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**TECHNICAL REPORT AND
UPDATED MINERAL RESOURCE ESTIMATE
OF THE LAWYERS-RANCH GOLD-SILVER PROJECT,
STIKINE TERRANE, BRITISH COLUMBIA**

**LAWYERS AREA: LATITUDE 57°18'44''N AND LONGITUDE 127°11'55''W
RANCH AREA: LATITUDE 57°29'N AND LONGITUDE 127°22'W**

**FOR
THESIS GOLD INC.**

**NI 43-101 & 43-101F1
TECHNICAL REPORT**

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1.0 SUMMARY

1.1 INTRODUCTION

This Technical Report (the “Report”) has been prepared by P&E Mining Consultants Inc. (“P&E”) for the Issuer, Thesis Gold Inc. (“Thesis” or the “Company”), a Vancouver-based public Mineral Resource exploration company. APEX Geoscience Ltd. has provided the data to P&E, which were reviewed and accepted by the authors (the “Authors”) of this Report. The Report includes an Updated Mineral Resource Estimate for the Lawyers Area (“Lawyers”) and an Initial Mineral Resource Estimate for the Ranch Area (“Ranch”), and the resulting combined Lawyers-Ranch Project Mineral Resource Estimate.

1.2 PROJECT DESCRIPTION AND LOCATION

The Lawyers-Ranch Property (the “Property”) is a gold-silver exploration property located in north-central British Columbia (Canada), 450 km north-northwest of the City of Prince George, 275 km north of the Town of Smithers, and 45 km northwest of the Kemess South Mine, a past-producing open pit copper-gold operation.

The Property consists of 100 contiguous mining claims (41,233 ha) and 34 non-contiguous mining claims (8,334 ha) for a total of 134 claims and 49,567 ha. These mineral claims are 100% owed by Thesis Gold Inc. (formerly Benchmark Metals Inc.), either directly or through its wholly-owned subsidiaries PPM Phoenix Precious Metals Corp (“PPM”) and Thesis Gold (Holdings) Inc.

1.3 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The Property is accessible from the Finlay Forest Service Road (“Finlay FSR”) south of the Town of Mackenzie, which connects to the Omineca Resource Access Road (“ORAR”). The ORAR continues beyond the Kemess South Mine access road, past the Sturdee Airstrip and Baker Mine, to the Lawyers-Ranch Property.

The Property is in a cool continental climate. The operating field season is generally from June to September, although weather conditions during these months can be unpredictable. Snow fall is possible in the summer months and snow depths are up to 3 m in winter. Temperatures range from -32°C in January to 26°C in June.

The Property is located in moderate terrain with elevations in the range from 1,200 to 1,900 masl. The tree line is at 1,630 masl elevation. Below the tree line, there is only sparse cover of birch and willow shrubs, with white spruce and sub-alpine fir. Grass, lichen, and dwarf shrubs are found above the tree line. Creeks and gullies are distributed throughout the Property, providing exposure of bedrock in some places. The creeks are a reliable source of water.

Mackenzie is the closest major centre accessible by road, 400 km to the southeast of the Property. Mackenzie is primarily a base for the forestry industry. There is a rail line connecting Mackenzie

to the Canadian National Railway (“CNR”) mainline, which provides rail access to Prince Rupert and Vancouver. Smithers is the closest major centre accessible by air, located 275 km south of the Property and lies along the Yellowhead Highway and the CNR mainline. Available exploration services include contract diamond drilling, expediting/camp services, and helicopter companies.

The Kemess South Mine, owned by Centerra Gold Inc. (“Centerra”), provides the closest infrastructure to the Lawyers Property. The Kemess South Mine is connected to the B.C. Hydro grid via a powerline from Mackenzie and has road access via the ORAR. A large mining camp and a 1,424 m gravel airstrip is also present at Kemess South. Eleven km southeast of the Lawyers Property is the Baker Mine and process plant site (currently under care and maintenance), owned by TDG Gold Corp.

1.4 HISTORY OF EXPLORATION, DEVELOPMENT AND MINING

Gold and base metals were first documented and explored in the region from 1824 to 1929. Early exploration on the Property began in earnest in the 1960s and mineralized prospects were identified by the 1980s, leading to the development of the Lawyers Mine. The Lawyers Mine was operated by Cheni Gold Mines from 1989 to 1992 and focused on extraction of high-grade material underground at the Cliff Creek, Dukes Ridge and AGB Zones. Overall mine production totalled 682,353 t processed for 171,066 oz gold and 3,546,400 oz silver. In the Ranch Area, three small open pits were developed in 1991 at the Bonanza, Thesis III, and BV Zones and ~41,000 tonnes of mineralized material and 10,000 ounces of gold were reportedly produced.

Historical production and metallurgical testwork have not been verified by the Authors, and therefore, the reader should be cautioned accordingly.

1.5 GEOLOGY AND MINERALIZATION

1.5.1 Regional Geologic Setting

Regionally, the Property covers 496 km² of highly prospective rocks in the northeastern region of the prolific metal-endowed Stikine Terrane, British Columbia (Canada). Magmatic events in Stikine during the Late Triassic and Early Jurassic periods drove the development of mineralizing porphyry and epithermal systems in this region. On the east and west sides of the Bowser Basin, the same magmatic and mineralizing events are recognized and formed an arch of gold and polymetallic mineralization in the Toodoggone Mining District (also referred to as the Toodoggone Region).

1.5.2 Property Scale Geology

The Property straddles an important stratigraphic horizon between rocks of the Upper Triassic Stuhini Group and the Lower Jurassic Hazelton Group that define an important geological unconformity, with many of the mineral deposits in the Toodoggone Mining District concentrated along it. At the centre of the Lawyers Area are the structurally-controlled Cliff Creek, Dukes Ridge, Phoenix, and AGB Zones, which are located within a large 5 km by 8 km radiometric

anomaly that is coincident with potassic alteration and associated with a low-sulphidation-style epithermal system. At the centre of the Ranch Area are the main deposits, namely Bonanza, BV, Thesis II, Thesis III, and Bingo, where mineralization is associated with leached and vuggy silica alteration related to an intermediate to high-sulphidation-style epithermal system.

1.5.3 Stratigraphy

Stratigraphically, the Property is predominantly a shallow northwest-dipping sequence of volcanic and sedimentary rocks of the Early Jurassic Toodoggone Formation, part of the Hazelton Group that is exposed throughout the Stikine Terrane. The Toodoggone Formation is sub-divided into upper and lower volcanic cycles. The Property is predominantly underlain by lower cycle rocks composed of thick sequences (>300 m) of dacite and andesite tuffs and flows. These volcanic strata erupted concurrently with the development of deeply-rooted faults that focused magmatism and mineralization. Magmatism is expressed as the Black Lake Intrusive Suite, which outcrops in the southern region of the Property. Locally, late Paleozoic Asitka Group and Late Triassic Takla Group rocks are exposed along the margins of the Black Lake Intrusive and are, in part, fault bounded. Similar relationships observed in the southern Toodoggone are spatially associated with porphyry-style mineralization, including at Kemess.

Localized conglomerates and volcanoclastics within the lower cycle are confined within blocks dropped along steeply dipping syn-volcanic faults, which can potentially be used as a vector towards epithermal mineralization. The entire Toodoggone Volcanic sequence is unconformably overlain by the younger Sustut sedimentary rocks.

1.5.4 Structure

The Property has undergone a relatively brittle deformation history of syn-volcanic graben development and subsequent strike-slip deformation.

The most dominant structural feature at the Lawyers Area is a series of northwest to north-northwest (310° to 340°) striking faults that are subvertical to steeply southwest- or northeast-dipping. These faults typically show evidence of normal displacement with localized, late, strike-slip reactivation. They are the oldest structures on the Property and represent syn-volcanic growth faults formed during lower Jurassic extension and block faulting.

The orientation and characteristics of the mineralized zones along the Lawyers Trend are consistent with the development of robust hydrothermal systems within a pre-existing northwest to north-northwest trending fault and fracture system. This system likely reflects the original volcanic basin geometry, and these structures acted as a conduit for fluid migration and metal precipitation. The northwest structures and associated mineralization are locally offset by east to west and southwest to northeast trending strike-slip faults, typically with <10 m displacement. The structural relationships observed in outcrop and drill core are also observed in magnetic and Very Low Frequency (“VLF”) data, providing numerous new exploration targets.

These structural relationships are also observed at the Ranch Area. At Ranch, three different fault generations have been identified: 1) D₁ rare east-northeast trending; 2) D₂ steeply-dipping brittle

faults that trend north to northeast, and which were reactivated during later deformation; and 3) D₃ abundant southeast to south-southeast-trending structures with moderate to steep dip. The D₂ event is interpreted as a major control on heat distribution and fluid flow, which localized precious metal mineralization at Ranch. The D₃ fault deformation is temporally and structurally related to mineralization, high sulphidation style alteration and barite-quartz veining.

1.5.5 Alteration

Volcanic strata in the Lawyers Area are only very weakly altered and original textures generally are well preserved. Narrow localized zones associated with mineralization in the main zones show intense silicification and potassic alteration. A variety of alteration facies are observed across the Property, ranging from a massive advanced argillic zone northwest of Cliff Creek to the strong quartz-sericite-pyrite alteration concentrated along structures in the Marmot area. The alteration, variation and zonation suggest that the epithermal mineralization in the Lawyers Area was part of a large-scale hydrothermal system.

In the Ranch Area, alteration is much more intense and the deposits display strong vuggy and massive silica with broad, surrounding advanced argillic and argillic alteration zones. Alteration bodies are zoned, with the most intense alteration and leaching occurring proximal to mineralization and the major controlling structures. This zonation is most clearly observed in drill core and, with the aid of SWIR analysis, where a series of key assemblages are defined, from distal to proximal.

1.5.6 Mineralization

The Lawyers Area consists of a combination of quartz veins, stockwork zones and chalcedony breccia bodies developed along northwest and north-northwest trending fracture systems. The three principle mineralized zones in the Area are the Amethyst Gold Breccia (AGB) Zone, Cliff Creek Zone with its many sub-zones, and the Dukes Ridge-Phoenix Zone. Subsidiary zones (or prospects) include Marmot Lake and Silver Pond Zones. Low-sulphidation epithermal gold-silver mineralization consists predominantly of pyrite with minor chalcopyrite, sphalerite, galena, native gold, native silver, electrum and acanthite in a gangue of quartz, chalcedony, jasperoidal chert, amethyst, minor calcite and barite. Veins commonly display banded and crustiform textures typical of low-sulphidation epithermal systems; however, brecciation and alteration related to faulting are more common than classic epithermal textures. Furthermore, the mineralization appears to be consistent over a significant strike length of >1.2 km and down-dip extent of 600 to 800 m, which is not consistent with a classic boiling-controlled hydrothermal system that is depth limited and discontinuous.

In the Ranch Area, mineralization is generally expressed as widespread argillization and silicification of the Lower Toodoggone Volcanic host rocks. These assemblages are elongated along structures, with major faults acting as fluid conduits and feeder systems to the main alteration bodies. Evidence of stratigraphic control has also been observed as plunging mineralized shoots in the Bonanza and Thesis Zones. High-grade mineralization appears to be restricted to zones of intense vuggy silica alteration and hydrothermal brecciation. Hydrothermal breccias are dominated by barite-silica cement and clasts of silicified volcanics. Gold mineralization is strongly correlated

to the presence of barite and displays weak to moderate correlation to common tracer elements such as tellurium, bismuth, antimony, arsenic, lead and zinc. Mineralization is associated with disseminated pyrite (~5%) and blebby copper sulphides (chalcopyrite, bornite, covellite, chalcocite). Minor visible gold mineralization is present in the high-grade zones. In contrast to Lawyers, Ranch does appear to exhibit more characteristic limited depth extension and zonation typical of a boiling hydrothermal system.

1.6 DEPOSIT TYPES

The Cliff Creek, Dukes Ridge-Phoenix and AGB Zones are interpreted as structurally-controlled, low-sulphidation style epithermal gold-silver deposits. The Bonanza, Ridge, BV, Thesis II, Thesis II, Bingo, JK and Bonanza South Zones are all interpreted as high sulphidation style epithermal deposits. Evidence for other mineral deposit styles also occurs in the Property region, calc-alkalic porphyry copper-gold mineralization and uncommon iron or copper ($\pm$ gold and silver) skarn mineralization.

1.7 EXPLORATION AND DRILLING

Thesis has actively explored the Property during each field season from 2018 to 2023. These exploration programs included extensive soil and rock sampling, biogeochemical sampling, prospecting and geological mapping, petrographic studies, Hyperspectral (TerraSpec shortwave infrared) analysis, an Aerial Drone Survey (UAV), LiDAR and aerial photo acquisition, ground geophysical surveys (MAG, VLF, DCIP), airborne geophysical surveys (VTEM).

Thesis has completed significant diamond (“DDH”) and reverse circulation (“RC”) drilling programs at the Lawyers-Ranch Property. Drilling took place in the Lawyers Area from 2018 to 2023 and from 2021 to 2023 in the Ranch Area. To date, the Lawyers-Ranch drill hole databases include information for 2,261 drill collar records (1,412 Lawyers and 849 Ranch), of which 902 (442 Lawyers and 460 Ranch) are historical and 1,359 (970 Lawyers and 389 Ranch) have been completed by Thesis.

1.8 SAMPLE PREPARATION, ANALYSES AND SECURITY

The drill core sampling program was undertaken by Company personnel under the direction of APEX Geoscience Ltd. (“APEX”), who are contracted by Thesis to plan and manage exploration programs on the Lawyers-Ranch Property. A secure chain of custody is maintained in the transporting and storing of all samples. Drill core samples were assayed at ALS Global Laboratories (Geochemistry Division) (“ALS”) in Vancouver, Canada. Samples returning silver and base metal grades over-limits were re-analysed by atomic absorption or emission spectrometry.

APEX implemented and monitored a thorough QA/QC program for the drilling undertaken at the Property during the 2018 to 2023 period, including the insertion of certified reference materials, blanks and field duplicates. Examination of all QA/QC results for all recent 2018 to 2023 sampling, indicated no material issues with accuracy, contamination, or precision in the data.

It is the opinion of the Authors that sample preparation, security and analytical procedures for the Lawyers-Ranch Property were adequate and that the data are of good quality and satisfactory for use in the Mineral Resource Estimates reported in Section 14 of this Report.

1.9 DATA VERIFICATION

Detailed verification of the drill hole data, used for the current Mineral Resource Estimate, has been undertaken, including verification of historical drilling data (prior to 2015) from hard-copy reports, drill hole logs, cross-sections and maps. This work provides confidence in the historically reported mineralization. The detailed review and digitization of historical reports, and the information obtained from recent drilling (planned to drill through voids and backfill) gives a higher degree of confidence in the location and geometry of the underground workings and stope models at Cliff Creek and AGB. The small stope model for the Phoenix Zone has the lowest confidence; however, it is still assumed to be generally representative of the previously mined material, based on historical cross-sections, reports, and recent drilling.

The Author also carried out independent verification of a select subset of historical drill hole data. No material errors were observed in that data. The Author also reviewed the results of the 2015 verification drilling undertaken at the Cliff Creek North and Dukes Ridge Zones, and Thesis' verification drilling, and is satisfied that the collective verification drilling undertaken at the Project confirms the tenor of historical drill data, for which complete assay and location information is known.

The Author conducted verification of the Lawyers Property drill hole assay database for gold and silver, by comparison of the database entries with assay certificates, downloaded directly from the ALS Canada Webtrieve. Very few minor discrepancies were encountered in the data, which are not considered by the Author to be material to the current Mineral Resource Estimate.

The Authors completed two separate site visits to the Lawyers Property. The presence of a nugget effect in the data is evident. However, the Authors consider there is acceptable correlation between the gold and silver assays in Thesis' database and the independent verification samples collected by the Authors and analysed at ALS Canada and Actlabs.

The Authors are satisfied that sufficient verification of both the historical and recent drill hole data has been undertaken and that the supplied data are of good quality and suitable for use in the current Mineral Resource Estimates.

PEA-level metallurgical testing and related laboratory reporting was primarily undertaken by SGS Canada Inc. in Burnaby BC. Metallurgical samples were logged in as received from a courier, and then followed and analysed with strict quality control. Analyses includes blanks and duplicates with inserted certified reference materials, including internationally certified reference materials from CANMET and USGS. Test results are reviewed internally by the labs, and then externally by the Author. Resulting calculated heads are compared to assayed heads for agreement and, if justified, testing is repeated for reproducibility.

1.10 MINERAL PROCESSING AND METALLURGICAL TESTING

Metallurgical testing of a combined Ranch and Lawyers mining scenario was initiated in September 2023 and concluded with a laboratory report issued by SGS Canada Inc. in May 2024. Based on this testwork and supported by earlier historical studies, a conceptual process flowsheet with accompanying mass balance and projected gold and silver recoveries was formulated.

The SGS study suggests that the various mineralized zones of the adjacent Lawyers and Ranch Areas can be well served with a process flowsheet that consists of grinding the process plant feed to an 80% particle passing size (P_{80}) of 125 μm . The comminution would be in closed circuit with gravity pre-treatment using centrifugal concentration that is directed to differential sulphide flotation. The primary (rougher) flotation is where typically the majority of the precious metals would report to a saleable concentrate. This method uses a selective collector, with the rougher bulk product reground and cleaned in three stages, while increasing the slurry pH with lime to depress pyrite. The rougher tail is then sent to a scavenger float circuit to produce a low grade concentrate suitable for aggressive leaching procedures. The resulting leach residue is attrition ground, and then added to the final float tailing for a second stage leach. The pregnant leachate solution, including from the gravity product is forwarded to Merrill Crowe precipitation, followed by refining for producing doré on-site.

The metallurgical test samples responded well to a combination of these conventional mineral processing procedures. Following bench scale optimization, the laboratory study evaluated the conceptual flowsheet. This included locked cycle flotation for accuracy in calculating the mass balance and metal recovery estimates. Three master composites of varying head grades were laboratory tested, with the envisioned flowsheet providing an overall circuit recovery averaging 95% for gold and 92% for silver.

1.11 MINERAL RESOURCE ESTIMATE

The 2024 Lawyers-Ranch Project MRE comprises Measured and Indicated Mineral Resources of 4.0 million ounces (Moz) grading 1.51 g/t gold equivalent (“AuEq”) contained within 82.0 million tonnes, and Inferred Mineral Resources of 727 thousand ounces grading 1.82 g/t AuEq contained within 12.4 million tonnes. The complete 2024 Lawyers-Ranch Project MRE statement is presented in Table 1.1.

The Mineral Resource Estimation is based on a drill hole database consisting of 1,906 drill holes (totalling 333,570 m), of which 819 (totalling 119,611 m) were not considered in the previous Mineral Resource Estimation.

Mineral Resource modelling was completed in the UTM coordinate system relative to the North American Datum (NAD) 1983 Zone 9N (EPSG:26909). The Mineral Resource Estimates utilized a block model with a size of 5 m (X) by 5 m (Y) by 5 m (Z) to honour the mineralization wireframes for grade estimation. Gold (Au) and silver (Ag) grades were estimated for each block in both the Ranch and Lawyers Areas using Ordinary Kriging (“OK”) with locally varying anisotropy (“LVA”) to ensure that grade continuity in various directions is reproduced in the block model.

Copper (Cu) grades were estimated using the same method, but only for the Ranch Area. The MRE is reported as undiluted.

The Mineral Resource block model underwent several pit optimization scenarios using Deswik's Pseudoflow™ pit optimizer. The resulting pit shells were used to constrain the reported pit-constrained Mineral Resources in this Report, with a 0.4 g/t gold equivalent grade (AuEq) cut-off applied.

The 2024 Lawyers-Ranch MRE block model was used to develop various stope scenarios focusing on achieving a minimum grade for mined material. The longhole open stope mining method was selected for the underground 2024 Lawyers-Ranch MRE. The stope optimization scenario with a minimum grade of 1.5 g/t AuEq constrains the MRE in this Report. All material within the mining shapes is reported in a "take-all" approach, regardless of whether its estimated grades exceed the reporting cut-off grade.

The 2024 Lawyers-Ranch MRE is reported in accordance with the Canadian Securities Administrators' NI 43-101 rules 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 Estimate is April 26, 2024.

Mineral Resources can be sensitive to the selection of the reporting cut-off grade. For sensitivity analyses, additional cut-off grades for the Pit-Constrained Mineral Resources are presented in Table 1.2.

TABLE 1.1
SUMMARY OF MEASURED, INDICATED AND INFERRED MINERAL RESOURCES
ON THE LAWYERS-RANCH PROJECT ⁽¹⁻⁹⁾

Mineral Resource Area	Cut-off AuEq (g/t)	Classification	Tonnes (k)	Au (g/t)	Ag (g/t)	Cu (%)	AuEq (g/t)	Au (koz)	Ag (Moz)	Cu (kt)	AuEq (koz)
Pit-Constrained Mineral Resource Estimate											
CC-DR-PX	0.4	Measured	29,490	1.06	35.6	-	1.51	1,006	33.7	-	1,428
		Indicated	36,693	1.00	26.0	-	1.33	1,183	30.6	-	1,566
		M&I	66,183	1.03	30.3	-	1.41	2,189	64.4	-	2,994
		Inferred	5,222	0.93	26.8	-	1.27	157	4.5	-	213
AGB	0.4	Measured	6,497	1.26	51.6	-	1.90	262	10.8	-	397
		Indicated	3,713	0.85	35.2	-	1.29	102	4.2	-	154
		M&I	10,210	1.11	45.6	-	1.68	364	15.0	-	551
		Inferred	69	0.54	31.6	-	0.94	1	0.1	-	2
Ranch	0.4	Indicated	4,259	2.01	9.5	0.06	2.21	275	1.3	3	303
		Inferred	5,207	1.79	5.3	0.12	2.03	300	0.9	6	339
Total	0.4	Measured	35,987	1.10	38.5		1.58	1,268	44.5	0	1,825
		Indicated	44,665	1.09	25.2	0.01	1.41	1,561	36.1	3	2,023
		M&I	80,652	1.09	31.1		1.48	2,829	80.7	3	3,848
		Inferred	10,498	1.36	16.2	0.06	1.64	458	5.5	6	554
Out-of-Pit Mineral Resource Estimate											
CC-DR-PX	1.5	Indicated	984	2.26	71.0	-	3.15	72	2.2	-	100
		Inferred	1,147	2.40	70.4	-	3.28	89	2.6	-	121
AGB	1.5	Indicated	374	1.34	94.4	-	2.52	16	1.1	-	30
		Inferred	178	1.85	34.1	-	2.28	11	0.2	-	13
Ranch	1.5	Inferred	579	1.76	4.9	0.19	2.07	33	0.1	1	39
Total	1.5	Indicated	1,359	2.01	77.4		2.98	88	3.4	0	130
		Inferred	1,903	2.16	47.1	0.06	2.82	132	2.9	1	173

TABLE 1.1
SUMMARY OF MEASURED, INDICATED AND INFERRED MINERAL RESOURCES
ON THE LAWYERS-RANCH PROJECT ⁽¹⁻⁹⁾

Mineral Resource Area	Cut-off AuEq (g/t)	Classification	Tonnes (k)	Au (g/t)	Ag (g/t)	Cu (%)	AuEq (g/t)	Au (koz)	Ag (Moz)	Cu (kt)	AuEq (koz)
Total Mineral Resource Estimate											
All	Combined	Measured	35,987	1.10	38.5		1.58	1,268	44.5	0	1,825
		Indicated	46,023	1.11	26.7	0.01	1.46	1,648	39.5	3	2,153
		M&I	82,010	1.11	31.9		1.51	2,917	84.0	3	3,978
		Inferred	12,401	1.48	20.9	0.06	1.82	590	8.3	8	727

Notes:

1. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
2. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
3. 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.
4. 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.
5. Historical mined areas were removed from the block-modelled Mineral Resources.
6. The Lawyers Area includes the Cliff Creek (CC), Dukes Ridge (DR), Phoenix (PX), and AGB Zones. The MRE for the CC-DR-PX Zones has been updated. The AGB block model remains unchanged from the 2022 MRE, but is restated with updated RPEEE constraints.
7. Economic assumptions used include US\$1,850/oz Au, US\$23/oz Ag, 0.76 US\$:C\$ FX, process recoveries of 90% and 92% Au for Lawyers and Ranch, respectively, 88% Ag for both projects, 85% Cu for Ranch, a C\$15/t processing cost, and a G&A cost of C\$5/t. The resulting gold equivalency ratio of Au:Ag ratio was 1:80 and Au:Cu was 1:7,315 on a ppm basis.
8. The constraining pit optimization parameters were C\$3.25/t mineralized and waste material mining cost and 52° pit slopes. Pit-constrained Mineral Resources are reported at an AuEq cut-off of 0.4 g/t.
9. The Out-of-Pit Mineral Resources include blocks below the constraining pit shell within underground mining shapes. A mining cost of C\$85/t mineralized, in addition to the economic assumptions above, results in an underground (UG) AuEq cut-off of 1.5 g/t. Mining shapes are generated using stope optimization with an objective of maximizing the total metal above the cut-off with a minimum dimension of 1.5 m (W) by 15 m (H) by 15 m (L). All "take all" material within the mining shapes is reported, regardless of whether the estimated grades are above the optimized cut-off grade.

TABLE 1.2 SENSITIVITIES OF PIT-CONSTRAINED MINERAL RESOURCE ESTIMATES OF LAWYERS-RANCH PROJECT									
Cut-off AuEq (g/t)	Tonnes (k)	Au (g/t)	Ag (g/t)	Cu (%)	AuEq (g/t)	Au (koz)	Ag (Moz)	Cu (kt)	AuEq (koz)
Measured and Indicated									
1.5	20,831	2.61	72.4	0.01	3.53	1,748	48.5	2	2,363
1.0	34,493	1.93	54.1	0.01	2.61	2,139	60	2	2,899
0.9	38,822	1.79	50.3	0.01	2.43	2,235	62.8	2	3,031
0.8	44,097	1.65	46.5	0.01	2.24	2,340	66	2	3,175
0.7	50,665	1.51	42.6	0	2.05	2,455	69.4	2	3,333
0.6	58,580	1.37	38.7	0	1.86	2,575	73	2	3,498
0.5	68,485	1.23	34.9	0	1.67	2,702	76.8	3	3,673
0.4	80,652	1.09	31.1	0	1.48	2,829	80.7	3	3,848
0.3	96,170	0.96	27.3	0	1.30	2,955	84.5	3	4,022
Inferred									
1.5	3,565	2.73	26.3	0.15	3.26	313	3.0	5	374
1.0	5,452	2.14	21.9	0.11	2.56	375	3.8	6	448
0.9	6,013	2.01	20.8	0.10	2.41	388	4.0	6	465
0.8	6,637	1.88	19.9	0.09	2.26	402	4.3	6	483
0.7	7,381	1.75	19.2	0.09	2.11	416	4.5	6	500
0.6	8,223	1.62	18.3	0.08	1.96	430	4.8	6	518
0.5	9,261	1.49	17.2	0.07	1.8	444	5.1	6	536
0.4	10,498	1.36	16.2	0.06	1.64	458	5.5	6	554
0.3	12,318	1.19	14.8	0.05	1.45	472	5.9	7	574

See Notes below Table 1.1.

1.12 RECOMMENDATIONS

It is the opinion of the Authors that the Lawyers-Ranch Project represents a 'Property of Merit' that continues to demonstrate significant discovery potential, and warrants additional exploration and development work. This section summarizes recommendations for future work at the Project that comprise a total estimated expenditure of \$22.6M.

The recommended work for the Project has been separated into four programs: 1) exploration work; 2) ongoing environmental management and baseline studies; 3) additional metallurgical testwork; and 4) the completion of a revised/updated PEA for the newly combined Lawyers-Ranch Project. As summarized in Table 1.3, the estimated cost for recommended exploration work at the Project is \$10.3M, the estimated cost for ongoing project management and other administrative costs is \$5.4M, the estimated cost for ongoing environmental management and baselines studies is \$4.8M, the estimated cost for additional metallurgical testing is \$0.9M, and the estimated cost for the completion of a revised/updated PEA for the Lawyers-Ranch Project is \$1.2 M.

TABLE 1.3 ESTIMATED COSTS FOR RECOMMENDED WORK AT THE LAWYERS-RANCH PROJECT		
Item	Description	Cost Estimate (C\$)
Exploration	(detail breakdown given in Section 26)	10,300,000
Administrative	Project Management	1,900,000
	Permitting	1,600,000
	Community Engagement	1,100,000
	Site Construction and Ongoing Reclamation	800,000
Environmental Baseline Studies	Environmental Baseline studies and Site Monitoring	4,800,000
Metallurgical Studies		900,000
Engineering and PEA		1,200,000
Total		22,600,000

2.0 INTRODUCTION AND TERMS OF REFERENCE

2.1 ISSUER AND PURPOSE

This Technical Report (the “Report”) has been prepared by P&E Mining Consultants Inc. (“P&E”) for the Issuer, Thesis Gold Inc. (“Thesis” or the “Company”), a Vancouver-based public Mineral Resource exploration company. The Report includes an Updated Mineral Resource Estimate for the Lawyers Area (“Lawyers”) and a Initial Mineral Resource Estimate for the Ranch Area (“Ranch”), and the resulting combined Lawyers-Ranch Project Mineral Resource Estimate.

Thesis was incorporated under the laws of British Columbia. The Company is a reporting issuer and trades on the TSX Venture Exchange (TSXV) under the symbol “TAU”, on the OTC Bulletin Board (OTCQX) under the symbol “THSGF”, and on the Frankfurt Stock Exchange (FSE) under the symbol A3EP87. Thesis has its corporate office at:

Suite 300, 250 Southridge
Edmonton, Alberta
T6H 4M9

This Technical Report is Prepared in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum definition standards and best practices guidelines (2014, 2018, 2019) and the Canadian Securities Administration’s Standards for Disclosure of Mineral Projects, National Instrument 43-101. The Mineral Resource Estimates are based on recent drilling results and metal pricing. The Effective date of this Technical Report is May 1, 2024, which represents the date that exploration data was provided to P&E by Thesis.

2.2 INDEPENDENT AUTHORS AND SITE INSPECTION

The Authors and Co-Authors of each section of this Report are presented in Table 2.1, who in acting as independent Qualified Persons as defined by NI 43-101, take responsibility for those sections of this Report as indicated in their “Certificate of Author” included in Section 28 of this Report.

TABLE 2.1 QUALIFIED PERSONS RESPONSIBLE FOR THIS TECHNICAL REPORT		
Qualified Person	Contracted By	Sections of Technical Report
Mr. William Stone, Ph.D. P.Geo.	P&E Mining Consultants Inc.	2 to 10, 15 to 24 and Co-author 1, 25, 26, 27
Mr. Yungang Wu, P.Geo.	P&E Mining Consultants Inc.	12.2 and Co-author 1, 14, 25, 26, 27
Ms. Jarita Barry, P.Geo.	P&E Mining Consultants Inc.	11, 12.1, 12.3, 12.4 and Co-author 1, 25, 26, 27
Mr. Eugene Puritch, P.Eng. FEC, CET	P&E Mining Consultants Inc.	Co-author 1, 14, 25, 26, 27

TABLE 2.1 QUALIFIED PERSONS RESPONSIBLE FOR THIS TECHNICAL REPORT		
Qualified Person	Contracted By	Sections of Technical Report
Mr. Frank Wright, P.Eng.	F. Wright Consulting Inc.	12.5, 13 and Co-author 1, 25, 26, 27

The Authors and Co-authors acknowledge the helpful cooperation of APEX Geoscience Ltd. (“APEX”) Thesis’s management and exploration consultants on the Lawyers-Ranch Property, especially Ms. Emily Laycock, Ms. Rachelle Hough, Mr. Warren Black, Mr. Andrew Turner, and Mr. Michael Dufresne, who quickly addressed all data and material requests, and responded openly and helpfully to all questions. Initial drafts of Sections 2 to 14 and 23 were provided by APEX and have been reviewed, edited, revised and accepted by the Authors of this Report. A draft copy of the Report has been reviewed for factual errors by Thesis and the Authors have relied on Thesis’s knowledge of the Property in this regard.

Mr. Yungang Wu, P.Geo. and an independent Qualified Person under the terms of NI 43-101, conducted a site visit to the Lawyers-Ranch Property on November 4 to 6, 2023. As part of the site visit, confirmation samples from selected drill core intervals were taken by Mr. Wu and submitted to Actlabs in Ancaster, ON. During the site visit, Mr. Wu was accompanied by Mr. Edward Parker, a Senior Geologist with APEX.

2.3 SOURCES OF INFORMATION

This Technical Report is a compilation of proprietary and publicly available information and is based on a review of information and data from recent and historical exploration programs completed on the Property, and information gathered during the Author’s site visit. The previous reports and documents used as sources of information in the preparation of this Report are listed in the References section (Section 27).

This Report supersedes and replaces previous technical reports on the Lawyers-Ranch Project, including the most recent Technical Report by Turner and Hough (2023) (Ranch Area) and PEA by Church *et al.* 2022 (Lawyers Area), which are used as primary sources of information, particularly with respect to the preparation of Sections 5 to 8 of this Report. Other Technical Reports and internal reports that were prepared for companies exploring the Lawyers-Ranch Property include: Lane *et al.*, (2018); Hawkins (1998, 2003, 2006); Hunt *et al.* (2003); Pinsent (2008); Bowen (2012, 2014); Fabrizio (2013); Stone *et al.* (2021), Laycock *et al.* (2023), Dufresne *et al.* (2024), and Dufresne and Hough (2024).

The Authors have reviewed all government and miscellaneous reports, and commercial laboratory analytical data referenced within this Report. The Authors have deemed that these reports and their respective data and pertinent information, to the best of their knowledge, are valid contributions and are accepted as being suitable for use in the preparation of this Report.

2.4 UNITS AND CURRENCY

In this Technical Report, all currency amounts are stated in Canadian dollars (“\$”) unless otherwise stated. At the time of this Technical Report the 24-month trailing average exchange rate between the US dollar and the Canadian dollar is 1 US\$ = 1.32 C\$ or 1 C\$ = 0.76 US\$.

Commodity prices are typically expressed in US dollars (“US\$”) and will be so noted where appropriate. Quantities are generally stated in Système International d’Unités (“SI”) metric units including metric tons (“tonnes”, “t”) and kilograms (“kg”) for weight, kilometres (“km”) or metres (“m”) for distance, hectares (“ha”) for area, grams (“g”) and grams per tonne (“g/t”) for metal grades. Platinum group metal (“PGM”), gold and silver grades may also be reported in parts per million (“ppm”) or parts per billion (“ppb”). Copper metal values are reported in percentage (“%”) and parts per billion (“ppb”). Quantities of PGM, gold and silver may also be reported in troy ounces (“oz”), and quantities of copper in avoirdupois pounds (“lb”). Abbreviations and terminology are summarized in Table 2.2 and units of measurement in Table 2.3.

Grid coordinates for maps are given in the UTM NAD83 Zone 9N or as latitude/longitude.

TABLE 2.2 TERMINOLOGY AND ABBREVIATIONS (NI 43-101)	
Abbreviation	Meaning
\$	dollar(s)
°	degree(s)
°C	degrees Celsius
<	less than
>	greater than
%	percent
µm	micrometre or micron
2-D	two-dimensional
3-D	three-dimensional
AA	atomic absorption
AAS	atomic absorption spectrometry
ABA	acid base accounting
Actlabs	Activation Laboratories Ltd.
Ag	silver
AGB	Amethyst Gold Breccia
AGC	AGC Americas Gold Corp.
Agnico-Eagle	Agnico-Eagle Mines Limited
Ai	abrasion index
AIIP	airborne inductively induced polarization
ALS	ALS Canada or/and part of ALS Global Laboratories (Geochemistry Division)
Antares	Antares Mining and Exploration Corp.
AOA	archaeological overview assessment

TABLE 2.2
TERMINOLOGY AND ABBREVIATIONS (NI 43-101)

Abbreviation	Meaning
APEX	APEX Geoscience Ltd.
Ar	argon
As	arsenic
Au	gold
AuEq	gold equivalency
Ba	barium
BBWi	bond ball mill work index
Benchmark	Benchmark Metals Inc.
Bishop	Bishop Gold Inc.
BLAC	Black Lake Alteration Corridor
BMA	bulk mineral analyses
Bond	Bond Gold Inc.
BRWi	bond rod mill work index
BV	Bureau Veritas Minerals Metallurgical Division Laboratory, located in Richmond, BC.
BV	Barite Vein
°C	degree Celsius
C\$	Canadian Dollar
Ca	calcium
Ca(OH) ₂	calcium hydroxide, slaked lime
CaCO ₃	calcium carbonate or hydrated lime
calc	calculated
CANMET	Canadian Centre for Mineral and Energy Technology
CC	Cliff Creek
CCD	counter current decantation
CCDRPX	Cliff Creek-Dukes Ridge-Phoenix
CDN	CDN Resource Laboratories Ltd.
Centerra	Centerra Gold Inc.
CET	Centre for Exploration Targeting
Cheni	Cheni Gold Mines Inc.
CIM	Canadian Institute of Mining, Metallurgy, and Petroleum
cm	centimetre(s)
CN	cyanide
CNR	Canadian National Railway
comp.	composite
Company, the	Thesis Gold Inc.
conc.	concentrate
Christopher James	Christopher James Gold Corp.
CRM	certified reference material
Crystal	Crystal Exploration Inc.

TABLE 2.2
TERMINOLOGY AND ABBREVIATIONS (NI 43-101)

Abbreviation	Meaning
CSA	Canadian Securities Administrators
Cu	copper
CVG	calculated vertical gradient
CVR	common voltage referencing
CWi	crusher work index
DCIP	direct current resistivity and induced polarization
DDH	diamond drill hole
DEM	digital elevation model
DFO	Department of Fisheries and Oceans Canada
DH	drill hole
DMS	dense media separation
\$M	dollars, millions
DR	Dukes Ridge
DRPX	Dukes Ridge – Phoenix
E	east
EIS	Environmental Impact Statement
EM	electromagnetic
EMLCI	BC Ministry of Energy, Mines and Low Carbon Innovation
Energex	Energex Minerals Ltd.
ENV	Ministry of Environment and Climate Change Strategy
ER	electrical resistivity
Even Resources	Even Resources Ltd.
F ₈₀	feed 80% passing (size of the feed to the comminution process in micrometres)
Finlay FSR	Finlay Forest Service Road
FOR	BC Ministry of Forests
FSE	Frankfurt Stock Exchange
FSR	Forestry Service Roads
ft	foot
FWC	F. Wright Consulting Inc.
g	gram
g/cm ³	grams per cubic centimetre
g/L	grams per litre
g/t	grams per tonne
GMAG	ground magnetometer
Guardsmen	Guardsmen Resources Inc.
GWP	Great Western Petroleum Corporation
ha	hectare(s)
hd	head
Hi View	Hi View Resources

TABLE 2.2
TERMINOLOGY AND ABBREVIATIONS (NI 43-101)

Abbreviation	Meaning
IC	intense cyanidation
ICP	inductively coupled plasma (spectrophotometry)
ICP-ES	inductively coupled plasma-emission spectroscopy
ID	identification
IDW	Inverse Distance Weighting
IDW ²	Inverse Distance Weighting squared
IDW ³	Inverse Distance Weighting cubed
Imperial Metals	Imperial Metals Corp.
IP	induced polarization
ISO	International Organization for Standardization
ISO/IEC	International Organization for Standardization/ International Electrotechnical Commission
JV	joint venture
K	potassium
k	thousand(s)
K ₈₀	80% passing particle size
kg	kilograms(s)
km	kilometre(s)
kt	kilo tonnes, thousands of tonnes
kWh	kilowatt hour
kWh/t	kilowatt hour per tonne
L	litre(s)
Kennco	Kennco Explorations (Western) Ltd.
Lawyers	Lawyers Area
level	mine working level referring to the nominal/relative elevation (m RL), e.g., 4285 level (mine workings at 4285 m RL)
LiDAR	Light Detection and Ranging
LOD	limit of detection
LVA	local varying anisotropy
M	million(s)
m	metre(s)
m ³	cubic metre(s)
Ma	millions of years
MAG or mag	magnetic
masl	metres above sea level
Mg	magnesium
MIBC	methyl isobutyl carbinol
mL	millilitre
ML	mining lease
mm	millimetre

TABLE 2.2
TERMINOLOGY AND ABBREVIATIONS (NI 43-101)

Abbreviation	Meaning
Mo	molybdenum
Moz	million ounces
MRE	Mineral Resource Estimate
MS	mass spectrometer
m/s	metres per second
Mt	mega tonne or million tonnes
MTO	Mineral Tenure Online
n	sample size
N	north
N/A	not applicable
Na	sodium
NaCl	sodium chloride
NaCN	sodium cyanide
NAD	North American Datum
NE	northeast
Nexus	Nexus Resources Corp.
NI	National Instrument
NNP	net neutralization potential
NSR	net smelter royalty
nT	nano Tesla
NW	northwest
Ocean Crystal	Ocean Crystal Resources Ltd.
OK	ordinary kriging
ORAR	Omineca Resource Access Road
OREAS	OREAS North America Inc.
OTCQX	OTC Bulletin Board
oz	ounce
P ₈₀	80 percent passing (product particle size)
P&E	P&E Mining Consultants Inc.
PAG	potential acid generating
PAX	potassium amyl xanthate
Pb	lead
PEA	Preliminary Economic Assessment
P.Eng.	Professional Engineer
PFR	preliminary field reconnaissance
P.Geo.	Professional Geoscientist
PLS	pregnant leachate solution
PMA	particle mineral analyses
POX	pressure oxidation
ppb	parts per billion

TABLE 2.2
TERMINOLOGY AND ABBREVIATIONS (NI 43-101)

Abbreviation	Meaning
ppm	parts per million
PPM	PPM Phoenix Precious Metals Corp.
Property, the	the Lawyers-Ranch Property that is the subject of this Technical Report
PSD	particle size distribution
PX	Phoenix
QA/QC or QAQC	quality assurance/quality control
QMS	quality management system
QSP	quartz-sericite-pyrite
RAD	radiometric
Ranch	Ranch Area
RC	reverse circulation
RDI	resistivity depth imaging
RES	resistivity (survey)
Report, the	this NI 43-101 Technical Report
RMI	residual magnetic intensity
RMSE	root mean square error
Ro	rougher
RPEEE	reasonable prospects for eventual economic extraction
RQD	rock quality designation
RSD	relative standard deviation
RTP-VD	reduced-to-pole vertical derivative
S	sulphur
S	south
SAG	semi-autogenous grinding
Sb	antimony
SCSE	SAG circuit specific energy
SD	standard deviation
SE	southeast
SEDAR	System for Electronic Document Analysis and Retrieval
Semco	Semco Mining Corporation
SEREM	SEREM Inc.
SG	specific gravity
SGS	SGS Canada Inc., with a metallurgical laboratory located in Burnaby, BC.
SMC	SAG mill comminution
SRK	SRK Consulting (Canada) Inc.
St. Joe	St. Joe Canada Inc.
Sudbury Contact	Sudbury Contact Mines Limited
SW	southwest

TABLE 2.2
TERMINOLOGY AND ABBREVIATIONS (NI 43-101)

Abbreviation	Meaning
SWIR	short-wave infrared
t	metric tonne(s)
t/m ³	tonnes per cubic metre
TCG	Tahltan Central Government
TCR	total core recovery
TDG	TDG Gold Corp.
Te	tellurium
Technical Report	this NI 43-101 Technical Report
TGI	Thesis Gold Inc.
TGHI	Thesis Gold (Holdings) Inc.
Thesis	Thesis Gold Inc.
Tl	thallium
TMI	total magnetic intensity
tpd	tonnes per day
TSC	Thesis Structural Corridor
TSL	TSL Laboratories Inc.
TSXV	TSX Venture (Exchange)
UAV	unmanned aerial vehicle
US\$	United States dollar(s)
USGS	United States Geological Survey
UTM	Universal Transverse Mercator grid system
VLF	very low frequency
VLF-EM	very low frequency-electromagnetic
VTEM	versatile time domain electromagnetic
W	west
WEL	Wright Engineers Limited
Wi	work index
WNW	west-northwest
wt	weight
wt%	weight percent
Zn	zinc

TABLE 2.3
UNIT MEASUREMENT ABBREVIATIONS

Abbreviation	Meaning	Abbreviation	Meaning
µm	microns, micrometre	m ³ /h	cubic metre per hour
\$	dollar	m ³ /s	cubic metre per second
\$/t	dollar per metric tonne	m ³ /y	cubic metre per year
%	percent sign	mØ	metre diameter

TABLE 2.3
UNIT MEASUREMENT ABBREVIATIONS

Abbreviation	Meaning	Abbreviation	Meaning
% w/w	percent solid by weight	m/h	metre per hour
¢/kWh	cent per kilowatt hour	m/s	metre per second
°	degree	Mt	million tonnes
°C	degree Celsius	Mtpy	million tonnes per year
cm	centimetre	min	minute
d	day	min/h	minute per hour
ft	feet	mL	millilitre
GWh	Gigawatt hours	mm	millimetre
g/t	grams per tonne	Mt	million tonnes or megatonnes
h	hour	MV	medium voltage
ha	hectare	MVA	mega volt-ampere
hp	horsepower	MW	megawatts
Hz	hertz	oz	ounce (troy)
k	kilo, thousands	Pa	Pascal
kg	kilogram	pH	Measure of acidity
kg/t	kilogram per metric tonne	ppb	part per billion
kHz	kilohertz	ppm	part per million
km	kilometre	s	second
kPa	kilopascal	t or tonne	metric tonne
kt	thousands of tonnes or kilotonnes	tpd	metric tonne per day
kV	kilovolt	t/h	metric tonne per hour
kW	kilowatt	t/h/m	metric tonne per hour per metre
kWh	kilowatt-hour	t/h/m ²	metric tonne per hour per square metre
kWh/t	kilowatt-hour per metric tonne	t/m	metric tonne per month
L	litre	t/m ²	metric tonne per square metre
L/s	litres per second	t/m ³	metric tonne per cubic metre
lb	pound(s)	T	short ton
M	million	tpy	metric tonnes per year
m	metre	V	volt
m ²	square metre	W	Watt
m ³	cubic metre	wt%	weight percent
m ³ /d	cubic metre per day	yr	year

3.0 RELIANCE ON OTHER EXPERTS

The Authors of this Report have assumed, and relied on the fact, that all the information and existing technical documents listed in the References section of this Report are accurate and complete in all material aspects. Although the Report Authors have carefully reviewed all the available information presented to them, they cannot guarantee its accuracy and completeness. The Authors reserve the right, but will not be obligated to revise the Report and conclusions if additional information becomes known to the Authors subsequent to the effective date of this Report.

Copies of the tenure documents, operating licenses, permits, and work contracts were not reviewed. Information on land tenure was obtained from Thesis. The Report Authors relied on tenure information from Thesis and have not completed an independent detailed legal verification of title and ownership of the Lawyers-Ranch Property. Ownership of the mineral claims was independently verified by the Authors on May 1, 2024, utilizing the information available through the web page of the Mineral Titles Branch, Ministry of Energy, Mines and Petroleum Resources of the Government of British Columbia, located at: <https://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/mineral-titles/mineral-placer-titles/mineraltitlesonline>. Furthermore, this British Columbia government agency records tenure information for all mineral claims in the province.

The Authors have not verified the legality of any underlying agreement(s) that may exist concerning the land tenure, or other agreement(s) between third parties, but have relied on and considers they have a reasonable basis to rely on Thesis to have conducted the proper legal due diligence.

Select technical data, as noted in the Report, were provided by Thesis and the Authors have relied on the integrity of such data. A draft copy of the Report has been reviewed for factual errors by Thesis and the Authors have relied on the Company's knowledge of the Property in this regard. All statements and opinions expressed in this document are given in good faith and in the belief that such statements and opinions are not false and misleading at the effective date of this Report.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 LOCATION AND MINERAL TENURE

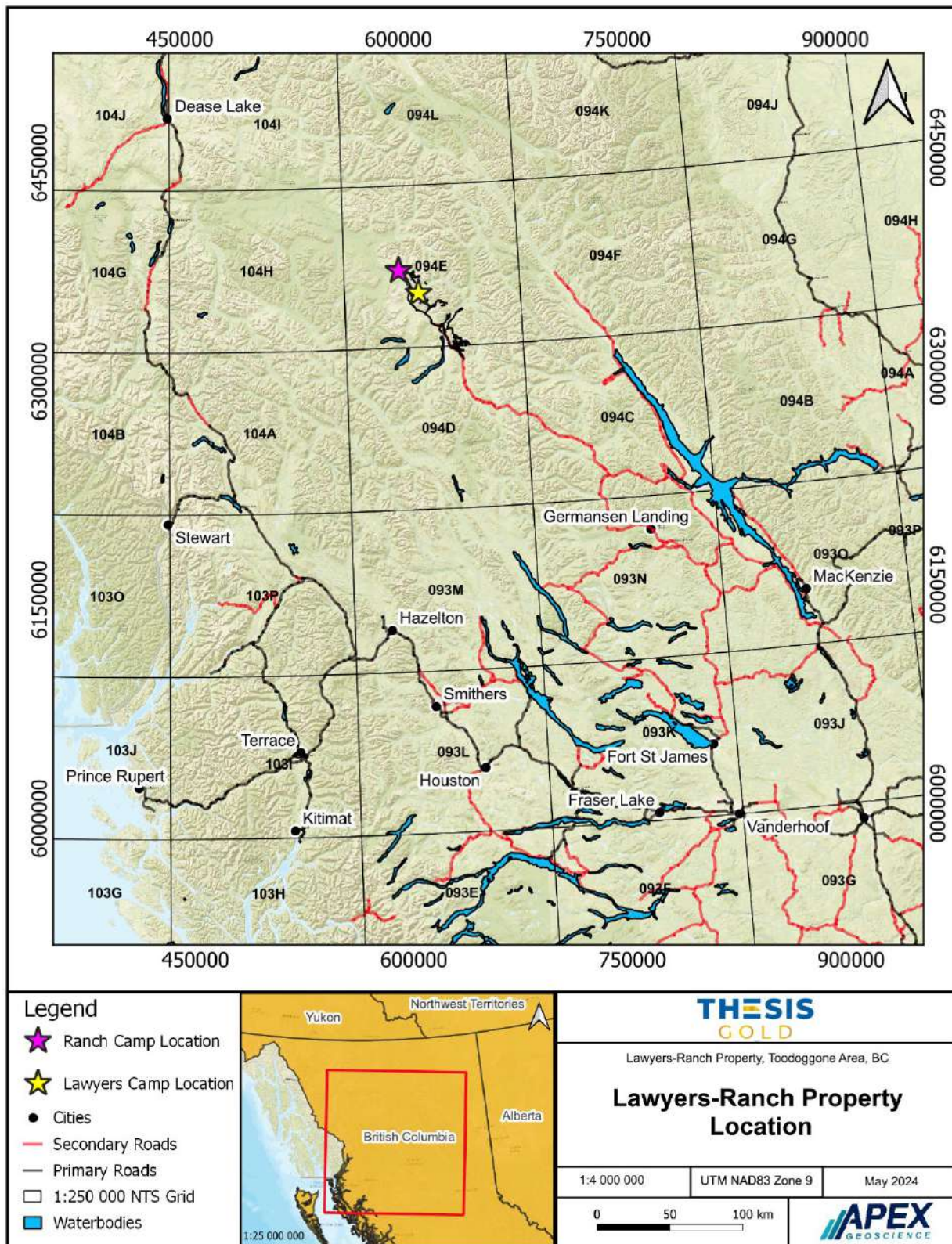
The Lawyers-Ranch Property (the “Property”) is a gold-silver exploration property located in north-central British Columbia (Canada), 450 km north-northwest of the City of Prince George, 275 km north of the Town of Smithers, and 45 km northwest of the Kemess South Mine, a past-producing open pit copper-gold operation.

The Property is accessible from the Finlay Forest Service Road (“Finlay FSR”) south of the Town of Mackenzie (Figure 4.1), which connects to the Omineca Resource Access Road (“ORAR”). The ORAR continues beyond the Kemess South Mine access road, past the Sturdee Airstrip and Baker Mine, to the Lawyers-Ranch Property.

The Lawyers-Ranch Property consists of 100 contiguous mining claims (41,233 ha) and 34 non-contiguous mining claims (8,334 ha) totalling 134 claims and 49,567 hectares (“ha”) (Figure 4.2). These mineral claims are 100% owed by Thesis Gold Inc. (formerly Benchmark Metals Inc.), either directly or through its wholly-owned subsidiaries PPM Phoenix Precious Metals Corp (“PPM”) and Thesis Gold (Holdings) Inc. A list of claims and ownership is presented in Table 4.1, the MTO Ownership reflects the company names prior to the merger and updates are pending. All the claims are in good standing as of the effective date of this Report.

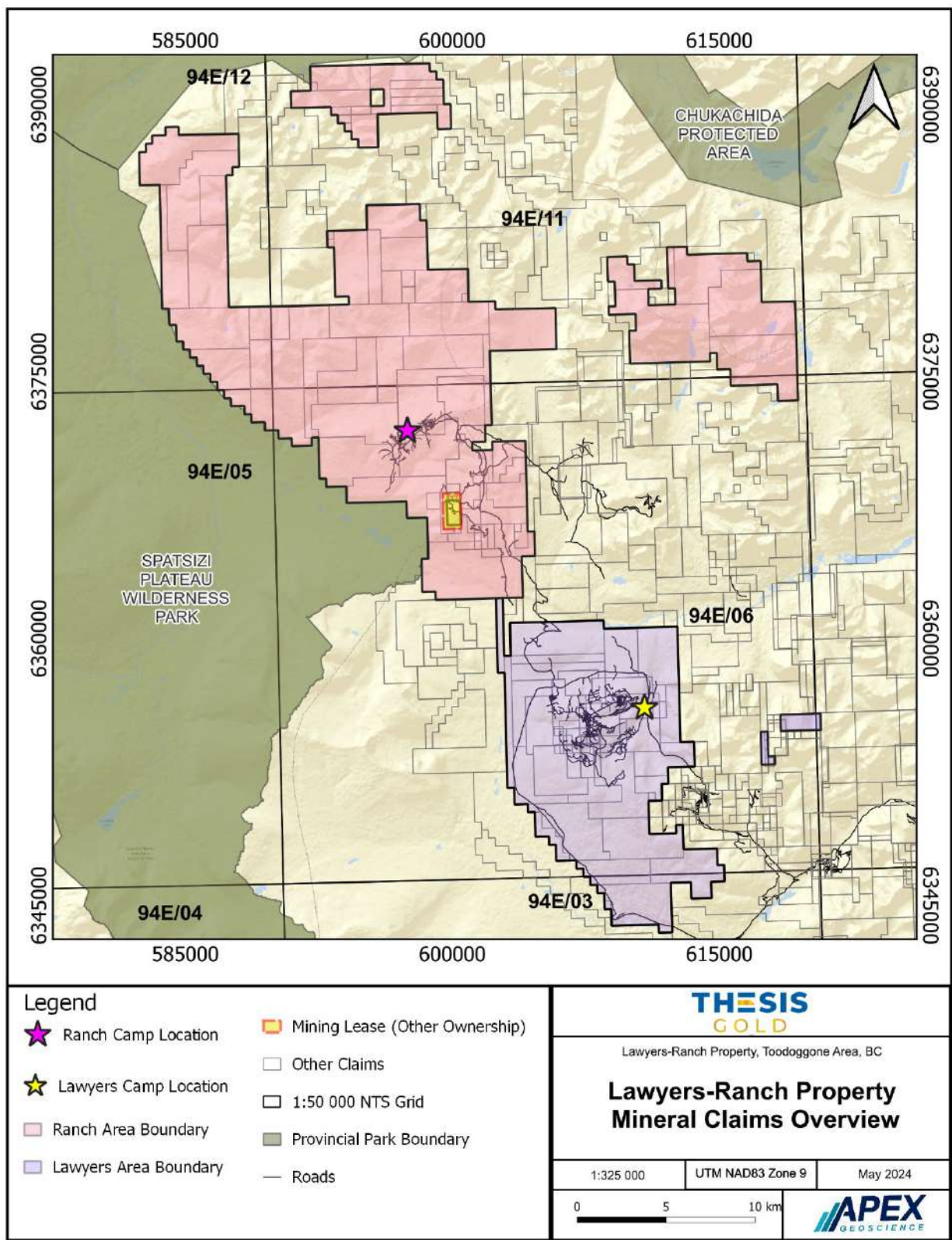
The Lawyers Area tenure consists of 46 contiguous mining claims (14,392 ha) and three non-contiguous mining claims (297 ha) totalling 49 mining claims and 14,690 ha (Figure 4.3). Mining claims 510070, 510071, 510072, 383411 and 383412 cover the Lawyers Area updated Mineral Resources reported in Section 14 of this Report. The Ranch Area tenure consists of 53 contiguous mining claims (26,354 ha) and 32 non-contiguous mining claims (8,523 ha) totalling 85 mining claims and 34,577 ha (Figure 4.4). Mining claims 1038119, 1038121, 1038122 and 1038124 cover the Ranch Area updated Mineral Resources reported in Section 14 of this Report.

FIGURE 4.1 GENERAL LOCATION OF THE LAWYERS-RANCH PROPERTY



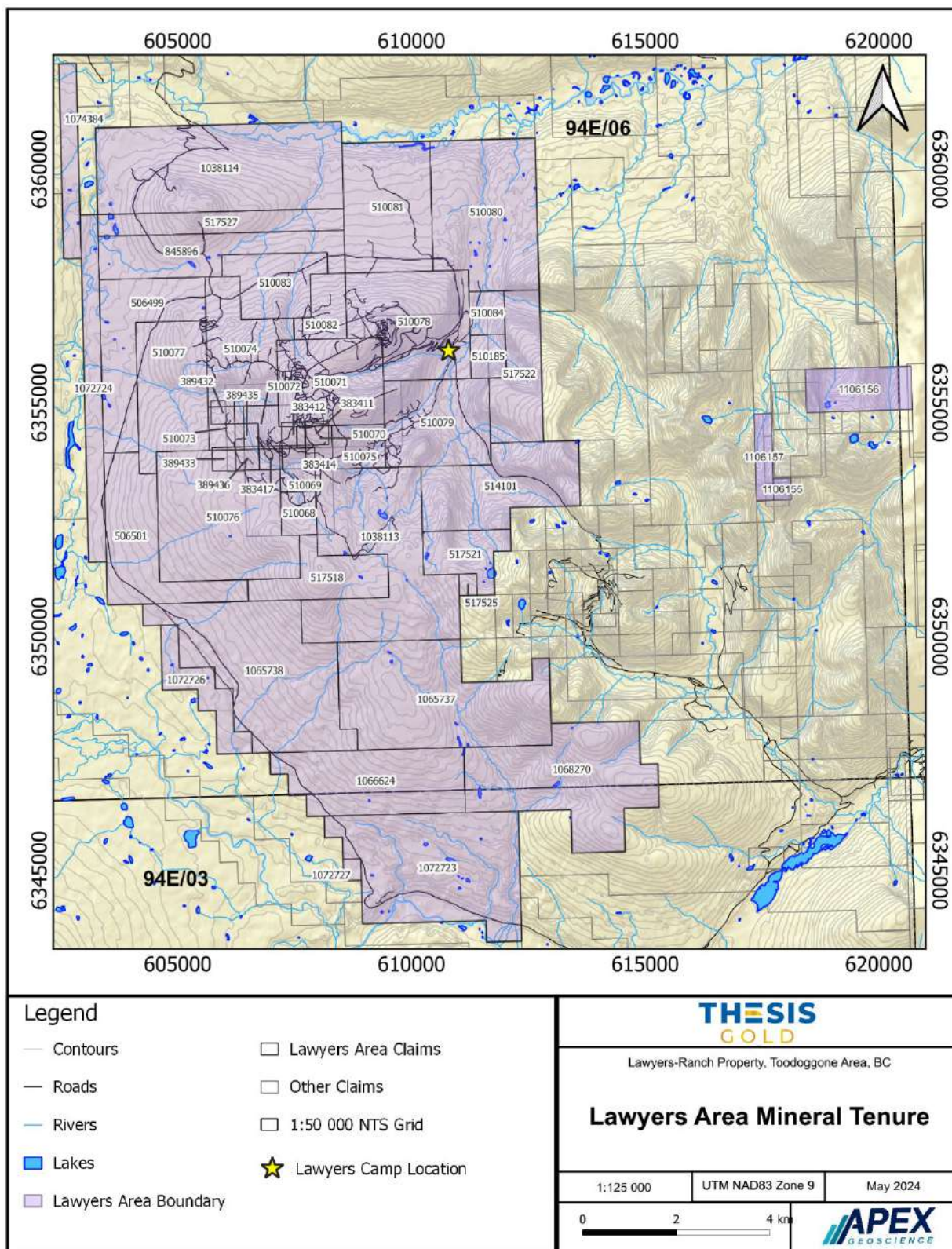
Source: APEX (May 2024)

FIGURE 4.2 LAWYERS-RANCH PROPERTY OVERVIEW



Source: APEX (May 2024)

FIGURE 4.3 LAWYERS AREA MINERAL TENURE



Source: APEX (May 2024)

FIGURE 4.4 RANCH AREA MINERAL TENURE

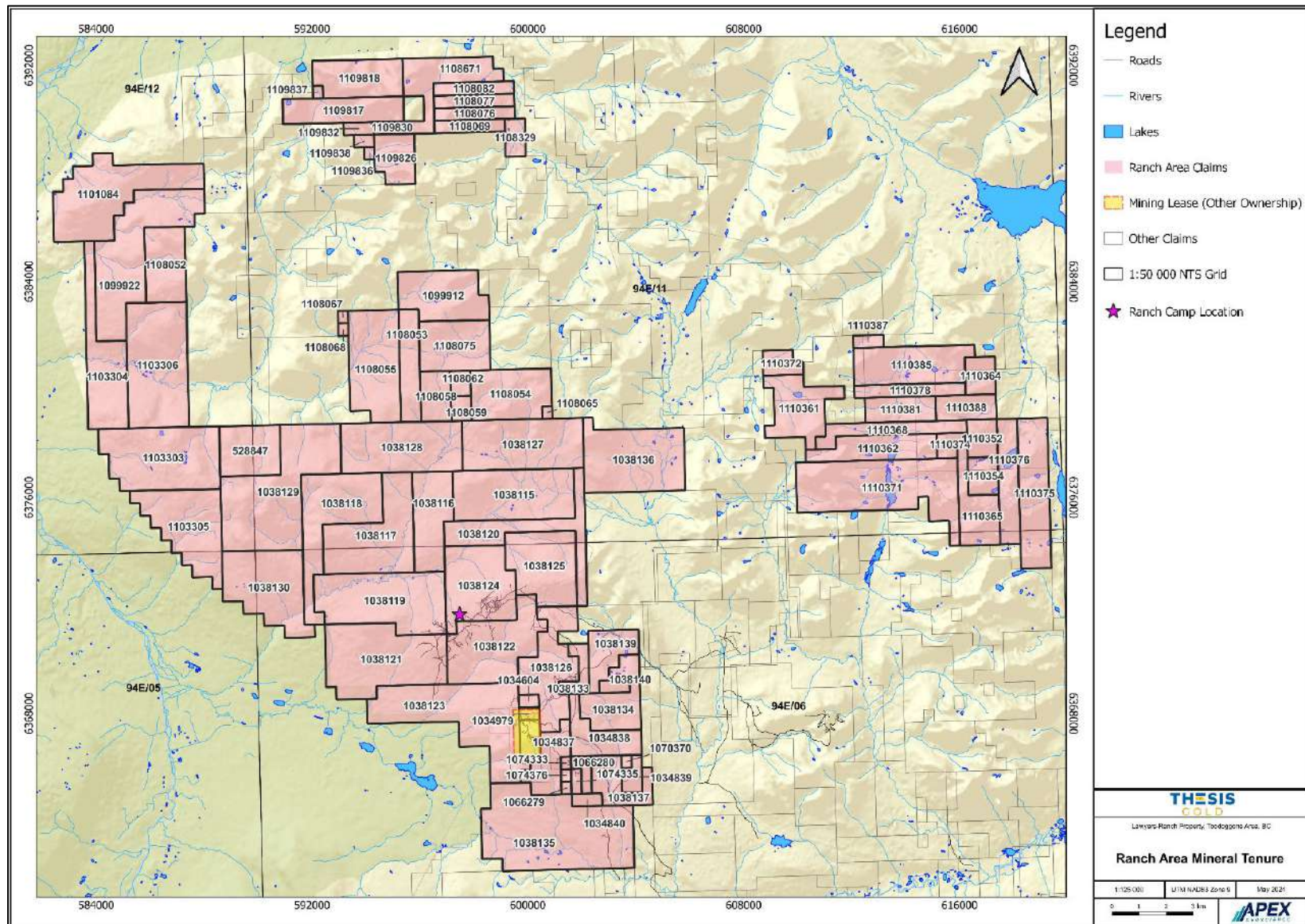


TABLE 4.1
MINERAL TENURE OF THE LAWYERS-RANCH PROPERTY (6 PAGES)

Claim Number	Claim Name	Property	Owner	Expire Date	Area (ha)
383411	WO 1	Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	25
383412	WO 2	Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	25
383414	WO 4	Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	25
383417	WO 7	Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	25
389432	SHOTGUN 4	Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	25
389433	SHOTGUN 5	Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	25
389435	SHOTGUN 7	Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	25
389436	SHOTGUN 8	Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	25
506499	LAW 1	Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	419.15
506501	LAW 2	Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	437.07
510068		Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	69.93
510069		Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	69.91
510070		Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	52.42
510071		Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	419.26
510072		Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	87.37
510073		Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	69.89
510074		Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	366.78
510075		Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	104.85
510076		Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	769.17
510077		Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	436.72
510078		Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	541.39
510079		Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	419.38
510080		Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	698.2
510081		Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	523.6

TABLE 4.1
MINERAL TENURE OF THE LAWYERS-RANCH PROPERTY (6 PAGES)

Claim Number	Claim Name	Property	Owner	Expire Date	Area (ha)
510082		Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	122.24
510083		Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	244.44
510084		Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	69.86
510185		Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	69.87
514101		Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	489.45
517518	WO FRACTION	Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	244.82
517521	BISHOP FRACTION	Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	174.86
517522	ATTORNEY CREEK	Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	296.99
517525	FRACTION	Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	17.49
517527	STEALTH FRACTION	Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	244.36
845896	SILVER POND EXTENSION	Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	384.05
1038113	MARMOT LAKE	Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	839.32
1038114	ACCESS ROAD	Lawyers	PPM PHOENIX PRECIOUS METALS CORP.	2032-12-31	977.16
1065737	LAWYERS STH1	Lawyers	BENCHMARK METALS INC.	2032-12-31	874.96
1065738	LAWYERS STH2	Lawyers	BENCHMARK METALS INC.	2032-12-31	874.78
1066624	LAWYERS STH3	Lawyers	BENCHMARK METALS INC.	2032-12-31	525.19
1068270	LAWYERS STH4	Lawyers	BENCHMARK METALS INC.	2032-12-31	752.81
1072723	LAWYERS STH5	Lawyers	BENCHMARK METALS INC.	2032-12-31	875.72
1072724	LAWYERS WEST1	Lawyers	BENCHMARK METALS INC.	2032-12-31	279.50
1072726	LAWYERS STH6	Lawyers	BENCHMARK METALS INC.	2032-12-31	174.97
1072727	LAWYERS STH7	Lawyers	BENCHMARK METALS INC.	2032-12-31	17.51

TABLE 4.1
MINERAL TENURE OF THE LAWYERS-RANCH PROPERTY (6 PAGES)

Claim Number	Claim Name	Property	Owner	Expire Date	Area (ha)
1074384	LAWYERS CONNECTOR	Lawyers	BENCHMARK METALS INC.	2032-12-31	157.03
1106155**	SAUNDERS1	Lawyers	THESIS GOLD INC	2024-07-20	17.48
1106156**	SWAN 6	Lawyers	THESIS GOLD INC	2024-07-20	209.68
1106157**	SWAN EXT	Lawyers	THESIS GOLD INC	2024-07-20	69.92
528847	ALBERTS NORTHEAST 5	Ranch	THESIS GOLD INC	2034-06-24	416.96
1034604	MET	Ranch	THESIS GOLD INC	2034-06-24	34.83
1034837		Ranch	THESIS GOLD INC	2034-06-24	296.18
1034838		Ranch	THESIS GOLD INC	2034-06-24	313.53
1034839		Ranch	THESIS GOLD INC	2034-06-24	87.12
1034840		Ranch	THESIS GOLD INC	2034-06-24	52.29
1034979		Ranch	THESIS GOLD INC	2034-06-24	34.83
1038115	RANCH 1	Ranch	THESIS GOLD INC	2034-06-24	834.25
1038116	RANCH 2	Ranch	THESIS GOLD INC	2034-06-24	486.75
1038117	RANCH 3	Ranch	THESIS GOLD INC	2034-06-24	834.57
1038118	RANCH 4	Ranch	THESIS GOLD INC	2034-06-24	782.3
1038119	RANCH 5	Ranch	THESIS GOLD INC	2034-06-24	974.24
1038120	RANCH 6	Ranch	THESIS GOLD INC	2034-06-24	521.59
1038121	RANCH 7	Ranch	THESIS GOLD INC	2034-06-24	1,026.98
1038122	RANCH 8	Ranch	THESIS GOLD INC	2034-06-24	783.19
1038123	RANCH 9	Ranch	THESIS GOLD INC	2034-06-24	1,149.00
1038124	RANCH 10	Ranch	THESIS GOLD INC	2034-06-24	713.19
1038125	RANCH 11	Ranch	THESIS GOLD INC	2034-06-24	643.48
1038126	RANCH 12	Ranch	THESIS GOLD INC	2034-06-24	626.66
1038127	RANCH 13	Ranch	THESIS GOLD INC	2034-06-24	833.87

TABLE 4.1
MINERAL TENURE OF THE LAWYERS-RANCH PROPERTY (6 PAGES)

Claim Number	Claim Name	Property	Owner	Expire Date	Area (ha)
1038128	RANCH 14	Ranch	THESIS GOLD INC	2034-06-24	833.89
1038129	RANCH 15	Ranch	THESIS GOLD INC	2034-06-24	1,251.36
1038130	RANCH 16	Ranch	THESIS GOLD INC	2034-06-24	782.78
1038133	RANCH 17	Ranch	THESIS GOLD INC	2034-06-24	121.86
1038134	RANCH 18	Ranch	THESIS GOLD INC	2034-06-24	313.46
1038135	RANCH 19	Ranch	THESIS GOLD INC	2034-06-24	1,481.86
1038136	RANCH 20	Ranch	THESIS GOLD INC	2034-06-24	886.12
1038137	RANCH 21	Ranch	THESIS GOLD INC	2034-06-24	278.81
1038139	RANCH 22	Ranch	THESIS GOLD INC	2034-06-24	278.48
1038140	RANCH 23	Ranch	THESIS GOLD INC	2034-06-24	139.27
1066279	QU15	Ranch	THESIS GOLD INC	2034-06-24	17.43
1066280	QU14	Ranch	THESIS GOLD INC	2034-06-24	69.70
1070370	METS	Ranch	THESIS GOLD INC	2034-06-24	17.42
1074333		Ranch	THESIS GOLD INC	2034-06-24	17.42
1074335		Ranch	THESIS GOLD INC	2034-06-24	34.85
1074376		Ranch	THESIS GOLD INC	2034-06-24	17.42
1099912	RANCH N1	Ranch	THESIS GOLD INC	2033-06-24	555.16
1099922	RANCH N2	Ranch	THESIS GOLD INC	2034-06-24	1,040.49
1101084	RANCH N3	Ranch	THESIS GOLD INC	2034-06-24	970.59
1103303	RANCH NW2	Ranch	THESIS GOLD INC	2034-06-24	972.96
1103304	RANCH NW 3	Ranch	THESIS GOLD INC	2034-06-24	624.93
1103305	RANCH NW 1	Ranch	THESIS GOLD INC	2034-06-24	747.57
1103306	RANCH NW 4	Ranch	THESIS GOLD INC	2034-06-24	1,041.57
1108052	STICK CLAIM	Ranch	THESIS GOLD INC	2034-06-24	416.24
1108053	TAN 20	Ranch	THESIS GOLD INC	2034-06-24	312.47

TABLE 4.1
MINERAL TENURE OF THE LAWYERS-RANCH PROPERTY (6 PAGES)

Claim Number	Claim Name	Property	Owner	Expire Date	Area (ha)
1108054	FM	Ranch	THESIS GOLD INC	2034-06-24	538.29
1108055	FM2	Ranch	THESIS GOLD INC	2034-06-24	746.46
1108058		Ranch	THESIS GOLD INC	2034-06-24	208.38
1108059	TAN21	Ranch	THESIS GOLD INC	2034-06-24	69.47
1108062	FM4	Ranch	THESIS GOLD INC	2034-06-24	69.45
1108065	FM3	Ranch	THESIS GOLD INC	2034-06-24	17.37
1108067		Ranch	THESIS GOLD INC	2034-06-24	17.35
1108068		Ranch	THESIS GOLD INC	2034-06-24	17.35
1108069**	NAT1	Ranch	THESIS GOLD INC	2024-10-13	121.25
1108075	FM5	Ranch	THESIS GOLD INC	2034-06-24	485.98
1108076**	NAT 2	Ranch	THESIS GOLD INC	2024-10-13	138.56
1108077**	NAT 3	Ranch	THESIS GOLD INC	2024-10-13	138.54
1108082**		Ranch	THESIS GOLD INC	2024-10-13	138.53
1108329**	THESIS GOLD	Ranch	THESIS GOLD INC	2024-10-21	103.94
1108671**	NAT100	Ranch	THESIS GOLD INC	2024-10-26	467.50
1109817**	THEZIZ	Ranch	THESIS GOLD INC	2025-01-01	415.65
1109818**	MIKE1	Ranch	THESIS GOLD INC	2025-01-01	450.16
1109826**	THESIS EXT	Ranch	THESIS GOLD INC	2025-01-01	259.90
1109830**	THEZIZ2	Ranch	THESIS GOLD INC	2025-01-01	51.97
1109832**	THEZIZ3	Ranch	THESIS GOLD INC	2025-01-01	51.97
1109836**	THEZIZ4	Ranch	THESIS GOLD INC	2025-01-01	17.33
1109837**	MIKE2	Ranch	THESIS GOLD INC	2025-01-01	17.32
1109838**	THESIS EXT	Ranch	THESIS GOLD INC	2025-01-01	34.65
1110352**	THESIS EXT	Ranch	THESIS GOLD INC	2025-01-21	156.37
1110354**	1	Ranch	THESIS GOLD INC	2025-01-21	156.42

TABLE 4.1
MINERAL TENURE OF THE LAWYERS-RANCH PROPERTY (6 PAGES)

Claim Number	Claim Name	Property	Owner	Expire Date	Area (ha)
1110361**	sl	Ranch	THESIS GOLD INC	2025-01-21	486.31
1110362**		Ranch	THESIS GOLD INC	2025-01-21	399.63
1110364**	thesis ext	Ranch	THESIS GOLD INC	2025-01-21	156.28
1110365**	Thesis	Ranch	THESIS GOLD INC	2025-01-21	347.72
1110368**	sl	Ranch	THESIS GOLD INC	2025-01-21	277.96
1110371**	sl	Ranch	THESIS GOLD INC	2025-01-21	1,181.95
1110372**	sl	Ranch	THESIS GOLD INC	2025-01-21	121.53
1110374**	sl	Ranch	THESIS GOLD INC	2025-01-21	86.88
1110375**		Ranch	THESIS GOLD INC	2025-01-21	625.81
1110376**	thesis ext	Ranch	THESIS GOLD INC	2025-01-21	347.63
1110378**	sl	Ranch	THESIS GOLD INC	2025-01-21	191.03
1110381**	sl	Ranch	THESIS GOLD INC	2025-01-21	243.17
1110385**	sl	Ranch	THESIS GOLD INC	2025-01-21	590.32
1110387**		Ranch	THESIS GOLD INC	2025-01-21	52.07
1110388**	sl	Ranch	THESIS GOLD INC	2025-01-21	208.43
Total					49,566.78

In B.C., mineral claims are acquired and managed online and each claim has a set expiry date. In order to maintain a claim in good standing (beyond its expiry date), the recorded holder of the claim must, on or before that date, register either exploration and development work that was performed on the claim, or make a payment in lieu of such work. Only work described in the Mineral Tenure Act Regulation is acceptable for registration as assessment credit (British Columbia Ministry of Energy and Mines, 2015).

The BC Mineral Claim work requirements are as follows:

- \$5 per hectare for anniversary years 1 and 2.
- \$10 per hectare for anniversary years 3 and 4.
- \$15 per hectare for anniversary years 5 and 6.
- \$20 per hectare for subsequent anniversary years.

As of the effective date of this Report (May 1, 2024), the BC MTO (Mineral Tenure Online system) showed that all the claims are in good standing. There are no other annual property payments or obligations required to maintain the Property. Most claims have an expiry date of 2032 or 2034. However, 35 non-contiguous claims have expiry dates in 2024 (10) and 2025 (25). In order to maintain these claims in good standing, assessment work or in lieu payment prior to their expiry date is required.

4.2 ROYALTIES AND AGREEMENTS

In August 2023, Thesis Gold Inc. changed its name to Thesis Gold (Holdings) Inc. and entered a merger agreement in which Thesis Gold (Holdings) Inc. became a wholly- owned subsidiary of Benchmark Metals, based on the completion of a share exchange program. The combined company then changed it's name to Thesis Gold Inc. ("Thesis") (Thesis, 2023). This transaction resulted in Thesis (formerly Benchmark Metals) acquiring 100% interest in the Ranch Property.

The Lawyers-Ranch Property is subject to agreements covering separate yet contiguous portions of the Property and are described in detail below.

