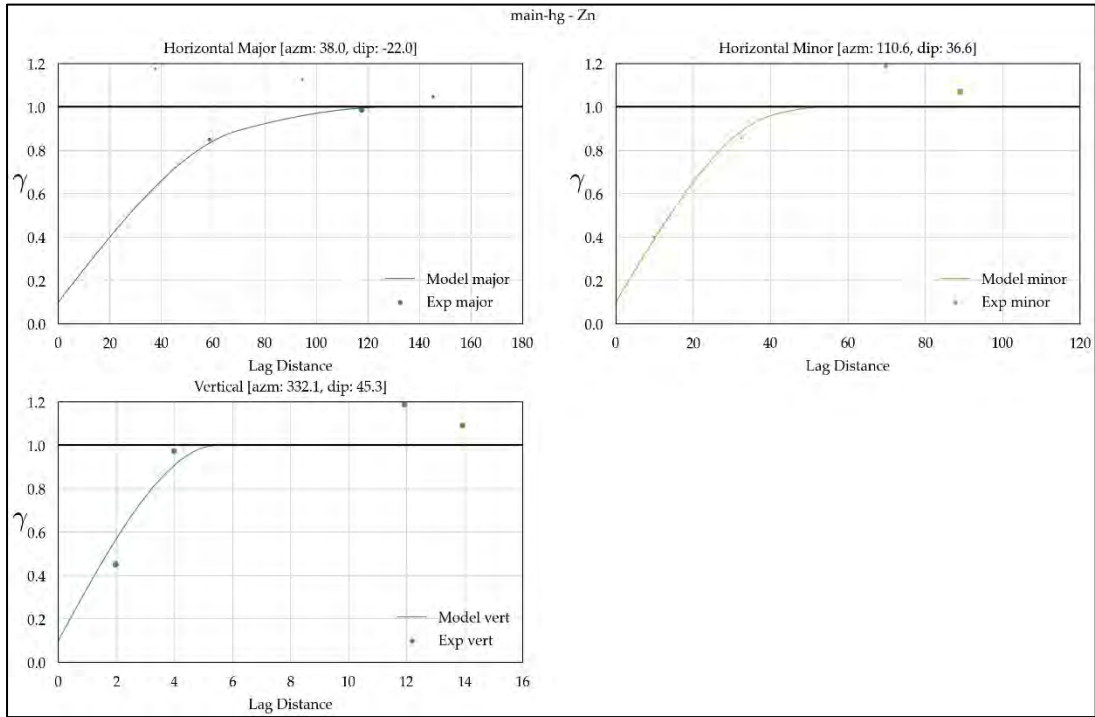
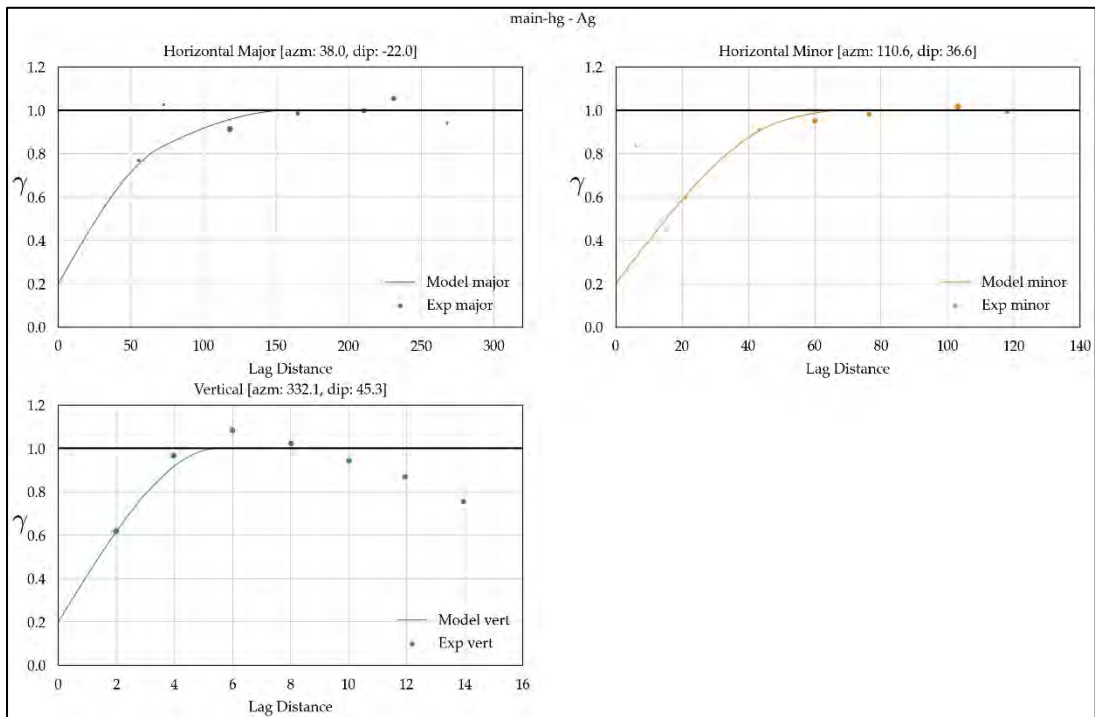


Figure 14.7. Main-HG silver variogram.



14.7 Grade Estimation Methodology

Ordinary kriging (OK) was used to estimate zinc and silver grades for the Logan Project block model. Only blocks that intersect the mineralization domain were estimated for zinc and silver grades.

Estimation of blocks is completed with locally varying anisotropy (LVA), which uses different rotation angles to define the principal directions of the variogram model and search ellipsoid on a per-block basis. Blocks within the grade estimation domain are assigned rotation angles using a trend surface wireframe. This method allows structural complexities to be reproduced in the estimated block model. Variogram and search ranges are defined by the variogram model described in Section 14.5.

The boundaries between the Main and Main-HG domains are treated as hard boundaries, meaning data from one domain cannot be used to inform the grade estimate of another.

The correct volume-variance relationship was enforced by restricting the maximum number of conditioning data (composites) within ellipsoid sectors, the maximum number of composites per drillhole and the maximum number of conditioning data per search ellipsoid sector used. These restrictions are implemented to ensure the grade estimation models are not over smoothed and to limit the effect of high-grade samples, which would lead to inaccurate estimation of global tonnage and grade. The parameters used to enforce the right volume-variance relationship cause local conditional bias, however, ensure the global estimate of grade and tonnages is more accurately estimated.

To ensure that all blocks within the grade estimation domains are estimated and the correct volume variance relationship is achieved, a three-pass method was used for each domain. Each pass uses the same variogram model, as modelled and detailed in Section 14.5, however, different search ellipsoid configurations are used, as illustrated in Table 14.12.

Different search ellipsoid configurations are used to control the smoothing inherent in kriging and manage influence of high-grade samples to achieve the correct volume variance relationship. The three passes are normally not required since the blocks estimated during those passes are distant from composites, however, due to structural complexities and the limitation of search ellipses not being able to look along the trend of the folds, they were utilized in this case.

Table 14.12. Logan block model silver and zinc interpolation parameters.

Variable	Estimation Domains	Pass	Max Variogram & Search Ranges (m)			No. of Ellipse Sectors	Min No. of Comps	Max No. of Comps	Max No. of Comps
			Major	Minor	Vertical				
			Zn	Main	1				
		2	100	80	8	1	2	30	2
		3	150	120	8	1	1	30	-
	Main-HG	1	70	35	3	1	2	30	2
		2	100	80	8	1	2	30	2
		3	150	120	8	1	1	30	-
Ag	Main	1	95	30	5	1	2	30	2
		2	140	80	8	1	2	30	-
		3	210	120	8	1	1	30	-
	Main-HG	1	95	30	5	1	2	30	2
		2	140	80	8	1	2	30	-
		3	210	120	8	1	1	30	-

14.8 Model Validation

14.2.1 Statistical Validation

APEX personnel performed three varying statistical validation methods to ensure the estimated block model honours the input drillhole data. Swath plots are used to check that the block model honours directional trends, and volume-variance analysis is used to check that the proper quantity of minerals above varying cut-off grades is being estimated.

14.2.2 Direction Trend Analysis Validation

Swath plots verify that the estimated block model honours directional trends and identifies potential areas of over- or under-estimation of grade. The swath plots are generated by calculating the average metal grades of composites, and the OK estimated blocks. The block model evaluated comprises both the Main and Main-HG domains, that way, the entire zone can be evaluated overall. Examples of the swath plots used to validate the Mineral Resource Estimate are illustrated in Figure 14.11 to Figure 14.3.

Overall, the block model compares well with the composites. There is some observed local over- and under-estimation. Due to the limited number of conditioning data available for the grade estimation in those areas, this result is expected.

Figure 14.8. Logan easting Zn swath plot.

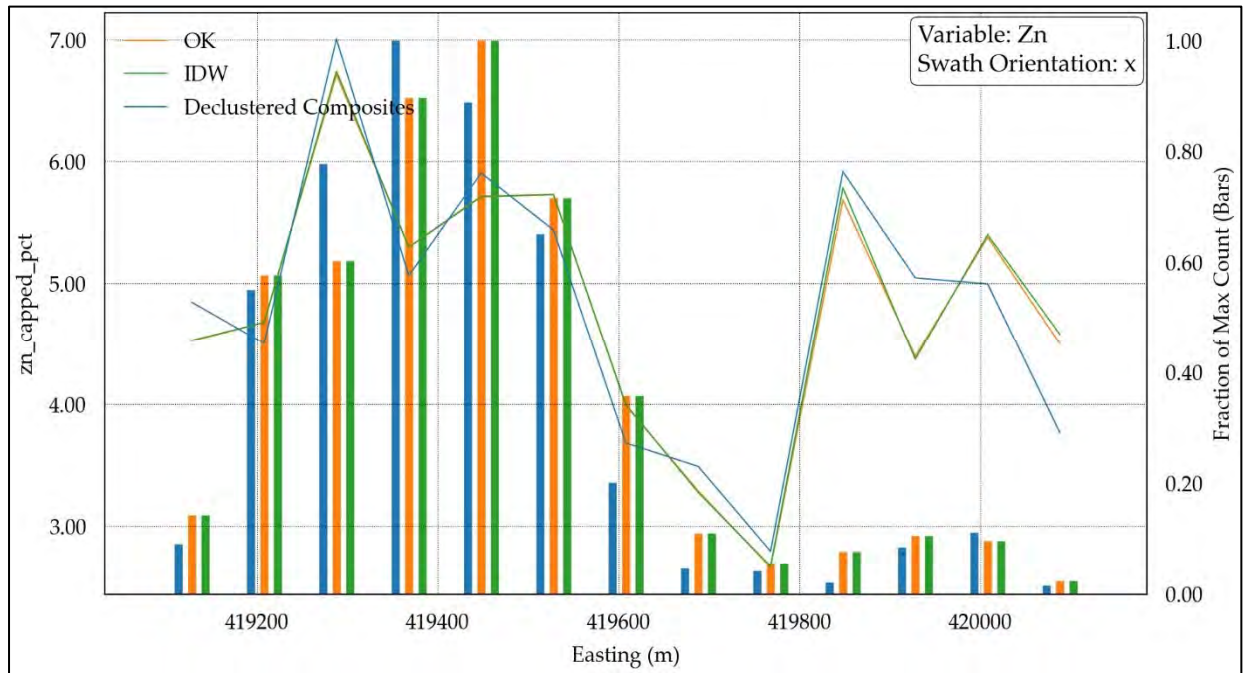


Figure 14.9. Logan northing Zn swath plot.

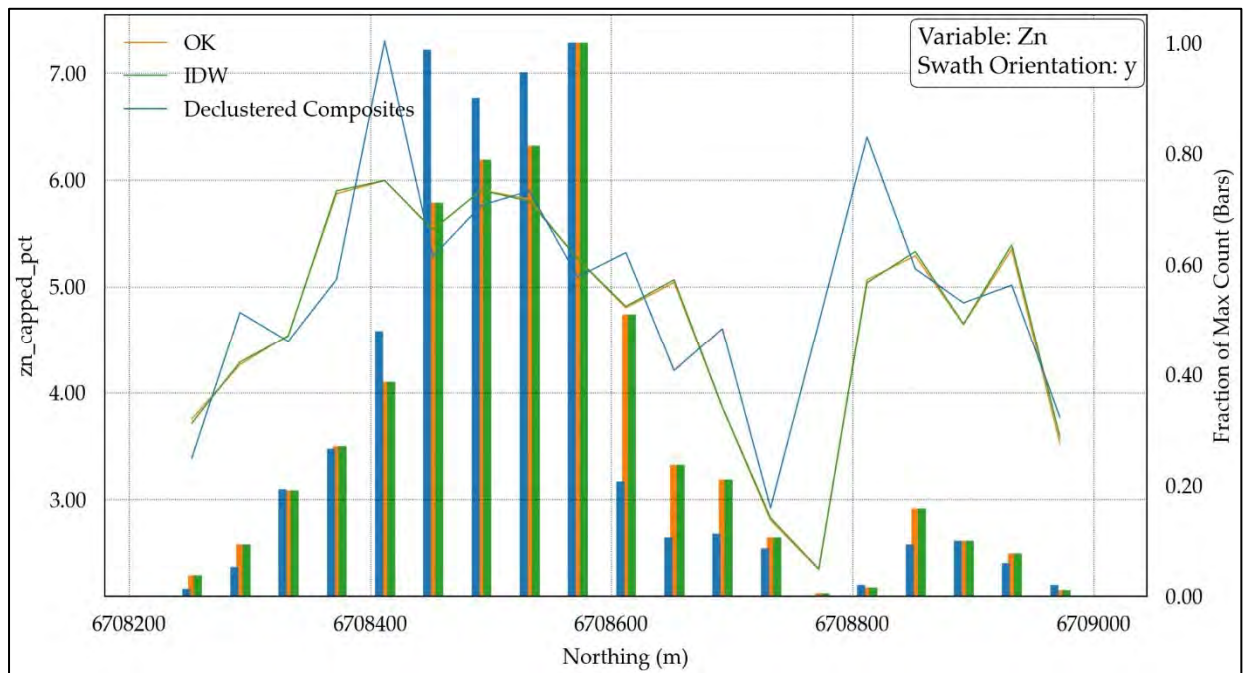


Figure 14.10. Logan elevation Zn swath plot.

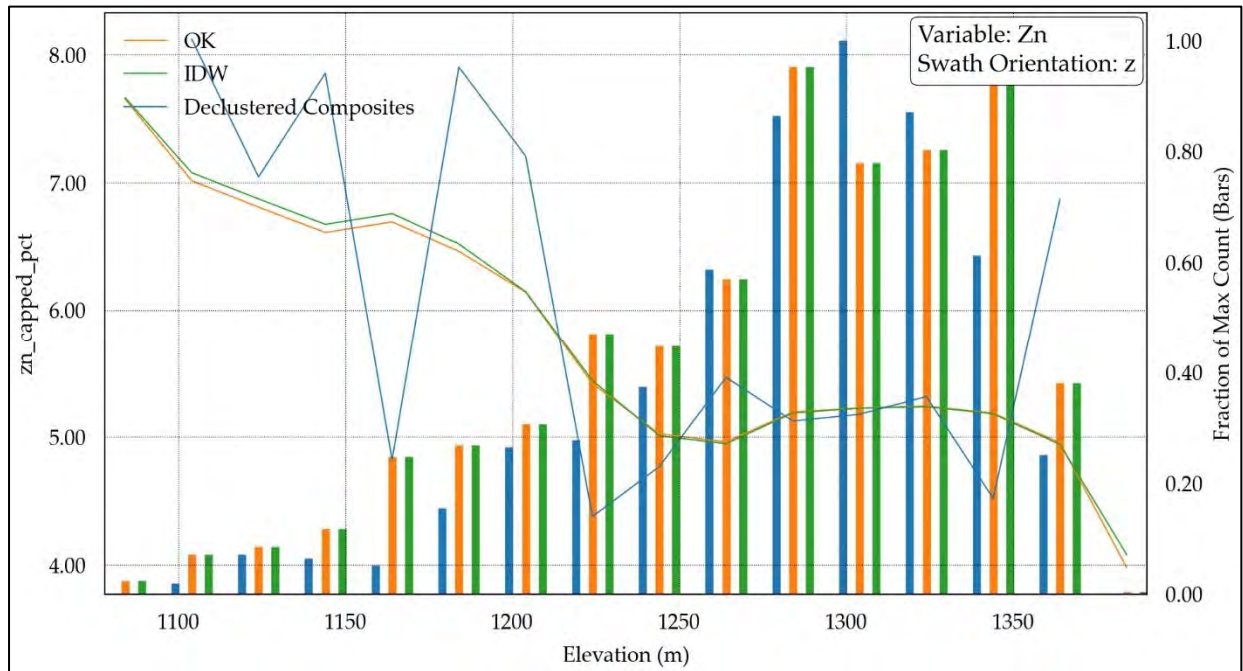


Figure 14.11. Logan easting Ag swath plot.