4.2.1 Lawyers Area

Thesis (formerly Benchmark) announced in a press release dated September 19, 2019 that the Company closed its business combination with PPM Phoenix Precious Metals Corp., whereby they became a wholly-owned subsidiary of Benchmark, completing the acquisition of 100% interest in the Lawyers Property. Pursuant to a share exchange agreement, Benchmark issued the following consideration in a series of three transactions:

1. Cash payment of \$250,000;
2. 12 million common shares of Benchmark issued to the former shareholders of PPM Phoenix Precious Metals Corp; and

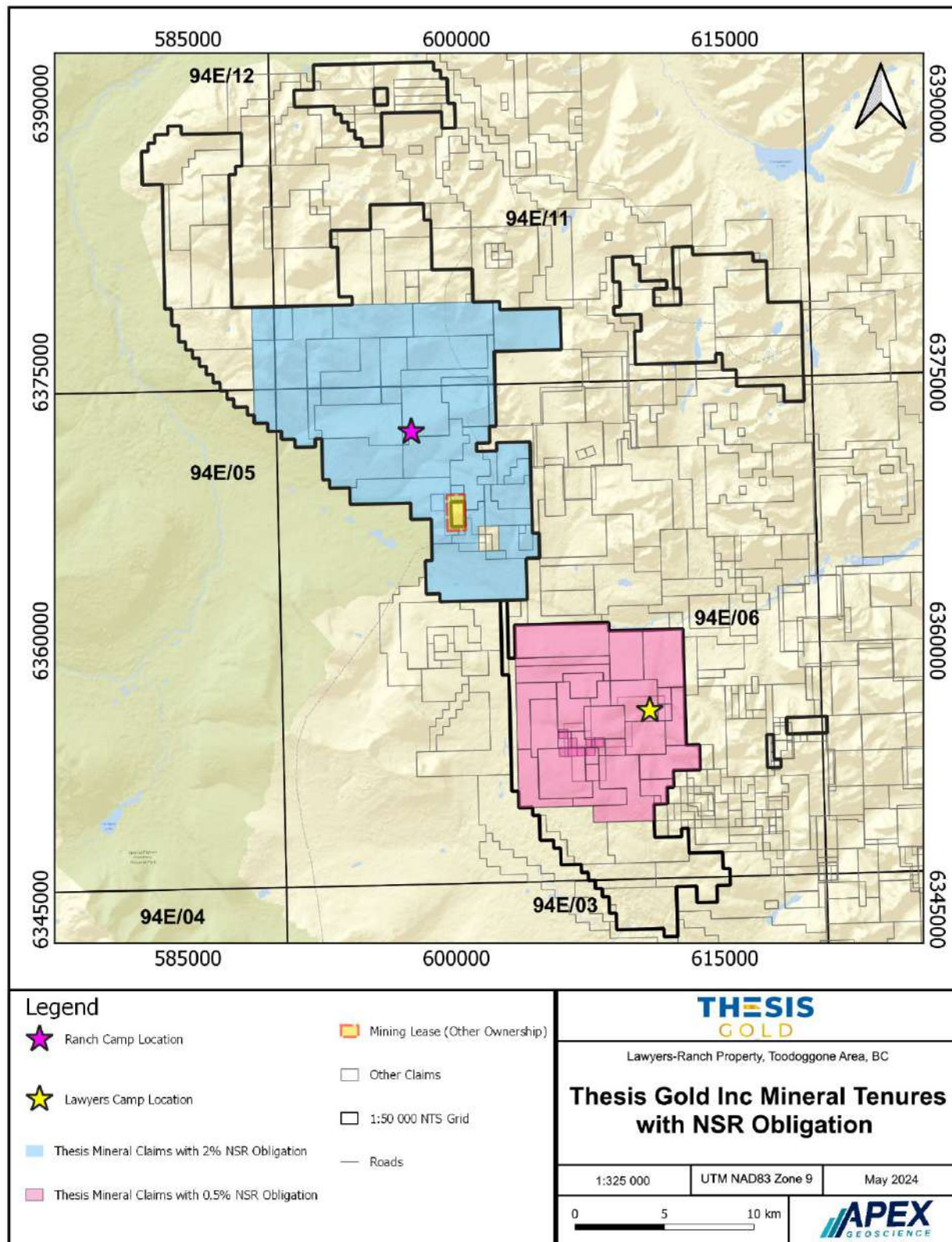
3. 0.5% net smelter return (NSR) royalty from any production from the Property. The 0.5% NSR was sold by Guardsmen (on behalf of the original shareholders of PPM Phoenix Precious Metals Corp.) to Royal Gold Inc. in 2022. The NSR applies to the 37 claims in the name of PPM (Table 4.1, Figure 4.5).

4.2.2 Ranch Area

The Ranch Project, originally composed of 31 mineral claims, was acquired by Thesis Gold (Holdings) Inc. from Guardsmen Resources Inc. (“Guardsmen”), pursuant to an Acquisition Agreement dated August 18, 2020 and finalized October 30, 2020 (see the Company press releases). Pursuant to the terms of the Acquisition agreement Thesis Gold (Holdings) Inc. made payment of the \$5,500,000 purchase price through:

1. Cash payment of \$250,000 to Guardsmen;
2. Issuance of 14 million common shares of Thesis Gold (Holdings) Inc. (0.375 per share) to Guardsmen, Severin Holdings Inc., 678119 Alberta Ltd., and Jemseg Capital Inc.; and
3. Granted a 2% net smelter return royalty (the "2% NSR") on the Ranch Gold Project to Guardsmen pursuant to a Net Smelter Return Royalty Agreement entered into between Thesis Gold (Holdings) Inc and Guardsmen (Figure 4.5).

FIGURE 4.5 LAWYERS-RANCH PROPERTY ROYALTIES



4.3 PERMITTING AND ENVIRONMENTAL LIABILITIES

The Lawyers-Ranch Property is an amalgamation of two contiguous areas, the Lawyers Area and the Ranch Area, with each area subject to different environmental and permitting factors that are discussed below.

4.3.1 Lawyers Area

The Lawyers Area of the Property is not directly encumbered by any provincial or national parks or other protected areas.

The Lawyers Area was the site of the past-producing Cheni Gold Mine and, as a result, contains historical mine workings, a small waste rock dump and historical tailings pond within the Permit area. Thesis has closed access to these sites. The historical waste rock dump and tailings pond have not been disturbed or used by Thesis; the liability and responsibility for ongoing monitoring of this area resides with the Ministry. Annual water quality monitoring of the portal discharge is completed by Thesis, to ensure compliance with water quality standards. Thesis has also applied for an Effluent Discharge Permit for the portal, as requested by the Ministry.

Exploration activities in the Lawyers area are conducted under Mineral Exploration Permit MX-13-100. The permit was issued in 2003 to Guardsmen and transferred to PPM in 2011 and subsequently Benchmark in 2018. Benchmark (now Thesis) submitted several permit amendments in 2019 and 2020 to support a large-scale exploration program on the Lawyers Area. The Current permit was updated June 30th, 2022, and allows for activities through May 27th, 2027, including surface drilling; establishment of a camp and associated buildings; exploration access construction; fuel storage; and the reactivation of 39 km of access ring road leading from the Project to the Sturdee Airstrip. As part of the Permit, a reclamation bond in the amount of \$1,573,891 has been posted with the BC Government with an additional security payment of \$90,508 required prior to July 1, 2024, for a total reclamation liability of \$1,664,399 to be held under exploration permit MX-13-100.

Thesis holds water licences and camp water system, food service facilities and general health approvals for industrial camp use. Thesis has also acquired all necessary authorizations from the BC Ministry of Energy Mines and Low Carbon Innovation (“EMLCI”), the Department of Fisheries and Oceans Canada (“DFO”) and BC Ministry of Forests (“FOR”) pertaining to the Ring Road activation.

4.3.2 Ranch Area

The Ranch Area of the Lawyers-Ranch Property is located to the east of the Spatsizi Plateau Wilderness Provincial Park and contains sensitive alpine areas. The Company along with stakeholders and regulators developed and implemented best practices to mitigate any environmental impacts.

Although small scale mining (excavation) was conducted in the Ranch Area in the 1980s, there are no significant waste rock structures, tailings or other such process plant products within the permit area.

Exploration activities in the Ranch Area are conducted under Permit MX-100000113; it approves certain mineral exploration activities, including diamond drilling, camp building, exploration access construction and fuel storage, and is valid until June 30, 2026. Thesis holds water licences and camp water system, food service facilities, and general health approvals for industrial camp use. As part of the current Permit, a reclamation bond of \$320,000 has been posted with the BC Government. A Park Use Permit for Spatsizi Park (outside the Property) is in the process of consultation. This Permit will allow Thesis to complete baseline environmental monitoring, including water sampling, within the park. A Heritage Inspection Permit is also pending.

4.3.3 Environmental Studies

Historically, a series of environmental studies were performed prior to the construction of Cheni Mine, including a Stage 1 Environmental Assessment Report compiled by Norecol in 1986 (Norecol, 1986). Water quality sampling in the Project area was conducted by the Ministry of Environment and Climate Change Strategy (“ENV”) from 1985 to 1990, when the Cheni Mine was operating. Several heritage and archaeological assessments were also conducted in 1987. Groundwater monitoring and seepage monitoring has been conducted in the area of the historical tailings facility, under purview of the management of that impoundment by the BC Ministry of Energy, Mines and Low Carbon Innovation (“EMLCI”).

More recently, comprehensive environmental studies have been conducted to inform the ongoing exploration activities and establish an environmental baseline to support future environmental assessment processes. Information collected by these studies will be included in an Environmental Assessment application prior to Project construction. These studies include:

- Collection of site-specific climate and atmospheric conditions by an on-site climate station;
- Hydrological and fisheries habitat assessments of all crossings along the ring road, and aquatic resource assessments at streams and rivers throughout the site;
- Water quality and hydrological monitoring at nearby creeks and rivers;
- Hydrogeological installations to monitor groundwater levels and quality;
- Rare plant surveys;
- Terrain and soil sample classification;
- Archaeological overview assessment (AOA) and preliminary field reconnaissance (PFR);

- Daily and ongoing wildlife monitoring whenever camp is open;
- Remote camera monitoring along the ring road and throughout the Project site to identify wildlife, raptor, bird and bat use; and
- Caribou habitat modelling.

4.4 COMMUNITY ENGAGEMENT

Thesis has established several agreements with indigenous groups, including a trilateral Exploration Cooperation and Benefit Agreement with the Takla Nation, Tsay Keh Dene Nation, Kwadacha Nation, and an Exploration Agreement with the Tahltan Central Government (“TCG”).

Through the trilateral agreement, Thesis has established and funds an Implementation Committee, with sub-committees, including an Environmental Management Committee and Business Opportunities Committee that meet regularly to share Project updates, detail economic opportunities, and consult with Indigenous groups.

Through the Exploration Agreement, Thesis provides information regarding its ongoing and potential economic activities, in order to keep the TCG and its members informed throughout the evolution of the Project and provides economic benefits through community funding. Engagement with local Indigenous groups will continue through the Project design, construction, operations, closure and post-closure.

4.5 ADDITIONAL RISK FACTORS

The Authors are not aware of any significant factors and (or) risks that may affect access, title or the right or ability to perform work on the Property that have not been discussed in this Report.

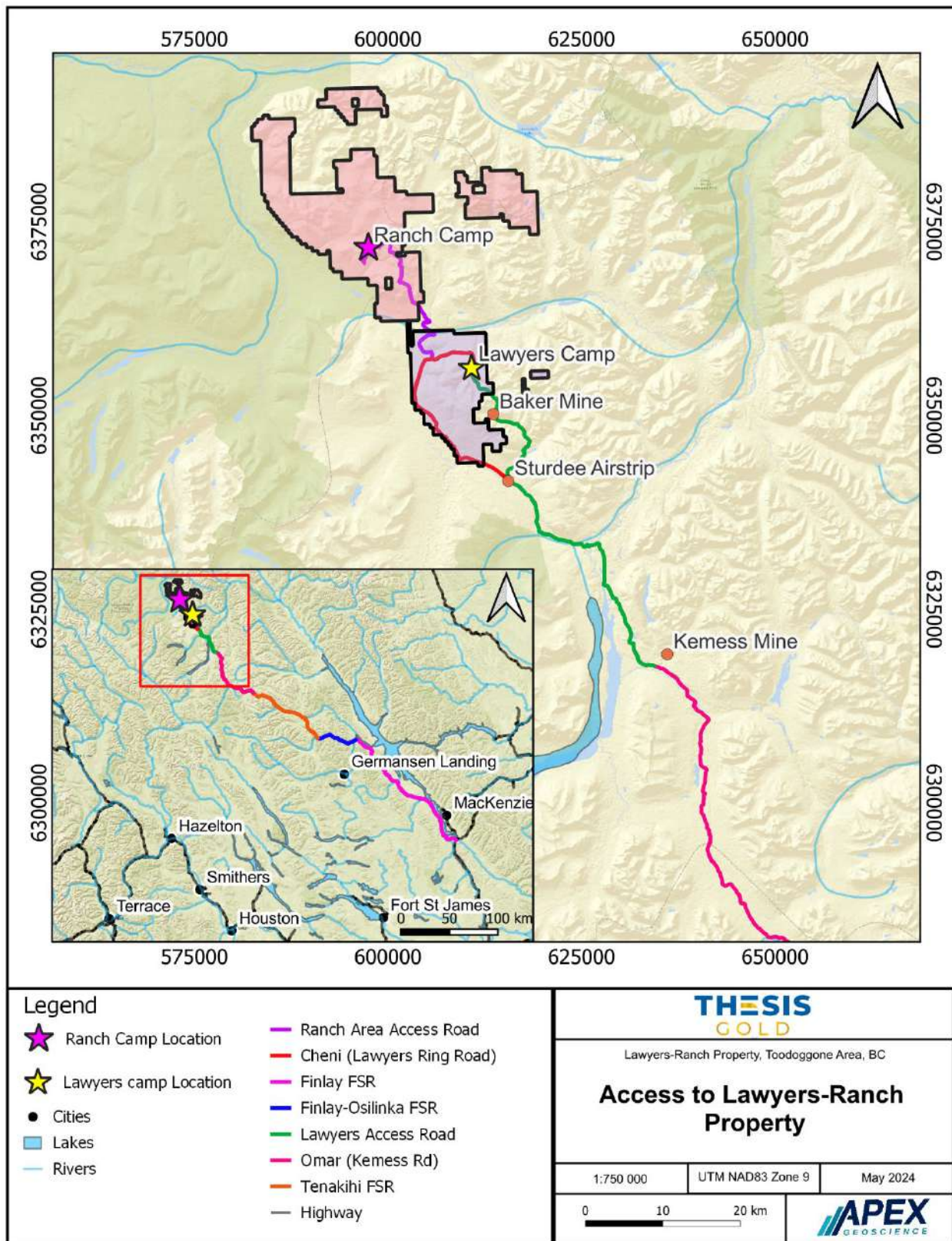
5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 ACCESSIBILITY

The Property can be accessed by following a network of Forestry Service Roads (“FSR”) that begin south of the Municipality of Mackenzie, BC, just off the John Hart Highway (Highway 97). The Finlay FSR heads north from Mackenzie toward the Property and is the primary access route to the Kemess South Mine. From the Finlay FSR, the access route follows the Finlay-Osilinka FSR, followed by the Tenakihi FSR (Thutade FSR). From there, the Omineca Resource Access Road (“ORAR”) or “Kemess Road”) continues to the Kemess Mine, the Sturdee Airstrip, the Baker Mine, and finally to the Lawyers-Ranch Property (Figure 5.1).

Vehicle access to the Property can be routed through the Baker Mine site and the Tigers Notch Pass, or via the reactivated Lawyers-Ranch ring road (Cheni Road) completed in 2023, which allows access to both the Lawyers and Ranch Camps from the Sturdee Airstrip without crossing the Baker Mine site or Tigers Notch Pass. Additionally, the Ranch Camp can now be accessed from the Cheni Road via an additional 25 km gravel road that was rehabilitated in 2022 (Figure 5.1). The Property is located 450 km from Prince George, which is an approximate 10-hour drive. Fuel stations are not available past Highway 97. Within the Property, several historical mining and exploration roads facilitate access to large parts of the Project areas. Helicopter access is available year-round from Smithers, BC, or seasonally from Kemess South during active exploration.

FIGURE 5.1 LAWYERS-RANCH PROPERTY ACCESS



5.2 SITE TOPOGRAPHY, ELEVATION AND VEGETATION

The Property is located in moderate terrain largely above tree line, with elevations ranging from 1,200 to 1,900 m above sea level (“masl”). The area consists of open alpine plateaus, rounded hills with steep talus, and overburden covered slopes. Outcrop on the Property ranges from moderate over the Lawyers Area to sparse over the Ranch Area. The main deposit zones at both areas are located on a relatively flat open plateau. Parts of the Property have been previously disturbed from surface mining activities carried out by Cheni Gold Mines in the 1990s.

Below the treeline in the Lawyers Area, there is only sparse cover of birch and alder shrubs, with white spruce and sub-alpine fir. Grass, lichen, and dwarf shrubs occur above the treeline. Creeks and gullies are distributed throughout, along which bedrock is exposed very locally. These creeks are a reliable source of water for mineral exploration activities.

In the Ranch Area, vegetation consists of alpine meadow grasses, heather, and shrubs with isolated patches of coniferous trees. At lower elevations, open forests of pine and hemlock predominate with alders occurring in poorly drained areas or on steep slopes. Several creeks are present, most appear to be groundwater fed.

5.3 CLIMATE

The climate can be summarized as cool continental with cool summers and cold winters. The summer exploration season lasts from early June into October. Weather conditions during these months can be unpredictable, with freezing temperatures and snow fall possible any month of the year. Snowfall accumulations can reach 2 to 3 m in the winter months. Temperatures typically range from 25° C in summer to –30° C in winter.

5.4 LOCAL RESOURCES AND INFRASTRUCTURE

The Town of Smithers, BC, is the closest major centre to the Project and is located approximately 300 km to the south (Figure 5.1). Smithers has a population of 5,378 people (Statistics Canada, 2021) and provides service coverage for a significant portion of northwest BC. Smithers is located on the Yellowhead Highway (Hwy 16) and on the Canadian National Railway main line, and is serviced by a regional airport with fixed-wing and helicopter charter companies. Approximately 200 km west of Smithers along Highway 16 is the City of Terrace, BC, a community of 12,017 people (Statistics Canada, 2021) and a significant hub for supplies and services in the region, with frequent commercial airline connections. Additionally, the City of Prince George, BC (population 76,708; Statistics Canada, 2021), is located approximately 370 km east of Smithers along Highway 16 and is the primary supply and services hub for northern BC.

The Town of Mackenzie is the closest major centre accessible by road, 400 km to the southeast of the Property (Figure 5.1). Mackenzie is primarily a base for forestry and provides services for logging, lumber and pulp manufacturing facilities. Mackenzie also provides services for the Mt. Milligan Copper-Gold Mine, located 95 km west of the town. There is a rail line connecting Mackenzie to the Canadian National Railway (“CNR”) mainline, providing rail access to the cities

of Prince Rupert, BC and Vancouver, BC. Mackenzie is supported by the larger centre, Prince George, located 180 km to the south.

The Kemess Mine, which is owned by Centerra Gold Inc. (“Centerra”), provides the closest infrastructure to the Lawyers-Ranch Property, and may be utilized during active exploration by Centerra. The Kemess Mine accesses the B.C. Hydro grid via powerline from Mackenzie and has road access via the Omineca Resource Access Road. A large mining camp and 1,424 m gravel airstrip is also present at Kemess South.

The Baker Mine and processing plant site, owned by TDG Gold Corp. (“TDG”) is located approximately 11 km southeast of the Property. Infrastructure at Baker includes a diesel-generated power, a 200-tons per day gold-silver processing plant, a trailer camp, and mining and heavy-duty equipment.

The Lawyers-Ranch Property itself has year-round road access (Figure 5.1), camp buildings, and historical mine portals.

6.0 HISTORY

The first documented exploration in the Toodoggone Area was in 1824 by Samuel Black, an explorer who recorded the presence of gossans near the Finlay River. In 1915, Charles McClair mined for alluvial gold in a creek north of Toodoggone Lake. In 1929, Cominco explored several base metal showings in the region.

Historical exploration on the Lawyers-Ranch Property prior to Benchmark Metals/Thesis Gold's work is documented from 1968 to 2017 for the Lawyers Area and from 1972 to 2019 for the Ranch Area. Historical work includes soil, rock, stream sediment and trench sampling, geological mapping, diamond drilling, airborne and ground geophysical surveys including magnetic ("MAG"), electromagnetic ("EM"), very low frequency ("VLF"), radiometric ("RAD"), electrical resistivity ("ER") and induced polarization ("IP") surveys. The historical information is synthesized from assessment and technical reports by Caira (1982), Kennedy *et al.* (1985), Kennedy and Weston (1985), Kennedy and Vogt (1987), Hawkins (1998), Hawkins (2003), Pegg (2003), Jacob and Nordin (2006), Bowen (2007), Graham *et al.* (2006), Lane (2013), Bowen (2014), and Lane *et al.* (2018). The exploration history of the Lawyers-Ranch Property, including major periods of property ownership, and exploration activities is summarized below in Tables 6.1 and 6.2 for the Lawyers Area and Ranch Area, respectively.

The following sub-sections summarize the historical exploration, mineral resource estimations and developmental work undertaken on the Lawyers-Ranch Property prior to acquisition by Benchmark Metals/Thesis Gold in 2018/2020.

TABLE 6.1
SUMMARY OF HISTORICAL EXPLORATION AND OWNERSHIP OF THE LAWYERS AREA (4 PAGES)

Year	Company	General Area/Prospect/Zone	Ownership Changes and Work Performed
1968-1979	Kennco Explorations (Western) Ltd.	Lawyers Area	Claim staking and regional geochemical sampling.
		AGB	Kennco completed the first drilling on AGB in 1974. Diamond drilling program consisted of 9 drill holes. High-grade intercepts included 43.20 g/t (1.26 oz/ton) Au and 487 g/t (14.20 oz/ton) Ag over a 3.05 m (10 ft) core length.
		Marmot	In 1970-1971, Kennco collected soil samples and rocks on a north-south grid that encountered anomalous Au and Ag, base metals, and Mo over the Marmot Zone. In 1972, Kennco collected 81 rock samples in a 30 x 30 m grid over a 350 m ² area. The results of the rock grid sample assays revealed a northwest-trending anomaly with grades of as much as 6.6 g/t Au and 870.0 g/t Ag.
		Silver Pond	Discovery of the Silver Creek Zone. Diamond drilling: 2 drill holes completed.
1979-1982	SEREM Inc., Agnico-Eagle Mines Unlimited Sudbury Contact Mines Limited	Lawyers Area	In May 1979, Kennco optioned the Lawyers claims to Semco Mining Corporation, who assigned the agreement to SEREM Inc. in July 1979. SEREM Inc. subsequently entered a joint venture with Agnico-Eagle Mines Limited and Sudbury Contact Mines Limited, that was diluted by 1982.
		AGB	Prospecting, geological mapping, trenching, diamond drilling, underground development.
	Great Western Petroleum Corp.	Silver Pond	In 1981, Great Western Petroleum Corporation optioned the Silver Pond claims from prospector Chuck Kowall, who staked the area in 1979 and 1980. Soil (385 samples), silt (16 samples) and rock (122 samples) geochemical sampling, and geological mapping were completed.
1983-1986	SEREM Inc.	AGB, Cliff Creek, and Dukes Ridge.	Underground and surface drilling totalling 13,661 m; Trenching totalling 1,800 m; Environmental Assessment. In 1986, SEREM Inc. changed its name to Cheni Gold Mines Inc.
	St. Joe Canada Inc. and Imperial Metals Corp	Silver Pond	In 1983, St. Joe Canada Inc. optioned the Silver Pond claims from Great Western Petroleum Corp, and formed a joint venture with Imperial Metals Corp. Discovery of the Silver Pond West Zone. Geophysics: IP, MAG, ER and VLF-EM surveys. Soil, rock and stream sediment geochemical sampling, trenching,

TABLE 6.1
SUMMARY OF HISTORICAL EXPLORATION AND OWNERSHIP OF THE LAWYERS AREA (4 PAGES)

Year	Company	General Area/Prospect/Zone	Ownership Changes and Work Performed
			and mapping. An 800 m-long north-northwest trending soil anomaly was discovered at the Silver Pond North Zone, with assay values as high as 250 ppb Au. Grab samples of siliceous rocks from the Silver Creek Zone returned up to 45.35 g/t Au and 3,610 g/t Ag. Trench samples returned values ranging from 0.5 m grading 1.99 g/t Au and 41.4 g/t Ag to 5.0 m averaging 6.26 g/t Au and 287.9 g/t Ag. Trench sampling of a quartz breccia zone at the Silver Pond West Zone averaged 9.0 g/t Au and 24.2 g/t Ag over 5.0 m. Diamond drilling in 1985: 29 drill holes completed totalling 3,003 m.
1987-1989	Cheni Gold Mines Inc. (formerly SEREM Inc.)	ABG, Cliff Creek, and Dukes Ridge	Drill sampling from all drill holes previously drilled? Mine development on AGB. 500 tonne per day mining operation. A total of 154,960 tons of mineralized material processed at AGB in 1989. Cliff Creek Deposit reserves were revised to 838,900 tons grading 0.183 oz/ton Au and 7.12 oz/ton, Ag as Probable and diluted and 524,500 tons grading 0.170 oz/ton Au and 6.57 oz/ton Ag as Possible and undiluted
	Bond Gold Inc. (formerly St. Joe Canada Inc.), and Nexus Resources Corp.	Silver Pond	St. Joe Canada Inc. changed its name to Bond Gold Inc. Diamond drilling in 1987 and 1988: 115 holes totalling 16,665 m. Backhoe trenching at the West Zone (unknown length) and North Zone (3,000 m): yielded widespread gold mineralization up to 28.8 g/t Au over 1.0 m at the North Zone. Soil sampling: 66 samples collected at the West Zone. Rock sampling: 485 samples collected at the North Zone. Geophysics: 19 km IP survey (North Zone), 10 km EM-16R Resistivity survey (Ridge and Junction Zones), and 10 km MAG survey (Junction Zone).
1990-1992	Cheni Gold Mines Inc.	AGB, Cliff Creek, Dukes Ridge, and Phoenix.	Diamond drilling: 81 drill holes totalling 14,714 m. Discovery of the Phoenix Deposit. Mine production at Cliff Creek and Phoenix. Approximately 474,973 tons of mineralized material processed.
	Even Resources Ltd.	Silver Pond	Even Resources Ltd. optioned the Silver Pond claims in 1992. The Silver Pond claims were eventually returned to Chuck Kowall and later lapsed. Conducted excavator trenching and local blasting of alteration and quartz vein float train in

TABLE 6.1
SUMMARY OF HISTORICAL EXPLORATION AND OWNERSHIP OF THE LAWYERS AREA (4 PAGES)

Year	Company	General Area/Prospect/Zone	Ownership Changes and Work Performed
			the North Zone Grid in 1992. Two north-northwest trending barren quartz veins were identified.
1993-1996	Cheni Gold Mines Inc.	Dukes Ridge	Diamond drilling in 1993.
		Lawyers Area	Cheni Gold Mines Inc. closed the Lawyers Mine in 1994, since they were unable to locate additional economic mineral deposits.
	Ocean Crystal Resources Ltd.	Silver Pond	Diamond drilling (9 drill holes totalling 523 m), IP survey, mapping, and excavator trenching in 1994. Trenching encountered 12 quartz veins in areas of intense argillic alteration. Drilling encountered these areas, but returned no anomalous gold values.
1997-1999	AGC Americas Gold Corp. and Antares Mining and Exploration Corp.	Lawyers Area	AGC Americas Gold Corp. optioned the Lawyers claims and formed a joint venture with Antares Mining and Exploration Corp. The Lawyers claims were later left to lapse
		North and central parts of Lawyers Area	Geophysics: Aerodat Inc. was commissioned to conduct a regional EM-MAG-RAD survey in 1997.
2000-2004	Guardsmen Resources Inc.	Lawyers Area	Guardsmen Resources Inc. acquired the Lawyers claims via ground staking in 2000 and 2001, including the Silver Pond claims.
		AGB and Cliff Creek	Geophysics: 49 line-km of grid construction, and 44 km VLF and 51 km MAG. Ground geophysical surveys appear to indicate that the structure hosting the AGB Zone may continue along strike. Prospecting and geological mapping was conducted, along with rock sampling (34 samples), soil sampling (514 samples), trenching and channel sampling. Chip sampling from where the possible southern strike extension of the AGB Zone is produced 12.14 g/t Au and 97.5 g/t Ag over 2 m. Channel sampling from the same area returned an average grade of 5.09 g/t Au and 20.8 g/t Ag over a 27.03 m sample length. Grab samples from Cliff Creek returned assays up to 9.91 g/t Au and 562 g/t Ag.
2005-2011	Bishop Gold Inc.	Cliff Creek	Diamond drilling in 2005-2006: 10 drill holes completed totalling 1,508 m. Drilling highlights included 12.34 g/t Au and 71.9 g/t Ag over 3 m (05-CC-03), 6.69 g/t Au and 37.93 g/t Ag over 2.03 m (05-CC-05), 4 m grading 2.65 g/t Au

TABLE 6.1
SUMMARY OF HISTORICAL EXPLORATION AND OWNERSHIP OF THE LAWYERS AREA (4 PAGES)

Year	Company	General Area/Prospect/Zone	Ownership Changes and Work Performed
			and 69.9 g/t Ag over 4 m (06-CC-08) and 3.79 g/t Au and 97.3 g/t Ag over 2.65 m (06-CC-10).
	Guardsmen Resources Inc.	Marmot	In 2007, 59 rock samples were collected within and around the historical trenches at Marmot. Only two samples from the historical trenching area returned high grades. Sample GR9 returned 12.3 g/t Au and 996 g/t Ag and sample MA6 returned 8.86 g/t Au and 1,020.0 g/t Ag.
		Lawyers Area	On June 8, 2011, Guardsmen Resources Inc. transferred ownership of the Lawyers claims to affiliated company PPM Phoenix Precious Metals Corp.
2012-2017	PPM Phoenix Precious Metals Corp.	Cliff Creek and Dukes Ridge.	Property development (including unsuccessful attempts to fully dewater the Cliff Creek underground workings). Surface exploration (5 rock samples, 2 soil samples, and 5 stream sediment silt samples collected in 2013). Diamond drilling program in 2015: 26 drill holes completed totalling 4,002 m (19 drill holes at Cliff Creek totalling 3282 m and 7 drill holes at Dukes Ridge totalling 720 m).
2018	PPM Phoenix Precious Metals Corp. and Crystal Exploration Inc	Lawyers Area	In March 2018, PPM Phoenix Precious Metals Corp. optioned the Lawyers claims to Crystal Exploration Inc. (renamed to Benchmark Metals Inc. in May 2018).

TABLE 6.2 SUMMARY OF HISTORICAL EXPLORATION AND OWNERSHIP OF THE RANCH AREA (5 PAGES)			
Year	Company	General Area/Prospects/Zones	Ownership Changes and Work Performed
1972	Sumac Mines Ltd.	Albert's Hump	Surface exploration, including the collection of 354 soil and rock samples.
1973	Sumac Mines Ltd.	Albert's Hump	8.8 line-km of ground magnetic and Induced Polarization (IP) surveys; 15 rock samples were collected from 13 hand trenches and 133 grid soil samples.
1979	Energex Minerals Ltd.	Original AL Property	Energex optioned a group of four claims over part of the current Ranch Area.
1980	Texasgulf Canada Ltd.	AL Property, along with the nearby Moose and JD Properties	Reconnaissance geochemical surveys and geological mapping. A total of 43 silt, 57 soil and 67 rock samples were collected.
1981	Texasgulf Canada Ltd.	Ridge and Golden Furlong Prospects	Soil and rock sampling, VLF-EM/magnetometer orientation surveys and geological mapping. A total of 2,567 soil and 283 rock samples were collected. 6 hand trenches totalling 146 m (274 rock samples) at the Ridge Prospect and 4 hand trenches totalling 80 m (151 rock samples) at the Golden Furlong Prospect were completed.
1982	Texasgulf Canada Ltd.	Bonanza-Ridge, Golden Furlong and Albert's Hump Prospects	Geological mapping, rock and soil surveys, IP surveys, trenching and diamond drilling. A total of 1,785 soil samples were collected on several grids from the Bonanza area westwards toward Albert's Hump. Diamond drilling was completed on three zones including: Bonanza-Ridge (8 drill holes totalling 1,098 m), Golden Furlong (2 drill holes totalling 396 m) and Albert's Hump (2 drill holes totalling 203 m). Additionally, 2 trenches totalling 61 m were completed in the Bonanza Zone.
1983	Texasgulf Canada Ltd.	Bonanza-Ridge and Thesis II zones	Trenching, geological mapping and soil sampling, which led to the discovery of the "Verrenass" Zone (a very high-grade portion of the Bonanza Zone) and the Thesis II Zone. A total of 811 soil samples were collected on 2 separate grids, 48 back-hoe trenches (2,694 m) were completed in the Bonanza-Ridge Area and on the Thesis II Zone,

TABLE 6.2 SUMMARY OF HISTORICAL EXPLORATION AND OWNERSHIP OF THE RANCH AREA (5 PAGES)			
Year	Company	General Area/Prospects/Zones	Ownership Changes and Work Performed
			687 panel samples and 11 soil profiles (53 samples) were collected from the Bonanza-Ridge trenches and prior to trenching at Thesis II, 12 surface rock samples were collected.
1983-1984	Newmount Canada Limited	Chuck and Moyez claims north of the AL Property (now covered by Ranch Area claims)	Preliminary surface work and a total of 331 grid and reconnaissance soil samples and 126 silt samples were collected.
1984	Texasgulf Canada Ltd.	Bonanza, Ridge and Thesis II Zones, as well as on the newly discovered high-grade Thesis III and BV (Barite Vein) Zones	32 back-hoe trenches (1,505 m) in the Thesis III and BV Zones; diamond drilling in the BV (8 drill holes totalling 575 m), Thesis III (4 drill holes totalling 270 m), Bonanza-Verrenass (4 drill holes, totalling 136 m), Thesis II (2 drill holes totalling 143 m) and Ridge (1 drill hole totalling 87 m) Zones; and the collection of 605 rock samples taken during the surface evaluation of base and precious metals soil anomalies identified in earlier surveys. The area claims were subsequently returned to Energem by Texasgulf.
1985	Miramar Energy Corporation	Chuck and Moyez claims	Collected 20 rock chip, 36 silt and 10 heavy metal samples.
1985	Energex Minerals Ltd.	Bingo, BV, Thesis III, Ghost, Bloss, Patti, Steve's, Ring, Eric and Pond Zones	Trenching, mapping, and panel rock sampling on the Bingo Zone and carried out diamond drilling in the BV and Thesis III Zones. Geological mapping and rock geochemical sampling was completed on the Bloss, Patti, Steve's, Ring, Eric and Pond Zones. Seven diamond drill holes totalling 271 m were completed in the Bonanza area (2 drill holes on the Ghost Zone and 5 drill holes on the Verrenass Zone).
1985	Texpez Oil and Gas Corp.	Wolf II claim	A total of 693 soil samples were collected on 2 separate grids and 5 rock samples. Soil sample results revealed 3 areas containing anomalous gold values, locally accompanied by anomalous concentrations of barite. Highest rock sample results were 2.2 ppm Ag and 15 ppb Au.

TABLE 6.2
SUMMARY OF HISTORICAL EXPLORATION AND OWNERSHIP OF THE RANCH AREA (5 PAGES)

Year	Company	General Area/Prospects/Zones	Ownership Changes and Work Performed
1985	Yukon Gold Placers Ltd.	Moytan 1 and 2 claims	Geological mapping and collected 22 rock chip samples.
1986	E.L.E. Energy Inc.	Indian Gold 1 and 2 claims	A 10,000 line-km airborne magnetic and VLF-EM survey was completed across the Toodoggone District.
1986	Miramar Energy Corporation	Chuck and Moyez claims	8.3 km of VLF-EM and resistivity surveys on 2 separate grids.
1986	Lacana Mining Corporation	Patti Zone	5 diamond drill holes completed totalling 616 m.
1986	Duke Minerals Ltd.	Discovery 1 and 2 claim	4.7 line-km of IP surveys, 8.3 line-km of grid soil surveys and 9.7 line-km of VLF-EM surveys. 7 diamond drill holes totalling 427 m.
1986	Energex Minerals Ltd.	Thesis II and III, Bonanza and BV	83 diamond drill holes totalling 3,683 m in 4 zones (Thesis II and III, Bonanza and BV); 141 back-hoe trenches totalling ~3,900 m and 1,140 samples; back-hoe stripping of areas within the Bonanza, BV and Thesis III Zones and the collection of 545 1-m long channel samples within the stripped areas; geophysical orientation surveys; 6 detailed and 2 reconnaissance soil grids over several parts of the Ranch Area (2,878 soil samples were collected); and extensive prospecting, mapping and sampling of altered rocks over the detailed soil grids and known alteration zones (323 rock samples were collected). Energex constructed a pilot plant with a 6 tonnes per day capacity to process high-grade mineralized material from the Thesis III A Zone; a total of 209 tonnes of mineralized material was processed.
1986	Beachview Resources Ltd.	Wolf 1 claim	Reprocess airborne data gathered from the 10,000 line-km, district-wide airborne survey completed in 1986 (see "E.L.E." 1986 above).
1986	Toodoggone Syndicate	Spike claim	Reprocess airborne data gathered from the 10,000 line-km, district-wide airborne survey completed in 1986 (see Beachview Resources, 1986 above).

TABLE 6.2 SUMMARY OF HISTORICAL EXPLORATION AND OWNERSHIP OF THE RANCH AREA (5 PAGES)			
Year	Company	General Area/Prospects/Zones	Ownership Changes and Work Performed
1987	Deleware Resources Corp.	Adoog 1-6 claims	26 rock samples collected for gold and silver analyses.
	Energex Minerals Ltd.	Bonanza, BV and Ridge Zones	Drilled 8,600 m in 122 drill holes; includes 8 drill holes completed in the Ridge Zone.
1988	Energex Minerals Ltd.	Bonanza and Bingo Zones and the Ridge, BV South, Thesis II and III 'B', JK and Eric Zones.	70 diamond drill holes completed totalling 6,309 m in 8 widespread zones across the AL Property.
1990	Miramar Energy Corporation	Chuck-Moyez claims	278 soil samples along 5 separate contour soil lines.
1990	Cheni Gold Mines Inc.	Road building	Completed an access road from the Lawyers Area to the Bonanza Zone.
1991	Cheni Gold Mines Inc.	BV, Thesis and Bonanza Zones	Surface-mined an estimated 41,200 tonnes of mineralized material grading 9.2 g/t Au from the BV, Thesis and Bonanza Zones and trucked it ~40 km to the Lawyers plant for processing. Approximately 10,000 ounces of gold were recovered from this open pit mining activity.
1996-1997	AGC Americas Gold Corporation	Bonanza, Thesis III and BV Zones	Formed a joint venture with Antares Mining Corporation; 24 hole, two-stage diamond drilling program, an orientation IP survey across the Bonanza, Thesis III and BV Zones, and a helicopter-borne EM-MAG-RAD survey over the Ranch Area.
2001	Guardsmen Resources Inc.	Ranch Area	Guardsmen acquired the Ranch Area by staking claims in August 2001. Additional claims were added between 2002 and 2005 as previous claims expired.
2002	Guardsmen Resources Inc. and Bishop Gold Inc	Ranch Area	Guardsmen optioned the Ranch Area to Bishop Gold Inc.
2003	Bishop Gold Inc.	Bonanza Zone	10 drill hole (712 m) diamond drilling program

TABLE 6.2 SUMMARY OF HISTORICAL EXPLORATION AND OWNERSHIP OF THE RANCH AREA (5 PAGES)			
Year	Company	General Area/Prospects/Zones	Ownership Changes and Work Performed
2003	Geological Survey of Canada	Toodoggone Area (parts of NTS 94D/15, 94E/2,3,6,7,10,11)	The GSC (via Fugro Airborne Surveys) completed a multi-sensor (gamma-ray spectrometric, magnetic total field) helicopter-borne geophysical survey with northeast-trending flight lines spaced at 400 m intervals. Reference: Shives <i>et al.</i> (2004).
2005	Guardsmen Resources Inc.	Ranch Area	The joint venture was subsequently terminated and Guardsmen retained a 100% interest in the Ranch Area.
2006	Christopher James Gold Corp.	Thesis III Zone	Drilled 625 m of diamond drilling in 7 drill holes and carried out surface mapping and sampling in several areas.
2007	Christopher James Gold Corp.	Bonanza, Thesis II and III and Mickey. Patti and AB Zones	45 drill holes completed totalling 7,194 m in four mineralized zones on the Ranch Area; mapping, prospecting and geochemical sampling in two areas well outside the drill areas (Patti and AB Zones); a helicopter-borne magnetic gradiometer survey consisting of 2,229 line km within a single, 54 km ² block in the southern part of the Ranch Area; and a 3-D-IP survey totalling 61 line-km completed in the southern part of the Ranch Area, over and adjacent to known zones of gold mineralization.
2008-2012	Guardsmen Resources Inc.	Ranch Area	Guardsmen kept the Ranch Area on a care and maintenance basis during this 5-year period. No exploration or development work was carried out on the Ranch Area.
2013-2019	Guardsmen Resources Inc.	Ranch Area	Guardsmen completed a grid soil survey on the south slope of Albert's Hump over an area measuring 1,200 x 650 m. A total of 354 (soil) and 14 (rock) samples were collected and analysed. Pembroke Mining Corporation collected 25 rock samples. Richard Billingsley performed a structural analysis of the Ranch Area.
2020	Guardsmen Resources Inc. and Thesis Gold Inc.	Ranch Area	The Ranch area claims were acquired by Thesis Gold Inc. through an option agreement with Guardsmen Resources Inc.

Source: Modified from Eccles (2020)

6.1 LAWYERS AREA OWNERSHIP

The Lawyers Area has been explored continuously since the 1960s by several companies, which led to the discovery of several mineralized zones (Figure 6.1). The following is a summary of ownership and the work programs completed at Lawyers (Table 6.1):

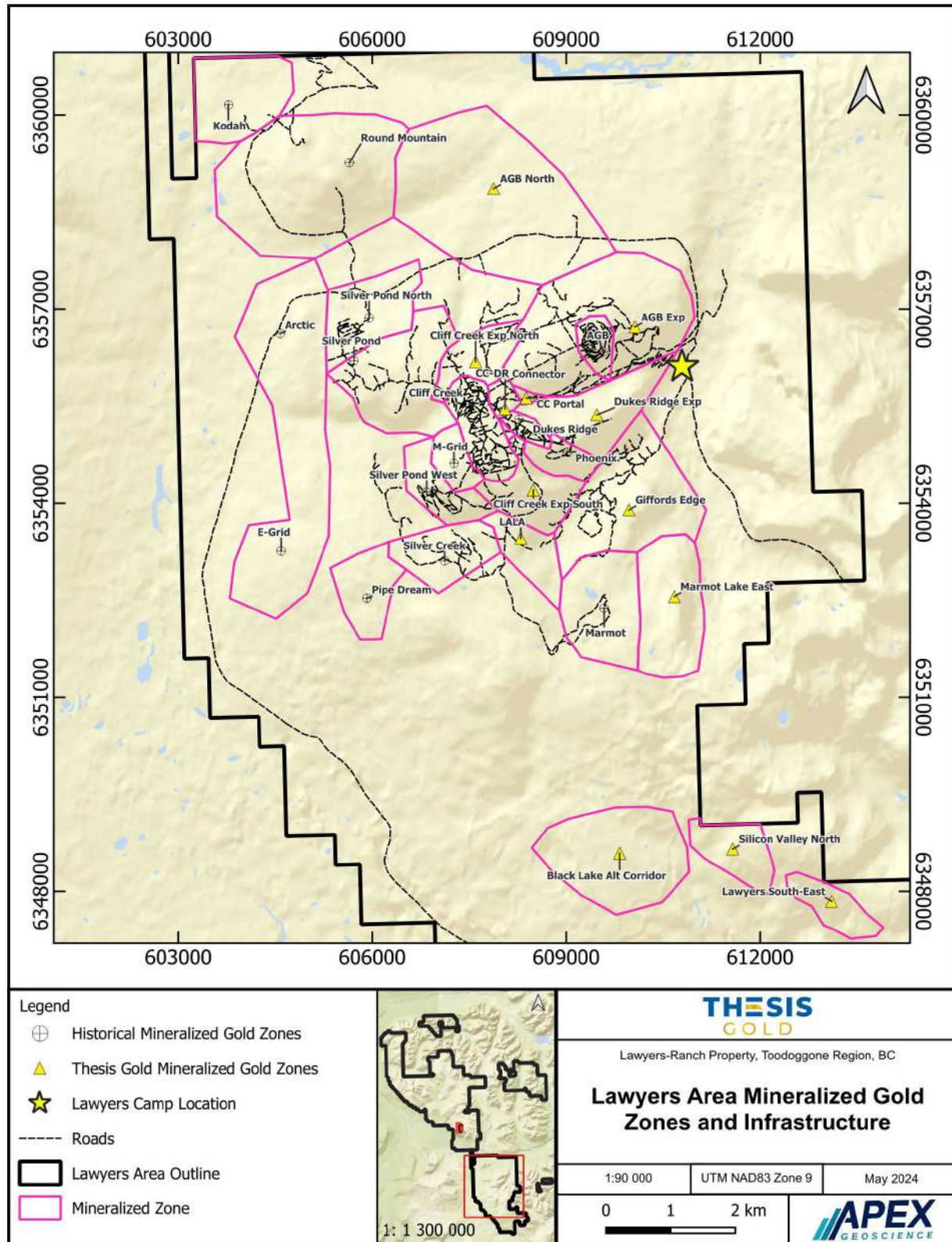
- 1968 to 1979: Kennco Explorations (Western) Ltd. (“Kennco”) commenced exploration work in the Lawyers Area in the 1960s. In 1968, gold and silver mineralization was discovered from regional geochemical sampling. Kennco proceeded to stake the original Lawyers claims in 1970 and discover the Amethyst Gold Breccia (“AGB”) Deposit in 1973 (Gower and Grace, 1973). The first drilling on the AGB Zone (Figure 6.1) occurred in 1974, resulting in 43.20 g/t (1.26 oz/ton) Au and 487 g/t (14.20 oz/ton) Ag over a 3.05 m (10 ft) drill core length (Ryback-Hardy, 1974).
- In May 1979, Kennco optioned the Lawyers claims to Semco Mining Corporation (“Semco”) who assigned the agreement to SEREM Inc. (“SEREM”) in July 1979. SEREM then entered a joint venture with Agnico-Eagle Mines Limited (“Agnico-Eagle”) and Sudbury Contact Mines Limited (“Sudbury Contact”). The joint venture conducted prospecting, geological mapping, trenching, diamond drilling and underground drifting at AGB. By 1982, Agnico-Eagle and Sudbury Contact’s interests were diluted and SEREM explored the Lawyers Area independently. Exploration by SEREM in 1982 focused on the underground development of the AGB Zone and 3,597 m of surface and underground drilling (Schroeter, 1983). In 1986, SEREM changed its name to Cheni Gold Mines Inc. (“Cheni”).
- In 1981, Great Western Petroleum Corporation (“GWP”) optioned the Silver Pond claims located in the western part of the Lawyers Area (Figure 6.1) from prospector Chuck Kowall who staked the area in 1979 and 1980, and conducted geochemical sampling (soil, rock, and silt) and geological mapping in 1981. In 1983, St. Joe Canada Inc. (“St. Joe”) optioned the Silver Pond claims from GWP, formed a joint venture with Imperial Metals Corp. (“Imperial Metals”) and completed geochemical sampling surveys (soil, rock and stream sediment), geophysical surveys, geological mapping, trenching and diamond drilling programs from 1984 to 1985.
- 1987 to 1996: Cheni’s exploration efforts at the Lawyers Area during this period focused on the AGB, Cliff Creek, Dukes Ridge, and Phoenix Zones (Figure 6.1). From 1989 to 1992, Cheni mined the AGB, Cliff Creek, and Phoenix Zones; 161,177 ounces of gold were recovered from the Lawyers Mine (Cheni Gold Mines Inc., 1990, 1991, 1992, 1993). In 1992, the Cliff Creek and the Dukes Ridge Zones were determined to be uneconomic for extraction, due to a combination of high mining costs, declining metal prices, and an unfavorable CAD/USD exchange rate (Hawkins, 2003). Cheni closed the Lawyers Mine in 1994, because they were unable to locate additional economic mineral deposits. In 1996, the plant site was decommissioned, and the plant equipment was sold.

- On the Silver Pond's side, joint venture partners Bond Gold Inc. ("Bond", formerly St. Joe) and Nexus Resources Corp. ("Nexus") completed additional trenching and diamond drilling in 1987 and 1988. In 1992, Even Resources Ltd. ("Even Resources") optioned the Silver Pond claims and conducted excavator trenching and local blasting. In 1994, Ocean Crystal Resources Ltd. ("Ocean Crystal") conducted a program of induced polarization survey, mapping, excavator trenching and diamond drilling at Silver Pond. The Silver Pond claims were eventually returned to Kowall and later lapsed.
- 1997 to 1999: The Lawyers claims were optioned by AGC Americas Gold Corp. ("AGC") to form a joint venture with Antares Mining and Exploration Corp. ("Antares") in 1997 (Hawkins, 2003). They carried out a regional airborne electromagnetic-magnetic-radiometric survey, which included coverage of the Lawyers claims. In 1999, Antares sold their interest in the Lawyers claims back to AGC and the claims and the mining lease were left to lapse.
- 2000 to 2010: Guardsmen Resources Inc. ("Guardsmen") acquired the Lawyers claims via ground staking in 2000 and 2001, including the Silver Pond area. From 2001 to 2010 Guardsmen completed geophysical surveys, prospecting, geological mapping, soil and rock sampling, trenching, by several operators, and a 10-hole diamond drilling program at Cliff Creek by optionor Bishop Gold Inc. ("Bishop") in 2005-2006.
- 2011 to 2017: On June 8, 2011, Guardsmen transferred ownership of the Lawyers claims to affiliated company PPM Phoenix Precious Metals Corp. ("PPM"). PPM completed property development, surface exploration and drilling programs in the Lawyers Area.
- 2018: In March 2018, PPM optioned the Lawyers claims to Crystal Exploration Inc. ("Crystal"). Crystal changed its name to Benchmark Metals Inc. ("Benchmark") in May 2018.

All of the known gold prospects (or zones) in the Lawyers Area (Figure 6.1) were discovered by conventional exploration methods, commonly starting with soil geochemical surveying followed by prospecting, mapping, geophysical surveys, rock geochemical sampling, trenching, and finally diamond drilling. A summary of this work, generally organized by exploration method (work type), is presented in the following sections.

The information on past production was taken from the referenced sources and is simply provided as a summary of historical activity and are not intended to represent historical mineral resource estimates nor are they intended as an indication of the mineralization at their respective occurrences.

FIGURE 6.1 SUMMARY OF HISTORICALLY DOCUMENTED MINERALIZED GOLD ZONES IN THE LAWYERS AREA



6.2 RANCH AREA OWNERSHIP

The Ranch Area (*sensu stricto*) was initially explored in 1972-1973 by Sumac Mines Ltd. Between 1979 and 1997, the Ranch Area was explored on a continuous basis by 14 separate companies (Table 6.2). The following is a summary of the significant work program completed during this period:

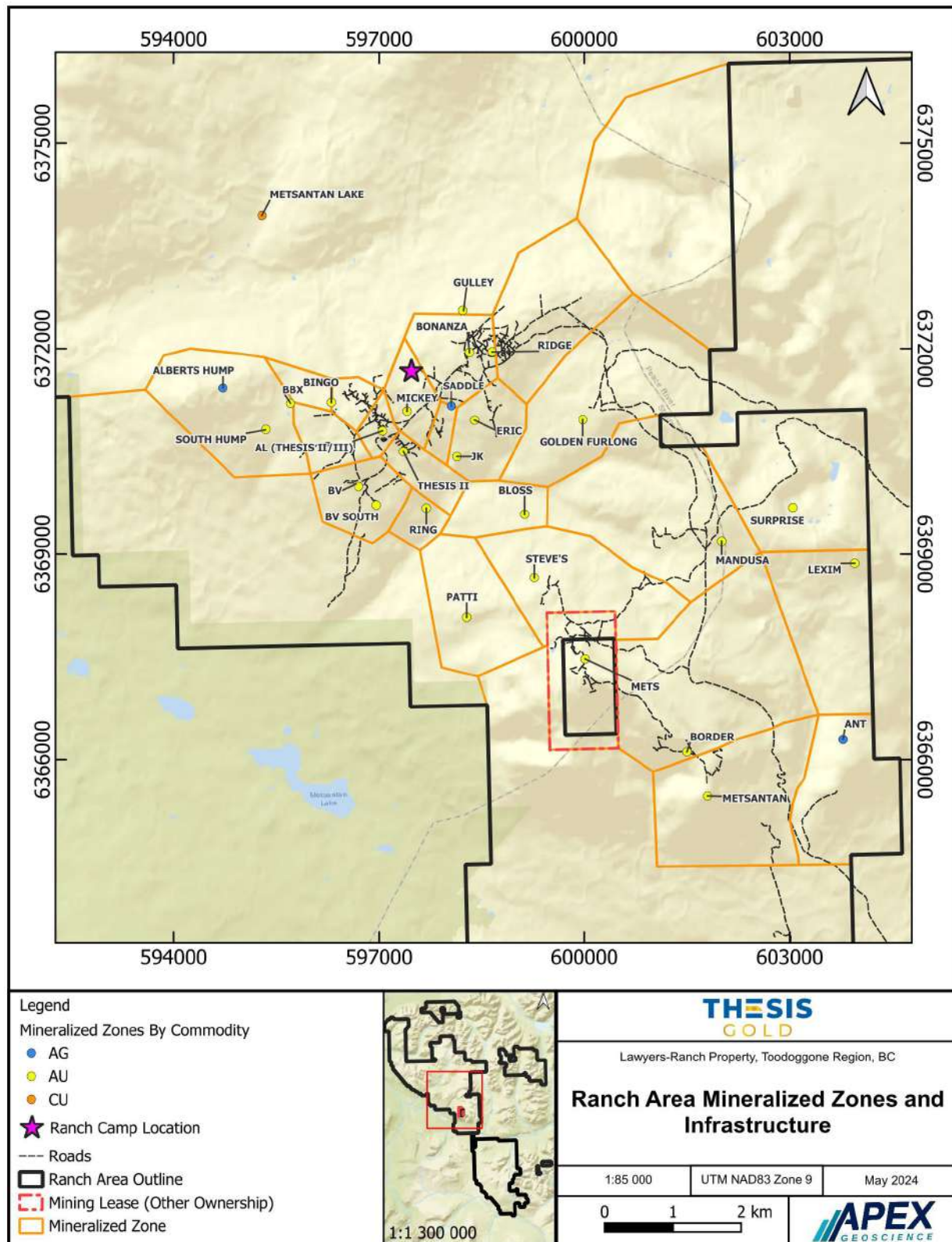
- 1980 to 1984: Texasgulf Canada Ltd. conducted extensive surface exploration on the Ranch Area including: geological mapping, soil sampling, trenching and rock sampling, VLF-EM/magnetometer orientation surveys, induced polarization (“IP”) surveys, and diamond drilling. The work identified several prospective zones of gold mineralization from the Bonanza area westward toward Albert’s Hump, including: Bonanza-Ridge, Golden Furlong, Albert’s Hump, Verrenass (a very high-grade portion of the Bonanza Zone) and Thesis II and Thesis III (Bonanza-Ridge area; Figure 6.2).
- 1985: Texpez Oil and Gas Corp. carried out preliminary surface work on the Wolf II claim (northeast part of the current Ranch Area). Soil and rock geochemical sampling defined three areas containing anomalous gold values (up to 2.2 ppm Ag and 15 ppb Au), locally accompanied by anomalous barite occurrences.
- 1985 to 1988: Energex Minerals Ltd. Completed major integrated exploration programs at the Thesis II, Thesis III, Bonanza and BV Zones and constructed a pilot plant with a 6-tonne per day capacity to process high-grade mineralized material from the Thesis III A Zone. A total of 209 tonnes of mineralized material was processed.
- 1990: Miramar Energy Corporation reported that soil sampling within the Chuck-Moyez claims (now within the Ranch Area boundaries) yielded consistently high, and possibly anomalous, concentrations of barite. Only one of the 278 samples returned a value below 100 ppm Ba.
- 1991: Cheni Gold Mines Inc. surface-mined an estimated 41,200 tonnes of mineralized material grading 9.2 g/t Au from the BV, Thesis and Bonanza Zones, and trucked it ~40 km to the Lawyers plant for processing. Approximately 10,000 ounces of gold were recovered from this open pit mining activity (Cheni Gold Mines Inc., 1991, 1992).
- 1996 to 1997: AGC Americas Gold Corporation “AGC” optioned the AL Property. In 1997, AGC joint ventured with Antares Mining Corporation and completed a 24-hole diamond drill program on Bonanza, Thesis III and BV Zones. During this program, a helicopter-borne EM magnetometer-radiometric survey was flown over the Property. No additional programs followed, and the claims lapsed in July 2001 (Bowen, 2014).
- 2001 to 2006: Guardsmen Resources Inc. acquired the Ranch claims by staking and subsequently optioned or joint ventured them to various companies (e.g., Bishop Gold Inc. and Christopher James Gold Corp.).

- 2007: Christopher James Gold Corp. conducted extensive exploration work, including mapping, prospecting, geophysical surveys and completed 45 drill holes (7,194 m) in four mineralized zones on the Ranch Area.
- 2008 to 2012: No exploration was undertaken in the Ranch Area.
- 2013: Guardsmen Resources Inc. completed a soil survey over the Ranch Area.
- 2020: The Ranch Area claims were acquired by Thesis Gold Inc. from an option agreement with Guardsmen Resources Inc.

All of the known gold prospects (or zones) on the Ranch Area (Figure 6.2) were discovered by conventional exploration methods, commonly starting with soil geochemical surveying followed by prospecting, mapping, geophysical surveys, rock geochemical sampling, trenching and finally diamond drilling. A summary of this work, generally organized by exploration method (work type), is presented in the following sections.

The summary of historical exploration and production activities provided above includes summaries of small-scale historical mining activities that were conducted prior to the acquisition of Ranch claims by Thesis Gold. The information on past production was taken from the referenced sources and is provided simply as a summary of historical activity and are not intended to represent historical mineral resource estimates nor are they intended as an indication of the mineralization at their respective occurrences.

FIGURE 6.2 SUMMARY OF HISTORICALLY DOCUMENTED MINERALIZED GOLD ZONES IN THE RANCH AREA



6.3 EXPLORATION AND DEVELOPMENT WORK CONDUCTED BY PREVIOUS OWNERS ON THE LAWYERS AREA

A summary of historical exploration work conducted at the Lawyers Area is presented in Table 6.1 and summarized in the following sub-sections.

In 2018, APEX on behalf of Benchmark (formerly Crystal Exploration Inc.) carried out a project-wide compilation of historical anomalous soil, rock, trench, and stream sample assay results for gold and silver. The results of the compilation work are summarized below.

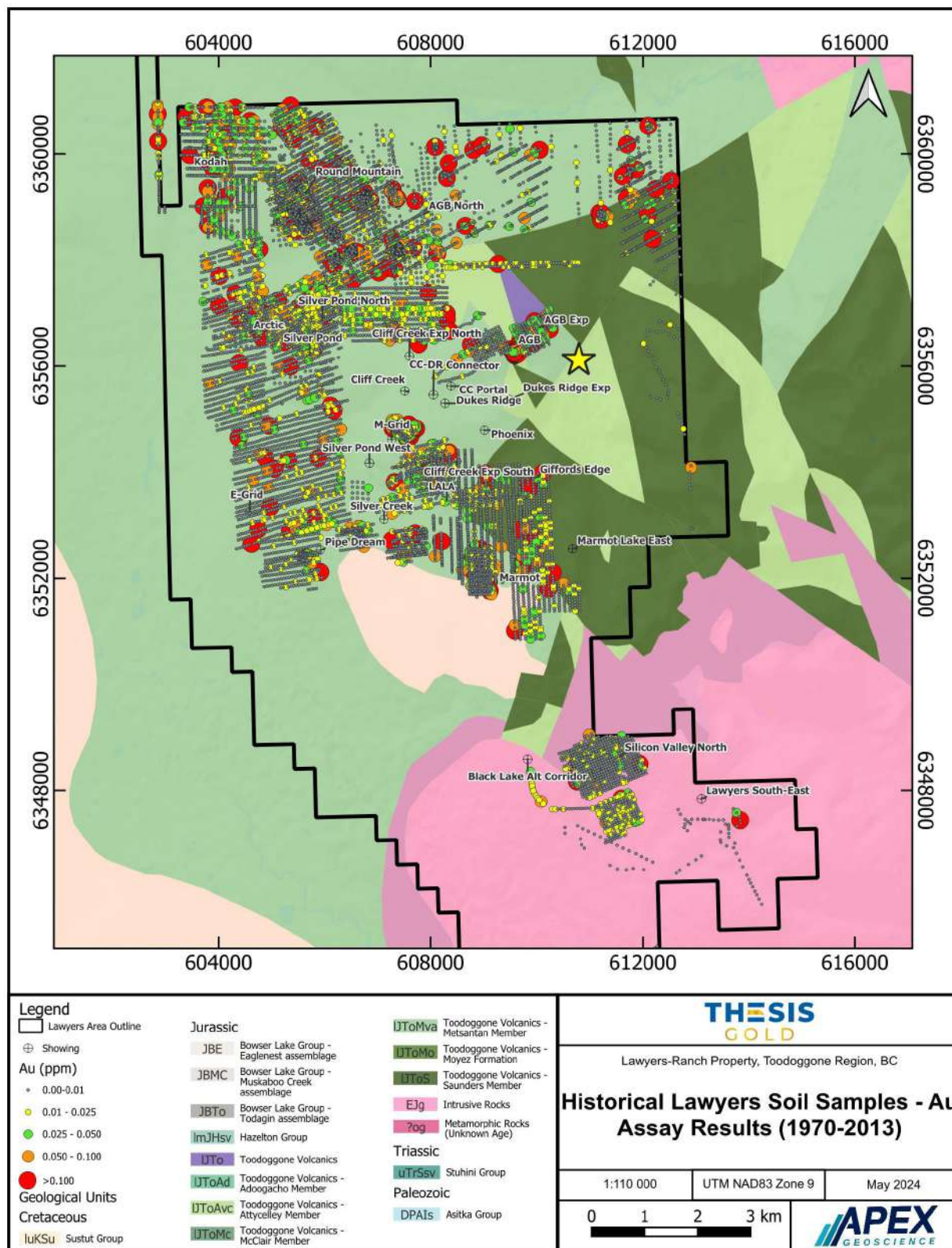
6.3.1 Historical Soil Sampling

Geochemical sampling in the Lawyers Area began in the 1960s during Kennco exploration campaigns. In 1970-1971, Kennco collected soil samples on a north-south grid that encountered anomalous Au and Ag, base metals, and Mo over the Marmot Zone. Soil geochemical surveys were subsequently completed by several companies including Great Western Petroleum Corp., St. Joe Canada Inc./ Imperial Metals Corp., Guardsmen Resources Inc., and PPM Phoenix Precious Metals Corp. between 1980 and 2013 (Table 6.1).

APEX currently has 17,719 historical soil samples in its database in and around the current Lawyers Area, 17,078 with assay results. A total of 16,107 of these historical samples are within the current Lawyers Area limits, 16,083 having assay results. Historical gold assay results in soil samples identified from the historical data compilation by APEX are shown in Figure 6.3 and highlights presented in Table 6.1.

Criteria for a sample to be considered anomalous include analytical values >0.1 ppm Au and (or) >1 ppm Ag and (or) >100 ppm Cu. The data compilation revealed highly anomalous values for gold and silver at nearly all the historical mineral occurrences with maximum values of 4.7 g/t Au and 246 g/t Ag. Gold anomalies in soil exist near AGB, Kodah, Round Mountain, Marmot Lake, Silver Pond North and South, and encompass up to 100 ha in size (Figure 6.3). Note that systematic (grid-based) soil sampling has not taken place over the entire Lawyers Area, and therefore any trends observed may only be apparent. No historical soil samples were reported from the Cliff Creek/Dukes Ridge Areas, which might be due to a lack of soil development over those areas or that historical data for these areas is missing.

FIGURE 6.3 HISTORICAL GOLD-IN-SOIL SAMPLE ASSAY RESULTS IN THE LAWYERS AREA

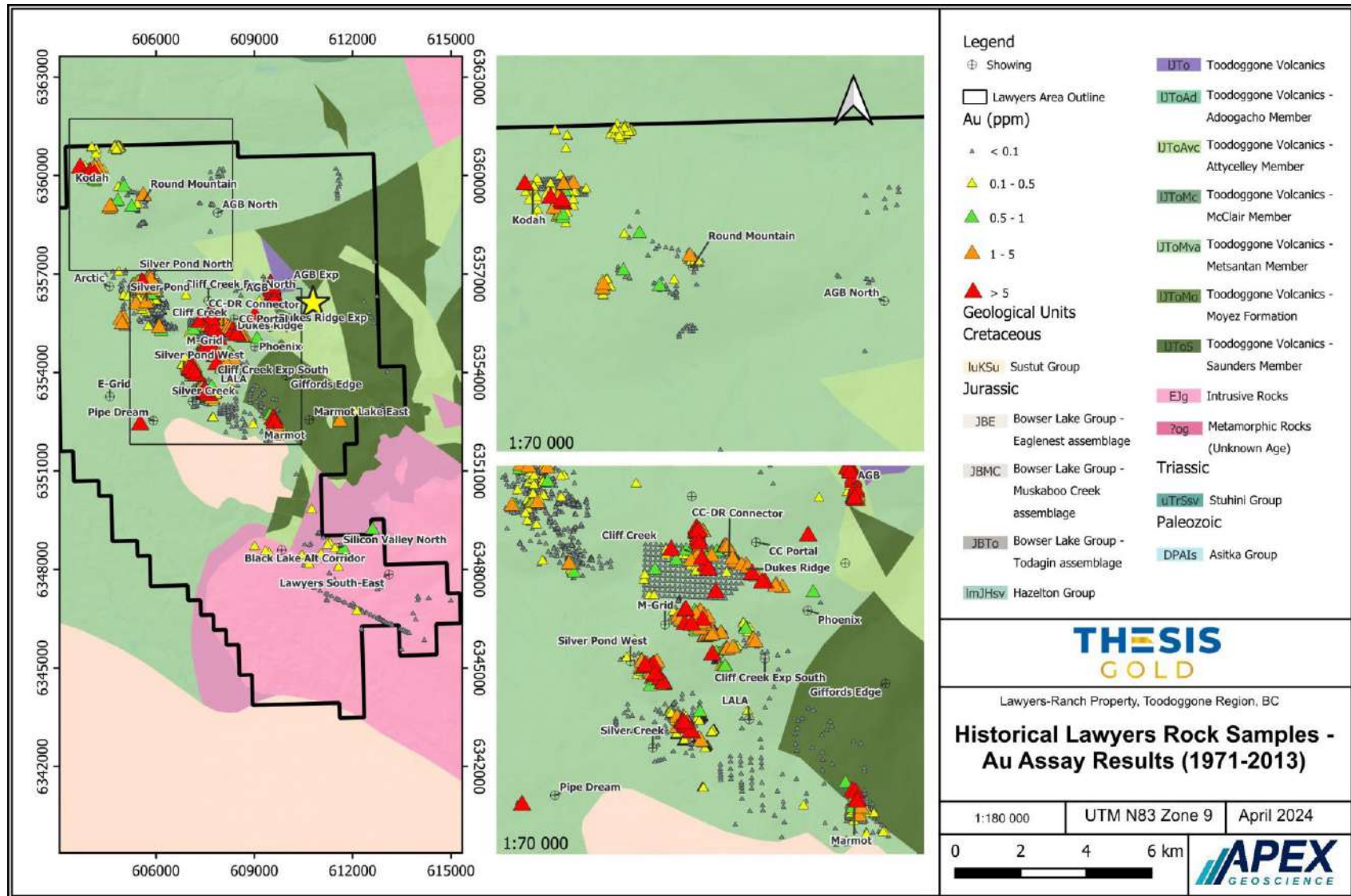


6.3.2 Historical Rock Sampling

Recorded geochemical rock sampling in the Lawyers Area began in the 1960s during Kennco exploration campaigns. In 1971, Kennco collected rocks on a north-south oriented grid that encountered anomalous Au and Ag, base metals and Mo over the Marmot Zone. In 1972, Kennco collected 81 rock samples in a 30 m x 30 m grid over a 350 m² area at Marmot. Assay results revealed a northwest-trending anomaly with grades of up to 6.6 g/t Au and 870.0 g/t Ag. Rock geochemical surveys were subsequently completed by several companies including Great Western Petroleum Corp, St. Joe Canada Inc./ Imperial Metals Corp., Nexus Resources Corp., Guardsmen Resources Inc. PPM Phoenix Precious Metals Corp. between 1980 and 2013 (Table 6.1). High-grade float samples from Dukes Ridge in 1980 that coincided with an 'E-Scan' resistivity anomaly led to the discovery of the Phoenix Deposit in 1991 by Cheni Gold Mines Inc. (Cheni Gold Mines Inc., 1992).

APEX currently has 6,248 historical rock samples in its database in and around the current Lawyers Area, 6,213 with assay results. 5,910 of these historical samples are within the current Lawyers Area limits, 5,875 of which have assay results. Historical gold assay results in rock samples identified from the historical data compilation by APEX are shown in Figure 6.4 and highlights presented in Table 6.1. Nearly all historical mineral occurrences have rock grab samples greater than 1 ppm Au and 50 ppm Ag. Clusters of anomalous gold values ranging up to 15 ha in size are located near AGB, Cliff Creek, Kodah, Marmot Lake, Silver Pond North, South, and West (Figure 6.4). Criteria for a sample to be considered anomalous include analytical values >0.1 ppm Au and (or) >1 ppm Ag and (or) >100 ppm Cu.

FIGURE 6.4 HISTORICAL GOLD-IN-ROCK SAMPLE ASSAY RESULTS IN THE LAWYERS AREA



6.3.3 Historical Trench and Channel Rock Sampling

Several hundred trenches and associated channel rock samples were historically excavated and collected at the Lawyers Area by several companies including Cheni Gold Mines Inc., formerly SEREM Inc. (1979 to 1992; 7,000+ m trenching), St. Joe Canada Inc./Nexus Resources Corp. (1984 to 1987), Even Resources Ltd. (1992), Ocean Crystal Resources Ltd. (1994), and Guardsmen Resources Inc. (2003-2004) (Table 6.1). Between 1960 and 1970 there were trenching by an unknown operator on the Marmot Zone that do not have assay results; it appears the primary target at that time was porphyry copper (Renning, 2007).

Highlights of gold assay results in trench/channel samples identified from the historical data compilation by APEX are presented in Table 6.1. Trenching occurred in several zones of the Lawyers Area including AGB, Cliff Creek, Dukes Ridge, Silver Pond, and Marmot. Trenching revealed several metres-long alteration and mineralized zones in the Lawyers Area. Examples of anomalous gold values from historical trenching at the Lawyers Area include:

1. Average of 5.09 g/t Au and 20.8 g/t Ag over a 27.03 m sample length at the AGB Zone (Pegg, 2003);
2. Values ranging from 0.5 m grading 1.99 g/t Au and 41.4 g/t Ag to 5.0 m averaging 6.26 g/t Au and 287.9 g/t Ag at the Silver Creek Zone (Lane *et al.*, 2018); and
3. An average 9.0 g/t Au and 24.2 g/t Ag over 5.0 m in a quartz breccia zone at the Silver Pond West Zone (Lane *et al.*, 2018).

6.3.4 Historical Geophysical Surveys

Numerous historical ground and airborne geophysical surveys have been conducted at the Lawyers Area as outlined in Table 6.1. These include:

1. Ground geophysical surveys conducted by Kennco Explorations (Western) LTD. (1970s).
2. Ground induced polarization, magnetic, electrical resistivity, and very low frequency-electromagnetic surveys by St. Joe Canada Inc. / Imperial Metals Corp. (1984-1985).
3. Ground induced polarization, electrical resistivity, and magnetic surveys by St. Joe Canada Inc./Nexus Resources Corp. (1987).
4. Ground induced polarization survey by Ocean Crystal Resources Ltd. (1994).
5. Heliborne electromagnetic-magnetic-radiometric survey by Antares Mining and Exploration Corp./ AGC Americas Gold Corp. (1997).
6. Ground very low frequency and magnetometer survey by Guardsmen Resources Inc. (2001 to 2003).

The following is a discussion of some of these geophysical surveys.

6.3.4.1 Ground Geophysical Surveys

The earliest ground geophysical survey reported in the Lawyers Area was a magnetometer survey on the Kodah Group by Kennco in the 1970s. Several companies subsequently completed ground geophysical surveys in the Lawyers Area, as outlined in Table 6.1.

Between 2001 and 2003, Guardsmen conducted a total of 43.5 line-km of ground VLF surveys and a total of 51.4 line-km of ground magnetics surveys were completed. This work traced chalcedonic quartz veining of the AGB Zone west of the Attorney Fault and north of the previously identified terminus of the AGB Zone. The AGB Zone was traced southward downslope into Cliff Creek, where it comprises an area of pervasive silicification and chalcedonic quartz veining. The overburden-covered valley to the south may be the along-strike continuation of the structure that hosts the AGB Zone (Lane et al., 2018).

6.3.4.2 Airborne Geophysical Surveys

Several companies have historically conducted airborne geophysical surveys on the Lawyers Area as outlined in Table 6.1.

In 1997, joint venture partners Antares Mining and Exploration Corp. and AGC Americas Gold Corporation commissioned Aerodat Inc. to conduct a regional airborne electromagnetic-magnetic-radiometric survey across the Lawyers Area. The apparent conductivity and total magnetic intensity results from this survey are presented in Figure 6.5 and Figure 6.6, respectively.

Two main conductive features were found on the Lawyers Area: 1) a large low resistivity zone in the extreme southwest corner of the Lawyers Area, south of the Marmot Zone; and 2) a sharp spike-like anomaly in the north central part of the area, correlating with a deeply incised ravine, that was recommended for investigation (Figure 6.5; Hawkins, 1998).

Magnetic anomaly trends were contorted and folded with a regional northwest to north strike direction, with the highest amplitudes in the east and northeast part of the Lawyers Area, near the AGB and Dukes Ridge Zones, probably reflecting presence of mafic volcanic rocks (Figure 6.6; Hawkins, 1998). A north-south oriented structure bounding a magnetic anomaly and cutting the centre of the area, east of the AGB Zone (Figure 6.6) is associated with a radiometric anomaly and was interpreted as a fault and considered to be a first priority exploration target (Hawkins, 1998).

FIGURE 6.5 APPARENT CONDUCTIVITY FROM THE 1997 AERODAT AIRBORNE EM SURVEY

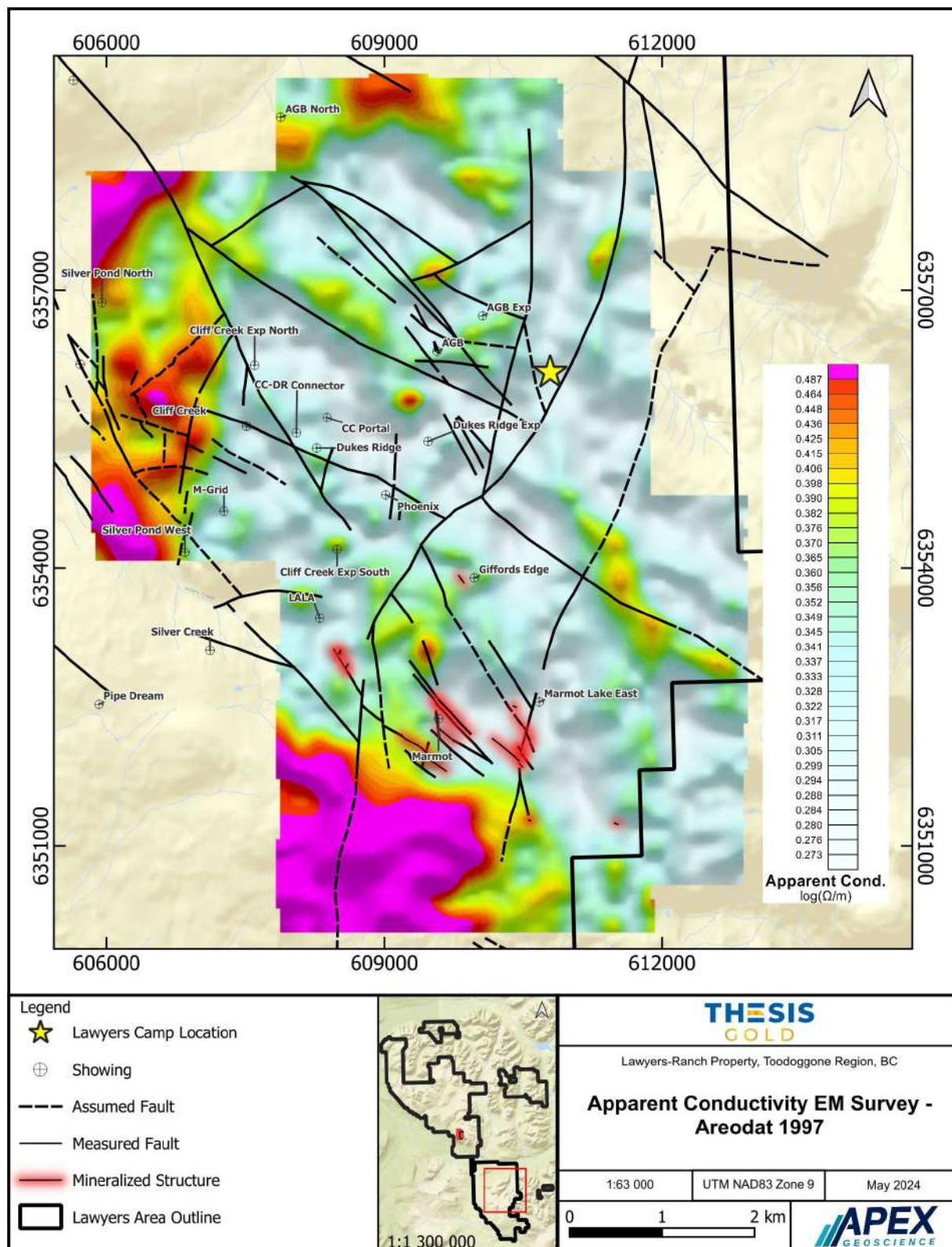
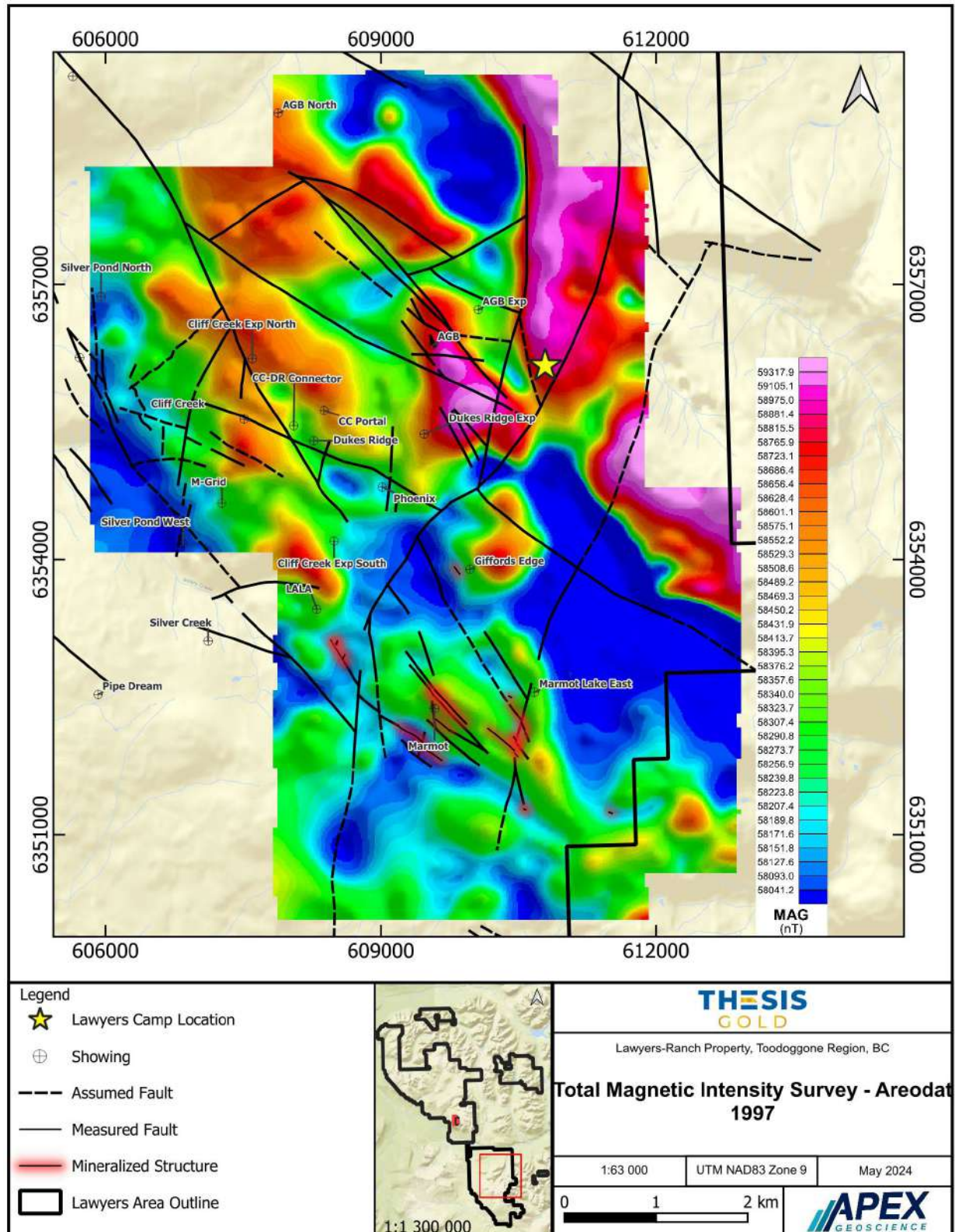


FIGURE 6.6 TOTAL MAGNETIC INTENSITY IMAGE FROM THE AERODAT 1997 AIRBORNE MAGNETIC SURVEY



6.3.5 Historical Drilling

From 1974-2015 Kennco Explorations (Western) LTD. (“Kennco”), Cheni Gold Mines Inc. (“Cheni”, formerly SEREM Inc.), St. Joe Canada Inc. (“St. Joe”), PPM Phoenix Precious Metals Corp. (“PPM”), and several other junior mining companies completed hundreds of diamond drill holes totalling tens of thousands of metres at the four major mineralized Lawyers Zones, including the AGB, Cliff Creek, Dukes Ridge, and Phoenix Zones and on the minor Silver Pond and Marmot Zones (Figure 6.7).

Historical drilling in the Lawyers Area was summarized by Lane *et al.* (2018) as follows:

From 1973 to 2006, more than 68,000 m of surface diamond drilling in more than 340 drill holes were completed in the Lawyers Area, including:

- >15,000 m in an unknown number of drill holes in the AGB Zone
- >26,000 m in ~130 drill holes in the Cliff Creek Zone
- >2,400 m in 46 drill holes in the Dukes Ridge Zone
- 950 m in 20 drill holes in the Phoenix Zone
- ~ 9,000 m in more than 55 drill holes in the Silver Pond West Zone
- >13,000 m in more than 77 drill holes in other Silver Pond prospect areas, and
- >800 m in at least 12 drill holes in other prospect areas.

Historical underground drilling is not well documented on the Lawyers Area: records include:

- At least 3,000 m in an unknown number of drill holes in the AGB Zone;
- 2,500 m in 44 holes in the Cliff Creek Zone in 1990; and
- 19 drill holes of unknown total length in the Phoenix Zone in 1992.

There are records of numerous drill holes with no location information and sometimes no assay information on the Lawyers Area. Historical drill holes that have had their location and data validated and are included in the compiled drill hole database are presented in Table 6.3.

FIGURE 6.7 HISTORICAL DRILL COLLAR LOCATIONS IN THE LAWYERS AREA

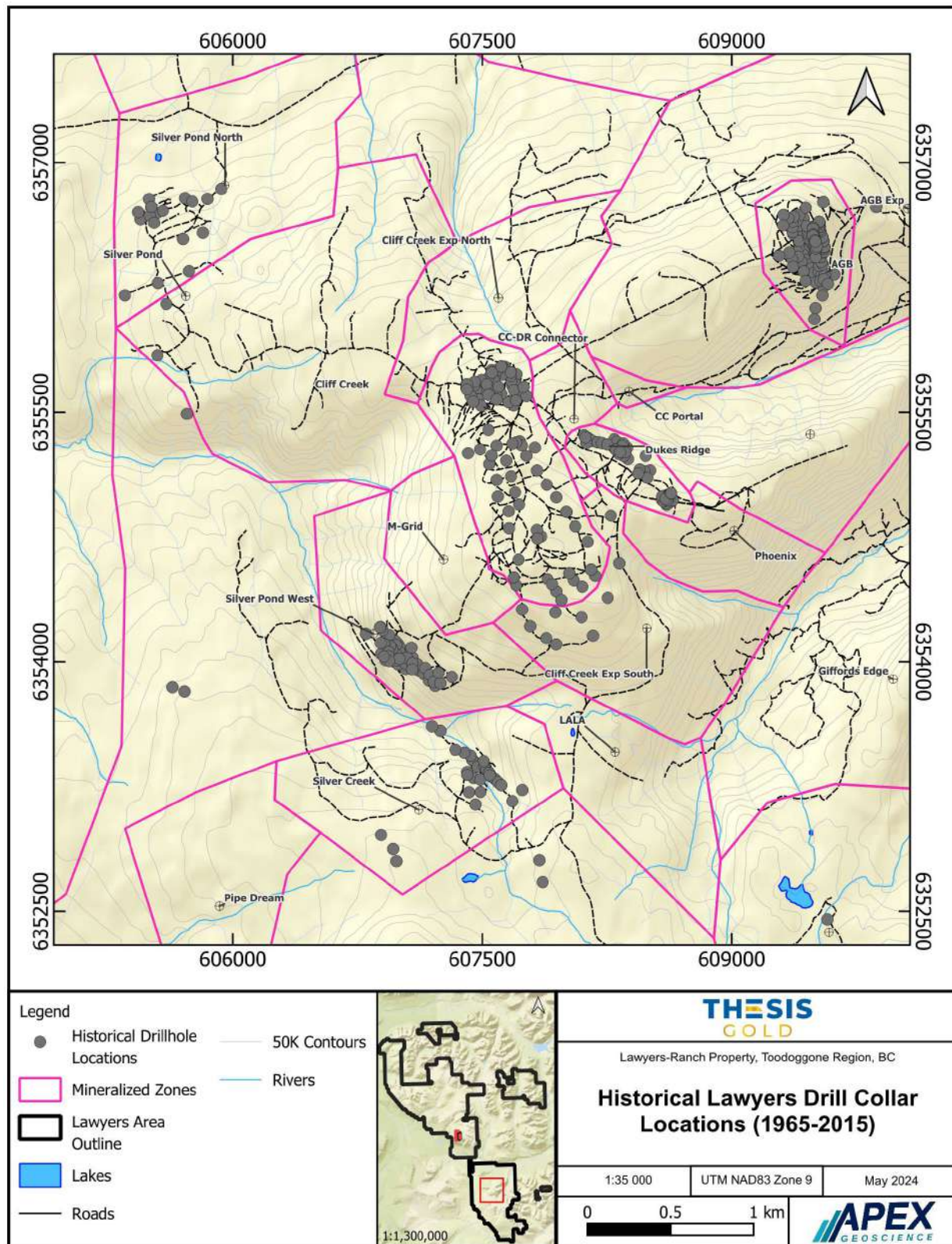


TABLE 6.3 SUMMARY OF HISTORICAL DRILLING BY MINERALIZED ZONE IN THE LAWYERS AREA			
Zone	Work Period	No. of Drill Holes	Metres
AGB	1974 to 1985	139	14,825.30
Cliff Creek	1975 to 2015	108	21,543.32
Dukes Ridge	1983-1984, 2015	32	2,801.54
Phoenix	1992	41	1,831.45
Silver Pond	1974 to 1988	121	14,233.31
Marmot	1965	1	99.00
Total		442	55,333.92

Note: Only historical drill holes that have had their location and data validated and are included in the compiled drill hole database are included in this Table.

6.3.5.1 AGB

The initial drilling on the AGB Zone was completed by Kennco in 1974. The program consisted of 9 drill holes and resulted in high-grade intercepts, including 43.20 g/t (1.26 oz/ton) Au and 487 g/t (14.20 oz/ton) Ag over a 3.05 m (10 ft) core length (Ryback-Hardy, 1974). Kennco's exploration in 1982 focused on the underground development of the AGB Zone and 3,597 m of surface and underground drilling. Work on AGB from 1990 to 2018 was limited, but included at least 13 underground drill holes completed in 1990, totalling 1,082 m (Lane *et al.*, 2018).

6.3.5.2 Cliff Creek and Dukes Ridge Zones

Between 1983 and 1997 Cheni completed 78 diamond drill holes totalling 23,828 m distributed between the Cliff Creek, Dukes Ridge and AGB Zones.

At the Cliff Creek Zone, narrow high-grade intersections reported from drill hole 87CC76 (Central Zone) and drill hole 87CC42 (Cliff Creek South) included 2 m averaging 1.20 oz/t Au and 1.09 oz/t Ag and 1 m averaging 1.170 oz/t Au and 16.33 oz/t Ag, respectively. Broad lower-grade intersections included 11 m averaging 0.204 oz/t Au and 15.22 oz/t Ag in drill hole 87CC71 (Cliff Creek South). Shallow drilling on the historical North Zone produced mineralized intersections, including 6.4 m averaging 0.245 oz/t Au and 7.13 oz/t Ag in drill hole 90CC110.

Cheni's 1993 drilling at the Dukes Ridge Zone was intended to target high-grade gold-silver mineralization. However, results from infill drilling of Duke's Ridge Zone and a new area between the Duke's Ridge Zone and Phoenix Zone were insufficient in size and grade for either zone to be economically viable at that time (George Cross Newsletter, 1993).

Exploration work from 2005-2006 conducted by Bishop Gold Inc. ("Bishop") included 10 drill holes at Cliff Creek Zone totalling 1,508.1 m. Nine of the ten drill holes intersected quartz breccia and stockwork veining with low-grade gold-silver mineralization. Drilling highlights included

12.34 g/t Au and 71.9 g/t Ag over 3 m (05-CC-03), 6.69 g/t Au and 37.93 g/t Ag over 2.03 m (05-CC-05), 4 m grading 2.65 g/t Au and 69.9 g/t Ag over 4 m (06-CC-08) and 3.79 g/t Au and 97.3 g/t Ag over 2.65 m (06-CC-10) (Jacob and Nordin, 2006 and Bowen, 2007). PPM drilled the Cliff Creek North Zone and Dukes Ridge Zone in 2015 to produce the first NI 43-101 Mineral Resource Estimate for the Project. A total of 26 drill holes totalling 4,001.62 m were completed, including 19 at Cliff Creek (3,281.99 m) and seven at Dukes Ridge (719.63 m). The 2015 drilling encountered quartz $\pm$ chalcedony $\pm$ amethyst stringers, veins, stockwork zones and hydrothermal breccias with locally developed banded, comb and crustiform textures. Mineralized intervals covered core lengths from <1 m to ~52 m. Drilling highlights included 9.64 g/t Au and 307.0 g/t Ag over 8.63 m, including 17.75 g/t Au and 557.0 g/t Ag over 4.18 m (drill hole CC15-06) at Cliff Creek, and 1.41 g/t Au and 42.3 g/t Ag over 50.75 m, including 6.14 g/t Au and 127.3 g/t Ag over 1.50 m at Dukes Ridge (Lane *et al.*, 2018).

6.3.5.3 Phoenix Zone

The 1992 drill program by Cheni produced high-grade intersections of 3.65 oz/ton (125.01 g/t) Au and 104.7 oz/ton (3,589.7 g/t) Ag over 1.02 m in drill hole PX92-10, and 5.39 oz/ton (184.80 g/t) Au and 208.20 oz/ton (7,138.3 g/t) Ag over 0.79 m in drill hole PX92-14 (George Cross Newsletter, 1992). Cheni chose to not explore the Phoenix Deposit any further and it was reclaimed in the mid-1990s.

6.3.5.4 Silver Pond Zones

Historically, several geologically and spatially distinct zones across the Lawyers Area have been referred to collectively as the Silver Pond Group. This Group included Silver Pond North, Silver Pond West, Silver Creek and Silver Pond Amythest.

In the 1970s, Kennco completed two drill holes on its newly discovered Silver Creek Zone; the total length of these drill holes remains unknown. The drill holes did not intersect mineralization (Lane *et al.*, 2018).

Early exploration by St. Joe and joint venture partners Imperial Metals Corp. (“Imperial Metals”) and Nexus Resources Corp. (“Nexus”) from 1984 to 1988 aided in defining many of the Silver Pond Zones across the Lawyers Area. Drilling (144 diamond drill holes totalling 19,668 m) between 1985 and 1988 across the Silver Pond Zones, led to the discovery of several mineralized zones.

St. Joe/Imperial Metals completed a drilling exploration program in 1985, consisting of 29 drill holes totalling 3,003 m (Kennedy and Weston, 1985). Nineteen drill holes were completed on the Silver Creek Zone, with the best drill hole returning 3.90 g/t Au and 189.1 g/t Ag over 3 m. Four drill holes were completed in the Silver Pond West Zone and each intersected multiple intervals of silicification, most notably hole SP-85-26 with 2 m averaging 8.07 g/t Au and 9.9 g/t Ag (Kennedy and Weston, 1985). Three drill holes were completed on the Silver Pond South Zone with unremarkable results; drill hole SP-85-22 returned 1 m grading 0.89 g/t Au and 3.9 g/t Ag. Two drill holes were completed in the Amethyst Zone, which produced weakly anomalous results

and chalcedonic breccia reminiscent of the Cliff Creek Zone. One drill hole was completed in the North grid and returned no significant gold or silver values (Kennedy and Weston, 1985).

In 1987, St. Joe and Nexus completed a drill program consisting of 98 NQ diamond drill holes totalling 12,936 m, which encountered weak mineralization and alteration up to 200 m vertical depth. Fifty-five drill holes totalling 6,011 m were completed on the Silver Pond West Zone, with a maximum intersection of 2.3 g/t Au and 324.4 g/t Ag over a true width of 2.12 m (Kennedy and Vogt, 1987). Nineteen drill holes totalling 2,860 m were completed on the Silver Pond North Zone and defined low-grade quartz stockwork mineralization in the area. Intersection results were 2.05 g/t Au over a true width of 3 m, including 5.98 g/t Au over a true width of 0.5 m in drill hole SP87-88 (Kennedy and Vogt, 1987).

Drilling in 1988 by Bond Gold Inc. (“Bond”, formerly St. Joe) and Nexus consisted of 17 drill holes totalling 3,729 m, distributed between the Silver Pond Amethyst, Creek, West and North Zones (Kennedy, 1988). Of the four Zones, drilling at the Silver Creek Zone was the most successful as it intersected a mineralized felsic dyke that grades 28.75 g/t Au over 1 m. Drill holes at the Amethyst Zone only returned “sub-economic” gold and silver values. The West Zone drilling was unable to extend the zone any farther northwest. Drill hole SP-88-145 was completed to test the North Zone at depth, but only reached 405 m before being terminated due to technical difficulties.

In 1994, Ocean Crystal Resources Ltd. completed 9 drill holes totalling 523 m in an area southeast of the North Zone and northwest of the West Zone of Silver Pond. Results were poor, with argillic alteration zones that did not return any anomalous gold values (Symonds, 1997).

6.3.5.5 Marmot Zone

Little is known about early exploration efforts on the Marmot Zone. There were five drill holes completed between 1960 and 1970 by an unknown operator that do not have assay results. It appears that the primary target was porphyry copper mineralization (Renning, 2007).

6.4 EXPLORATION AND DEVELOPMENT WORK CONDUCTED BY PREVIOUS OWNERS IN THE RANCH AREA

A summary of historical exploration work completed in the Ranch Area is presented in Table 6.2 and in the text below.

6.4.1 Historical Soil Sampling

Historical soil geochemical surveys were completed in the Ranch Area by Sumac Mines Ltd., Texasgulf Canada Ltd., Newmount Canada Limited, Texpez Oil and Gas Corp., Duke Minerals Ltd., Energex Minerals Ltd., Miramar Energy Corporation and Guardsmen Resources Inc. between 1972 and 2013 (Table 6.2). Follow-up prospecting, trenching, and diamond drilling of many of the gold soil anomalies outlined by these surveys led to the discovery of most of the known gold-mineralized zones on the Ranch Area (Bowen, 2014).

APEX currently has 7,693 historical soil samples in its database in and around the current Ranch Area, 7,682 with assay results. A total of 3,861 of these historical samples were taken within the current Ranch Area limits, 3,850 of which have assay results. Only anomalous historical samples were digitized for a number of grids during data compilation in 2020. Criteria for a sample to be considered anomalous include analytical values >0.1 ppm Au and (or) >1 ppm Ag and (or) >100 ppm Cu.

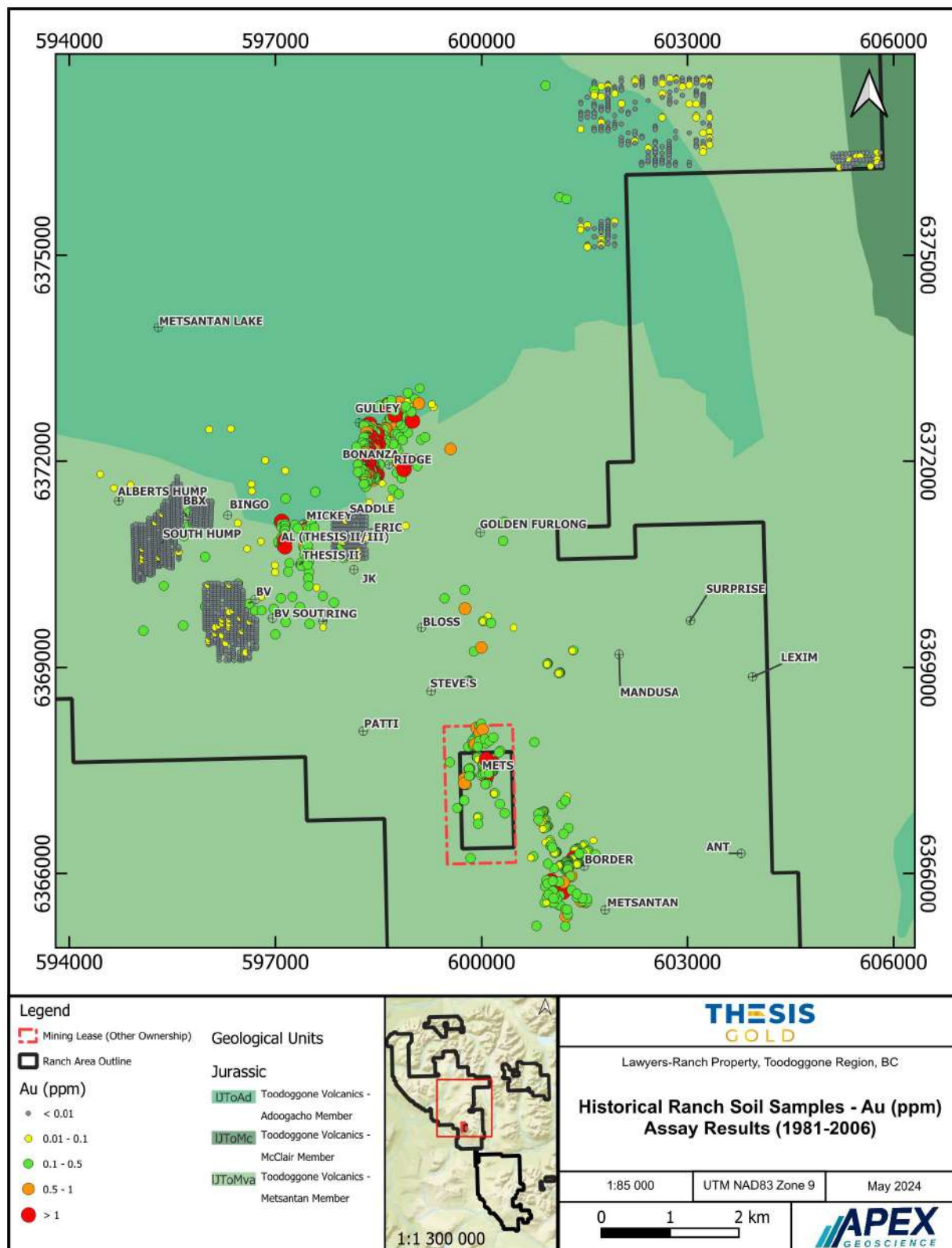
The historical gold in-soil geochemistry dataset is illustrated in Figure 6.8. It should be noted that Figure 6.8 includes samples that are not located on the current Ranch Area; some are located on the “Mets” mineral lease owned by TDG Gold Inc. within the Ranch Area. These samples have been included, because they provide additional context for the adjacent samples that are located on the Ranch Area. A total of 514 historical soil samples returned >0.1 ppm Au (located on the Ranch Area) and the following anomalous areas were identified:

- A large portion of the historical soil sampling was completed at the Bonanza Zone, which consequently comprises a large soil anomaly with ~ 213 anomalous soil samples including 23 samples with >1 ppm Au to a maximum of 5.96 ppm Au (directly adjacent to the Bonanza Zone);
- An anomalous cluster of historical soil samples occur in a north-south orientation at the Thesis III Zone, with three samples containing >1.5 ppm Au up to a maximum of 3.3 ppm Au; and
- An anomalous cluster of historical soil samples occurs ~ 550 m southwest of Border and 900 m northwest of the Metsantan Zone, displaying a tight cluster of six soil samples containing >1 ppm Au (up to a maximum of 4.28 ppm Au).

The glacial ice movement direction at the Ranch Area was from south to north. Several of the mineralized zones occur at, or near, the southern end, or up-ice end, of the soil anomalies (e.g., Bonanza, Mets, and Thesis II Zones). It is worth noting that up-ice source of several soil anomalies have yet to be located (e.g., along the fault zone west of the Metsantan-Border mineralized zones; south of the Mickey Zone; east of the Bloss-Steve's Zones; southwest of the BV Zone and on the north side of Albert's Hump).

Silver soil anomalies (>1 ppm Ag) generally match the Au-in-soil anomalies. Silver is pronounced in the southern portion of the Ranch Area at the Metsantan Zone (not located within the Ranch Area boundaries) and is particularly prevalent adjacent to the fault zone south-southwest of the Border and Metsantan Zones, which are located on the Ranch Area. This area does not yet have a formal target name, but is defined by 262 soil samples with >1 ppm Ag (up to 17 ppm Ag). In comparison, there are ~ 590 soil samples containing >1 ppm Ag at Bonanza, but only two samples yielded >10 ppm Ag (29 ppm and 63 ppm Ag).

FIGURE 6.8 HISTORICAL GOLD-IN-SOIL SAMPLE ASSAY RESULTS IN THE RANCH AREA



6.4.2 Historical Rock Sampling

Several hundred surface prospecting rock grab samples were collected historically in the Ranch Area by Sumac Mines Ltd., Texasgulf Canada Ltd., Texpez Oil and Gas Corp., Yukon Gold Placers Ltd., Energex Minerals Ltd., Miramar Energy Corporation, Deleware Resources Corp. and Guardsmen Resources Inc. between 1972 and 2013 (Table 6.2). Similar to the historical soil sampling discussed above, most of the anomalous historical rock sample sites are located at, or adjacent to, known areas of gold mineralization.

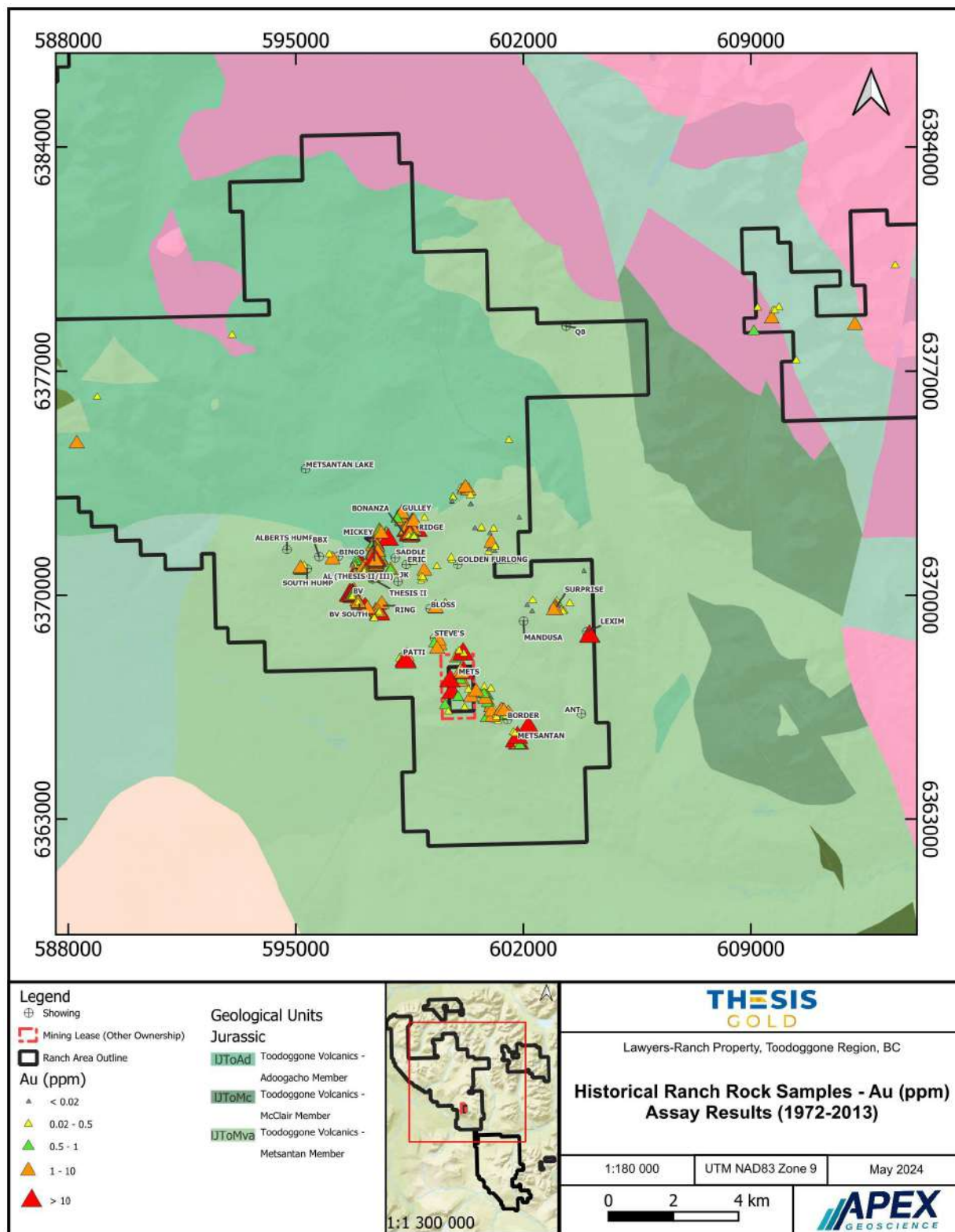
APEX currently has 1,510 historical rock samples in its database from in and around the current Ranch Area, 1,361 of which have assay results. A total of 892 of these historical samples are within the current Ranch Area limits, 888 having assay results. The historical gold assay results are illustrated in Figure 6.9. It should be noted that Figure 6.9 also includes samples that are located on the “Mets” mineral lease owned by TDG Gold Inc. within the Ranch Area, which have been included as they provide additional context for the adjacent samples that are located on the Ranch Area. The following is a list of historical gold-in-rock geochemical anomalies (samples containing >1 ppm Au):

- Mickey Zone: A broad linear trend of 90 anomalous historical rock samples extends from north of the Mickey Zone southward to the Thesis II Zone. A total of seven samples contain >5 ppm Au up to a maximum of 85.65 ppm Au;
- Gully Zone and north of the Ridge Zone: Scattered area of 23 anomalous historical rock samples with assays up to 5.56 ppm Au;
- BV South-Bloss Zones and southward: 18 anomalous historical rock samples with two assays of 14.74 ppm Au and 68.52 ppm Au;
- Steve’s and Patti Zones: five anomalous historical rock samples at the Steve’s Zone with three samples containing >1.15 ppm Au (up to a maximum of 2.7 ppm Au), and four other anomalous historical rock samples at the Patti Zone with two samples containing 13.6 ppm Au and 68.2 ppm Au;
- Metsantan (Met and Mets) Zone: comprises a broad northwest-trending area between the Met and Mets Zones with 28 anomalous historical rock samples, six of which contain >1 ppm Au up to a maximum of 4.56 ppm Au; and
- Lexim (Surprise) Zone: A total of three anomalous historical rock samples yielding 1.6 ppm Au, 2.5 ppm Au and 2.1 ppm Au.

There are several anomalous gold-in-rock anomalies that have no known source. For example, the Mickey Zone has yet to be tested by trenching or diamond drilling despite being located just to the northeast (i.e., down-ice) of a silica-altered, northwest-trending fault structure. Criteria for a sample to be considered anomalous include analytical values >0.1 ppm Au and (or) >1 ppm Ag and (or) >100 ppm Cu.

With respect to silver, anomalous rock samples (defined as >1 ppm Ag), occur at the Metsantan, Surprise and Lexim gold occurrences. The Metsantan Zone area has four anomalous historical rock samples with one sample containing 107 ppm Ag. The Surprise and Lexim occurrences include historical rock samples with up to 120 ppm Ag and 480 ppm Ag, respectively.

FIGURE 6.9 HISTORICAL GOLD-IN-ROCK SAMPLE ASSAY RESULTS FROM THE RANCH AREA



6.4.3 Historical Trench and Channel Rock Sampling

Several hundred trenches and associated channel rock samples were historically excavated and collected at the Ranch Area by Sumac Mines Ltd. (1973), Texasgulf Canada Ltd. (1981-1984), Energex Minerals Ltd. (1985-1986), and other companies as part of trench sampling and re-sampling programs (Table 6.2). In total, APEX has compiled 501 trenches, from which 7,568 rock channel samples (6,261 assays) have been collected. Sample length ranges from 0.03 m to 16.0 m, and the average sample length is 3.0 m.

Historical trenches were predominantly excavated at the Bonanza-Ridge Zones, Thesis II, Thesis III, Bingo and BV-BV South Zones. Other trench locations of interest include: a north-south trend of trenches extending northeast of the Ridge Zone; numerous trenches south of the Bonanza Zone and east of the Eric Zone; a set of trenches located between the Thesis II, JK and Saddle Zones; and a northwesterly trend of trenches extending outward from the BV Zone.

Examples of anomalous gold values from historical trenching at the Ranch Area include:

- **Bonanza Zone:** 72 samples from 21 different trenches yield maximum gold values per trench of >20 g/t Au with seven samples in six trenches yield sample values >119 g/t Au (up to a maximum of 178.8 g/t Au over 1.26 m). High grade sample lengths range between 0.24 m and 1.5 m, averaging 0.72 m;
- **Thesis III Zone:** 29 samples from 8 different trenches yield maximum gold values per trench of >20 g/t Au with five samples in one trench yielded a sample value >150 g/t Au (476.2 g/t over 0.5 m). High grade sample lengths range between 0.42 m and 1.24 m, averaging 0.65 m; and
- **BV Zone:** 38 samples from 21 different trenches yield maximum gold values per trench of >20 g/t Au with two samples from two trenches having >90 g/t Au (98.5 g/t Au over 0.4 m and 95.34 g/t Au over 0.8 m). High grade sample lengths range between 0.4 m and 1.3 m, averaging 0.84 m.

6.4.4 Historical Geophysical Surveys

Numerous historical geophysical surveys have been conducted in the Ranch Area as outlined in Table 6.2. These surveys include:

- Ground magnetic surveys by Sumac Mines Ltd. (1973);
- Ground 2-D induced polarization surveys by Sumac Mines Ltd. (1972), Duke Minerals Ltd (1986), and AGC Americas Gold Corporation (1997);
- Ground very low frequency-electromagnetic/magnetometer surveys by Texasgulf Canada Ltd. (1981), Miramar Energy Corporation, and Duke Minerals Ltd. (1986);

- Airborne magnetic and very low frequency-electromagnetic surveys by E.L.E. Energy Inc. (1986);
- Heliborne electromagnetic and magnetometer-radiometric survey by AGC Americas Gold Corporation (1997);
- Heliborne gamma-ray spectrometric, magnetic total field survey by the Geological Survey of Canada (2003);
- Heliborne magnetic gradiometer survey by Christopher James Gold Corp. (2007);
- Ground 3-D induced polarization survey by Christopher James Gold Corp. (2007); and
- The following is a discussion of the most recent (historical) geophysical surveys.

6.4.4.1 Ground Geophysical Surveys

Several companies have historically conducted ground geophysical surveys on the Ranch Area as outlined in Table 6.2.

A 3-D-IP survey was completed at the Ranch Area in 2007 by SJ Geophysics Ltd. on behalf of Christopher James Gold Corp. The 61 line-km survey was completed over known gold occurrences in the central part of the Ranch Area. East-west survey lines were spaced 100 m apart. The modified pole-dipole 3-D-IP configuration used a combination of 12 to 16 dipoles and measurements were taken every 50 m. The full-length potential array of the survey is 800 m, allowing for a nominal depth of penetration of 400 m.

Total magnetic intensity from this survey is shown on Figure 6.10 and examination of the 75 m and 150 m depth below surface images (Figure 6.11) show three zones of interest, which are defined as follows:

- **Zone 1:** Relatively high resistivity (between 360 and 1200 ohm-m) at the west-southwest of portion of the Thesis II and III Zones. The zone of high resistivity remains open to the west and south;
- **Zone 2:** The contact and (or) fault zone between an area of intermediate resistivity values situated adjacent to a contrasting relatively high resistivity feature. Within the high resistivity zone, four major lineations and four isolated pods of medium to high resistivity (between 360 and 840 ohm-m) can be depicted and may reflect high silica zones as target areas; and
- **Zone 3:** A third area of interest is located northeast of the Bonanza Zone and is defined by a relatively high resistivity zone (>360 ohm-m) that remains open to the west, north and east.

6.4.4.2 Airborne Geophysical Surveys

Several companies have historically conducted airborne geophysical surveys on the Ranch Area, as outlined in Table 6.2.

A heliborne magnetic gradiometer survey was completed at the Ranch Area by Aeroquest International in 2007 on behalf of Christopher James Gold Corp. The survey consisted of a total of 2,229 line-km within a single 54 km² block covering the southern part of the Ranch Area. The area surveyed covered all the historical gold prospects and occurrences on the Ranch Area.

The coloured TMI image presented in Figure 6.10 displays three distinct aeromagnetic highs within the survey area defined by Bowen (2008) as:

- A roughly circular feature measuring ~700 m in diameter centred ~600 m west-southwest of the Thesis III Zone;
- An elongated, north-northwest trending feature measuring ~1,800 m by 400 m and centred ~1 km northwest of the Alberts Hump occurrence; and
- A small broadly circular feature measuring ~200 m in diameter centred ~1,400 m northwest of the Thesis III Zone.

Bowen (2008) suggested the aeromagnetic features may represent intrusions that are possibly co-magmatic with Toodoggone volcanic rocks and be related to a volcanic-hydrothermal system and (or) a porphyry type of intrusion at depth. A distinct northwest-trending aeromagnetic low passes through the Thesis II and III Zones and is representative of a fault system that hosts gold mineralization in the Ranch Area.

FIGURE 6.10 TOTAL MAGNETIC INTENSITY IMAGE FROM THE 2007 HELIBORNE MAGNETIC GRADIOMETER SURVEY OF THE RANCH AREA

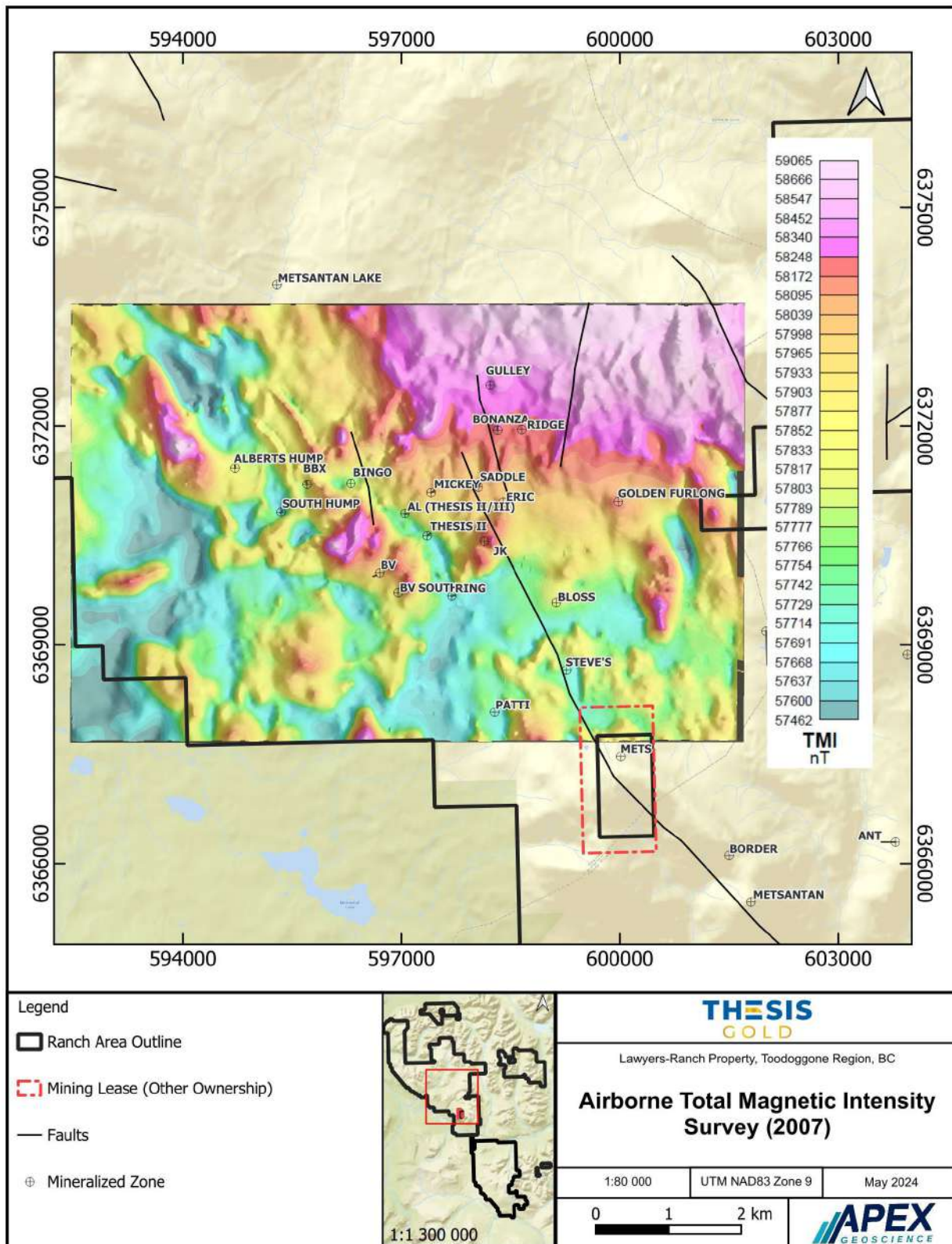
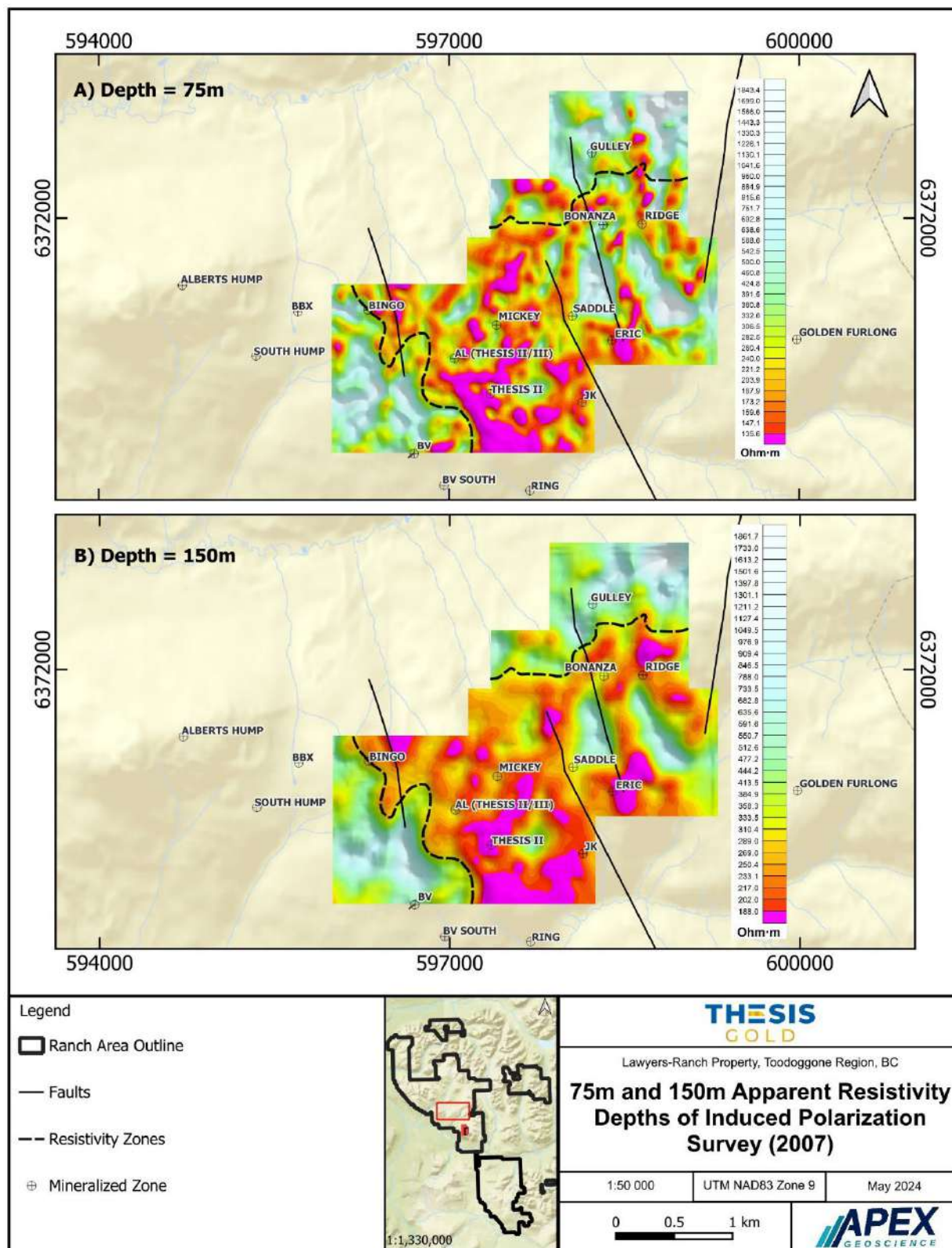


FIGURE 6.11 INTERPRETED RESISTIVITY MODELS FROM THE 2007 3-D-IP SURVEY OF THE RANCH AREA



APEX compiled a historical drilling database that comprises 460 drill holes totalling ~38,822 m of drilling at the Ranch Area (Eccles, 2020). The database includes 17,233 drill core sample analyses. The historical drilling database is incomplete, because several drill holes have missing assays. It should also be noted that sampling was selective with significant sections of drill core apparently remaining unsampled. A Mineral Resource level validation of the historical database has not been completed.

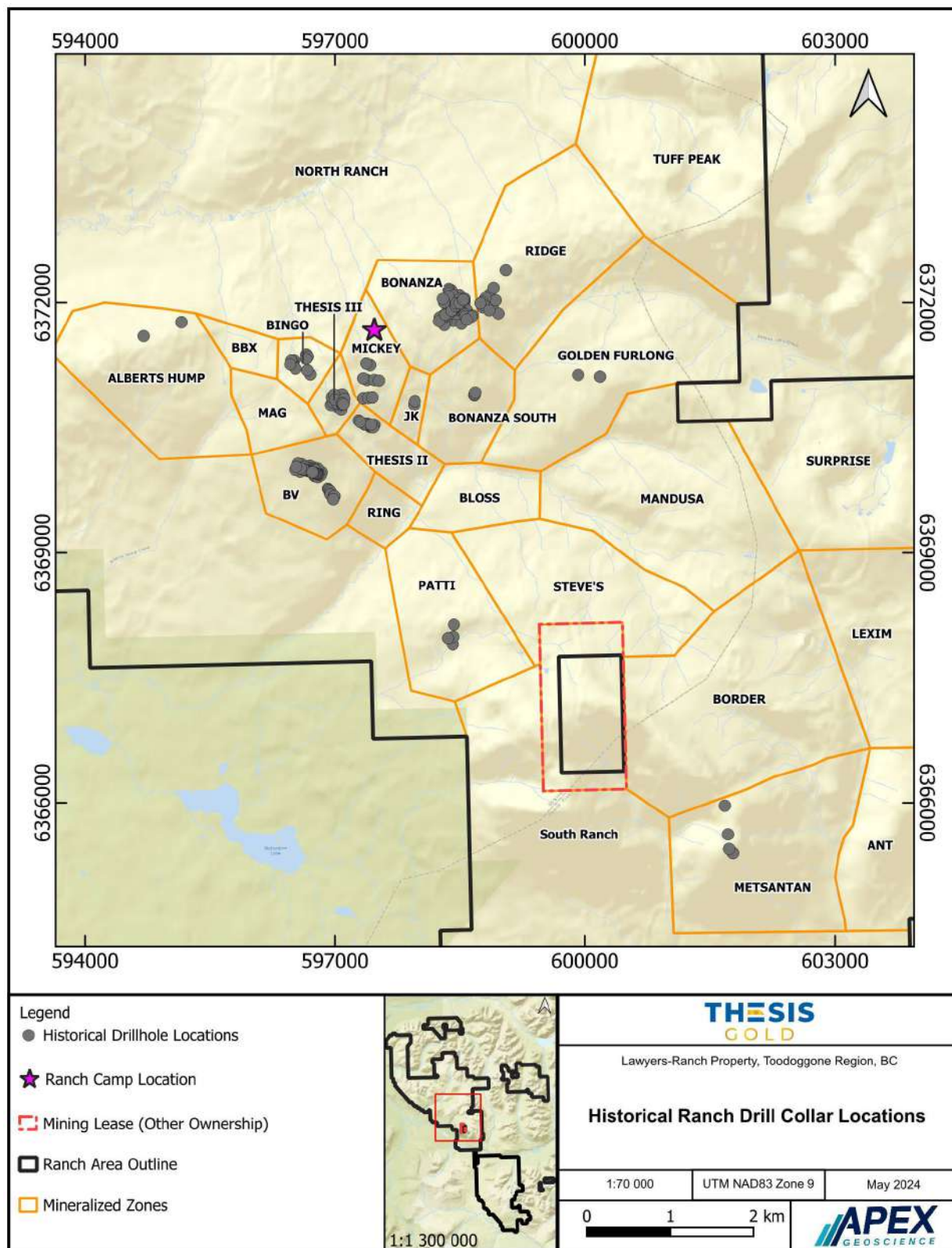
Most of the historical drilling was focused on the Bonanza Zone (233 drill holes) followed by the Thesis III (71 drill holes) and BV Zones (83 drill holes) (Bowen, 2014; Figure 6.12; Table 6.4). The Ridge, Bingo, Thesis II and BV South Zones have been historically tested by between 10 and 16 drill holes at each. Additional mineralized zones that were historically drill tested include Mickey, Patti, Discovery 1 and 2 claims, Golden Furlong, Albert's Hump, JK, and Eric Zones.

TABLE 6.4				
SUMMARY OF HISTORICAL DRILLING BY MINERALIZED ZONE AT THE RANCH AREA				
Zone	Work Period	Core Size	No. of Drill Holes	Metres
Albert's Hump	1982	NQ	2	205.35
Bingo	1988	NQ	14	1559.90
Bonanza	1984 to 2007	HQ, NQ, BTW	233	20,107.20
Bonanza South (Eric)	1988	NQ	3	144.77
BV/BV South	1984 to 1987	HQ, NQ, BQ	83	5,408.35
Golden Furlong	1982	NQ	2	396.33
JK	1988	NQ	2	167.00
Mickey	2007	HQ, NQ, BTW	9	1,340.80
Patti	1986	BQ	5	615.70
Ridge	1984 to 1988	HQ, NQ	15	2,321.00
Thesis II	1984 to 2007	HQ, NQ, BQ	16	989.00
Thesis III	1984 to 2007	HQ, NQ, BQ, BQW	71	4,957.43
Metsantan	1982		5	611.40
Total			460	38,824.23

Source: Bowen (2014)

Historical drilling highlights (from Bowen, 2014), reported as drill core interval lengths, are discussed below.

FIGURE 6.12 HISTORICAL DRILL COLLAR LOCATIONS AT THE RANCH AREA



6.4.4.3 Bonanza Zone

From 1982 to 2007, diamond drilling at the Bonanza Zone consisted of 233 drill holes totalling 20,107 m. Most of the drilling was completed by Energex Minerals Ltd. (“Energex”) from 1984 to 1988 to test the steeply-dipping historical Verrenass, Bonanza West and Bonanza South (Eric) Zones’ fissure-type structures. Additionally, Americas Gold Corporation (“AGC”) (1997), Bishop Gold Inc. (“Bishop Gold”) (2003), and Christopher James Gold Corp. (“Christopher James”) (2007) tested the central historical Ghost Zone with 57 drill holes to depths of 223 m.

Several drill holes were twinned and (or) re-assayed later, the results of which indicate that mineralization at the Bonanza Zone is characterized by nuggety gold. For example,

- Energex's drill hole A87-30 returned 29.9 g/t Au over 25.6 m (from 23.6 to 49.2 m), with individual half-metre assays of up to 366 g/t Au. Drill hole AL97-01 twinned drill hole A87-30 and returned significantly lower values including 2.3 g/t Au over 20 m, and 1.4 g/t Au over 16 m;
- Energex's drill hole AL97-04 which twinned drill hole 87-47 and returned 32.9 g/t Au over 7.0 m, including two assays of 82 g/t Au and 83 g/t Au. This compares to 17.5 g/t Au over 18.6 m in drill hole 87-47, which had values up to 161 g/t Au;
- AGC's drill hole 97-12, which was relogged and re-assayed by Hawkins (2006) returned 4.07 g/t Au over 13 m compared to 6.07 g/t Au over 13 m in 1997; a high-grade interval between 60.0 to 66.0 m returned 11.93 g/t Au in 1997, but only 8.85 g/t Au in 2006; and
- Hawkins (2006) stated that “gold assays were generally 30% lower in 2006 [in comparison to 1997 assay] but given the erratic nature of gold this is considered acceptable”.

6.4.4.4 Thesis II Zone

Historical drilling of the Thesis II Zone primarily occurred between 1984 and 2007, with a total of 16 drill holes completed totalling 989 m by Energex between 1984 and 1988. The drill programs tested the Thesis II Zone to maximum vertical depths of 100 m. Vuggy silica and quartz breccia zones were encountered by all drill holes yielding several broad mineralized zones over a 200 m strike length. The best drill results include the following:

- Assay results in drill hole 88-47 at the southeastern end of the Zone returned 3.45 g/t Au over a drill core length of 33.3 m, including an 11.0 m sub-interval grading 8.02 g/t Au. These intercepts are at a vertical depth of ~60 m below surface;
- Drill hole 07-045 tested the Thesis II Zone at depth, ~40 m vertically below drill hole 88-47, and returned intercepts of 6.0 m with 1.67 g/t Au from 107 to 113 m depth and 6.0 m grading 2.43 g/t Au from 120 to 126 m depth; and

- Results from drill hole A86-33 include 3.2 g/t Au over 36.5 m (including 7.0 m of 10.4 g/t Au) and in drill hole A88-47 2.96 g/t Au over 25.22 m.

6.4.4.5 Thesis III Zone

The historical drilling and exploration in the Thesis III Zone were completed primarily between 1984 and 2007, with most work undertaken by Energex between 1985 and 1988. Seventy-one diamond drill holes totalling 4,957 m were completed, with many drill holes intersecting mineralized vuggy quartz breccias near surface.

Christopher James' 2006 drilling in the "A" Zone area returned intercepts of 16.0 m grading 11.87 g/t Au in drill hole 06-01 and 24.0 m grading 10.75 g/t Au in drill hole 06-02. These higher-grade intercepts were cut at relatively shallow depths ranging from 10 to 30 m below surface.

Christopher James' 2007 drilling program at Thesis III generally tested the Zone at greater depths and returned low grade (<3.0 g/t Au) intercepts over lengths of 1 to 6 m.

6.4.4.6 Ridge Zone

Historical drilling at the Ridge Zone was undertaken by Kidd Creek Mines in 1982 and 1984, but most of the drilling was completed by Energex between 1987 and 1988. Kidd Creek and Energex completed 15 drill holes totalling 2,321 m. All drill holes encountered quartz breccia zones with 9 drill holes encountering high grade mineralization, including, 3.71 g/t Au and 73.6 g/t Ag over 14.9 m in drill hole A88-57 and 3.64 g/t Au, 142.4 g/t Ag over 8 m in drill hole A87-101.

6.4.4.7 Bingo Zone

- Drill hole 88-12 returned average grades of 1.23 g/t Au, 5.68 g/t Ag and 0.29% Cu over a 44.0 m intersection (106.57 to 150.57 m depth), including a 5.0 m intercept grading 1.17 g/t Au, 5.20 g/t Ag and 1.16% Cu (142.57 to 147.57 m depth);
- Drill hole 88-04 returned 2.24 g/t Au, 10.99 g/t Ag and 0.63% Cu over 13.73 m from 58.67 to 72.40 m, including 6.35 g/t Au, 21.25 g/t Ag and 3.24% Cu over 1.0 m from 60.17 to 61.17 m; and
- Drill hole 88-11 yielded 1.89 g/t Au, 57.56 g/t Ag and 0.82% Cu over 9.06 m from 64.09 to 73.15 m (including 4.99 g/t Au, 179.1 g/t Ag and 2.42% Cu over 2.0 m from 66.09 to 68.09 m).

6.4.4.8 Bonanza South (Eric) Zone

In 1988, Energex completed drilling at Bonanza South Zone (formerly Eric), which consisted of 3 NQ holes totalling 145 m. All three drill holes encountered vuggy quartz zones. However, only one drill hole, A88-39 encountered significant Au mineralization (0.92 g/t Au over 11.6 m).

6.4.4.9 BV and BV South Zones

Historical drilling in the BV Zone was completed by Kidd Creek and Energex from 1984 to 1987. A total of 49 diamond drill holes totalling 2,306.3 m were completed on a northwest-southeast trending altered structure. Positive results from drilling led to significant mining by Cheni in 1991.

The BV South Zone was discovered by Energex in 1985 during geological mapping of the previously defined alteration structure at the main BV Zone (Graham *et al.*, 2006). Drilling carried out by Energex occurred in 1985 and 1988 and consisted of 12 diamond drill holes totalling 422 m. The major focus of 1988 drilling was delineating the boundaries of the ~150 m alteration zone. Drill holes BV88-01 to 04, drilled beneath the better mineralized northern part of the Zone, returned values in the <1.0 to 7.45 g/t Au range, including 2.19 g/t Au over 5.3 m (drill hole BV88-04) and 2.65 g/t Au over 3 m (drill hole BV88-03). The best intercept graded 4.85 g/t Au over 2.0 m from 10.5 to 12.5 m in drill hole BV88-04. The remainder of the drill holes generally returned values of <1.0 g/t Au.

6.4.4.10 JK Zone

Historical drilling at the JK Zone was completed by Energex in 1988. Energex diamond drilling consisted of two NQ drill holes totalling 167 m. Both drill holes intersected anomalous gold mineralization, with the best intercept being 1.67 g/t Au over 8 m (drill hole A88-13).

6.4.4.11 Mickey Zone

Christopher James' 2007 Mickey Zone drilling yielded results that ranged from <0.01 to 0.19 g/t Au, <1 to 34.3 g/t Ag, and up to 732 ppm Cu (drill hole A07-036, from 131 to 142 m in drill hole A07-040, and from 133 to 136 m in drill hole A07-042).

6.4.4.12 Patti Zone

Patti Zone drilling began in 1982 after the discovery by Kidd Creek of traces of native gold in drusy quartz-filled vugs and along fractures at the southern end of the Patti Zone and subsequent rock sampling returning values up to 27.8 g/t Au. The program consisted of two diamond drill holes (A82-1 and A82-2) totalling 396 m. A small silica zone was intersected in drill hole A82-2 that returned 0.41 g/t Au over 1.0 m.

Lacana Mining Corporation's drill hole LM-86-1 yielded 1.68 g/t Au over 2.0 m from 20.0 to 22.0 m. Drill hole LM-86-1 returned 6.58 g/t Au over 0.15 m, in a massive pyrite vein, from 133.85 to 134.0 m. Drill hole LM-86-4 returned 2.91 g/t Au over 6.0 m from 58.0 to 64.0 m.

6.4.4.13 Alberts Hump

Historical exploration drilling program at Albert's Hump consisted of two NQ diamond drill holes (A82-11 and A82-12) totalling 205 m in 1982. Drilling did not encounter any anomalous alteration or grades.

6.4.4.14 Metsantan/Border

The Metsantan portion of the Ranch Area was staked in 1980 and explored by Lacana Mining Corporation on behalf of the Canadian Minerals Joint Venture. In 1988, seven drill holes were completed totalling 1,098 m and identified several quartz-breccia systems with associated intense argillic alteration haloes.

The BT, BT North, and Camp Zones make-up the new Border Prospect and are defined by a series of subparallel quartz-barite veins and breccias. At the Camp Zone, two samples were collected from drill hole DDH 88-7, including one sample of grey vuggy textured quartz and another of clay-pyrite altered volcanic rock. The samples yielded gold values of <100 ppb.

6.5 HISTORICAL MINERAL RESOURCES IN THE LAWYERS AREA

Based on positive results from the 1984 drill program, Cheni commissioned Wright Engineers Limited (“WEL”) to complete a feasibility study in 1985, which included an estimate of mineral reserves (Wright, 1985, Table 6.5). A Mine Plan for the Lawyers Area was completed by WEL and submitted to the B.C. Ministry of Energy, Mines and Petroleum Resources in June 1987 (Table 6.5; Wright, 1987). WEL reported “Cut and Diluted” mineable reserves (Wright, 1985; Wright, 1986, 1986a and Wright, 1987), using 95% of the proven and probable geological reserves, a conventional shrinkage stoping mining method, and an “approximate cut-off grade” of 5.15 g/t Au equivalent at a conversion factor for gold equivalency of 1 oz Au = 50 oz Ag.

A summary of historical mineral reserves at the Lawyers Mine is presented in Table 6.5.

All of the mineral resource estimates (MRE’s) discussed below were either calculated prior to the implementation of, or without regard for, the standards set forth in NI 43-101 and current CIM standards for Mineral Resource estimation. Limited information regarding the estimation methods, parameters and assumptions used to calculate these historical MREs are available. The cut-off grades are not reported consistently and, in general, the supporting statistical data and categorization criteria have not been adequately reported. As a result, the Authors of this Report have referred to these estimates as “historical mineral resources” and are not treating them, or any part of them, as current Mineral Resources. The historical mineral resources are only presented to document historical work in the area, as an indication of the exploration and mineralization potential at each of the Prospects discussed.

In 1988, the Cliff Creek Deposit mineral reserves were revised to 838,900 tons (761,037 tonnes) grading 0.183 oz/ton (6.274 g/t) Au and 7.12 oz/ton (244.1 g/t) Ag as probable and diluted, and 524,500 tons (475,818 tonnes) grading 0.170 oz/ton (5.828 g/t) Au and 6.57 oz/ton (225.3 g/t) Ag as possible and undiluted (Cheni Gold Mines Inc., 1990). Work to access the Cliff Creek Deposit was initiated in 1989 (George Cross Newsletter, 1989), with mining of the Cliff Creek North Zone beginning in 1991 (Hawkins, 2003).

TABLE 6.5 SUMMARY OF HISTORICAL MINERAL RESERVES USED IN MINE PLANNING, LAWYERS MINE				
Cut and Diluted**	Tonnes	Ag (g/t)	Au (g/t)	Au Equivalent (g/t)*
AGB Zone	452,600	263.5	8.321	13.59
Cliff Creek Zone	420,300	260.8	5.844	11.06
Duke's Ridge Zone	68,400	226.0	7.868	12.39
Total	941,300	259.6	7.182	12.375

Source: Cheni (1987)

*Notes: *50 oz Ag = 1 oz Au; **95% recovery*

The mineral reserve/resource classification terminology is as described in the original references; however, they do not conform to the Canadian Institute of Mining Metallurgy and Petroleum ("CIM") Definition Standards for Mineral Resources and Mineral Reserves (measured, indicated, and inferred mineral resource classifications, or proven and probable reserve classifications). These historical estimates have not been sufficiently verified by the authors to classify them as current mineral reserves/resources in compliance with National Instrument 43-101 qualifications and should not be relied upon.

Hawkins (2003) presents inferred mineral resource estimates for the Cliff Creek and Duke's Ridge Zones. A preliminary mineral inventory estimate for the Silver Pond West Zone was provided by Kennedy and Vogt (1987). The estimates are briefly summarized below. The tons (or tonnes) and grades presented in Hawkins (2003) Technical Report are identical to the historical data for the respective zones, the differences lie in the classifications of the mineral resource. The Kennedy and Vogt (1987) mineral resource estimates are considered historical, since they predate both the NI 43-101 regulations and the CIM Definition Standards of measured, indicated, and inferred mineral resource classifications, or proven and probable mineral reserve classifications.

The mineral reserve/resource classification terminology presented below is as described in the original references; however, they do not conform to the CIM Definition Standards for Mineral Resources and Mineral Reserves (Measured, Indicated, and Inferred Mineral Resource classifications, or Proven and Probable Mineral Reserve classifications). These historical estimates have not been sufficiently verified by the Authors to classify them as current Mineral Reserves/Mineral Resources in compliance with National Instrument 43-101 qualifications and should not be relied upon.

6.5.1.1 Cliff Creek Zone

The estimated Inferred Mineral Resource from Hawkins (2003) at the Cliff Creek Zone is 69,981 tons at 0.225 oz/ton Au and 6.91 oz/ton Ag (63,500 tonnes at 7.71 g/t Au and 237 g/t Ag), using an AuEq cut-off grade of 0.20 oz/ton (6.86 g/t) and a conversion factor for gold equivalency of 1 oz Au = 93 oz Ag.

6.5.1.2 Dukes Ridge Zone

The estimated Inferred Mineral Resource from Hawkins (2003) at the Duke's Ridge Zone is 23,991 tons at 0.232 oz/ton Au and 6.33 oz/ton Ag (21,764 tonnes at 7.95 g/t Au and 217 g/t Ag), using a gold equivalent (AuEq) cut-off grade of 0.20 oz/ton (6.86 g/t), and the price conversion factor of 1 oz Au = 93 oz Ag.

6.5.1.3 Silver Pond West Zone

Kennedy and Vogt (1987) reported a "drill-indicated" mineral resource for combined subzones A, B, and C of 62,101 tonnes grading 5.85 g/t Au, undiluted. Calculations were conducted using Geostat software, utilizing the polygonal method in longitudinal projection. Polygons were determined by the mid-point between drill holes. The cut-off grade was 2.4 g/t Au over a true width of 1.2 m and a density of 2.88 was used.

6.6 HISTORICAL MINERAL RESOURCES IN THE RANCH AREA

Several historical mineral resource estimates have been completed by past operators involving mineralized zones on the Ranch Area, three of which are discussed in this section: 1) Gemcom Mine Services Inc. (Steffen *et al.*, 1988); 2) Cheni (Cheni Gold Mines Inc., 1992); and 3) Micromine Consulting (Bilki *et al.*, 2007). A summary of the historical mineral resource estimates is presented in the text that follows. The reader is invited to review Bowen (2014) for additional detail. Comparisons between the historical mineral resource estimations are subjective, due to a number of factors including, but not limited to: different assay and geological databases available when the mineral resource estimates were calculated, different mineral resource estimation methodologies, and the lack of uniform cut-off grades.

The historical mineral resource estimates by Gemcom Mine Services Inc. in 1988 and Cheni in 1992 were completed prior to NI 43-101 Standards of Disclosure for Mineral Projects and the authors use categories other than those defined within the CIM Definition Standards on Mineral Resources and Mineral Reserves. The Micromine Consulting 2007 mineral resource estimates were completed after NI 43-101, but Micromine Consulting states "*the purpose of the resource modeling was to estimate the magnitude of the property; therefore, the reported resources are not compliant with the NI 43-101, JORC or any equivalent Code.*"

All of the mineral resource estimates discussed below were either calculated prior to the implementation of, or without regard to, the standards set forth in NI 43-101 and current CIM standards for mineral resource estimation. Limited information regarding the estimation methods, parameters and assumptions used to calculate these historical estimates is available. The cut-off grades are not reported consistently and, in general, the supporting statistical data and categorization criteria have not been adequately reported. As a result, the Authors of this Report refer to these estimates as "historical mineral resources" and are not treating them, or any part of them, as current Mineral Resources. The historical mineral resources are only presented to document historical work in the area as an indication of the exploration and mineralization potential at each of the Prospects discussed.

6.6.1 Gemcom Mine Services Inc. 1988 Mineral Resource/Reserve Estimations

Gemcom's 1988 computer block model mineral reserves for the Bonanza, Thesis III and BV Zones formed the basis of Wright Engineers Limited's October 1988 Project Feasibility Report on the AI Project. Steffen *et al.* (1988) estimated geological reserves based on Energex-supplied computer databases consisting of drill hole data, trenching data, channel data, location information, geological data, and all assay data. The exact PC-Mine software version used is not known.

A 3-D block modelling approach was used in the calculation of in-situ mineral resources and mineral reserves. Each block was allocated a rock type (either a waste or mineralized domain), density, and a gold grade. The interpolating technique used was weighted averaging, using a weighting factor of the inverse of the distance squared of an assay from the block centroid.

Open pits were computer generated using the PC-MINE software system were designed around identifiable mineralized targets composed of blocks containing grade values above cut-off. Each increment was evaluated for profitability using block model economic values calculated from mining cost and revenue data. All profitable and practical mining increments were included to make-up the final pits and non-profitable and impractical increments were excluded. An increased mining cost with increased depth was not specifically included in the pit evaluations.

During the modelling, it was generally accepted that the erratic high-grade values were real and that cutting of assays was not justified. The Bonanza Zone exhibited the most severe nugget effect. To better determine the effects of erratic high-grade assays at Bonanza, two models were created:

1. An "Undifferentiated Grade Zone Model", in which high-grade assays were not treated any differently than other assays; and
2. A "High-Grade Model", in which high-grade zones were delineated and modelled separately from low grade zones.

To create the High-Grade Model, geological interpretation of high-grade zones was performed by Energex geologists in the same manner as the general geological interpretation. Assay values occurring within high grade zones were used to assign block grades within only the interpreted high-grade zones.

Mineral resource/reserve estimations from the Undifferentiated Grade Zone Model and High-Grade Model are presented in Table 6.6 (Steffen *et al.*, 1988). Due to assigning high-grade assays over larger distances, the Undifferentiated Model provides a higher estimate of grade and tonnage than the High-Grade Model. In other words, the interpreted High-Grade Model restricts the effects of high-grade assays to a smaller volume than does the Undifferentiated Model. Steffen *et al.* (1988) stated "*It is important to note that the model created with high-grade and low-grade zones treated separately provides a more realistic representation of the ore body than does the undifferentiated model. Despite its slightly lower grade and tonnage figures, we recommend the use of this model for further ore reserve estimates.*" As a result, the High-Grade Model assumes a more local distribution of high-grade values, and is therefore a more conservative estimate of the distribution of high-grade values.

For the Bonanza Zone, estimates for both the undifferentiated grade zone and high-grade zone models are shown.

TABLE 6.6 GEMCOM MINE SERVICES INC. HISTORICAL (1988) IN-SITU RESOURCE/RESERVE ESTIMATIONS FOR THE BONANZA, THESIS III AND BV ZONES USING CUT-OFF GRADES OF 3.5 AND 5.0 G/T AU				
Mineralized Zone	Cut Value for Au	Cut-off Au Grade (g/t)	Au Grade (g/t)	Tonnes
Bonanza	Undifferentiated	5.0	14.24	150,950
	Undifferentiated	3.5	10.56	237,680
	High Grade	5.0	14.95	83,340
	High Grade	3.5	9.22	181,780
Thesis III	Undifferentiated	5.0	14.40	24,060
	Undifferentiated	3.5	11.86	32,000
BV	Undifferentiated	5.0	12.11	46,630
	Undifferentiated	3.5	9.81	65,640

Notes: The key assumptions and estimation parameters used to determine the above historical mineral resource estimates are unknown and are not reported in the appropriate categories as required by NI 43-101 and defined within the CIM Definition Standards on Mineral Resources and Mineral Reserves. More work would be necessary to upgrade or verify the historical estimates, and a qualified person has not done sufficient work to classify the historical estimates as current Mineral Resources or current Mineral Reserves. As a result, neither the Company nor the Authors of this Report are treating these historical estimates as current Mineral Resources or current Mineral Reserves.

6.6.2 Cheni Gold Mines Inc. 1992 Mineral Resource/Reserve Estimations

After completing a program of surface bulk sampling, Cheni recalculated mineral inventories in the Bonanza and Thesis III Zones. Although they comprise historical mineral resource estimates, the “Cheni” estimations are of interest, due to their conservative approach to resource estimation, which was based on their operational experience at the past-producing Lawyers Mine and at the AL (“Ranch”) and Mets Properties.

Bonanza Zone

After mining 4,700 tonnes from the Ghost Pit in 1991, Cheni recalculated the remaining Bonanza mineral inventory for the three zones (Verrenass, Ghost and South Bonanza). The 1992 Bonanza Zone mineral resource/reserve estimation is presented in Table 6.7 (Cheni Gold Mines Inc., 1992). The cut-off grade was 5.0 g/t Au, assays were uncut, and no dilution was applied. Density values were not provided. In early 1992, Cheni completed an internal feasibility study and developed a mineable mineral reserve of 36,670 tonnes grading 15.56 g/t Au, based on the Bonanza mineral inventory estimate shown in Table 6.7, a gold price of US\$355 per ounce, a gold recovery rate of 75%, a strip ratio of 4.75:1, and 25% dilution at zero grade.

Thesis III Zone

After mining 4,500 tonnes from the high-grade Thesis III (A Zone) Pit in 1991, Cheni recalculated the remaining Thesis III mineral inventory. The 1992 Thesis III Zone mineral resource/reserve estimation is presented in Table 6.7 (Cheni Gold Mines Inc., 1992). A cut-off grade of 3.5 g/t Au was used, and with densities of 2.53 g/cm³ for oxide and 2.75 g/cm³ for sulphide. Assays were uncut and no dilution was applied.

TABLE 6.7 CHENI HISTORICAL (1992) MINERAL RESOURCE/RESERVE ESTIMATIONS OF THE BONANZA AND THESIS III ZONES			
Mineralized Zone	Cut-off Au Grade (g/t)	Au Grade (g/t)	Tonnes
Bonanza	5.0	14.06	69,225
Thesis III	3.5	16.75	13,012

***Note:** The key assumptions and estimation parameters used to determine the above historical estimates are unknown and are not reported in the appropriate categories as required by NI 43-101 and defined within the CIM Definition Standards on Mineral Resources and Mineral Reserves. More work would be necessary to upgrade or verify the historical estimates, and a Qualified Person has not done sufficient work to classify the historical estimates as current Mineral Resources or current Mineral Reserves. As a result, neither the Company nor the Authors of this Report are treating these historical estimates as current Mineral Resources or current Mineral Reserves.*

Cheni eliminated from its “Open Pit Reserves” the southeast extension of the Thesis III Zone, because it averaged between 3 to 5 m in width. The relatively narrow width for this segment of the Zone, and its attendant high stripping ratio, made it uneconomic to mine from surface. Several high-grade intersections were present in the deleted blocks; there may remain some potential here for the development of additional resources at depth (Bowen, 2014).

BV Zone

Cheni did not re-calculate mineral resources/reserves at the BV Zone after open pit mining in 1991, which reportedly mined 49,790 tonnes grading 10.95 g/t Au from the BV Pit (Bowen, 2014). There may remain potential at BV for the development of additional mineral resources at depth or along strike to the northwest and southeast (Bowen, 2014).

6.6.3 Micromine Consulting 2007 Mineral Resource/Reserve Estimations

In 2007, Christopher James Gold Corp. commissioned Micromine to carry out mineral resource modelling and estimations on the Bonanza, Thesis III and BV Zones. The modelling and estimations incorporated all historical trenching and diamond drilling data, and therefore are the most complete of the three historical mineral resource estimates presented.

The mineral resource model utilized: a 5 m DEM; 12,412 (historical), 289 (2006) and 1,389 (2007) drill hole assays; and 6,275 trench assays. Two mineral resource estimates were calculated, one without a top cut (capping) and a second using a “top” or assay cuts of 100 g/t Au (capping limit). Classical statistical analysis was implemented to estimate the natural cut-off grade for gold mineralization and also to determine the distribution parameters of gold grades.

Interpreted assay strings were used to generate 3-D solid wireframes for each set of mineralized envelopes that corresponds to a separate zone of mineralization. A total of 12 mineralization wireframes were created: Bonanza, Bonanza1, Bonanza2, Bonanza3, Bonanza4, Thesis III, BV1 (BV Zone), Ridge, Bingo, Thesis II, BV2 (BV South), and Ore Body 7. Block modelling used a block size of 5 x 5 x 5 m with sub-blocks of 1 x 1 x 1 m.

Gold grades were interpolated into the block model using the Inverse Distance Weighting (“IDW”) method. The IDW2 and IDW3 algorithm(s) were used to interpolate the grades. Both processes used the same search ellipsoid parameters. Declustering was performed during the interpolation process by using four sectors within the search neighbourhood. The search ellipsoid radii were used to determine the class of the block. Specific gravity and moisture were not calculated or measured in the laboratory or at the Ranch Gold Project site; a nominal density value of 2.5 t/m³ was used.

Mineral resource summaries for the Bonanza, Thesis III and BV Zones are presented in Table 6.8 (Bilki *et al.*, 2007) and area reported using “uncut” and “100 g/t Au top cut” gold assay values with cut-off values of 3.5 and 5.0 g/t Au. It is not clearly stated if the tonnages mined by Cheni from the three zones were removed from the mineral resource modelling performed by Micromine.

TABLE 6.8 MICROMINE CONSULTING HISTORICAL (2007) MINERAL RESOURCE ESTIMATIONS *				
Mineralized Zone	Cut Value for Au (g/t)	Cut-off Au Grade (g/t)	Au Grade (g/t)	Tonnes
Bonanza	Uncut	5.0	10.95	135,190
	Uncut	3.5	8.40	216,740
	100 g/t “top cut”	5.0	9.80	135,190
	100 g/t “top cut”	3.5	7.68	216,740
Thesis III	Uncut	5.0	11.88	31,990
	Uncut	3.5	8.78	53,670
	100 g/t “top cut”	5.0	10.65	31,990
	100 g/t “top cut”	3.5	8.03	53,670
BV	Uncut	5.0	11.13	64,390
	Uncut	3.5	9.53	83,660
	100 g/t “top cut”	5.0	10.90	64,390
	100 g/t “top cut”	3.5	9.35	83,660

*Note: * The key assumptions and estimation parameters used to determine the above historical estimates are unknown or uncertain and they are not reported in the appropriate categories as required by NI 43-101 and defined within the CIM Definition Standards on Mineral Resources and Mineral Reserves. More work would be necessary to upgrade or verify the historical estimates, and a Qualified Person has not done sufficient work to classify the historical estimates as current Mineral Resources or current Mineral Reserves. As a result, neither the Company nor the Authors of this Report are treating these historical estimates as current Mineral Resources or current Mineral Reserves.*

6.7 HISTORICAL PRODUCTION IN THE LAWYERS AREA

The production and mineral processing information presented in this section is provided as background historical information. The Authors have not verified the historical gold production or the results of the processing testwork. As a result, this information is provided as a matter of historical record only and no implications are intended with respect to the potential for future production from the Lawyers Area.

The Lawyers Area was put into production starting at the AGB Deposit in 1989, at a designed rate of 500 tonne (550 ton) per day, with a projected processing and underground mining operation of 10 years (Cheni Gold Mines Inc., 1990). Overall, projected process recoveries were 95% for gold and 75% for silver (Wright, 1987). Mineralized material was mined using blast-hole stoping and shrinkage mining and was processed using two-stage crushing, single-stage ball mill grinding, cyanidation and a Merrill-Crowe precipitation circuit. Flotation was used on the residue from the cyanide circuit to recover any unleached silver minerals, which subsequently underwent a small cyanidation circuit to extract the silver and any remaining gold (Wright, 1987).