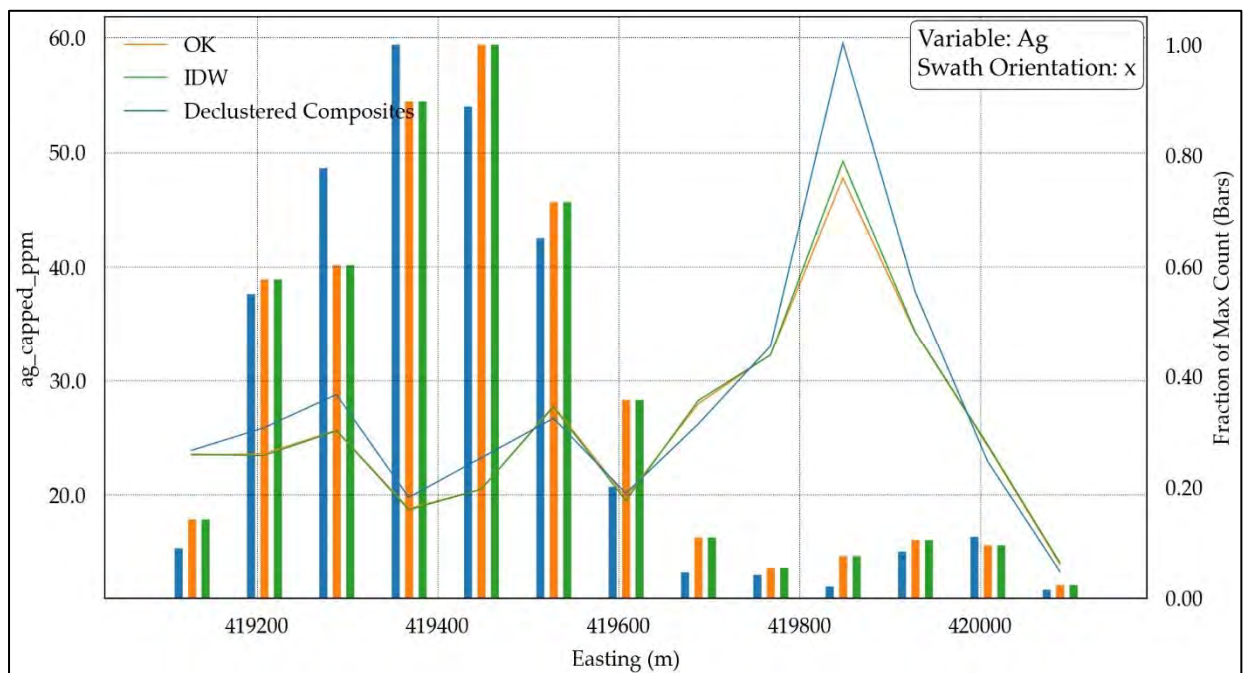


Figure 14.12. Logan northing Ag swath plot.

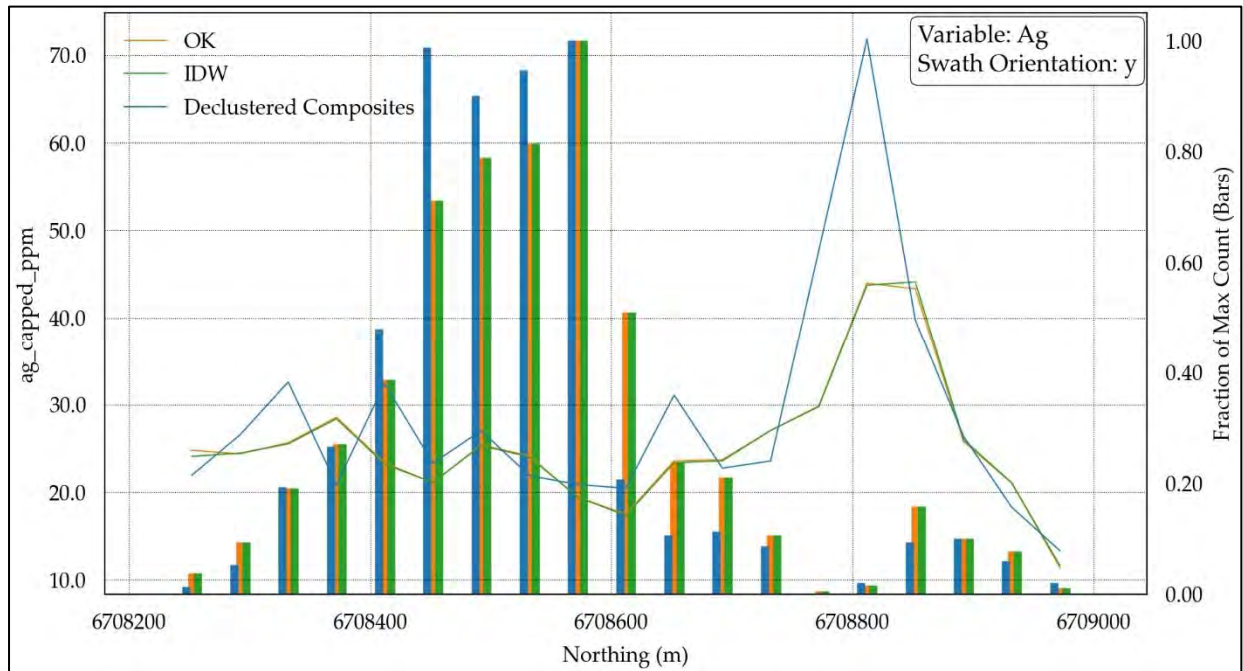
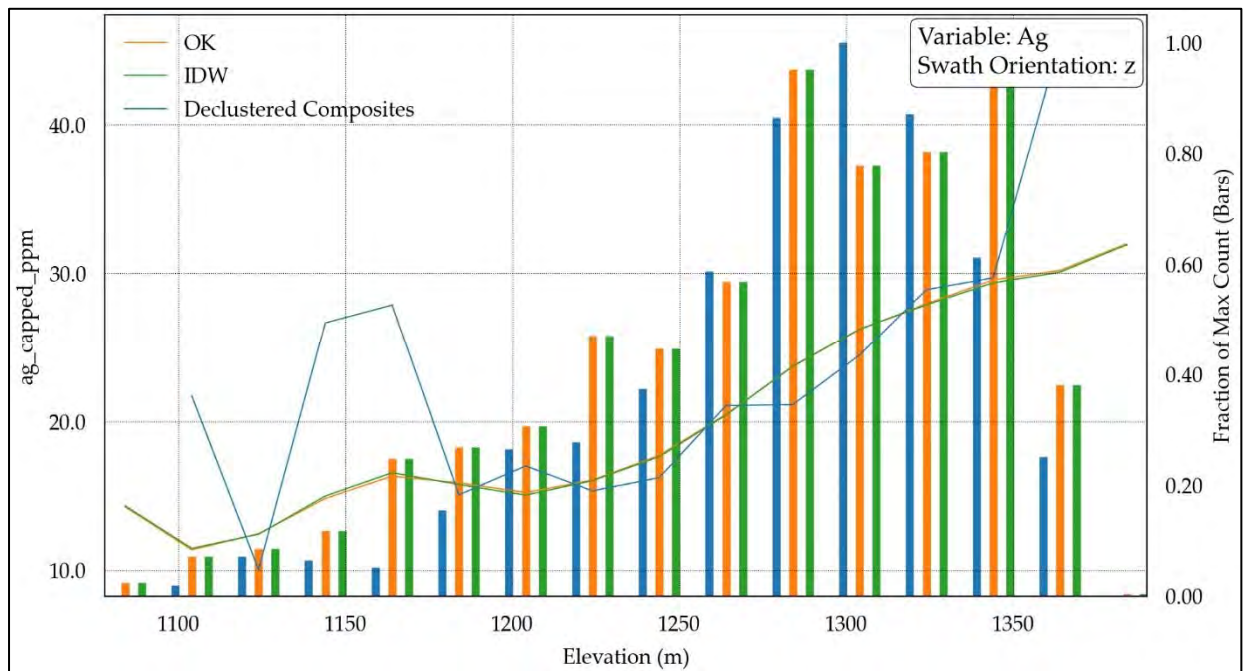


Figure 14.13. Logan elevation Ag swath plot.



14.2.3 Volume-Variance Analysis Validation

Smoothing is an intrinsic property of kriging, and as described in Section 14.7 volume-variance corrections are used to help reduce its effects. To verify that the correct level of smoothing is achieved, theoretical histograms that indicate each estimated metal's anticipated variance and distribution at the selected block model size are calculated. The scaled composite histograms are used to calculate expected tonnages and expected grades above a series of cut-off grades. Comparing the curves of the expected versus estimated values helps ensure the correct volume of Mineral Resource above varying cut-offs is being estimated.

Overall, the estimated grades within each domain illustrate the desired amount of smoothing. The zinc estimated within the Main-HG domain, the primary host of the metal, achieved the desired amount of smoothing very well. Zinc estimation with the Main domain and silver estimation within both domains demonstrates adequate smoothing at the desired cut-off, additional modifications to the search strategy would introduce excessive bias. Figure 14.14 to Figure 14.17 illustrate the volume variance for zinc and silver in each estimation domain.

Figure 14.14. Volume-variance analysis for Main Zn grade estimation domain.

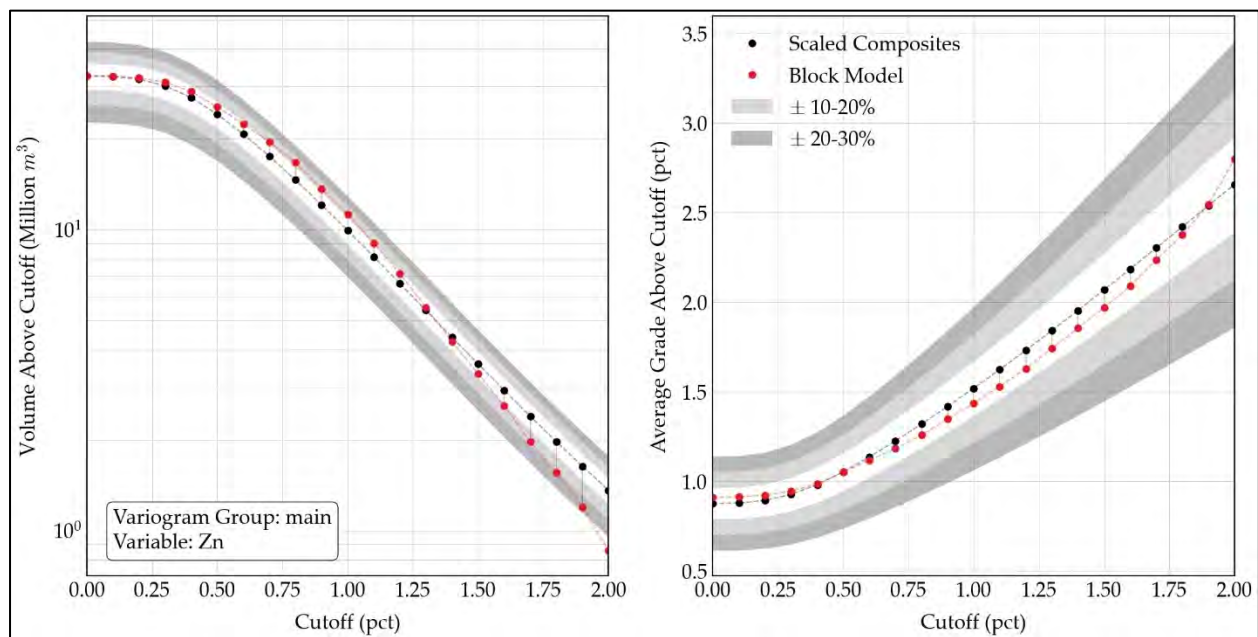


Figure 14.15. Volume-variance analysis for Main-HG Zn grade estimation domain.

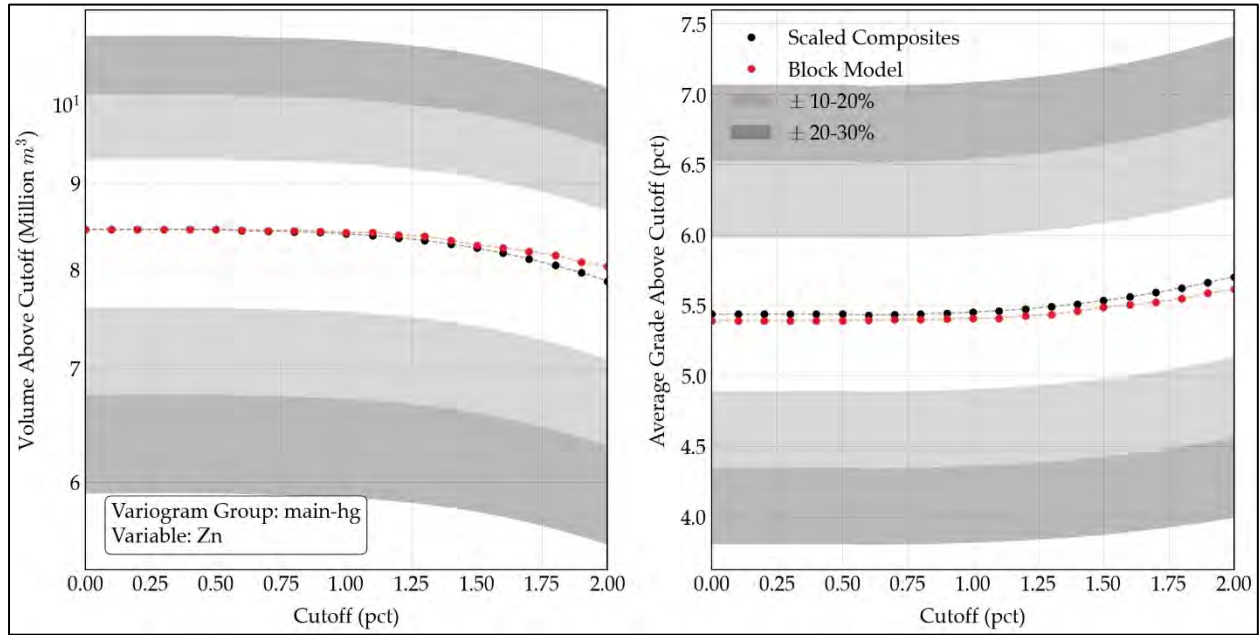


Figure 14.16. Volume-variance analysis for Main Ag grade estimation domain.

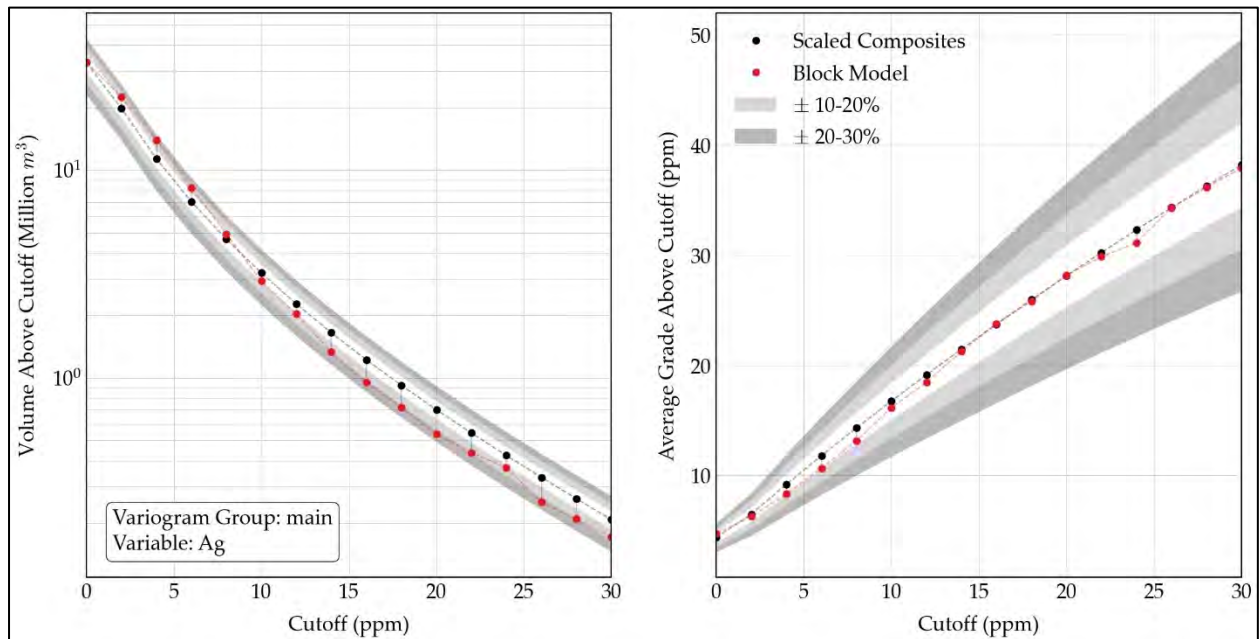
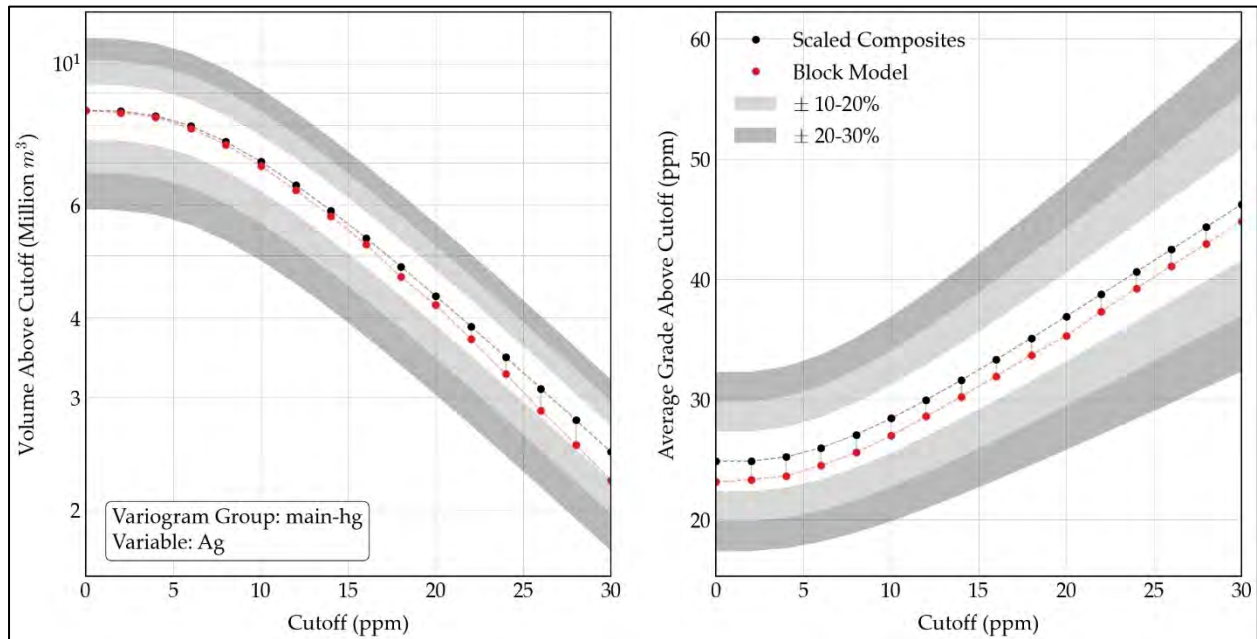


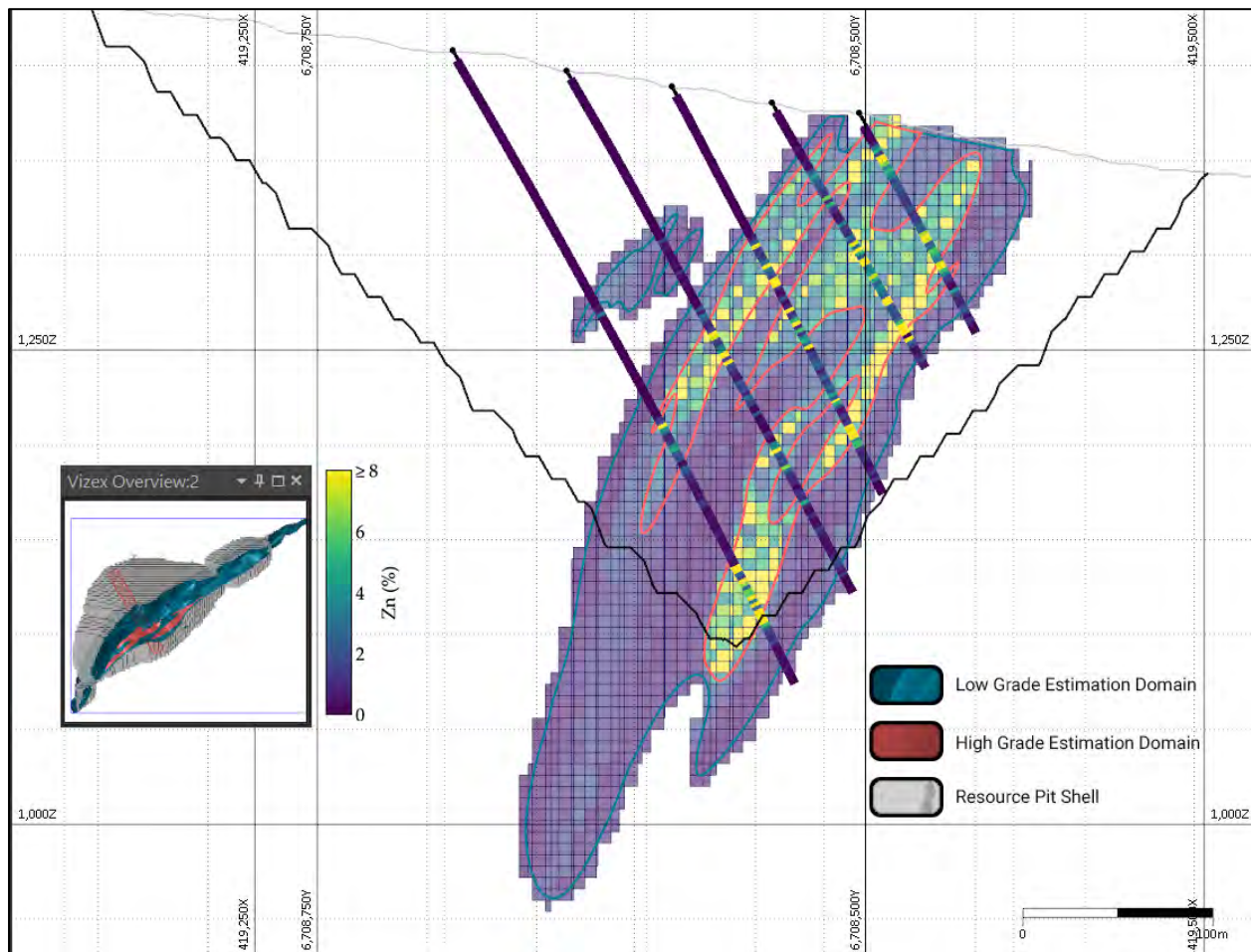
Figure 14.17. Volume-variance analysis for Main-HG Ag grade estimation domain.



14.2.4 Visual Validation

APEX personnel visually reviewed the estimated block model grades in cross-sectional views comparing the estimated block model grades to the input composited drillhole assays and the modelled mineralization trends. The block model compares very well to the input compositing data. Local high- and low-grade zones within the Mineral Resource areas are reproduced as desired, and the locally varying anisotropy adequately maintains variable mineralization orientations. Figure 14.18 illustrates the grade estimation blocks used for the MRE.

Figure 14.18. Cross section looking along 150°-330° illustrating the estimated zinc values and the raw and resource constraining pit shell (bold black line) at Logan.



14.9 Mineral Resource Classification

The Project MRE discussed in this Technical Report has been classified in accordance with guidelines established by the CIM “Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines” dated November 29, 2019, and CIM “Definition Standards for Mineral Resources and Mineral Reserves” dated May 14, 2014.

A Measured Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of modifying factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation. A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proven Mineral Reserve or to a Probable Mineral Reserve.

An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with sufficient confidence to allow the application of modifying factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation. An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve.

An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity. An inferred mineral resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

14.2.1 Classification Methodology

The Logan Project MRE is classified as Inferred and Indicated according to the CIM definition standards. The classification of the Indicated and Inferred Mineral Resources is based on geological confidence, data quality and grade continuity of the data. The most relevant factors used in the classification process were the following:

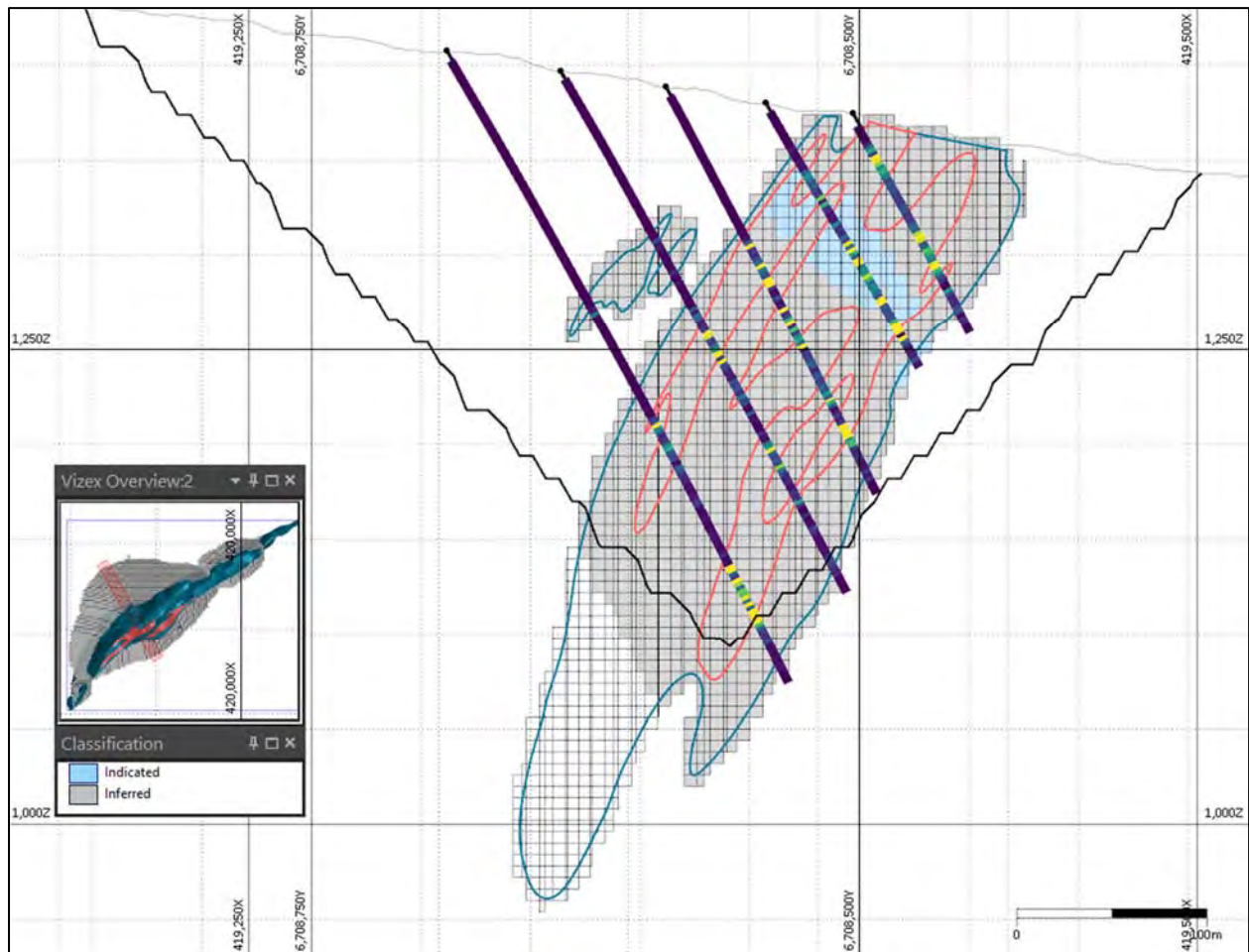
- Density of conditioning data;
- Level of confidence in drilling results and collar locations;
- Level of confidence in the geological interpretation;
- Continuity of mineralization; and
- Level of confidence in the assigned densities.

Mineral Resource classification was determined using a multiple-pass strategy that consists of a sequence of runs that flag each block with the run number a block first meets a set of search restrictions. With each subsequent pass, the search restrictions decrease, representing a decrease in confidence and classification from the previous run. For each run, a search ellipsoid is centred on each block and orientated in the same way described in Section 14.7. Table 14.13 details the range of the search ellipsoids and the number of composites that must be found within the ellipse for a block to be flagged with that run number. The runs are executed in sequence from run 1 to run 2. Classification is then determined by relating the run number that each block is flagged as to indicated (run 1) or inferred (run 2). This process is completed separately from grade estimation. Figure 14.19 illustrates the classification model used for the MRE.

Table 14.13. Search restrictions applied during each run of the multiple-pass classification strategy.

Mineral Resource Area	Classification	Minimum No. of Drillholes	Ranges (m)		
			Major	Minor	Vertical
Main, Main-HG	Indicated	3	70	40	10
	Inferred	2	160	80	20s

Figure 14.19. Cross section looking along 150°-330° illustrating the resource classification model resource constraining pit shell (bold black line) at Logan.



14.10 Evaluation of Reasonable Prospects for Eventual Economic Extraction

14.2.1 Open Pit Parameters

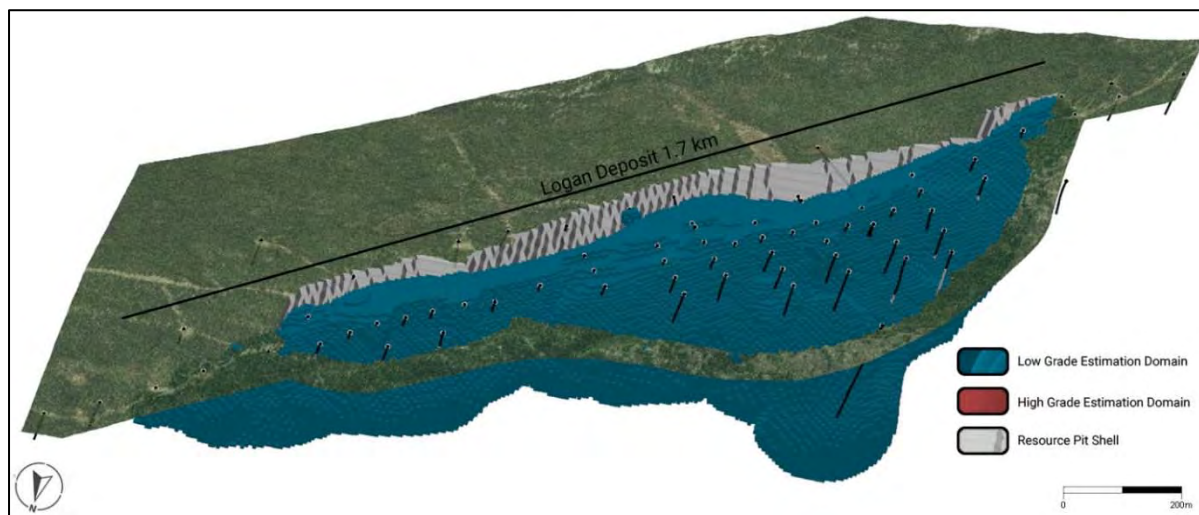
To demonstrate that the Logan Property has the potential for future economic extraction, the Mineral Resource block model was subjected to several pit optimization scenarios to determine the prospect for eventual economic extraction. Pit optimization was performed with NPV Scheduler using the percent resource block model that was diluted with nominal waste values (0.005% Zn, 0.3429 g/t Ag).

The Authors consider the parameters presented in Table 14.14 appropriate to evaluate the reasonable prospect for potential future economic extraction at the Logan Project for the purpose of providing an MRE. The resulting pit shell is used to constrain the MRE stated in this report. Figure 14.20 illustrates the Logan Mineral Resource Estimate block model and the open pit shells used to constrain the MRE.

Table 14.14. Parameters used for resource constraining pit.

Parameters	Unit	Value
Zinc Price	US\$/lb	1.30
Silver Price	US\$/oz	19
Exchange Rate	US\$/C\$	0.77
Zinc Recovery	%	95
Silver Recovery	%	80
Mining Cost	C\$/t mined	3.50
Processing and G&A Cost	C\$/t milled	35
Approximate Cut-Off Grade	Zn %	1.6
Pit Slope	degrees	45

Figure 14.20. 3-D view of the 2022 Logan Mineral Resource Estimate block model and resource pit shell.



14.2.2 Mineral Resource Estimate

The Logan Project MRE is reported in accordance with the CSA NI 43-101 standards for disclosure and has been estimated using the CIM “Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines” dated November 29, 2019, and CIM “Definition Standards for Mineral Resources and Mineral Reserves” dated May 10, 2014. The effective date of the Mineral Resource is January 17, 2023.

Mineral Resource modelling was conducted in the UTM coordinate space relative to the North American Datum (NAD) 1983, and UTM zone 9N (EPSG:26909) The mineral resource block model utilized a selective mining units (SMU) block size of 6 m (X) by 6 m (Y) by 6 m (Z) to honor the mineralization wireframes. The percentage of the volume of each block below the top of bedrock surface and within each mineralization domain was calculated using the 3-D geological models and a 3-D surface model. The zinc and silver grades were estimated for each block using ordinary kriging with locally varying anisotropy (LVA) to ensure grade continuity in various directions is reproduced in the block model. The MRE is reported as undiluted within a series of optimized pit shells. Details regarding the methodology used to calculate the MRE are documented in this Technical Report section.

Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, market, or other relevant issues. The quantity and grade of reported Inferred Resource is uncertain in nature and there has not been sufficient work to define the Inferred Mineral Resource as an Indicated or Measured Mineral Resource.

The calculated open pit cut-off of 1.6% zinc was selected in reporting the pit constrained Mineral Resource in the 2022 Mineral Resource Estimate using the 6 m (X) x 6 m (Y) x 6 (Z) m SMU block size model (Table 14.15). The MRE is reported as undiluted with an effective date of January 17, 2023.

14.2.3 Mineral Resource Sensitivity

Mineral Resources can be sensitive to the selection of the reporting cut-off grade. For sensitivity analyses, other cut-off grades are presented for review. Mineral Resources at various cut-off grades are presented for the Pit Constrained Mineral Resources in Table 14.16.

Table 14.15. Logan Mineral Resource Estimate ⁽¹⁻⁸⁾.

Classification	Zn Cut-off (%)	Tonnes	Zn (%)	Ag (g/t)	Zn (Mlb)	Ag (Moz)
Indicated	1.6	2,620,000	5.1	23.1	294	1.94
Inferred	1.6	16,930,000	4.3	18.2	1,622	9.98

Notes:

1. Mr. Mike Dufresne, P.Geol., P.Geol. of APEX Geoscience Ltd., who is deemed a qualified person as defined by NI 43-101 is responsible for the completion of the updated mineral resource estimation, with an effective date of January 17, 2023.
2. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
3. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
4. The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could potentially be upgraded to an Indicated Mineral Resource with continued exploration.
5. The Mineral Resources were estimated in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions (2014) and Best Practices Guidelines (2019) prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council.
6. The cut-off grade of 1.6% Zn is based on metal prices of US\$1.30/lb Zn and US\$19/oz Ag and 0.77 US\$ per C\$, with process recoveries of 95% Zn and 80% Ag.
7. The constraining pit optimization parameters assumed C\$3.50/t mineralized and waste material mining cost, 45° pit slopes and a process + G&A cost of C\$35/t, using a 1.5 revenue factor that equates with metal price assumptions of US\$1.95/lb Zn, US\$28.50/Oz Ag and 0.77 US\$ per C\$.
8. The effective date of the Mineral Resources Estimate is January 17, 2023.

Table 14.16. Sensitivities of combined in-pit-constrained and out-of-pit Mineral Resource Estimate.

Classification	Zn Cutoff (%)	Tonnes	Zn (%)	Ag (g/t)	Zn (Mlb)	Ag (Moz)
Indicated	0.5	2,780,000	4.8	21.5	298	1.96
	1	2,700,000	5	22.5	296	1.96
	1.6	2,620,000	5.1	23.1	294	1.94
	2	2,520,000	5.2	23.5	290	1.91
	3	2,060,000	5.8	26.1	264	1.73
Inferred	4	1,490,000	6.7	29.7	220	1.42
	0.5	36,640,000	2.4	10.7	2,046	13.20
	1	25,680,000	3.2	14.1	1,864	11.84
	1.6	16,930,000	4.3	18.2	1,622	9.98
	2	13,960,000	4.9	20.3	1,505	9.13
	3	10,020,000	5.8	23.5	1,292	7.56
	4	6,800,000	7	26.3	1,045	5.73

14.11 Risk and Uncertainty in the Mineral Resource Estimate

Grade estimation domain construction for zinc-silver in the 2023 Logan MRE utilized historical drillholes. Once additional modern drilling is completed in and around areas dominated by historical drilling, future MRE studies should evaluate the overall difference between the assays from nearby data between the two datasets to determine if bias exists between them.