Work to access the Cliff Creek Deposit was initiated by Cheni in 1989 (George Cross Newsletter, 1989), with mining of the Cliff Creek North Zone beginning in 1991 (Hawkins, 2003).

At the Phoenix Zone, a historically mined zone 25 m long and 35 m deep was defined in 1992 from data acquired through trenching and completion of 20 surface drill holes totalling 950 m. The initial mineral reserve for the Phoenix Zone was 3,245 tons (2,943.81 tonnes) grading 1.69 oz/t Au (57.94 g/t) and 101.7 oz/ton (3,486.86 g/t) Ag. Mineralization was stoped from the 1,830 m level through to the surface producing 5,439 tons (4,934 tonnes) of material to be processed, resulting in recovery of 6,713 ounces of gold and 296,084 oz of silver (Cheni Gold Mines Inc., 1992). Cheni chose to not pursue the Phoenix Zone any further and it was reclaimed in the mid-1990s.

A summary of historical mining production at the Lawyers Mine is presented in Table 6.9. Between 1989 and 1992, Cheni mined the AGB, Cliff Creek, and Phoenix Deposits, and produced 171,177 oz. Au and 3,548,759 oz Ag, for a total of 671,133 tons of mineralized material treated at the Lawyers process plant (Table 6.9; Cheni Gold Mines Inc., 1990; 1991; 1992; 1993). Note that these totals include an estimated 10,000 oz Au recovered from an estimated 41,200 tonnes of mineralized material that Cheni mined from the nearby AL Property (“Ranch”) and processed at the Lawyers plant in 1991 (Bowen, 2014). The Lawyers Mine formally closed in 1994, due to considerations of mineable grades and economics.

TABLE 6.9 SUMMARY OF LAWYERS MINE PRODUCTION 1989 TO 1992					
Year	Material Processed (tons)	Grade Au (oz/ton)	Au (oz)	Grade Ag (oz/ton)	Silver (oz)
1989	154,960	0.320	48,500	7.240	918,300
1990	203,097	0.277	52,630	7.353	1,160,426
1991	193,086	0.214	38,530	4.931	720,706
1992	119,990	0.286	31,517	7.503	749,327
Total	671,133		171,177		3,548,759

Source: Cheni (1990, 1991, 1992, 1993)

Note: Totals include estimated 10,000 oz gold recovered from an estimated 41,200 tonnes of ore that Cheni mined from the nearby AL Property ("Ranch") and processed at the Lawyers plant in 1991 (Bowen, 2014).

6.8 HISTORICAL PRODUCTION IN THE RANCH AREA

The production and mineral processing information presented in this section is provided as background historical information. The Authors have not verified the historical gold production or the results of the processing testwork. As a result, this information is provided as a matter of historical record only and no implications are intended with respect to the potential for future production from the Ranch Area. The sub-section discusses information presented by Bowen (2014).

Historical production/mineral processing on the Ranch Area consisted of small bulk samples that include:

1. Minor pilot plant processing of high-grade Thesis III "A" Zone mineralized material by Energex in 1986. The 6-tonne per day capacity pilot plant processed a total of 209 tonnes of mineralized material from the Thesis III "A" Zone in 1986. Recoveries by standard jig and flotation methods exceeded 91%, with heads averaging 47.6 g/t Au (Bowen, 2014);
1. In 1991, Processing of an estimated 41,200 tonnes of mineralized material from the Bonanza, Thesis III and BV Zones at Cheni's Lawyers plant Approximately 10,000 ounces of gold was recovered from Ranch Area 'open pits, in which the surface-mined mineralized material was trucked ~40 km to the Lawyers plant for processing. The mineralized material from the BV, Thesis and Bonanza Zones was reported to grade 9.2 g/t Au (Cheni Gold Mines Inc., 1991, 1992);
1. At the Bonanza Zone, Cheni mined 4,700 tonnes of mineralized material grading 14.06 g/t Au from the Ghost Pit, which was 10 m by 33 m in area and ~7 m deep (Bowen, 2014). Two other smaller pits were developed on the nearby Verrenass and Bonanza South high-grade zones. In 1991, open pit mining of the Thesis III Zone resumed by trucking mineralized material to the nearby Lawyers plant. In total, 4,500 tonnes of mineralized material grading 16.75 g/t Au were processed by Cheni in 1991 at the Thesis III Prospect. Based on the strong results from drilling and significant backhoe trenching completed in

the late-1980s, the BV Zone was the focus of the most significant mining undertaken by Cheni in 1991. A total of 32,000 tonnes of mineralized material grading 9.81 g/t Au was processed at the Lawyers Plant; and

1. Cheni's original plan was to mine 50,000 tonnes from the BV pit and 5,000 tonnes from each of the Thesis III and Bonanza Zones; the planned 60,000 tonnes target was not reached as an unstable pit wall prevented the removal of additional planned tonnage (Bowen, 2014).

A summary of mining activities in the Ranch Area is presented in Table 6.10.

TABLE 6.10 SUMMARY OF HISTORICAL MINING IN THE RANCH AREA				
Year	Company	Zone	Material Processed (t)	Au Grade (g/t)
1986	Energex Minerals Ltd.	Thesis III	209	?
1991	Cheni Gold Mines Inc.	Bonanza	4,700	14.06
1991	Cheni Gold Mines Inc.	Thesis III	4,500	16.75
1991	Cheni Gold Mines Inc.	BV	32,000	9.81

Source: Bowen (2014)

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 REGIONAL GEOLOGY

The Lawyers-Ranch Property is situated in the Toodoggone Region, an area measuring ~1,500 km², extending from the Kemess South Mine area northwestward to the Chuckachida River. The region is underlain by strata of the Stikine Terrane and occurs within the Intermontane Belt. The Stikine Terrane consists of Paleozoic to Mesozoic island arc assemblages and overlying Mesozoic sedimentary sequences. The oldest rocks exposed in the region consist of crystalline limestone of the Lower Permian Asitka Group. They are unconformably overlain by, or in thrust contact with, mafic volcanic rocks of the Upper Triassic Takla Group, which is the equivalent of the Stuhini Group on the western side of the Bowser Basin. Takla Group volcanic rocks are, in turn, overlain by bimodal volcanic and sedimentary strata of the Lower-Middle Jurassic Toodoggone Formation, of the Hazelton Group (Lane *et al.*, 2018; Figure 7.1 and Table 7.1).

The Toodoggone Formation volcanic rocks are composed of predominantly subaerial successions of pyroclastic and epiclastic rocks that are calc-alkaline andesite to dacite in composition. The region resembles a synclinorium in northwest-southeast oriented section (Lane *et al.*, 2018). Toodoggone volcanics display broad open folds with bedding dips of generally <25° mainly to the west. Potassium-argon dating of hornblende and biotite indicate that Toodoggone volcanism ranges from 204 to 182 Ma and can be divided into two main volcanic events: 1) an older, lower stage of volcanism dominated by andesite pyroclastics and flows characterized by widespread propylitic and zeolitic alteration; and 2) a younger, upper stage of volcanism dominated by andesite ash-flow tuffs that generally lack significant epithermal alteration (Diakow *et al.*, 1993). Intense and repeated faulting led to the development of a regional-scale collapse feature, the “Toodoggone Depression” (Bowen, 2007); which localized epithermal gold-silver mineralization in areas including Shasta, Lawyers, and Ranch (Bowen, 2014). All the known epithermal gold-silver deposits and occurrences are restricted to the lower Toodoggone Formation volcanics and underlying units.

Cretaceous-aged sedimentary rocks unconformably overlie the volcanic strata of the Toodoggone Formation, including fine-grained clastics of the Skeena Group and chert pebble conglomerates and finer grained clastics of the Sustut Group. These sedimentary rocks are structurally unaffected and form horizontal cap rocks to high-standing plateaus, primarily on the western edge of the Toodoggone Region (Lane *et al.*, 2018).

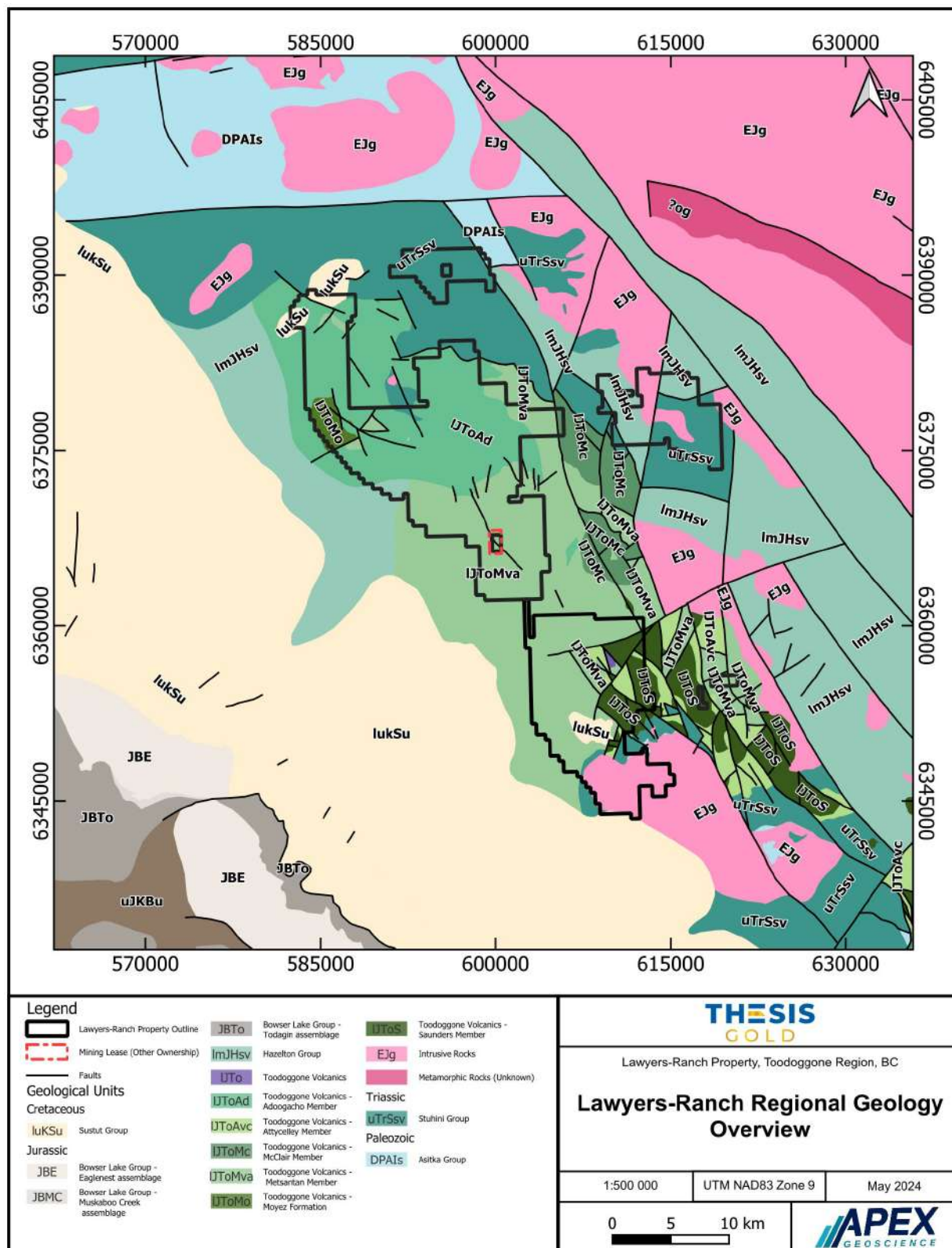
Late Triassic to Middle Cretaceous intrusions are exposed throughout the Toodoggone Region. The most significant intrusion-related precious metal and porphyry mineralization occurs in the Early Jurassic granodiorite to quartz monzonite bodies known as the Black Lake Suite intrusions. These bodies are considered to be comagmatic with Toodoggone volcanics (Bowen, 2014), and host significant porphyry copper-gold mineralization in several areas, including the former Kemess South Mine and many additional deposits on the Kemess Property in the southeastern part of the Toodoggone Region (Lane *et al.*, 2018).

A northwest-trending set of younger, steeply-dipping faults and half-grabens are the principal structures found in the region (Figure 7.1). Major structural breaks are considered to have occurred

due to a northwesterly trend of volcanic centres (Diakow *et al.*, 1993). Small stocks are also aligned northwesterly, suggesting that their intrusion was influenced by the same structural trend. Younger faults that postdate Middle Jurassic-Lower Cretaceous volcanism and intrusions are recognizable as northwest-trending lineaments (Figure 7.1). Major north-northwest fault systems in the region are, from west to east: Attorney, Moosehorn-McClair, and Saunders-Jock. Most prominent gossan zones are aligned along this configuration of faults.

A recent update to the regional geology was completed in 2021 by Luke Ootes of the BC Geological Survey who conducted reconnaissance field work. Ootes' (2023) observations suggest that the epithermal mineralization in the Toodoggone Region is preserved within the axial trace of a large-scale open fold. Field work and previous mapping in the region allowed for regional tracing of the stratigraphic younging direction, which suggests a northwest- plunging, northeast vergent synclorium-anticlinorium pair, connected by a ~100 km limb (Ootes, 2023). The Black Lake Suite, exposed in the southern part of the Lawyers Area, is coincident with the hinge zone of this axial trace. The spatial and possibly temporal coincidence of epithermal mineralization with the anticlinorium axial trace may suggest a link between folding, intrusion, and epithermal mineralization (Ootes, 2023).

FIGURE 7.1 REGIONAL GEOLOGY OF THE LAWYERS-RANCH PROPERTY



Source: Geological Units from Cui et al., (2017)

TABLE 7.1
STRATIGRAPHY OF THE TOODOGGONE REGION

Period	Group	Formation	Lithology
Upper and Lower Cretaceous	Sustut	Brothers Peak Tango Creek	Nonmarine conglomerate, siltstone, shale, sandstone; minor ash-turf
			Cassiar Intrusions: Quartz, monzonite and granodiorite
Major Unconformity			
Lower Cretaceous to Middle Jurassic	Bowser Lake		Marine and nonmarine shale, siltstone and conglomerate
Conformable Contact			
Middle and Lower Jurassic	Spatsizi	Toodoggone	Marine equivalent of the Hazelton Group; shale siltstone and conglomerate, subordinate fine tuffs
	Hazelton		Subaerial andesite to dacite flow and tuffs, rare basalt and rhyolite flows; subordinate volcanic siltstone to conglomerate; rare limestone lenses
			Black Lake Intrusive Suite: Granodiorite and quartz monzonite
Unconformity			
Upper Triassic	Takla		Submarine basalt to andesite flows and tuffs, minor limestone and argillite
Unconformity			
Lower Permian	Asikta		Limestone, chert, argillite
Major Terrane Boundary Fault			
Cambrian and Proterozoic			Siltstone, shale, sandstone, limestone; regionally metamorphosed to greenschist and amphibolite grade

Sources: Diakow *et al.* (1993) and Lane *et al.* (2018)

7.2 PROPERTY GEOLOGY

The following description of the Toodoggone Formation is largely taken from Lane *et al.* (2018) and was compiled from several reports on the Project area. These include past assessment reports, publications of the B.C. Geological Survey, internal and external reports by PPM, including the Wright Engineers Limited 1985 Feasibility Study, 1986 Technical/Economic Study and 1987 Mine Plan, and a Technical Report Covering the Lawyers and Al (Ranch) Properties written by Paul Hawkins, P.Eng.

The Toodoggone Region is characterized by volcanic strata of the Lower-Middle Jurassic and underlies the Lawyers-Ranch Property. The Toodoggone Formation is a compositionally uniform subaerial volcanic succession that consists of six lithostratigraphic members divided into

Lower and Upper Eruptive Cycles (Table 7.2). The members are characterized by high potassium, calc-alkaline latite and dacite volcanic strata emplaced along a north-northwest trending, elongate volcano-tectonic depression (Diakow *et al.*, 1993).

TABLE 7.2 STRATIGRAPHY OF THE TOODOGGONE FORMATION				
Formation	Member	Eruptive Cycle	Age (Ma)	Description
Toodoggone	Saunders	Upper	192.9 to 194	Trachyandesite tuff
	Attycelley		193.8	Dacite tuffs and related feeder dykes and sub-volcanic domes
	McClair			Heterogeneous lithic tuff, andesite flows and sub-volcanic dykes and plugs
	Metsantan	Lower	197 to 200	Trachyandesite tuff
	Moyez			Well-layered crystal and ash tuff
	Adoogacho		197.6	Trachyandesite ash flows to lapilli tuff and reworked equivalents

Source: After Diakow et al. (1993)

The distribution of map units as well as the dominant structures that are significant to mineralization on the Lawyers-Ranch Property formed due to broad scale intra-arc extensional faults within a broader magmatic arc (Diakow *et al.*, 1993). The Toodoggone volcanics at the Property have undergone brittle graben development and subsequent strike-slip movement that is interpreted as contemporaneous with the main eruptive cycles occurring in the Jurassic (Thesis, 2022b; Diakow *et al.*, 1993). The major structural features on the Property is a series of well developed, steeply dipping northwest to north-northwest (320° to 350°) striking normal faults (Thesis, 2022b; Figures 7.2 and 7.3 detailed geology maps of the Lawyers and Ranch Areas, respectively) as well as north-northeast and northeast trending faults that are interpreted to be extensional faults related to graben development during the formation of the Toodoggone Depression. The northwest trending structures and associated mineralization are locally offset by southwest-northeast trending strike-slip faults with minimal lateral displacement (Thesis, 2022b; Figures 7.2 and 7.3). Northeast faults are offset by north-northeast trending faults, evident in the offset of locally intruded magnetic dykes in the ground magnetics. Fault reactivation in the Late Cretaceous-Early Tertiary resulted in minor localized dextral strike-slip movement (Diakow *et al.*, 1993).

Volcanic strata within the fault blocks generally dip shallowly to the west (Lane *et al.*, 2018) and were later tilted within rotational blocks of the large graben features that characterize the structural domains of the Property. The sedimentary packages of the Sustut Group that overlay the volcanics of the Toodoggone Formation (Figure 7.4) were deposited within an extensional basin, and commonly contain volcanic breccia clasts.

7.2.1 Lawyers Area Property Geology

The Lawyers area of the Property consists of two distinctive units of the Lower Eruptive Cycle rocks; a quartz andesite overlain by a sequence of trachyandesites (Vulimiri *et al.*, 1986). A sequence of welded tuffs overlies the ash tuffs of the Adoogacho Member. The Metsantan Member, which overlies large sections of the Lawyers area, is predominantly composed of trachyandesite tuffs that contain block-sized trachyte porphyry (Lane *et al.*, 2018). Potassium-Argon (“K-Ar”) dating indicates that there was an 8M year hiatus in volcanism between the Lower and Upper Eruptive Cycles resulting in the partial erosion of earlier volcanic and plutonic rock sequences (Table 7.2). Resurgent volcanism deposited the pyroclastic Attycelley and Saunders members of the Upper Eruptive Cycle after the intervolcanic hiatus, which are composed mainly of bedded lapilli tuffs, dacite ash and lava flows (Diakow *et al.*, 1991). Historical mapping completed by the B.C. Geological Survey identified the volcanic Attycelley, Metsantan and Saunders Members as the largest components of the eruptive cycles present in the Lawyers Area (Figures 7.1 and 7.2).

The south-central portion of the Lawyers Area is unconformably capped by younger Early to Late Cretaceous clastic conglomerates that are part of the sedimentary Sustut Group. The horizontal overlying sedimentary strata of the Sustut Group formed due to sedimentation in the post-volcanic Toodoggone Depression, and are likely responsible for the preservation of the underlying epithermal systems by protecting them from erosion following regional uplift (Diakow *et al.*, 1991).

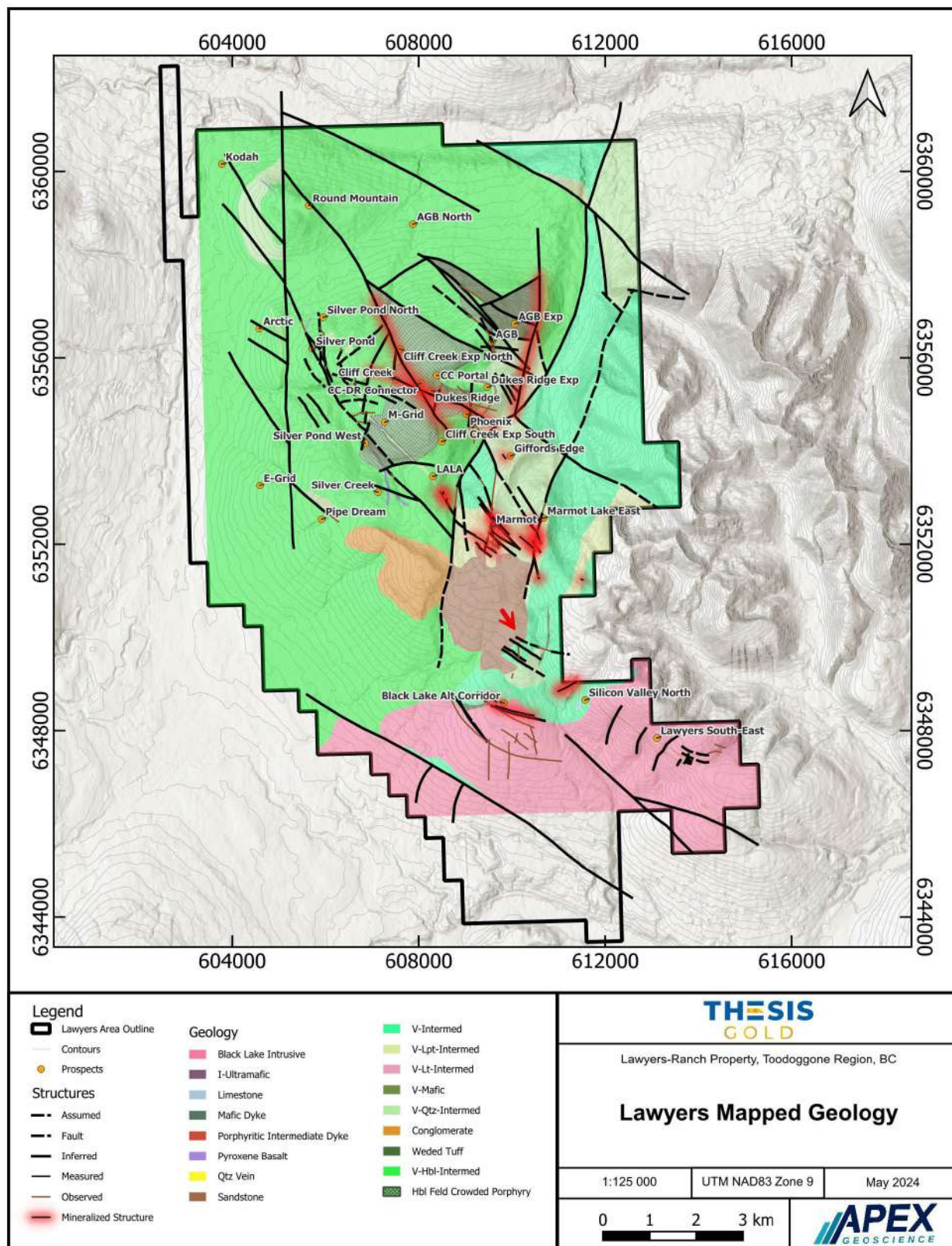
Locally, mafic dykes, which typically strike northwest and dip sub-vertically, are unaltered and cut mineralization (Vulimiri *et al.*, 1986). They may be feeder dykes to pyroxene basalts of the Attycelley Member located east of the Attorney Fault (Diakow *et al.*, 1993). In the western and northwestern part of the Lawyers Area, a series of northwest-striking rhyolite dykes occur along the same structures that host mineralization at the M-Grid Zone (Blann, 2005) and at some of the Silver Pond Zones (Caira, 1982; Kennedy and Weston, 1985). The southern portion of the Lawyers Area contains the Black Lake Intrusive Suite, which consists of granodiorite to quartz monzonite and cogenetic intermediate dykes. Magmatism was likely focused by deep rooted fault systems formed during extension (Figure 7.4), as indicated by the general northwest elongation of plutons along major regional faults. Pyroxene-phyric basalt flows and limestones of the Stuhini Group outcrop along the margins of the Black Lake Intrusive Suite southeast in the Lawyers Area. The Black Lake Intrusive Suite is cross cut by late-stage dykes with compositions ranging from rhyolite (granite) to basalt (gabbro).

Mapping in 2020 of the Lawyers Area defined ten major structural domains and four main fault orientations, with varying relationships to mineralization and related alteration. The first major structural feature is a series of steep to subvertical, 310° to 340° striking faults that dip southwest or northwest. This fault system exhibits normal displacement with minimal strike-slip movement that is likely due to reactivation. The 310° to 340° faults are syn-post mineralization and generally have a similar orientation as the mineralized zones at Cliff Creek, Duke’s Ridge, Phoenix and AGB, and could be related to the hydrothermal mineralization processes in the main Lawyers trend. Localized sections of the stratigraphy contain conglomerates adjacent to major fault zones, which are associated with infill of extensional basins that occurred concurrently with the

Toodoggone eruptive cycles (Figure 7.4). A post-mineralization, north-dipping, approximately east-west (90°) trending fault system offsets northwest to north-northwest trending structures and stratigraphy. The Marmot Zone in the Lawyers Area has another series of subvertical north (010°) trending fault structures that are likely syn-post mineralization. The north-trending faults have associated mineralized fracture zones and rock samples returned several anomalous assays. Another series of steeply-dipping, approximate southwest-southeast (205°) faults transect the Marmot Zone and separate it from the main Lawyers trend. The timing of the 205° faults is unknown and they do not have any observable mineralization or alteration at surface. The later stage fault series, which occurred after the initial north to northwest trending 310° to 340° extensional faults, are responsible for the geometry and subsequent variable rotation of the graben blocks that constitute the identified structural domains of the Lawyers Area. Variable reactivation and minimal displacement of the different fault systems is indicated by kinematic indicators, such as conjugate Riedel structures and lineations, identified in the mapping program, and common macro-micro scale fault gouge and fault breccia zones visible in drill core.

The Lawyers Area 2021-2022 mapping identified several structures and fault systems across some secondary prospects (Figure 7.2). The Silver Pond Zone is dominated by steeply-dipping, northwest-trending structures and secondary north-south and northeast-southwest structures. The northwest structures are observed rotating into north-south orientations and where structures of different orientations intersect, the offset is minimal. Within the Black Lake Corridor, northwest to north-northwest faults were identified. The dip of the faults cannot be measured from surface, and are assumed to follow the near-vertical orientation of the similar northwest to north-northwest trending faults on the Lawyers Resource Area. The apparent northerly rotation of the major faults in the Black Lake Alteration Corridor is largely an artifact, due to topography in the area. The major structures appear to be associated with mineralization; basalt and limestone near the contact of the pluton and proximal to northwest to north-northwest structures are intensely silicified and contain up to 15% concentrations of sulphides. A series of sub-parallel white quartz veins oriented ~280°/65° cross cut all lithologies and structures, defining a late east-west structural fabric across the area. Ground magnetic and VLF surveys over Kodah and Round Mountain led to investigations of inferred northwest-trending faults in 2022. Additionally, a zone of hydrothermal breccia with sulphides and quartz veining was identified west of the main drilling trend, along the major of north-south fault at the Marmot Zone. The timing and control of the north-south fault is undetermined; it is assumed to be late based on apparent offset and regional structural trends. The bedding of the host rock to the south is quite steep and varied, which may be a result of transpositioning and re-orientation during movement along the fault. Such movement is also evident in a mafic dyke that appears to be caught-up into the north-south fault, suggesting significant sinistral motion along the fault, because the dyke is not exposed on the other side for several metres.

FIGURE 7.2 LAWYERS AREA 2020 TO 2022 GEOLOGICAL MAPPING



7.2.2 Ranch Area Property Geology

The Ranch Area of the Property is primarily underlain by volcanic strata of the Lower-Middle Jurassic Toodoggone Formation where the northernmost two-thirds features trachyandesite ash-flows to lapilli tuffs and reworked equivalents of the Adoogacho Member. Overlying trachyandesite (latite) flows with lenses of lapilli tuff of the Metsantan Member occupy the southern part of the Ranch Area. Additional volcanic and sedimentary rocks of limited extent include small areas of Metsantan Member volcanic conglomerate and finer bedded epiclastic rocks exposed in the eastern part of the Ranch Area. Limited exposures of Upper Triassic Stuhini Group (also referred to as Takla Group) basalts and sedimentary rocks have also been observed in the northwestern portion of the Ranch Area, whereas a subvolcanic plug or flow dome related to Toodoggone volcanism occurs in the northeastern portion of the Ranch Area. Lithological contacts are rarely observed. Many units appear to grade into one another and the compositional differences between most units are minimal. Local unconformities are also common between and within units; equally common are fault contacts between units. Many units have reworked equivalents, where tuffaceous and block material have been moved or washed by local alluvial processes, such as debris slides/flows, sheet wash, stream channeling, and other erosive activities present in a dynamic, subaerial volcanic environment.

In the Ranch Area, detailed mapping completed from 2021 to 2023 focused mainly on the areas around known mineralized zones, characterizing mappable volcanic and intrusive units composed primarily of intermediate and smaller amounts of intermediate-felsic porphyritic volcanic and volcanoclastic flows, tuffs, and dykes (Figure 7.3). These units are differentiated by their phenocryst composition and the size/composition of their clastic components. Several of these volcanic rocks display distinct characteristics, such as auto-brecciation of porphyritic units, fiamme textured lapilli, and abundant biotite phenocrysts.

Volcanic units on the Ranch Area are variably intruded by dykes of similar composition to the host volcanics. These dykes have previously been interpreted as representing feeder systems to the major eruptive cycles (Diakow *et al.*, 1993). Field mapping by Thesis revealed a series of intermediate porphyritic dykes flanking known mineralization (Figure 7.4). Dykes commonly display moderate to strong magnetism and, in drill core, generally have faulted contacts with the hosting volcanic units. These dykes trend north-northeast and northwest throughout the main deposit area and are distinguishable in ground magnetics surveys.

The development of vuggy silica alteration and subsequent mineralization are consistent with a structurally-controlled hydrothermal system localized within pre-existing northwest- to northeast-trending faults. One of the major extensional northwest fault systems that intersects the Ranch Area is directly associated with the Thesis II, Thesis III and Bingo Zones, indicating a clear genetic relationship between faulting, alteration, and mineralization (Figure 7.4). The Bonanza Zone mineralization has both northwest and northeast orientations, whereas the Ridge Zone is northeast-trending. The JK and Bonanza South Zones are both north-trending. The structural characteristics observed in the 2021 exploration program are also observed in magnetic survey data, providing a potential mechanism for locating new exploration targets.

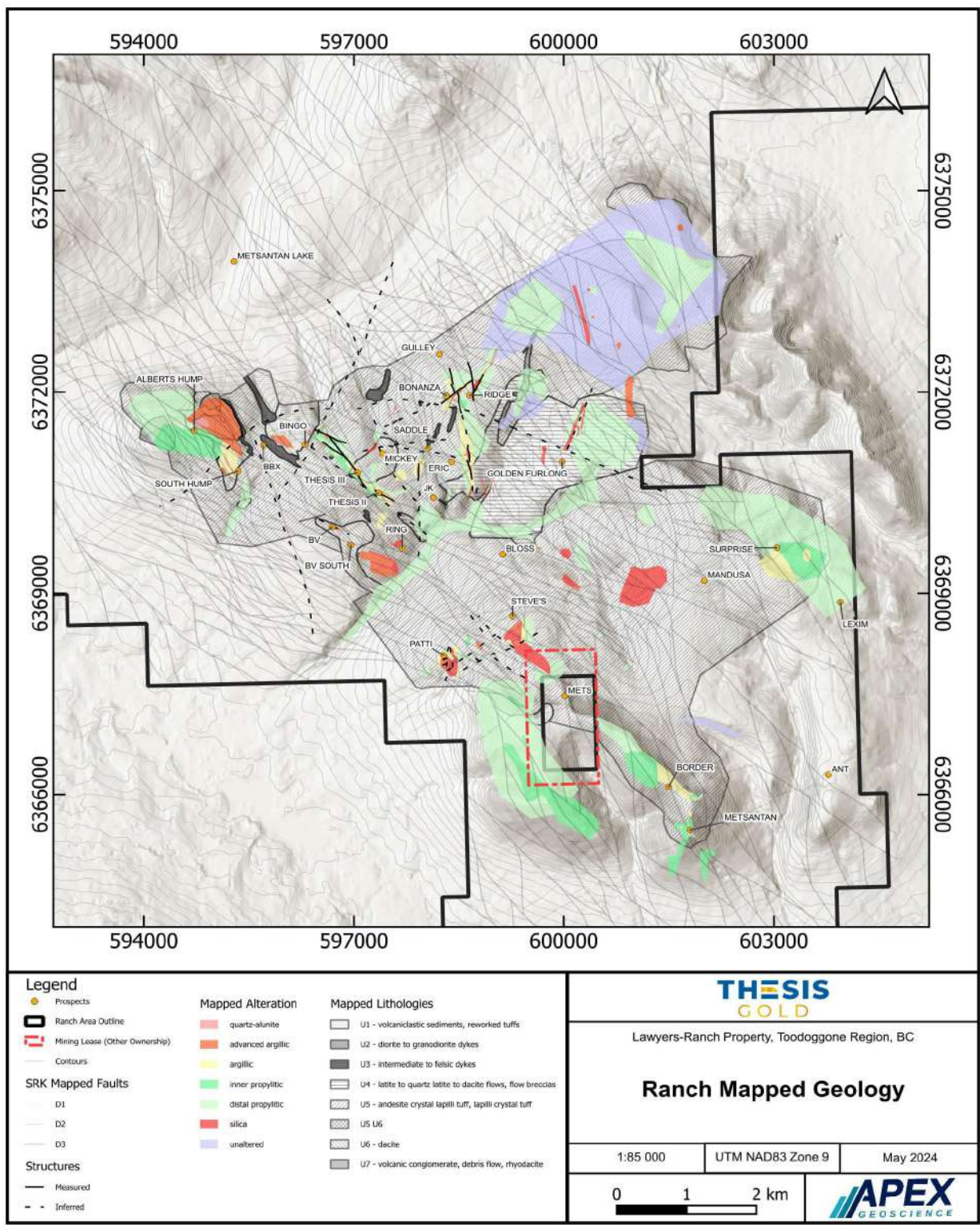
Despite recent mapping, structural interpretation is limited by poor rock exposure. Where bedrock is exposed, the volcanic units are generally flat-lying or dip gently to the west. Folding has not been observed. Locally steeper dips (generally $<30^{\circ}$) are likely the result of the original paleotopography and (or) block rotations across fault planes.

Thesis Gold commissioned SRK Consulting (Canada) Inc (“SRK”) to conduct a geological mapping and structural interpretation program across several Ranch Area Prospects in 2022. The program consisted of mapping structures, lithologies, and alteration to better understand structural controls on precious metal mineralization across the Ranch Area, with a focus on the Alberts Hump, Patti, Steve, Mandusa, Bloss, Thesis II, Ring, and BBX Prospects. SRK also completed a geophysical structural interpretation to complement the 2022 field work, which is discussed in Section 9 and briefly below.

SRK identified and mapped three different fault generations, D₁, D₂, and D₃. D₁ faults are east to east-northeast trending and are rare in the mapped area, and therefore little is known about any relationships between these faults and gold occurrences. D₂ structures are steeply dipping brittle faults with northeast- to north-trend that were reactivated during D₃ deformation. The precise age of D₂ faulting is unknown. D₂ faulting is interpreted as a major control on heat distribution and fluid flow, which localized precious metal mineralization at Ranch. D₂ faults are commonly cross cut by Late Cretaceous-Eocene aged D₃ faults. D₃ faults are the most abundant in the area and are described as southeast to south-southeast trending with moderate to steep dip. D₃ fault deformation is temporally and structurally related to mineralization, high sulphidation style alteration and barite-quartz veining, and are categorized as dextral strike-slip faults. High-temperature alteration assemblages and elevated Cu and Au rock and soil assays are commonly aligned with D₃ and D₂ faults. Pre-existing D₂ deformation likely played a key role in localizing mineralization.

Ranch also exhibits a series of north-south trending faults. Limited information is available for the structures; however, they appear to have two different relationships with mineralization. Where north-south structures intersect northwest- and (or) northeast-trending structures, mineralization may be present. The Steve and JK Zones are examples of this relationship. A possible explanation for this relationship could be that north-south structures remobilize mineralization. Alternatively, where north-south structures do not intersect other structures, they appear to offset mineralization, as suspected at Thesis II and modelled at Bonanza-Ridge. Further investigation of these relationships is required to fully understand their relationship to mineralization.

FIGURE 7.3 DETAILED GEOLOGY, ALTERATION, AND STRUCTURE OF RANCH MINERALIZED ZONES

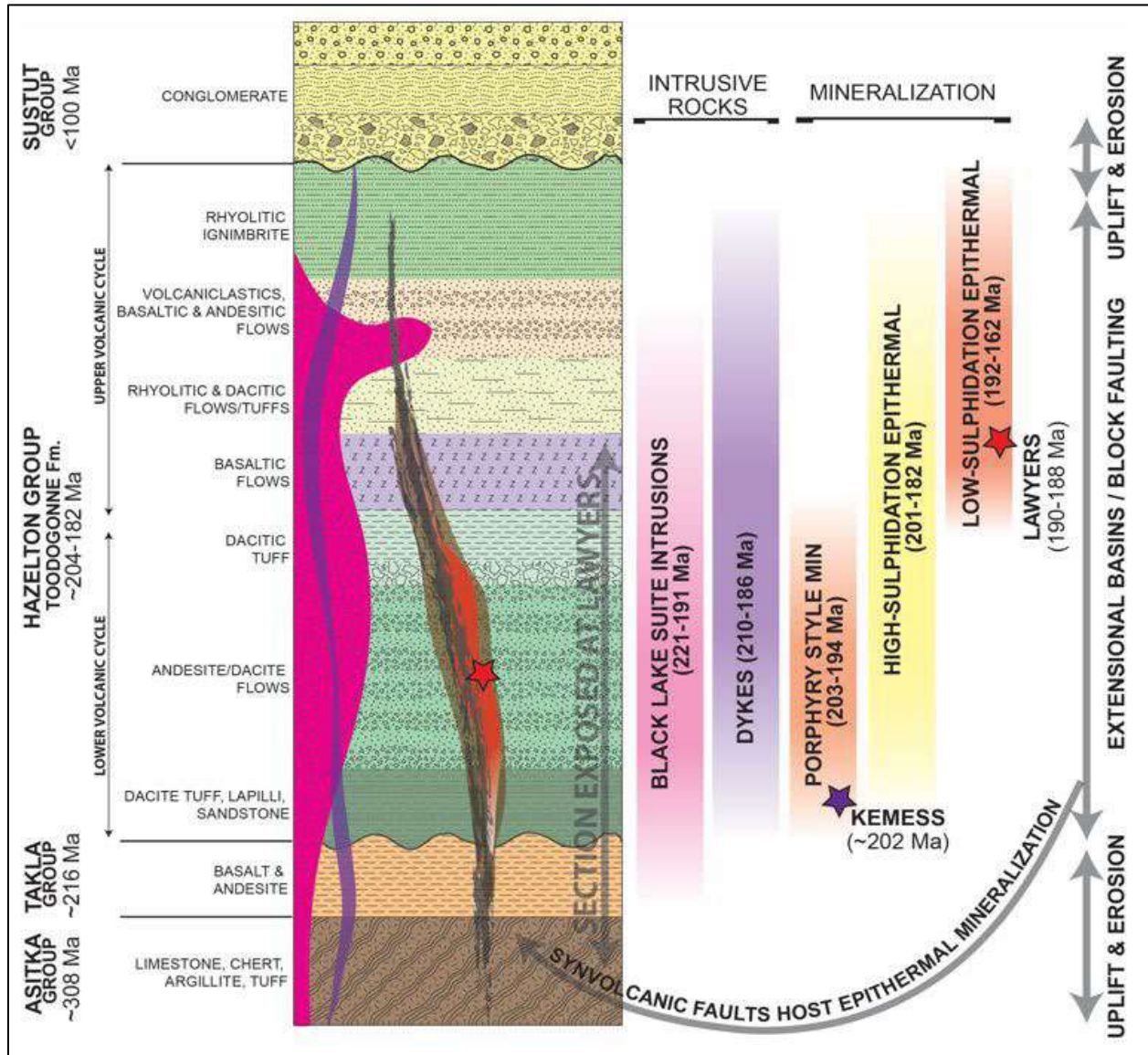


7.3 MINERALIZATION

The Lawyers-Ranch Property exhibit similar alteration and mineralization styles, where deposits in the Lawyers Area are of the low to intermediate sulphidation epithermal type and in the Ranch Area are primarily of the high-sulphidation (acid-sulphate) epithermal type with accessory supergene alteration facilitated by meteoric water percolation.

Mineralization on the Lawyers-Ranch Property is hosted predominantly within the Metsantan Member of the Lower Eruptive Cycle, which consists of a thick sequence of trachytic ash falls and flows with K-feldspar megacrysts (Lane *et al.*, 2018). This sequence is overlain by hornblende-bearing andesite crystal tuffs and breccias (Vulimiri *et al.*, 1986). A thick package of flood basalts overlies the trachyandesites and marks the base of the Upper Eruptive Cycle (Figure 7.4).

FIGURE 7.4 STRATIGRAPHIC SECTION OF THE TOODOGGONE REGION AND TIMING OF MINERALIZATION



Source: Benchmark Metals (2020)

7.3.1 Lawyers Area Mineralization

Mineralization in the Lawyers Area is hosted in a sequence of intermediate porphyritic rocks that are divided into mappable units based on volcanic textures and phenocryst mineralogy (Figure 7.2). Key mineralogical identifiers of mapped units in Thesis' mapping program include quartz "eyes", hornblende with variable modal abundance, and fine-medium grained K-feldspar and biotite. Additional surface mineralization hosted in lapilli tuffs of the Saunder Member in the east central portion of the Lawyers Area was identified by previous historical work and mapping.

Low to intermediate sulphidation epithermal-style alteration and associated mineralization is most common in the Lawyers Area. The most extensive low sulphidation footprint is in the central and eastern parts of the Lawyers Area, though banded epithermal-style quartz veining is visible sporadically across the entire Area. A km-scale advanced argillic alteration zone known as the Silver Pond Clay Zone, occurs northwest of Cliff Creek, amongst the historical work areas of Silver Pond North and Silver Pond West. Mineralization is not observed in the clay at surface; however, zonation of the clays could indicate possible porphyry centre or potential for high sulphidation mineralization at depth (*Dufresne et al.*, 2019).

Low sulphidation style mineralization present in the Lawyers Trend is structurally controlled, with the main northwest to north-northwest trending faults considered to be fluid conduits and localities of deposition. Dilation due to extension and displacement along fault structures resulted in the targeted high-grade mineralized vein shoots, such as those observed at the Duke's Ridge, Cliff Creek and Phoenix Zones. Intersecting fault planes appear to result in a convergence of fluid conduits, concentrating high-grade mineralization. Deposits are variably truncated and offset, due to a series of post-mineralization faults. Observations made during mapping and core logging identified sections of the Cliff Creek hanging wall that contain more mineralization and related alteration, which could indicate a preferred fluid pathway or possible displacement that caused juxtaposition of mineralized zones and relatively unaltered host rock.

Volcanic rocks in the Lawyers Area are typically very weakly altered with primary depositional textures well preserved. Narrow localized zones associated with mineralization in the main deposit areas (Cliff Creek, Duke's Ridge, AGB) are intensely silicified with associated strong, texturally-destructive potassic alteration. Potassic alteration is pervasive in hydrothermal breccia zones and occurs as narrow boundaries on mineralized vein margins outwards from the main breccia zones. Potassic alteration replaces plagioclase phenocrysts and groundmass silicate minerals. Various alteration assemblages are observed across the Lawyers Area and typically are restricted to unique areas with varying degrees of associated mineralization. Alteration zones may exhibit crude zonation surrounding some areas of mineralization. Where present, zoned alteration assemblages are found from distal to proximal as follows:

- Propylitic – epidote, chlorite, albite.
- Hematite – pervasive alteration and replacement of mafic minerals.
- Argillic – kaolinite, smectite, illite, sericite.
- Advanced Argillic – pyrophyllite, dickite, alunite.
- Phyllic – quartz-sericite-pyrite alteration (“QSP”).
- Silicic – microcrystalline quartz, silica flooding.
- Potassic – fine-grained potassium feldspar as adularia ± sericite.

High-grade mineralization in the Lawyers Deposit Area is commonly associated with hydrothermal breccia zones composed of translucent to milky/opaque quartz-chalcedony veins and veinlets with varying concentrations of sooty metallic grey fine-grained sulphides (acanthite, sphalerite, pyrite). The hydrothermal breccia zones typically display intense pervasive potassic alteration that commonly resulted in complete replacement of visible phenocrysts. Multi-phase veining and hydrothermal brecciation, and alteration that overprint volcanic textures, indicates that multiple fluid pulses occurred. Mineralization at Marmot Lake does not appear to be controlled by

hydrothermal breccia zones, rather by intervals of strong propylitic and (or) potassic alteration commonly with increased epidote veining and in the groundmass. Mineralization at Silver Pond has been observed in highly sericitized/QSP altered zones with 10 to 20% disseminated pyrite.

Low to intermediate grade mineralization in the Lawyers Area are associated with quartz veins and veinlets that cross cut the host porphyritic volcanic rocks. The mineralized veins are typically banded with quartz, fine-grained sulphides, sometimes with hematite, and rarely native silver, gold or electrum. Mineralized veins are associated with potassic alteration haloes that vary in width from mm to cm scale.

Precious metals mineralization typically consists of fine-grained native gold and silver, electrum and acanthite. Precious metals are locally associated with minor base metal mineralization, which includes minor amounts of chalcopyrite, sphalerite and galena. The exception is a base metal-rich mineralization style that occurs in the main Cliff Creek Zone at depths >300 m, as discussed below.

Crystalline to comb quartz is typically white to colourless, whereas chalcedony ranges from white to beige, pale green, pale grey to dark grey, and reddish-brown in colour. Veins commonly display banded and crustiform textures that are typical of low-sulphidation epithermal vein systems. Amethyst, pale grey chalcedony, white sparry calcite occupies the centres of veins and (or) form late veinlets that cross cut earlier phases of mineralized quartz-chalcedony. At least six pulses of chalcedony and quartz vein deposition have been recognized at the AGB Zone, with at two phases of mineralized quartz veining (Thesis, 2019) (Figure 7.5). Breccias locally contain angular clasts of earlier banded veins, which allows for a relative age to be established. Veining generations in the other resource area prospects are comparable to those at AGB.

FIGURE 7.5 AGB VEIN GENERATIONS



Source: Benchmark Metals (2020)

Thesis drill core logging programs at Lawyers use a fluid domain classification scheme developed to estimate the degree of influence potentially mineralizing fluids had on the surrounding lithologies. The domains can be used to trace the geometry of the epithermal systems along key structural features and through host rocks. The characteristics of the domains are uniquely defined for each major prospect in the Lawyers Area and categorized by intensity on a scale, from strongest to weakest, of 1 to 3 (for example, Cliff Creek has the domains CC1, CC2, and CC3). Zones that contain mineralization are generally hosted within a domain (Domain 1) that is characterized by a high degree of intense pervasive alteration, multiphasic brecciation, stockwork veining, and intense silicification. These sections typically range from total to near-total replacement of the host rock. Sections with less veining and alteration (Domain 2) typically form an envelope around Domain 1 and contain smaller amounts of mineralization features associated with high-grade zones. Domain 3 contains minor amounts of weak alteration (any assemblage) and rare veining. Both Domains 2 and 3 can occur as variably zoned gradients surrounding mineralized shoot veins, or as isolated occurrences that could have formed as minor offshoots of the main epithermal zone. All domains have potential for mineralization.

Fluid inclusion analysis by Reynolds (1983) indicate that there is no demonstrable genetic association with magmatic fluid, due to the low temperature (175° to 335°C), low salinity (1 to 11 equivalent wt% NaCl) character of the fluids responsible for metal deposition. Isotopic data suggests that the source of the fluids in the hydrothermal system is likely meteoric and (or) metamorphic as the Lawyers Area experienced low grade burial metamorphism (Duuring *et al.*, 2009).

The age of epithermal mineralization at Lawyers is constrained by Ar-Ar and K-Ar age dating of adularia. The age of potassic alteration at the AGB Zone and Cliff Creek Zones, determined by Ar-Ar dating is 188.0 ± 2.3 Ma and 189.7 ± 2.6 Ma, respectively (Clark and Williams-Jones, 1991). A K-Ar age on adularia collected from Stage 2 vein envelopes exposed in the 0+75N cross cut on the 1750 m level of the AGB Zone is 180 ± 6 Ma (Diakow *et al.*, 1993). None of the Silver Pond Group of prospects have been age dated.

A total of 29 prospects and mineral occurrences are present on the Lawyers Area. The following summaries are a combination of the work by Lane *et al.* (2018) (in *italics*) and more recent information from Thesis' exploration programs. Detailed summaries of the main Lawyers Prospects are included below; all other mineralized zones of interest are summarized in Table 7.3.

7.3.1.1 Amethyst Gold Breccia (AGB) Zone (094E 066)

According to Lane *et al.* (2018), *“The AGB deposit is a north-northwest striking, steeply west-dipping zone that occupies a topographic high situated immediately west of the historical Attorney fault (Figure 7.2). The zone has been traced for more than 900 m along strike, greater than 400 m vertically, and averages 150 m true thickness up to 300 m wide. Detailed surface and underground mapping and sampling by SEREM / Cheni determined that the AGB Zone forms a discrete vein system at depth that flares upward forming distinct hanging wall and footwall zones (Vulimiri et al., 1986). The AGB Zone is cut by several post-mineral faults principle among them is a northwest trending 60° southwest-dipping structure with demonstrated left lateral and normal displacement. Where the fault cuts the AGB Zone, mineralization is re-brecciated, containing angular clasts of vein material in a matrix of limonite and hematite.”*

The Deposit consists of fracture-controlled, elongate breccia bodies and stockwork veins. The principle economic minerals are fine-grained electrum, acanthite ('argentite'), native gold and native silver accompanied by minor pyrite, chalcopyrite, sphalerite and galena. Silver to gold ratios average 20:1.

Exploration in 2021 defined another style of mineralization at AGB that differs from the primary deposits where mineralization has a strong association with potassic alteration and silica veining. Common occurrences of hematite and epidote salvage on carbonate and silica veining related to both broad zones of mid-low-grade gold and silver, and discrete high-grade zones, occur in both deep and shallow drilling of the AGB South Zone. This mineralization is separated and slightly offset from the main AGB Zone by an east-west fault. The sense of movement along this fault is not clear, and it is possible that the south mineralization represents a different level of the system. Both displacement along the east-west fault and variation in topography to the south may be a contributing factor to the different style of mineralization observed there.

Alteration assemblages display weak spatial zonation with argillic at higher elevations, silica-adularia-sericite at intermediate levels and silica-adularia at lower elevations. These alteration assemblages are enveloped laterally by zones of propylitic alteration, which consist of chlorite and minor epidote, calcite and hematite.

7.3.1.2 Cliff Creek Zone (094E 066)

The Cliff Creek Zone, a north-northwest trending zone located 2,000 m west-southwest of the AGB Zone, has a strike length of at least 1,600 m, has been explored to a depth of >650 m, and has width at surface ranging from 300 to 400 m. In section, the Zone consists of a main feeder zone at depths of 250 to 500 m that is 20 to 60 m thick and flares into the thicknesses modelled near-surface. The Cliff Creek Zone includes the historical Cliff Creek North (Cliff Creek Main), Cliff Creek Central and Cliff Creek South Subzones and recent extensions to the Zone, which include the Cliff Creek Exp. North Zone and Cliff Creek Exp. South Zone, which form a continuous zone of alteration and mineralization contained primarily in dilational structures along the Cliff Creek Fault.

Mineralization at the Cliff Creek Zone consists primarily of discrete banded quartz-chalcedony $\pm$ amethyst veins, fracture-fillings and vein stockworks, and silicified potassic altered breccia bodies. As documented by Lane *et al.* (2018), *“Adularia occurs adjacent to the veins and is commonly accompanied by sericite. Argillically-altered wall rock, comprising kaolinite and minor illite, forms symmetrical envelopes that extend for up to 10 m from vein margins beyond which propylitic alteration, consisting of chlorite, epidote, calcite and hematite, prevails. A supergene alteration assemblage of clays and limonite is superimposed on the zone and penetrates to depths of up to 30 m from surface.”*

Exploration completed by Thesis Gold between 2018 and 2022 identified key geological relationships that led to a greater understanding of the mineralization mechanisms at Cliff Creek. As a result, several extensions of the Cliff Creek Zone have been defined, including the Cliff Creek Exp North Zone, Cliff Creek Exp. South Zone, and the CC-DR Connector Zone. The CC-DR Connector Zone connects the east portion of the Cliff Creek Zone to the Dukes Ridge Zone, which together constitutes a strike length of 700 m and a vertical depth of 200 m.

Hydrothermal breccia zones, which most commonly host mineralization, are demarcated by fault boundaries, composed mainly of fault gouge and breccia. Veining generations at Cliff Creek are comparable to AGB, with multiple generations of cross-cutting chalcedony-quartz and common re-brecciation on subsequent silica flooding events, followed by late-stage calcite veining. Higher grade intervals are strongly correlated with mm-scale, metallic grey, fine-grained sulphide veinlets, with rare occurrences of native silver and gold. Mineralized breccia zones have a strong association with pervasive potassic (potassium feldspar and sericite) alteration and smaller amounts of patchy hematite overprinting of the matrix.

Drilling at Cliff Creek in 2020 revealed a new mineralization style that is higher in base metals compared to the main Cliff Creek mineralization. This mineralization style occurs at depths >300 m. This deep zone at Cliff Creek North is associated with the conjunction of the Dukes Ridge and Cliff Creek fault/vein systems at depth. Similarities between the deep zone in Cliff Creek South and Cliff Creek North indicated a possible structural intersection comparable to the intersection between Dukes Ridge and the main basal fault, which controls the core of the Cliff Creek North mineralization. This base metal rich mineralization is associated with a general decrease in potassic and silica alteration intensity, but much higher amounts of epidote propylitic alteration, with epidote replacement of host rock matrix and phaneritic phenocrysts and lower

overall vein density with an increase in carbonate over silica veining. Higher-grade intervals are associated with discrete sooty-sulphide stringers and quartz veins, commonly with visible base metals and rare precious metals.

7.3.1.3 Dukes Ridge Zone (094E 066)

The Dukes Ridge Zone is a northwest-trending zone located 500 m east of the Cliff Creek Central Zone, has a strike length of at least 500 m, has been explored to a depth of 400 m, and has a thickness of 100 to 150 m.

The Dukes Ridge mineralization most commonly occurs in intervals of potassic alteration, whether pervasive or as vein halos. Veins consist of mainly banded, according to Lane *et al.* (2018), “*quartz-chalcedony-amethyst stockwork veining and breccias with traces of pyrite, base metal sulphides and local, fine-grained electrum and acanthite.*” Veining is dominated by multiple phases of cross-cutting quartz stockworks, and smaller amounts of sulphides. These quartz stockwork zones are surrounded by well-defined intense potassic alteration envelopes.

Exploration and modelling work conducted by Thesis between 2018 and 2022 shows Dukes Ridge as a repeating set of west to northwest-trending mineralized structures, cut by northwest-trending structures. The west-northwest structures appear to be narrow high-grade vein systems, whereas the northwest truncating structures are cataclasite and hydrothermal breccias with a basal gouge fault. This faulting formed the footwall and hanging wall contact and is nearly always the base of mineralization. Higher grade and broader mineralization occur at the junction of these mineralized structures. This may be a smaller scale example of what is observed at the main Cliff Creek North Zone; a deeper high-grade mineralized shoot at the conjunction of the west-northwest and northwest structures. These zones were identified by extending drilling north towards the Cliffs Creek Connector Zone and south towards the Phoenix Zone. Successive exploration drill programs have confirmed the west-northwest and northwest structures controlling mineralization at Dukes Ridge. A broad zone of tectonic breccia is typically intersected along the major Dukes Ridge fault trend, followed by a volcano-sedimentary unit, which is texturally distinct (immature sandstone) from the more common massive andesites and andesite tuffs observed uphole and at Cliff Creek. Mineralization is hosted in veins associated with structures and potassic alteration like the Cliff Creek mineralization.

7.3.1.4 Phoenix Zone (094E 066)

The Phoenix Zone is located 75 m south of the east end of the Dukes Ridge Zone. This northwest-trending, near-vertical zone has a strike length of ~100 m and extends from surface to a depth of at least 100 m. According to Cheni Gold Mines (1992), “*the zone consists of a banded precious metals-bearing quartz ± chalcedony vein hosted by siliceous orthoclase megacrystic tuffs. Pervasive hematite with abundant sulphides form an alteration envelope 0.5 to 2.0 m wide; it gives way to epidote-dominated, propylitic altered wallrock. Large feldspars are typically altered to kaolinite and calcite, and late calcite stringers cut the vein and altered wallrock. The mineralized zone is narrow, ranging up to 0.5 m in true width and averaging 0.3 m. The principle economic minerals are acanthite (argentite), electrum, and leaf and wire silver.*”

Drilling at the Phoenix Zone during 2018 to 2022 intersected the high-grade Phoenix vein below historical mining and drilling, extending the zone to 100 m vertical depth. This drilling confirmed that high-grade gold and silver mineralization occurs beyond the historical workings. Phoenix drilling expanded on some narrow-mineralized trends running into Dukes Ridge and to the southeast Phoenix South Zone.

7.3.1.5 Marmot Zone (094E 073)

The Marmot Zone has a strike length of ~460 m. Gold grades include 101 m of 0.82 g/t AuEq, including 18 m of 2.5 g/t Au in drill hole 20MLDD005. Grades along strike are general patchy. To date, the Zone has not been included in the Mineral Resource Estimates.

According to Diakow et al. (1993), “The occurrence area is underlain by andesite crystal tuffs, volcanoclastic breccias and hypabyssal quartz trachyandesites, part of a larger package of Toodoggone Formation volcanics assigned to the Metsantan Member and dacitic volcanic rocks of the Saunders Member. Other lithologies of the Metsantan Member include mostly latite lava flows with interflow lahar, and a mix of epiclastic and pyroclastic rocks.

Several major steeply dipping structures are observed disrupting the moderately dipping interbedded crystal tuffs and volcanic rocks underlying the occurrence. These structures are the southward extensions of major faults related to epithermal mineralization at the Silver Pond prospects (094E 069, 75 and 160-163) and the Lawyers Mine (094E 066). In turn, high-angle northeast-striking faults appear to truncate and displace northwest-striking faults. Collectively these faults form a boundary for variably rotated and tilted blocks underlain by monoclinical strata.

Mineralization is associated with moderate to strong propylitic epidote veining and increased epidote and sericite in groundmass as well as local hydrothermal breccia zones with potassic alteration. Mineralization is bound by mineralized fault gouge. Higher-grade intervals/zones are correlated with millimetre-scale metallic grey sulphide veinlets and quartz/chalcedony veins.”

7.3.2 Other Lawyers Area Prospects

The Lawyers Area has several additional prospects/occurrences that historically have been lower priority than the Zones described above. Nevertheless, these Prospects remain interesting targets that warrant further work. A summary of highlights is presented below in Table 7.3.

TABLE 7.3 MINERALIZATION SUMMARY OF OTHER LAWYERS AREA PROSPECTS		
Prospect / Occurrence	Commodity	Description
Round Mountain East (094E158) + Round Mountain West (094E159)	Gold, Silver	An area of advanced argillic alteration with minor quartz veining strikes north-northwest and is exposed over a length of ~200 m and a thickness of ~150 m. Within the alteration zone, 1 to 2 m long chip samples, collected in 1987, returned generally low gold and silver values.

TABLE 7.3 MINERALIZATION SUMMARY OF OTHER LAWYERS AREA PROSPECTS		
Prospect / Occurrence	Commodity	Description
		One sample taken within an area of quartz veining returned values of 2.59 g/t Au and 2.0 g/t Ag (AR 17299). The soil program in 2022 identified a north-south Au-Ag trend passing along the western flank of the Round Mountain Zone, continuing a mineralized trend from Silver Pond North Zone and into the Kodah Zone.
Kodah (094E068)	Gold, Silver	A trenching program completed in 1990 partially exposed bedrock over ~250 m along a fault zone, in a north-northwesterly direction coincident with the gold-silver soil anomaly. The highest assay from trench samples was 2.22 g/t Au and 4.6 g/t Ag over a 1.0 m-long chip sample taken from grey, pyritic quartz vein material within fault gouge. Intermittent past work during the period 1971 to 2006 by various operators identified a coincident, northwest-trending gold-silver soil anomaly within which three rock samples collected in 1982 returned significant values of 27.73 g/t Au and 2,134.3 g/t Ag, 19.72 g/t Au and 1,241.1 g/t Ag, and 1.78 g/t Au and 1,426.3 g/t Ag.
Giffords Edge	Gold, Silver	Host rock contains pervasive propylitic alteration with disseminated pyrite throughout and northwest-southeast structures showing strong potassic alteration silica and pyrite veining. Rock samples from 2020 returned up to 27.9 g/t Au and 378 g/t Ag. The most significant rock sample from the 2021 and 2022 program returned 1.24 g/t Au and 17.6 g/t Ag. The 2020 soil sampling program identified a 250 x 250 m soil anomaly.
Arctic + E-Grid (094E)	N/A	The VLF in-phase and out-of-phase data show that a cross-over is visible along a large north trending fault trending through the middle of the Round Mountain Prospect, this is interpreted to be a late (Eocene?) fault and extends all the way up from the Arctic and E-Grid Prospects in the northeast portion of the Lawyers Area. Anomalous Ag and Cu found in 2021 and 2022 soil samples.
Black Lake Alteration Corridor ("BLAC") (094E441)	Gold, Silver	The major structures appear to be associated with mineralization; basalt and limestone near the contact of the pluton and proximal to northwest to north-northwest structures are intensely silicified and contain up to 15% concentrations of sulphides. A series of subparallel white quartz veins oriented ~280/65° cross cut all lithologies and structures, defining a late east-west structural fabric

TABLE 7.3 MINERALIZATION SUMMARY OF OTHER LAWYERS AREA PROSPECTS		
Prospect / Occurrence	Commodity	Description
		across the area. The mineralization appears to be associated with major north to north-northwest structures, occurring where basalts and limestones are mapped along the contact of the Black Lake Pluton.
Silicon Valley North (094E)	Gold, Silver	Massive quartz veins (m-scale) were mapped in this area hosted in intermediate volcanics near the contact with the Black Lake Intrusion, to the east of the BLAC occurrence. Rafts of limestone, assumed to be the Asitka Group, also occur in this area.
Lawyers Southeast (094E)	Gold, Silver	Weakly mineralized quartz vein float was found in this area; however, the source of the float was never established. This Prospect is within the Black Lake Intrusion, and several northwest-trending intermediate intrusions cross cut the Black Lake Intrusion. The Showing may be along a southwest to northeast trending structure mapped in this area. The 2019 soil program identified porphyry style zonation of mineralization and strong molybdenum grades enveloping a gold and copper anomaly. Rock samples show potassic alteration with mineralization hosted as fine-grained or disseminated sulphides in silica veins and veinlets.
LaLa (094E438)	Gold, Silver	Occurs along strike of the major northwest-southeast Lawyers Trend. Rock samples returning grades up to 8.22 g/t Au and 897 g/t Ag were taken from north-northeast structures, which control and host fine-grain sulphide mineralization. The 2021 geophysics and prospecting programs confirmed a structural relationship with mineralization, identified by an abrupt resistor/conductor contact along a known fault. Geologic description of rock samples supports a low sulphidation epithermal system like that of the main deposits.
M-Grid	N/A	In the western and northwestern part of the Lawyers Project, a series of northwest-striking rhyolite dykes occur along the same structures that host mineralization at the M-Grid Zone (Blann, 2005). Anomalous gold and silver were intersected in all 2020 M-Grid drill holes, with the best results being 12 m at 5.6 g/t Au and 24.8 g/t Ag.
Pipe Dream	Silver	At Pipe Dream, a northwest-trending zone of intense pervasive silicification $\pm$ quartz veining is enveloped by a zone of kaolinite alteration outwards from which propylitic (carbonate-epidote) alteration is present.

TABLE 7.3 MINERALIZATION SUMMARY OF OTHER LAWYERS AREA PROSPECTS		
Prospect / Occurrence	Commodity	Description
		The silicified zone is 150 m long and a few cm to 1-m thick. A total of eight rock samples were taken from this showing in 1983; all consisted of quartz-veined and (or) intensely silicified country rocks.
Silver Pond Group: Silver Pond West (094E163) Silver Pond North (094E069) Silver Pond South (094E0161) Silver Pond South (094E0161) Silver Creek (094E075) Silver Pond Amethyst (094E160) Silver Pond Clay Heavy Mineral Zone	Gold, Silver, Copper, Lead	The north-northwest trending faults are considered to be the conduits along which mineralizing fluids were channeled and coincide with the Silver Pond North (North), Silver Pond West (West), Silver Creek, Heavy Mineral and Amethyst Zones (Kennedy, 1988) that make-up the Silver Pond Trend. The Silver Pond Zone was found to be dominated by steeply-dipping northwest-trending structures and secondary north-south and southwest-northeast structures. The northwest structures are observed rotating into north-south orientations and where structures of different orientations intersect the offset is minimal. At Silver Pond West, the mineralized body is characterized by a 30 to 40 m wide alteration zone that envelopes at least three 1 to 3 m thick tabular bodies (named A, B and C) of intense silicification, stockwork veining and brecciation that carry minor amounts of sulphides, and erratic gold and silver grades.

7.3.3 Ranch Area Mineralization

High-sulphidation systems are defined by a direct connection between surficial alteration and acidic, high-salinity, high-temperature fluids derived from underlying magmatic intrusions (Hedenquist, 1987). At Ranch, data from a barite fluid inclusion at the historical Verrenass Zone (a previous name for a portion of the Bonanza Zone) showed relatively low total homogenization temperatures of 180 to 200°C and salinities of approximately 3 wt% NaCl (Clark and Williams-Jones, 1986; Duuring *et al.*, 2009), neither of which conclusively support a clear connection to fluids typical of high sulphidation deposits. However, the mineralization and alteration styles described below are consistent with the involvement of high temperature magmatic fluids (i.e., high-sulphidation style mineralization). The timing of high-sulphidation mineralization is primarily constrained by a Bonanza Zone sericite Ar-Ar age date of 196 Ma (Clark and Williams-Jones, 1991). Mineralization is generally expressed as widespread argillization and silicification of the Lower Toodoggone Volcanic host rocks. These assemblages are elongated along structures, with major faults acting as fluid conduits and feeder systems to the main alteration bodies. Evidence of stratigraphic control has also been interpreted from shallowly plunging mineralized bodies at the Bonanza and Thesis Zones. Alteration bodies are zoned, with the most intense alteration and leaching occurring proximal to mineralization and the major controlling structures.

This zonation is most clearly observed in drill core and, with the aid of SWIR analysis, where a series of key assemblages are defined, from distal to proximal:

- Unaltered – Zeolite or Montmorillonite or White mica – Chlorite.
- Distal Propylitic – Montmorillonite + Chlorite, $\pm$ Carbonate, $\pm$ Epidote $\pm$ Zeolite.
- Inner Propylitic – White Mica + Chlorite + Carbonate.
- Argillic – Soft bleached alteration of volcanics to Kaolinite $\pm$ White Mica.
- Quartz Alunite – Massive or vuggy texture Silica + Alunite $\pm$ Kaolinite.
- Advanced Argillic – Vuggy texture with Dickite + Silica $\pm$ Kaolinite $\pm$ Alunite.
- Vuggy Silica – Silica (all clays and micas leached) with 5 to 10% porosity.

Logging codes lump the propylitic alterations and does not distinguish between vuggy residual silica and advanced argillic without the results of SWIR analysis. Using this alteration sequence, recent drilling programs constrained the depth and orientation of major alteration bodies at several prospects, including the Bonanza, Thesis, Ridge, and JK Zones. Additionally, new mineralized vuggy silica alteration zones were discovered parallel to the Thesis II, Thesis III and Bingo Zone. At surface, alteration zones are commonly obscured by overburden, alpine vegetation, and swamps. However, the 2021 to 2023 exploration programs mapped several large alteration bodies, including a 1.3 km northwest-trending silica and vuggy silica zone at the Alberts Hump Area (Figure 7.3).

Mineralization in the Ranch Area is connected directly to structural controls and key alteration assemblages. Structural controls identified by SRK in 2022 suggest that D₃ fault deformation is temporally and structurally related to mineralization, high temperature alteration, and barite-quartz veining. D₃ faults are categorized as dextral strike-slip faults and are associated with strong silica alteration and mineralization. High temperature alteration assemblages and elevated Cu and Au rock and soil assays are aligned with D₃ faults. All significant known gold mineralization is hosted by silica-sulphate and silica-sulphide bodies flanked by argillically altered zones. These bodies are, in turn, controlled by moderate- to steeply-dipping fault zones with north-northwesterly, northwesterly, northeasterly, and north-northeasterly orientations. Mineralization at Ranch typically shows zonation consistent with alteration, from distal to proximal:

- Unmineralized: Zone of no primary economic minerals congruent with propylitic-hematitic alteration zones. Typically observed in drill core flanking the main argillic-silicic alteration zones;
- Kaolinite/white mica-pyrite: Moderate (~5%) disseminated pyrite congruent with the introduction of argillic clay minerals. Geochemically anomalous gold concentrations;
- Dickite/kaolinite/pyrophyllite-pyrite: Strong (5 to 20%) disseminated pyrite associated with the introduction of advanced argillic clay minerals. Geochemically anomalous gold concentrations; and
- Quartz-barite-pyrite $\pm$ copper sulphides: Disseminated pyrite (~5%) and blebby copper sulphides (chalcopyrite/bornite/covellite/chalcocite) associated with vuggy silica and

hydrothermal breccia zones. Primary gold bearing zone with minor visible gold mineralization.

Accessory metallic minerals, such as enargite, argentite, and electrum, have also been directly observed during the 2021 to 2023 exploration programs.

High-grade mineralization appears to be restricted to zones of intense vuggy silica alteration and hydrothermal brecciation. Hydrothermal breccias are dominated by barite-silica cement and clasts of silicified volcanics. Gold mineralization is strongly correlated to the presence of barite and displays weak to moderate correlation to common tracer elements, such as tellurium, bismuth, antimony, arsenic, lead and zinc. The gold-bearing zones have a crudely elliptical shape, which are open-ended along the controlling fault systems for follow-up expansion drilling. In the Bonanza Deposit, some of the gold-bearing zones are considered to have formed by selective replacement/silicification of more permeable tuff units within the volcanic strata. Gold mineralization at Ranch is known to occur over a vertical depth range of ~200 m, extending from ~1,700 m at surface in the Bonanza Zone to ~1,400 m in elevation in the Thesis III Zone and is open at depth in several areas.

Three mineralized zones in the Ranch Area have seen minor past production, including the BV, Thesis III, and Bonanza Zones. Gold mineralization at the BV Zone is hosted by a quartz-barite-pyrite assemblage; the Thesis III Zone by a quartz-barite-pyrite (chalcopyrite, galena, sphalerite) assemblage; and the Bonanza Zone, by quartz-barite and quartz-pyrite chalcopyrite-enargite-bornite-(barite) assemblages. Mineral assemblages in the additional zones are similar. A quartz-hematite-pyrite assemblage is important at the Ridge and Thesis II Zones.

A total of 35 mineral occurrences are present in the Ranch Area. The following summaries are a combination of work by Bowen (2014) (in *italics*) and new information from Thesis's exploration programs. Detailed summaries of the main prospects for all other mineralized zones are summarized in Tables 7.4.

7.3.3.1 Bonanza Zone (094E 079)

According to Bowen (2014), "The Bonanza deposit occurs within a structurally complex zone of residual silicification and clay alteration, at the intersection of the north-northwest trending historical Bonanza fault system and the northeast-trending historical Ghost fault system." To date, the Bonanza Zone has a north-northwest to south-southwest strike length of 540 m with true thickness ranging from 2 to 15 m; a northeast-southwest strike length of 600 m with true thickness ranging up to 15 m. Well-developed silica-pyrite zones persist to vertical depths of 125 to 150 m or more; however, gold values >1.0 g/t were rarely encountered at <70 m below surface. There remains the possibility that steeply-plunging mineralized shoots may persist to greater depths.

Flanking the central area are a series of silicified fissures with northerly to northwest trends, which include the historical Bonanza West and Verrenass structures on the northwest side of the deposit core and a corresponding structure on the southeast side. These zones are relatively linear, steeply dipping and narrow, and consist of high porosity, quartz-barite sulphide veins. These veins have

not been recognized in the central deposit area, which suggests that the thicker zones of gold-bearing silica along the northeast trending fault system may post-date the narrower north-northwest trending fissure structures. Also present in the central and northeast parts of the Bonanza Zone area is a 10 to 20 m wide rhyodacite quartz feldspar porphyry dyke, which truncates alteration and mineralization and is, in turn, locally offset by several faults.

Mineralization at Bonanza consists of vertically to moderately westerly-dipping sheeted silica shoots that alternate with sections of unaltered andesite tuff and is controlled by a series of interconnected faults. The silica zones were formed from the selective replacement of more permeable tuff units within the volcanic strata and are characterized by strongly silicified rock with high porosity. Gold grades generally are >1.0 g/t and range up to 384 g/t Au in localized, high-grade sections. Significant pyrite mineralization is common below depths of ~10 m; and copper sulphides, notably chalcopyrite, bornite and covellite, and minor copper sulphosalts, occur in some zones and are notably more abundant in the north-northwest trending mineralized zones.

7.3.3.2 Ridge Zone (094E 078)

The Ridge Zone is located about ~300 m east of the Bonanza Zone. Gold and silver mineralization at Ridge corresponds to an extensive silica alteration footprint that spans over 600 m along strike. Recent fault modelling confirms the northeast-trending Bonanza and Ridge Zones were once connected and now offset 200 m by a large unmineralized, north-trending fault. The distribution of precious metals within the altered zones corresponds to a fault that trends northeast and dips steeply to the southeast, nearly identical to the northeast-trending Bonanza mineralization, indicating there was very little rotation on the fault that offsets them.

Ridge Zone mineralization consists of a distinct moderately southeast-dipping structure characterized by strongly hematized, vuggy/leached silica and hydrothermal breccias containing significant pyrite and local chalcopyrite and chalcocite, and small amounts of zinc and galena. To date, the Ridge Zone has been confirmed by drilling to a 300 m strike length and 200 m vertical depth with true thicknesses ranging from 15 to 30 m. The Ridge Zone has a higher Ag:Au ratio than the Bonanza Zone, which could mean that this area of mineralization was closer to surface or more distal to the source at the time of mineralization.

7.3.3.3 Thesis III Zone (094E 091)

The Thesis III Zone is located 1.8 km southwest of the Bonanza Zone. It lies in the centre of the Thesis Structural Corridor (“TSC”), a 1.4 km long mineralized corridor that hosts the Thesis II Zone to the southeast and the Bingo Zone to the northwest.

The Thesis III Zone saw past production and has been extensively trenched and drill-tested over a strike length of ~400 m and down to vertical depths of up to 400 m. Mineralization has been confirmed to a depth of 300 m. It consists of three distinct core zones of silicification (“A”, “B” and “C”) separated and surrounded by haloes of intense argillic alteration developed in porphyritic andesite host rock. In contrast to Bonanza, Thesis III contains broad argillic alteration halos around the core silica zones, which suggests that they are less telescoped than the relatively narrow argillic alteration halos at Bonanza.

The Thesis III silica zones are near vertical and plunge steeply to the southeast. The “A” zone is composed of a near-surface silicified, brecciated and micro-fractured rock with a characteristic porous, vuggy texture, resulting from the leaching of corroded, clay-altered plagioclase phenocrysts. Vugs are partially filled or lined with barite crystals and commonly coarse gold. The “B” silica zone exhibits similar characteristics to the “A” zone; however, it tends to be more massive with fewer sections of intense porosity. The “C” zone or “West zone” occurs in the deeper parts of the system and consists of mostly massive silica with localized leached/vuggy zones. Mineralization in the lower zone is characterized by hydrothermal stockwork and breccias and rare vuggy textures. The “A” and “B” silica zones tend to exhibit high gold grades commonly exceeding 10 g/t, whereas the “C” zone tends to exhibit lower gold concentrations (<5 g/t) and higher concentrations of copper sulphide mineralization.

7.3.3.4 Thesis II Zone (094E 091)

The Thesis II Zone is located ~400 m southeast of Thesis III and is contained within the TSC. On surface, a zone of silicification strikes approximately 280°. At its west northwestern end, the Zone dips steeply to the northeast; toward its east-southeastern end, it rolls over and dips steeply to the southwest. The Zone is marked by a prominent, 100 m-long silicified outcrop that attains thicknesses of as much as 40 m or more. To date, mineralization at Thesis II consists of three sub-parallel lenses with a strike length of up to 350 m and vertical extent of 270 m (Thesis, 2024). Thesis II includes the recently defined “South Zone” and the new, deeper Southeast Zone that contains high-grade gold mineralization discovered by Thesis drilling in 2021 to 2023.

Mineralization at Thesis II is nearly Identical to that of Thesis III, with three distinct silica zones of mineralization. As at Thesis III, the upper silica zones at Thesis II are characterized by highly porous residual silica that have been filled with barite, pyrite and minor copper sulphide minerals and commonly coarse gold. Silica becomes more massive with depth, although some vuggy zones are still present, and mineralization occurs largely as hydrothermal stockworks and breccias accompanied by an increased concentration of copper sulphide minerals.

Recent 2023 drilling and ground geophysical data suggest that the southeast side of the Thesis II Zone may be truncated by a north-south trending fault system, which may have offset mineralization 150 m to the south. Testing this possibility is a priority for 2024.

7.3.3.5 Bingo Zone (094E 272)

The Bingo Zone lies ~600 m northwest of the Thesis III Zone, along the TSC. The Bingo Zone was subjected to significant trenching and historical drilling programs, which confirmed the presence of large amounts of low-grade silica-hosted gold mineralization accompanied by silver and copper values in at least two northeast dipping parallel zones. The 350 m long western zone and a shorter 220 m eastern zone extend to a vertical depth of 230 m below surface.

Two types of silica alteration were observed in the drill holes. A narrow band of dense, grey, cherty quartz is present in almost all drill sections, in the hanging wall of a zone of more porous, baritic silica. Both alteration types contain abundant pyrite and chalcopyrite.