Modelling structurally controlled zinc and silver deposits has inherent risk. This style of deposit is very complex regarding geological and mineralization continuity. Connecting drillhole intercepts of thin mineralized discrete vein or vein zones into continuous interpretations is a more significant source of uncertainty. Broader zones with a high density of veins, breccia zones, or structural features favourable to mineralization provide much less uncertainty as they are easier to map and predict. De-risking the geological continuity for this deposit style requires rigorous interpretation and high-quality orientated structural data from drilling.

The construction of the grade estimation domains considered only zinc. However, the correlation between zinc and silver mineralization are not always high, which causes areas within the silver grade estimation domains that contain more internal dilution than desired. Very restrictive search strategies are needed to ensure areas with increased internal dilution are not over- or under-estimated due to smoothing. Future Mineral Resource assessments should explore the option of creating separate grade estimation domains for zinc and silver in zones where the two metals do not illustrate strong collocated and spatial correlation. If possible, this will minimize the smoothing effects of grade estimation, allow more data to be used when estimating grades, and provide a more robust Mineral Resource Estimate. However, the economic importance of silver at the current low grades reduces this source of risk within the 2023 Logan MRE.

The Authors are not aware of any other significant material risks to the MRE other than the risks that are inherent to mineral exploration and development in general. The Authors of this report are not aware of any specific environmental, permitting, legal, title, taxation, socio-economic, marketing, political or other relevant factors that might materially affect the results of this Mineral Resource Estimate and there appears to be no obvious impediments to developing the MRE at the Logan Project.

Sections 15-22 are not included. This Technical Report for the Logan Project
provides an updated Mineral Resource Estimate only.

23 Adjacent Properties

The Logan Property is situated within the Yukon Omineca Belt morphogeological terrane, a Jurassic - Cretaceous volcanic arc terrane and includes the Rancheria Silver District, known for a number of Silver-Lead-Zinc vein and skarn mineral occurrences. There are no properties immediately adjacent to the Logan Property.

Other exploration projects proximal (within 20 km) to Logan with similar mineralization styles, located within the Rancheria Silver District, include Silver Hart Property and the Blue Heaven Property of CMC Metals Ltd. (“CMC”), the Quarterback project of Strategic Metals, and the Pigskin property of Silver Predator Corp. (Silver Predator) (Figure 23.1). Mineralization in these projects is described as high-grade silver-lead-zinc veins and carbonate replacement. In 2021, a mineral resource statement for the Silver Hart project was published (Davidson, 2021). As the most advanced nearby project, a summary of the Silver Hart project is provided in Section 23.1.

The author has been unable to verify the information pertaining to the adjacent properties in the area. This information is not necessarily indicative of the mineralization on the Logan Property.

23.1 Silver Hart Property

The Silver Hart Property, 100% owned by CMC Metals Ltd. (CMC) with no royalties or other encumbrances, is located in south-central Yukon Territory, 25 km southwest of the Logan Property. The Silver Hart Property is part of the Rancheria Silver District, located within the Yukon Omineca Belt and the Cassiar Platform. The property includes 116 unsurveyed contiguous claims covering an area of approximately 2,017 hectares. There is no record of production from the general property area. However, it has seen a long history of staking and exploration activity over the past century targeting Ag-Pb-Zn mineralization.

Mineralization at the Silver Hart Property consists of high-grade silver-lead-zinc veins and carbonate replacement, as well as tungsten-copper skarn showings (Davidson, 2021). High-grade silver-lead-zinc veins are part of the Silver Hart’s Main Zone veins (TM, S, M, K, KL). These veins lie near the contact of the sedimentary rocks and granodiorite of the Cassiar Batholith. Mineralization is generally restricted to southwest-northeast trending structures dipping northwest and hosting veins or vein sets of several metres in width that extend for more than 200 metres along strike, and continue to depths of at least 100 metres. The veins consist of a wide shear zone containing lenses of galena, tetrahedrite and sphalerite mineralization. Mineralization is considered epithermal type, with hanging wall alteration consisting of argillic clay proximal to the vein followed by a quartz-sericite alteration interval with a weak to intense propylitic alteration in the outer-most shell (Davidson, 2021).

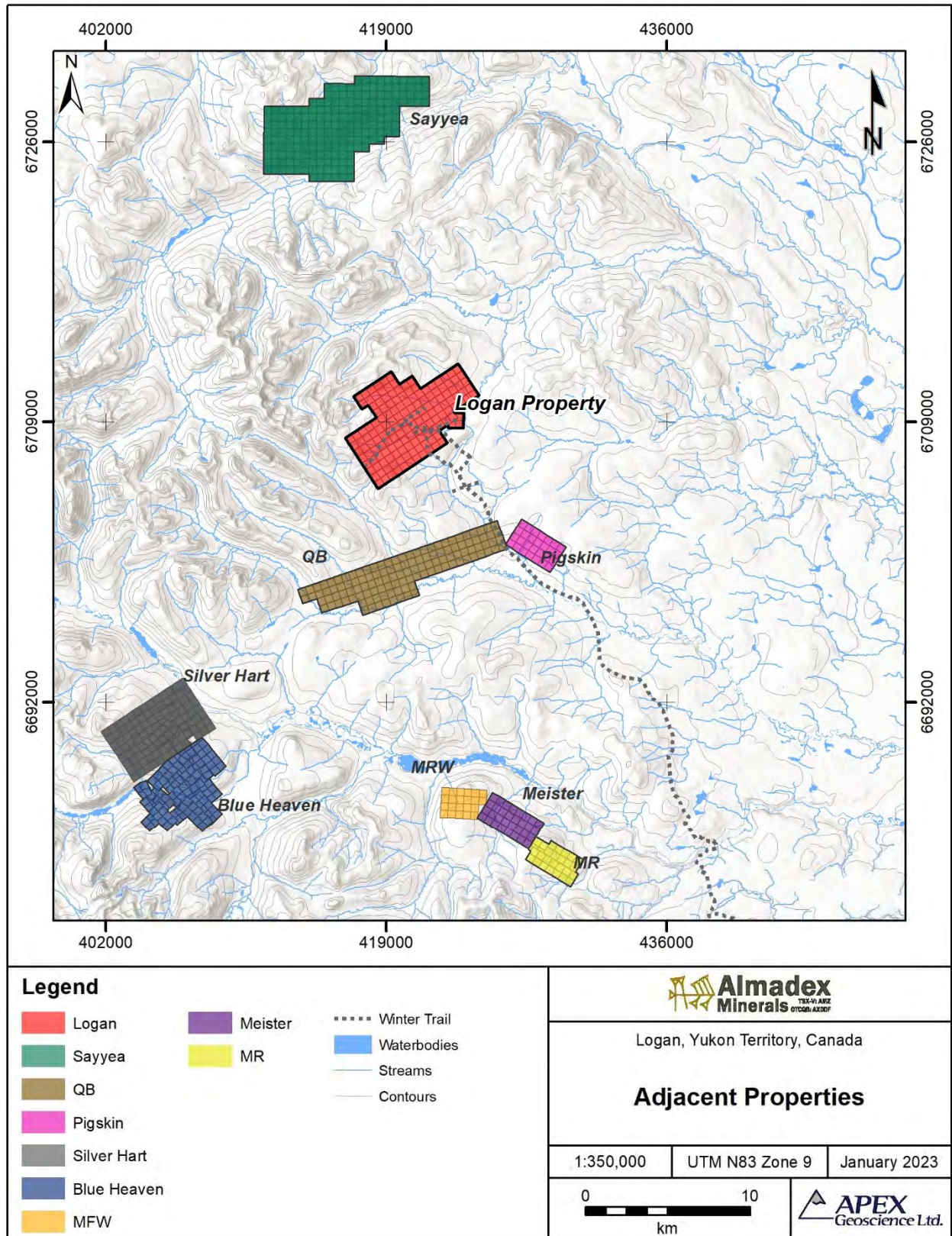
The Silver Hart Property Resource Statement was calculated in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (“CIM”) “CIM Definition Standards

- For Mineral Resources and Mineral Reserves" adopted by the CIM Council (as amended, the "CIM Definition Standards") in accordance with the requirements of National Instrument 43-101 "Standards of Disclosure for Mineral Projects" ("NI 43-101"). The authors of this Technical Report have not visited the Property or verified the Silver Hart Resource Statement, however the Reserve and MRE was prepared by QPs in accordance with the NI 43-101 and are valid and current. The Author does not imply any size or grade relationship between the Silver Hart Property and the Logan Property and note that this information is not necessarily indicative of the mineralization known or to be expected at Logan, which is the subject of this Technical Report.

Table 23.1 Silver Hart Property Mineral Resource Estimates (Davidson et al., 2021).

Domains	Tonnage t	AgEq g/t	Ag g/t	Pb %	Zn %	AgEq t.oz	Ag t.oz	Pb lb	Zn lb
TM veins	157,199	843	438	2.3	6.1	4,260,080	2,212,384	8,004,967	21,109,320
S Veins	57,844	753	467	2.5	3.7	1,400,908	867,593	3,126,138	4,684,088
M Veins	64,078	315	114	1.4	2.8	648,709	234,844	1,939,203	4,015,360
KL Veins	67,623	368	186	0.5	3.2	801,010	403,473	700,974	4,764,855
Total Inferred Resources	346,800	570	301	1.7	4.0	7,501,300	3,942,900	14,572,100	34,573,700
*AgEq= Silver equivalent									

Figure 23.1 Adjacent Properties



24 Other Relevant Data and Information

The authors are not aware of any other relevant information with respect to the Logan property.

25 Interpretation and Conclusions

25.1 Results and Interpretations

The Logan Property is located in the Watson Lake Mining District of southeast Yukon, approximately 108 km northwest of Watson Lake and 260 km east of Whitehorse. The Logan Property comprises 156 contiguous quartz mineral claims covering a combined area of 3,230.79 Ha. The claims are held 100% by Almadex Minerals Ltd.

This Report on the Logan Property has been prepared by Mr. Michael Dufresne, P. Geol., President of APEX, Mr. Alfonso Rodriguez, P. Geo., Senior Geologist of APEX, and Mr. Kris Raffle, P. Geo, Principal Geologists of APEX. The intent and purpose of this Report is to disclose an updated mineral resource estimate and provide a technical summary of the Logan Property. The effective date of the Report is January 17th, 2023.

The Property is located in a favorable geological setting in the Rancheria District, known for a number of Silver-Lead-Zinc vein and skarn mineral occurrences within the Canadian Cordillera within the Yukon Omineca Belt morphogeological terrane, a Jurassic - Cretaceous volcanic arc terrane.

25.2 Historic exploration

The original Logan 1-36 quartz mineral claims were staked in 1979 by Regional Resources, a predecessor of Almadex Minerals Ltd. and Almaden Minerals Ltd. The claim package covered a copper-lead-zinc-silver-tin soil anomaly and gossan. In March 1980, Regional Resources added the Logan 37-114 claims southeast of the original block. The earliest surface work carried out on the Property was undertaken in 1979 by Cordilleran on behalf of Regional Resources comprising grid and reconnaissance soil sampling, geological mapping, prospecting, and geophysical surveys.

Follow up mineral exploration within the Property during the 1980s included soil grids, geophysics, soil sampling and hand dug and blasting trenching, which defined mineralization in the Main zone. Drilling programs carried out between 1986 and 1988 while the Property was under ownership of Fairfield and Total Energold was the operator, delineated the east-northeast mineralization trend with the Main zone in the center and the East and West zones extending along trend. A total of 103 drillholes adding up to 16,438.92 m were drilled on the Logan Property and its vicinity.

Additionally, in 1988, soil sampling and IP surveys were carried out as well as a total of 15 trenches (totalling 2,412 m) along the Main (11 trenches), West (3 trenches) and East (1 trench) Zones that were mapped and sampled for assays. The IP resistivity results exhibited anomalies along the east-northeast trend. In general, low levels of zinc mineralization (<0.10% Zn) were interpreted to be related to surface leaching of host rocks and encouraging silver results were returned from Main Zone trenching.

In 2003, the Logan 107-152 claims were staked by Expatriate Resources to cover areas of potential infrastructure including the airstrip and a tailing impoundment facility. A baseline environmental study was initiated in advance of further exploration and engineering studies with 13 water and 13 stream sediment samples collected and sent for analysis of trace elements.

In 2006, Yukon Zinc retained Bell Geospace to perform an airborne Full Tensor Gravity (Air-FTG) and magnetometry survey over the Logan Property. The high clearance between the aircraft and the ground did not allow to identify anomalies similar to the known mineralization areas at Logan.

25.3 Updated 2023 Mineral Resource

The updated 2023 Logan Project MRE is reported in Table 25.1 for Indicated and Inferred categories. The Indicated and Inferred Mineral Resources are undiluted and use a cut-off grade of 1.6% Zn, which is constrained within an optimized pit shell and includes an Indicated Mineral Resource of 2,620,000 tonnes at 5.1% Zn 23.1 g/t Ag and an Inferred Mineral Resource of 16,930,000 tonnes at 4.3% Zn, 18.2 g/t Ag (Table 25.1).

25.4 Data Verification

The Co-author of this Report, Mr. Rodriguez, completed a site inspection to the Logan Property between July 22nd and 24th, 2022. The site visit consisted of a tour of the Property to confirm the geology and mineralization of the Property and to verify historical exploration results by means of a drillhole data verification resampling program and additional surface sampling carried out by the APEX team. A total of four grab samples were collected from trenches and outcrops with samples yielding from 0.07 to 0.71% Zn and 4.99 to 252 g/t Ag. The data verification resampling included core intervals from four historical drill holes (86-L-8, 87-L-32, 87-L-44, 88-L-103) and collection of specific gravity (SG) data. Absolute difference between historical and verification assays for composited assayed intervals ranged between 0.04 and 0.63 % for zinc and between 0.08 and 4.54 g/t for silver.

Based upon a review of available information, historical exploration data, the data verification program and the author's site visit, Mr. Rodriguez considers the Logan Property to be a property of merit that is prospective for zinc and base metals mineralization. The Logan Property continues to have potential for exploration, advancement, and development. The Property is hosted by units exhibiting base metal structurally controlled mineralization in an area with a long history of mineral exploration.

Table 25.1 – Logan Project Open Pit Constrained Mineral Resource Estimate

Classification	Zn Cut-off (%)	Tonnes	Zn (%)	Ag (g/t)	Zn (Mlb)	Ag (Moz)
Indicated	1.6	2,620,000	5.1	23.1	294	1.94
Inferred	1.6	16,930,000	4.3	18.2	1,622	9.98

Notes:

1. Mr. Mike Dufresne, P.Geol., P.Geo. of APEX Geoscience Ltd., who is deemed a qualified person as defined by NI 43-101 is responsible for the completion of the updated mineral resource estimation, with an effective date of January 17, 2023.
2. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
3. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
4. The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could potentially be upgraded to an Indicated Mineral Resource with continued exploration.
5. The Mineral Resources were estimated in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions (2014) and Best Practices Guidelines (2019) prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council.
6. The cut-off grade of 1.6% Zn is based on metal prices of US\$1.30/lb Zn and US\$19/oz Ag and 0.77 US\$ per C\$, with process recoveries of 95% Zn and 80% Ag.
7. The constraining pit optimization parameters assumed C\$3.50/t mineralized and waste material mining cost, 45° pit slopes and a process + G&A cost of C\$35/t, using a 1.5 revenue factor that equates with metal price assumptions of US\$1.95/lb Zn, US\$28.50/Oz Ag and 0.77 US\$ per C\$.
8. The effective date of the Mineral Resources Estimate is January 17, 2023.

25.5 Risks and Uncertainties

Given the alpine environment in which the Property is located, exploration work will require careful planning and execution to mitigate any environmental concerns identified by government agencies, First Nations and/or the public. First Nations consultations is recommended as a high priority to ensure success of any future exploration and development. Almadex has introduced the Company to the Liard First Nation and Ross River Dena Council through an initial letter explaining the involvement with the Logan Property. These letters were submitted on July 14th, 2022. Additionally, a Class 1 Notification was submitted on February 14, 2023 (Section 4.3.1.1), with the notification period open since February 16th, 2023, for comments by potentially affected First Nations and stakeholders.

The Logan Property is subject to the typical external risks that apply to all mining projects, such as changes in metal prices, availability of investment capital, changes in government regulations, community engagement and general environmental concerns.

There is no guarantee that further diamond drilling will result in the discovery of additional mineralization, definition of a current mineral resource, or an economic mineral deposit. Nevertheless, in the author's opinion there are no significant risks or uncertainties, other than mentioned above, that could reasonably be expected to affect the reliability or

confidence in the currently available exploration information with respect to the Logan Property.

26 Recommendations

Based on the data compilation, interpretation of geology, and the mineral resource estimate, additional exploration work is recommended, including drilling, relogging and updated metallurgical studies:

- Drilling:
 - A follow up drilling program is recommended to test the lateral and down dip extension of mineralization along the Main zone.
 - Infill drilling to confirm mineralization and grade continuity, and to increase confidence within inferred resource zones and to convert some of the inferred resource into the indicated category.
 - Collection of geotechnical and structural information during drilling or considering geotechnical drill holes for development evaluation.
 - Systematic collection of density data during these drilling programs is strongly recommended.
- Historical core relogging: Additional strategic relogging should be considered for the historical core. This will aid in keeping standard parameters while processing core for upcoming programs as well as reconciling historical information with current.
- Metallurgical Studies: An updated orientation study on representative metallurgical samples from the different zones and representing ore from different levels of the Logan mineralization should be considered, to determine recovery of zinc and silver.
- It was noted that values of indium in the verified drill hole samples ranged between 0.474 ppm and 273 ppm, with the interval for drillhole 86-L-8 from 67.1 m to 153.65 m averaging 38.38 ppm In over 86.55 m. In is considered important to analyze for in further drilling programs and to include metallurgical testing for recovering indium as a byproduct of zinc given the current demand of indium in the electronics market.

As part of Phase 1, relogging, mapping and sampling, updated metallurgical testing as well as an initial follow up infill drilling program of approximately 2,000 m are recommended. The estimated cost of the Phase 1 program is CDN \$1,000,000.

Phase 2 exploration is dependent on the results of Phase 1 and includes additional follow up diamond drilling (~3660 m), and preliminary economic assessment (PEA) studies to advance the project. The recommended Phase 2 drilling at the Logan Property will test

targets generated in Phase 1. The estimated cost of the Phase 2 program is CDN\$ 1,998,500.

Collectively, the proposed exploration program has a total estimated cost of CDN\$ 2,998,500, not including GST. The estimated cost of the recommended work program at the Logan Property is presented in Table 26.1.

Table 26.1. Proposed budget for the recommended exploration program at the Logan property.

Phase 1	
Activity Type	Cost
Relogging, Sampling, Mapping	\$25,000
Metallurgical testing	\$25,000
Diamond Drilling (Approximately 2000 m at \$475/m)	\$950,000
Subtotal Phase 1	\$1,000,000
Phase 1 Activities Subtotal	\$1,000,000
Phase 2	
Diamond Drilling (Approximately 3660 m at \$475/m)	\$1,738,500
Preliminary Economic Assessment studies	\$260,000
Subtotal Phase 2	\$1,998,500
Phase 2 Activities Subtotal	\$1,998,500
Grand Total	\$2,998,500

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28 Certificate of Author

I, **Michael B. Dufresne**, M.Sc., P.Geol., P.Geo., do hereby certify that:

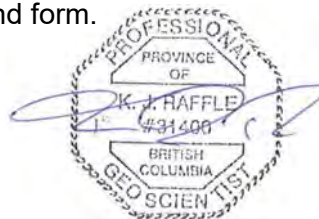
1. I am President of APEX Geoscience Ltd. located at Suite 100, 11450 – 160th Street NW Edmonton, Alberta T5M 3Y7 EGBC Permit to Practice #1003016.
2. I graduated with a B.Sc. in Geology from the University of North Carolina at Wilmington in 1983 and with a M.Sc. in Economic Geology from the University of Alberta in 1987.
3. I am and have been registered as a Professional Geologist with the Association of Professional Engineers and Geoscientists of Alberta since 1989. I have been registered as a Professional Geologist with the association of Professional Engineers and Geoscientists of BC since 2011.
4. I have worked as a geologist for more than 30 years since my graduation from university and have extensive experience with the exploration for, and the evaluation of, base and precious metal deposits of various types, including structurally controlled polymetallic deposits . I have constructed and supervised mineral resource estimates on numerous copper deposits over the last 20 years.
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 fulfill the requirements to be a “Qualified Person.
6. I am responsible for Section 14, and I contributed to sections 1, 25 and 26, of the Technical Report titled “**NI 43-101 Technical Report, Updated Mineral Resource Estimate Logan Property Watson Lake Mining District, Yukon, Canada**”, with an effective date of January 17th, 2023 (the “**Technical Report**”).
7. APEX was retained as geological consultants in 2022 by Almadex.
8. I am not aware of any scientific or technical information with respect to the subject matter of the **Technical Report** that is not reflected in the **Technical Report**, the omission to disclose which makes the **Technical Report** misleading.
9. I am independent of Almadex and the Property and the issuer applying all of the tests in section 1.5 of NI 43-101.
10. I have read National Instrument 43-101 and Form 43-101F1, and the **Technical Report** has been prepared in compliance with that instrument and form.

Signed: March 7th, 2023
Edmonton, Alberta, Canada


Michael B. Dufresne, M.Sc., P.Geol., P.Geo.
President, APEX Geoscience Ltd.

I, **Kristopher J. Raffle**, P.Geo., do hereby certify that:

1. I am a Principal of APEX Geoscience Ltd., located at 410-800 West Pender Street, Vancouver, British Columbia, Canada EGBC Permit to Practice #1003016.
2. I am a graduate of The University of British Columbia, Vancouver, British Columbia with a B.Sc. (Honours) in Geology (2000) and have practiced my profession continuously since 2000.
3. I am a Professional Geologist registered with APEGBC (Association of Professional Engineers and Geoscientists of British Columbia) and I am a 'Qualified Person' in relation to the subject matter of this Technical Report.
4. Over the past 20 years I have supervised exploration programs specific to base and precious metal sulphide deposits having similar geologic characteristics to the Logan Property within Canada.
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 fulfill the requirements to be a "Qualified Person."
6. I am responsible for Sections 10 and 11, and I contributed to sections 1, 25 and 26, of the Technical Report titled "**NI 43-101 Technical Report, Updated Mineral Resource Estimate Logan Property Watson Lake Mining District, Yukon, Canada**", with an effective date of January 17th, 2023 (the "**Technical Report**").
7. APEX was retained as geological consultants in 2022 by Almadex.
8. I am not aware of any scientific or technical information with respect to the subject matter of the **Technical Report** that is not reflected in the **Technical Report**, the omission to disclose which makes the **Technical Report** misleading. 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.
9. I am independent of Almadex and the Property and the issuer applying all of the tests in section 1.5 of NI 43-101.
10. I have read National Instrument 43-101 and Form 43-101F1, and the **Technical Report** has been prepared in compliance with that instrument and form.



Signed: March 7th, 2023
Vancouver, BC, Canada

Kristopher J. Raffle, B.Sc., P.Geol.
Principal and Consultant, APEX Geoscience Ltd.

I, **Alfonso Rodriguez Madrid**, M.Sc., P.Geo., do hereby certify that:

1. I am a Senior Geologist of APEX Geoscience Ltd., located at 410-800 West Pender Street, Vancouver, British Columbia, Canada EGBC Permit to Practice #1003016.
2. I graduated with a degree in Geology from the Santander Industrial University (UIS) in Colombia in 2005 and with a M.Sc. in Geological Sciences from the University of British Columbia in 2014.
3. I am a Professional Geoscientist registered with APEGBC (Association of Professional Engineers and Geoscientists of British Columbia) since and I am a 'Qualified Person' in relation to the subject matter of this Technical Report.
4. I have practiced my profession continuously since my graduation in 2005. Over the past 16 years, I have been involved with exploration programs specific to base and precious metal deposits having similar geologic characteristics to the Logan Property in North and South America.
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 fulfill the requirements to be a "Qualified Person."
7. I visited the Property that is the subject of this Technical Report on July 22 – 24, 2022.
8. I am responsible for Sections 1.1 - 1.6, 1.8, 2 – 9, 12 - 13, 23 and 24 and I contributed to sections 1, 25 and 26 of this Technical Report titled "**NI 43-101 Technical Report, Updated Mineral Resource Estimate Logan Property Watson Lake Mining District, Yukon, Canada**", with an effective date of January 17th, 2023 (the "**Technical Report**").
9. APEX was retained as geological consultants in 2022 by Almadex.
8. I am not aware of any scientific or technical information with respect to the subject matter of the **Technical Report** that is not reflected in the **Technical Report**, the omission to disclose which makes the **Technical Report** misleading.
9. I am independent of Almadex and the Property and the issuer applying all of the tests in section 1.5 of NI 43-101.
10. I have read National Instrument 43-101 and Form 43-101F1, and the **Technical Report** has been prepared in compliance with that instrument and form.



Signed: March 7th, 2023
Vancouver British Columbia, Canada

Alfonso Rodriguez Madrid, M. Sc., P. Geo
Senior Geologist, APEX Geoscience Ltd.

APPENDIX 1. Drilling carried out over the Logan Property (1986-1988).

Drillhole ID	Easting NAD83z9	Northing NAD83z9	Elevation (masl)	Length (m)	Dip (°)	Azimuth (°)	YEAR	Recovery (%)	Zone
86-L-1	419,641.46	6,708,508.67	1,356	76.5	-50	0.59	1986	83	Main
86-L-2	419,523.48	6,708,538.57	1,375	154.54	-50	0.59	1986	92	Main
86-L-3	419,563.47	6,708,616.42	1,380	115.21	-50	180.59	1986	98	Main
86-L-4	419,577.64	6,708,455.57	1,354	67.36	-52	0.59	1986	66	Main
86-L-5	419,374.50	6,708,401.61	1,356	168.86	-50	0.59	1986	89	Main
86-L-6	419,258.39	6,708,418.50	1,369	90.53	-60	180.59	1986	83	Main
86-L-7	419,226.63	6,708,462.26	1,376	100.89	-60	180.59	1986	81	Main
86-L-8	419,226.06	6,708,463.09	1,377	160.02	-62	180.59	1986	97	Main
86-L-9	419,169.29	6,708,363.56	1,382	123.44	-60	180.59	1986	73	Main
86-L-10	419,100.48	6,708,266.78	1,388	102.41	-60	180.59	1986	81	Main
86-L-11	419,649.28	6,708,710.87	1,383	145.39	-60	180.59	1986	63	Main
86-L-12	421,092.02	6,709,593.88	1,313	102.41	-60	180.59	1986	52	East
86-L-13	421,136.68	6,709,708.12	1,303	112.78	-60	180.59	1986	49	East
86-L-14	419,397.16	6,708,549.09	1,380	156.67	-60	180.59	1986	42	Main
86-L-15	419,289.57	6,708,530.97	1,381	220.67	-60	180.59	1986	92	Main
86-L-16	419,322.02	6,708,479.91	1,373	149.35	-60	170.59	1986	83	Main
86-L-17	419,365.34	6,708,415.02	1,359	153.01	-60	180.59	1986	90	Main
86-L-18	419,262.29	6,708,572.13	1,389	268.22	-60	180.59	1986	92	Main
86-L-19	419,197.46	6,708,317.80	1,374	100.58	-60	180.59	1986	66	Main
87-L-20	419,137.53	6,708,410.81	1,384	183.79	-60	180.59	1987	68	Main
87-L-21	419,103.55	6,708,457.29	1,385	247.49	-60	180.59	1987	89	Main
87-L-22	419,173.65	6,708,507.98	1,386	252.07	-60	180.59	1987	78	Main
87-L-23	419,144.69	6,708,552.54	1,392	324.61	-62	180.59	1987	88	Main
87-L-24	419,067.13	6,708,324.33	1,401	181.66	-60	180.59	1987	75	Main
87-L-25	419,368.49	6,708,593.34	1,389	236.83	-60	180.59	1987	87	Main
87-L-26	419,338.02	6,708,639.81	1,397	309.07	-60	180.59	1987	91	Main
87-L-27	419,044.13	6,708,163.56	1,380	138.07	-60	180.59	1987	81	Main
87-L-28	418,926.29	6,708,321.39	1,422	148.44	-60	180.59	1987	89	Main
87-L-29	419,009.24	6,708,042.80	1,364	125.27	-60	180.59	1987	53	Main
87-L-30	418,935.83	6,707,989.51	1,366	39.17	-60	180.59	1987	15	Main
87-L-31	419,489.22	6,708,588.24	1,381	197.21	-60	180.59	1987	68	Main
87-L-32	419,458.76	6,708,636.00	1,390	234.7	-60	180.59	1987	65	Main
87-L-33	419,515.52	6,708,548.88	1,377	131.98	-60	180.59	1987	77	Main
87-L-34	419,420.96	6,708,509.73	1,375	124.36	-60	180.59	1987	69	Main
87-L-35	419,539.19	6,708,660.37	1,388	215.49	-60	180.59	1987	79	Main
87-L-36	419,507.92	6,708,706.54	1,395	248.11	-60	180.59	1987	88	Main
87-L-37	419,677.05	6,708,668.82	1,376	82.6	-60	180.59	1987	43	Main
87-L-38	419,617.51	6,708,756.43	1,392	223.42	-60	180.59	1987	94	Main
87-L-39	419,731.01	6,708,585.22	1,362	124.05	-60	180.59	1987	93	Main
87-L-40	419,728.88	6,708,765.04	1,377	128.63	-60	180.59	1987	47	Main
87-L-41	419,823.07	6,708,622.26	1,360	129.24	-60	180.59	1987	90	Main

Updated Mineral Resource Estimate of the Logan Property, Yukon

Drillhole ID	Easting NAD83z9	Northing NAD83z9	Elevation (masl)	Length (m)	Dip (°)	Azimuth (°)	YEAR	Recovery (%)	Zone
87-L-42	419,791.32	6,708,827.96	1,378	151.49	-60	180.59	1987	74	Main
87-L-43	419,896.18	6,708,674.55	1,364	121.92	-60	180.59	1987	92	Main
87-L-44	419,887.20	6,708,877.49	1,377	140.82	-60	180.59	1987	92	Main
87-L-45	419,970.00	6,708,931.35	1,376	149.96	-60	180.59	1987	85	Main
87-L-46	420,050.16	6,709,003.42	1,371	140.82	-60	180.59	1987	78	Main
87-L-47	420,131.21	6,709,039.29	1,365	113.39	-60	180.59	1987	91	Main
87-L-48	420,227.93	6,709,104.32	1,354	132.89	-60	180.59	1987	90	Main
87-L-49	419,437.82	6,708,577.26	1,381	172.82	-60	180.59	1987	79	Main
87-L-50	419,352.01	6,708,520.21	1,378	153.92	-60	180.59	1987	87	Main
87-L-51	419,267.73	6,708,474.95	1,375	153.92	-60	180.59	1987	87	Main
87-L-52	419,203.70	6,708,413.45	1,373	120.09	-60	180.59	1987	83	Main
87-L-53	420,286.78	6,709,012.71	1,360	72.85	-60	180.59	1987	95	Main
87-L-54	419,126.37	6,708,778.09	1,430	609.91	-60	180.59	1987	89	Main
87-L-55	419,839.98	6,708,844.54	1,375	132.59	-60	165.6	1987	86	Main
87-L-56	419,855.74	6,708,924.16	1,374	217.02	-60	180.59	1987	83	Main
87-L-57	419,926.34	6,708,907.01	1,378	142.95	-60	180.59	1987	69	Main
87-L-58	419,938.31	6,708,979.04	1,370	214.88	-60	174.59	1987	74	Main
87-L-59	420,008.54	6,708,963.37	1,373	130.15	-60	173.59	1987	65	Main
88-L-60	418,970.34	6,708,099.87	1,379	151.18	-60	180	1988	77	Main
88-L-61	418,910.98	6,708,031.92	1,377	113.08	-60	180	1988	68	Main
88-L-62	418,819.08	6,707,954.72	1,384	180.44	-60	180	1988	93	West
88-L-63	418,780.59	6,707,840.77	1,375	156.67	-60	180	1988	86	West
88-L-64	418,708.92	6,707,757.08	1,365	167.34	-60	180	1988	80	West
88-L-65	418,655.38	6,707,657.79	1,353	172.51	-60	180	1988	87	West
88-L-66	418,624.71	6,707,519.07	1,328	146.61	-60	180	1988	83	West
88-L-67	418,576.27	6,707,423.27	1,326	160.02	-60	180	1988	76	West
88-L-68	418,526.59	6,707,314.27	1,317	124.36	-60	180	1988	73	West
88-L-69	418,464.35	6,707,230.36	1,310	144.48	-60	180	1988	61	West
88-L-70	420,296.11	6,709,160.60	1,348	113.39	-60	180	1988	84	Main
88-L-71	420,380.42	6,709,212.29	1,339	117.65	-60	180	1988	94	East
88-L-72	420,467.62	6,709,251.66	1,328	117.65	-60	180	1988	76	East
88-L-73	420,531.52	6,709,339.97	1,322	121.01	-60	180	1988	95	East
88-L-74	420,594.35	6,709,393.71	1,320	138.99	-60	180	1988	89	East
88-L-75	420,550.81	6,709,453.76	1,329	122.22	-60	180	1988	77	East
88-L-76	420,808.59	6,709,435.33	1,311	135.64	-60	180	1988	77	East
88-L-77	420,909.38	6,709,499.75	1,314	99.36	-60	180	1988	82	East
88-L-78	421,006.25	6,709,524.17	1,314	128.02	-60	180	1988	89	East
88-L-79	421,164.64	6,709,661.54	1,305	129.24	-60	180	1988	66	East
88-L-80	421,067.37	6,709,653.18	1,310	142.95	-60	180	1988	65	East
88-L-81	421,250.51	6,709,736.89	1,294	110.34	-60	180	1988	85	East
88-L-82	421,347.38	6,709,807.66	1,284	126.64	-60	180	1988	89	East
88-L-83	421,485.92	6,709,908.26	1,266	123.44	-60	180	1988	77	East
88-L-84	418,265.59	6,706,988.73	1,393	124.97	-60	180	1988	87	West

Updated Mineral Resource Estimate of the Logan Property, Yukon

Drillhole ID	Easting NAD83z9	Northing NAD83z9	Elevation (masl)	Length (m)	Dip (°)	Azimuth (°)	YEAR	Recovery (%)	Zone
88-L-85	418,390.62	6,706,809.26	1,401	125.27	-60	180	1988	63	West
88-L-86	418,198.32	6,707,090.08	1,358	121.92	-60	180	1988	73	West
88-L-87	418,453.30	6,706,894.63	1,373	125.27	-60	180	1988	73	West
88-L-88	418,410.03	6,706,951.95	1,365	121.92	-60	180	1988	91	West
88-L-89	418,506.10	6,706,989.43	1,356	124.97	-60	180	1988	62	West
88-L-90	417,915.47	6,706,235.89	1,543	132.59	-60	180	1988	81	West
88-L-91*	417,536.54	6,705,753.83	1,456	128.93	-60	180	1988	83	West
88-L-92*	417,227.21	6,706,186.54	1,628	125.27	-70	0	1988	94	West
88-L-93	418,865.38	6,707,403.26	1,322	123.14	-60	180	1988	80	West
88-L-94	417,890.26	6,707,072.08	1,350	123.14	-60	180	1988	71	West
88-L-95	420,087.50	6,708,943.54	1,375	141.73	-50	180	1988	85	Main
88-L-96	420,041.16	6,708,819.53	1,373	121.62	-60	180	1988	85	Main
88-L-97	420,224.83	6,708,736.73	1,346	122.22	-60	180	1988	87	Main
88-L-98	419,379.19	6,708,255.16	1,343	145.08	-60	90	1988	88	Main
88-L-99	419,227.08	6,708,621.54	1,400	348.69	-60	174.6	1988	84	Main
88-L-100	419,424.85	6,708,685.51	1,401	283.77	-60	174.6	1988	90	Main
88-L-101	419,074.15	6,708,518.74	1,393	315.32	-60	174.6	1988	92	Main
88-L-102	419,478.44	6,708,758.73	1,407	298.7	-60	176.6	1988	91	Main
88-L-103	419,305.19	6,708,690.07	1,408	373.68	-60	172.6	1988	84	Main
Total drilling (m)				16,438.92					
Total drilling within current boundary (m)				16,184.72					
*Outside of current property boundary All diamond drilling done in NO diameter									

APPENDIX 2. Historical Drill Hole Highlights from the Logan Property, drill hole intersects averaging 5% Zn or higher.