Gold grades in the Bingo trenches range from 0.5 g/t Au across widths of 6 to 10 m up to 3.3 g/t Au across 4.4 m. Fourteen 1988 drill holes confirmed that these surface indications of large amounts of low grade silica-hosted gold mineralization; several holes also cut a narrower structure or structures 2 to 5 m wide with grades in the 3 to 5 g/t Au range, accompanied by silver and copper values up to 179 g/t and 2.4% respectively. The entire Bingo Zone is strongly anomalous in copper; some individual 0.5 m-long drill core sample lengths assay up to 3.92% Cu. Bingo's silver grades are typically higher than most other zones on the Ranch Area, except for the Ridge Zone with the highest value being 243.0 g/t in drill hole 88-11.

Soil and rock sampling at Bingo during the 2021 exploration program returned several anomalous gold and silver concentrations. A rock sample from the northeast portion of the Bingo Zone returned values of 1.75 g/t Au and 2.26 g/t Ag, whereas four soil samples returned values ≥ 1 g/t Ag (2.31, 1.76, 1.10, 1.00 g/t Ag). The observed silver anomaly roughly coincides with the presence of a copper-arsenic soil anomaly in the northern portion of the Bingo Zone.

Additionally, 2022 drilling at the Bingo Zone succeeded at expanding the known extent of mineralization to 500 m strike length with drill holes 22BNGDD009 and 22BNGDD007, which represent, the farther northwest and southeast drilled mineralized extents, respectively. Drill hole 22BNGDD009 returned grades of 1.86 g/t Au over a 50.3 m interval from 5.7 to 56 m and 0.44 g/t Au over 18 m from 68 to 86 m.

7.3.3.6 BV Zone (094E099)

The BV (Barite Vein) Zone received considerable historical drilling and was a site of past open pit production. It is located ~900 m southwest of the Thesis III Zone and lies along the major northwest-trending BV Fault.

According to Bowen (2014), *"The BV Zone has been explored by trenching and drilling over a west-northwest strike length of 350 m and reportedly remains open along strike in both directions and at depth. Most of the drilling and trenching has taken place within a 180 m-long segment where the alteration zone attains widths of up to ~40 m and the main BV structure dips steeply to the north; an upwards-converging hanging wall splay dips ~30° to the north and pinches out at ~25 m below surface."*

The silicified gold-bearing core itself averages ~10 m in width and overall is more vein-like in character and more continuous along strike than the other main zones. It contains one or more sub-parallel, 0.2 to 2.0 m wide barite veins that contain the bulk of the gold mineralization. The occurrence of minor galena and chalcopyrite in the zone, its higher-than-average silver content and the chalcedonic rather than porous and sinter-like texture of the quartz, collectively suggest a deeper epithermal emplacement for the BV Zone relative to the Bonanza and Thesis III Zones." Historical and recent drilling confirms that gold mineralization in the BV Zone persists to at least 75 m below surface; however, it appears to grow weaker with depth possibly eventually pinching out completely. Additional potential for discovery remains along strike, especially to the southeast toward the undrilled BV South Zone, and at depth where offset mineralization may be present.

7.3.3.7 BV South Zone (094E273)

The BV South Zone lies along the BV Fault, south of the past-producing BV Zone. It strikes south-southeast and dips 25° to 35° east. Energex stripped the area in 1988 and exposed a strongly silicified zone measuring 6 to 10 m thick by ~60 m long. These thicknesses are apparent and greater than true thickness, because of the shallow dip of the Zone. Channel sampling in the northern half of the stripped area returned elevated gold values, where barite and pyrite are more common and where silicification is most intense. The best channel interval returned 12.73 g/t Au over 5.1 m in the northernmost part of the Zone.

Ten historical diamond drill holes tested the Zone over a strike length of ~100 m, including four drill holes in the southern part of the Zone that tested it for an additional 45 m beyond the stripped area. Drill holes BV88-01–04, drilled beneath the better mineralized northern part of the Zone and returned values of <1.0 to 7.45 g/t Au; the best intercept graded 4.85 g/t Au over 2.0 m (approximately true thickness) from 10.5 to 12.5 m in drill hole BV88-04. The remainder of the drill holes generally returned values of <1.0 g/t Au, with the rare individual sample interval grading up to 2.95 g/t Au over 1.0 m (from 35.4 to 36.4 m in drill hole BV88-07). The narrow veins and veinlets of barite observed on surface were virtually absent in the drill holes. Drilling has not taken place since 1988 and no production or mining has occurred at the BV South Zone.

7.3.3.8 JK Zone (094E 194)

The JK Zone is located ~1.2 km southwest of the Bonanza Zone. It was discovered in 1986 by Energex when trenching a gold soil anomaly. The Zone has been traced for 240 m, strikes north-northeasterly, dips sub-vertically or steeply to the west, is up to 11 m in thickness in surface trenches, and is flanked by intensely argillic altered wall rocks. The brittle silica host rock carries up to 15% pyrite; only traces of barite were noted, and the silica lacks the porosity typical of the high-grade Thesis III and Bonanza Zones.

To date, the JK Zone has been tested by 16 diamond drill holes, all of which have encountered silicification with anomalous gold values ranging from 0.25 g/t to 23.7 g/t Au. Drilling indicates that the true thickness of the silica host rock is in the order of 8 to 12 m at depths up to 100 m vertically below surface. The mineralized zone remains open in all directions and there is significant room to expand drill targeting, particularly towards the South, where intersecting faults represent conduits for subsequent gold-bearing fluids. Mineralization appears very similar to the major gold-bearing zones at Bonanza, Thesis II, and Thesis III.

7.3.3.9 Patti Zone (094E 101)

The Patti Zone is located on the southwest flank of Metsantan Mountain, ~4 km south of the Bonanza Zone. The zone consists of two closely spaced, parallel, north-trending spines or hogback ridges of silicified rock surrounded by a large halo of advanced argillic, argillic-silicic, and rare silicic-pyritic or quartz-alunite alteration zones. The hogback ridges coalesce on the south end of the Zone, forming a massive silica outcrop approximately 60 m across. The overall dimensions of the alteration zone are at least 350 m long and up to 250 m across. Thirteen rock samples returned

values of >1.0 g/t Au, including a maximum of 68.2 g/t Au. Within the silicified rock, gold mineralization is closely associated with massive barite in veins and breccias. Fracture-controlled barite veins commonly strike east-southeasterly and dip sub-vertically. The gold-barite mineralization is considered to post-date the main silica-clay hydrothermal event.

This Zone has been tested by seven diamond drill holes to date. Drilling encountered several large zones of prospective silica alteration and mineralization of interest, including and 2.91 g/t Au over 6.0 m from 58.0 to 64.0 m in drill hole LM-86-4, 0.95 g/t Au and 58 ppm Ag over 2.95 m from 106.5 to 109.45 m in drill hole 22PATDD002 and a new, deeper anomaly in drill hole 22PATDD001 of 0.49 g/t Au over 18 m from 725.8 to 743.5 m and 0.62 g/t Au over 10.6 m from 755.5 to 766.2 m.

Soil sampling in 2021 over the Patti Zone shows pathfinder element anomalies, including arsenic, antimony, silver, and several base metals (most notably molybdenum and copper). These anomalies are coincident with shallow, high resistivity and high chargeability IP signatures. The IP data may indicate the presence of an intrusive body at ~300 m depth that has altered the surrounding country rock.

7.3.3.10 Steve Zone (094E 102)

The Steve Zone is located ~3.5 km south-southeast of the Bonanza Zone and ~1.1 km northeast of the Patti Zone. It is a large, roughly ovoid-shaped alteration zone measuring 450 m long by 300 m across. It is cored by three separate siliceous outcrops separated by zones of silicic or argillic-silicic alteration. Barite is common only in silicified rocks in the southeastern part of the Zone, where it occurs as breccia matrix in zones up to one metre wide, and in massive veins up to 20 cm wide.

Soil anomalies are generally less marked than at the nearby Patti Zone. However, prominent anomalies of antimony and tellurium are present, with weak anomalies of silver and arsenic also observed. Like the Patti Zone, shallow high resistivity and high chargeability IP signatures coincide with these geochemical anomalies, which suggests the potential presence of an intrusive body at ~300 m depth that has altered the surrounding country rock.

Chip and rock samples over the Steve Zone returned anomalous results, including two rock samples returned anomalous gold values of 173 and 141 ppb, whereas 10 rock samples showed silver concentrations >1 g/t (1.07 to 2.58 g/t Ag) and a one-metre-long chip sample taken from a barite-rich breccia zone assayed 2.80 g/t Au. In 2022, two drill holes spaced 220 m apart tested the Steve Zone. Both holes encountered a wide zone of mineralized leached silica alteration and assayed 119.20 m of 0.97 g/t Au in drill hole 22STVDD001 and 38.0 m of 0.73 g/t Au and 15.4 m of 0.41 g/t Au in drill hole 22STVDD002. Drilling in 2023 expanded mineralization along strike and showed continuity to surface, with several drill holes encountering anomalous near-surface mineralization. The newly discovered Steve Zone now has a strike length of 330 m and gold mineralization is present down to >400 m vertical depth (Thesis, 2023b).

7.3.3.11 Alberts Hump Zone (094E 085)

Albert's Hump Zone, located 2 km to the west-northwest of Bingo, exhibits outcropping quartz-alunite alteration at higher elevations and is flanked at lower elevations by silicic and silicic-argillic altered zones. Surficial geochemical data and geophysical results indicate the presence of a highly prospective, multi-km exploration target. Soil sampling over the Albert's Hump Zone displays coincident anomalies in gold pathfinder elements, including arsenic, antimony, silver, bismuth, and several base metals. The soil anomalies are situated proximal to prospective geophysical signatures, such as coincident resistivity highs and linear magnetic lows, interpreted to represent silicification in the volcanic host rocks at depth. A rock sample from the Albert's Hump Zone returned assay values of 2.34 g/t Au and 3.21 g/t Ag.

To date, Alberts Hump has been tested by seven drill holes. Two short (<100 m) historical drill holes completed to the north of the Zone by Kidd Creek Mines in 1982 did not encounter any anomalies. Four drill holes completed by Thesis in 2022 encountered intense quartz alunite altered zones extending from surface up to 150 m vertical depth. These alteration zones have not been mineralized; however, deeper (250 to 350 vertical m) and narrow quartz-base metal vein structures have been identified in three drill holes.

7.3.3.12 South Hump Zone (094E195)

On the south flank of Albert's Hump is the South Hump Zone. Here, four well-exposed, northwest-trending parallel bands of silicification, each 5 to 10 m across and up to 280 m long, lie within a large area of weak argillic alteration and anomalous base metals geochemistry. The silicic zones are vuggy, locally pyritic and (or) intensely hematized, and contain minor barite. Samples of this silicic material returned values up to 2.6 g/t Au and 13.8 g/t Ag.

The soil geochemical patterns in the area do not conform to the northwesterly trends of the silicified zones. There is a large northeast-trending lead-zinc anomaly, with local enrichment of gold and barite. It may represent a mineralized, northeast-trending structure or be the result of complex geochemical dispersion patterns in the area.

The South Hump Zone lies proximal to the surficial and geophysical anomalies described above for the Albert's Hump Zone to the north.

7.3.3.13 Bonanza South (Eric) and Gosselin Zones (094E 314)

The Bonanza South Zone is located along the Bonanza fault system, ~1.1 km south of the Bonanza Zone. The Zone displays strong similarities to Bonanza in both mineralization and alteration styles and has been tested by several historical trenches that returned anomalous gold results ranging from 0.60 to 1.55 g/t. The Zone was tested in 2021 and 2023 by 23 drill holes, which confirmed the presence of gold-silver mineralization. To date, drilling has confirmed a north-south strike length of 340 m and a to extent of 200 m. Mineralization is present across relatively broad intervals and consisted of low-grade gold concentrations and typically higher silver grade relative to gold, with rare instances of high-grade mineralization (up to 14.65 g/t Au and 108.22 g/t Ag). In addition, elevated base metal concentrations were reported (up to 4.36% Cu).

Approximately 200 m east of the Eric Zone is the Gosselin Zone, where blebs of barite have been found associated with silica-altered rock; however, surface gold values in trenches were low. The Gosselin Zone is probably a left-lateral offset segment of the Bonanza Structure.

7.3.4 Other Ranch Area Prospects

The Ranch Area has several additional prospects/occurrences that have been lower priority than the Zones described above. Nevertheless, they remain interesting targets that warrant further work. A summary of highlights compiled from various sources is presented below in Table 7.4.

TABLE 7.4 MINERALIZATION SUMMARY OF OTHER RANCH AREA PROSPECTS		
Prospect / Occurrence	Commodity	Description
BBX Zone (094E193)	Gold, Silver	Alteration at BBX is dominantly advanced argillic with minor alunite. The main alteration zone is bound on the south side by a >120 m thick hornblende-feldspar porphyry dyke. A narrow zone of hematitic quartz breccia at the contact of the dyke and the alunitic alteration zone contains anomalous gold values up to 1.38 g/t Au in surface rock samples.
Golden Furlong (094E090)	Gold, Silver	It is an intensely silicified, north-northeasterly trending spine with a strike length of >200 m along strike and varies from 25 to 60 m in thickness. The zone is composed of essentially pure silica with minor hematite and limonite hosted by a tuffaceous unit. Sporadic zones of intense clay and sulphate (alunite) alteration become more common towards the northern end of the zone. Historical sampling identified traces of native gold in drusy quartz-filled vugs and along fractures at the southern end of the zone. Rock samples of this material returned values up to 27.8 g/t Au.
Mickey Zone (094E276)	Gold, Silver, Copper	Prospective vuggy and massive silica-altered zones containing 5 to 20% disseminated pyrite were intersected in 5 drill holes. Results ranged from <0.01 to 0.19 g/t Au, <1 to 34.3 g/t Ag and up to 732 ppm Cu. Silica was encountered at vertical depths from ~90 to 140 m, which is considerably deeper than the known 60 m vertical extent of gold mineralization at the Bonanza Zone. It could be that had the drilling at the Mickey Zone targeted it at shallower depths, any silica-altered zones encountered may have had higher precious metals contents. Surface samples collected in 2007 were observed to be largely from float, which could mean the source of mineralization is to the south in the 'up-ice' flow direction from where drilling occurred.
Surprise (094E012)	Gold, Silver	A large, roughly circular, alteration zone envelopes the Surprise Prospect and extends eastward. A concentric

TABLE 7.4
MINERALIZATION SUMMARY OF OTHER RANCH AREA PROSPECTS

Prospect / Occurrence	Commodity	Description
		alteration pattern has been mapped over an area roughly 2,100 m in diameter and consists of three alteration types. Propylitic alteration consisting of up to 10% epidote in the matrix, with minor chlorite and rare specularite covers most of the area. Chloritic alteration of the matrix material is also present with minor magnetite and is confined to an area 600 by 400 m near the southern boundary of the alteration zone. Potassic alteration consists of pink potassium feldspar and quartz replacement of matrix material with 1% fine-grained, disseminated pyrite and is cut by numerous vuggy quartz veinlets. Potassic alteration is accompanied by intense fracturing that influences the orientation and extent of the potassic alteration zones.
Ring Zone (094E103)	Gold	Located about 800 m southeast of the BV Zone, along the southeast-trending BV Fault, the Ring Zone comprises an extensive area of argillic and lesser silicic alteration measuring ~600 m long by 300 m wide. Silicified zones occur as isolated outcrops and are elongated in a northerly direction, across the general grain of the overall alteration zone. Silicified zones are composed of cryptocrystalline quartz with considerable limonite on fracture planes and in vugs. Barite is rare. A large ferricrete gossan lies in the valley bottom below the Ring Zone. It suggests that at shallow depths, the silicified zones are sulphide-bearing.
Gulley Zone (094E275)	Gold, Copper, Lead, Zinc	It consists of a northeast-trending band of weak silicification and quartz veining which has been traced by trenching over ~120 m. Minor pyrite and chalcopyrite, galena, and sphalerite mineralizations are present in the Zone. Gold grades from rock samples range up to 5.6 g/t Au. The Gully Zone appears to pinch out along strike to the northeast and southwest. Energex (1988) considered this zone to be a lower priority target area, but did note its significance in that it represents yet another gold-bearing structure in the area.
Bonanza North Zone	Gold	A large gold-in-soil anomaly is present north of the Bonanza Zone, in a gently north sloping area of alpine terrain. The anomaly trends northerly and, at a >100 ppb threshold, measures ~500 m long by ~100 to 150 m thick. It is by far the largest and strongest gold soil anomaly identified in the Ranch Area to date.
Mandusa (094E277)	Gold	The Mandusa Showing is underlain by andesite volcanics of the Metsantan Member of the Lower Jurassic Tooodoggone

TABLE 7.4
MINERALIZATION SUMMARY OF OTHER RANCH AREA PROSPECTS

Prospect / Occurrence	Commodity	Description
		Formation, Hazelton Group. This showing is located 1.2 km southwest of the Surprise Zone. In 1994, Alpine Explorations reported rock samples with 0.8 and 1.2 g/t Au. In 2006, Paget reported “rusty” silicified rocks with fine grained pyrite.
Lexim (094E190)	Gold, Silver	The showing lies between two of four north-northwest trending faults transecting the area. At the Lexim Showing, quartz stringers occur in orange, altered feldspar porphyritic tuff. Minor pyrite was noted. Three hundred metres to the northeast, a band of quartz float is traceable in a northwest direction for ~500 m.
Ant Zone (094E189)	Silver, Gold	At the Ant Showing, a stockwork consisting of numerous quartz and calcite veinlets, commonly brecciated and cemented with quartz and calcite, occurs in porphyritic dacite. Sulphides have not been reported from this alteration zone. The dominant structures in the area are steeply dipping faults that define a prominent regional northwest structural fabric trending 140 to 170°. In turn, high angle, northeast-striking faults (~060°) appear to truncate and displace northwest-striking faults. Collectively these faults form a boundary for variably rotated and tilted blocks underlain by monoclinical strata.
Border (094E197)	Gold, Silver	The dominant structures in the area are steeply dipping faults that define a prominent regional northwest structural fabric trending 140 to 170°. In turn, high angle, northeast-striking faults (~060°) appear to truncate and displace northwest-striking faults. Collectively these faults form a boundary for variably rotated and tilted blocks underlain by monoclinical strata. The Border Prospect is underlain by northwest-trending volcanic units of the Metsantan Member and cross cut by major and minor fault systems. The main northwest fault is possibly correlative with the Cliff Creek structure at the Lawyers Mine (094E 066), 14 km to the southeast. A ring and radial fracture system converges on nearby Metsantan Mountain peak.
Metsantan (094E064)	Gold, Silver, Lead, Copper	The dominant structures in the area are steeply-dipping faults that define a prominent regional northwest structural fabric trending 140° to 170°. In turn, high-angle, northeast-striking faults (~060°) appear to truncate and displace northwest-striking faults. Collectively, these faults form a boundary for variably rotated and tilted blocks underlain by monoclinical strata. The Metsantan Prospect is underlain by northwest-trending volcanic units of the Metsantan Member and cross cut by major and minor fault systems. The Prospect consists of

TABLE 7.4
MINERALIZATION SUMMARY OF OTHER RANCH AREA PROSPECTS

Prospect / Occurrence	Commodity	Description
		three zones defined by a series of subparallel quartz-barite veins and breccias. The main northwest fault is possibly correlative with the Cliff Creek structure at the Lawyers Mine (094E 066), 14 km to the southeast. A ring and radial fracture system converges on nearby Metsantan Mountain peak.
Bloss (094E100)	Gold	The Bloss Prospect consists of a steeply-dipping, east-trending core of completely silicified rock apparently flanked by a clay alteration zone. The core has a tabular, vein-like form which outcrops as a resistant spine. The south contact or wall of the siliceous core appears to be a south-dipping fault; the north contact is not exposed. The core zone is well fractured and locally brecciated. Fractures contain traces of pyrite with abundant limonite and minor hematite. Barite is present, but not abundant. The porosity of the rock is low, except where (post-mineral?) fracturing and brecciation are intense. The Prospect is open to the east, west and north.
Tuff Peak		North to south oriented magnetic bodies extending from the southern parts of the Ranch Area in the Golden Furlong Zone are observed at Tuff Peak from 2020 VTEM-Magnetics geophysical survey. However, no anomalous rock or soil assays follow these trends in the northeast portion of the Ranch Area.
Mag		Large magnetic anomaly in centre of Mag zone – a linear northeast oriented magnetic anomaly is observed in the northeast portion of the Mag Zone, but no rock sampling has been completed here. There are northeast-trending pathfinder element soil anomalies that extend from BV south through the Mag Zone into the Bingo Zone that are parallel to other similar anomalies observed to the northwest over Alberts Hump and to the southeast over BV/Ring.

8.0 DEPOSIT TYPES

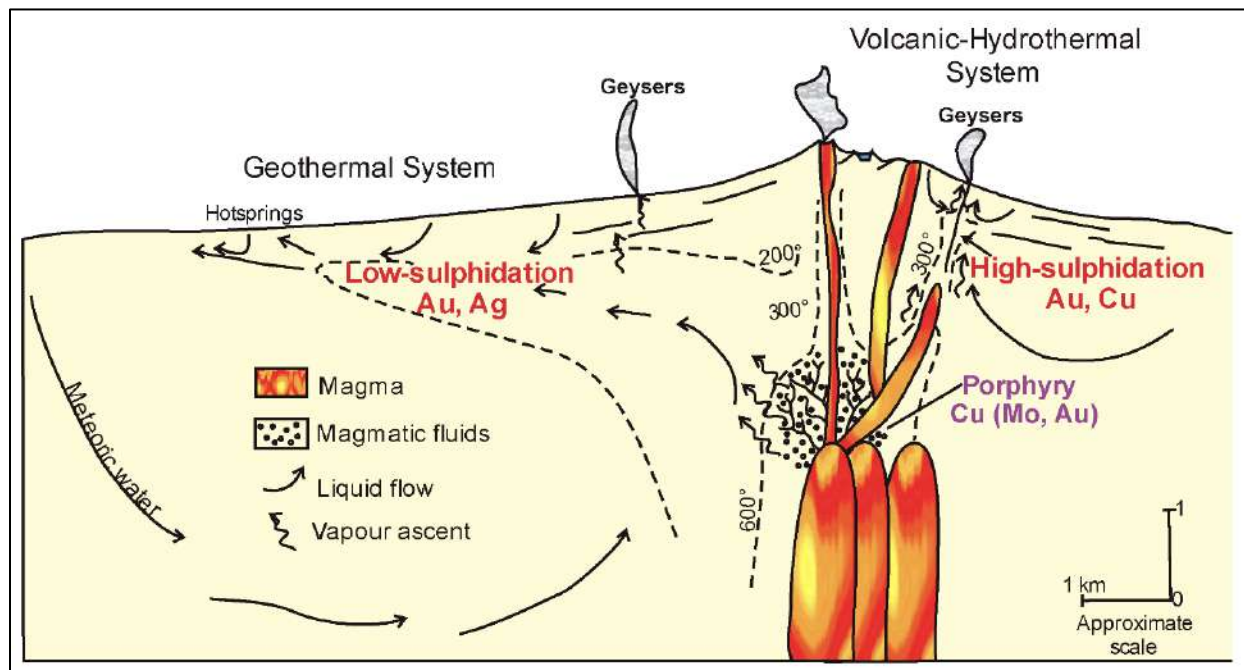
Numerous mineral deposit types are hosted by the Toodoggone Region, including low and high sulphidation epithermal gold-silver mineralization, calc-alkalic porphyry copper-gold mineralization, and minor iron or copper ($\pm$ gold-silver) skarn mineralization. The relationship between these different types of mineral deposits is represented in Figure 8.1.

A detailed synthesis of the mineral deposit types in the Toodoggone Region was completed by Lane *et al.* (2018), summarizing the works of Diakow *et al.* (1991 and 1993), Duuring *et al.* (2009) and Bowen (2014). Descriptions of deposit types specific to the region are based largely on a technical report by Hawkins (2003) and by observations made by Bowen and Lane during their onsite core logging and supervision of diamond drilling programs on the Lawyers-Ranch Property in 2006-2007 and 2015, respectively.

Diakow *et al.* (1993) stated that all these styles of mineralization are genetically related to Early Jurassic volcanic and intrusive activity in an extensional setting. Epithermal gold-silver mineralization is hosted primarily by strata of the Toodoggone Formation, to a lesser degree by coeval intrusions, and locally within strata of the Takla Group. The epithermal mineralization is structurally controlled, and the mineralization is vertically and laterally zoned with alteration being common (Panteleyev 1986). High-sulphidation epithermal mineralization systems formed at 201 to 182 Ma and coincide with district-wide plutonism and porphyry copper-gold $\pm$ molybdenum mineralization, whereas low-sulphidation systems formed later at 192 to 162 Ma, commonly coinciding with the emplacement of felsic dykes and Toodoggone Formation volcanism (Duuring *et al.*, 2009).

Three different deposit models are discussed below, with descriptions quoted from Lane *et al.* (2018) in italics, with additional discussion of these deposit types in relation to the Lawyers-Ranch Property.

FIGURE 8.1 SCHEMATIC MODEL FOR LOW AND HIGH SULPHIDATION EPITHERMAL MINERALIZATION, INCLUDING PORPHYRY COPPER



Source: Hedenquist and Lowenstern (1994)

8.1 LOW SULPHIDATION EPITHERMAL DEPOSITS

“Low sulphidation epithermal gold-silver deposits are also called adularia-sericite or quartz-adularia types which form in high-level (epizonal) to near-surface environments. They consist of quartz veins, stockworks and breccias commonly exhibiting open-space filling textures and are associated with volcanic-related hydrothermal or geothermal systems. The deposits occur within volcanic island and continent-margin magmatic arcs and/or continental volcanic fields in an extensional structural setting.

The depth of formation of these high-level deposits is from surface (in hot springs systems) to about 1 km below surface along regional-scale fracture zones related to grabens, resurgent calderas, flow-dome complexes and rarely, maar diatremes. Settings also include extensional structures (normal and splay faults, ladder veins and cymoid loops, etc.) in volcanic fields; locally graben or caldera-fill clastic rocks are present. High-level, subvolcanic stocks and/or dykes and pebble breccia diatremes occur in some areas.

Locally resurgent or domal structures are present and are related to underlying intrusive bodies.

The age of this type of epithermal mineralization varies. Tertiary deposits are most abundant world-wide but in B.C. Jurassic deposits are important. Mineralization appears closely related in time to the host volcanic rocks but invariably it is slightly younger in age.

Mineralized zones are typically localized in fault or fracture systems, but also may occur in permeable lithologies. Upward-flaring mineralized zones centered on structurally controlled hydrothermal conduits are typical. Large (>1 m wide and hundreds of metres in strike length) to small veins and stockworks are common with lesser disseminations and replacements. Vein systems can be laterally extensive, but shoots have relatively restricted vertical extents. Significant zones of mineralization may form where dilational openings and cymoid loops develop, typically where the strike or dip of veins change. Hanging wall fractures adjacent to mineralized structures are particularly favourable for the development of high-grade shoots.

Textural features associated with mineralization include open-space filling, symmetrical layering, crustification, comb structures, colloform banding and multi-phase breccias. Metallic minerals present include pyrite, electrum, gold, silver, acanthite (argentite) and lesser amounts of chalcopyrite, sphalerite, galena, tetrahedrite, silver sulphosalts and/or selenide minerals. Gangue minerals include quartz, amethyst, chalcedony, quartz pseudomorphs after calcite, with lesser amounts of adularia, sericite, barite, fluorite, Ca-Mg-Mn-Fe carbonate minerals (such as rhodochrosite), hematite and chlorite. Epithermal silver deposits generally have higher base metals contents than do gold or gold-silver types.

Deposits can be strongly zoned horizontally and vertically. Downward vertical zonation occurs over a 250 to 350 m interval, from a base metals poor, gold and silver-rich top to a relatively silver-rich base metals intermediate zone, to an underlying base metals-rich zone grading at depth into a sparse base metals bearing pyritic zone. At depth, deposits can be postulated to occur above or peripheral to porphyry and possibly skarn-type mineralization.

Silicification of host rocks is extensive, occurring as multiple generations of quartz and chalcedony commonly accompanied by adularia and calcite. Pervasive silicification in vein envelopes is flanked by sericite-illite-kaolinite assemblages. Intermediate argillic alteration (kaolinite-illite-montmorillonite [smectite]) forms adjacent to some veins and advanced argillic alteration (kaolinite-alunite) may form at the tops of mineralized zones. Propylitic alteration dominates at depth and peripherally. Weathered outcrops are often characterized by resistant quartz +/- alunite 'ledges' flanked by extensive bleached, clay-altered zones with supergene alunite, jarosite, and limonite."

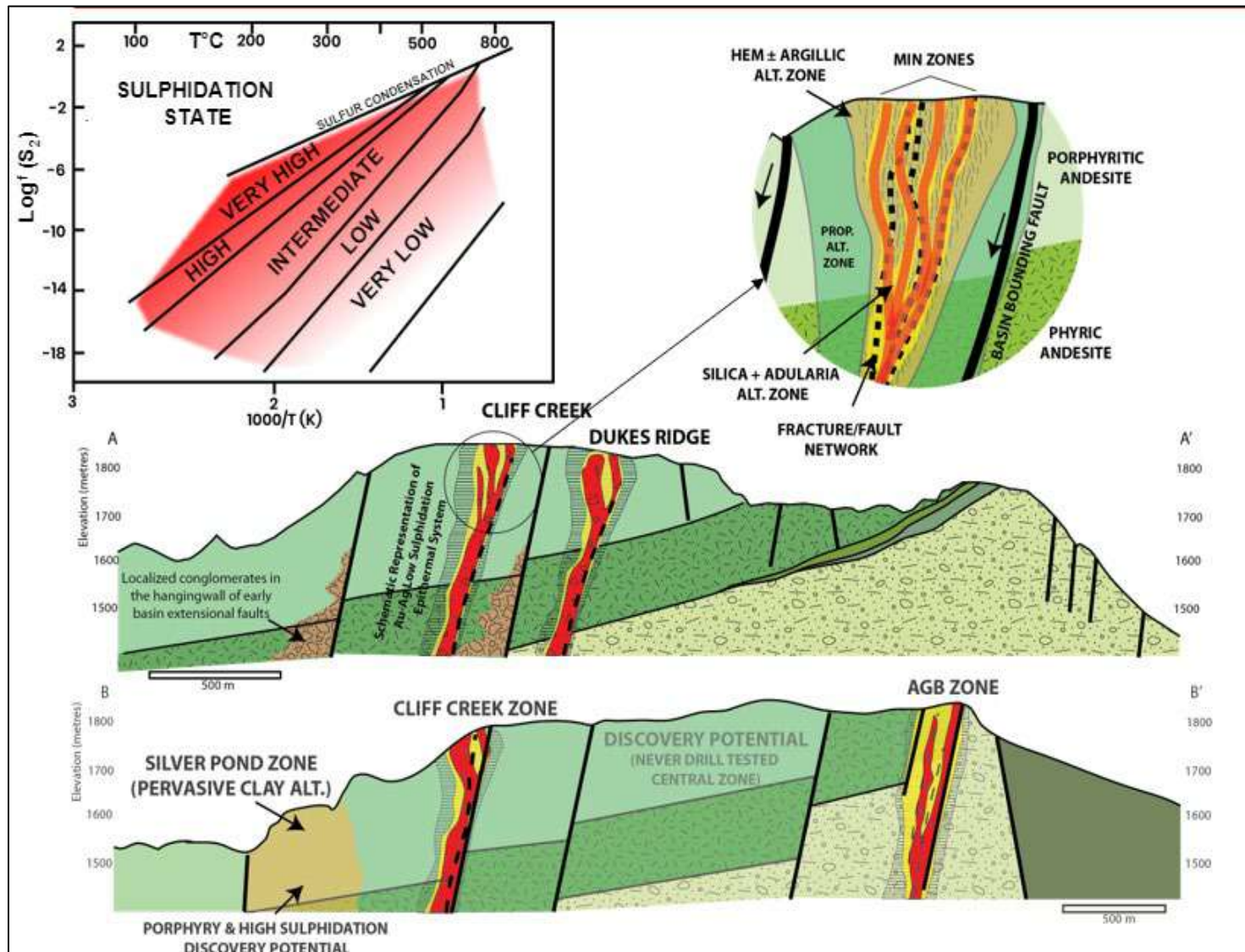
The epithermal system(s) present on the Lawyers Area of the Property are structurally related. Most of the significant epithermal style mineralization occurs associated with a series of deep-rooted subvertical north-northwest trending faults with pervasive, variably zoned wall rock alteration. The Lawyers Group Prospects (Cliff Creek, AGB and Duke's Ridge), also referred to as the Lawyers Area Mineral Resource Zones, generally exhibit low-sulphidation characteristics with intense quartz-adularia-sericite alteration within the mineralized zone and variably contain a narrow argillic zonation halo (Figure 8.2). Hematite alteration is common within and surrounding the main mineralized zones, with a greater influence in the Duke's Ridge and AGB Zones. The Lawyers Group Zones, however, do not exhibit some low sulphidation features, such as the base metal-Au-Ag zonation pattern described by Lane *et al.* (2018). The alteration patterns of epithermal veins also do not show regular broad scale chlorite-calcite, smectite, sericite/illite alteration zonation patterns. Additionally, there is a notable absence of the "chalcedonic blanket"

that is typically present in classic low-sulphidation deposits, although this could be due to subsequent post-depositional erosion.

A prominent clay alteration zone with advanced argillic alteration and local quartz-alunite occurs in the Silver Pond Zone area, which lies northwest of the Lawyers Group Prospects. The presence and distribution of the clay alteration zone at Silver Pond, and high temperature quartz-sericite-pyrite assemblages in the deeper zone of Cliff Creek (Figure 8.3), indicate that these hydrothermal systems could be the expression of a porphyry-epithermal transition zone.

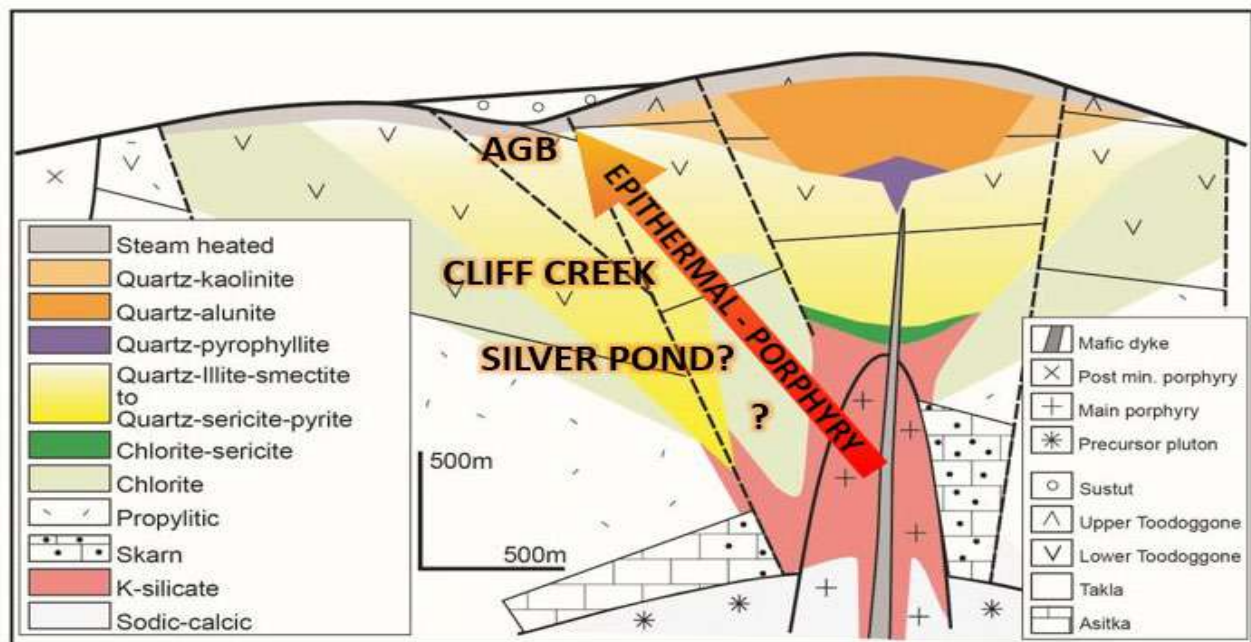
To date, low sulphidation style mineralization has not been described on the Ranch Area of the Property. However, deep drill holes completed at Alberts Hump in 2022 did encounter narrow, base metal rich quartz veining that is consistent with the low sulphidation model. As the low sulphidation mineralization at Lawyers is only 20 km south of Ranch and is structurally controlled by a series of faults that trend along the same direction as those at Ranch (north-northwest), it should be considered as a potential mineralization model for Property-scale exploration.

FIGURE 8.2 **LAWYERS LOW-SULPHIDATION EPITHERMAL GEOLOGIC MODEL**



Source: Webster (unpublished)

FIGURE 8.3 GENERALIZED CROSS-SECTION OF SUGGESTED EPITHERMAL-PORPHYRY SYSTEM IN THE TOODOGGONE DISTRICT



Source: Based on Sillitoe (2010) and modified from MDRU/GBC 2019 Report.

8.2 HIGH SULPHIDATION EPITHERMAL DEPOSITS

“High sulphidation epithermal deposits are also called acid-sulphate, quartz-alunite, alunite-kaolinite-pyrophyllite or advanced argillic types. They occur as veins, vuggy breccias and sulphide-silica replacement pods to massive lenses within volcanic host rocks associated with high level hydrothermal systems marked by acid-leached, advanced argillic and silicic alteration. Their setting is usually within extensional and trans-tensional environments, commonly in volcano-plutonic continent-margin and oceanic arc and back-arc settings. They occur in zones with high-level magmatic emplacements where strato-volcanoes and other volcanic edifices are constructed above plutons.

Deposits are commonly irregular in shape, controlled in part by host rock permeability and the geometry of controlling structures. Multiple, cross-cutting composite veins are common; texturally the mineralization is characterized by vuggy, porous silica derived as a residual product of acid leaching.

Hydrothermal breccias and massive wall rock replacements associated with fine-grained quartz are also common features associated with high sulphidation deposits.

Mineralization consists of pyrite, enargite/luzonite, chalcocite, covellite, bornite, gold, electrum, and less commonly chalcopyrite, sphalerite, tetrahedrite/tennantite, galena, marcasite, arsenopyrite, silver sulphosalts and tellurides including goldfieldite. Two types of mineralization are commonly present: (i) massive enargite-pyrite and/or (ii) quartz-alunite-gold.

Gangue mineralogy consists principally of quartz-pyrite or quartz-barite; carbonate minerals are absent. Alteration minerals consist principally of quartz, kaolinite/dickite, alunite, barite, hematite, sericite/illite, amorphous clays, pyrophyllite, andalusite, diaspore, corundum, tourmaline, and native sulphur with subordinate amounts of dumortierite, topaz, zunyite and jarosite. Advanced argillic alteration is a common alteration type and can be aerially extensive and visually prominent. Quartz occurs as fine-grained replacements and as vuggy, residual silica in acid-leached rocks. Weathered rocks may contain abundant limonite, jarosite, goethite and/or hematite, generally in a groundmass of kaolinite and quartz. Fine-grained supergene alunite veins and nodules are common.

Structural controls in volcanic edifices are commonly caldera ring and radial fractures, (particularly at their intersections), fracture sets in resurgent domes and flow-dome complexes, and hydrothermal breccia pipes and diatremes. Faults and breccias in and around intrusive centers appear to be important controls. Permeable lithologies can also be favourable host rocks, capped in some deposits by less permeable, hydrothermally altered silica, clay, and alunite-bearing 'lithocaps'. The deposits can occur over considerable depths, ranging from high-temperature solfataras (sulfurous fumaroles) at the paleosurface down into cupolas of intrusive bodies at depth.

Research into the high sulphidation genetic model, mainly in the southwest Pacific and in the Andes of South America, has shown that these deposits are commonly genetically related to high-level intrusions and at several locales, they tend to overlie and flank porphyry copper-gold deposits. Multiple stages of mineralization are common, presumably related to periodic tectonism with associated intrusive activity and magmatic hydrothermal fluid generation.

The high sulphidation deposit type has become a focus for exploration throughout the circum-Pacific region because of the economically important gold and copper grades in some deposits."

Historically, it was suggested that the Silver Pond Prospects on the Lawyers Area of the Property hosted high sulphidation style mineralization. However, based on current mapping and prospecting by Thesis, no clear evidence of high sulphidation mineralization has been observed. The mineralization in the Silver Pond North and Silver Pond West Areas appear to be restricted to narrow translucent and banded grey silica veinlets, not unlike those observed at Cliff Creek. Extensive advanced argillic and high sulphidation-style alteration and gangue minerals occur over Silver Pond, including, alunite, pyrophyllite, vuggy quartz, and bladed barite. This could suggest the potential for a future discovery of high sulphidation mineralization in this area. A leach zone, which corresponds to extensive clay alteration at surface, appears to be transported down paleo-surface. At lower elevations, the advanced argillic zones occur as discrete northwest-trending subparallel zones. Discrete m-scale secondary silica lineaments, defined by pervasive secondary silica, breccias and goethite/jarosite stockworks and stringers, also occur in northwest-trending zones through the Silver Pond Clay Zone. As this style of mineralization exists on the Ranch Area, it should be considered for Property-scale exploration.

The high sulphidation epithermal systems present in the Ranch Area are constrained by key relationships between structural controls, alteration zonation, and mineralization. The km-scale epithermal footprints observed at Ranch invariably occur near sub-vertical, north-northwest and

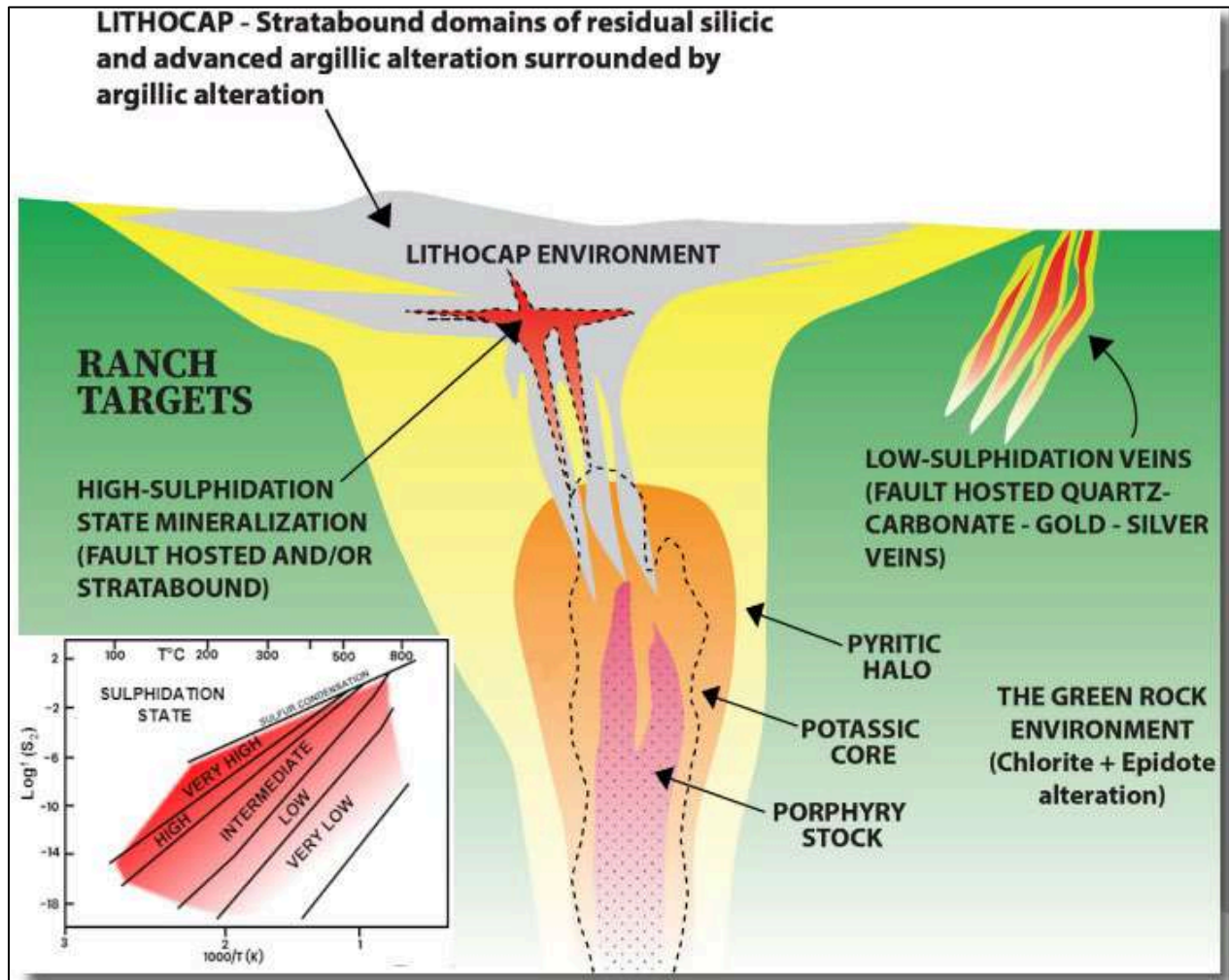
northeast trending faults, formed due to synvolcanic extensional tectonics. These extensional faults provide a pathway for precious metal-bearing magmatic fluids to rise, depressurize, and precipitate metallic minerals in the subsurface. The simplified cross-section of the Toodoggone Region shown in Figure 8.4 illustrates how these fluids altered the surrounding country rock on the Ranch Area. The “lithocap environment” is particularly critical to the formation of high sulphidation systems. Most magmatic fluids, on exsolution from the main intrusive body, are originally in the low sulphidation state (Hedenquist and Houghton, 1987). As the intrusion cools, the rising magmatic fluids typically increase in chemical activity to the intermediate sulphidation state and remain there due to buffering from wall rock interaction. However, if the magmatic fluids pass through a siliceous lithocap, the buffering mechanism breaks down and the system rapidly reaches a high sulphidation state capable of gold and silver mineralization. Therefore, for high sulphidation epithermal systems to occur, two stages of fluid ingress are required: 1) highly acidic fluid leaches the surrounding country rock and creates a barren, (i.e. unmineralized) vuggy silica lithocap; and 2) fluid ingress passes through the pre-existing lithocap, reaches the high sulphidation state and precipitates a variety of metallic minerals, including enargite, digenite, and covellite (Hedenquist and Houghton, 1987). Moving distally to the main lithocap environment, wall rock buffering successively increases the pH of the magmatic fluids, creating a zoned alteration assemblage from proximal to distal: advanced argillic to argillic to propylitic/hematitic.

The alteration sequence described above is not always observed across the Ranch Area. For example, the Bonanza Deposit lacks the broad argillically altered zones that typically flank the main vuggy silica body. Drill core at Bonanza shows a vuggy silica lithocap that quickly transitions to a propylitic/hematite alteration assemblage along the margins of the Deposit with very minimal argillic alteration. Additionally, drilling through vuggy silica lithocaps at Ranch has consistently revealed the presence of hydrothermal breccias. These brecciated zones are interpreted as feeder systems to the main lithocap environment. Assay results indicate that the breccias commonly contain high-grade gold mineralization.

Mineralization in high sulphidation epithermal systems also displays horizontally and vertically zoned alteration patterns. Generalized models typically describe a transition from high sulphidation minerals (pyrite + digenite + covellite + enargite) to intermediate sulphidation minerals (pyrite + tennantite + chalcopyrite) moving distally from the main feeder system (Einaudi *et al.*, 2003). Other generalized models for high sulphidation systems show zonation from a gold and silver-rich, base metal poor assemblage to a gold-poor, silver-rich, and base metal-intermediate system.

Mineralization in the Ranch Area is typically composed of a high sulphidation mineral assemblage. The exceptions to this appear to be the Ridge and Bingo Deposits, both of which show lower gold and higher silver concentrations than the other deposits at Ranch, indicating they may be located more distal to the main structures that controlled hydrothermal fluid flow and mineralization.

FIGURE 8.4 SIMPLIFIED CROSS-SECTION OF THE TOODOGGONE REGION SHOWING ALTERATION AND MINERALIZATION



Source: adapted from Thesis (2022b)

8.3 PORPHYRY DEPOSITS

“The porphyry deposit type consists of bulk tonnage-style copper-molybdenum-gold mineralization commonly related to feldspar porphyritic intrusions. Core areas consist of intrusive-hosted, disseminated copper sulphides, largely chalcopyrite and bornite, commonly with accessory molybdenum and gold. Mineralization is spatially associated with the core intrusion, but not necessarily confined to it. Stocks are typified by concentric zones of potassic, phyllic (sericitic) and propylitic alteration, commonly with argillic (clay) alteration and overlying zones of advanced argillic alteration. Some secondary (supergene) mineralization commonly occurs near-surface, marked by oxidation of sulphide minerals and enrichment of economic minerals. Deposit boundaries are determined by economic factors that outline ore zones within larger areas of low-grade, concentrically zoned mineralization.

Porphyry deposits occur in orogenic belts at convergent plate boundaries and are commonly linked to subduction-related magmatism. They also occur in association with the emplacement of high-level stocks during extensional tectonism related to strike-slip faulting and back-arc spreading following continent margin accretion. The geological setting of these deposits is a high-level (epizonal) stock emplacement in volcano-plutonic arcs. Virtually any type of country rock can host mineralization, but commonly the high-level stocks and related dikes intrude their coeval volcanic piles.

Pyrite is the predominant sulphide mineral in porphyry deposits. Magnetite and rarely hematite are abundant in some deposits. Ore minerals include chalcopyrite, molybdenite, lesser bornite and rare (primary) chalcocite. Subordinate minerals are tetrahedrite/tennantite, enargite and minor gold, electrum and arsenopyrite. In many deposits late veins commonly contain galena and sphalerite in a gangue of quartz, calcite, and barite. Gangue minerals in mineralized veins are mainly quartz with lesser biotite, sericite, K-feldspar, magnetite, chlorite, calcite, epidote, anhydrite, and tourmaline. Many of these minerals are also pervasive alteration products of primary igneous mineral grains.

Alteration mineralogy consists of quartz, sericite, biotite, K-feldspar, albite, anhydrite/gypsum, magnetite, actinolite, chlorite, epidote, calcite, clay minerals and tourmaline. Early formed alteration can be overprinted by younger assemblages. Central and early formed potassic zones (K-feldspar and biotite) commonly coincide with ore. This alteration can be flanked in volcanic host rocks by biotite-rich rocks (biotite 'hornfels') that grade outward into propylitically-altered rocks. The older alteration assemblages in copper bearing zones can be partially to completely overprinted by later potassic, phyllic and less commonly argillic alteration assemblages. Rarely, in the uppermost parts of some porphyry deposits, advanced argillic (kaolinite-pyrophyllite) alteration is present.

Weathering results in secondary (supergene) zones carrying chalcocite, covellite and other Cu_2S minerals (digenite, djurleite, etc.), chrysocolla, native copper and copper oxides, carbonates, and sulphate minerals. Oxidized and leached zones at surface are marked by ferruginous 'cappings' with supergene clay minerals, limonite, goethite, hematite, jarosite, and residual quartz.

[Mineralized] zones, particularly those with higher gold content, can be associated with magnetite-rich rocks and thus are indicated by magnetic highs in magnetic surveys. Alternatively, the more intensely hydrothermally altered rocks, particularly those with quartz-sericite-pyrite (phyllic) alteration produce magnetic and resistivity lows. Pyritic haloes surrounding copper zones respond well to induced polarization (IP) surveys but in sulphide poor systems the ore itself provides the only significant IP response."

The primary exploration target on the Lawyers Area is a structurally-controlled vein stockwork or breccia-style low sulphidation epithermal gold-silver deposit similar to those of the Lawyers Zones that have seen past production.

A secondary, but very important target type is the bulk-tonnage style of mineralization exemplified by the long-mineralized intercepts in historical and 2015 to 2019 drill holes through the central

and deeper parts of the Cliff Creek and Duke's Ridge Zones, where structural thickening appears to have occurred along the Cliff Creek Fault.

A descriptive geological model showing the possible spatial relationship between epithermal and porphyry deposits, from Hedenquist and Lowenstern (1994), is shown above in Figure 8.1. The Lawyers Group Zones would plot in the upper left-hand side of that Figure, labelled "Low sulphidation Au, Ag".

The Lawyers Southeast Zone displays typical porphyry zonation as identified in the 2019 soil program, with a Cu-Au core surrounded by Mo halo, VTEM survey radiometric response patterns, high K% results, coincide with the zonation displayed in the soil data, which warrants further investigation.

The depth potential of the Silver Pond Clay and North trends remain under-tested. Its large surface alteration footprint of advanced argillic clay minerals (alunite, pyrophyllite, kaolinite), which occurs near a magnetic anomaly at depth, warrants further investigation and follow-up work. This relationship is particularly relevant considering the deep drilling successes at Kemess Underground and Kemess East. Many epithermal districts elsewhere have an association with porphyry-style mineralization.

Porphyry type mineralization has not yet been confirmed on the Ranch Area. However, given the petrogenetic connections between epithermal and porphyry systems (Figure 8.1), there remains high potential for discoveries in the region.

8.4 SKARN DEPOSITS

The Black Lake Alteration Corridor ("BLAC") exploration target has been identified as a potential skarn deposit during the 2021 rock sampling and mapping program. Skarn deposits are characterized by hydrothermal fluid interaction with carbonate-bearing host rock regionally associated with porphyries, greisen or other intrusions like those observed on adjacent properties.

Skarns are characterized by metasomatism of limestones and dolomites to calc-silicates bearing a suite of minerals containing Cu-Au and Zn-Pb-Ag, from Ridley (2013). Skarnified limestones and intense silicification observed in rock samples collected in the BLAC and Silicon Valley North Zones contain Cu and Pb sulphides. They are regional proximal to identified porphyry systems and host suites, the Black Lake Intrusives. This association suggests potential for new deposit types and mineralization on the Property and warrants further investigation.

9.0 EXPLORATION

Thesis has continuously undertaken exploration at the Lawyers-Ranch Property since the 2018 field season. From 2018 to 2023, exploration programs at the Lawyers-Ranch Property included soil and rock sampling, biogeochemical sampling, prospecting and geological mapping, petrographic studies, hyperspectral (TerraSpec shortwave infrared) analysis, an Aerial Drone Survey (UAV), LiDAR and aerial photo acquisition, ground geophysical surveys (GMAG, VLF, DCIP), airborne geophysical surveys (VTEM), and environmental monitoring and baseline studies (described in Sections 4 and 10). A summary of exploration work completed by Thesis is presented in Tables 9.1 and 9.2.

TABLE 9.1 THESIS 2018 TO 2023 EXPLORATION WORK AT THE LAWYERS AREA	
Exploration	Quantity
Soil Sampling	7,586 samples
Rock Sampling	2,828 samples
Clay Sampling (for SWIR Analysis)	412 samples
Biogeochemical Sampling	52 samples
Geologic Mapping	~9,565 ha
Petrographic Study	93 thin sections made. 6 thin sections analysed.
TerraSpec (SWIR) Analysis	412 clay samples 3,858 samples from 31 diamond drill holes
LiDAR Survey and Orthophoto	Lawyers Area
Ground Magnetic Survey	~6,266.4 ha; 1,015.8 line-km along 584 traverse lines
Ground VLF Survey	~6,370 ha; 978.92 line-km along 554 traverse lines
Ground DCIP Survey	~937 ha; 142.1 line-km along 63 lines
Aerial Drone Survey	4,537 ha
Airborne VTEM Survey	~17,300 ha; 1,912 line-km

TABLE 9.2 THESIS 2020 TO 2023 EXPLORATION WORK AT THE RANCH AREA	
Exploration	Quantity
Soil Sampling	12,757 samples
Rock Sampling	1,447 samples
Geologic Mapping	~ 8,940.4 ha
Petrographic Study	15 thin sections analysed

TABLE 9.2 THESIS 2020 TO 2023 EXPLORATION WORK AT THE RANCH AREA	
Exploration	Quantity
TerraSpec (SWIR) Analysis	1,398 rock samples 15,319 samples from 252 diamond drill holes 1,866 samples from 21 reverse circulation (RC) drill holes
LiDAR Survey and Orthophoto	Ranch Area
Ground Magnetic Survey	~6,458 ha; 1,113.25 line-km along 441 traverse lines
Ground DCIP Survey	~1550 ha; 129.3 line-km along 35 lines
Airborne VTEM Survey	~18,700 ha; 2,057 line-km
SRK Geophysical Interpretation	Ground geophysics: ~4,000 ha Airborne geophysics: ~ 18,500 ha

9.1 SOIL SAMPLING

Thesis currently has a total of 40,311 soil samples within the Lawyers-Ranch Property in its database, comprising 19,968 historical soil samples collected prior to Thesis' involvement in the Project, and 20,343 recent samples (including 945 duplicates) collected by Thesis between 2018 and 2023 within the Property limits. More information on historical soil samples in the Lawyers-Ranch Property can be found in Section 6 of this Report.

The following sections summarize the soil sampling programs completed by Thesis between 2018 and 2023. The soil sampling medium was the C horizon or, wherever possible, frost boils or B-horizon. The B-horizon is poorly developed in most areas due to the alpine and sub-alpine environment of the Property. Areas of the proposed soil grids that are composed of glacially derived sediments or fluvial sediments are not sampled, because they are not geochemically representative of the local geology, and therefore not useful for the applied exploration strategy.

9.1.1 Lawyers Area Soil Sampling

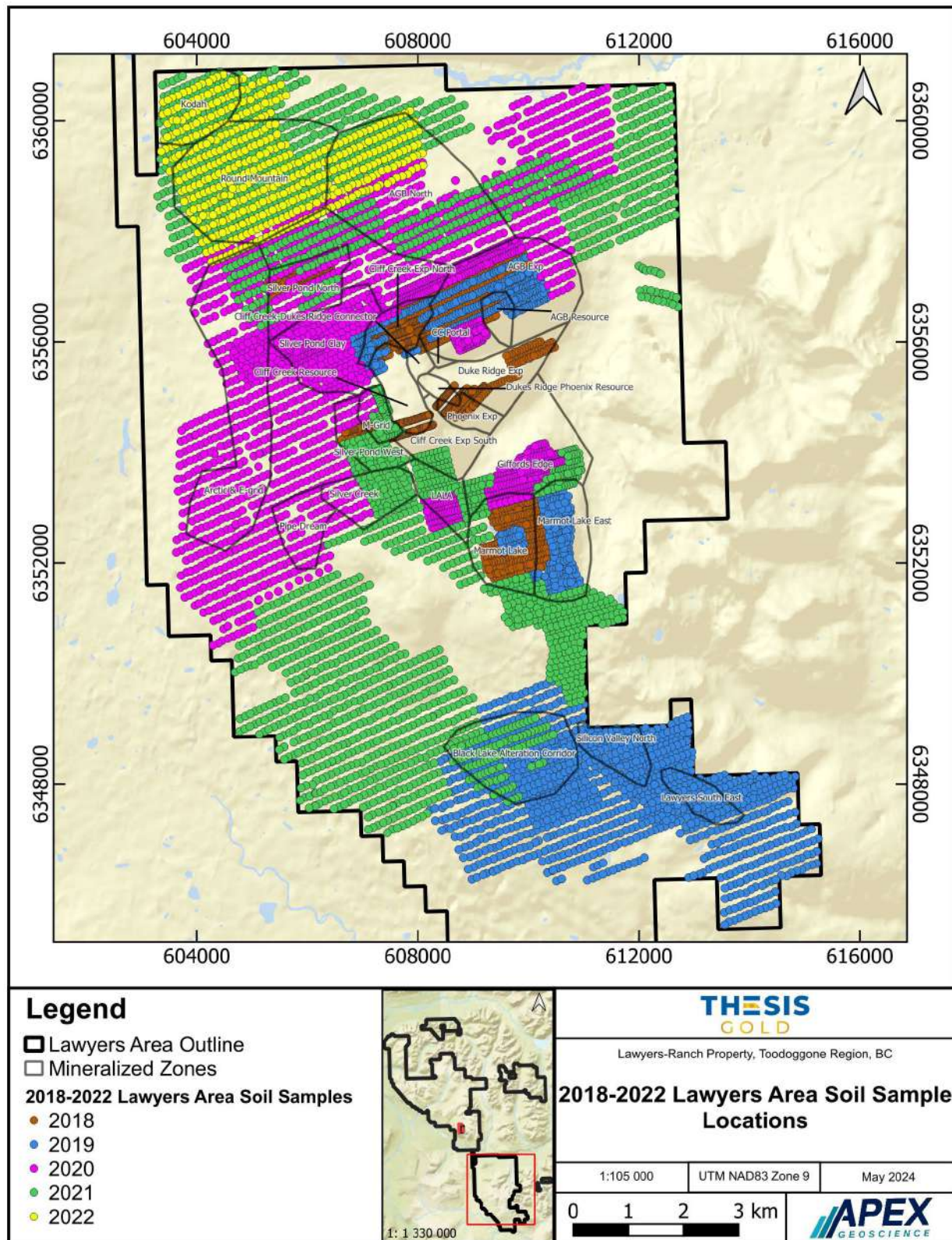
In the Lawyers Area, Thesis collected a total of 7,586 soil samples, including 318 duplicates, between 2018 and 2022 (Figure 9.1). Soil samples were not collected in the Lawyers Area in 2023. The 2018 to 2022 soil sampling grid lines trend northeast - southwest, perpendicular to major structural and mineralization trends. A total of 7,553 out of the 7,586 collected soil samples have assay results; the remaining samples lacked sufficient material to be assayed, did not get shipped to the assay laboratory, or are lost.

Recent soil sampling by Thesis was designed to verify anomalies identified from historical data compilation, to extend soil sample coverage over known occurrences of mineralization, and to acquire surface geochemistry in previously unexplored (unsampled) areas.

Soil sampling programs conducted at the Lawyers area between 2018 and 2021 are previously reported in Church *et al.*, (2022). The 2018 to 2021 soil sampling comprised a total of 7,089 soil samples, including 293 duplicates. Assay results and interpretation of these sampling programs are summarized in the section below.

In 2022, 497 soil samples, including 25 duplicates, were collected in the Lawyers Area. Samples were collected along infill lines at Kodah, Round Mountain, AGB North and off-prospect areas to better define new anomalies identified in the 2021 soil sampling program. Soil samples were collected along 200 m spaced lines with 100 m spacing between samples offset from and in-filling the 2021 sample lines with the same spacing.

FIGURE 9.1 LAWYERS AREA 2018 TO 2022 SOIL SAMPLE LOCATIONS



9.1.1.1 Lawyers Area Soil Geochemistry Results and Interpretation

2018-2021 Soil Samples Geochemistry

Between 2018 and 2021, Thesis collected a total of 7,089 soil samples, including 293 duplicates, across the Lawyers Area (Figure 9.1). A total of 7,056 out of 7,089 samples collected are assayed; the remaining samples either did not have sufficient material to be assayed, were not shipped to the assay laboratory, or were damaged on route to the laboratory.

Of the 6,896 gold assay results received (Figure 9.2):

- 1,112 analytical results (16.1%) are below the detection limit of 0.001 ppm Au. These results are represented as 0.0005 ppm Au for the calculation below;
- 6,455 analytical results (93.6%) are <0.05 ppm Au, with an average of 0.006 ppm Au;
- 434 analytical results (6.3%) are between 0.05 and 1 ppm Au, with an average of 0.15 ppm Au; and
- Seven analytical results (0.1%) are >1 ppm Au, with a maximum of 4.07 ppm Au, and an average of 2.0 ppm Au. The highest grade of 4.07 ppm Au occurs in a sample from the Dukes Ridge Zone.

Of the 7,048 silver assay results received (Figure 9.3):

- All analytical results are above the detection limit of 0.01 ppm Ag;
- 6,381 analytical results (90.6%) are <1 ppm Ag, with an average of 0.3 ppm Ag;
- 637 analytical results (9%) are between 1 and 5 ppm Ag, with an average of 1.82 ppm Ag; and
- 30 analytical results (0.4%) are >5 ppm Ag, with a maximum of 33.10 ppm Ag, and an average of 9.77 ppm Ag. The highest grade of 33.10 ppm Ag occurs in a sample from the Marmot Lake Zone.

Of the 7,048 copper assay results received (Figure 9.4):

- All analytical results are above the detection limit of 0.2 ppm Cu.
- 6,660 analytical results (94.5%) are <50 ppm Cu, with an average of 19.4 ppm Cu;
- 355 analytical results (5%) are between 50 and 200 ppm Cu, with an average of 85.4 ppm Cu; and

- 33 analytical results (0.5%) are >200 ppm Cu, with a maximum of 948 ppm Cu, and an average of 353.2 ppm Cu. The highest grade of 948 ppm Cu occurs in a sample from the Lawyers Southeast Zone.

The 2018 to 2021 soil sampling programs revealed anomalous gold, silver and copper values across all the target areas. Historical anomalies at AGB, Marmot Lake, Phoenix, Silver Pond North, Silver Pond South, Silver Creek, Arctic, E-grid, Lala, Gifford's Edge, Kodah, Black Lake Alteration Corridor, Round Mountain, and Lawyers South are confirmed.

In addition, new mineralization was identified in areas lacking historical soil samples. The soil geochemistry was successful in establishing zones of interest by identifying soil anomaly trends. Several new well-defined gold and silver anomalies are defined along the western side of Round Mountain and into Kodah. Gold, silver, and copper anomalies occur together starting from Silver Pond North, through Round Mountain, and into Kodah along a generally southeast to northwest trend (Figure 9.1). Along this trend, six samples returned values >0.1 ppm Au, 22 returned values >2.0 ppm Ag, and 23 samples returned values >50 ppm Cu. A north-northwest trending gold anomaly occurs in the Marmot Lake East grid, and a small southeast-northwest trend of gold anomalism occurs off-prospect to the north of the Black Lake Alteration Corridor (Figure 9.1). To the west of, and within the Black Lake Alteration Corridor, 28 soil samples returned values >50 ppm Cu, extending the previously identified Cu anomaly that occurs in the southeastern corner of the Lawyers Area. In addition, anomalous concentrations of pathfinder elements tellurium (Te), thallium (Tl), arsenic (As), and antimony (Sb), associated with porphyry and epithermal systems, are observed along the Kodah and Round Mountain trend and at the Black Lake Alteration Corridor.

2022 Soil Samples Geochemistry

In 2022, Thesis collected a total of 497 soil samples, including 25 duplicates, at Kodah, Round Mountain, AGB North and off-prospect areas (Figure 9.1). All collected samples are assayed.

Of the 477 gold assay results received:

- 29 analytical results (6.07%) are below the detection limit of 0.001 ppm Au. These results are represented as 0.0005 ppm Au for the calculation below ;
- 443 analytical results (93%) are <0.05 ppm Au, with an average of 0.007 ppm Au; and
- 34 analytical results (7%) are >0.05 ppm Au, with a maximum of 0.27 ppm Au, and an average of 0.11 ppm Au. The highest grade of 0.27 ppm Au occurs in a sample from the Round Mountain Zone.

Of the 497 silver assay results received:

- All analytical results are above the detection limit of 0.01 ppm Ag.

- 399 analytical results (80.3%) are <1 ppm Ag, with an average of 0.42 ppm Ag
- 91 analytical results (18.3%) are between 1 and 5 ppm Ag, with an average of 2.06 ppm Ag; and
- 7 analytical results (1.4%) are >5 ppm Ag, with a maximum of 27.7 ppm Ag and an average of 10.72 ppm Ag. The highest grade of 27.7 ppm Ag occurs in a sample from the Kodah Zone.

Of the 497 copper assay results received:

- All analytical results are above the detection limit of 0.2 ppm Cu.
- 428 analytical results (86.1%) are <50 ppm Cu, with an average of 17.19 ppm Cu;
- 59 analytical results (11.9%) are between 50 and 200 ppm Cu, with an average of 90.14 ppm Cu; and
- 10 analytical results (2%) are >200 ppm Cu, with a maximum of 372 ppm Cu and an average of 276.2 ppm Cu. The highest grade of 372 ppm Cu occurs in a sample from the Kodah Zone.

Table 9.3 summarizes the number of anomalous samples for each Zone.

The 2022 soil sampling program comprised a small in-fill sampling program designed to better define anomalies identified during the 2021 soil sampling program and to improve resolution on structures with significant mineralization. Anomalous samples are found across all the sampled Zones (Table 9.3). Gold and silver anomalies around the western side of Round Mountain and into Kodah are confirmed; these trends appear coincident with structural trends defined by the 2022 ground geophysics. Anomalous concentrations in porphyry/epithermal systems pathfinder elements Te, Tl, As, and Sb, along the Kodah and Round Mountain trend, identified during the 2021 sampling program, are confirmed and refined. High arsenic (As) was also identified at AGB North.

TABLE 9.3 LAWYERS AREA 2022 SOIL SAMPLE GEOCHEMICAL HIGHLIGHTS BY ZONE			
Zone	Au ≥0.05 ppm	Ag ≥1 ppm	Cu ≥50 ppm
AGB North	8	6	3
Kodah	7	25	28
Round Mountain	18	59	34
Off-prospect	1	8	4
Total	34	98	69

FIGURE 9.2 LAWYERS AREA 2018 TO 2022 SOIL SAMPLE ASSAY RESULTS FOR GOLD

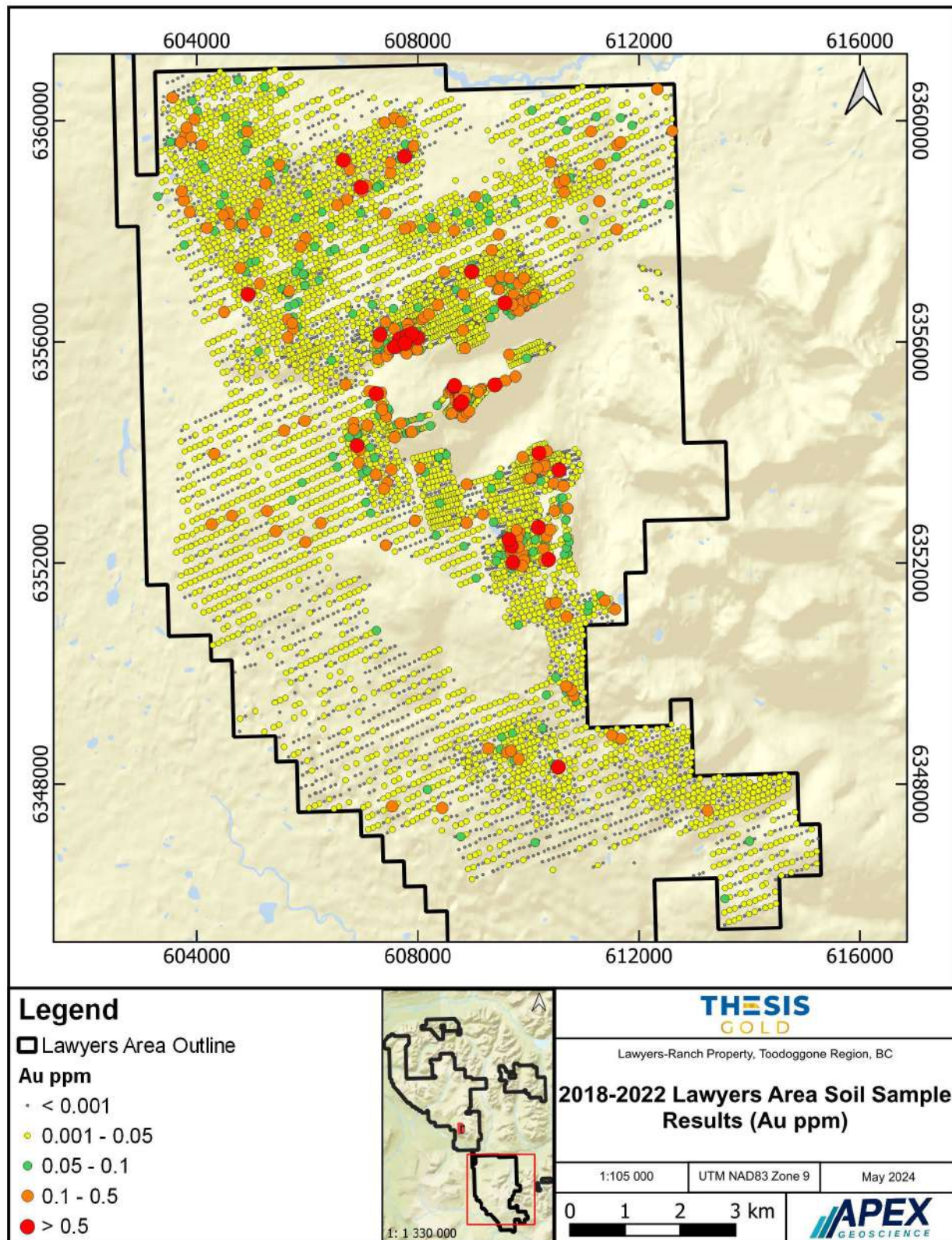


FIGURE 9.3 LAWYERS AREA 2018 TO 2022 SOIL SAMPLE ASSAY RESULTS FOR SILVER

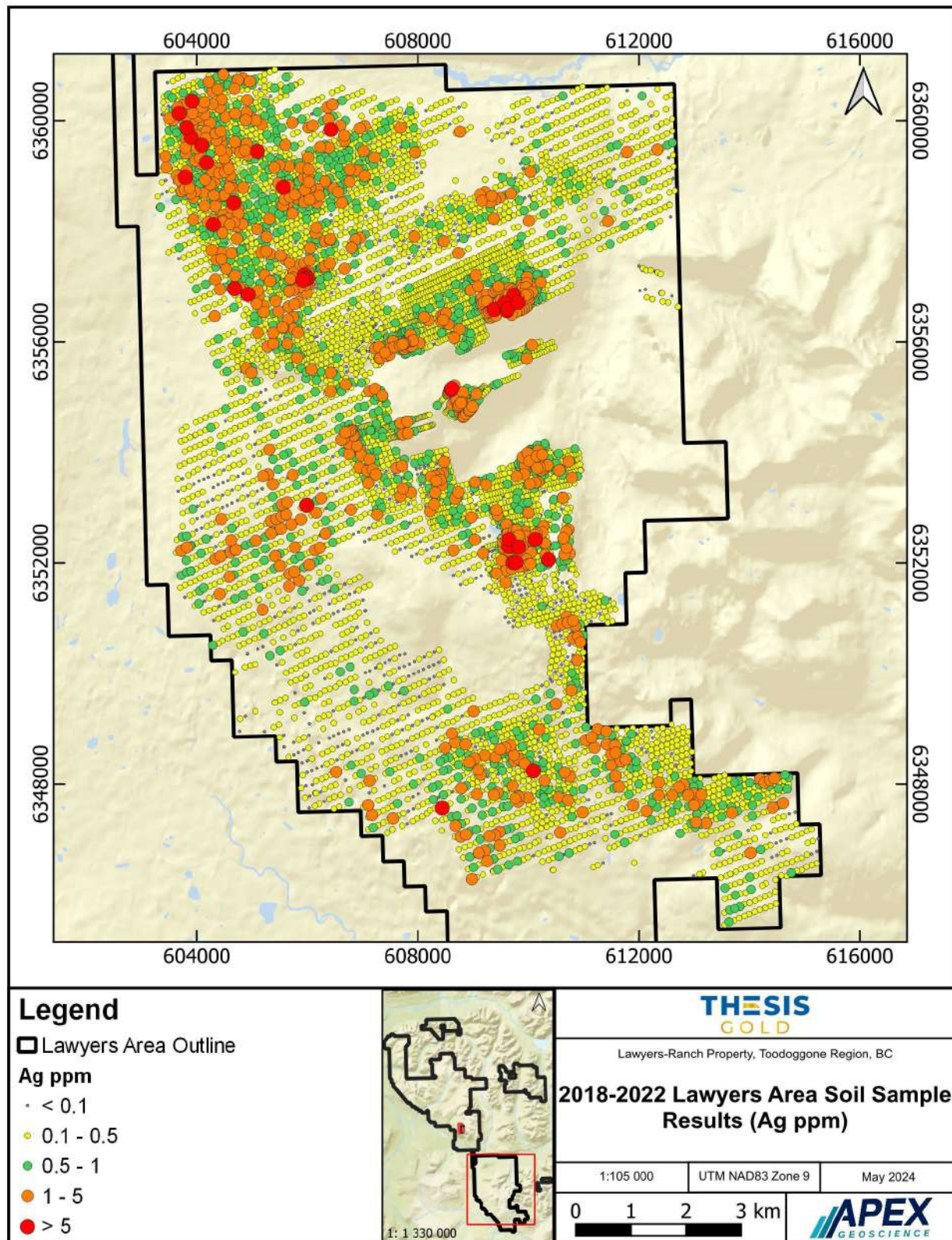
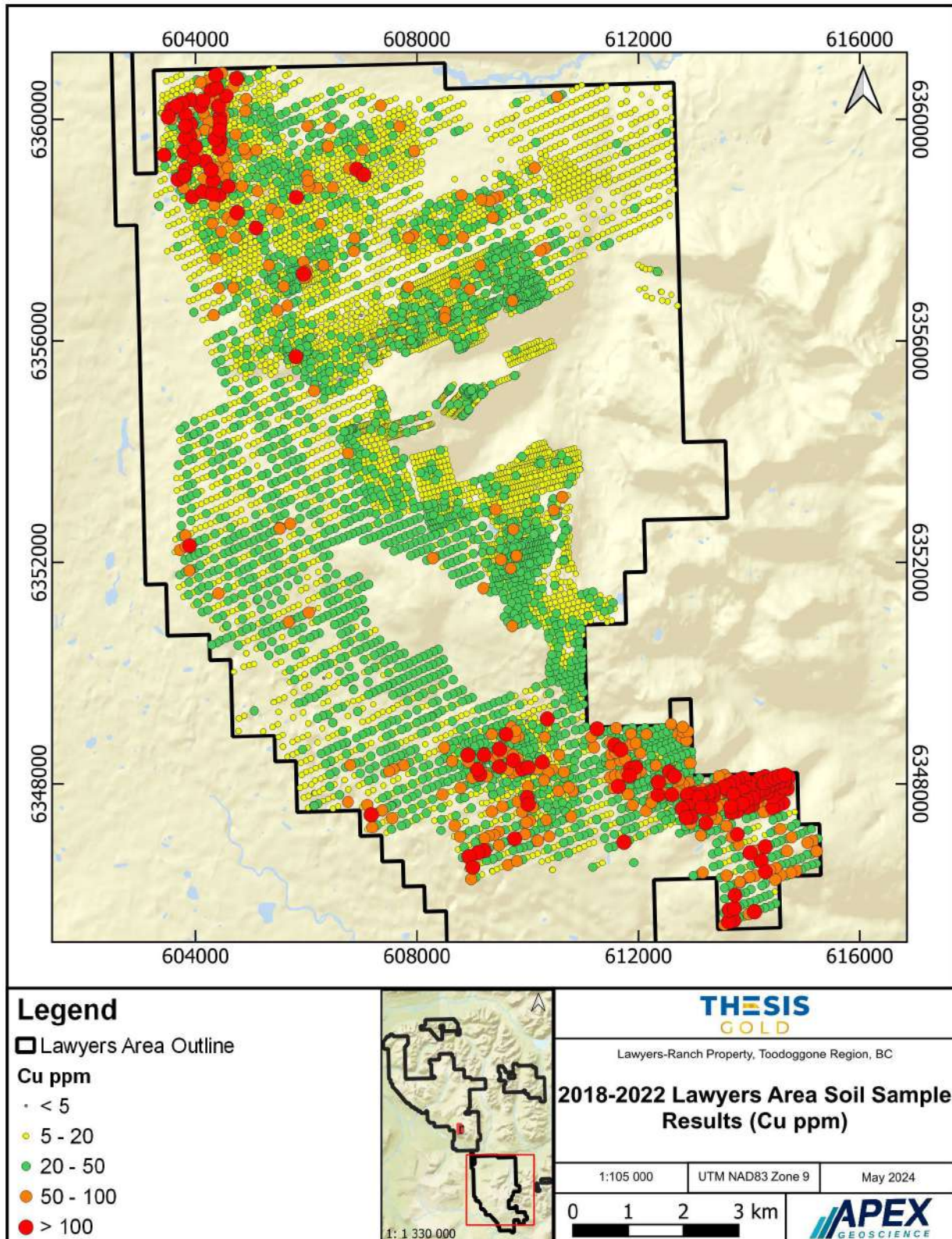


FIGURE 9.4 LAWYERS AREA 2018 TO 2022 SOIL SAMPLE ASSAY RESULTS FOR COPPER



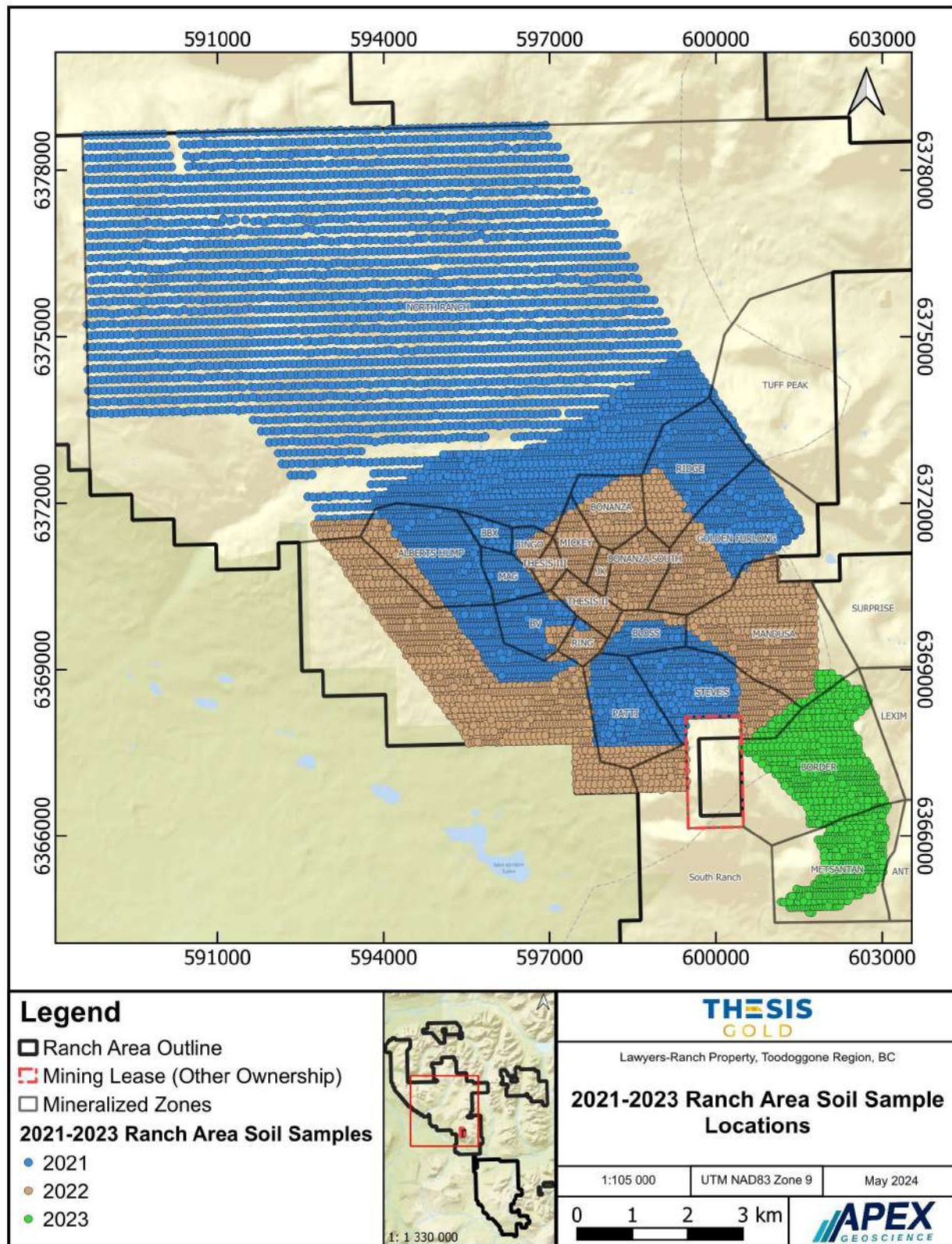
9.1.2 Ranch Area Soil Sampling

In the Ranch Area, Thesis collected a total of 12,757 soil samples, including 627 duplicates, between 2021 and 2023 (Figure 9.5). A total of 12,664 out of the 12,757 collected soil samples have assay results; the remaining samples either lacked sufficient material to be assayed or were damaged on route to the laboratory.