*True thickness is interpreted to be approximately 80% of drilled width.

Hole_ID	From (m)	To (m)	Length (m)	Zn (%)	Ag (ppm)	
86-L-1	6.75	7.00	0.25	10.55	23.66	
86-L-1	12.00	14.00	2.00	6.55	26.49	
86-L-2	24.05	24.65	0.60	8.90	104.91	
86-L-2	25.00	26.00	1.00	22.90	177.60	
86-L-2	29.57	30.63	1.06	5.70	19.20	
86-L-2	39.40	40.45	1.05	15.45	136.80	
86-L-2	86.40	87.70	1.30	6.80	15.43	
86-L-2	139.20	139.70	0.50	5.70	32.23	
86-L-3	19.62	20.43	0.81	13.90	37.03	
86-L-3	24.70	25.47	0.77	5.40	53.49	
86-L-3	43.70	44.81	1.11	11.77	45.24	
	<i>includes</i>	43.70	44.25	0.55	15.20	65.83
86-L-3	52.81	54.10	1.29	11.08	48.05	
	<i>includes</i>	53.45	54.10	0.65	15.30	54.51
86-L-3	60.10	61.85	1.75	5.40	10.29	
86-L-3	69.50	70.10	0.60	7.50	135.43	
86-L-3	84.70	85.45	0.75	11.00	53.14	
86-L-3	91.60	93.35	1.75	16.08	98.69	
86-L-4	43.20	43.60	0.40	12.80	48.69	
86-L-4	46.60	47.10	0.50	9.00	17.49	
86-L-5	14.20	17.20	3.00	5.00	4.80	
86-L-5	20.20	22.85	2.65	5.46	7.20	
86-L-5	79.80	80.40	0.60	6.40	79.20	
86-L-5	85.00	91.00	6.00	18.24	86.51	
86-L-5	95.25	96.90	1.65	34.19	20.51	
86-L-5	100.90	101.90	1.00	5.10	20.23	
86-L-5	108.00	109.10	1.10	9.70	53.49	
86-L-5	144.40	145.00	0.60	5.40	5.49	
86-L-6	3.05	11.75	8.70	14.77	84.39	
	<i>includes</i>	4.35	9.75	5.40	19.30	109.16
86-L-6	40.55	41.25	0.70	8.00	30.86	
86-L-6	50.75	52.75	2.00	15.75	100.80	
	<i>includes</i>	51.75	52.75	1.00	21.90	125.14
86-L-6	53.75	56.90	3.15	14.57	87.41	
86-L-6	60.35	70.35	10.00	19.26	36.84	
	<i>includes</i>	60.35	67.20	6.85	24.62	43.77
86-L-7	67.63	70.40	2.77	9.37	75.43	
	<i>includes</i>	69.55	70.40	0.85	15.50	120.34
86-L-7	76.15	76.60	0.45	8.80	25.71	
86-L-7	96.60	98.00	1.40	10.80	21.60	

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Hole_ID	From (m)	To (m)	Length (m)	Zn (%)	Ag (ppm)	
86-L-7	99.20	99.45	0.25	41.72	394.97	
86-L-8	67.10	69.10	2.00	6.70	26.74	
86-L-8	70.38	71.45	1.07	12.02	47.20	
	<i>includes</i>	70.91	71.45	0.54	14.20	53.49
86-L-8	76.97	77.30	0.33	23.10	194.06	
86-L-8	85.30	87.30	2.00	6.00	11.66	
86-L-8	97.70	98.25	0.55	5.50	61.03	
86-L-8	105.32	106.18	0.86	33.30	122.06	
86-L-8	107.90	109.20	1.30	6.10	23.66	
86-L-8	110.58	115.48	4.90	9.98	9.75	
	<i>includes</i>	110.58	111.48	0.90	22.13	12.69
86-L-8	126.43	130.45	4.02	6.27	14.50	
86-L-8	131.48	135.88	4.40	16.61	38.38	
86-L-8	139.00	142.65	3.65	7.81	22.14	
86-L-8	144.65	145.65	1.00	9.30	6.86	
86-L-9	53.75	54.75	1.00	5.00	40.46	
86-L-9	55.75	56.75	1.00	6.15	22.29	
86-L-9	60.75	61.75	1.00	15.30	71.66	
86-L-9	62.75	64.75	2.00	9.05	119.14	
	<i>includes</i>	62.75	63.75	1.00	12.00	114.17
86-L-9	72.75	73.75	1.00	7.50	30.86	
86-L-9	76.75	79.25	2.50	12.56	87.98	
	<i>includes</i>	76.75	78.75	2.00	14.30	100.03
86-L-9	79.75	80.75	1.00	6.30	33.94	
86-L-9	86.75	87.75	1.00	10.50	53.14	
86-L-9	90.75	92.75	2.00	5.68	27.26	
86-L-9	102.75	104.75	2.00	11.70	38.23	
86-L-9	106.75	107.75	1.00	5.80	14.74	
86-L-10	61.00	62.00	1.00	5.00	8.23	
86-L-11	38.00	39.00	1.00	5.12	63.43	
86-L-11	43.00	44.00	1.00	5.65	65.14	
86-L-14	38.50	39.00	0.50	7.60	44.57	
86-L-14	52.00	53.00	1.00	11.00	27.09	
86-L-14	56.50	58.00	1.50	6.60	24.34	
86-L-14	69.00	70.00	1.00	6.95	26.74	
86-L-14	81.00	81.50	0.50	28.00	93.26	
86-L-14	82.50	83.00	0.50	6.65	67.89	
86-L-14	84.00	86.00	2.00	13.68	91.89	
86-L-14	90.00	93.50	3.50	10.20	53.49	
86-L-14	101.00	102.50	1.50	10.80	92.91	
86-L-14	107.00	108.00	1.00	5.30	40.80	
86-L-14	114.00	117.00	3.00	10.33	26.06	
	<i>includes</i>	116.00	117.00	1.00	12.20	24.00
86-L-14	129.00	132.50	3.50	12.09	50.06	

Updated Mineral Resource Estimate of the Logan Property, Yukon

Hole_ID	From (m)	To (m)	Length (m)	Zn (%)	Ag (ppm)	
	<i>includes</i>	131.00	132.50	1.50	18.53	92.11
86-L-14		133.00	136.00	3.00	20.25	70.97
86-L-14		138.00	139.00	1.00	24.00	5.14
86-L-15		81.00	84.00	3.00	7.59	38.86
	<i>includes</i>	81.00	82.00	1.00	10.90	81.60
86-L-15		85.00	86.00	1.00	14.93	32.91
86-L-15		90.50	94.00	3.50	13.65	48.29
	<i>includes</i>	91.00	93.50	2.50	15.98	57.87
86-L-15		95.50	96.00	0.50	16.40	19.54
86-L-15		97.50	98.50	1.00	5.53	24.34
86-L-15		99.00	99.50	0.50	7.25	14.74
86-L-15		100.00	103.00	3.00	8.83	36.51
	<i>includes</i>	100.50	101.50	1.00	14.13	71.14
86-L-15		109.00	110.00	1.00	7.45	10.29
86-L-15		120.00	121.00	1.00	8.50	26.40
86-L-15		159.00	160.50	1.50	5.05	19.89
87-L-16		14.00	18.00	4.00	8.75	64.46
	<i>includes</i>	15.00	16.00	1.00	11.11	65.83
87-L-16		24.00	25.50	1.50	11.06	86.06
87-L-16		26.50	28.00	1.50	5.40	33.94
87-L-16		34.00	35.00	1.00	6.02	20.57
87-L-16		36.00	37.00	1.00	17.54	33.60
87-L-16		38.00	39.00	1.00	9.76	43.89
87-L-16		42.50	43.00	0.50	11.39	44.91
87-L-16		44.50	46.00	1.50	14.77	96.11
	<i>includes</i>	45.00	46.00	1.00	18.10	115.89
87-L-16		60.00	61.00	1.00	7.10	23.31
87-L-16		64.00	67.00	3.00	10.84	29.94
	<i>includes</i>	65.00	67.00	2.00	13.62	42.00
87-L-16		70.00	71.00	1.00	8.40	17.14
87-L-16		73.00	76.00	3.00	6.83	37.60
87-L-16		77.00	78.00	1.00	8.60	48.34
87-L-16		80.00	81.00	1.00	5.83	42.51
87-L-16		81.50	86.00	4.50	15.92	41.45
	<i>includes</i>	81.50	82.00	0.50	36.31	96.00
	<i>includes</i>	82.50	86.00	3.50	13.89	32.52
87-L-16		88.00	89.00	1.00	12.25	37.71
87-L-16		90.00	93.00	3.00	7.78	44.34
	<i>includes</i>	90.00	91.00	1.00	10.44	42.86
87-L-16		96.00	98.00	2.00	5.46	18.86
87-L-16		99.00	100.00	1.00	8.11	16.80
87-L-17		18.50	19.50	1.00	5.00	2.74
87-L-18		172.00	173.00	1.00	8.20	16.46
87-L-18		215.00	227.00	12.00	15.36	32.09

Updated Mineral Resource Estimate of the Logan Property, Yukon

Hole_ID	From (m)	To (m)	Length (m)	Zn (%)	Ag (ppm)	
	<i>includes</i>	216.00	224.00	8.00	15.57	33.21
	<i>includes</i>	226.00	227.00	1.00	33.25	64.11
87-L-18		228.00	230.00	2.00	12.01	20.23
87-L-18		231.00	233.00	2.00	10.08	22.11
	<i>includes</i>	231.00	232.00	1.00	14.95	35.31
87-L-18		236.00	237.00	1.00	5.70	5.14
87-L-19		9.75	15.75	6.00	5.89	151.14
87-L-19		17.00	20.00	3.00	5.71	68.11
87-L-19		22.00	23.00	1.00	10.04	14.06
87-L-20		112.00	117.00	5.00	7.07	62.67
87-L-20		121.00	122.00	1.00	7.03	33.60
87-L-20		125.00	126.00	1.00	5.58	22.29
87-L-20		128.00	129.00	1.00	5.78	6.86
87-L-20		139.00	140.00	1.00	10.02	56.91
87-L-21		162.00	167.00	5.00	8.91	32.16
	<i>includes</i>	164.00	165.00	1.00	13.79	65.83
	<i>includes</i>	166.00	167.00	1.00	10.30	27.09
87-L-22		153.00	155.00	2.00	7.73	39.26
	<i>includes</i>	154.00	155.00	1.00	10.20	24.34
87-L-22		211.00	214.00	3.00	15.63	26.74
	<i>includes</i>	211.00	212.00	1.00	10.86	38.40
	<i>includes</i>	213.00	214.00	1.00	26.83	17.49
87-L-22		216.00	217.00	1.00	7.30	10.63
87-L-23		274.00	276.00	2.00	8.78	18.51
	<i>includes</i>	274.00	275.00	1.00	11.60	22.63
87-L-23		278.00	282.00	4.00	15.42	127.11
	<i>includes</i>	279.00	281.00	2.00	22.65	213.26
87-L-25		89.00	90.00	1.00	15.58	231.77
87-L-25		101.00	103.00	2.00	12.55	43.89
87-L-25		109.00	110.00	1.00	8.19	9.60
87-L-25		111.00	113.00	2.00	22.83	70.11
87-L-25		127.00	128.00	1.00	37.00	58.97
87-L-25		134.00	136.00	2.00	13.24	46.80
	<i>includes</i>	135.00	136.00	1.00	19.39	65.49
87-L-25		140.00	141.00	1.00	10.79	16.11
87-L-25		144.00	145.00	1.00	6.70	27.77
87-L-25		146.00	147.00	1.00	7.98	15.43
87-L-25		150.00	151.00	1.00	17.46	70.97
87-L-25		177.00	178.00	1.00	6.34	6.17
87-L-25		181.00	183.00	2.00	9.46	34.97
87-L-25		197.00	204.00	7.00	16.81	22.58
	<i>includes</i>	197.00	198.00	1.00	12.88	28.46
	<i>includes</i>	200.00	204.00	4.00	22.33	25.46
87-L-25		205.00	206.00	1.00	8.28	11.66

Updated Mineral Resource Estimate of the Logan Property, Yukon

Hole_ID	From (m)	To (m)	Length (m)	Zn (%)	Ag (ppm)	
87-L-25	208.00	209.00	1.00	6.95	10.63	
87-L-26	143.00	144.00	1.00	5.50	24.34	
87-L-26	154.00	157.00	3.00	11.68	58.40	
	<i>includes</i>	154.00	155.00	1.00	20.09	109.03
87-L-26	164.00	166.00	2.00	12.11	33.09	
	<i>includes</i>	165.00	166.00	1.00	15.70	36.00
87-L-26	167.00	168.00	1.00	18.26	49.37	
87-L-26	170.00	171.00	1.00	21.22	65.49	
87-L-26	192.00	193.00	1.00	5.90	9.60	
87-L-26	222.00	225.00	3.00	10.55	33.83	
	<i>includes</i>	223.00	225.00	2.00	13.01	27.94
87-L-26	233.00	235.00	2.00	6.64	6.86	
87-L-27	80.00	81.00	1.00	15.41	28.46	
87-L-31	22.00	23.00	1.00	9.46	32.91	
87-L-31	42.00	43.00	1.00	7.10	26.40	
87-L-31	48.00	49.00	1.00	8.20	25.71	
87-L-31	61.00	62.00	1.00	5.30	16.11	
87-L-31	72.50	74.50	2.00	24.66	64.46	
87-L-31	76.00	78.00	2.00	12.13	35.66	
87-L-31	79.00	85.00	6.00	14.90	62.97	
	<i>includes</i>	81.00	85.00	4.00	19.13	82.97
87-L-31	100.00	101.00	1.00	12.98	60.00	
87-L-31	104.00	105.00	1.00	14.95	362.06	
87-L-31	108.00	109.00	1.00	6.62	30.86	
87-L-31	111.00	114.00	3.00	10.16	49.49	
	<i>includes</i>	112.00	113.00	1.00	15.05	82.97
87-L-31	116.00	118.00	2.00	8.18	46.63	
87-L-31	122.00	123.00	1.00	18.05	66.86	
87-L-32	93.00	94.00	1.00	6.30	17.49	
87-L-32	132.00	133.00	1.00	8.35	9.60	
87-L-32	146.00	147.00	1.00	9.30	17.49	
87-L-32	152.00	153.00	1.00	5.89	54.86	
87-L-32	157.00	158.00	1.00	12.73	17.49	
87-L-32	163.00	169.00	6.00	7.71	28.46	
	<i>includes</i>	163.00	164.00	1.00	10.81	79.89
	<i>includes</i>	168.00	169.00	1.00	12.07	20.23
87-L-32	174.00	178.00	4.00	8.53	36.77	
	<i>includes</i>	176.00	177.00	1.00	10.48	64.46
87-L-32	186.00	187.00	1.00	5.06	21.94	
87-L-33	30.00	34.00	4.00	13.27	123.43	
	<i>includes</i>	30.00	32.00	2.00	20.66	198.34
87-L-33	40.00	41.00	1.00	12.00	53.14	
87-L-33	42.00	46.00	4.00	9.39	58.11	
	<i>includes</i>	42.00	43.00	1.00	11.80	77.83

Updated Mineral Resource Estimate of the Logan Property, Yukon

Hole_ID	From (m)	To (m)	Length (m)	Zn (%)	Ag (ppm)	
	<i>includes</i>	45.00	46.00	1.00	11.67	74.74
87-L-33		47.00	49.00	2.00	8.51	39.60
87-L-33		51.00	53.00	2.00	6.30	56.74
87-L-33		62.00	67.00	5.00	11.65	80.98
	<i>includes</i>	64.00	65.00	1.00	16.80	58.63
	<i>includes</i>	66.00	67.00	1.00	16.58	167.66
87-L-33		68.00	71.00	3.00	14.24	48.46
87-L-33		84.00	86.00	2.00	14.24	15.43
87-L-34		14.00	15.00	1.00	7.96	49.37
87-L-34		18.00	23.00	5.00	22.15	102.45
	<i>includes</i>	19.00	23.00	4.00	25.27	96.77
87-L-34		27.00	28.00	1.00	6.50	46.97
87-L-34		65.00	68.00	3.00	11.54	86.63
	<i>includes</i>	65.00	67.00	2.00	12.40	85.03
87-L-34		69.00	70.00	1.00	11.69	58.29
87-L-34		75.00	77.00	2.00	7.29	28.63
87-L-34		79.00	80.00	1.00	5.30	15.09
87-L-34		82.00	88.00	6.00	8.24	23.60
	<i>includes</i>	84.00	85.00	1.00	14.38	30.17
87-L-34		98.00	99.00	1.00	5.70	25.71
87-L-35		45.00	46.00	1.00	6.79	60.69
87-L-35		69.00	71.00	2.00	7.64	48.34
87-L-35		73.00	74.00	1.00	5.52	15.09
87-L-36		79.00	81.00	2.00	14.84	46.63
87-L-36		109.00	110.00	1.00	6.10	10.63
87-L-36		111.00	112.00	1.00	5.50	96.34
87-L-36		114.00	116.00	2.00	8.70	49.03
87-L-36		133.00	134.00	1.00	8.60	51.09
87-L-36		203.00	213.00	10.00	7.66	21.46
	<i>includes</i>	205.00	207.00	2.00	10.66	26.06
87-L-38		75.00	76.00	1.00	5.10	25.37
87-L-38		106.00	107.00	1.00	7.00	17.14
87-L-38		108.00	109.00	1.00	7.85	26.74
87-L-38		111.00	113.00	2.00	7.55	51.60
87-L-38		126.00	127.00	1.00	11.67	67.54
87-L-38		160.00	162.00	2.00	6.80	29.49
87-L-39		42.00	42.50	0.50	16.27	92.91
87-L-40		80.00	82.00	2.00	6.07	76.11
87-L-40		118.00	119.00	1.00	8.65	53.14
87-L-44		44.00	45.00	1.00	18.36	174.51
87-L-44		46.00	47.00	1.00	5.90	32.91
87-L-44		52.00	55.00	3.00	11.85	120.57
	<i>includes</i>	54.00	55.00	1.00	19.69	211.89
87-L-44		57.00	59.00	2.00	9.05	35.66

Updated Mineral Resource Estimate of the Logan Property, Yukon

Hole_ID	From (m)	To (m)	Length (m)	Zn (%)	Ag (ppm)	
87-L-44	73.00	74.00	1.00	5.52	84.69	
87-L-45	84.00	85.00	1.00	6.47	21.94	
87-L-45	86.00	87.00	1.00	5.22	14.74	
87-L-45	88.00	92.00	4.00	6.15	51.69	
87-L-45	94.00	95.00	1.00	5.00	19.20	
87-L-45	96.00	99.00	3.00	6.53	32.11	
87-L-45	102.00	104.00	2.00	9.80	59.14	
	<i>includes</i>	103.00	104.00	1.00	10.00	56.23
87-L-46	107.00	109.00	2.00	6.13	23.49	
87-L-49	33.00	34.00	1.00	5.23	22.97	
87-L-49	35.00	36.00	1.00	13.20	65.49	
87-L-49	37.00	38.00	1.00	5.32	29.49	
87-L-49	39.00	40.00	1.00	5.70	47.66	
87-L-49	46.00	49.00	3.00	8.66	49.94	
	<i>includes</i>	47.00	48.00	1.00	13.55	99.77
87-L-49	50.00	51.00	1.00	8.55	54.86	
87-L-49	53.00	54.00	1.00	10.58	151.20	
87-L-49	60.00	61.00	1.00	5.51	153.26	
87-L-49	70.00	71.00	1.00	6.22	14.06	
87-L-49	80.00	81.00	1.00	8.40	19.20	
87-L-49	82.00	83.00	1.00	9.03	37.71	
87-L-49	94.00	95.00	1.00	7.96	12.69	
87-L-49	101.00	102.00	1.00	7.12	3.09	
87-L-49	103.00	104.00	1.00	8.02	38.06	
87-L-49	112.00	114.00	2.00	12.28	26.23	
	<i>includes</i>	113.00	114.00	1.00	18.26	43.20
87-L-49	115.00	116.00	1.00	8.40	19.89	
87-L-49	117.00	120.00	3.00	6.46	14.86	
87-L-49	121.00	122.00	1.00	7.39	22.29	
87-L-49	127.00	128.00	1.00	10.56	17.14	
87-L-49	129.00	135.00	6.00	14.71	34.91	
	<i>includes</i>	131.00	135.00	4.00	19.26	45.94
87-L-49	137.00	139.00	2.00	17.56	87.77	
87-L-49	140.00	142.00	2.00	17.23	64.63	
87-L-49	143.00	144.00	1.00	8.12	34.29	
87-L-50	24.00	25.00	1.00	6.67	14.06	
87-L-50	26.00	27.00	1.00	7.02	59.31	
87-L-50	34.00	38.00	4.00	10.62	73.80	
	<i>includes</i>	36.00	38.00	2.00	13.21	42.17
87-L-50	39.00	40.00	1.00	9.20	7.89	
87-L-50	41.00	42.00	1.00	5.04	29.14	
87-L-50	43.00	44.00	1.00	6.60	24.34	
87-L-50	51.00	52.00	1.00	6.02	24.69	
87-L-50	53.00	54.00	1.00	8.26	55.54	

Updated Mineral Resource Estimate of the Logan Property, Yukon

Hole_ID		From (m)	To (m)	Length (m)	Zn (%)	Ag (ppm)
87-L-50		55.00	57.00	2.00	13.45	21.43
	<i>includes</i>	56.00	57.00	1.00	17.29	19.20
87-L-50		67.00	69.00	2.00	6.08	75.60
87-L-50		91.00	96.00	5.00	9.39	60.07
	<i>includes</i>	92.00	93.00	1.00	16.00	73.03
87-L-50		101.00	102.00	1.00	10.90	50.74
87-L-50		124.00	126.00	2.00	5.78	21.77
87-L-50		127.00	128.00	1.00	5.32	20.91
87-L-50		133.00	134.00	1.00	5.00	9.26
87-L-51		43.00	60.00	17.00	12.83	58.06
	<i>includes</i>	45.00	48.00	3.00	11.72	80.46
	<i>includes</i>	49.00	50.00	1.00	12.12	55.20
	<i>includes</i>	51.00	52.00	1.00	14.28	25.71
	<i>includes</i>	53.00	55.00	2.00	23.67	68.57
	<i>includes</i>	56.00	59.00	3.00	17.00	55.77
87-L-51		63.00	64.00	1.00	6.83	13.03
87-L-51		86.00	87.00	1.00	5.11	3.77
87-L-51		93.00	94.00	1.00	15.10	51.09
87-L-51		95.00	96.00	1.00	7.40	21.26
87-L-51		97.00	98.00	1.00	6.25	16.80
87-L-51		101.00	104.00	3.00	6.13	13.94
87-L-51		105.00	109.00	4.00	9.61	37.71
	<i>includes</i>	107.00	108.00	1.00	12.90	60.00
87-L-51		111.00	113.00	2.00	6.85	56.57
87-L-51		114.00	116.00	2.00	7.44	28.29
87-L-51		133.00	134.00	1.00	5.74	6.86
87-L-52		49.00	50.00	1.00	5.90	11.31
87-L-52		51.00	53.00	2.00	20.81	141.94
	<i>includes</i>	51.00	52.00	1.00	32.18	200.23
87-L-52		65.00	67.00	2.00	6.72	33.43
87-L-52		85.00	86.00	1.00	6.61	21.26
87-L-52		88.00	90.00	2.00	11.89	72.86
	<i>includes</i>	88.00	89.00	1.00	18.45	130.29
87-L-52		93.00	94.00	1.00	5.91	12.69
87-L-55		27.00	29.00	2.00	13.32	223.37
	<i>includes</i>	27.00	28.00	1.00	17.20	366.17
87-L-56		101.00	102.00	1.00	7.40	63.43
87-L-58		136.00	137.00	1.00	6.41	22.63
87-L-59		84.00	88.00	4.00	11.13	41.14
	<i>includes</i>	84.00	87.00	3.00	12.27	39.77
88-L-80		77.00	78.00	1.00	5.46	51.09
88-L-96		90.00	90.50	0.50	8.10	71.66
88-L-99		265.00	266.00	1.00	8.19	75.77
88-L-99		267.00	268.00	1.00	11.74	9.60

Updated Mineral Resource Estimate of the Logan Property, Yukon

Hole_ID	From (m)	To (m)	Length (m)	Zn (%)	Ag (ppm)	
88-L-99	271.00	272.00	1.00	6.50	13.03	
88-L-99	273.00	274.00	1.00	13.08	14.74	
88-L-100	201.00	203.00	2.00	21.16	13.54	
88-L-100	207.00	208.00	1.00	6.34	26.40	
88-L-100	216.00	217.00	1.00	5.33	20.57	
88-L-100	218.00	219.00	1.00	15.65	21.94	
88-L-100	221.00	222.00	1.00	5.00	13.03	
88-L-100	227.00	228.00	1.00	5.20	44.23	
88-L-100	229.00	232.00	3.00	17.58	25.14	
	<i>includes</i>	229.00	231.00	2.00	23.40	30.51
88-L-100	233.00	234.00	1.00	5.00	15.09	
88-L-100	237.00	239.00	2.00	6.85	17.14	
88-L-100	242.00	252.00	10.00	14.30	22.39	
	<i>includes</i>	243.00	244.00	1.00	12.70	29.14
	<i>includes</i>	245.00	251.00	6.00	18.20	25.20
88-L-102	177.00	178.00	1.00	13.01	86.74	
88-L-102	262.00	263.00	1.00	10.31	57.94	
88-L-102	280.00	282.00	2.00	6.59	100.63	
88-L-103	154.00	155.00	1.00	5.54	22.63	
88-L-103	221.00	223.00	2.00	10.88	49.03	
	<i>includes</i>	221.00	222.00	1.00	15.57	87.09
88-L-103	233.00	235.00	2.00	7.00	40.29	
88-L-103	305.00	307.00	2.00	16.98	25.03	
88-L-103	312.00	316.00	4.00	9.23	7.97	
	<i>includes</i>	312.00	314.00	2.00	11.80	10.97
88-L-103	319.00	321.00	2.00	8.45	20.91	
88-L-103	322.00	324.00	2.00	11.73	12.34	
	<i>includes</i>	322.00	323.00	1.00	17.66	15.77
88-L-103	326.00	328.00	2.00	7.89	13.54	
88-L-103	331.00	333.00	2.00	16.98	18.34	
88-L-103	334.00	337.00	3.00	12.08	25.83	
	<i>includes</i>	335.00	337.00	2.00	14.49	30.34
88-L-103	338.00	340.00	2.00	5.52	19.54	

APPENDIX 3. 2022 Drill Hole Data Verification Sampling (Selected Elements)

DDH	Sample ID	Historical Sample ID	FROM (m)	TO (m)	Interval (m)	QAQC	Type	Parent Sample	Zn (%)	Ag (g/t)	Cu (ppm)	In (ppm)	As (ppm)
86-L-8	H617501	16449	67.1	68.1	1	Half Core			5.54	28.5	708	36.4	494
86-L-8	H617502	16450	68.1	69.1	1	Half Core			6.43	29.9	502	42.1	746
86-L-8	H617503	16451	69.1	70.38	1.28	Half Core			3.62	47.7	670	31	>10000
86-L-8	H617504	16452	70.38	70.91	0.53	Half Core			11.6	52.6	897	63.4	>10000
86-L-8	H617505				0	Blank			0.0341	0.23	4.5	0.204	27.4
86-L-8	H617506	16453	70.91	71.45	0.54	Half Core			4.11	5.17	185.5	21.5	5630
86-L-8	H617507	16454	71.45	72.28	0.83	Half Core			3.01	17.5	192.5	16.45	>10000
86-L-8	H617508	16455	72.28	72.8	0.52	Half Core			1.3	4.68	124.5	6.63	1920
86-L-8	H617509	16456	72.8	74.8	2	Half Core			1.96	4.62	170	10.2	36.8
86-L-8	H617510				0	Standard	CDN-ME-1201		5.02	40.4	15700	11.6	111.5
86-L-8	H617511	16457	74.8	76.97	2.17	Half Core			2.4	7.25	220	12.15	45.3
86-L-8	H617512	16458	76.97	77.3	0.33	Half Core			4.04	29.4	492	28.5	29.5
86-L-8	H617513	16459	77.3	79.3	2	Half Core			6.75	50.2	888	56.6	80.7
86-L-8	H617514	16460	79.3	81.3	2	Half Core			1.19	5.19	117	5.72	2070
86-L-8	H617515	16461	81.3	83.3	2	Original			1.445	3.22	123.5	7.75	609
86-L-8	H617516				0	Prep Dup		H617515	1.41	3.57	130	7.3	717
86-L-8	H617517	16462	83.3	85.3	2	Half Core			3.21	5.31	257	34.3	361
86-L-8	H617518	16463	85.3	87.3	2	Half Core			6.11	9.36	546	69.3	504
86-L-8	H617519	16464	87.3	89.3	2	Half Core			2.51	4.09	183	22.3	230
86-L-8	H617520	16465	89.3	91.3	2	Half Core			4.21	9.67	943	32.1	317
86-L-8	H617521	16466	91.3	93.3	2	Half Core			3.02	15.15	406	17.25	104.5
86-L-8	H617522	16467	93.3	95.3	2	Half Core			2.18	7.35	336	15.15	721
86-L-8	H617523	16468	95.3	97.7	2.4	Half Core			1.565	3.52	166.5	8.5	847
86-L-8	H617524	16469	97.7	98.25	0.55	Half Core			4.59	48.8	522	20.8	4350
86-L-8	H617525				0	Blank			0.0159	0.1	1.6	0.08	7.7
86-L-8	H617526	16470	98.25	100.25	2	Half Core			1.135	1.72	98.3	5.23	9.2
86-L-8	H617527	16471	100.25	102.25	2	Half Core			4.33	17.7	343	26	33.9

Updated Mineral Resource Estimate of the Logan Property, Yukon

DDH	Sample ID	Historical Sample ID	FROM (m)	TO (m)	Interval (m)	QAQC	Type	Parent Sample	Zn (%)	Ag (g/t)	Cu (ppm)	In (ppm)	As (ppm)
86-L-8	H617528	16472	102.25	103.79	1.54	Half Core			6.47	19.7	300	37.8	33.5
86-L-8	H617529	16473	103.79	105.32	1.53	Half Core			1.4	3.82	120.5	8	38.3
86-L-8	H617530				0	Standard	CDN-ME-1201		5.01	40.1	15700	11.45	108
86-L-8	H617531	16474	105.32	106.18	0.86	Half Core			29.3	160	1105	273	102.5
86-L-8	H617532	16475	106.18	106.65	0.47	Half Core			1.725	42.6	323	11.4	1105
86-L-8	H617533	16476	106.65	107.9	1.25	Half Core			5.17	24.2	352	37.6	19.4
86-L-8	H617534	16477	107.9	109.2	1.3	Half Core			5.8	17.35	410	43.8	7100
86-L-8	H617535	16478	109.2	110.58	1.38	Original			6.86	8.54	298	54.8	637
86-L-8	H617536				0	Prep Dup		H617535	6.87	8.78	313	53	716
86-L-8	H617537	16479	110.58	111.48	0.9	Half Core			15.35	7.7	450	151.5	7.2
86-L-8	H617538	16480	111.48	113.48	2	Half Core			6.66	6.15	277	41.9	415
86-L-8	H617539	16481	113.48	115.48	2	Half Core			7.11	11.2	257	41.4	765
86-L-8	H617540	16482	115.48	117.48	2	Half Core			4.26	8.01	305	28.2	35.3
86-L-8	H617541	16483	117.48	119.48	2	Half Core			2.33	14.4	226	12.45	78.8
86-L-8	H617542	16484	119.48	121.48	2	Half Core			2.23	3.13	175.5	12.15	8.1
86-L-8	H617543	16485	121.48	123.55	2.07	Half Core			3.01	4.29	218	13	869
86-L-8	H617544	16486	123.55	124.43	0.88	Half Core			5.62	68.6	596	23.7	1570
86-L-8	H617545				0	Blank			0.0192	0.08	3	0.072	3.9
86-L-8	H617546	16487	124.43	125.43	1	Half Core			4.36	44	1135	24.7	199.5
86-L-8	H617547	16488	125.43	126.43	1	Half Core			2.37	18.4	413	14.25	255
86-L-8	H617548	16489	126.43	127.43	1	Half Core			10.9	27.6	705	59.3	5620
86-L-8	H617549	16490	127.43	128.43	1	Half Core			4.27	8.16	507	37.8	27
86-L-8	H617550				0	Standard	CDN-ME-1201		4.8	39.1	15300	10.45	107.5
86-L-8	H617551	16491	128.43	129.43	1	Half Core			5.08	6.21	415	37.6	107
86-L-8	H617552	16492	129.43	130.45	1.02	Half Core			7	23.3	425	32.3	2590
86-L-8	H617553	16493	130.45	131.48	1.03	Half Core			0.732	8.32	68.5	12	535
86-L-8	H617554	16494	131.48	131.98	0.5	Half Core			13.7	58.7	321	141.5	87.1
86-L-8	H617555	16495	131.98	132.48	0.5	Original			23	71.4	629	215	118
86-L-8	H617556				0	Prep Dup		H617555	23.5	71.9	631	208	119.5