The 2021-2022 soil sampling programs are designed to acquire surface geochemical data in unexplored and under-explored areas throughout the Ranch Area. This included coverage of strike-extensions of known anomalies and mineral occurrences and historically sampled areas, in order to validate/confirm historical results and to ensure that nothing of significance has been overlooked during historical exploration programs. Soil sample grids were designed with 200 m line spacing and 100 m sample spacing to collect geochemical data at a sufficient resolution to allow for future targeting of unexplored areas, and with a narrower 100 m line spacing and 50 to 100 m sample spacing to in-fill surface geochemistry gaps within major prospects. Soil sampling programs completed between 2021 and 2022 are previously reported by Turner and Hough (2023). The 2021-2022 soil sampling database consists of a total of 11,583 soil samples collected, including 573 duplicates. Assay results and interpretation of these sampling programs are summarized in the section below.

In 2023, 1,174 soil samples (including 54 duplicates) were collected and assayed from the Border, Metsantan, Mandusa and Steve's Zones, within the southern portion of the Ranch Area (Figure 9.5). The 2023 soil sampling on the Ranch South soil grid (Border and Metsantan Zones) was designed with 100 m line spacing and 50 m sample spacing to verify historical soil samples in the area and extend the 2021-2022 grids to pursue previously identified anomalies. Results of this soil sampling program are summarized in the following sections.

FIGURE 9.5 RANCH AREA 2021 TO 2023 SOIL SAMPLE LOCATIONS



9.1.2.1 Ranch Area Soil Geochemistry Results and Interpretation

2021-2022 Soil Samples Geochemistry

Between 2021 and 2022, Thesis collected a total of 11,583 soil samples, including 573 duplicates, across the Ranch Area (Figure 9.5). A total of 11,490 out of 11,583 samples were assayed; the remaining samples either lacked sufficient material to be assayed or were damaged in route or were not shipped to the assay laboratory.

Of the 11,045 gold assay results received (Figure 9.6):

- 3,565 analytical results (32.3%) are below the detection limit of 0.001 ppm Au. These results are represented as 0.0005 ppm Au for the calculation below;
- 10,747 analytical results (97.3%) are <0.05 ppm Au, with an average of 0.004 ppm;
- 291 analytical results (2.6%) are between 0.05 and 1 ppm Au, with an average of 0.15 ppm Au; and
- 7 analytical results (0.1%) are >1 ppm Au, with a maximum of 2.92 ppm Au, and an average of 1.82 ppm Au. The highest grade of 2.92 ppm Au occurs in a sample from the BV Zone.

Of the 11,489 silver assay results received (Figure 9.7):

- All analytical results are above the detection limit of 0.01 ppm Ag.
- 10,579 analytical results (92.1%) are <1 ppm Ag, with an average of 0.28 ppm Ag;
- 867 analytical results (7.5%) are between 1 and 5 ppm Ag, with an average of 1.71 ppm Ag; and
- 43 analytical results (0.4%) are >5 ppm Ag, with a maximum of 48.4 ppm Ag and an average of 10.12 ppm Ag. The highest grade of 48.4 ppm Ag occurs in a sample from the Steve's Zone.

Of the 11,489 copper assay results received (Figure 9.8):

- All analytical results are above the detection limit of 0.2 ppm Cu.
- 11,271 analytical results (98.1%) are <50 ppm Cu, with an average of 16.81 ppm Cu;
- 213 analytical results (1.86%) are between 50 and 200 ppm Cu, with an average of 76.4 ppm Cu; and

- 5 analytical results (0.04%) are >200 ppm Cu, with a maximum of 382 ppm Cu and an average of 264 ppm Cu. The highest grade of 382 ppm Cu occurs in a sample from the BV Zone.

The 2021-2022 soil geochemical surveys were successful in identifying anomalous trends in important pathfinder elements associated with epithermal mineralization. Lead (Pb) and zinc (Zn) exhibit weak anomaly trends over south Patti and Bonanza Areas, whereas strong arsenic (As) anomalies were identified west of Albert's Hump. Base metal results from 2021 revealed a large northeast trending base metal soil anomaly at Albert's Hump with elevated As, Pb, Sb, and Zn values. The 2022 soil program confirmed that the Albert's Hump soil anomaly extends along the same trend west of the main lithocap at the peak of Albert's Hump, which coincides with a magnetic low and many small faults. Antimony (Sb) anomalies are typically coincident with other base metals (Pb, Zn, As), including prominent trends at Thesis III and west of Albert's Hump. Moderate silver anomalies are observed at Mandusa, Golden Furlong, Bonanza, Ring and South BV. Elevated gold values were identified mainly at the Bonanza, Mickey, Thesis II, Thesis III, and Ridge areas. Weaker Au anomalies were identified at the JK, Bonanza South, Golden Furlong, and South Patti Areas.

2023 Soil Samples Geochemistry

In 2023, Thesis collected a total of 1,174 soil samples, including 54 duplicates, at the Border, Metsantan, Mandusa and Steve's Zones in the southern portion of the Ranch Area (Figure 9.5). All collected samples were assayed.

Of the 1,172 gold assay results received (Figure 9.6):

- 539 analytical results (50.0%) are below the detection limit of 0.001 ppm Au. These results are represented as 0.0005 ppm Au for the calculation below;
- 1,129 analytical results (96.3%) are <0.05 ppm Au, with an average of 0.003 ppm Au;
- 42 analytical results (3.6%) are between 0.05 and 1 ppm Au, with an average of 0.14 ppm Au; and
- 1 analytical result (0.1%) was >1 ppm Au and is 1.065 ppm Au. This grade occurs in a sample from the Border Zone.

Of the 1,174 silver assay results received (Figure 9.7):

- All analytical results are above the detection limit of 0.01 ppm Ag.
- 1,137 analytical results (96.8%) are <1 ppm Ag, with an average of 0.19 ppm Ag;
- 36 analytical results (3.1%) are between 1 and 5 ppm Ag, with an average of 1.94 ppm Ag; and

- 1 analytical result (0.1%) was >5 ppm Ag and is 9.32 ppm Ag. This grade occurs in a sample from the Border Zone.

Of the 1,174 copper assay results received (Figure 9.8):

- All analytical results are above the detection limit of 0.2 ppm Cu.
- 1,165 analytical results (99.2%) are <50 ppm Cu, with an average of 13.38 ppm Cu; and
- 9 analytical results (0.8%) are >50 ppm Cu, with a maximum of 102 ppm Cu, and an average of 69 ppm Cu. The highest grade of 102 ppm Cu occurs in a sample from the Border Zone.

Table 9.4 summarizes the number of anomalous samples for each Zone.

The 2023 Ranch Area soil sampling was successful in identifying geochemical trends and important pathfinder elements associated with epithermal mineralization. Gold anomalies identified in 20223 are weak, sporadic and concentrated on the south side of the grid (Figure 9.6). One particularly anomalous sample located in the northeast corner of the Border Zone returned a value of 1.065 ppm Au (Figure 9.6). The highest Au, Ag, and Cu values occur in samples from the Border Zone, with the highest Ag and Cu values both occurring in the same soil sample (B095393) collected on a talus slope. Anomalous Ag values are located along the west side of the soil grid on the Border Zone, with high values returned on the Metsantan Zone (Figure 9.7). Lead, zinc and arsenic exhibit weak soil anomaly trends with moderate results returned from the west side of the soil grid. Antimony values coincide with other pathfinder elements along the west side of the grid with low to moderate values returned; moderate Sb values spread farther east on the Zone than the other elements. Overall, the most anomalous values of all pathfinder elements (excluding Au) occur on the westernmost soil lines on the Border Zone with moderate results consistently occurring at the Metsantan Zone.

TABLE 9.4 RANCH AREA 2023 SOIL SAMPLE GEOCHEMICAL HIGHLIGHTS BY ZONE			
Zone	Au ≥0.05 ppm	Ag ≥1 ppm	Cu ≥50 ppm
Border	21	26	4
Mandusa	3	0	0
Metsantsan	19	9	5
Steve's	0	2	0
Total	43	37	9

FIGURE 9.6 RANCH AREA 2021 TO 2023 SOIL SAMPLE ASSAY RESULTS FOR GOLD

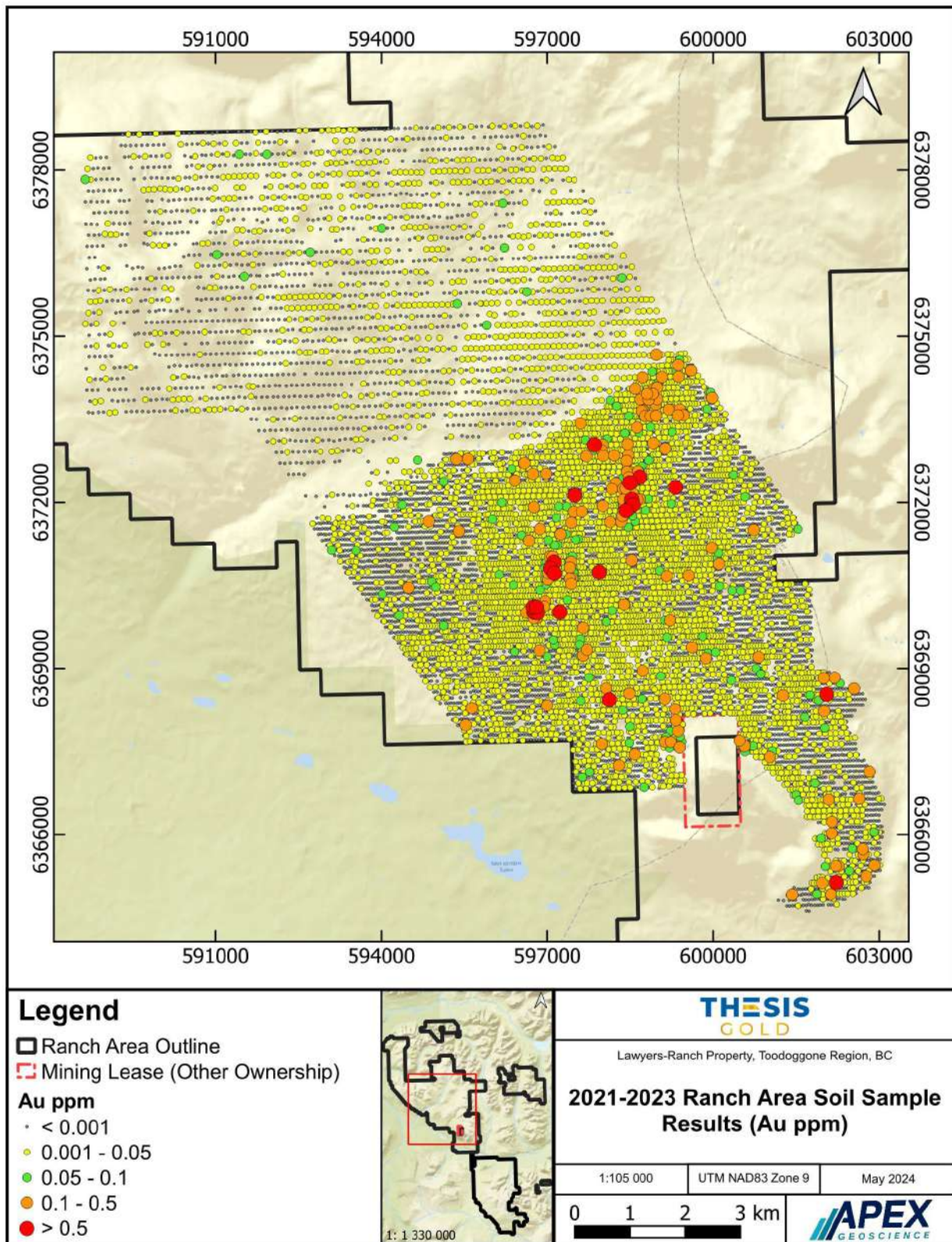


FIGURE 9.7 RANCH AREA 2021 TO 2023 SOIL SAMPLE ASSAY RESULTS FOR SILVER

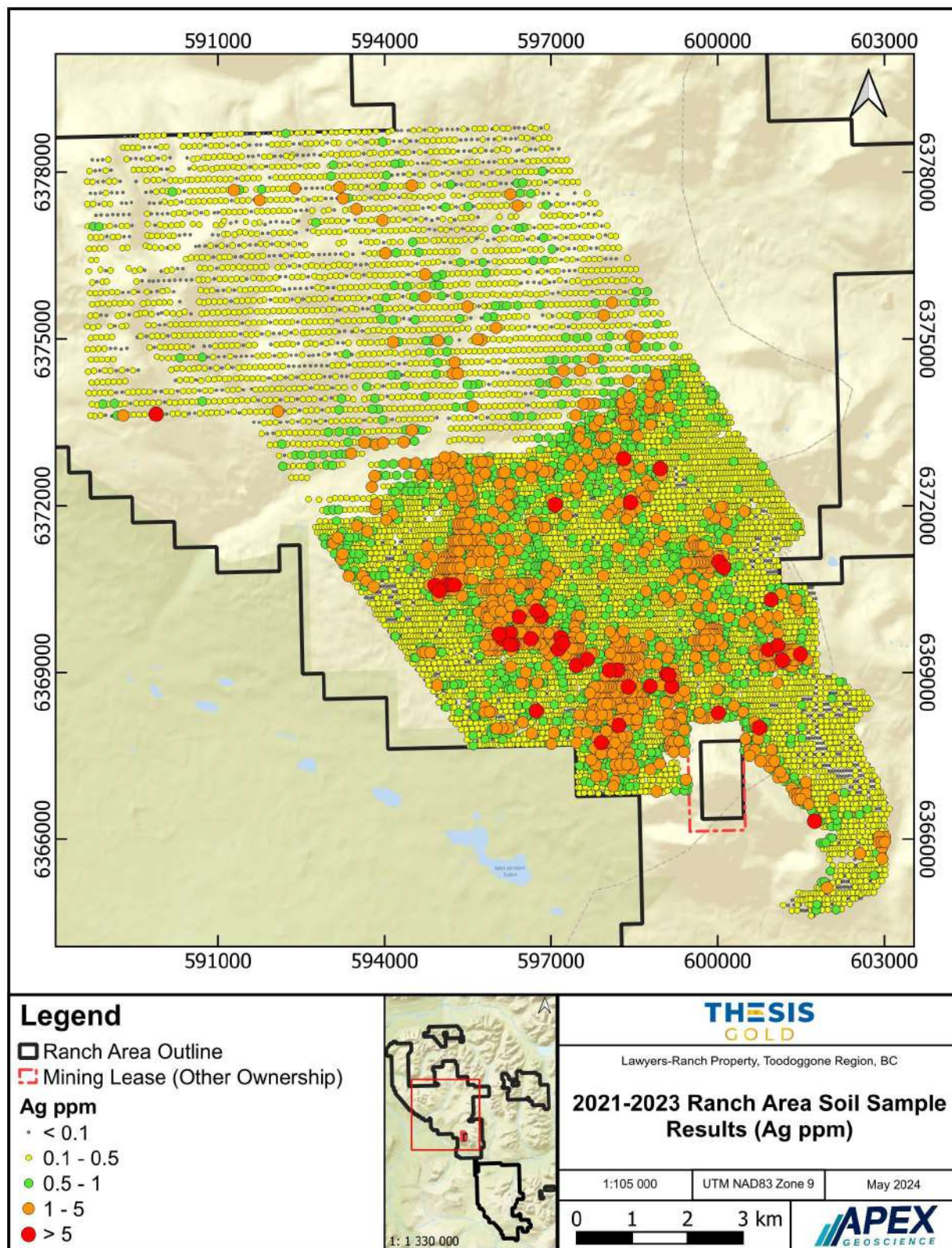
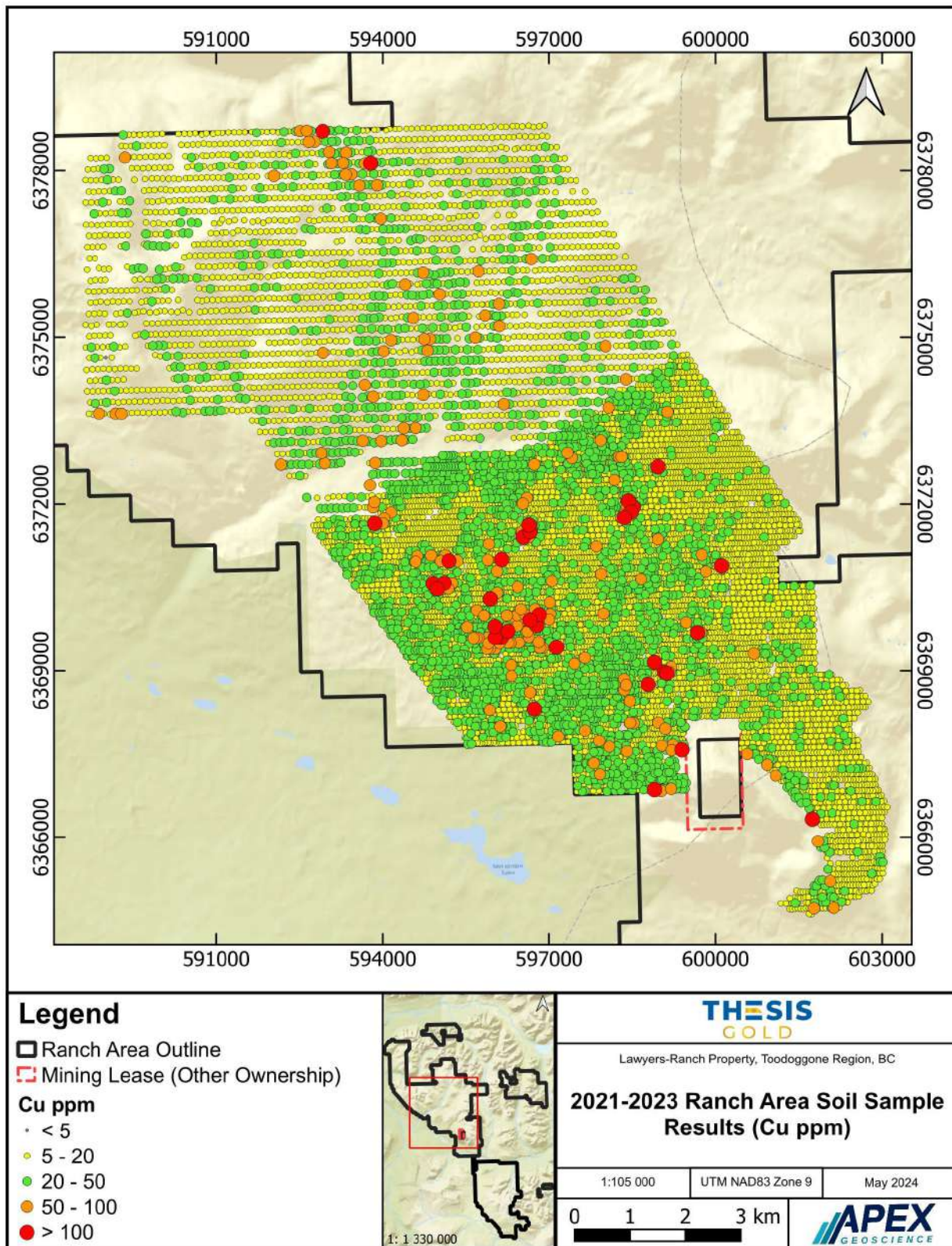


FIGURE 9.8 RANCH AREA 2021 TO 2023 SOIL SAMPLE ASSAY RESULTS FOR COPPER



9.2 ROCK SAMPLING

Thesis currently has a total of 11,007 rock samples within the Lawyers-Ranch exploration database, comprising 6,802 historical rock samples collected prior to Thesis' involvement in the Project, and 4,275 recent samples collected by Thesis between 2018 and 2023 within the Property limits. More information on historical rock samples in the Lawyers-Ranch Property can be found in Section 6 of this Report. The following sections summarize the rock sampling programs completed by Thesis between 2018 and 2023.

9.2.1 Lawyers Area Rock Sampling

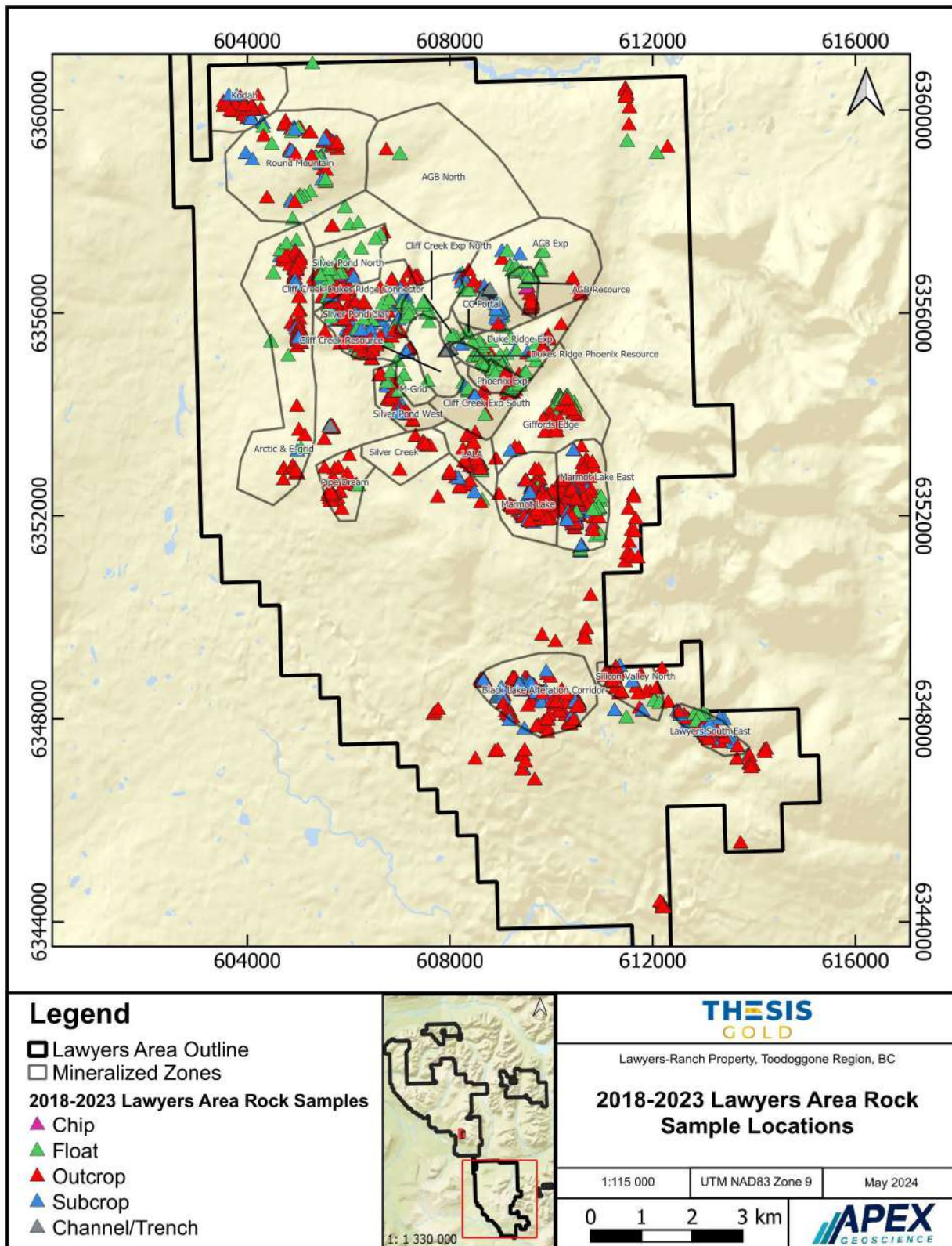
Within the Lawyers Area, Thesis collected a total of 2,828 rock samples between 2018 and 2023. The sampling comprised some chip/channel sampling of trenches and outcrops but mainly comprised grab sampling of outcrops and lesser subcrop and float sampling (see Figure 9.9). A total of 2,819 out of the 2,828 rock sample collected have assay results.

The intent of these rock sampling programs was to follow-up on and verify samples identified from the historical data compilation, identify and better define mineralization identified in previous sampling programs, and to extend known mineralization in preparation for drilling.

Rock sampling programs conducted between 2018 and 2021 are previously reported in a technical report by JDS Energy & Mining, Inc. (Church *et al.*, 2022). The 2018 to 2021 rock sampling database consists of a total of 2,588 rock samples collected across the Lawyers Area, with 2,579 having assay results. Results and interpretation of these sampling programs are summarized in the section below.

In 2022 and 2023, 240 additional rock samples were collected across the Lawyers Area during field evaluations of the Black Lake Alteration Corridor, Dukes Ridge Exp, Giffords Edge, Lawyers Southeast, Marmot, and Round Mountain prospect areas. All of the collected samples have analytical data. Results of the 2022 and 2023 Lawyers Area rock sampling programs are summarized in the following sections.

FIGURE 9.9 LAWYERS AREA 2018 TO 2023 ROCK SAMPLE LOCATIONS



9.2.2 Lawyers Area Rock Geochemistry Results and Interpretation

9.2.2.1 2018-2021 Rock Samples Geochemistry

Between 2018 and 2021, Thesis collected a total 2,588 rock samples across the Lawyers Area (Figure 9.9). A total of 2,579 out of 2,588 samples were assayed; the remaining samples either lacked sufficient material to be assayed or were not shipped to the assay laboratory.

Of the 2,576 gold assay results received (Figure 9.10):

- 582 analytical results (22.6%) are below the detection limit of 0.001 ppm Au. These results are represented as 0.0005 ppm Au for the calculation below;
- 1,797 analytical results (69.8%) are <0.05 ppm Au, with an average of 0.008 ppm Au;
- 655 analytical results (25.4%) are between 0.05 and 1.00 ppm Au, with an average of 0.22 ppm Au; and
- 124 analytical results (4.8%) are >1 ppm Au, with a maximum of 1,170 ppm Au, and an average of 20.49 ppm Au. The highest grade of 1,170 ppm Au occurs in a float vein sample from the Cliff Creek Portal Zone.

Of the 2,579 silver assay results received (Figure 9.11):

- 1 analytical result is below the detection limit of 0.01 ppm Ag. This result is represented as 0.005 ppm Ag for the calculation below;
- 1,484 analytical results (57.5%) are <1 ppm Ag, with an average of 0.3 ppm Ag;
- 575 analytical results (22.3%) are between 1 and 5 ppm Ag, with an average of 2.38 ppm Ag; and
- 520 analytical results (20.2%) are >5 ppm Ag, with a maximum of 10,000 ppm Ag, and an average of 149.6 ppm Ag. The highest grade of 10,000 ppm Ag occurs in three float vein samples, including two from the Cliff Creek Portal Zone and one from the Dukes Ridge-Phoenix Zones corridor.

Of the 2,579 copper assay results received (Figure 9.12):

- All analytical results are above the detection limit of 0.2 ppm Cu.
- 2,283 analytical results (88.5%) are <50 ppm Cu, with an average of 13.65 ppm Cu.
- 234 analytical results (9.1%) are between 50 and 200 ppm Cu, with an average of 96 ppm Cu; and

- 62 analytical results (2.4%) are >200 ppm Cu, with a maximum of 12,750 ppm Cu and an average of 778.92 ppm Cu. The highest grade of 12,750 ppm Cu occurs in a float vein sample from the Cliff Creek Portal Zone.

The 2018 to 2021 rock sampling programs were successful in defining new areas of interest and confirming known occurrences of mineralization at most of the historical zones. The Marmot Lake East Zone returned the highest number of high-grade samples, with 22 samples containing >1 ppm Au, 49 samples containing >20 ppm Ag, and 17 samples containing >50 ppm Cu. Many of the rock samples from the Black Lake Alteration Corridor returned anomalous gold values with samples up to 1.37 ppm Au. In addition, rock samples collected from different prospects show unique geochemical signatures, such as elevated Pb, Zn and Cu at Cliff Creek compared to samples at AGB and Marmot. These results could suggest multiple mineralizing events at the different Zones or metal zonation within a single mineralizing event with complexities reflecting possible structural disruption with varying levels or erosional depths.

9.2.2.1 2022-2023 Rock Samples Geochemistry

Between 2022 and 2023, Thesis collected a total 240 rock samples across the Lawyers Area (Figure 9.9). All the 240 samples were assayed.

Of the 240 gold assay results received (Figure 9.10):

- 88 analytical results (36.7%) are below the detection limit of 0.001 ppm Au. These results are represented as 0.0005 ppm Au for the calculation below;
- 181 analytical results (75.4%) are <0.05 ppm Au, with an average of 0.005 ppm Au;
- 52 analytical results (21.7%) are between 0.05 and 1 ppm Au, with an average of 0.17 ppm Au; and
- 7 analytical results (2.9%) are >1 ppm Au, with a maximum of 5.85 ppm Au and an average of 3.24 ppm Au. The highest grade of 5.85 ppm Au occurs in a subcrop vein sample from the Marmot Lake Zone.

Of the 240 silver assay results received (Figure 9.11):

- All analytical results are above the detection limit of 0.01 ppm Ag.
- 164 analytical results (68.3%) are <1 ppm Ag, with an average of 0.26 Ag;
- 43 analytical results (18%) are between 1 and 5 ppm Ag, with an average of 2.80 ppm Ag; and
- 33 analytical results (13.7%) are >5 ppm Ag, with a maximum of 1,180 ppm Ag and an average of 105.55 ppm Ag. The highest grade of 1,180 ppm Ag occurs in a vein outcrop sample from the Marmot Lake Zone.

Of the 240 copper assay results received (Figure 9.12):

- All analytical results are above the detection limit of 0.2 ppm Cu.
- 215 analytical results (89.6%) are <50 ppm Cu, with an average of 14.29 ppm Cu;
- 17 analytical results (7.1%) are between 50 and 200 ppm Cu, with an average of 84 ppm Cu; and
- 8 analytical results (3.3%) are >200 ppm Cu, with a maximum of 9,620 ppm Cu and an average of 2,796 ppm Cu. The highest grade of 9,620 ppm Cu occurs in a subcrop vein sample from the Marmot Lake Zone.

Table 9.5 summarizes the number of anomalous samples for each prospect.

The 2022-2023 rock sampling programs were successful in defining new areas of interest and confirming and expanding known occurrences of mineralization. The Marmot Lake, Round Mountain, Black Lake Alteration Corridor and Giffords Edge Zones commonly returned samples with anomalous Au, Ag and Cu values. The anomalous samples exhibited alteration and mineralization styles consistent with those observed in the main resource areas. The highest Au, Ag and Cu values returned are from samples from the Marmot Lake Zone, where mineralization is associated with quartz veining and potassic alteration, and minor sulphide mineralization, hosted in andesite.

TABLE 9.5 LAWYERS AREA 2022-2023 SOIL SAMPLE GEOCHEMICAL HIGHLIGHTS BY PROSPECT			
Zone	Au ≥0.05 ppm	Ag ≥1 ppm	Cu ≥50 ppm
Black Lake Alteration Corridor	2	7	3
Dukes Ridge Exp	1	2	2
Giffords Edge	4	5	0
Lawyers Southeast	0	0	3
Marmot Lake	43	52	9
Round Mountain	9	9	3
Off-prospect	0	1	5
Total	59	76	25

FIGURE 9.10 LAWYERS AREA 2018 TO 2023 ROCK SAMPLE ASSAY RESULTS FOR GOLD

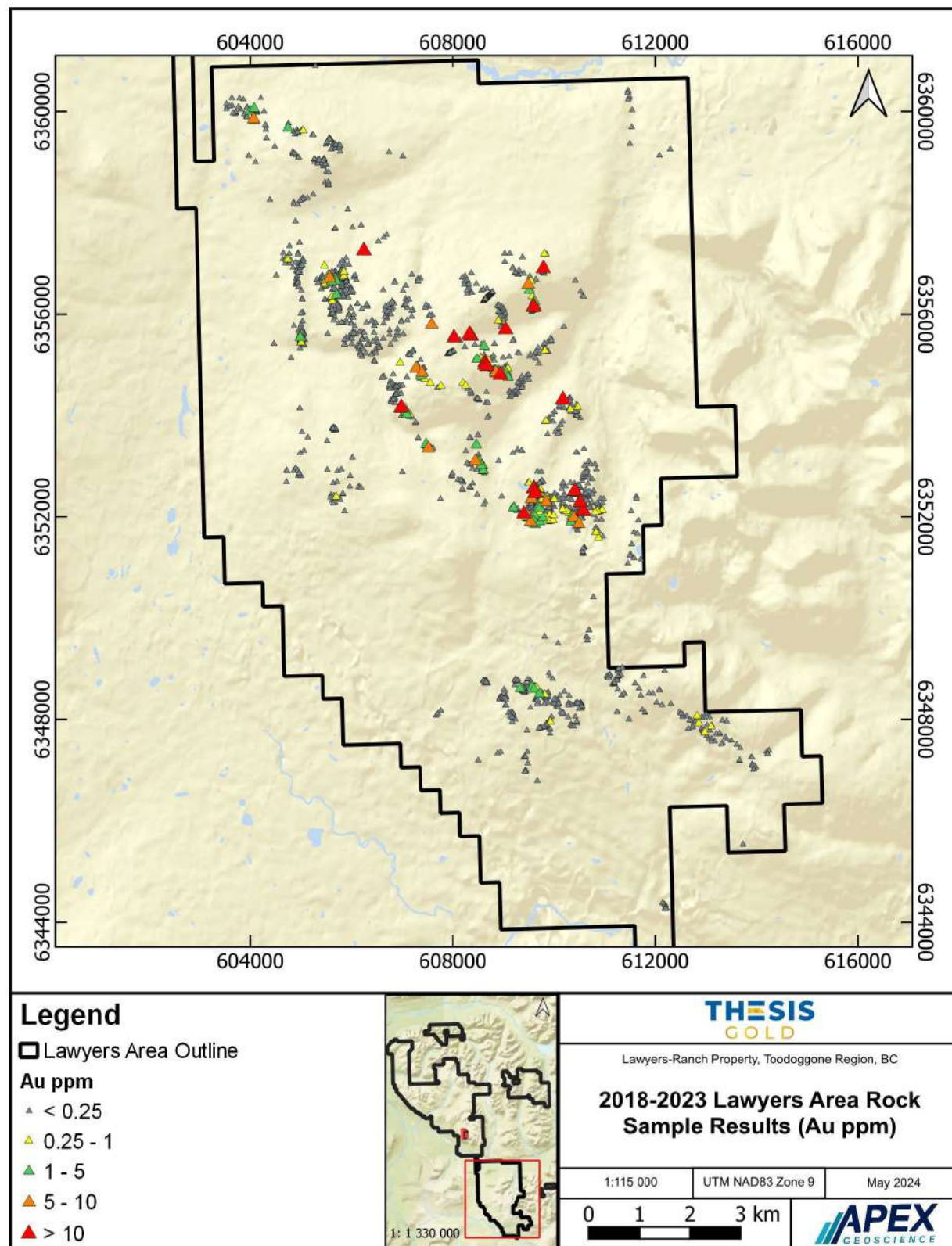


FIGURE 9.11 LAWYERS AREA 2018 TO 2023 ROCK SAMPLE ASSAY RESULTS FOR SILVER

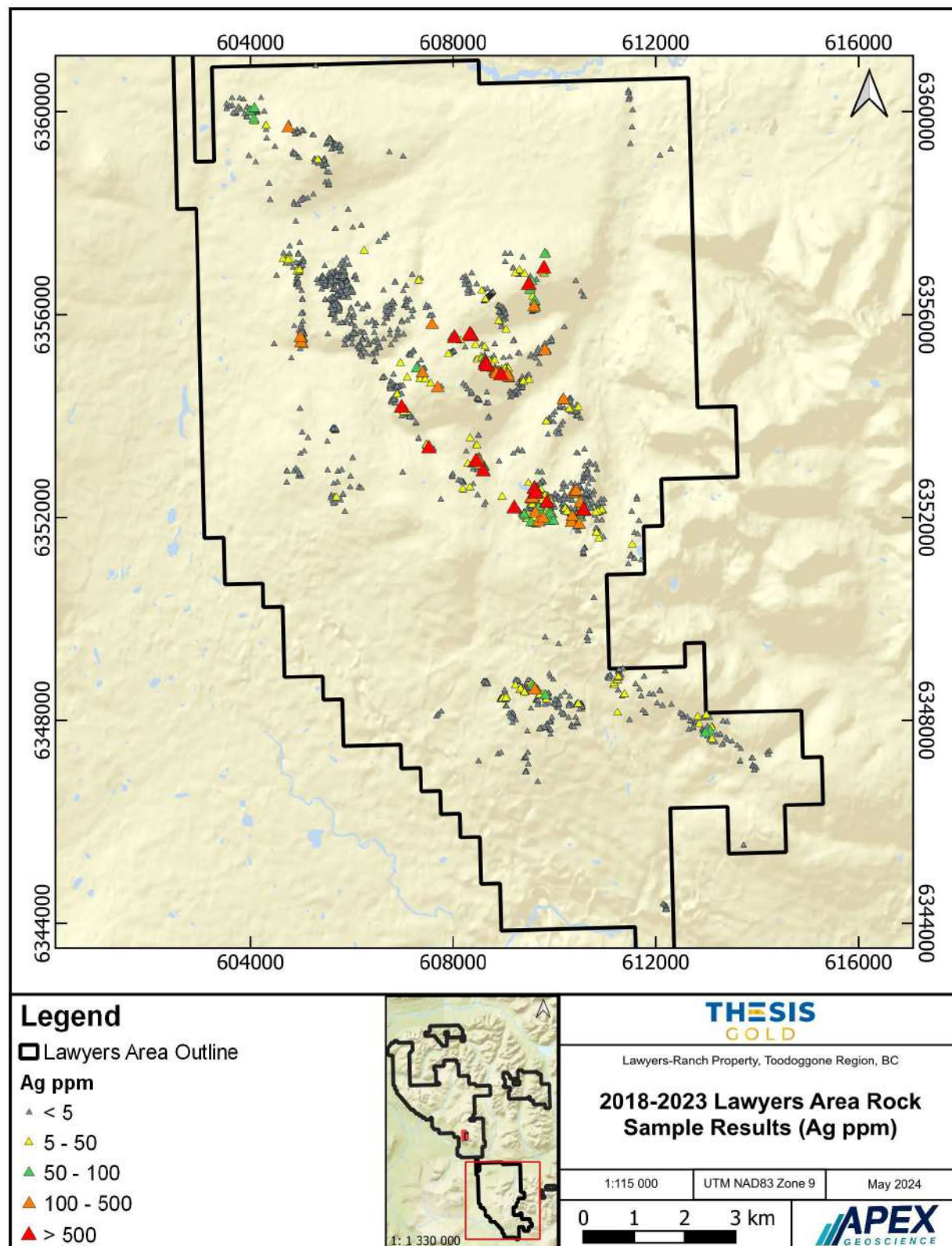
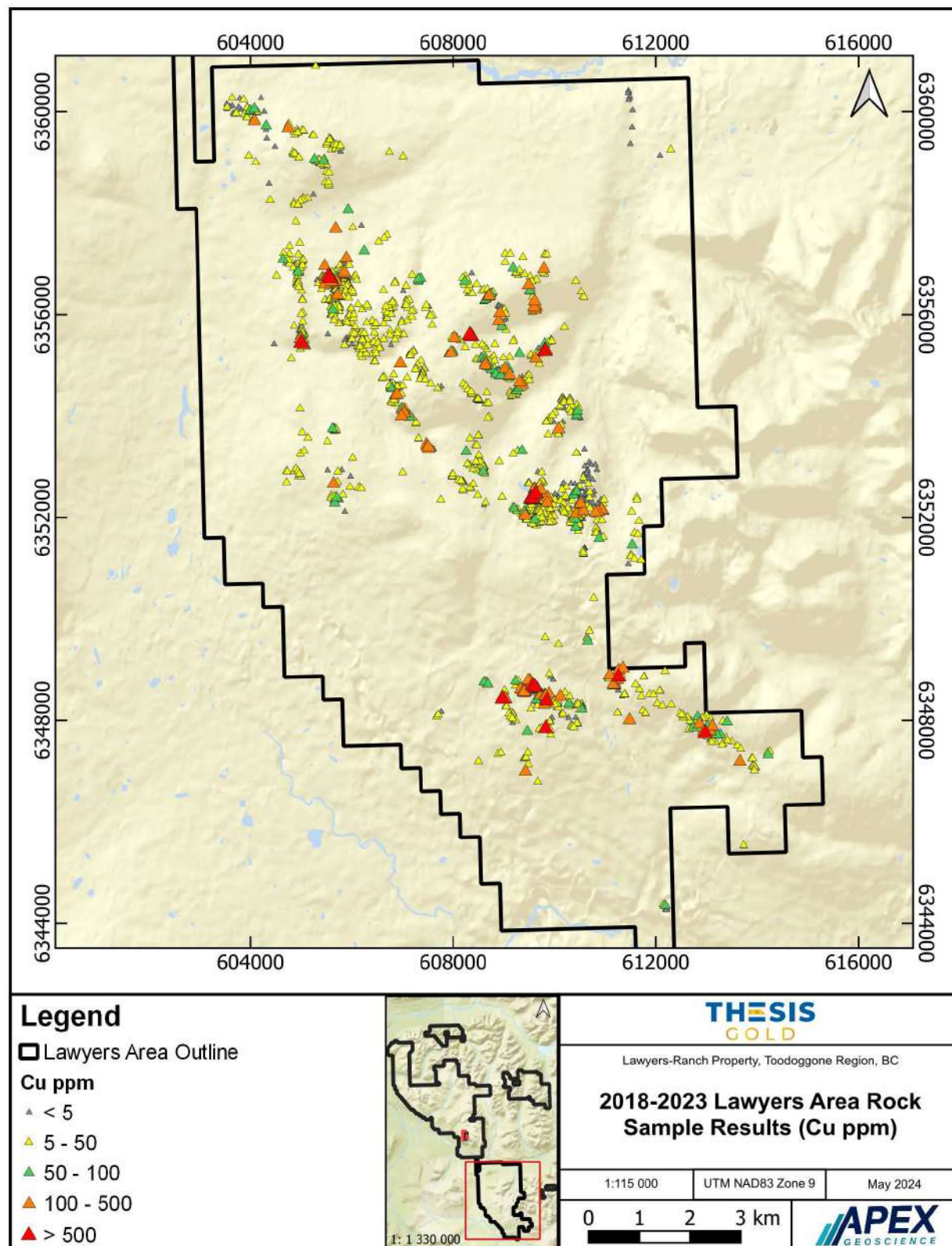


FIGURE 9.12 LAWYERS AREA 2018 TO 2023 ROCK SAMPLE ASSAY RESULTS FOR COPPER



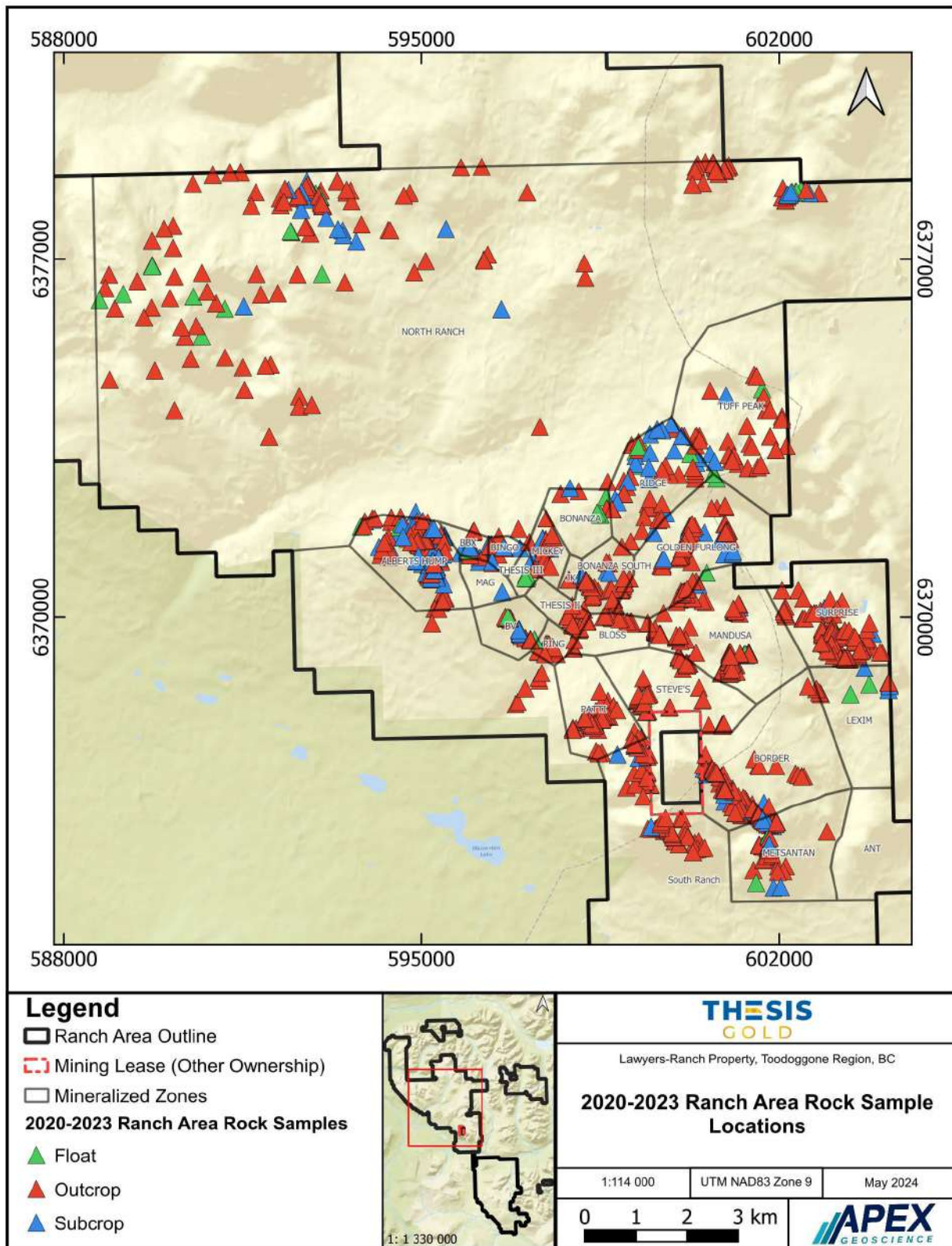
9.2.3 Ranch Area Rock Sampling

In the Ranch area, Thesis collected a total of 1,447 rock grab samples between 2020 and 2023. The sampling was focused on outcrops with lesser subcrop and float sample collection (Figure 9.13). All 1,447 rock samples have assay results.

Rock sampling programs conducted between 2020 and 2022 are previously reported in a technical report by Turner and Hough (2023). The 2020-2022 rock sampling programs totaled 1,181 samples collected across the Ranch Area, all of which have analytical data. The results of the 2020 to 2022 Ranch area rock sampling programs are discussed below.

In 2023, 266 additional rock samples were collected across the Ranch Area and were submitted for laboratory analysis. The 2023 rock sample locations are selected to follow-up on geochemical anomalies found in the 2022 exploration program, and to define new exploration targets in under- and un-explored parts of the Ranch Area. Results of the 2023 Ranch Area rock sampling program are discussed below.

FIGURE 9.13 RANCH AREA 2020 TO 2023 ROCK SAMPLE LOCATIONS



9.2.4 Ranch Area Rock Geochemistry Results and Interpretation

9.2.4.1 2020 to 2022 Rock Samples Geochemistry

Between 2020 and 2022, Thesis collected a total 1,181 rock samples across the Ranch Area (Figure 9.13). All samples were assayed.

Of the 1,181 gold assay results received (Figure 9.14):

- 618 analytical results (52.3%) are below the detection limit of 0.001 ppm Au. These results are represented as 0.0005 ppm Au for the calculation below;
- 1,062 analytical results (89.9%) are <0.05 ppm Au, with an average of 0.004 ppm Au;
- 84 analytical results (7.1%) are between 0.05 and 1 ppm Au, with an average of 0.23 ppm Au; and
- 35 analytical results (3%) are >1 ppm Au, with a maximum of 74.10 ppm Au and an average of 13.71 ppm Au. The highest grade of 74.10 ppm Au occurs in an altered outcrop sample from the BV Zone.

Of the 1,181 silver assay results received (Figure 9.15):

- 6 analytical results are below the detection limit of 0.01 ppm Ag. These results are represented as 0.005 ppm Ag for the calculation below;
- 999 analytical results (84.6%) are <1 ppm Ag, with an average of 0.2 ppm Ag;
- 113 analytical results (9.6%) are between 1 and 5 ppm Ag, with an average of 2.16 ppm Ag; and
- 69 analytical results (5.8%) are >5 ppm Ag, with a maximum of 165 ppm Ag and an average of 23.18 ppm Ag. The highest grade of 165 ppm Ag occurs in an andesite outcrop sample from the Ridge Zone.

Of the 1,181 copper assay results received (Figure 9.16):

- All analytical results are above the detection limit of 0.2 ppm Cu.
- 1,125 analytical results (95.3%) are <50 ppm Cu, with an average of 11 ppm Cu;
- 44 analytical results (3.7%) are between 50 and 200 ppm Cu, with an average of 88 ppm Cu; and

- 12 analytical results (1%) are >200 ppm Cu, with a maximum of 22,300 ppm Cu and an average of 5,730 ppm Cu. The highest grade of 22,300 ppm Cu occurs in an andesite outcrop sample from the South Ranch Zone.

The 2020 to 2022 rock sampling programs were successful in confirming mineralization in historical prospects, and in identifying new mineralization trends in historically under-explored areas within the Ranch Area. The BV, BV South, Patti, Metsantan, Border, and Bonanza Zones yielded several rock samples with anomalous gold and silver values. The anomalous samples exhibited mineralization styles consistent with those within the main Mineral Resource areas.

9.2.4.2 2023 Rock Samples Geochemistry

In 2023, Thesis collected a total 266 rock samples across the Ranch Area (Figure 9.13). All samples were assayed.

Of the 251 gold assay results received (Figure 9.14):

- 44 analytical results (17.52%) are below the detection limit of 0.001 ppm Au. These results are represented as 0.0005 ppm Au for the calculation below;
- 166 analytical results (66.1%) are <0.05 ppm Au, with an average of 0.008 ppm Au;
- 61 analytical results (24.3%) are between 0.05 and 1 ppm Au, with an average of 0.25 ppm Au; and
- 24 analytical results (9.6%) are >1 ppm Au, with a maximum of 77.80 ppm Au and an average of 11.65 ppm Au. The highest grade of 77.80 ppm Au occurs in an andesite outcrop sample from the BV Zone.

Of the 266 silver assay results received (Figure 9.15):

- 1 analytical result is below the detection limit of 0.01 ppm Ag. This result is represented as 0.005 ppm Ag for the calculation below;
- 154 analytical results (57.9%) are <1 ppm Ag, with an average of 0.36 ppm Ag;
- 69 analytical results (25.9%) are between 1 and 5 ppm Ag, with an average of 2.03 ppm Ag; and
- 43 analytical results (16.2%) are >5 ppm Ag, with a maximum of 503 ppm Ag and an average of 33.9 ppm Ag. The highest grade of 503 ppm Ag occurs in a vein outcrop sample from the Border Zone.

Of the 266 copper assay results received (Figure 9.16):

- All analytical results are above the detection limit of 0.2 ppm Cu.

- 233 analytical results (87.6%) are <50 ppm Cu, with an average of 12.4 ppm Cu;
- 24 analytical results (9%) are between 50 and 200 ppm Cu, with an average of 86 ppm Cu; and.
- 9 analytical results (3.4%) are >200 ppm Cu, with a maximum of 9,150 ppm Cu and an average of 1,805 ppm Cu. The highest grade of 9,150 ppm Cu occurs in an andesite outcrop sample from the South Ranch Zone.

Table 9.6 summarizes the number of anomalous samples for each Zone.

The 2023 rock sampling program was successful in identifying mineralization trends in historically under-explored areas within the Ranch Area and successfully confirmed historical results. Samples from the Metsantan, Mickey, and BV areas returned the highest Au values of the 2023 program. The most significant samples of the 2023 rock sampling program were collected from BV and returned values of 77.8 ppm Au, 49.3 ppm Ag and 101 ppm Cu (sample B096575). Five additional samples from BV returned values >5 ppm Au. Another sample (B0005941) collected at Border also returned values of 2.74 ppm Au, 503 ppm Ag, and 20 ppm Cu. Sampling at Mickey confirmed historical rock sample results with several anomalous results >0.1 ppm Au. High-grading rock samples from Mickey and other unexplored prospects are associated with vuggy silica textures, like those found at the main Zones.

TABLE 9.6 RANCH AREA 2023 ROCK SAMPLE GEOCHEMICAL HIGHLIGHTS BY ZONE			
Zone	Au ≥0.05 ppm	Ag ≥1 ppm	Cu ≥50 ppm
Bloss	0	0	0
Bonanza South	2	3	1
Border	7	18	4
BV	25	23	7
Golden Furlong	0	0	0
Lexim	0	0	0
Mandusa	17	33	1
Metsantsan	13	16	11
Mickey	7	4	3
Patti	5	5	0
Ring	5	5	1
South Ranch	1	2	2
Steve's	0	0	0
Surprise	1	1	0
Thesis III	0	0	0
Tuff Peak	2	2	3
Total	85	112	33

FIGURE 9.14 RANCH AREA 2020 TO 2023 ROCK SAMPLE ASSAY RESULTS FOR GOLD

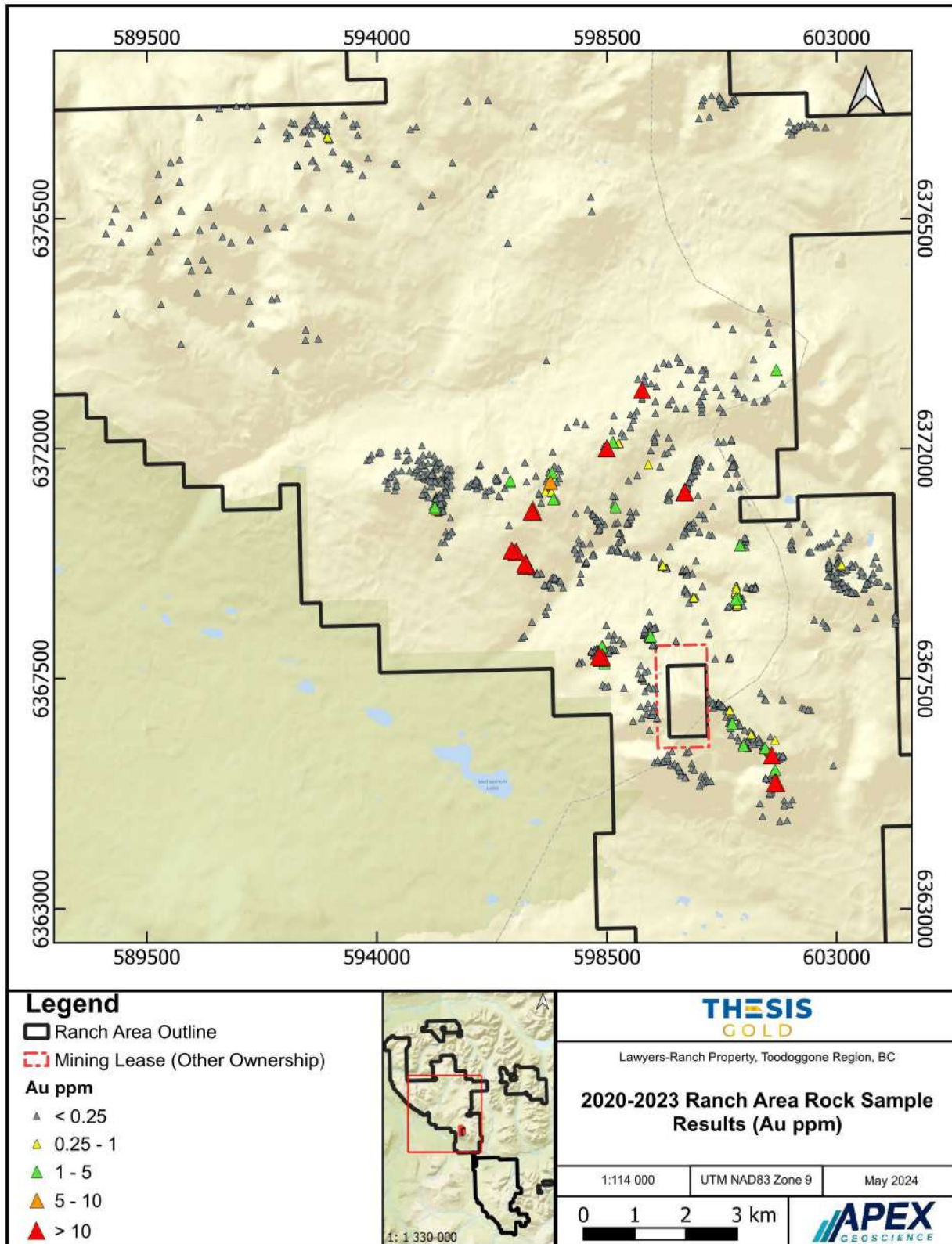


FIGURE 9.15 RANCH AREA 2020 TO 2023 ROCK SAMPLE ASSAY RESULTS FOR SILVER

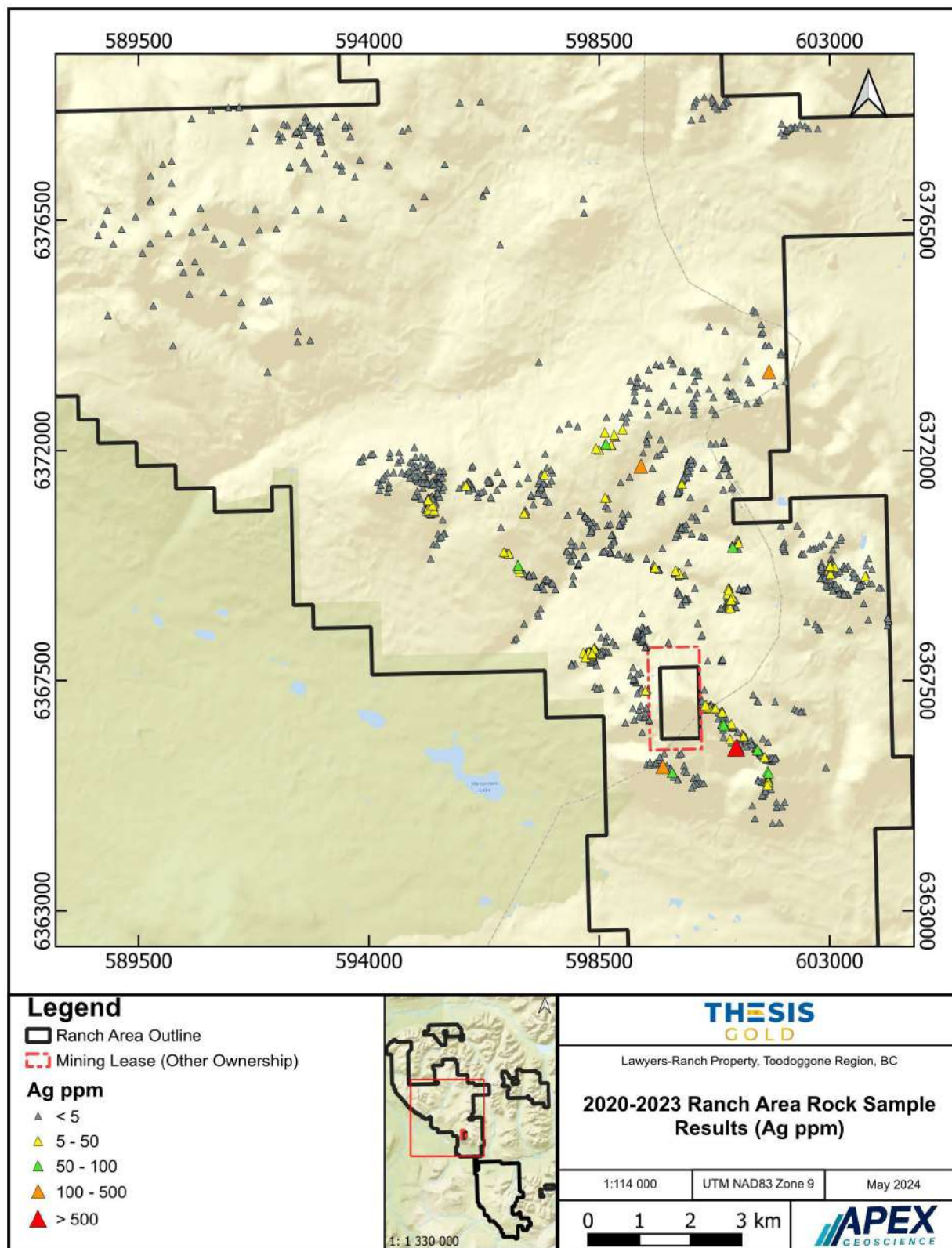
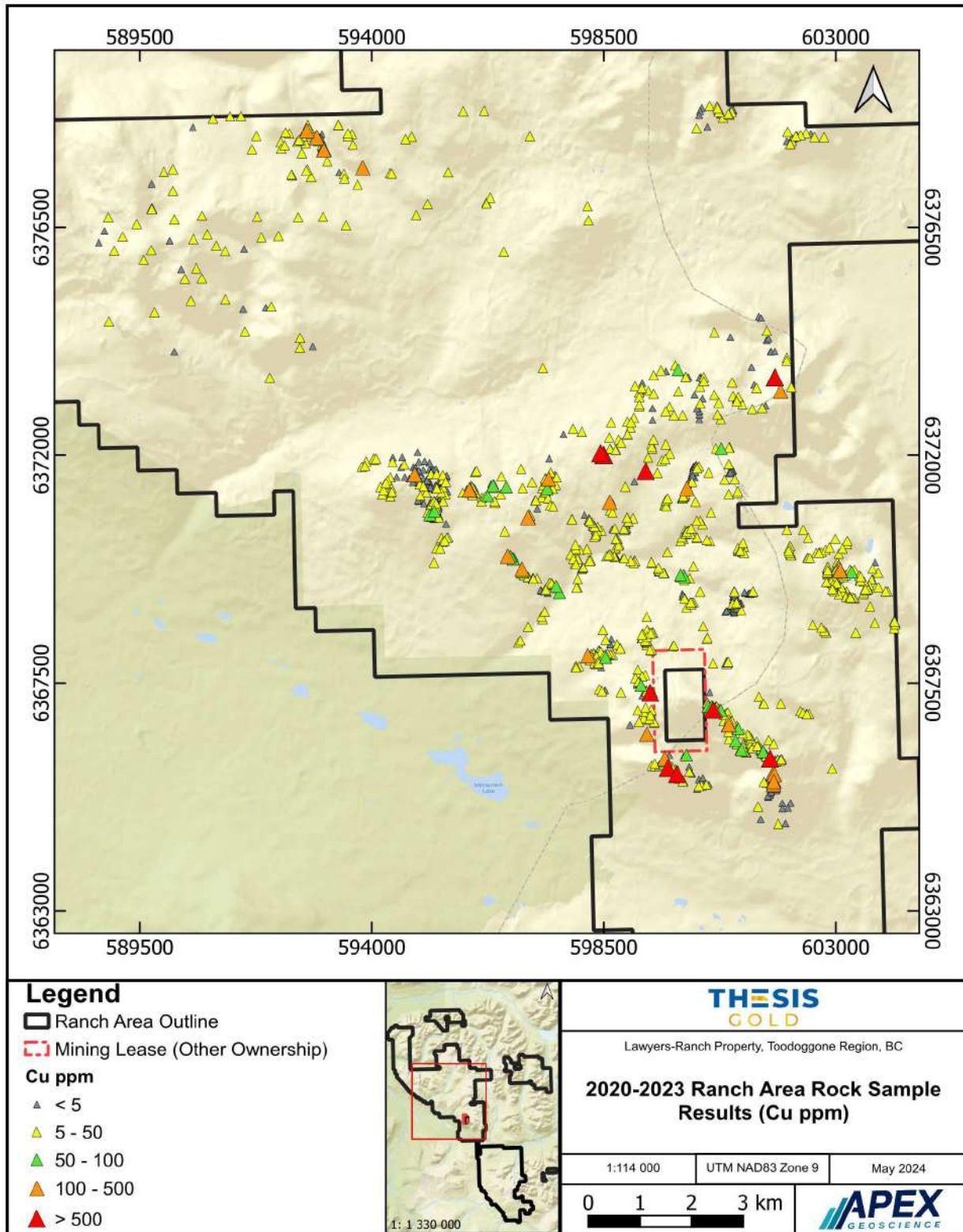


FIGURE 9.16 RANCH AREA 2020 TO 2023 ROCK SAMPLE ASSAY RESULTS FOR COPPER



9.3 CLAY SAMPLING

During the 2018 exploration program, a pilot study was completed in an attempt to map clay alteration in the Lawyers Area. Clay surface samples were collected for analysis in the field with an ASD TerraSpec Halo Mineral Identifier (“TerraSpec”).

In total, 412 clay samples were collected across the Lawyers Area, including 221 samples from Silver Pond zones, 181 samples from Cliff Creek, 5 samples from Cliff Creek North, 4 samples from Round Mountain, and 1 sample from AGB. The samples were collected during soil and rock traverses where a clay surface expression was identified. The clay samples were collected solely for the purpose of TerraSpec analysis. More details on this program can be found in Section 9.7, TerraSpec (Shortwave Infrared) Program.

9.4 BIOGEOCHEMICAL SAMPLING

During the 2018 exploration program, a pilot biogeochemistry sampling study was conducted at the Silver Pond North Zone to test the potential effectiveness of biogeochemical sampling for the Lawyers Area. Biogeochemical sampling is known to have the potential to identify mineralization in areas with inaccessible or poorly developed soil horizons.

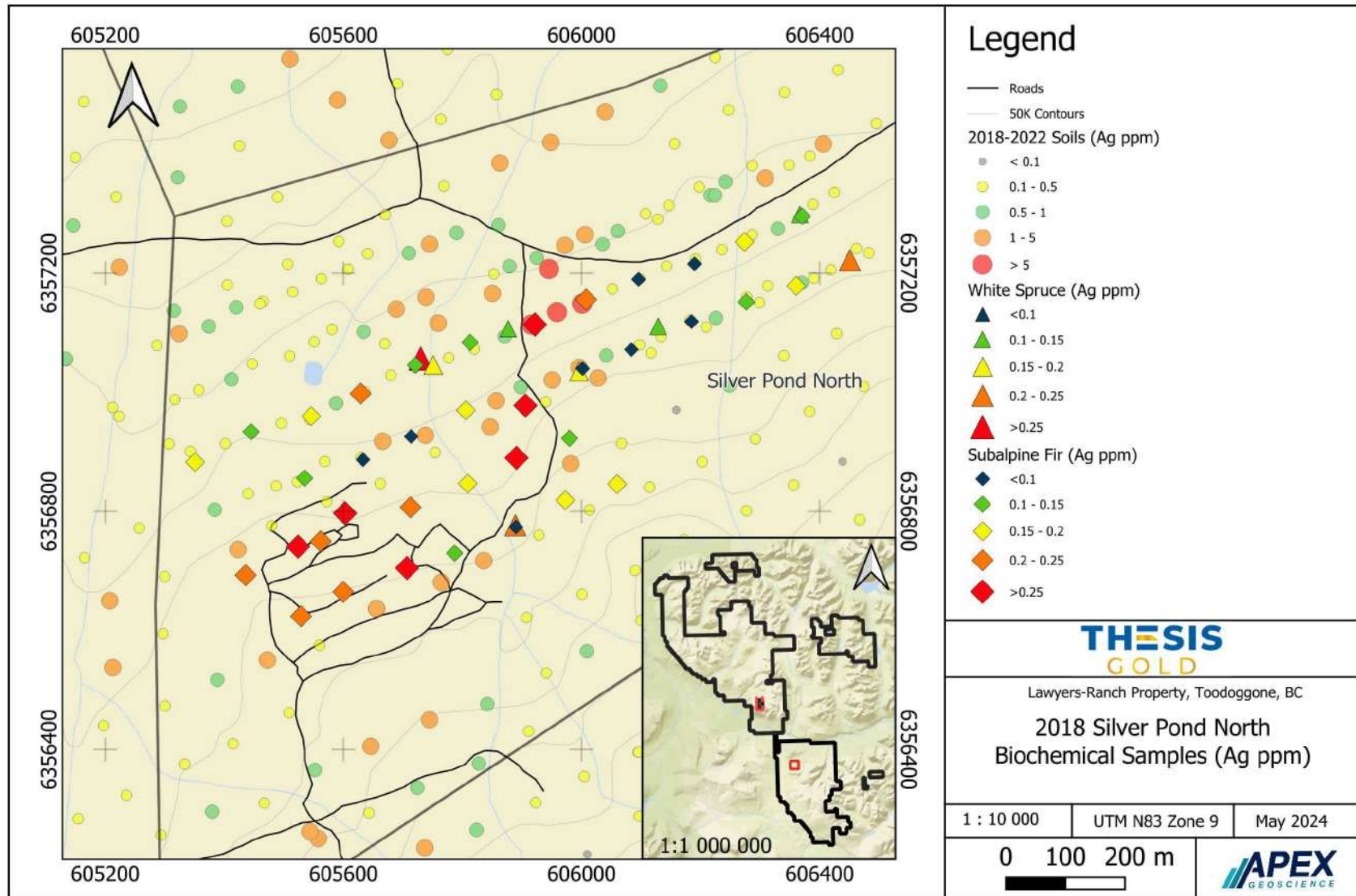
In total, 46 sprigs of tree samples were collected over known mineralized occurrences at Silver Pond North. The location and Ag assay results of the 2018 biogeochemical sampling program are illustrated in Figure 9.17. The area was dominated by subalpine fir; 38 subalpine fir and 8 white spruce samples are collected. Tree species were kept separate to identify if a specific species performs better. A sampling grid was chosen with 100 m line and station spacing with the same orientation as the historical soil grids in the area. A soil sample was intended to be collected at each “tree sample” site for comparison. However, due to various issues, the soil sampling portion of the biogeochemical orientation survey remained incomplete until additional soil sampling was conducted in 2020.

9.4.1 Biogeochemical Geochemistry Results and Interpretation

The biogeochemical samples show anomalous Ag, Cu, Sb, Sn over known mineralization at Silver Pond North. Comparing tree results to the 2018 and 2020 soil samples, Ag values show the best correlation (Figure 9.17). Most of the 2018 soil samples did not have sufficient fine material for a 30 g fire assay; therefore, a reasonable comparison could not be made for gold results. The overall results between subalpine fir and white spruce samples from the same sites are not comparable. Due to the limited white spruce trees available to sample, no determination could be made if one tree species performed better in identifying an anomaly over the mineralized zone.

In summary, the biogeochemical pilot study proved that trees on the property can be used to identify mineralization. Future biogeochemical sampling could be reserved to the periphery of the Property, where tree cover exists and there is poor or no soil development.

FIGURE 9.17 LAWYERS AREA 2018 BIOGEOCHEMICAL SAMPLE LOCATIONS AND SILVER ASSAY RESULTS



9.5 PETROGRAPHIC STUDIES

9.5.1 Lawyers Area Petrographic Study

From 2018 to 2021, 99 samples (65 drill core and 34 rock) from the Lawyers Area displaying veining and mineralization were sent to Vancouver Petrographics Ltd. for preparation of petrographic thin sections. Three of these samples (At-9a/fi, At-10a/fi and At-15a/fi) also had a thick section made for use in fluid inclusion analysis. The samples were collected from a variety of Zones, in order to evaluate the mineralization style across the Lawyers Area.

In 2019, APEX geologists initiated a petrographic study focusing on vein paragenesis, alteration style and timing of mineralization. A set of six thin sections (including four from 2018 set and two from 2019) were sent to Vancouver Petrographics Ltd. and a detailed petrographic report was completed by Leitch (2019). Additional drill core samples from the 2020-2021 drilling programs have been selected for petrography but have not yet been processed. A summary of the 2019 petrographic report (Leitch, 2019), is provided below.

The six samples submitted appear to consist of strongly altered relict feldspar-mafic mineral phyrlic intermediate volcanic porphyry (described as andesite in field notes), variably veined and replaced by multi-stage stockwork veining with associated significant precious metal/minor base metal mineralization, so as to range from recognizable to largely or completely obscured, or veined/sulphidic polymictic breccia. The original rock type appears to have contained ~30 to 35% relict feldspar and 10 to 15% relict mafic phenocryst sites in fine-grained groundmass variably altered to secondary quartz-alkali feldspar (mainly potassium feldspar?). Veining makes up 90% of the samples, associated with strong alteration.