Updated Mineral Resource Estimate of the Logan Property, Yukon

DDH	Sample ID	Historical Sample ID	FROM (m)	TO (m)	Interval (m)	QAQC	Type	Parent Sample	Zn (%)	Ag (g/t)	Cu (ppm)	In (ppm)	As (ppm)
86-L-8	H617557	16496	132.48	132.98	0.5	Half Core			26.1	71.4	679	185	320
86-L-8	H617558	16497	132.98	133.48	0.5	Half Core			18.9	50.9	463	138	8740
86-L-8	H617559	16498	133.48	133.88	0.4	Half Core			21.7	34.5	472	186	5430
86-L-8	H617560	16499	133.88	135.88	2	Half Core			9.17	16.15	177	87.5	626
86-L-8	H617561	16500	135.88	137.88	2	Half Core			4.62	15.5	125	46	143.5
86-L-8	H617562	16501	137.88	139	1.12	Half Core			3.73	8.18	100.5	47.8	20.6
86-L-8	H617563	16502	139	139.9	0.9	Half Core			5.74	9.81	266	53.4	199
86-L-8	H617564	16503	139.9	140.8	0.9	Half Core			12.1	34.3	257	88.9	1115
86-L-8	H617565				0	Blank			0.041	0.1	4.4	0.311	4.1
86-L-8	H617566	16504	140.8	141.65	0.85	Half Core			6.72	31.2	298	45.6	>10000
86-L-8	H617567	16505	141.65	142.65	1	Half Core			9.17	27.5	425	42.6	557
86-L-8	H617568	16506	142.65	143.65	1	Half Core			2.67	20.2	96	15.85	71.5
86-L-8	H617569	16507	143.65	144.65	1	Half Core			2.22	9.73	500	11.2	210
86-L-8	H617570				0	Standard	CDN-ME-1201		4.85	38	15550	9.95	99.8
86-L-8	H617571	16508	144.65	145.65	1	Half Core			14.7	9.79	318	86.6	85.1
86-L-8	H617572	16509	145.65	147.65	2	Half Core			1.915	1.64	48.7	11.05	89
86-L-8	H617573	16510	147.65	149.65	2	Half Core			3.07	2.76	51	17.8	55.7
86-L-8	H617574	16511	149.65	151.65	2	Half Core			7.4	6.08	82.4	57.6	19.2
86-L-8	H617575	16512	151.65	153.65	2	Original			4.64	2.99	61.1	37	18.1
86-L-8	H617576				0	Prep Dup		H617575	4.78	3.05	62.6	37.6	15.4
87-L-32	H617577	48525	132	133	1	Half Core			2.94	18.9	201	21.8	469
87-L-32	H617578	48526	133	134	1	Half Core			1.735	3.27	152.5	12.5	20.6
87-L-32	H617579	48527	134	135	1	Half Core			1.25	1.56	76.4	6.53	1.1
87-L-32	H617580	48528	135	136	1	Half Core			1.045	1.18	60.6	5.24	0.8
87-L-32	H617581	48529	136	137	1	Half Core			3.53	7.14	129	26.4	88
87-L-32	H617582	48530	137	138	1	Half Core			4.51	6.85	136.5	29.7	1320
87-L-32	H617583	48531	138	139	1	Half Core			2.02	1.06	56.2	14.35	41.1
87-L-32	H617584	48532	139	140	1	Half Core			7.24	9.75	183	50	25.2
87-L-32	H617585				0	Blank			0.0204	0.03	0.9	0.12	2.1

Updated Mineral Resource Estimate of the Logan Property, Yukon

DDH	Sample ID	Historical Sample ID	FROM (m)	TO (m)	Interval (m)	QAQC	Type	Parent Sample	Zn (%)	Ag (g/t)	Cu (ppm)	In (ppm)	As (ppm)
87-L-32	H617586	48533	140	141	1	Half Core			3.87	13.25	146.5	27.4	56.6
87-L-32	H617587	48534	141	142	1	Half Core			4.15	6.33	146.5	27.3	165
87-L-32	H617588	48535	142	143	1	Half Core			2.2	6.83	101.5	12.05	2380
87-L-32	H617589	48536	143	144	1	Half Core			1.24	1.2	86.1	6.83	54.4
87-L-32	H617590				0	Standard	CDN-ME-1201		5.04	39.1	15700	11.4	95.7
87-L-32	H617591	48537	144	145	1	Half Core			3.38	7.97	174	22.3	2230
87-L-32	H617592	48538	145	146	1	Half Core			2.05	16.65	140.5	13.4	59.7
87-L-32	H617593	48539	146	147	1	Half Core			6.43	11.45	371	50.1	1915
87-L-32	H617594	48540	147	148	1	Half Core			3.89	9.65	257	19.55	129.5
87-L-32	H617595	48541	148	149	1	Original			5.07	16.3	319	32.7	397
87-L-32	H617596				0	Prep Dup		H617595	4.97	21.5	320	33.8	589
87-L-32	H617597	48542	149	150	1	Half Core			1.535	1.56	73.1	7.54	42.8
87-L-32	H617598	48543	150	151	1	Half Core			2.79	4.25	143	18.9	12.3
87-L-32	H617599	48544	151	152	1	Half Core			2.48	8.86	131	12.8	16.6
87-L-32	H617600	48545	152	153	1	Half Core			10.35	91.3	487	95.7	59.4
87-L-32	H617601	48546	153	154	1	Half Core			1.745	3.84	171	9.27	12.2
87-L-32	H617602	48547	154	155	1	Half Core			4.47	8.57	240	29.5	50.7
87-L-32	H617603	48548	155	156	1	Half Core			1.035	3.44	122	5.33	80.6
87-L-32	H617604	48549	156	157	1	Half Core			4.32	9.82	401	28.5	3940
87-L-32	H617605				0	Blank			0.0154	0.03	1.2	0.084	4.8
87-L-32	H617606	48550	157	158	1	Half Core			9.13	13.6	375	71.4	222
87-L-32	H617607	48551	158	159	1	Half Core			2.51	6.95	129.5	11.95	126.5
87-L-32	H617608	48552	159	160	1	Half Core			2.02	4.6	127.5	12.4	103.5
87-L-32	H617609	48553	160	161	1	Half Core			1.345	1.94	102	8.22	10.1
87-L-32	H617610				0	Standard	CDN-ME-1201		5.04	37	15850	10.6	105.5
87-L-32	H617611	48554	161	162	1	Half Core			2.77	4.7	209	11.9	34
87-L-32	H617612	48555	162	163	1	Half Core			2.39	6.72	135	8.39	281
87-L-32	H617613	48556	163	164	1	Half Core			6.36	39.4	390	36.3	5740
87-L-32	H617614	48557	164	165	1	Half Core			10.75	23.4	541	61	2750

Updated Mineral Resource Estimate of the Logan Property, Yukon

DDH	Sample ID	Historical Sample ID	FROM (m)	TO (m)	Interval (m)	QAQC	Type	Parent Sample	Zn (%)	Ag (g/t)	Cu (ppm)	In (ppm)	As (ppm)
87-L-32	H617615	48558	165	166	1	Original			3.59	9.11	179	15	848
87-L-32	H617616				0	Prep Dup		H617615	3.8	8.25	191.5	17	830
87-L-32	H617617	48559	166	167	1	Half Core			5.99	24	264	44.1	329
87-L-32	H617618	48560	167	168	1	Half Core			2.82	7.48	149.5	15.6	689
87-L-32	H617619	48561	168	169	1	Half Core			10.35	30.8	333	64.4	1055
87-L-32	H617620	48562	169	170	1	Half Core			0.803	5.36	101	3.13	363
87-L-32	H617621	48563	170	171	1	Half Core			1.19	3.33	73.2	5.29	282
87-L-32	H617622	48564	171	172	1	Half Core			3.93	12.1	139.5	26.6	74.2
87-L-32	H617623	48565	172	173	1	Half Core			2.15	14.9	459	19.35	292
87-L-32	H617624	48566	173	174	1	Half Core			1.59	8.59	133	24.9	802
87-L-32	H617625				0	Blank			0.0115	0.06	1.6	0.115	3.9
87-L-32	H617626	48567	174	175	1	Half Core			4.53	39	400	54.4	2190
87-L-32	H617627	48568	175	176	1	Half Core			5.35	41	429	70.7	7240
87-L-32	H617628	48569	176	177	1	Half Core			3.34	30.5	292	40.1	3960
87-L-32	H617629	48570	177	178	1	Half Core			8.94	60.6	504	114.5	>10000
87-L-32	H617630				0	Blank			0.0204	0.17	1.8	0.306	42.2
87-L-32	H617631	48571	178	180	2	Half Core			4.75	36.4	279	70.1	>10000
87-L-32	H617632	48572	180	181	1	Half Core			2.84	23.7	180	31.5	51
87-L-32	H617633	48573	181	183	2	Half Core			1.35	7.89	70.7	15.4	612
87-L-32	H617634	48574	183	184	1	Half Core			2.06	12.45	128	19	47.2
87-L-32	H617635	48575	184	185	1	Original			3.84	40.6	298	39.1	499
87-L-32	H617636				0	Prep Dup		H617635	2.86	60.8	270	32.7	2390
87-L-32	H617637	48576	185	186	1	Half Core			5.38	24.1	352	51.8	2240
87-L-32	H617638	48577	186	187	1	Half Core			3.24	41.2	261	32.1	>10000
87-L-32	H617639	48578	187	188	1	Half Core			1.725	13.9	117	15.95	1175
87-L-32	H617640	48579	188	189	1	Half Core			1.045	5.41	63	5.15	557
87-L-32	H617641	48580	189	190	1	Half Core			0.896	2.8	57.6	2.66	244
87-L-32	H617642	48581	190	191	1	Half Core			0.0022	3.8	44.8	4.42	245
87-L-32	H617643	48582	191	193	2	Half Core			1.605	1.16	66.7	3.93	87.9

Updated Mineral Resource Estimate of the Logan Property, Yukon

DDH	Sample ID	Historical Sample ID	FROM (m)	TO (m)	Interval (m)	QAQC	Type	Parent Sample	Zn (%)	Ag (g/t)	Cu (ppm)	In (ppm)	As (ppm)
87-L-32	H617644	48583	193	195	2	Half Core			0.539	1.09	32.5	1.18	123
87-L-32	H617645				0	Blank			0.009	0.03	0.6	0.054	3.1
88-L-103	H617646	73592	305	306	1	Half Core			15.5	24.5	261	151.5	165
88-L-103	H617647	73593	306	307	1	Half Core			9.52	24.5	167	111.5	5.5
88-L-103	H617648	73594	307	308	1	Half Core			2.08	2.09	55.9	22.5	4.8
88-L-103	H617649	73595	308	309	1	Half Core			3.11	2.22	66.4	32.8	274
88-L-103	H617650				0	Standard	CDN-ME-1201		5.21	39.3	16200	11.5	107.5
88-L-103	H617651	73596	309	310	1	Half Core			1.125	1.24	36.9	14.3	14.9
88-L-103	H617652	73597	310	311	1	Half Core			0.85	0.89	26.1	8.04	16.4
88-L-103	H617653	73598	311	312	1	Half Core			2.02	6.93	62.1	33.1	15
88-L-103	H617654	73599	312	313	1	Half Core			1.705	2.44	58.3	19.05	6.3
88-L-103	H617655	73600	313	314	1	Original			13.8	12.75	260	109.5	504
88-L-103	H617656				0	Prep Dup		H617655	14.45	13.15	262	111.5	408
88-L-103	H617657	73601	314	315	1	Half Core			3.62	4	89.9	23.7	2300
88-L-103	H617658	73602	315	316	1	Half Core			7.09	7.62	114	51	78.9
88-L-103	H617659	73603	316	317	1	Half Core			2.83	9.56	119.5	16.85	76.4
88-L-103	H617660	73604	317	318	1	Half Core			3.52	4.52	101.5	24.9	113
88-L-103	H617661	73605	318	319	1	Half Core			3.7	6.12	175	29.5	119
88-L-103	H617662	73606	319	320	1	Half Core			6.78	11.95	186	61.6	86
88-L-103	H617663	73607	320	321	1	Half Core			5.35	16.45	307	57.6	780
88-L-103	H617664	73608	321	322	1	Half Core			2.91	5.11	169.5	22	699
88-L-103	H617665				0	Blank			0.0183	0.04	2.7	0.114	3.4
88-L-103	H617666	73609	322	323	1	Half Core			19.95	18.15	349	186.5	129.5
88-L-103	H617667	73610	323	324	1	Half Core			6.24	9.05	221	63	36.8
88-L-103	H617668	73611	324	325	1	Half Core			3.85	4.19	106	49.3	12
88-L-103	H617669	73612	325	326	1	Half Core			6.04	8.27	197	51.3	9.5
88-L-103	H617670				0	Standard	CDN-ME-1201		5.02	38.7	15700	10.2	111.5
88-L-103	H617671	73613	326	327	1	Half Core			4.72	4.22	125	33.8	70.8
88-L-103	H617672	73614	327	328	1	Half Core			10.6	34.1	589	82.3	492

Updated Mineral Resource Estimate of the Logan Property, Yukon

DDH	Sample ID	Historical Sample ID	FROM (m)	TO (m)	Interval (m)	QAQC	Type	Parent Sample	Zn (%)	Ag (g/t)	Cu (ppm)	In (ppm)	As (ppm)
88-L-103	H617673	73615	328	329	1	Half Core			2.75	2.79	98.8	21.8	50.8
88-L-103	H617674	73616	329	330	1	Half Core			3.78	3.34	221	33.7	30.9
88-L-103	H617675	73617	330	331	1	Original			2.45	2.47	84.4	21.4	27
88-L-103	H617676				0	Prep Dup		H617675	2.36	2.35	83.1	24.5	24.1
88-L-103	H617677	73618	331	332	1	Half Core			22.4	27.3	678	218	44.4
88-L-103	H617678	73619	332	333	1	Half Core			9.55	10.55	322	104.5	245
88-L-103	H617679	73620	333	334	1	Half Core			3.16	3.12	112	29.5	17.7
88-L-103	H617680	73621	334	335	1	Half Core			6.76	14.35	360	64.7	97
88-L-103	H617681	73622	335	336	1	Half Core			13.55	34.4	494	106	75.1
88-L-103	H617682	73623	336	337	1	Half Core			12.1	30	1120	101	120.5
88-L-103	H617683	73624	337	338	1	Half Core			2.57	11.1	291	11.3	202
88-L-103	H617684	73625	338	340	2	Half Core			5.06	21.2	389	20.5	138.5
88-L-103	H617685				0	Blank			0.0215	0.09	3.6	0.118	1.7
88-L-103	H617686	73626	340	342	2	Half Core			1.62	3.98	216	8.45	199.5
88-L-103	H617687	73627	342	344	2	Half Core			1.62	3.12	149.5	6.48	145.5
88-L-103	H617688	73628	344	346	2	Half Core			1.47	3.63	119.5	6.82	128.5
88-L-103	H617689	73629	346	348	2	Half Core			0.761	1.57	58.9	3.26	68.7
88-L-103	H617690				0	Blank			0.0106	0.03	2.9	0.067	2.7
88-L-103	H617691	73630	348	350	2	Half Core			1.38	2.49	205	6.17	180.5
88-L-103	H617692	73631	350	352	2	Half Core			0.2	1.15	32.6	1.33	147.5
87-L-44	H617693	49302	41	42	1	Half Core			1.44	1.96	115.5	1.73	117
87-L-44	H617694	49303	42	43	1	Half Core			2.9	12.2	784	5.9	1345
87-L-44	H617695	49304	43	44	1	Original			2.86	7.87	422	7.74	1500
87-L-44	H617696				0	Prep Dup		H617695	2.67	7.94	410	7.51	1460
87-L-44	H617697	49305	44	45	1	Half Core			13.85	100	2350	39.3	51.6
87-L-44	H617698	49306	45	46	1	Half Core			3.17	30.9	789	9.69	62
87-L-44	H617699	49307	46	47	1	Half Core			3.98	35.1	462	23.1	128
87-L-44	H617700	49308	47	48	1	Half Core			3.21	7.94	290	11.35	1185
87-L-44	H617701	49309	48	49	1	Half Core			2.15	10.5	403	4.18	2570

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87-L-44	H617702	49310	49	50	1	Half Core			2.1	6.68	254	3.13	1385
87-L-44	H617703	49311	50	51	1	Half Core			1.69	4.73	282	2.64	713
87-L-44	H617704	49312	51	52	1	Half Core			1.51	5.02	187	2.13	5750
87-L-44	H617705				0	Blank			0.0096	0.04	3.8	0.039	13.4
87-L-44	H617706	49313	52	53	1	Half Core			2.47	10.5	503	4.27	3940
87-L-44	H617707	49314	53	54	1	Half Core			13.75	77.7	2870	33.5	4810
87-L-44	H617708	49315	54	55	1	Half Core			13.6	161	8610	31.6	>10000
87-L-44	H617709	49316	55	56	1	Half Core			0.624	9.71	108.5	0.869	>10000
87-L-44	H617710				0	Standard	CDN-ME-1201		5.04	39.3	15750	10.8	127.5
87-L-44	H617711	49317	56	57	1	Half Core			1.105	4.88	176	1.79	>10000
87-L-44	H617712	49318	57	58	1	Half Core			4.68	22	1040	8.74	>10000
87-L-44	H617713	49319	58	59	1	Half Core			12.75	46.9	1435	25.3	6100
87-L-44	H617714	49320	59	60	1	Half Core			1.92	6.79	276	2.09	125
87-L-44	H617715	49321	60	61	1	Original			1.25	3.74	113	0.474	46.9
87-L-44	H617716				0	Prep Dup		H617715	1.435	4.44	144.5	0.494	43.5
87-L-44	H617717	49322	61	62	1	Half Core			1.155	3.55	113	1.43	28.6
87-L-44	H617718	49323	62	63	1	Half Core			1.545	4.4	147	1.185	28.6
87-L-44	H617719	49324	63	64	1	Half Core			1.47	3.72	256	1.11	241
87-L-44	H617720	49325	64	65	1	Half Core			1.125	4.07	215	1.285	214
87-L-44	H617721	49326	65	66	1	Half Core			1.92	3.77	142.5	1.66	25.8
87-L-44	H617722	49327	66	67	1	Half Core			1.3	2.43	101	1.665	11.7
87-L-44	H617723	49328	67	68	1	Half Core			1.56	5.12	177	2.6	12.3
87-L-44	H617724	49329	68	69	1	Half Core			2.24	6.54	242	4.57	15
87-L-44	H617725				0	Blank			0.0119	0.04	3.3	0.04	2.4
87-L-44	H617726	49330	69	70	1	Half Core			3.02	11.5	480	4	40
87-L-44	H617727	49331	70	71	1	Half Core			3.15	18.25	1150	4.67	13.4
87-L-44	H617728	49332	71	72	1	Half Core			1.715	8.11	412	2.55	265
87-L-44	H617729	49333	72	73	1	Half Core			4.2	16.75	1155	4.56	736
87-L-44	H617730				0	Standard	CDN-ME-1201		5	36.5	15650	10.1	94.9

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87-L-44	H617731	49334	73	74	1	Half Core			6.54	114	5960	6.22	5570
87-L-44	H617732	49335	74	75	1	Half Core			3.35	108	7520	3.27	>10000