Alteration, mainly potassic/minor phyllic, comprises quartz, potassium feldspar (possibly adularia known to be an important alteration mineral in low sulphidation epithermal precious metal vein systems), carbonate, sericite or clay?/sericite, pyrite and accessory rutile. Rarely preserved biotite (possibly secondary, partly chloritized) and albite (?) suggest potassic alteration overprinted by phyllic ± argillic assemblages, associated with multiple stages of quartz and later carbonate veins. Based on characteristics observed in thin section, carbonate appears to be early, pervasive/veinlet Fe-carbonate (ankerite?) and later, mainly barren, thicker vein calcite.

Precious metal mineralization was found in all except one (the lowest grade) of the six samples. There appears to be a common association of base/precious metal minerals with fine-grained carbonate in poorly defined, discontinuous and irregular narrow veinlets apparently later than the bulk of the multi-stage vein quartz. Mineralization ranges from high-grade, with discrete native Ag/electrum (located in four of the samples) and probable acanthite (in five of the samples) to relatively low grade, with significant pyrite and no obvious base or precious metal minerals. Pyrite is ubiquitous throughout; however, higher grades of precious metals are typically closely associated with more diverse, base-metal sulphide bearing assemblages of galena, sphalerite, chalcopyrite and local probable sulphosalt(s) that may include pearcite-arsenopolybasite(?), which is Ag-bearing. The native Ag/electrum appears to occur as thin rims on galena and to a lesser degree chalcopyrite that have undergone extensive replacement by probable acanthite, minor possible chalcocite and trace covellite, or along thin veinlets that may represent remobilization of

these very soft minerals during subsequent deformation. However, only chalcocite appears to replace sphalerite, which appears to be of very low Fe content (colourless). Bornite could not be confidently identified; it is possible that chalcopyrite has tarnished to resemble bornite in several samples.

9.5.2 Ranch Area Petrographic Study

Fifteen samples of drill core were collected from select 2021 diamond drill holes from the Bonanza, Ridge, Thesis II, Thesis III, and Bonanza South Zones and were submitted for petrographic analysis at Vancouver Petrographics. Thin section samples were selected from mineralization, host rocks, and associated alteration. Results have been summarized by Vancouver Petrographics and are paraphrased and included below (Leitch, 2022). The observations presented within the resulting petrographic report on these samples are synthesized into a set of mineral assemblages that comprise the currently accepted zones of alteration and mineralization at the Ranch Area.

The Ranch Area thin section samples are described as representing high-sulphidation Au-Ag epithermal deposit type in Jurassic feldspar porphyritic andesite crystal lithic tuffs. Analysis suggests that the least altered host rocks consist mainly of plagioclase-hornblende-local quartz phyrlic (accessory magnetite-apatite sub-phyric) quartz latite to quartz andesite porphyry or locally lapilli tuff/breccia. Potassium feldspar is mostly confined to the groundmass, where quartz appears to be minor and not easy to recognize or quantify. Alteration ranges from propylitic characterized by the presence of carbonate, sericite, albite, chlorite, pyrite, hematite, rutile and very minor local quartz to intense vuggy silica alteration characterized by the composition of quartz, barite, pyrite, chalcopyrite, bornite, sphalerite, tetrahedrite/tennantite, and enargite, with local presence of native gold and silver. Barite appears to likely replace former feldspar grains, whereas sulphides mainly replace former mafic minerals; rutile replaces former sub-phyric ilmenomagnetite. The copper sulphides, particularly bornite, are locally replaced/enriched by alteration to variable probable chalcocite-digenite-covellite secondary assemblages. Mineralization was observed in several of the thin sections.

9.6 GEOLOGICAL MAPPING

Thesis has conducted geological mapping programs at the Lawyers-Ranch Property from 2018 to 2023, with mapping in the Lawyers Area completed in 2018 to 2022 and in the Ranch Area in 2021 to 2023.

9.6.1 Lawyers Area Geological Mapping

The 2018 to 2022 mapping programs completed by APEX personnel at the Lawyers Area focused on characterizing lithology, alteration, structure and mineralization and veining (where applicable). Descriptions and measurements from rock sampling and prospecting were also used for the final geological maps and interpretations.

Basic mapping and geological observations are completed in 2018 during the rock sampling program. The 2019 geological mapping program covered ~8,130 ha and focused on three main areas: 1) the main Lawyers Trend which includes Cliff Creek, Dukes Ridge, Phoenix and AGB; 2) Marmot Prospect area, which includes the Marmot Lake and Marmot East Zones; and 3) the then newly acquired southern claims, which includes the Black Lake Alteration Corridor, Silicon Valley North and Lawyers Southeast Zones. The 2020 geological mapping program covered ~435 ha and focused on the Silver Pond Zone. The 2021 geological mapping program covered ~1,000 ha and focused on the Black Lake Alteration Corridor and Silver Pond North. The 2022 geological mapping program was mainly focused on limited rock exposure at Round Mountain and Kodah.

9.6.1.1 Lawyers Area Geological Mapping Results and Interpretation

The geological mapping of the Lawyers Area defined 10 major structural domains delineated by major fault bound blocks formed during extension. Four main fault orientations are identified and are described in Section 7.

The Silver Pond area is mapped as crystal tuffs, flows, epiclastics and volcanic breccias of the Toodoggone Volcanics, which are cut by intermediate to felsic dykes. Stratigraphic horizons can be traced up to 500 m along strike and generally terminate in gullies or incised valleys. Relict quartz grains are observed in the northeastern part of the Zone in the leach cap. Dominant structural orientations at Silver Pond are northwest-trending and steeply-dipping, with secondary north-south and southwest-northeast orientations. Relative timing relationships remain unclear and are assumed to be similar relationships observed elsewhere in the Area (AGB, Lawyers South and Marmot). The northwest structures are the oldest and appear to have been the main conduit for hydrothermal fluids for quartz-sericite-pyrite (“QSP”) and argillic to advanced argillic alteration zones. The north-south structures appear to be associated with sericite-quartz-pyrite alteration. Dykes preferentially intrude the northwest and north-south trending structures, and movement was dextral.

The leach zone at Silver Pond covers a 2 km x 3 km area bounded by a major fault. The extensive clay alteration at surface appears to be leached and metals transported down the paleo-surface. The northwest portion of the leach cap is the highest elevation and covers 10 ha. At lower elevations, argillic and advanced argillic alteration zones occur as 5 m to 30 m thick discrete northwest- and possibly north-trending sub-vertical zones. The argillic and advanced argillic alteration is well defined by low Ca, Na, and Mg in soil samples and bound sharply to the east by the ELF Fault. The western boundary is more diffuse.

The Black Lake Alteration Corridor is located along the contact between the Black Lake Intrusive Suite and volcanic rocks of the Takla/Stuhini Group and Toodoggone Formation in the southern part of the Lawyers Area. The Black Lake Intrusive Suite in this area consists of hornblende quartz-monzonite, monzonite, and minor syenite. Consistent zonation of the felsic intrusive rocks was not observed in the field. Very fine-grained basalts are in contact with the intrusion to the north and can be traced along the entire extent of the pluton on the Lawyers Area. The mafic volcanic rocks vary from unaltered to intensely silicified and sulphidized with up to 15% pyrite. “Ratty” limestones with large amounts of barren white quartz veining are in contact

with the basalts and sporadically outcrop where ground cover is thin. Outcrops of the “ratty” limestone unit form shallow caves near surface. Variable degrees of skarnification are present in the limestone, forming mineralized, garnet-bearing calc-silicate rocks. Skarnification intensity is strongest where the basalts are similarly silicified and sulphidized. Porphyritic pyroxene-basalt contacts the limestone unit and similarly has variable degrees of silicification and sulphidization. Direct contacts between the volcanic and limestone units are not observed in the field, due to increased cover to the north of the intrusive suite. A series of 300°-striking, subparallel 0.3 to 3 m thick white quartz veins cross cut the pluton and surrounding volcanic rocks and can be traced for >3 km along strike. The quartz veins are generally barren but contain minor zones of <3% pyrite. The volcanic rocks in contact with the Black Lake Intrusion extend stratigraphically to the neighbouring prospect, Silicon Valley North, along the eastern edge of the Lawyers Area.

Large mappable structures cross cut the Black Lake Pluton and the contacting lithologies with relatively high amounts of displacement. Dominant structural orientations are northwest-trending and steeply-dipping, with secondary north-south orientations. Secondary north-south structures are present as depressions in the intrusive suite at surface that can be traced for ~1 km with little to no observable displacement. Relative timing relationships remain unclear. The northwest structures appear to be related to mineralization, with silicification and sulphidization strongest in the surrounding lithologies.

The northern part of the Lawyers Area was mapped during a series of east-west and north-south traverses. Most of the northern part of the Lawyers Area is characterized by heavily forested and (or) swampy areas with very poor outcrop exposure. Bedrock in the north is almost entirely porphyritic hornblende andesite with <1 cm tabular black hornblende phenocrysts and pink stained subhedral to euhedral feldspar phenocrysts in a very fine-grained brown matrix. Angular to subangular lapilli of hornblende andesite are locally present. Structures through this part of the Lawyers Area are largely identified through ground and airborne geophysics.

9.6.2 Ranch Area Geological Mapping

The 2021-2023 mapping programs conducted at the Ranch Area focused on characterizing lithology, alteration, structure and mineralization and veining (where applicable). Descriptions and measurements from rock sampling and prospecting are also used for the final geological maps and interpretations.

In 2021, mapping work was completed at the Ranch Area by APEX geologists and was focused on the major mineralized zones and past-producing zones. The 2021 mapping work focused on confirming historical mapping and characterizing the lithology, alteration, structure, and mineralization at key prospect areas. The 2021 mapping covered ~3,100 ha.

In June 2022, Thesis commissioned SRK Consulting (Canada) Inc. (“SRK”) to complete additional geological mapping. The 2022 field mapping program covered ~1,600 ha and consisted of mapping structures, lithologies, and alteration at selected prospects to better understand structural controls on precious metal mineralization in the Ranch Area. The primary focal points for the 2022 mapping program are the Albert’s Hump, Patti, and Steve’s Zones. Other areas of

interest included Mandusa, Bloss, Thesis II, Ring, and BBX Zones. SRK completed the mapping program from July 28 to August 4, 2022.

In 2023, a total of 21 days were spent reconnaissance mapping at the Ranch Area; specifically of the BV, Tuff Peak, Surprise, Mandusa, Golden Furlong, Patti, Steve, Metsantan, and Border Zones covering ~4,240 ha. Mapping was completed by Thesis through the months of July and August 2023.

9.6.2.1 Ranch Geological Area Mapping Results and Interpretation

Rock types present in the Ranch Area are dominantly feldspar and hornblende-phyric, coherent intermediate volcanic rocks, with minor fragmental volcanics present of similar composition that range from crystal lithic to lesser ash tuffs. Welded tuffs are locally present and are observed at Tuff Peak. Styles and intensity of alteration vary across the area, but in general, advanced argillic and silicic mineral associations are concentrated along a northwest-trending axis through the west-central portion of the Ranch Area (i.e., Mandusa, Patti and Steve across towards Bonanza-Ridge, and Albert's Hump).

The eastern zones of the Ranch Area, i.e., Tuff Peak and Surprise, are dominated by alteration that is more chloritic/hematitic. Local epiclastic facies, welded tuffs, and auto-brecciated coherent volcanic rocks are present at Tuff Peak. These rocks are interpreted to be more distal to an eruptive centre compared to the fragmental crystal lithic tuffs encountered at Patti and in drill core at the Thesis Structural Corridor and Bonanza-Ridge Zones.

The 2021 mapping confirmed that mineralization seems to favour porous tuff and volcanic breccia stratigraphy. These units are cross cut by porphyritic dykes of intermediate to felsic composition that intruded along property-scale northwest- and northeast- trending faults. These dykes have been observed in drill core and their contact with the host volcanic rocks is always faulted; the host rock is commonly altered and (or) mineralized. The dykes are altered when in contact with a mineralized structure, such as at the Bonanza Zone. The dykes are similar in both composition and texture to the host volcanics and are identified by their phaneritic texture, mafic enclaves and, when not altered, magnetite phenocrysts. At surface, the dykes have been observed to correspond to lineations and a high amplitude magnetic response from the 2020 ground magnetics survey.

Alteration bodies are typically composed of a core of variably silicified volcanics flanked by argillic-propylitic zones. The most intensely silicified bodies have textures ranging from massive to vuggy with barite commonly in-filling vugs or occurring as large, bladed crystals within massive silica. Several large alteration zones are defined during the 2021 mapping program, including: a 1,300 m x 550 m quartz-alunite massive and vuggy silica zone at Albert's Hump; a 350 x 150 m vuggy silica ridge at Patti Zone; and an 850 x 200 m vuggy and massive silica ridge at Steve's Zone. These alteration bodies are typically elongated along a northwesterly direction coincident with the mineralized structures in the main zones. Mineralization was not commonly observed in these silica zones at surface and may indicate that they are lithocaps with sulphide occurrences below surface.

The major structural features on the Ranch Area are a series of well developed, steeply-dipping northwest to north-northwest (320° to 350°) striking faults and north-northeast to northeast-trending faults (Thesis Gold, 2022; Figure 7.2). The northwest-trending structures and associated mineralization are locally offset by southwest-northeast trending strike-slip faults with minimal lateral displacement (Thesis Gold, 2022; Figure 7.2). Northeast faults are offset by north-northeast trending faults, as evident in the offset of locally intruded magnetic dykes illustrated in the ground magnetics. In 2022, SRK mapped three different fault generations (D1, D2, and D3), which are described in Section 7 of this Report.

The majority of faults observed during the 2023 mapping campaign are northwest-trending. At Tuff Peak and Surprise, in the areas interpreted as more distal to the alteration core, northwest-trending faults localize hematite alteration. A ~50 cm wide brittle fault at Surprise is cored by hematite, whereas faults at Tuff Peak are interpreted from recessive zones containing iron oxide-stained clays and have slickenlines preserved within more resistant rock along the margins of recessive zones. Where present, slickenlines at Tuff Perak preserve dip > strike-slip kinematic indicators.

Mandusa is a broad, north-south trending zone of chalcedonic silica alteration and intermixed silica + clay. The Mandusa spire is dissected by a series of northwest trending faults that post-date alteration, and faults observed in outcrop correlate well with lineaments interpreted from ground geophysics.

The Border and Metsantan Zones occur in the south part of the Ranch Area. Weak propylitic alteration is preserved in coherent feldspar-hornblende pyritic volcanics. The feldspar present are variably hematized and pinkish in color. Disseminated pyrite and iron staining of rocks are locally concentrated in pods along the slope, where northwest-trending faults are interpreted. A series of more localized, north-south trending faults truncate the slope and define deep gullies that contain milled rock and surfaces that preserve dip-slip kinematic indicators. These north-south trending faults are interpreted as subsidiary to larger, northwest-trending structures.

The southern portion of the Patti Zone is a cirque and ridge line that trends down toward the Patti silica knob. Similar to Mestantan, a series of north-south trending gullies that preserve brecciated and milled rock. Slickenlines preserve strike > dip-slip kinematics. The andesite present at Patti varies from unaltered at the eastern margin of the prospect, along the Mets Mining Claim boundary, and becomes increasingly propylitically altered to the northwest. Iron-stained rock at the northwest end of the ridge contains disseminated pyrite, similar to that at Metsantan. The silica knob at Patti is silica to silica + clay altered coherent to fragmental volcanic rock and contains locally developed, bladed barite in open spaces and amounts of pyrite > chalcopyrite.

Golden Furlong is a north-northeast trending silica spire that runs parallel to faults interpreted from strike-slip kinematic indicators developed in altered rock. Alteration minerals present at Golden Furlong are dominantly quartz and white mica.

Nestled between Golden Furlong and Mandusa, at the confluence of two creek branches, a ~100 m long exposure of ferricrete is present along the creek bed. This ferric deposit is located adjacent to a ~20 m exposure of silica and clay altered rocks whose primary textures have been

largely destroyed. Silicified and pyrite-bearing ash layers are present at the base of this outcrop, and a broad, northeast-trending fault post-dates alteration. Silicified rocks are brecciated and jointed and, in places, slickenlines preserve evidence of strike > dip-slip movement. Observations and interpretations from the 2021-2023 mapping programs will be followed up and refined in 2024.

9.7 TERRASPEC (SHORTWAVE INFRARED) PROGRAM

A comprehensive shortwave infrared (“SWIR”) mineral identification program (referred to as the “TerraSpec” program after the instrument used for data collection) was completed from 2018 through 2023 on drill core and surface rock/clay samples from the Lawyers-Ranch Property. A summary of samples analysed at each prospect is presented in Table 9.7 (Lawyers Area) and Table 9.8 (Ranch Area).

The purpose of the TerraSpec program was to identify key alteration assemblages in clay-rich drill core zones and surface samples. The sensitivity of clay minerals to important epithermal mineralization conditions (i.e., temperature and pH) make them ideal indicators of proximity to the main hydrothermal feeder zones. However, field identification of most clay assemblages is unreliable. The TerraSpec SWIR hyperspectral imaging allows for accurate determination of key clay minerals in relation to gold mineralization, alteration and depth. Mineral assemblages and crystallinity are examined.

TABLE 9.7 SUMMARY OF SWIR ANALYSIS NUMBER BY ZONE IN THE LAWYERS AREA			
Zone	No. of Holes TerraSpec'd (DDH)	No. of Drill Samples TerraSpec'd (DDH)	No. of Clay Samples TerraSpec'd
AGB	3	241	0
AGB Exp	1	1	1
Cliff Creek	5	368	181
Cliff Creek Exp N	3	5	5
Marmot Lake	3	277	0
Round Mountain	0	0	4
Silver Pond Creek	17	2254	180
Silver Pond North	5	593	23
Silver Pond West	3	119	18
Total		3,858	412

TABLE 9.8 SUMMARY OF SWIR ANALYSIS NUMBER BY ZONE IN THE RANCH AREA			
Zone	No. of Holes TerraSpec'd (DDH + RC)	No. of Drill Samples TerraSpec'd (DDH + RC)	No. of Rock Samples TerraSpec'd
Alberts Hump	5	1,836	162
BBX	0	0	30
Bingo	41	1,504	16
Bloss	0	0	22
Bonanza	64	2,819	5
Bonanza South	23 (16 RC)	1,748 (1,566 RC)	51
Border	0	0	95
BV	11	151	38
Golden Furlong	0	0	85
JK	14	330	2
Lexim	0	0	10
MAG	0	0	2
Mandusa	0	0	127
Metsantsan	0	0	71
Mickey	2	27	23
North Ranch	0	0	161
Patti	3	1,441	116
Ridge	30	1,794	54
Ring	0	0	14
South Ranch	0	0	65
Steve's	8	1,262	63
Surprise	0	0	120
Thesis II	29	1,855	19
Thesis III	43 (5 RC)	2,418 (300 RC)	1
Tuff Peak	0	0	37
Off-prospect	0	0	9
Total		17,185	1,398

9.7.1 TerraSpec Sampling Methods and Quality – Drill Core

The sample collection/identification procedures for the 2018 to 2023 Lawyers-Ranch TerraSpec programs comprised the selection of a representative piece of drill core from within each regular assay/geochemical sample interval. Each TerraSpec sample comprised a representative piece of core, approximately 5 x 5 cm in size, which are removed, normally after breaking the drill core with a hammer, for inspection for the presence of sulphides and other minerals that may interfere

with spectral analysis. All samples were labelled with their drill hole ID and depth, cleaned and left to dry at room temperature for a minimum of four hours, but were generally left to dry overnight. The samples must be dry, because any water will absorb critical SWIR wavelengths. For this same reason, the instrument's lens is cleaned and the instrument is calibrated, when turned on and after every five samples, using a white reference panel. The 2018 samples are analysed in the field using TerraSpec Halo. The 2020, 2021 and spring 2022 TerraSpec samples are analysed in the field using an Analytical Spectral Devices ("ASD") TerraSpec 4. The summer 2022 TerraSpec samples are shipped to ALS for analysis.

The raw data was exported into The Spectral Geologist ("TSG") software and aiSIRIS software for mineral identification and interpretation. The aiSIRIS software calculates the crystallinity of white mica focused on 2,200 nm, the solid solution change in white micas (from paragonite at 2,180 nm to phengite at 2,280 nm), the crystallinity of kaolinite (the crystallinity is calculated by looking at the ratio between the bottom of the 2,161 nm doublet and the 2,181 nm reflectance values >1 having higher crystallinity), the solid solution of chlorite (the 2,250 nm feature with Mg-chlorite at 2,240 nm to Fe-chlorite at 2,270 nm), and the solid solution in alunite (Na-alunite at 1,474 nm to K-alunite at 1,496 nm). These calculations are not reliable if the desired mineral is of mixed composition and aiSIRIS accounts for this possibility.

9.7.2 TerraSpec Sampling Methods and Quality – Rock Grab Samples

The Lawyers-Ranch TerraSpec 2018-2023 sample collection procedure is consistent with that of rock samples (Section 11). A representative piece of each sample was removed using a rock hammer and inspected for presence of sulphides or other minerals. The acceptable rock samples (sub-samples) are submitted to ALS Laboratories for TerraSpec analysis.

9.7.3 Lawyers Area TerraSpec Program

In the Lawyers area, the TerraSpec SWIR program was conducted during the 2018, 2020 and 2021 exploration programs and resulted in the analysis of 412 surface clay samples, and 3,858 drill core samples from 31 diamond drill holes.

Early analysis of clay minerals by Thesis began in 2018 with a pilot study being conducted on the Lawyers Area to map clay alteration using SWIR analysis. Clay alteration can be mapped to help identify alteration patterns common in porphyry and epithermal systems. Clay samples are also analysed to determine the type of clay present. A total of 412 clay samples were collected and analysed in 2018. The samples were collected during soil and rock traverses where a clay surface expression was identified. A total of 370 drill core samples from three drill holes at Cliff Creek were also analysed in 2018.

In 2020-2021 Thesis conducted a TerraSpec SWIR program of drill holes over several main mineralized zones of the Lawyers Area, including the Silver Pond Zone, Cliff Creek, AGB, and Marmot Zone. A total of 3,488 drill core samples from 28 diamond drill holes were analysed. A summary of samples analysed at each prospect is presented in Table 9.6.

9.7.3.1 Lawyers Area TerraSpec Results and Interpretation

Silver Pond

Four alteration assemblages have been classified across the Silver Pond drilling (argillic, advanced argillic, propylitic, and gypsum) through SWIR analysis. In addition to the alteration assemblages, variance in mineral chemistry is useful in determining the system extent and proximity to hydrothermal fluid conduits. The SWIR analysis identified argillic and advanced argillic assemblages within a fault wedge block at the Silver Pond Zones. Drill holes within this block (e.g., drill hole 21SPCDD001) contain dickite, alunite, and pyrophyllite. This composition along with the kaolinite crystallinity values suggest temperatures between 200 and 350°C with low pH (1 to 3). Outside this block, there is a distinct change to more propylitic alteration assemblage minerals, lower white mica 2200 nm composition values, and lower crystallinity values. This change suggests less acidity and lower temperatures, more distal from a mineralization source. There are narrow intersections at depth (drill hole 21SPCDD005) that contain pyrophyllite and are associated with mineralized intersections and faulting, suggesting a conduit for deeper hot fluids. To the north within the argillic altered block, there are broader argillic assemblages with minor gypsum, which along with silicification and the mineralization present, suggest proximity to a porphyry mineral system.

Marmot Lake

The SWIR analysis of the Marmot Lake drill core indicated three mineral features correlating with mineralization and structures. Higher Mg:Fe ratio chlorites are dominant across all drill holes, with high-Mg chlorite directly related to mineralization. Higher muscovite and phengite concentrations are also associated with mineralization, suggesting lower pH conditions. Epidote identified in the logs and the SWIR data is also closely associated with mineralization. These changes in mineral assemblage support the overall structural control model for Marmot Lake with the broad fluid system in relative proximity to the source.

AGB and Cliff Creek

The AGB and Cliff Creek drill holes analysed indicated an association between mineralization and kaolinite. White mica concentration also increases proximal to mineralized zones at the Cliff Creek Zone.

9.7.4 Ranch Area TerraSpec Program

In the Ranch Area, the TerraSpec SWIR program was completed during the 2021, 2022 and 2023 exploration programs, and resulted in the analysis of 1,398 rock grab samples, and 17,185 samples from 273 drill holes (15,319 samples from 252 diamond drill holes + 1,866 samples from 21 reverse circulation (RC) drill holes) from several prospects (Table 9.6). Specifically:

- In 2021, 697 rock grab samples and 5,639 samples from all of the drill holes completed during the 2021 Ranch drilling program are collected for TerraSpec analysis (3,773 samples from 84 diamond drill holes and 1,866 samples from 21 RC drill holes);

- In 2022, 473 rock grab samples and 7,940 drill core samples from 41 diamond drill holes are collected for TerraSpec analysis; and
- In 2023, an additional 228 rock grab samples are TerraSpec'd, as well as 3,606 samples from 127 diamond drill holes.

9.7.4.1 Ranch Area TerraSpec Results and Interpretation

The TerraSpec analysis defined key correlations between clay mineral assemblages, gold mineralization, alteration assemblages, and depth at the Ranch Area.

Three dominant clay assemblages correspond to major alteration types logged in drill core and rock grab samples. An assemblage of montmorillonite – white mica – minor zeolite is commonly observed in propylitic alteration zones that are distal to the main epithermal feeder system. Argillic altered zones are dominated by kaolinite – white mica – montmorillonite minerals with a gradual increase in dickite content moving proximal to the main zones. The silica and vuggy silica assemblages (which are the most proximal to high sulphidation systems) are dominated by an assemblage of dickite – kaolinite – white mica with minor alunite.

Gypsum occurrences are found to be primarily associated with the Thesis III Zone and are not reliably observed in the remainder of the Ranch Area. In general, the alteration – clay mineral assemblage relationship corresponds to a strongly defined connection between clay type and gold grade. Dickite, in addition to having the strongest association to silica alteration, is the dominant clay mineral in high-grade gold zones. In addition, kaolinite, alunite, and white mica have minor association with high-grade gold zones, but are commonly found in zones containing moderate grades of gold (1 to 10 ppm Au). The zonation observed in clay mineralogy does not show a significant correlative relationship to depth. This may indicate that there is very little temperature or pH gradient across the shallow alteration bodies drilled to date at Ranch. The data observed here suggest that proximity to the main epithermal feeder system (and thus gold grade/vuggy silica alteration) is the primary control on dominant clay mineralogy.

TerraSpec data confirms that clay mineralization is a powerful indicator of high sulphidation epithermal activity. Dickite appears to be strongly associated with both vuggy silica alteration and high-grade gold mineralization. This information can potentially be used as a vectorization tool for identifying future drill targets. Results of TerraSpec in rock grabs and drill core are used to update the alteration map at ranch (Figure 7.3)

9.8 LIDAR AND ORTHOPHOTO

McElhanney Ltd. performed a LiDAR and aerial photo acquisition program across the entire Lawyers-Ranch Property during the 2020 and 2021 field seasons. All airborne GPS and IMU Data was processed using Inertial Explorer™ v8.9 software. The laser data are extracted using Leica HxMap™ 3.3 software. The GPS antenna position in the airplane was calculated by post-processing the raw data at one second intervals for the entire flight. We used Precise Point

Position (“PPP”) to process the trajectory, as this alleviated the need for a GNSS base-station on-site.

The survey was designed to collect LiDAR data at a nominal design density of 8 pulses/m². The point densities and mean point spacing stated below are nominal average values for the entire Project area and vary locally with tree canopy closure, low vegetation and topographic features. The mean density of the point cloud (all points) was measured at 20.1 pts/m² and the mean bare-earth (ground) point density was measured at 5.8 pts/m². The mean bare-earth point spacing is 0.4 m.

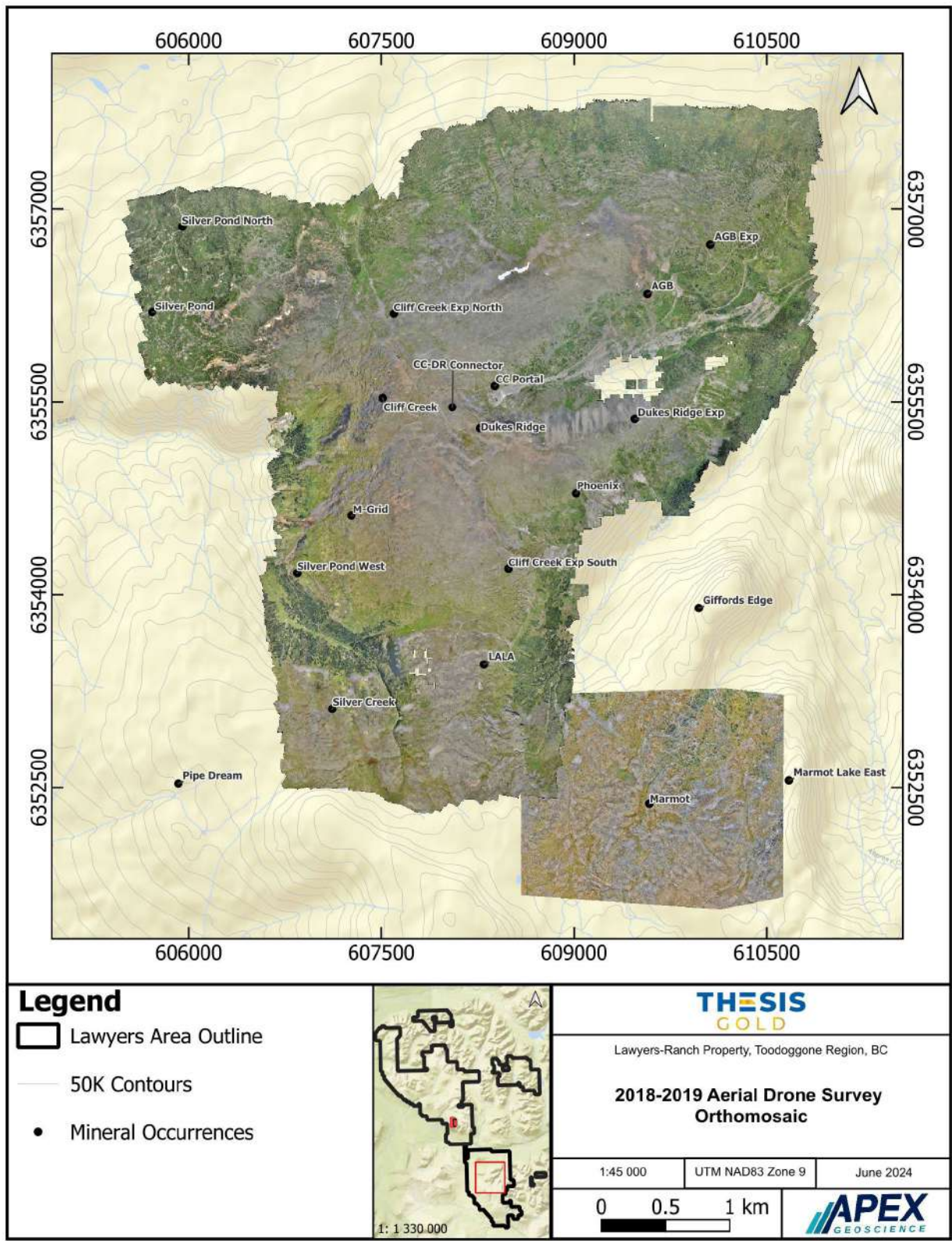
LiDAR data acquired in 2021 was levelled to 2020 LiDAR data and the relative accuracy of 2021 data compared to 2020 data at the ground control site was determined to be 3.5 cm RMSE. Horizontal accuracy was visually assessed at the control site and estimated at 30 cm or better, relative to ground control data defining the edges of the Cheni tailings dam. The ability to assess horizontal accuracy is limited by the mean bare-earth point spacing at site. Orthophoto was processed using Leica Hxmap™ and Pix4D™ software and controlled with refined Exterior Orientation and LiDAR intensity points.

9.9 AERIAL DRONE SURVEY

Aerial drone surveys were completed in the Lawyers Area in 2018 and 2019 using hand-launched senseFly eBee Plus™ drones. Four surveys were undertaken to cover Dukes Ridge and Marmot Lake area in 2018, and AGB and the claims in the southern part of the Lawyers Area in 2019, including Black Lake Alteration Corridor, Lawyers Southeast and Silicon Valley North. In 2018, ~1,112 ha of combined area was covered by the surveys. A total of 10,330 images were captured during the 2018 surveys. In 2019, ~3,425 ha of combined area was covered by the surveys. A total of 28,454 images were captured during the 2019 surveys.

Imagery resolution of <5 cm per pixel was maintained throughout. The drone imagery was collected at high resolution to guide interpretation of surficial geology and reconnaissance for future exploration programs. The 2019 AGB survey covered areas of active drilling. For this reason, ground control points (“GCP”) are utilized to increase the absolute accuracy of the final products, in order to develop a more accurate dataset for drilling. This processing involved setting out targets on the ground ahead of the aerial survey. When the survey was complete, those same targets are surveyed using RTK Trimble R10 GNSS System™ for highly accurate coordinates. During post-processing, the targets visible in the aerial imagery are assigned the specific coordinates captured by the RTK survey equipment. This assignment forces the software to honour those coordinates and extrapolate that data to all other data points, such as the individual images, for a higher degree of absolute accuracy of the coordinates for the final products (digital surface model and orthomosaic). The 2019 AGB survey was merged with the partially overlapping 2018 Cliff Creek imagery to create a single dataset. The increased level of accuracy from the 2019 survey was applied to the 2018 to 2019 merged product, based on the GCP coordinates. The drone imagery was post-processed using Correlator 3-D software. The final products of the aerial drone survey are completed after the 2019 exploration program finished and included a digital surface model (“DSM”) and an orthomosaic colour image (Figure 9.18).

FIGURE 9.18 LAWYERS AREA 2018-2019 AERIAL DRONE SURVEY ORTHOMOSAIC IMAGE



9.10 AIRBORNE GEOPHYSICS

In 2018, Thesis contracted Geotech Ltd. of Aurora, Ontario to complete a helicopter-borne versatile time domain electromagnetic (VTEM) survey over the Lawyers-Ranch Property.

The central and northern parts of the Lawyers Area were surveyed in 2018, and the southern part in 2021 (Figure 9.19). The total Lawyers Area 2018-2021 VTEM coverage comprises 1,912 line-km length covering a total area of ~17,300 ha (Figure 9.20).

The central and southern parts of the Ranch Area were surveyed in 2020, and the remainder of Ranch (mostly northern Ranch) was surveyed in 2021. The total Ranch Area 2020-2021 VTEM coverage comprises 2,057 line-km length covering a total area of ~18,700 ha (Figure 9.20).

Therefore, the total 2018-2021 VTEM survey coverage of the Lawyers-Ranch Property consists of 3,969 line-km length covering a total area of ~36,000 ha (Figure 9.20).

The 2018-2021 airborne geophysical surveys conducted at the Lawyers-Ranch Property are discussed in the following sub-sections.

FIGURE 9.19 LAWYERS AREA 2018 TO 2021 VTEM SURVEY COVERAGE

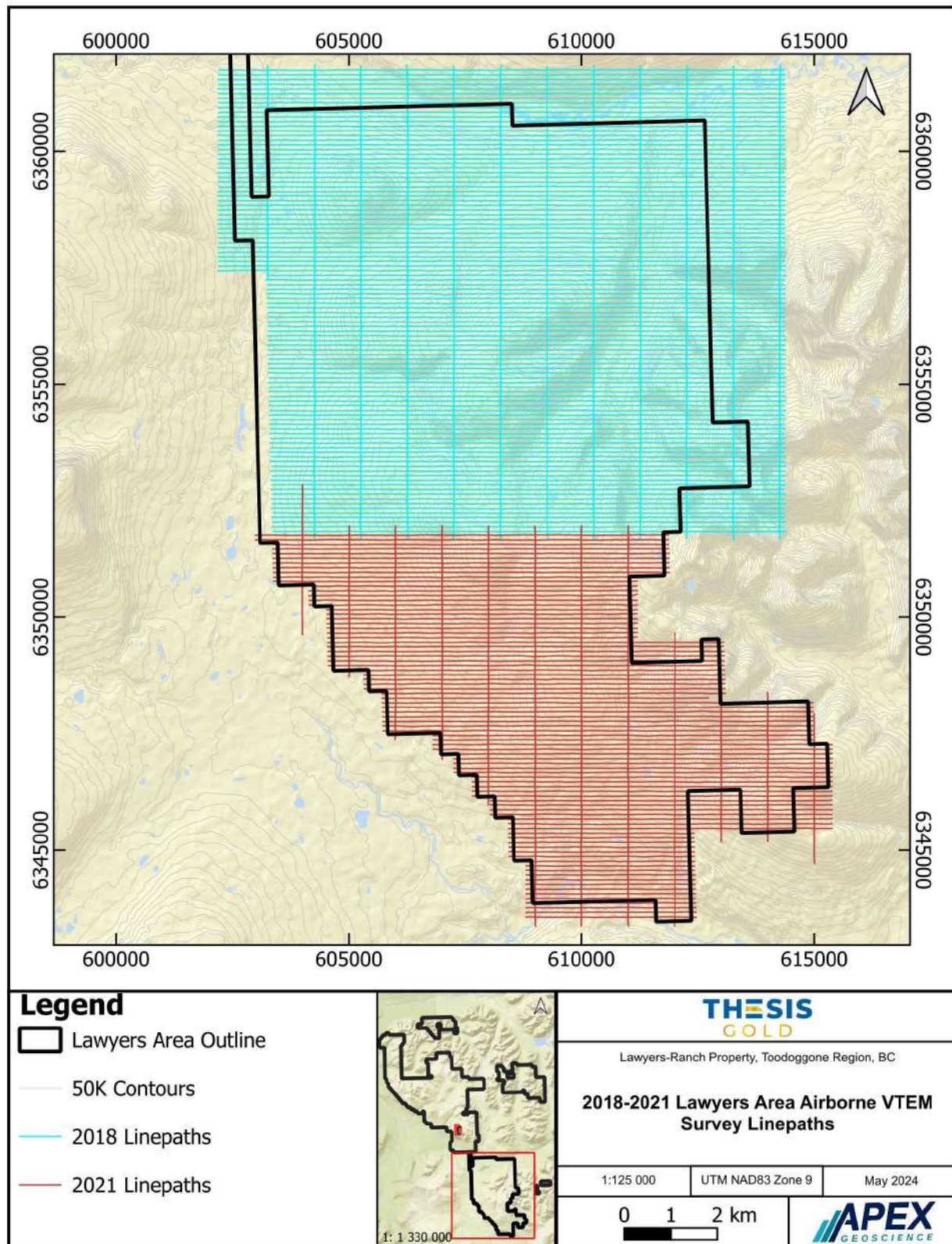
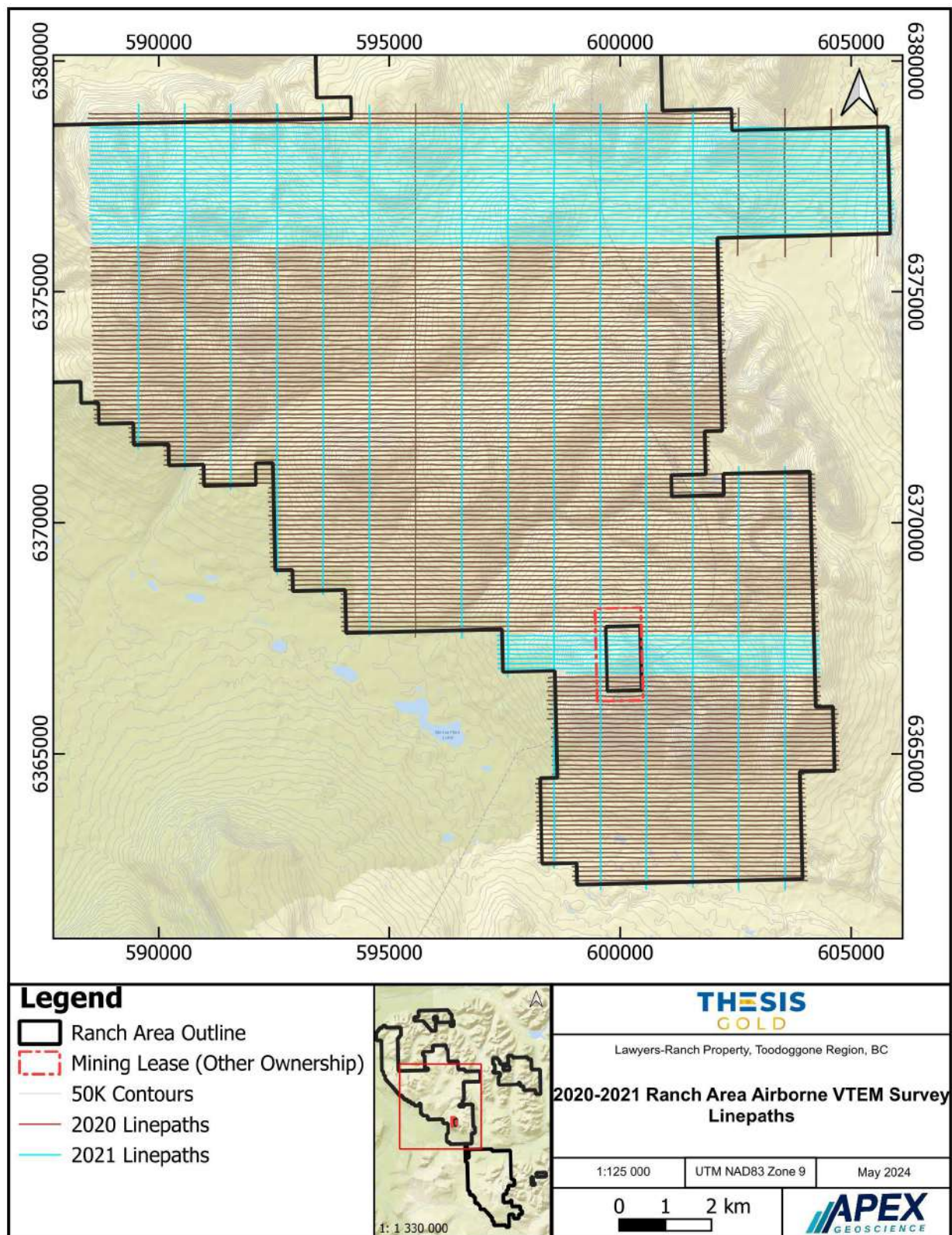


FIGURE 9.20 RANCH AREA 2020-2021 VTEM SURVEY COVERAGE



9.10.1 2018-2021 Lawyers Area Airborne Versatile Time Domain Electromagnetic (VTEM) Survey

Thesis contracted Geotech Ltd. (“Geotech”) of Aurora, Ontario to complete a helicopter-borne versatile time domain electromagnetic (“VTEM”) survey of the Lawyers Area. The central and northern parts of the Lawyers Area were surveyed in 2018 and the southern part in 2021 (Figure 9.19).

Geotech used an Eurocopter Aerospatiale (A-Star) 350 B3 helicopter, owned and operated by Access Helicopters. Installation of the geophysical and ancillary equipment was carried out by the Geotech Ltd. crew. The electromagnetic system was a Geotech Time Domain EM (VTEM™) full receiver-waveform streamed data recorded system, a caesium magnetometer, an RSI AGRS RSX-5™ spectrometer with GPS navigation systems, and radar altimeter as ancillary equipment. During the 2018 survey, the average transmitter-receiver loop terrain clearance was 54 m and the magnetic sensor clearance was 75 m. The helicopter was maintained at a mean altitude of 88 m above the ground with an average survey speed of 80 km/h. During the 2021 survey, an average transmitter-receiver loop terrain clearance was 54 m and the magnetic sensor clearance of 78 m. The helicopter maintained a mean altitude of 91 m above the ground with an average survey speed of 97 km/h.

In 2018, the helicopter and crew was based at the Lawyers Camp and completed the survey from September 8 to September 18, 2018. A total of 1,272 line-km was flown, covering an area of ~115 km². Survey lines are spaced at 100 m, whereas the tie lines are spaced at 1,000 m. Survey lines are flown at 90°/270° orientation and tie lines are flown at 0°/180° (Figure 9.19).

In 2021, the helicopter and crew were based out of the Lawyers Camp and the survey was undertaken from August 31 to September 9, 2021. A total of 640 line-km was flown, covering an area of ~58 km². Survey lines are spaced at 100 m and the tie lines at 1,000 m. Survey lines are flown at 90°/270° orientation and tie lines at 0°/180°. Therefore, the total Lawyers Area VTEM coverage comprises 1,912 line-km covering a total area of ~17,300 ha (Figure 9.19).

The VTEM data was compiled and processed by Geotech using Geosoft OASIS Montaj and programs proprietary to Geotech. Geotech carried out airborne inductively induced polarization (“AIIP”) chargeability mapping and electromagnetic (“EM”) anomaly picking of the EM data, and interpretation of the magnetic and radiometric data.

Five potential exploration target zones, for possible epithermal Au-Ag mineralization at the Property are identified. The targets are selected based on a combination of airborne inductively induced polarization product of apparent resistivity (RES) and Cole-Cole time-constant (Tau), and the radioelement ratio of potassium:thorium measured in percentage and equivalent ppm, respectively.

9.10.1.1 Lawyers Area Airborne VTEM Survey Results and Interpretation

Magnetic Data

The magnetic interpretation of the 2018 to 2021 VTEM data showing known faults and thrusts and interpreted lithological contacts is presented in Figure 9.21. Geotech ran the Centre for Exploration Targeting (CET) analysis tool from the University of Western Australia to produce the magnetic edge and ridge vectors (CET Ridges and CET Edges) shown in Figure 9.21. In the Lawyers Mineral Resource area, there appeared to be a strong spatial relationship between knife sharp magnetic lineaments and mineralization. This spatial relationship was the impetus for completing the detailed ground MAG and VLF surveys. These ground surveys revealed a strong mineralization to structure relationship and particularly structural intersections and high-grade mineralized shoots. The strong magnetic responses in the eastern portion of the VTEM survey are interpreted to represent the Upper Members of the Toodoggone Formation; that is, Saunders, Attycelley and McClair. The moderate magnetic responses in the central and western regions of the Lawyers Area are interpreted to correspond to the Lower Members of the Toodoggone Formation; i.e., Metsantan, Moyez and Adoogacho. The strong magnetic responses in the south portion of the VTEM survey are interpreted to represent the Black Lake Intrusive Suite, which is mapped as granodiorite on the Property. This is the same intrusive suite that hosts the Kemess Porphyry Deposit.

Electromagnetic Data

Geotech identified local EM anomalies representing both discrete and structural conductors (Figure 9.22). All time domain geophysical channels for the B-Field and dB/dt profiles are used for anomaly recognition, which resulted in the selection of 298 discrete anomalies. The ranked anomalies based on their conductance (>2 Siemens to >6 Siemens) are shown in Figure 9.22. None of the picked EM anomalies making-up the conductive zones in the south, southeast, central west and northwestern parts of the Lawyers Area are coincident with the known epithermal Au-Ag showings or occurrences. Geotech has stated that silicification or disseminated pyrite associated with epithermal mineralization may be identified in VTEM data that has been processed to highlight AIIP responses. Based on the analysis of Cole-Cole forward modelling results of selected VTEM decays, the AIIP depth of investigation was found to be up to 100 m below surface. Analysis of the 150 m resistivity depth imaging (RDI) depth slice shows that the known epithermal Au-Ag deposits and occurrences are located within zones of high apparent resistivity (Figure 9.22).

Airborne Inductively Induced Polarization (AIIP) Chargeability

The known epithermal Au-Ag deposits and occurrences on the Lawyers Area are located at relatively higher ground, where AIIP responses are less likely to correspond to responses due to clays or fine-grained sediment found in drainages and low-lying areas. When the AIIP Cole-Cole time constant is calculated, higher Cole-Cole time-constants correspond to relatively coarse-grained polarizable material, such as disseminated sulphides or hydrothermally altered clays. Cole-Cole time-constant highs coincide with known Au-Ag mineralization; that is, Round Mountain West and East, Silver Pond North, whereas the Cliff Creek group of deposits have moderate Cole-Cole time-constant responses. The Cliff Creek, Silver Pond and AGB Zones

are also surrounded by Cole-Cole time-constant highs. Weak to moderate Cole-Cole time-constant responses are observed close to the known mineralization on the Lawyers Area. The main EM signature of the known epithermal Au-Ag Zones and occurrences are due to silicification. The product of the AIIP apparent resistivity and the Cole-Cole time-constant ($RES \cdot \tau$) may be a useful targeting tool for identifying possible epithermal Au-Ag mineralization located with depths up to 100 m below surface (Figure 9.23).

Radiometric Data

The Au-Ag epithermal style of mineralization present at the Lawyers Area is characterized by hydrothermal alteration resulting in potassium (K) enrichment. Potassic alteration zones commonly manifest as K highs (Shives *et al.*, 2000). Airborne gamma ray spectrometry and systematic ground truthing have been shown to be effective in more than thirty examples of geological mapping and mineral deposit characterization (Shives *et al.*, 2000).

The K percentage (Figure 9.24) highlights the main Cliff Creek, Dukes Ridge and AGB Zones area. This area shows high K content likely due to the strong potassic alteration in these zones. During the 2021 VTEM survey, high K values identified the Black Lake Alteration Corridor, Silicon Valley North, and Lawyers Southeast prospects. Soil samples in these zones have returned anomalous Au, Ag, and Cu grades, and grab samples show signs of epithermal Au-Ag mineralization associated with potassic alteration. Several other high K areas have been identified on the Property (e.g., Round Mountain, Arctic, Marmot, E-grid; Figure 9.24) and could reflect alteration or variation in host rock type.

FIGURE 9.21 **LAWYERS AREA VTEM RESIDUAL MAGNETIC INTENSITY (RMI)**
RESPONSE WITH KNOWN AND INFERRED STRUCTURES

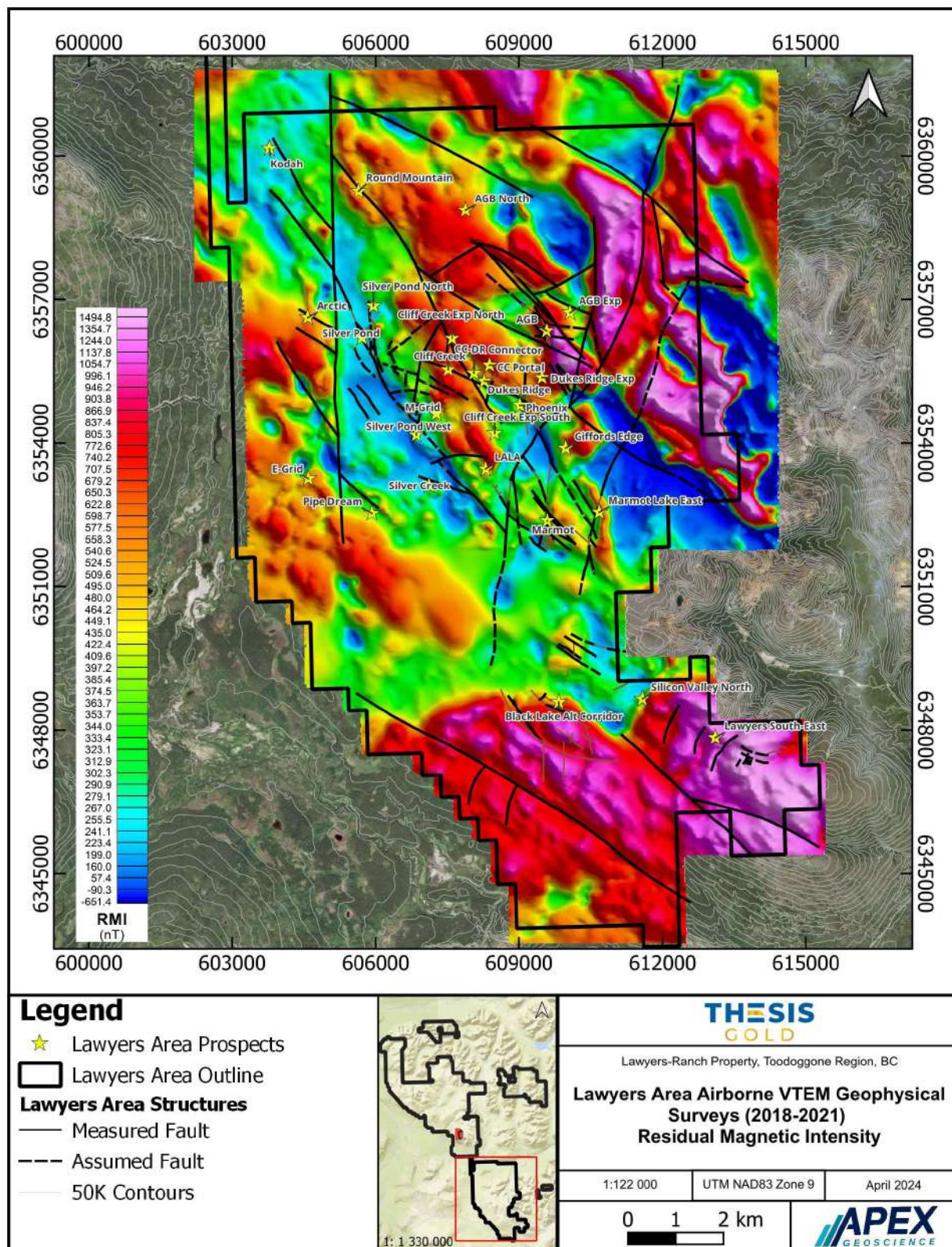


FIGURE 9.22 LAWYERS AREA VTEM ELECTROMAGNETIC ANOMALIES AND INTERPRETED STRUCTURES OVER THE 150 M DEPTH SLICE OF THE RESISTIVITY DEPTH IMAGING

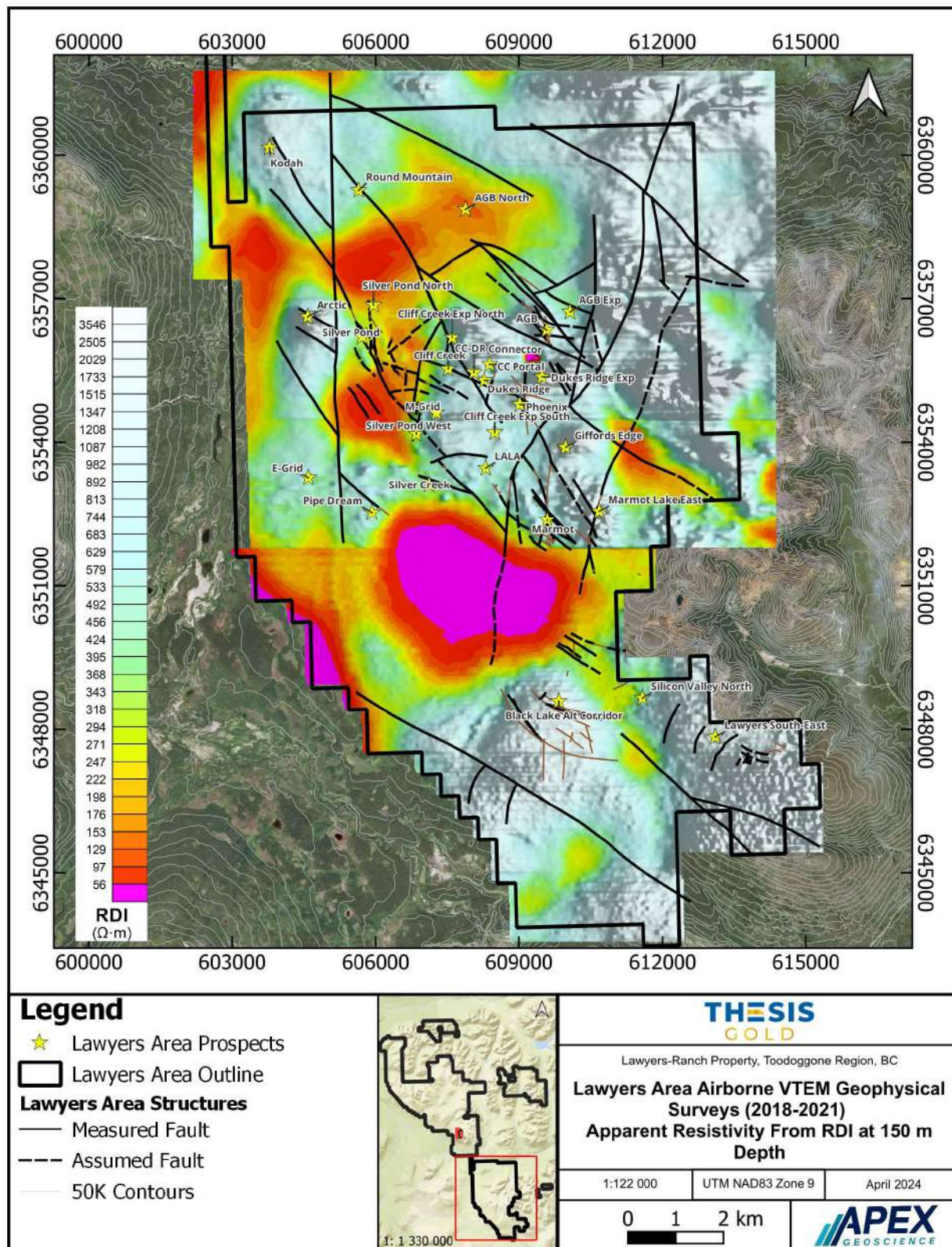


FIGURE 9.23 LAWYERS AREA AIRBORNE INDUCTIVELY INDUCED POLARIZATION (AIIP) MAPPING OF VTEM DATA WITH RESISTIVITY * COLE-COLE TIME CONSTANT (RES*TAU)

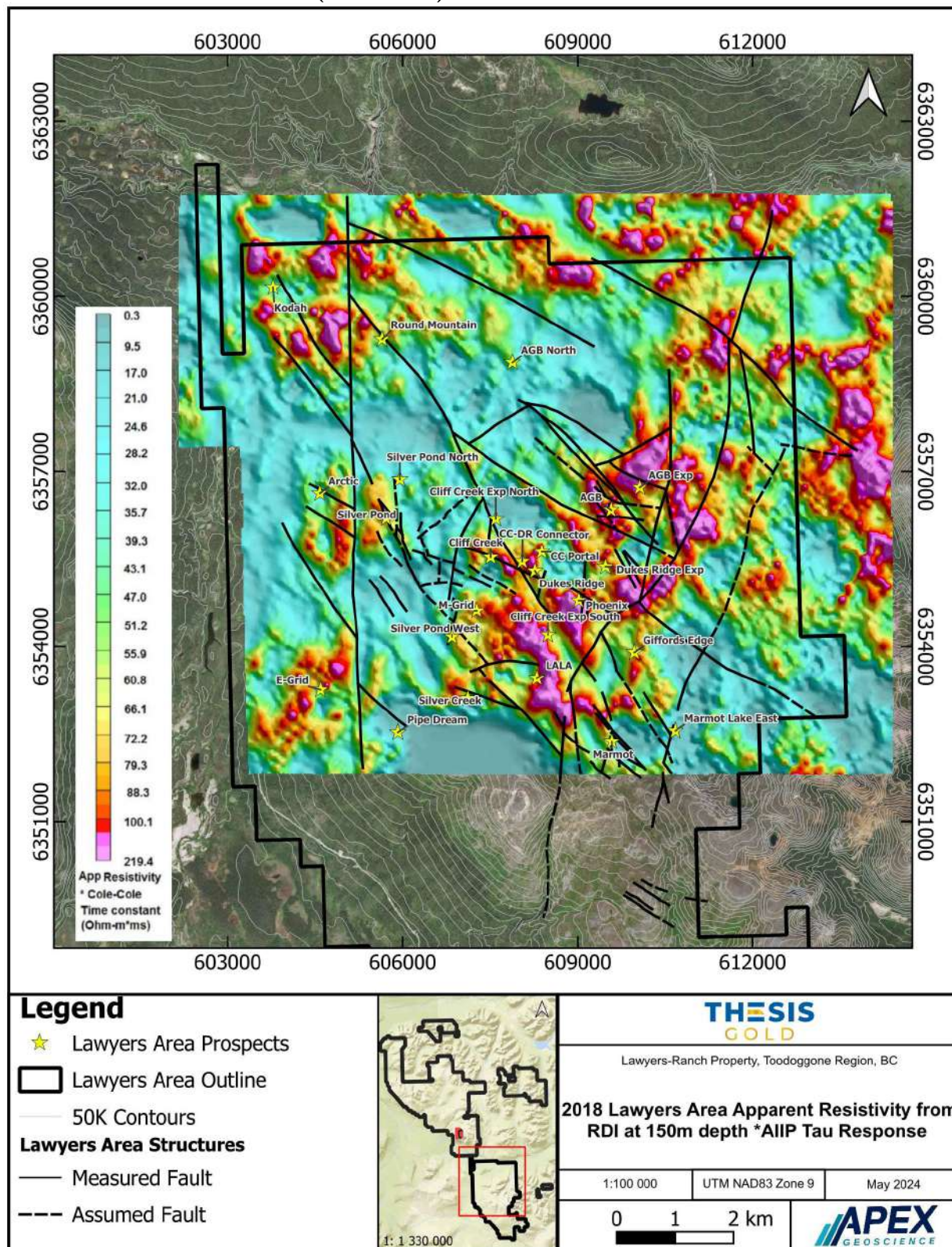
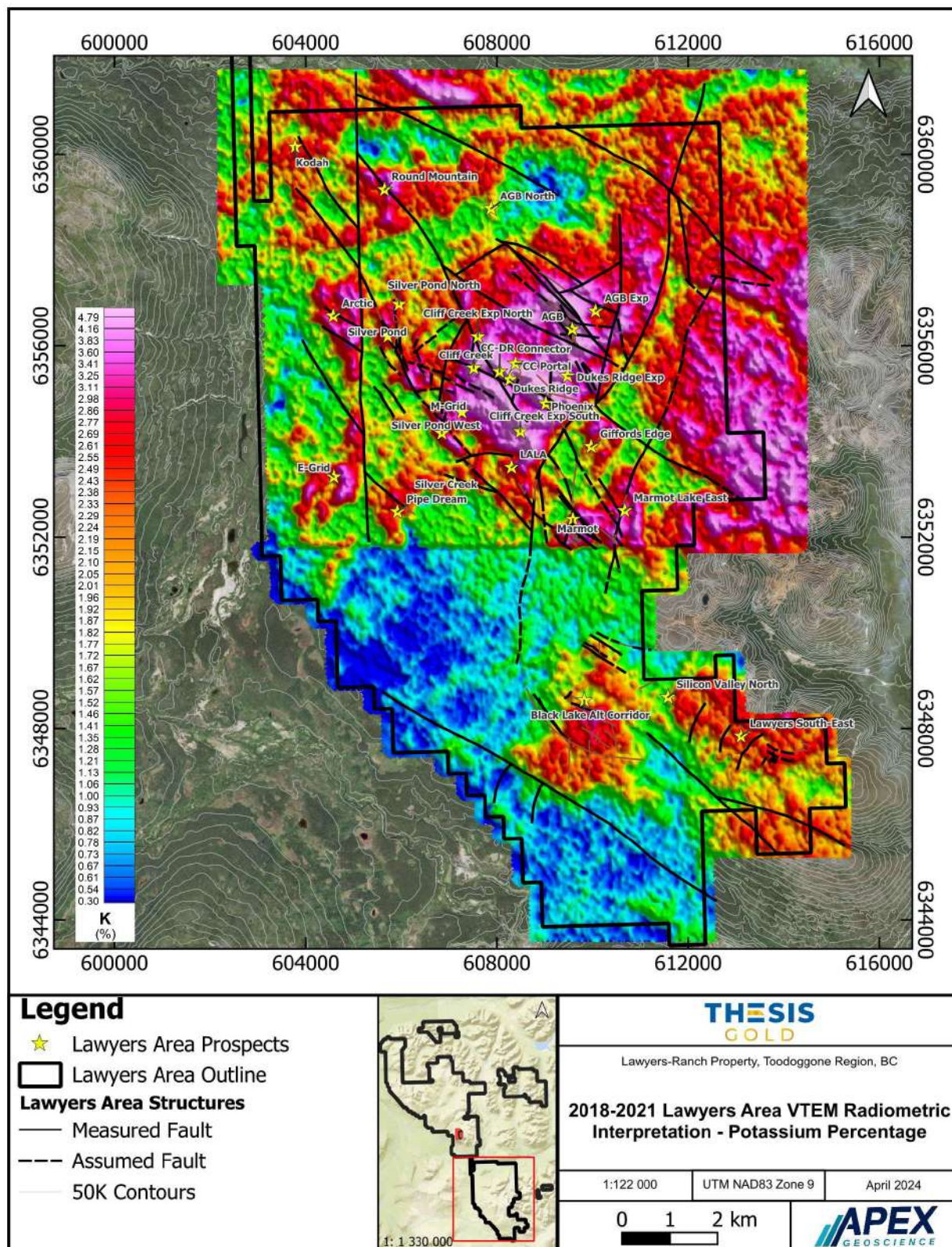


FIGURE 9.24 **LAWYERS AREA VTEM RADIOMETRIC INTERPRETATION – POTASSIUM CONCENTRATION**



9.10.2 2020-2021 Ranch Area Airborne Versatile Time Domain Electromagnetic (VTEM) Survey

In 2020, Thesis commissioned Geotech Ltd. (“Geotech”) to complete a helicopter-borne VTEM survey of the Ranch Area.

Approximately 67% of the survey (central and southern parts of Ranch) was completed in the late summer/early fall of 2020. In 2020, a total of 1,387 line-km was flown over an area of ~12,900 ha. In August of 2021, Geotech flew the remaining 33% of the survey mainly over the northern part of Ranch). In 2021, a total of 670 line-km was flown, covering an area of ~5,800 ha. Therefore, the total Ranch Area VTEM survey comprised 2,057 line-km covering a total area of ~18,700 ha (Figure 9.20).

Geotech used a VTEM Time Domain EM system with a separate magnetometer, EM sensor, and spectrometer towed by a Eurocopter Aerospatiale ASB3 (A-Star) helicopter. The survey comprised 100 m spaced lines flown in an east-west direction with north-south tie lines flown with a 1,000 m spacing. During the 2021 survey, the mean altitude was 93 m above ground with an average survey speed of 94 km/hour, which allowed for an average transmitter-receiver loop terrain clearance of 59 m and a magnetic sensor clearance of 83 m. The VTEM functions by employing full waveform locating to effectively solve near surface structure, the waveform data has a transmitter pulse width of 3.4 ms. The magnetometer measures magnetic intensity with a sampling interval of 0.1 seconds with an inflight sensitivity of 0.02 nT (nano Tesla).

9.10.2.1 Ranch Area Airborne VTEM Survey Results and Interpretation

Magnetic Data

VTEM with magnetics has been shown to assist in mapping silica alteration and structure in areas prospective for epithermal gold and silver deposits. The known mineral zones on the Ranch Area generally coincide with low magnetic anomalies together with low conductance or high resistivity anomalies. Time decay ‘tau’ response derived from the VTEM survey effectively reveals areas of conductance in the subsurface that are energized by the VTEM, aiding in the identification of conductive bodies. Continuous linear magnetic lows correspond with known deep-seated faults in the area and are interpreted to be highly prospective as potential hydrothermal fluid conduits (Figure 9.25).

Electromagnetic Data

Anomalous EM features are identified as a mix of large-area lithological-like conductors, more localized/discrete features, potentially linked to alteration, and structural-like conductors that align with magnetic lineaments/breaks (Figure 9.26). Most notably the survey delineated a ~20 km northwest-trending linear magnetic low that extends to the northwest and to the southeast from the main mineralized zones. Several areas along this magnetic low trend are coincident with northwest- and northeast-trending resistive bodies that correspond with the known mineral trends on the Ranch Area.

FIGURE 9.25 RANCH AREA VTEM TIME DECAY ‘TAU’ RESPONSE

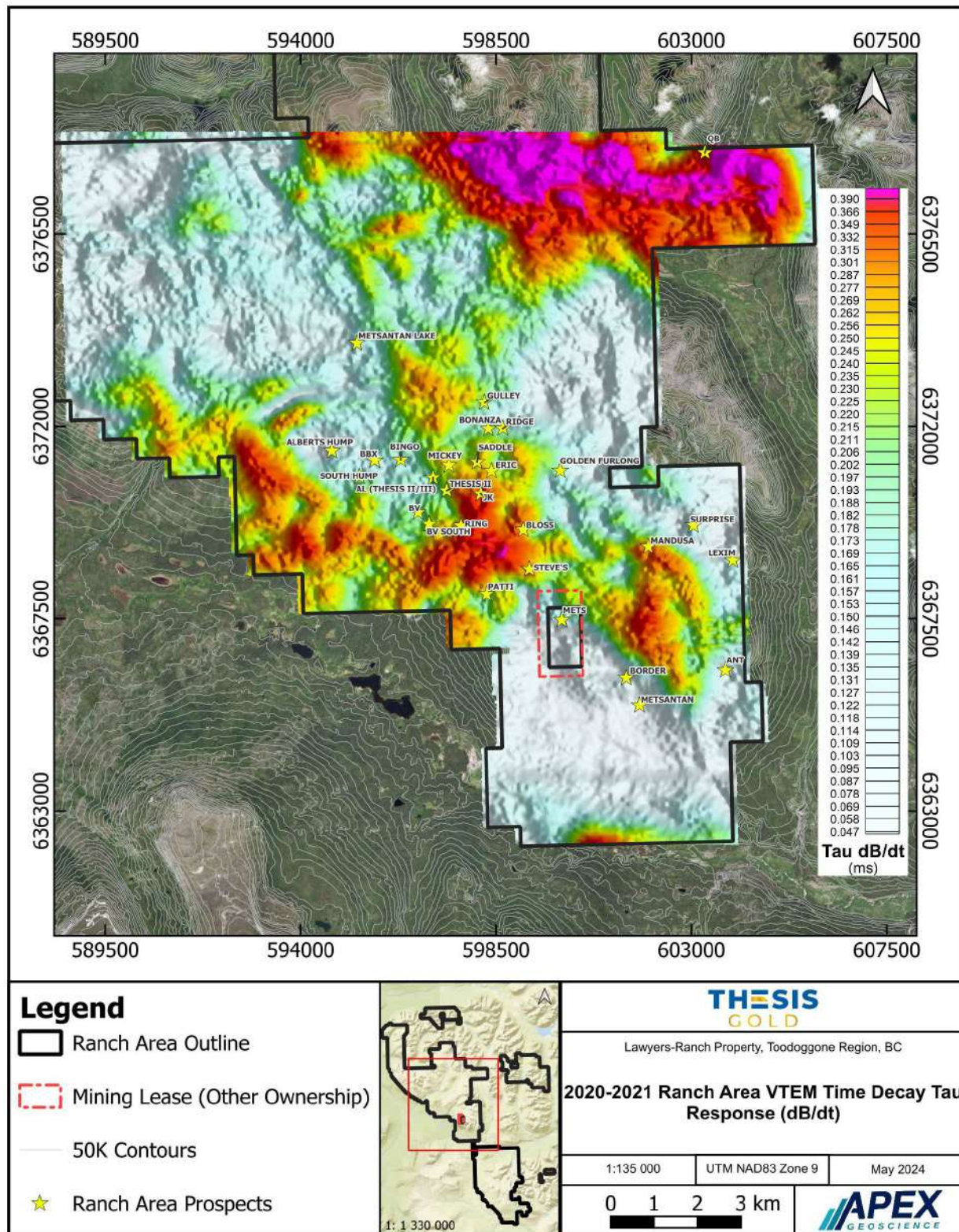
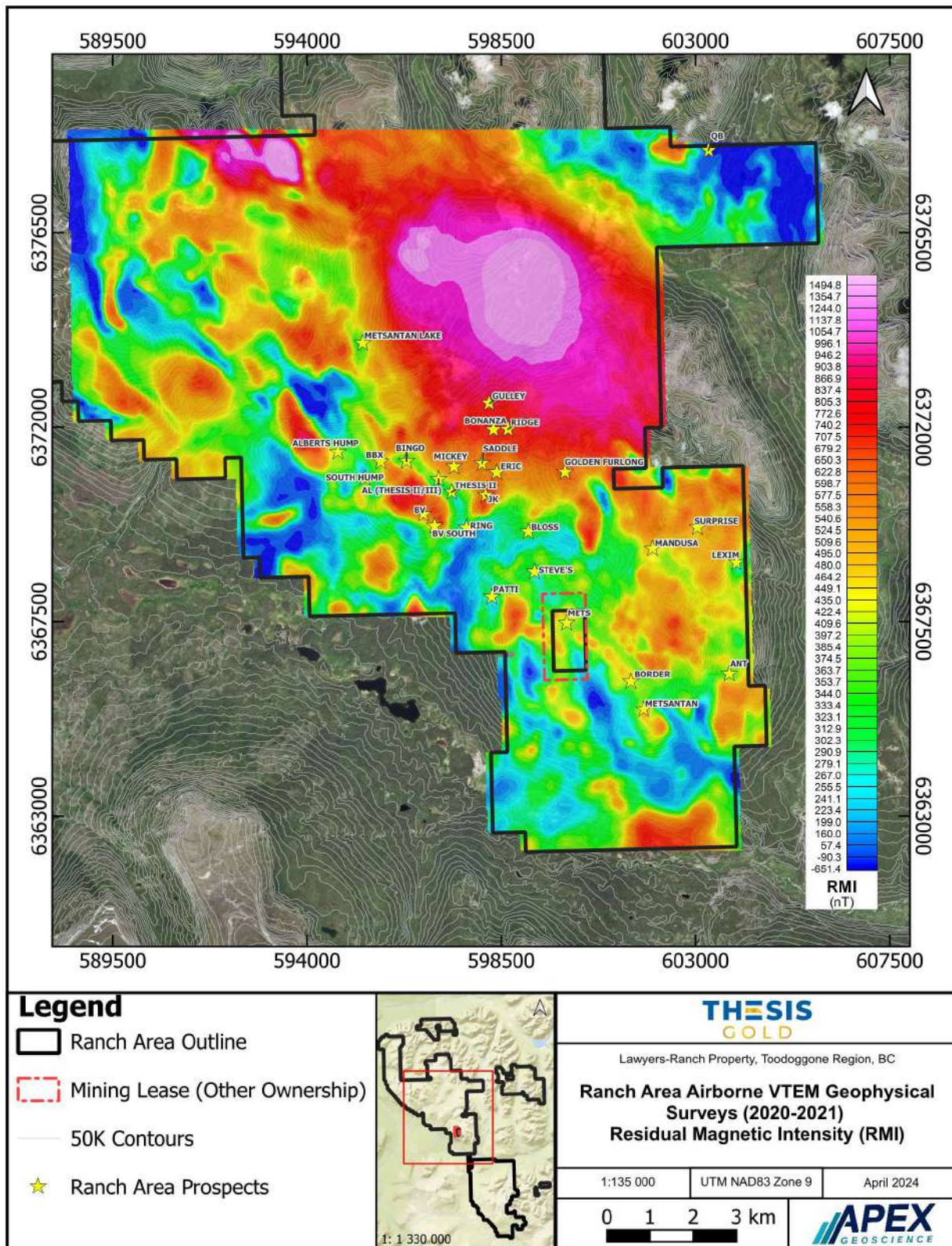


FIGURE 9.26 RANCH AREA VTEM CONTOURED RESIDUAL MAGNETIC INTENSITY



9.11 GROUND GEOPHYSICS

Between 2019 and 2023, Thesis has completed several ground geophysical surveys at the Lawyers-Ranch Property, including ground magnetics (MAG) surveys, Very Low Frequency (VLF) surveys, and 2-D and 3-D DC-resistivity and Induced Polarization (DCIP) surveys.

The 2019 to 2023 MAG surveys of the Lawyers Area covered ~6,266 ha, totalling 1,015.8 line-km along 584 traverse lines. The 2020 to 2023 MAG surveys across the Ranch Area covered an area of ~6,458 ha, totalling 1,113 line-km along 441 traverse lines. Therefore, for the entire Lawyers-Ranch Property, 2019 to 2023 MAG surveys covered a total area of ~12,724 ha, consisting of 2,129 line-km length along 1,025 traverse lines.

The 2019 to 2023 VLF surveys covered ~6,370 ha, totalling 979 line-km along 554 traverse lines across the Lawyers area. VLF surveys are not completed in the Ranch Area.

The 2020-2021 DCIP surveys across the Lawyers Area covered an area of ~937 ha and consisted of 142.1 line-km length for both transmitter and receiver lines, along 63 lines. The 2021 DCIP survey across the Ranch Area covered an area of ~1,550 ha and consisted of 129.3 line-km length for both transmitter and receiver lines, along 35 lines. Therefore, for the entire Lawyers-Ranch Property, 2020-2021 DCIP surveys covered an area of ~2,487 ha and consisted of 271 line-km length for both transmitter and receiver lines, along 98 lines.

A summary of all ground geophysics work completed by Thesis on the Lawyers-Ranch Property is presented in Table 9.9 for the Lawyers Area, and Table 9.10 for the Ranch Area.

The 2019 to 2023 ground geophysical surveys conducted at the Lawyers-Ranch Property are discussed in the following sub-sections.

TABLE 9.9
GROUND GEOPHYSICS STATISTICS SUMMARY FROM THE 2019 TO 2023
EXPLORATION PROGRAMS IN THE LAWYERS AREA

Year	Prospect/Zone	MAG Lines	MAG Line- km	VLF Lines	VLF Line- km	VLF Stations	DCIP Lines	DCIP Line-km (Transmitter + Receiver)
2019	Cliff Creek, AGB, Phoenix and Dukes Ridge	53	143.3	53	143.3	16,275	0	0
2020	Marmot	35	63.39	35	63.39	3,333	0	0
	Silver Pond	87	171.16	38	122.68	6,708	21	66
2021	AGB	0	0	0	0	0	2	2.7
	AGB North	39	34.58	39	34.58	2473	0	0
	Arctic & E-Grid	40	38.01	40	38.01	2719	0	0
	Black Lake	30	64.84	40	64.84	4585	0	0
	Cliff Creek North	24	6.77	24	6.77	484	0	0
	Cliff Creek South	0	0	0	0	0	2	2.7
	Dukes Ridge	0	0	0	0	0	1	1.3
	Giffords Edge & Lala	22	29.84	22	29.84	2134	0	0
	Marmot Lake	0	0	0	0	0	21	34.6
	Pipe Dream	42	31.67	42	31.67	2265	0	0
	Silver Creek	44	74.5	44	74.5	5328	0	0
	Silver Pond North	25	62.84	25	62.84	4495	14	30.6
	VTEM target (west of Silver Pond West)	0	0	0	0	0	2	4.2
2022	AGB North	25	49.33	25	49.33	3218	0	0
	Dukes Ridge	17	8.99	17	8.99	618	0	0
	Round Mountain & Kodah	63	193.86	63	193.86	13057	0	0
	VTEM target (west of Silver Pond West)	0	0	9	11.62	780	0	0

TABLE 9.9 GROUND GEOPHYSICS STATISTICS SUMMARY FROM THE 2019 TO 2023 EXPLORATION PROGRAMS IN THE LAWYERS AREA								
Year	Prospect/Zone	MAG Lines	MAG Line- km	VLF Lines	VLF Line- km	VLF Stations	DCIP Lines	DCIP Line-km (Transmitter + Receiver)
2023	Caribou Creek	38	42.7	38	42.7	3092	0	0
Total		584	1,015.78	554	978.92	53,891	63	142.1

TABLE 9.10 GROUND GEOPHYSICS STATISTICS SUMMARY FROM THE 2020 TO 2023 EXPLORATION PROGRAMS IN THE RANCH AREA						
Year	Prospect/Zone	MAG Lines	MAG Line- km	DCIP Lines	DCIP Receiver Line-km	DCIP Transmitter Line-km
2020	Ranch North (Albert's Hump, BBX, Bingo, Bonanza, Bull, BV, BV South, Eric, Gulley, JK, Mag, Mickey, Ridge, Ring, Saddle, Thesis II, Thesis III)	60	360.35	0	0	0
2021	Ranch Central (Golden Furlong, Bloss, Patti, Steve's, Mandusa and North Ranch)	172	402.8	0	0	0
	Ranch North (Albert's Hump, North Ranch, BBX, Bingo, Mag, and BV)	0	0	21	43.4	26.2
	Patti and Steve's	0	0	14	34.8	19.5
2022	Ranch East	75	108.9	0	0	0
	Ranch West	65	73.4	0	0	0
2023	Ranch South	69	167.8	0	0	0
Total		441	1,113.25	35	78.2	45.7

9.11.1 2019-2023 Lawyers Area Ground Magnetic and Very Low Frequency Surveys

Thesis commissioned APEX to complete ground magnetic (GMAG) and VLF surveying during the 2019 to 2023 field seasons in the Lawyers Area. The 2019 to 2023 surveys totalled ~6,266 ha, 1,016 line-km along 584 MAG traverse lines, and 6,370 ha, 979 line-km along 554 VLF traverse line across the Lawyers Area (Table 9.9; Figure 9.27).

Surveys are completed over portions of the AGB, Cliff Creek, Phoenix, Dukes Ridge, Marmot, Silver Pond Prospects, AGB North, Arctic & E-grid, Black Lake, Cliff Creek North, Gifford's Edge, Lala, Pipe Dream, Silver Creek, Silver Pond North, Kodah, and Round Mountain Zones. The MAG and VLF surveys are completed over areas prospective for gold and silver mineralization, based on historical and recent work.

9.11.1.1 2019 Ground GMAG-VLF Survey

The 2019 ground GMAG-VLF survey was completed over the AGB, Cliff Creek, Phoenix, and Dukes Ridge Zones from June 27 to July 24, 2019. The survey grid encompassed an area covering ~650 ha and consisted of 53 traverse lines oriented at 065°/245° and spaced 50 m apart. The survey line lengths are nominally 3,500 m in the northern area and 1,600 m in the southern area. In-fill lines are added over the AGB resource area at 25 m line spacing. Six tie lines are completed at various orientations to acquire responses across larger structures and to facilitate data levelling procedures. The GMAG-VLF surveying totalled 143 line-km of survey data and the VLF measurements are collected at 16,275 station locations along the survey grid lines (Table 9.9; Figure 9.27).

9.11.1.2 2020 Ground GMAG-VLF Survey

The 2020 ground GMAG-VLF was completed over the Silver Pond and Marmot Zones from June 28 to August 15, 2020. The survey grid encompassed an area of ~1,036 ha, consisted of 122 traverse lines, and totalling a line-km length of 235 km for GMAG and 186 km for VLF (Table 9.9; Figure 9.27).

The Marmot MAG and VLF survey grid encompassed an area of ~322 ha and consisted of 35 traverse lines oriented east-west and spaced 50 m apart. The total line-km of the Marmot GMAG-VLF survey grid is 63 km, and the VLF measurements are collected at 3,333 station locations along the survey grid lines.

The Silver Pond GMAG and VLF survey grid encompassed an area covering ~714 ha and consisted of 87 traverse lines oriented at 065°/245° and spaced 50 m apart. The total line-km of the Silver Pond GMAG survey grid is ~171 km, and the VLF measurements are collected at 6,708 station locations along the survey grid lines on ~123 line-km. GMAG in-fill lines are added over areas of interest at 25 m line spacing.

9.11.1.3 2021 Ground GMAG-VLF Survey

The 2021 surveying program was completed in 87 days, between the dates of June 22 and September 17, 2021. The survey grid encompassed an area of ~2,826 ha, consisted of 266 traverse lines, and totalling a line-km length of 343 km for GMAG and VLF (Table 9.9; Figure 9.27).

The 2021 AGB North GMAG and VLF survey grid covered an area of ~4.09 km² and consisted of 39 lines-oriented southwest-northeast and spaced 50 m apart. The total line-km of the AGB North magnetics survey was 35 km and the VLF measurements are collected at 2,473 station locations along the survey grid lines.

The 2021 Arctic & E-grid GMAG and VLF survey grid covered an area of ~5 km² and consisted of 30 lines-oriented southwest-northeast and spaced 100 m apart. The total line-km of the Arctic and E-grid GMAG survey was 38 km, and the VLF measurements are collected at 2,719 station locations along the survey grid lines.

The 2021 Black Lake GMAG and VLF survey grid encompassed an area of ~3.5 km² and consisted of 40 lines-oriented southwest-northeast and spaced 50 m apart. The total line-km of the Black Lake GMAG survey grid was 65 km, and the VLF measurements are collected at 4,585 station locations along the survey grid lines.

The 2021 Cliff Creek North GMAG and VLF survey grid covered an area of ~0.9 km² and consisted of 24 lines-oriented SW-NE and spaced 50 m apart. The total line-km of the Cliff Creek North GMAG survey was ~7 km, and the VLF measurements are collected at 484 station locations along the survey grid lines.

The 2021 Giffords Edge and Lala GMAG and VLF survey grid covered an area of ~3 km² and consisted of 22 lines-oriented southwest and northeast and spaced 50 m apart. The total line-km of the Giffords Edge and Lala GMAG survey was 30 km, and the VLF measurements are collected at 2,134 station locations along the survey grid lines.

The 2021 Pipe Dream GMAG and VLF survey grid covered an area of ~4 km² and consisted of 42 lines-oriented SW-NE and spaced 50 m apart. The total line-km of the Pipe Dream magnetic survey was ~32 km, and the VLF measurements are collected at 2,265 station locations along the survey grid lines.

The 2021 Silver Creek GMAG and VLF survey grid covered an area of ~4 km² and consisted of 44 lines-oriented southwest-northeast and spaced 50 m apart. The total line-km of the Silver Creek GMAG survey was 75 km, and the VLF measurements are collected at 5,328 station locations along the survey grid lines.

The 2021 Silver Pond North GMAG and VLF survey grid encompassed an area of ~4 km² and consisted of 25 lines-oriented SW-NE, of which, 21 lines are spaced 50 m apart and four lines are spaced 100 m apart. The 100 m spaced lines are meant to in-fill and add resolution to previous 100 m spaced lines flown in 2020. The total line-km of the Silver Pond North GMAG survey was

63 km, and the VLF measurements are collected at 4,495 station locations along the survey grid lines.

9.11.1.4 2022 Ground GMAG-VLF Survey

The 2022 surveying program consisted of 98 traverse lines oriented at 065°/245° with a line spacing of 50 to 100 m and was completed over 73 days, between the dates of June 25 and September 5, 2022. The survey grid encompassed an area of ~1,484 ha, consisting of 105 traverse lines, and totalling a length 252 line-km for GMAG, and ~1,587.6 ha, in 114 traverse lines, and totalling 264 line-km length for VLF (Table 9.9; Figure 9.27).

The 2022 AGB North grid was extended from the 2021 grid, covering an additional 4.8 km² and ~25 lines-oriented southwest-northeast, spaced 100 m apart. The total line-km of the 2022 AGB north AMAG survey grid was 49 km, and the VLF measurements are collected at 3,218 station locations along the survey grid lines.

The 2022 Dukes Ridge GMAG and VLF survey grid covered an area of roughly 0.4 km² and consisted of 17 lines-oriented SW-NE and spaced 50 m apart. The total line-km of the Dukes Ridge GMAG survey grid was 9 km, and the VLF measurements are collected at 618 station locations along the survey grid lines.

The 2022 Round Mountain and Kodah GMAG and VLF survey grid covered an area of ~10 km² and consisted of 63 lines-oriented southwest-northeast and spaced 50 m apart. The total line-km of the Round Mountain and Kodah magnetics survey was 194 km, and the VLF measurements are collected at 13,057 station locations along the survey grid lines.

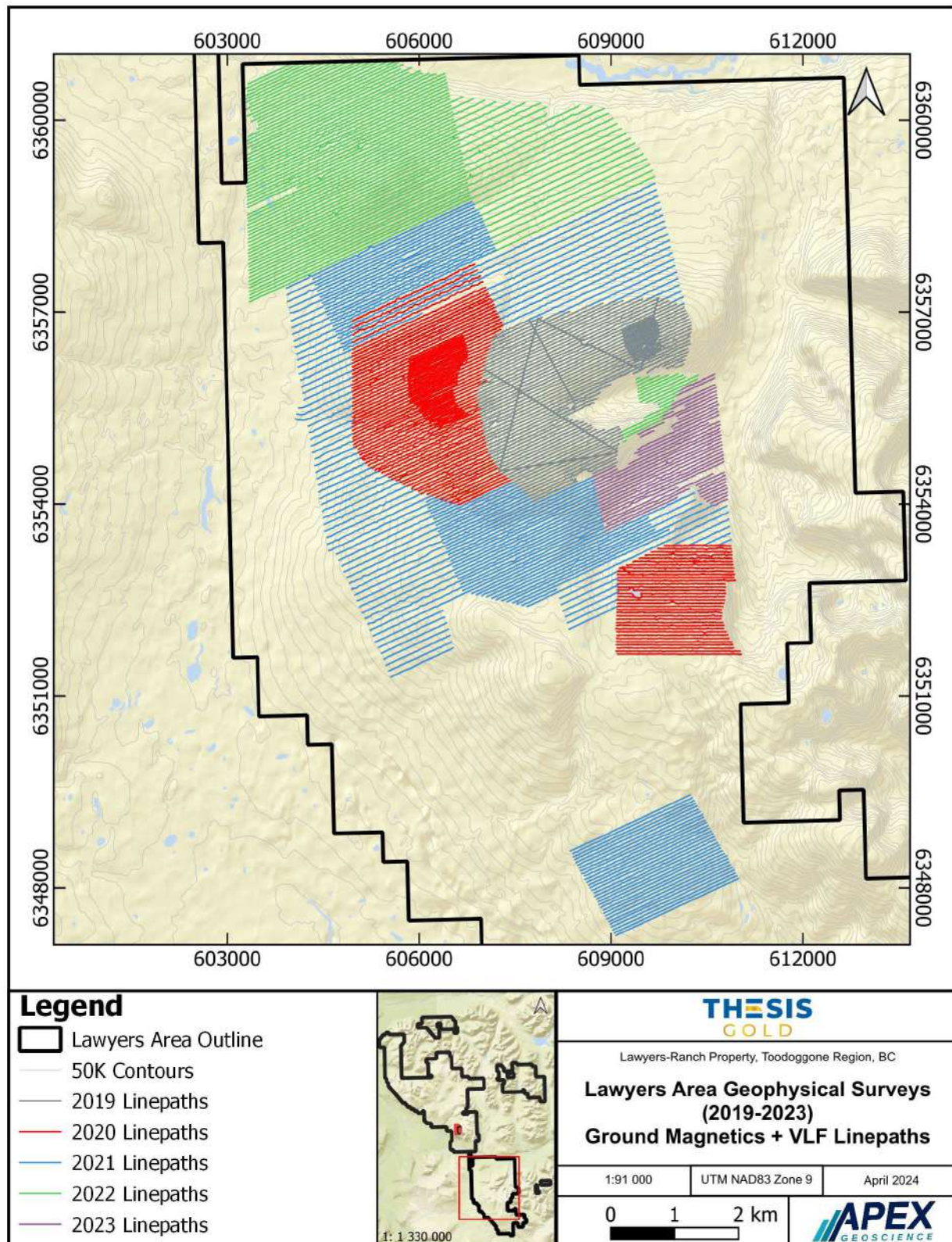
The 2022 VTEM target (west of Silver Pond West) VLF survey was done to infill a gap in data, covering ~1 km² and consisting of 9 lines-oriented southwest-northeast and spaced 100 m apart. The total line-km of the Silver Pond West VLF infill grid was ~12 line-km, and the VLF measurements are collected at 780 station locations along the survey grid lines.

9.11.1.5 2023 Ground GMAG-VLF Survey

The 2023 Lawyers Area GMAG and VLF survey was completed over 21 field data acquisition days from July 8 to August 15, at Caribou Creek. The survey grid consisted of 38 traverse lines oriented 065°/245°, perpendicular to the north-northeast strike of the dominant structures with a line spacing of 50 m. The survey had a total line-km length of 43 line-km for GMAG and VLF and covered an area of ~270 ha.

A summary of all GMAG and VLF surveys completed by Thesis at the Lawyers Area between 2019 and 2023 is presented in Table 9.9 and Figure 9.27.

FIGURE 9.27 LAWYERS AREA 2019 TO 2023 GROUND MAGNETICS AND VLF SURVEY LINE PATHS



9.11.1.6 Lawyers Area GMAG and VLF Surveys Parameters

APEX personnel used a GEM GSM-19V Overhauser™ magnetometer/VLF with an integrated GNSS receiver to collect both the GMAG and VLF survey measurements. The GMAG data is recorded as total magnetic intensity readings at a cycle time of 1 second, while the GEM unit was in walk mode and collecting continuous measurements along the traverse lines. The VLF data is recorded as the in-phase and out-of-phase components of the secondary EM field, recorded as percentage of the primary field, along with X and Y components of the horizontal field amplitude and total field strength of the primary field. The VLF measurements are recorded while the GEM unit is held stationary every 25 m along the traverse lines and measurements are taken from up to three VLF transmitter (Tx) frequencies.

The VLF surveying utilized primary field signals generated by four unique transmitters located in the United States. The VLF transmitters undergo regular shut-down for maintenance and repairs, and the GEM system records signal from up to three transmitters during each measurement, therefore VLF datasets may contain gaps in recordings due to the Tx shutdowns. The transmitters located in Cutler, Maine and LaMoure, North Dakota are in similar directions from the survey grid, and their signals will maximally couple with the same bodies, in order that data measured using 24.0 kHz and 25.2 kHz frequencies are compiled into a common dataset.

9.11.1.7 Lawyers Area GMAG and VLF Surveys Results

The interpretation procedures applied to the GMAG data collected in the Lawyers Area focused on highlighting and tracing magnetic fabric and linear trends that extended across multiple survey lines. The magnetic fabric and lineaments have been identified from the various responses and representation of the magnetic results, which are enhanced during the magnetic processing work.

The VLF data interpretation focused on locating and identifying linear trends that may be the result of conductive bodies in the subsurface. Linear features in VLF datasets are most likely the result of conductive features located in the subsurface. These lineaments are optimally located using their cross-over locations of the in-phase and out-of-phase components of the VLF response when the responses are viewed profile display.

Conductive features and axes identified during the VLF data processing and interpretation are found to be frequently striking parallel to the magnetic trends and lineaments identified during the GMAG data processing and interpretation work. In general, the GMAG and VLF results show good agreement with one another and are suspected to signal a common causative source (Figures 9.28 and 9.29).

The conductive axes that are associated with strongly magnetic anomalies may indicate sulphide rich mineralization, whereas the conductive axes highlighting discontinuities in the magnetic signal may suggest that those conductors are due to fault structures, shear zones, or magnetite depletion at deposit level. The overburden troughs, clay minerals, and mineralization often found in association with fault structures may explain the conductive response observed in this VLF dataset.

The analysis of GMAG and VLF results helped to identify geological map units and major structural features, which could be confirmed by field mapping where outcrop exists. Mapped fault structures and lithological boundaries correspond well with features in the residual magnetic intensity (“RMI”) GMAG imagery (Figure 9.28, Figure 9.29). The VLF data show the best correlation with the geological features observed in the Lawyers Area, due to the perpendicular orientation of the radio waves to the dominant structural orientations on the Property. The VLF data can be used to show shallow, <100 m, conductivity changes in the subsurface. Most commonly the out of phase results are plotted to see where the correlative resistive bodies are located. Cross-overs between the in phase and the out phase in the VLF data, can represent resistive bodies and a sharp change from high to low VLF frequency commonly correspond to important fault structures. In some areas of the properties with no rock exposure, major northwest fault structures can be inferred from both the magnetic and VLF data, may represent important targets for mineralization, particularly when coincident with gold and silver soil anomalies.

GMAG at Black Lake Alteration Corridor clearly define the boundary of the Black Lake Intrusions, including fault offsets along its edge. The VLF results over Black Lake Alteration Corridor (Figure 9.29) show a conductive trend over the silicified sulphidized mafics along the margin of the Black Lake Intrusives. This trend continues to the northeast and southwest of the sampled mineralization.

Other prospects, including Arctic E-Grid, Lala, Silver Pond West, and Silver Creek, with known mineralization have also returned interesting VLF crossovers (Figure 9.29). These are transitions from high to low out-of-phase and low to high in-phase. On the Property, such trends are associated with resistive silicified bodies against conductive faults, such as at Cliff Creek.

GMAG-VLF at the Kodah Zone determined moderate to low magnetic readings, which extends through Round Mountain and transitions to high magnetic readings along the eastern side of Round Mountain (Figure 9.28) along a north-northwest trend, this transition is interpreted to be a north-northwest trending fault. Soil samples at Round Mountain returned high grades, with several grading >0.1 g/t Au located near the magnetic transition and interpreted fault boundaries. The VLF in-phase and out-of-phase data shows that a crossover is visible along a large north-trending fault cutting through the middle of the Round Mountain Zone. This feature is interpreted to be a late (Eocene?) fault that extends from the Arctic and E-Grid Zones (Figure 9.29). In addition, the VLF in-phase and out-of-phase data also show a strong crossover trending northwest over the known Kodah mineralization and several parallel northwest features, which have similar geophysical signatures and orientations to the Cliff Creek Zone. This crossover may indicate a potential conductive body or sharp contrast in resistivity associated with a major structure, silica, or massive quartz. Anomalous gold and silver in soil samples closely follow the edge of this VLF anomaly. GMAG data for this area is moderate to low in amplitude. The lack of significant rock samples from this area is due to poor rock exposure.

GMAG-VLF at AGB North consisted of high magnetic readings, except for on the southeast side of the Zone and along several interpreted northwest-trending faults, where magnetic data transitions to moderate-low (Figure 9.28). These structures in AGB North also correspond to a strong VLF in-phase and out-of-phase crossover (Figure 9.29). GMAG and VLF surveys indicate potential for a resistive body along northwest faults. The southeast section of AGB North had low

magnetic readings and strong crossover in VLF in-phase and out-of-phase readings, which correspond to several higher-grade soil samples (>0.05 g/t Au). Rock samples are not collected at AGB North, due to lack of outcrop.

A small 43 ha geophysical survey grid was completed along the eastern end of Dukes Ridge. GMAG data for Dukes Ridge was moderate to high and decreased on the northwest side of the grid (Figure 9.28). A few high-grade soil samples were collected in this area. This grid was constrained to a small area by steep topography and the GMAG and VLF data did not return interesting results for Dukes Ridge, but did connect with previous surveys towards AGB (Figure 9.29).

A small 104 ha Silver Pond West VLF grid (Figure 9.29) was done to fill a data gap and displayed weak crossover between in-phase and out-of-phase measurements along multiple small, interpreted faults. Many high-grade soil samples are collected along these fault zones, with grades ranging from >0.03 g/t to >0.1 g/t Au. The VLF anomalies, which could indicate a resistive body, appear to correlate with structures and soil anomalies.

FIGURE 9.28 LAWYERS AREA GROUND MAGNETICS RESIDUAL MAGNETIC INTENSITY – REDUCED TO POLE (RMI-RTP) RESULTS

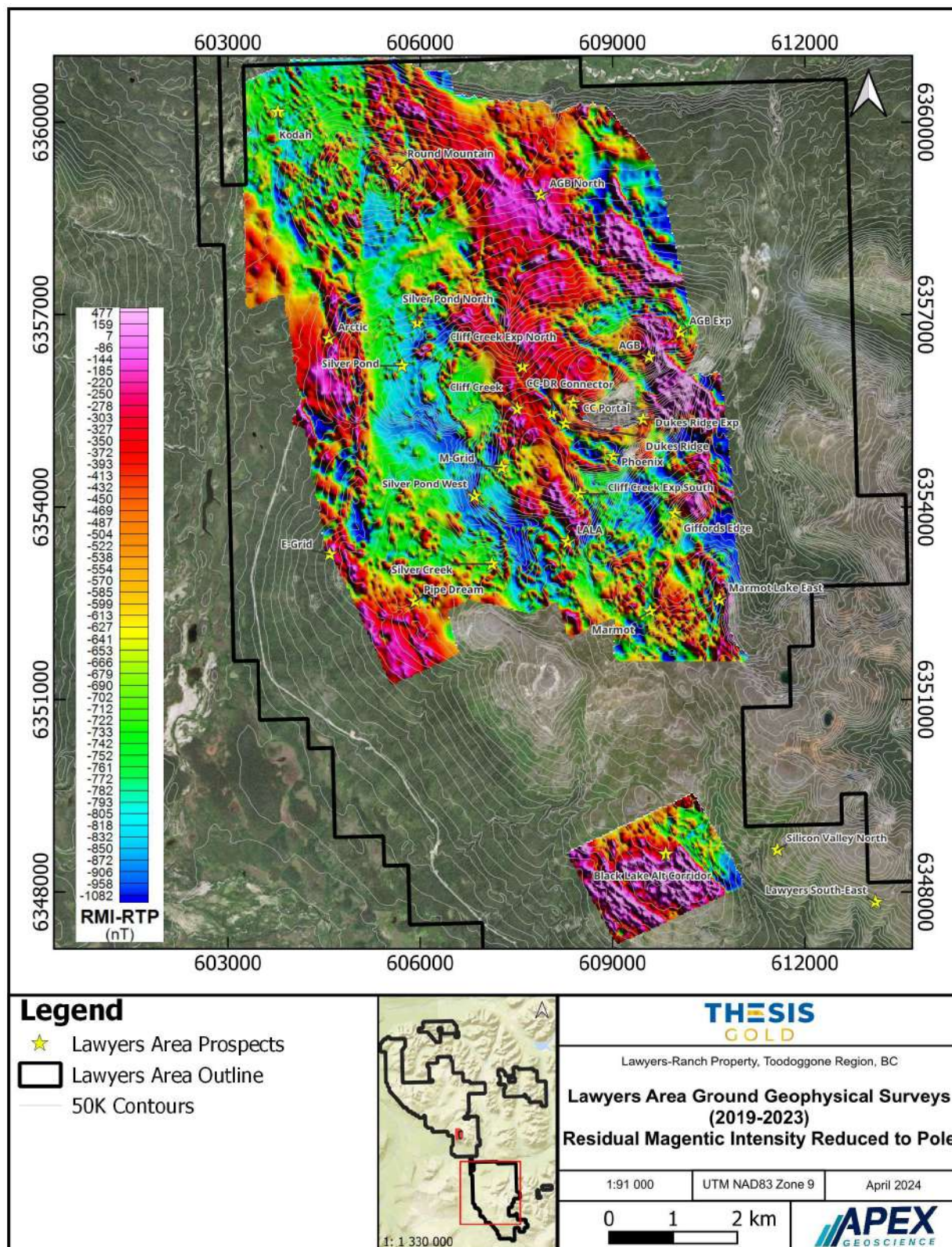
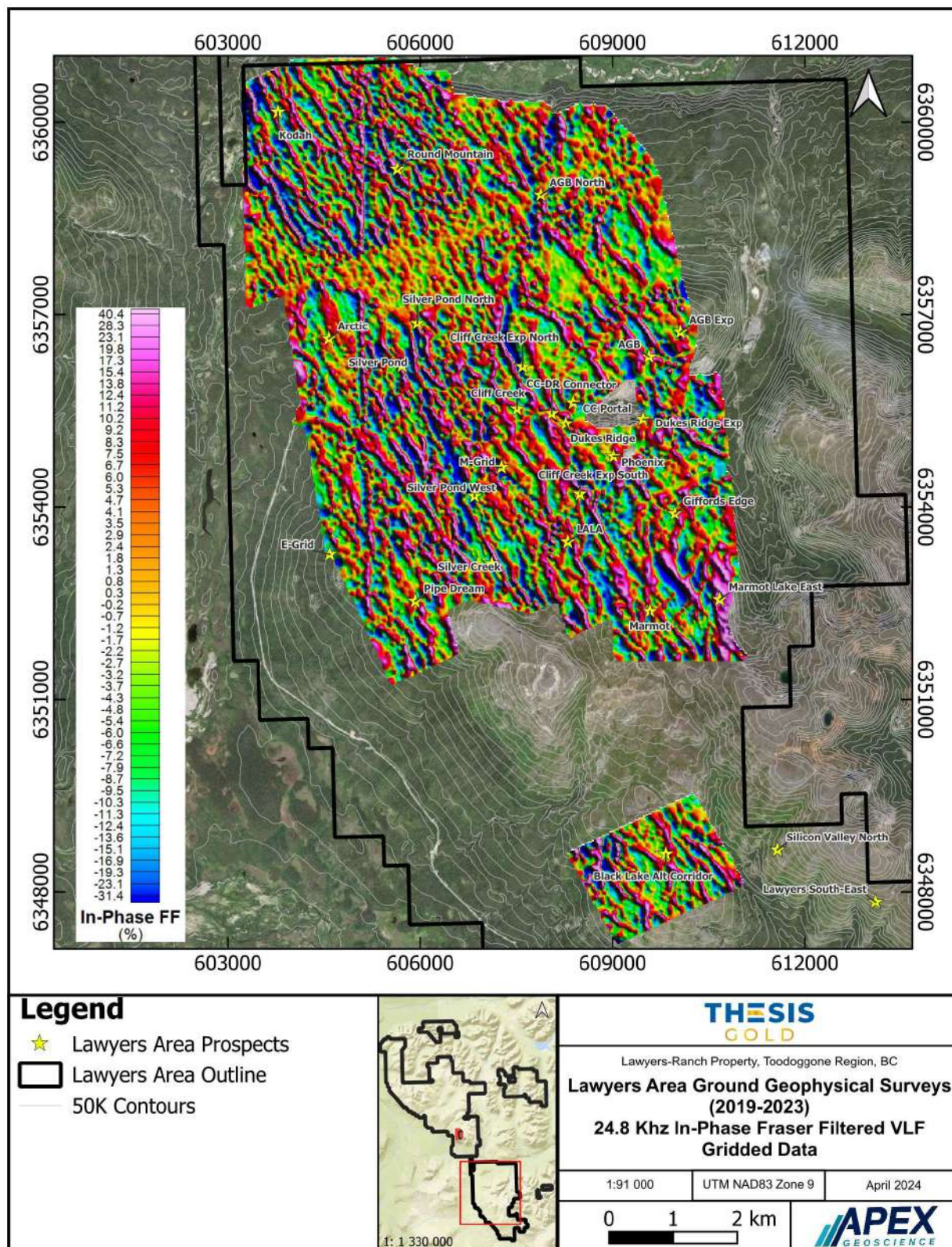


FIGURE 9.29 LAWYERS AREA 24.8 KHZ IN-PHASE FRASER FILTERED VLF GRIDDED DATA



9.11.2 2020-2021 Lawyers Area DC-resistivity and Induced Polarization (DCIP) Surveys

In 2020 and 2021, Thesis commissioned Dias Geophysical Limited (“Dias”) to complete 2-D and 3-D DC-resistivity and induced polarization (“DCIP”) surveys across the Lawyers Area. The DCIP surveys covered an area of ~937 ha and consisted of 142 line-km length for both transmitter and receiver lines, along 63 lines (Table 9.9; Figure 9.30).

9.11.2.1 2020 DCIP survey

In 2020, Thesis commissioned Dias to conduct a 3-D DCIP survey over the Silver Pond Zone. The 2020 DCIP survey was completed from July 6 to July 23, 2020.

The Silver Pond 3-D DCIP survey (Figure 9.30) used a rolling distributed partial 3-D DCIP array with a pole-dipole transmitter configuration and was designed to detect electrical resistivity and chargeability signatures associated with prospective target areas.

The Silver Pond DCIP survey grid encompassed an area covering ~250 ha and consisted of 21 lines oriented at 065°/245° and spaced 100 m apart. The total line-km of the receivers and transmitters is ~42 km and 24 km, respectively. Receiver line-spacing and current line-spacing was 100 m for lines 800N to 2400N and 150 m for lines 2400N to 3000N, with a receiver sampling interval of 150 samples per second.

9.11.2.2 2021 DCIP survey

In 2021, Thesis commissioned Dias to complete a 2-D and 3-D DCIP survey over six target areas in the Lawyers Area. The 3-D DCIP surveys are performed at the Silver Pond North and Marmot Lake Zones, whereas 2-D DCIP surveys are performed at AGB, Cliff Creek, Dukes Ridge, and off-prospect directly west of Silver Pond West (VTEM target). The surveys used are either 3-D rolling distributed pole-dipole arrays or 2-D pole-dipole arrays and are designed to detect electrical resistivity and chargeability signatures associated with prospective target areas. The 2021 DCIP survey was completed in 41 days, between June 30 and August 10, 2021. The survey covered an area of ~687 ha and consisted of 76 line-km length for both transmitter and receiver lines, along 42 lines.

The AGB DCIP survey grid covered an area of ~15 ha and consisted of two lines oriented 072°/252° and spaced 100 m apart. The total line-km for both the receiver and transmitter lines is 2.7 km. Receiver line spacing was 100 m with 50 m receiver spacing along lines 900 to 1000 and the receiver sample interval was 150 samples per second. Current line spacing was 100 m with 50 m injector spacing along lines 900 to 1000. Transmitter injection location are at the midpoint between receiver stations along both lines. A 2-D Pole-Dipole array with Common Voltage Referencing (“CVR”) was used. Apparent resistivity and chargeability data over the grid and 2-D inversion models were generated.

The Cliff Creek South DCIP survey grid enclosed an area of ~15 ha and consisted of two lines oriented 076°/246° and spaced 100 m apart. The total line-km for both the receiver and transmitter

lines is 2.7 km. Receiver line spacing was 100 m with 100 m receiver spacing along lines 325 to 425 and the receiver sample interval was 150 samples per second. Current line spacing was 100 m with 100 m injector spacing along lines 900 to 1000. Transmitter injection locations are at the midpoint between receiver stations along both lines. A 2-D Pole-Dipole array with CVR was used. Apparent resistivity and chargeability data over the grid and 2-D inversion models are generated.

The Dukes Ridge DCIP survey grid was setup as 1 single line with an orientation of 015°/195°. The total line-km for both the receiver and transmitter lines was 1.3 km. Receiver spacing along the receiver line was 25 m for line 1000 and the receiver sampling interval was 150 samples per second. Injector spacing along the current line was also 25 m for line 1000. Transmitter injection locations are at the midpoint between consecutive receiver stations along the line. A 2-D Pole-Dipole array with CVR was used. Apparent resistivity and chargeability data over the grid and 2-D inversion models are generated.

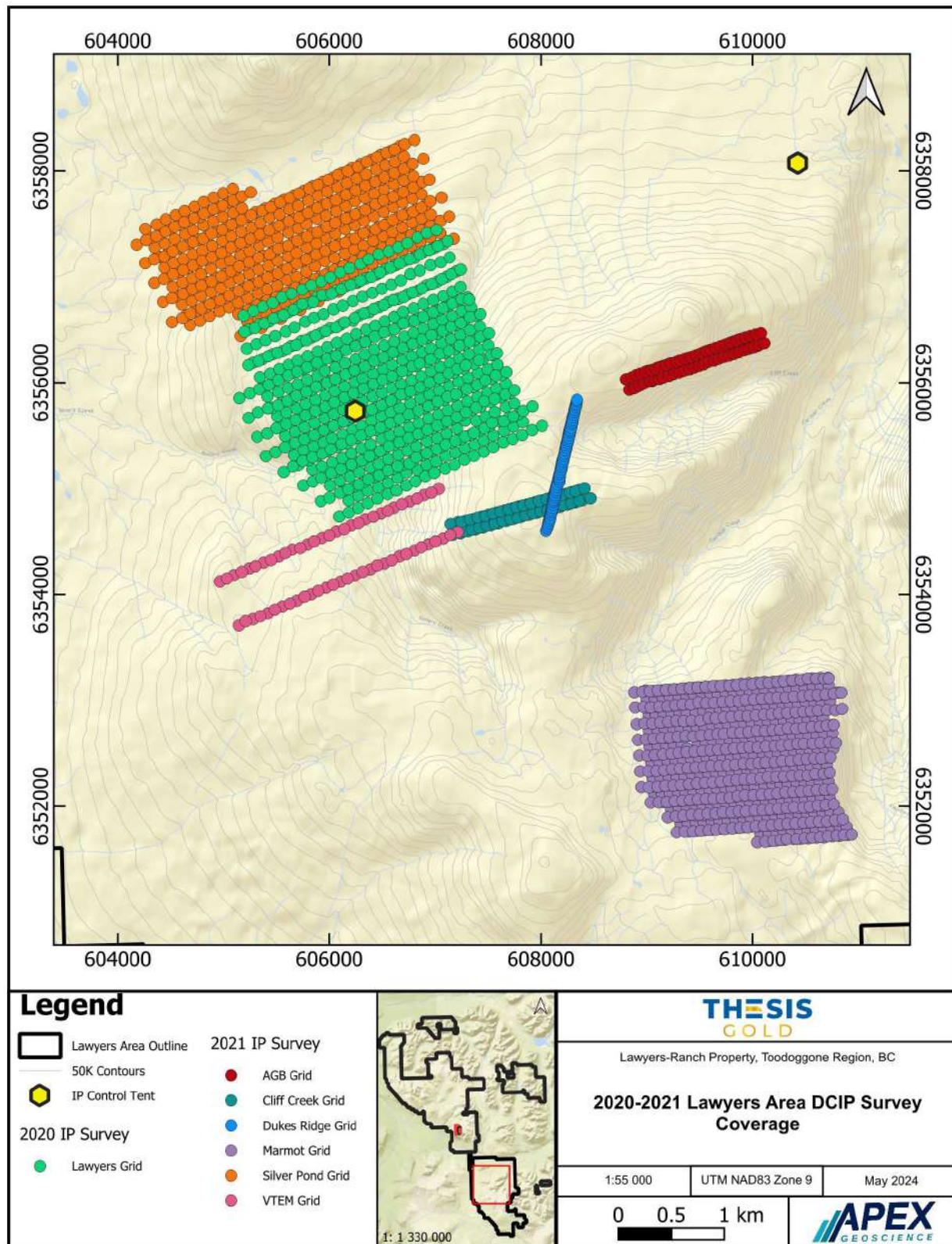
The Marmot Lake DCIP survey grid covered an area of ~257 ha and consisted of 21 lines oriented at 087°/267° and spaced 75 m apart. The total line-km for both the receiver and transmitter lines is ~35 km. Receiver line spacing was 75 m with 75 m receiver spacing along lines 1000 to 2500 and the receiver sample interval was 150 samples per second. Current line spacing was 150 m with 75 m injector spacing along lines 1000 to 2500. Transmitter injection locations are at the midpoint between receiver stations along every second line. A 3-D Rolling Distributed Pole-Dipole array with CVR was used. Apparent resistivity and chargeability data over the grid and 3-D inversion models are generated.

The Silver Pond North DCIP survey grid encompassed an area covering ~300 ha and consisted of 14 lines oriented 066°/246° and spaced 100 m apart. The total line-km for both the receiver and transmitter lines is ~31 km. Receiver line spacing was 100 m with 100 m receiver spacing along lines 2950 to 4150 and the receiver sampling interval was 150 samples per second. Current line spacing was 200 m with 100 m injector spacing along lines 2850 to 4050. Transmitter injection locations are at the midpoint between receiver stations along every second line. A 3-D Rolling Distributed Pole-Dipole array with CVR was used. Apparent resistivity and chargeability data over the grid and 3-D inversion models are generated.

The VTEM target (west of Silver Pond West) DCIP survey grid covered an area of 100 ha and consisted of two lines oriented 069°/249° and spaced 450 m apart. The total line-km for both the receiver and transmitter lines is ~4 km. Receiver line spacing was 450 m with 150 m receiver spacing along lines 325 to 775 and the receiver sampling interval was 150 samples per second. Current line spacing was 450 m with 150 m injector spacing along lines 325 to 775. Transmitter injection locations are at the midpoint between receiver stations along every second line. Apparent resistivity and chargeability data over the grid and 2-D inversion models are generated.

A summary of all DCIP surveys completed in the Lawyers Area is presented in Table 9.9 and Figure 9.30.

FIGURE 9.30 LAWYERS AREA 2020-2021 DCIP SURVEY COVERAGE



9.11.2.3 Lawyers Area DCIP Surveys Parameters

The 2020 Silver Pond 3-D DCIP survey used a rolling distributed partial 3-D DCIP array with a pole-dipole transmitter configuration and was designed to detect electrical resistivity and chargeability signatures associated with prospective target areas. The total line-km of the receivers and transmitters is ~42 km and 24 km, respectively. Receiver line-spacing and current line-spacing was 100 m for lines 800N to 2400N and 150 m for lines 2400N to 3000N, with a receiver sampling interval of 150 samples per second. Transmitter injection locations are at the midpoint between receiver stations along every second line.

The 2021 2-D and 3-D DCIP surveys are completed two grids using a 3-D rolling distributed array in CVR mode and seven 2-D lines surveyed using a pole-dipole array, also setup using CVR. Receiver and transmitter stations are 25 to 150 m apart depending on prospects, transmitter injection locations being at the midpoint between receiver stations along every second line. Current injection was carried out 25 to 50 m off either end of the lines.

9.11.2.4 Lawyers Area DCIP Surveys Results

Apparent resistivity and chargeability data over the surveyed grids and 2-D inversion models are generated from the 2020-2021 DCIP surveys (Figure 9.31, Figure 9.32). Chargeability and resistivity anomalies are encountered in several zones in the Lawyers Area. Chargeability highs can represent massive sulphides. Resistivity highs can be useful for identifying pervasive massive secondary silica alteration commonly associated with Au-Ag ± Cu mineralization.

At Silver Pond Clay and Silver Pond North, several trends and anomalies were identified in the DCIP survey and characterized in relation to mapped geology (Figure 9.31, Figure 9.32). Chargeability highs can represent massive sulphides, which have been observed locally in the Silver Pond, both at surface and in drill core. Anomalies identified are used to plan exploration drilling, completed in late-August and early-September 2021. Areas where chargeability highs corresponded to resistivity lows, and sharp transitions between the highs and lows, are targeted, especially when they corresponded to mapped structures.

The DCIP survey over Marmot Lake correlated well with the VLF from 2020 and outlines multiple resistive structures. Some of these are drilled in 2020 and some in 2021 with mineralized intersections and faults correlating with sharp changes in resistivity. Repeated northwest- trending structures offset by north-south faulting are identified south of previously intersected mineralized.

The 2-D DCIP lines at AGB identified a body to the east of southern AGB with coincident high resistivity and high chargeability at depth, similar to the known AGB mineralization. This anomaly has not been drill tested yet. The other 2-D DCIP lines over Dukes Ridge, Cliff Creek, and the VTEM target did not return any new or interesting results that expand on the understanding of the mineralized zone areas.

FIGURE 9.31 LAWYERS AREA DCIP APPARENT CHARGEABILITY FROM 150 M DEPTH

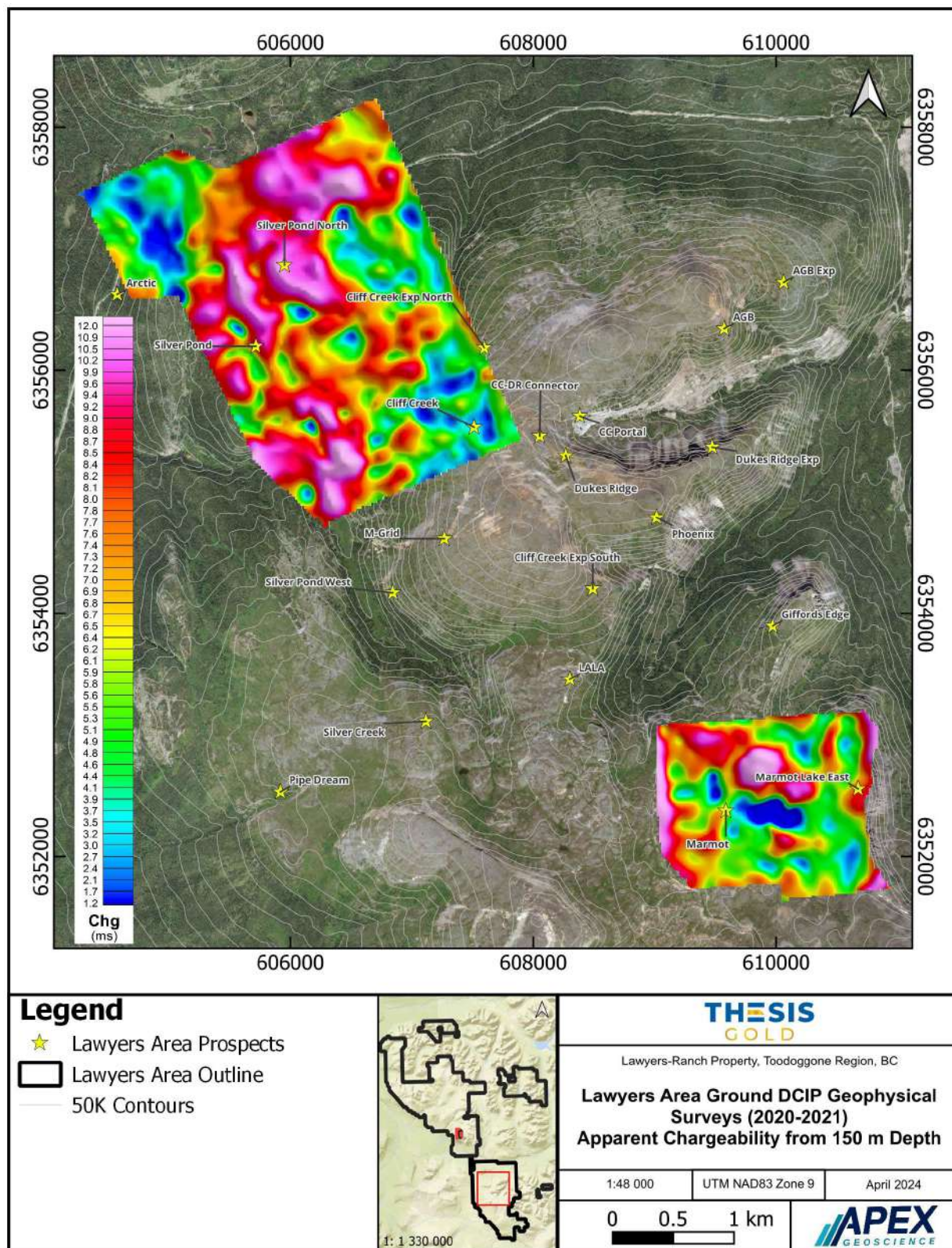
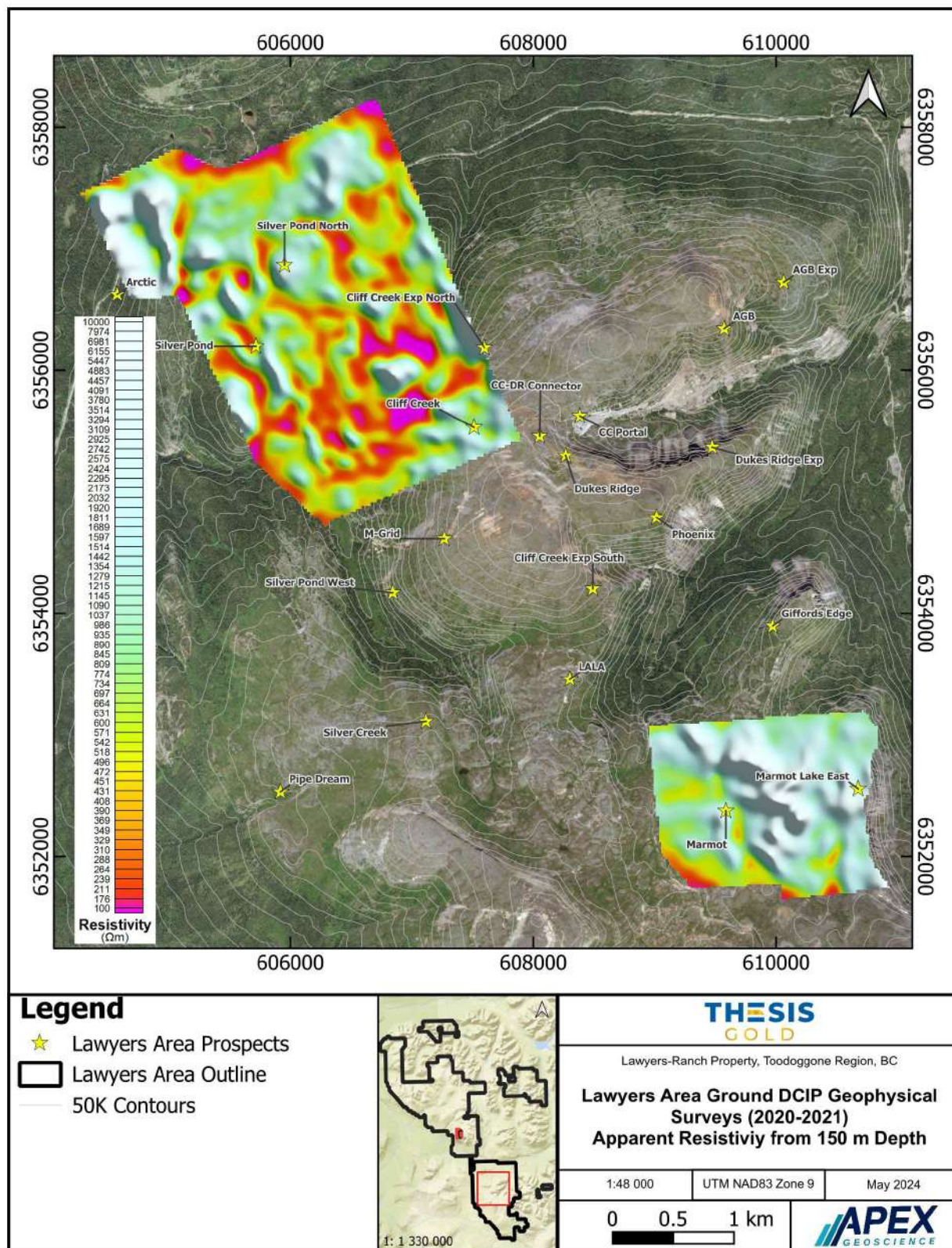


FIGURE 9.32 LAWYERS AREA DCIP APPARENT RESISTIVITY FROM 150 M DEPTH



9.11.3 2020-2023 Ranch Area GMAG Surveys

Thesis commissioned APEX to complete GMAG surveys during the 2020 to 2023 field seasons in the Ranch Area. In 2020, surveys are undertaken over the main (high-priority) mineralized zones of the Ranch Area, including the Bonanza, Ridge, Bingo, Mickey, Thesis III, Thesis II, BV, Eric and Bull Zones, then are expanded to other prospects and historically unexplored areas in the following years. The 2020 to 2023 MAG surveys totalled 1,113.25 line-km along 441 traverse lines, covering an area of ~6,458 ha in the Ranch Area (Table 9.10; Figure 9.33).

The 2020 GMAG survey was completed over 34 field data acquisition days from August 20 to September 28. The survey grid encompassed an area covering ~1,764 ha and consisted of 60 traverse lines orientated at 050°/230° and spaced 50 m apart. The survey lines are oriented perpendicular to the strike of the dominant structures within the prospective target areas. The survey line lengths are nominally 5,200 m in the northwestern area and 4,400 m in the southeastern area. The 2020 MAG survey totalled ~360 line-km (Table 9.10; Figure 9.33).

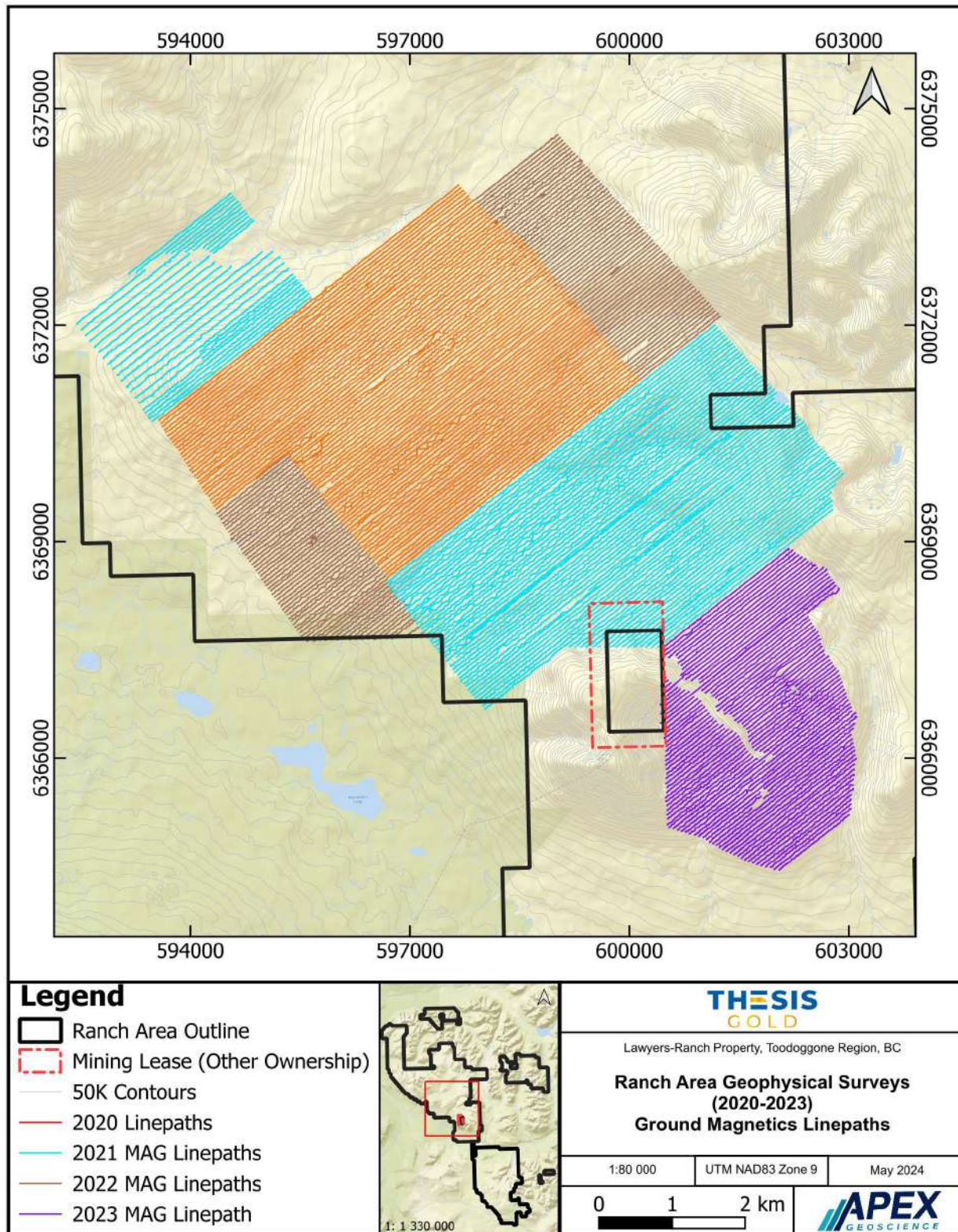
The 2021 GMAG survey was completed over 49 field data acquisition days from June 23 to September 16. The survey grid covered ~2,915 ha and consisted of 172 traverse lines orientated at 050°/230°, with lines spaced 50 m apart in all except a small portion in the northwest, where the lines are spaced at 100 m. The survey lines are oriented perpendicular to the strike of the dominant structures within the prospective target areas. The nominal survey line length was 4.50 km, with individual traverses ranging from 2.75 km in the northwest to 5.90 km in the southeast-central regions. The 2021 MAG survey totalled ~403 line-km (Table 9.10; Figure 9.33).

The 2022 GMAG survey was completed over 16 field data acquisition days from June 26 to July 14. The survey grid covered an area of ~887 ha and consisted of 75 traverse lines orientated 053°/127° at Ranch East and 65 traverse lines orientated 053°/127° at Ranch West, with lines spaced 50 m apart for each grid. The survey lines were oriented perpendicular to the strike of the dominant structures within the prospective target areas of the Ranch East and Ranch West grids. A sampling rate of one measurement per second was selected to provide nominal sample spacing along the traverse lines. The 2022 GMAG survey totalled 182 line-km (Table 9.10; Figure 9.33).

The 2023 GMAG survey was completed over 29 field data acquisition days from June 17 to August 3. The survey grid covered an area of ~892 ha and consisted of 69 traverse lines orientated 50°/230°, perpendicular to the strike of the dominant structures within the prospective target areas of the Ranch South with lines spaced 50 m apart. A sampling rate of one measurement per second for magnetic data was used on both Properties and 15 m station spacing for VLF data was selected to provide nominal sampling along the traverse lines. The 2023 GMAG survey totalled 168 line-km (Table 9.10; Figure 9.33).

A summary of all ground mag surveys completed at the Ranch Area between 2020 and 2023 is presented in Table 9.10 and Figure 9.33.

FIGURE 9.33 RANCH AREA 2020 TO 2023 GROUND MAGNETICS SURVEY LINE PATHS



9.11.3.1 Ranch Area GMAG Survey Parameters

APEX personnel used a GEM GSM-19W Overhauser walking magnetometer with an integrated GNSS receiver. The magnetometer records the total magnetic intensity readings and position of each readings using a cycle time of one second. To account for the diurnal variations in the magnetics survey data, GEM GSM-19 base magnetometers were set up at locations near the ground magnetics survey grid where the total magnetic intensity was recorded every three seconds using a clock that had been synchronized with the walking magnetometer's GNSS clock.

Overlap levelling lines are surveyed at the beginning of each day to facilitate the calculation of DC shifts that can occur between daily magnetics measurements. The DC shifts are due to changes in the base station location/sensor height, and changes in the background magnetic signature of the magnetometer and operator. By resurveying overlap lines each day and after any equipment or operator changes, a levelling correction can be calculated and used to level the daily magnetic datasets to a common magnetic datum.

9.11.3.2 Ranch Area GMAG Survey Results

GMAG results from the 2020 to 2023 surveys are presented in Figure 9.34.

GMAG at the Ranch West prospect determined low to moderate magnetic readings with several soil samples that returned high Pb and As values (Pb >200 ppm and As >100 ppm). A 70 ha area-size magnetic high was also identified coincident with soil samples anomalous in Pb and As (each >200 ppm) and Sb (>10 ppm).

A north-northeast trending linear magnetic low was identified in the Ranch West area, which appears to correspond to a nearby previously interpreted fault with same trend, along which one soil sample from 2022 assayed 250 ppb Au. There were no rock samples in the Ranch West grid area, due to a lack of outcrop.

GMAG at the Ranch East grid are generally much higher magnetic readings, than the Ranch West area. The northern portion of the Ranch East grid included many anomalous soil samples, with several assaying >200 ppb Au, and 100 to 200 ppm Pb and As values. One rock sample collected along the Eastern edge of the grid in 2020 returned 2,800 ppm Cu. The Ranch West grid area did not include any previously mapped or interpreted fault structures.

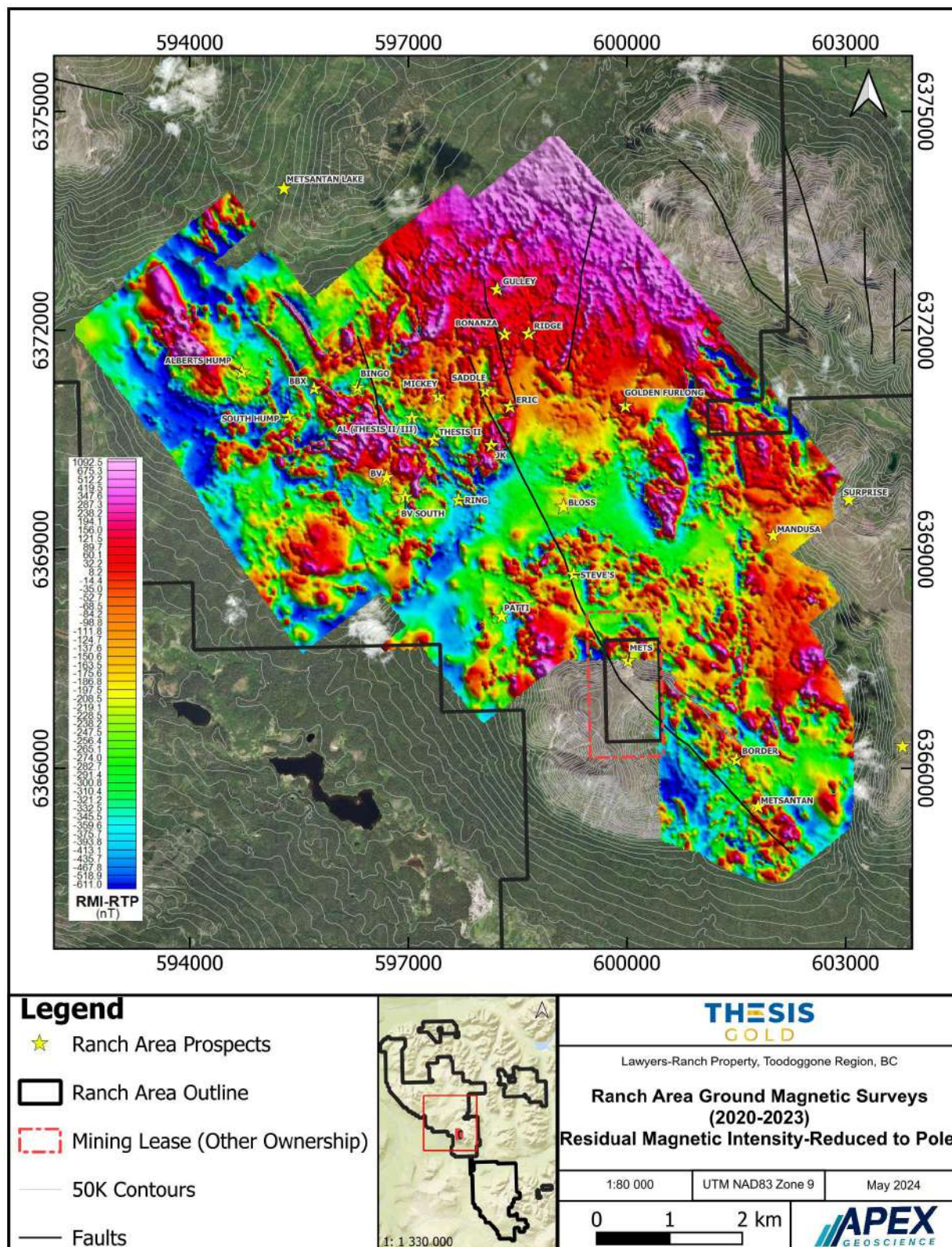
Several northeast trending high-amplitude magnetic lineaments that run through the Saddle and Ridge occurrences and the Bonanza Zone. The Bonanza core has felsic to intermediate dykes that have a moderate amplitude magnetic response and are bound by faults observed during drill core logging. These high-amplitude magnetic response lineaments are interpreted to be the late dykes observed in core, emplaced along existing faults that are potentially mineralized. The dykes highlighted by the GMAG data could help locate other deep, potentially mineralized faults, particularly where there are intersecting northwest-trending systems.

GMAG data suggest the linear northwest geophysical anomaly found on the Ranch Area extends to the south to the targeted Border and Metsantan Zones. These structures are coincident with

anomalous rock samples and soil samples, with several rock samples grade >1 Au g/t along this magnetic high trend, with soil samples showing a general linear trend along the eastern part of the 2023 soil grid along this trend and near the Metsantan and Border Zones. The geophysical data are interpreted as a fault structure. Magnetic low readings are likely due to the silicification of the faulted host rock. An additional north-south trending anomalous geophysical structure is observed in this dataset that are coincident with anomalous rock and soil samples.

Overall, the ground geophysical surveys were successful in identifying new trends to be further explored, with observed magnetic high reading coinciding with anomalous rock and soil samples. Additionally, results from GMAG extended known structures into new targeted areas in the Ranch Area.

FIGURE 9.34 RANCH AREA GROUND MAGNETICS RESIDUAL MAGNETIC INTENSITY – REDUCED TO POLE RESULTS



9.11.4 2021 Ranch Area DC-resistivity and Induced Polarization (DCIP) Surveys

In 2021, Thesis commissioned Dias Geophysical Limited to conduct a 3-D DC-resistivity and induced polarization (“DCIP”) geophysical survey at the Ranch Area. The DCIP survey was complete in 54 days, between August 11 to October 9, 2021. The program consisted of two 3-D DCIP grids (Grid 1 and Grid 2; Figure 9.35). The DCIP survey covered an area of ~1,550 ha and consisted of ~129 line-km length for both transmitter and receiver lines, along 35 lines (Table 9.10; Figure 9.35).

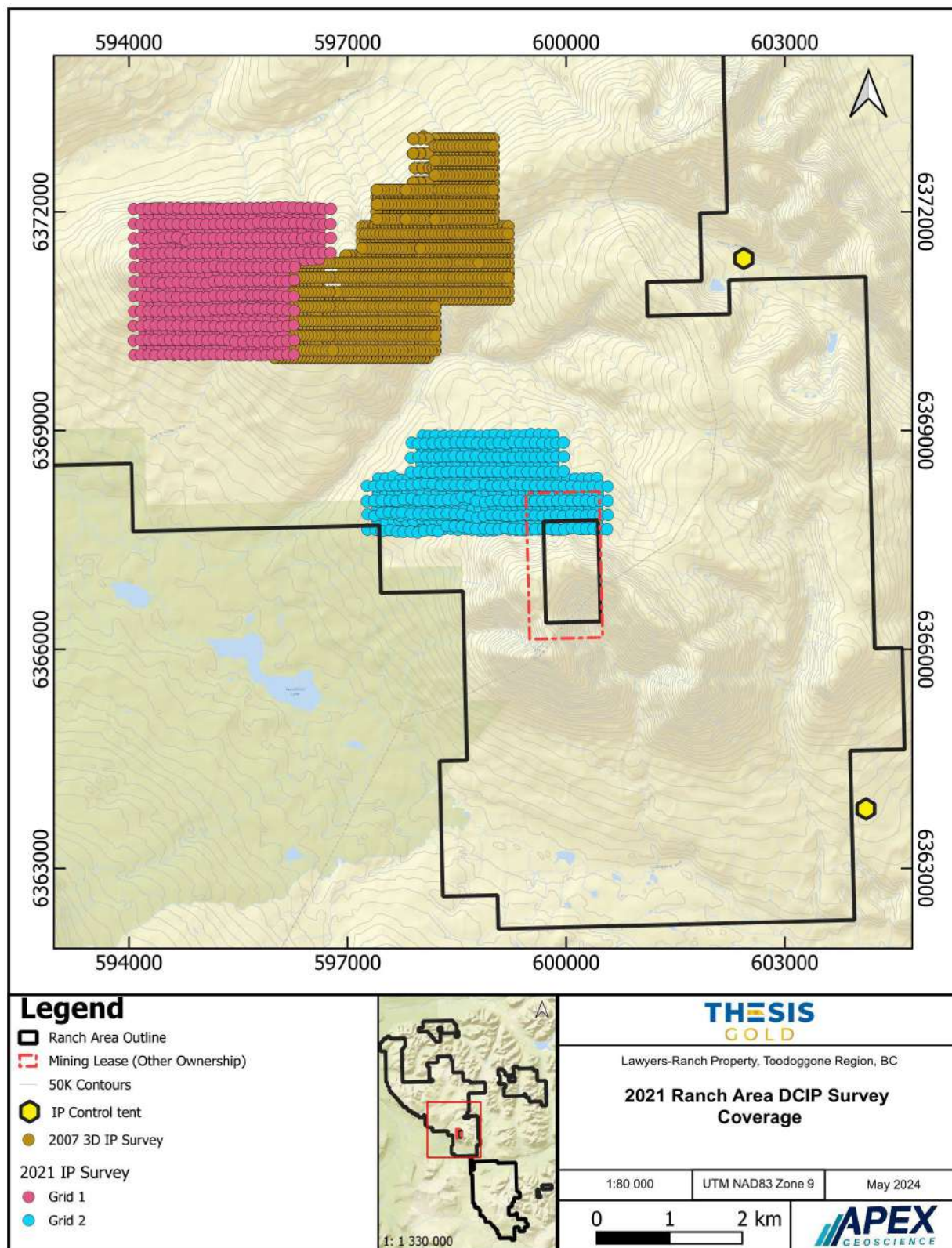
Grid 1 was located a few hundred metres west of the camp and enclosed an area of ~980 ha. The survey covered parts of several mineralized zones, specifically Albert’s Hump, North Ranch, BBX, Bingo, Mag, and BV Zones. The survey comprised 21 lines varying between 2 and 2.5 km in length, spaced 100 m apart and oriented east-west at azimuth 90°. Total line-km for the receiver and transmitter lines were ~43 and 26 km, respectively.

Grid 2 was located ~1.8 km southeast of Grid 1 and enclosed an area of ~570 ha, situated in part over the Patti and Steve’s mineralized zones. The survey consisted of 14 lines varying between 1.90 and 3.05 km in length, spaced 100 m apart and oriented east to west. Total line-km for the receiver and transmitter lines were ~35 and 20 km, respectively.

A summary of the DCIP survey completed at the Ranch Area is presented in Table 9.10.

Dias also carried out merged DC and IP inversions of the Grid 1 dataset with a dataset produced by SJ Geophysics Ltd. in 2007. The previous survey spanned an area directly east of and slightly overlapping Grid 1 from 2021.

FIGURE 9.35 RANCH AREA 2021 DCIP SURVEY COVERAGE



9.11.4.1 Ranch Area DCIP Surveys Parameters

The 3-D surveys were completed using a rolling distributed partial 3-D DCIP array with a pole-dipole configuration in CVR mode.

The survey progressed from north to south and all survey lines are used for signal reception. Current was injected every second line at the midpoint between consecutive receiver stations starting with the northernmost, L 5700N, and ending with the southernmost, L3700N for Grid 1, and starting with the southernmost L1300N and ending with L2500N. Receiver and transmitter stations are spaced 100 m apart along the lines with a 50 m station shift. Whenever access permitted, an additional current injection was carried out at 100 m spacing off either ends of the lines to improve depth of investigation along the edges of the grid.

9.11.4.2 Ranch Area DCIP Surveys Results

Interpreted 2021 DCIP Resistivity and Chargeability data, at 100 m depth, are illustrated in Figure 9.36 and Figure 9.37.

The DCIP survey revealed several prospective relationships. At Albert's Hump, the combination of a resistivity high and GMAG low suggests silicification at depth. In the Patti and Steve's Zones, a high resistivity and chargeability signature is potentially related to a large intrusive body at ~300 m depth that has altered the surrounding country rock. Known mineralized zones with vuggy silica are associated with a low amplitude magnetic response, and high resistivity and chargeability signatures.

FIGURE 9.36 RANCH AREA INTERPRETED DCIP APPARENT RESISTIVITY AT 100 M DEPTH

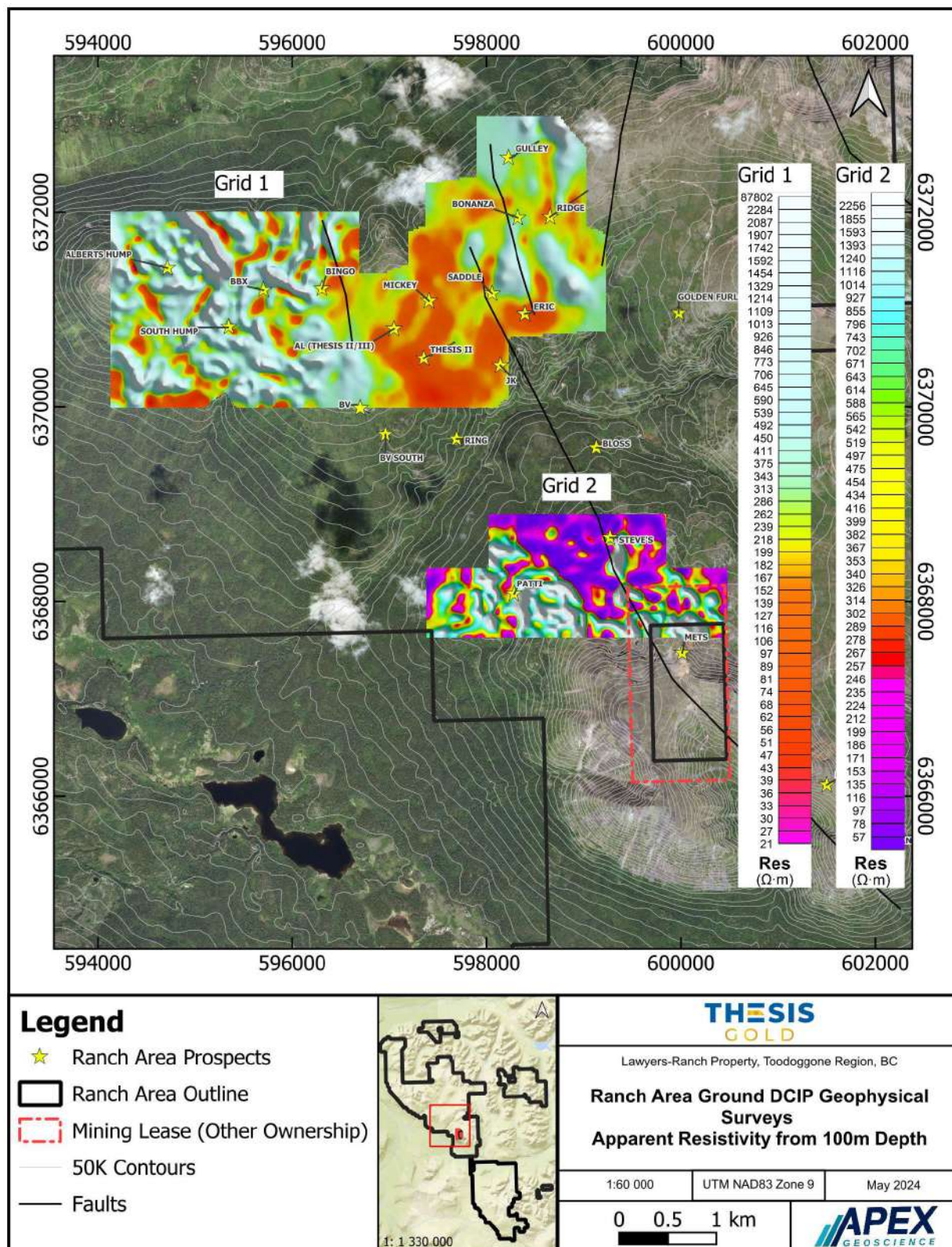
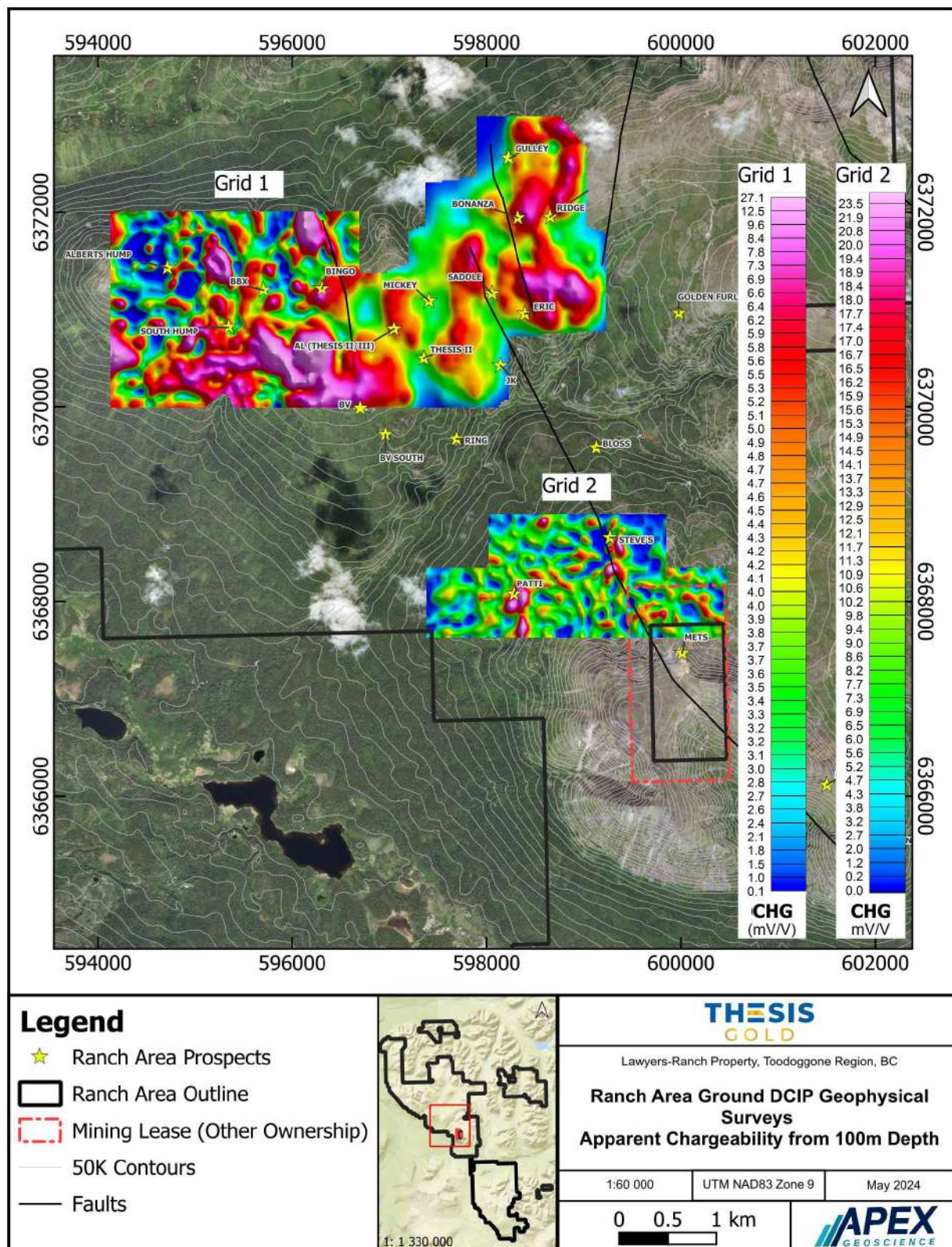


FIGURE 9.37 RANCH AREA INTERPRETED DCIP APPARENT CHARGEABILITY AT 100 M DEPTH



9.12 ADDITIONAL GEOPHYSICS INTERPRETATIONS

9.12.1 Ranch Area Magnetism Structural Interpretation by SRK Consulting Canada Inc.

In March 2023, Thesis commissioned SRK Consulting (Canada) Inc. (“SRK”) to complete a structural geology interpretation of airborne and ground magnetic data covering the Ranch Area. This structural interpretation from Craggs and Hrabí (2023a) builds on a previous field-based mapping study completed by SRK during the 2022 field season (Craggs and Hrabí, 2023b). The scope of work for this assignment included a desktop structural geological interpretation of GMAG and airborne magnetic (“AMAG”) data. The interpretation was primarily based on the GMAG survey acquired by Thesis in 2021 and is augmented by regional AMAG data.

The GMAG survey covers an area of ~4,000 ha and the AMAG covers an area of ~18,500 ha. The AMAG datasets were exported as Geosoft grid files for additional processing in ER Mapper v.20™ software. Prior to the interpretation, the grids are compiled, and a series of compressed raster images are created in ERMMapper™ for each dataset, including colour-draped and shaded images, manipulating the profile of the data to enhance the structures present. The structural interpretations were built in 2-D in ArcGIS Pro 2.9.5 and are primarily based on interpretation of the district-scale Reduced-to-Pole Vertical Derivative (“RTP-VD”) dataset, and the regional scale Calculated Vertical Gradient (“CVG”) dataset. Residual magnetic intensity (RMI) images are used to augment the RTP-VD and CVG data.

9.12.1.1 SRK Structural Interpretation Conclusions

The structural geology interpretation of the airborne magnetic datasets followed a process involving four stages:

- **Stage 1:** Tectono-stratigraphic form lines are drawn using the district-scale RTP-VD data at a resolution of 1:15,000 and regional-scale CVG data at a resolution of 1:30,000. These form lines trace the geometry of tectono-stratigraphy (bedding and (or) foliation) within volcanic and sedimentary rocks or the internal fabric (foliation) within intrusive rocks. Discontinuities between form lines, particularly between stratigraphic form lines (e.g., intersecting form lines) highlight structures (faults, folds), unconformities, or intrusive contacts;
- **Stage 2:** A structural base layer was drawn representing all faults regardless of interpreted age, style (e.g., brittle versus ductile), or kinematics;
- **Stage 3:** Age relationships and cross cutting relationships are defined between different groups of structures. This work incorporated knowledge of the structural history of the Project area; and
- **Stage 4:** The estimated scale of structures (fault order and length) was defined. Three generations of faults (D1 to D3) are identified in the AMAG and GMAG data.

These generations correlate well with observations made in Craggs and Hrabí (2023a) report on field studies (Figure 9.38).

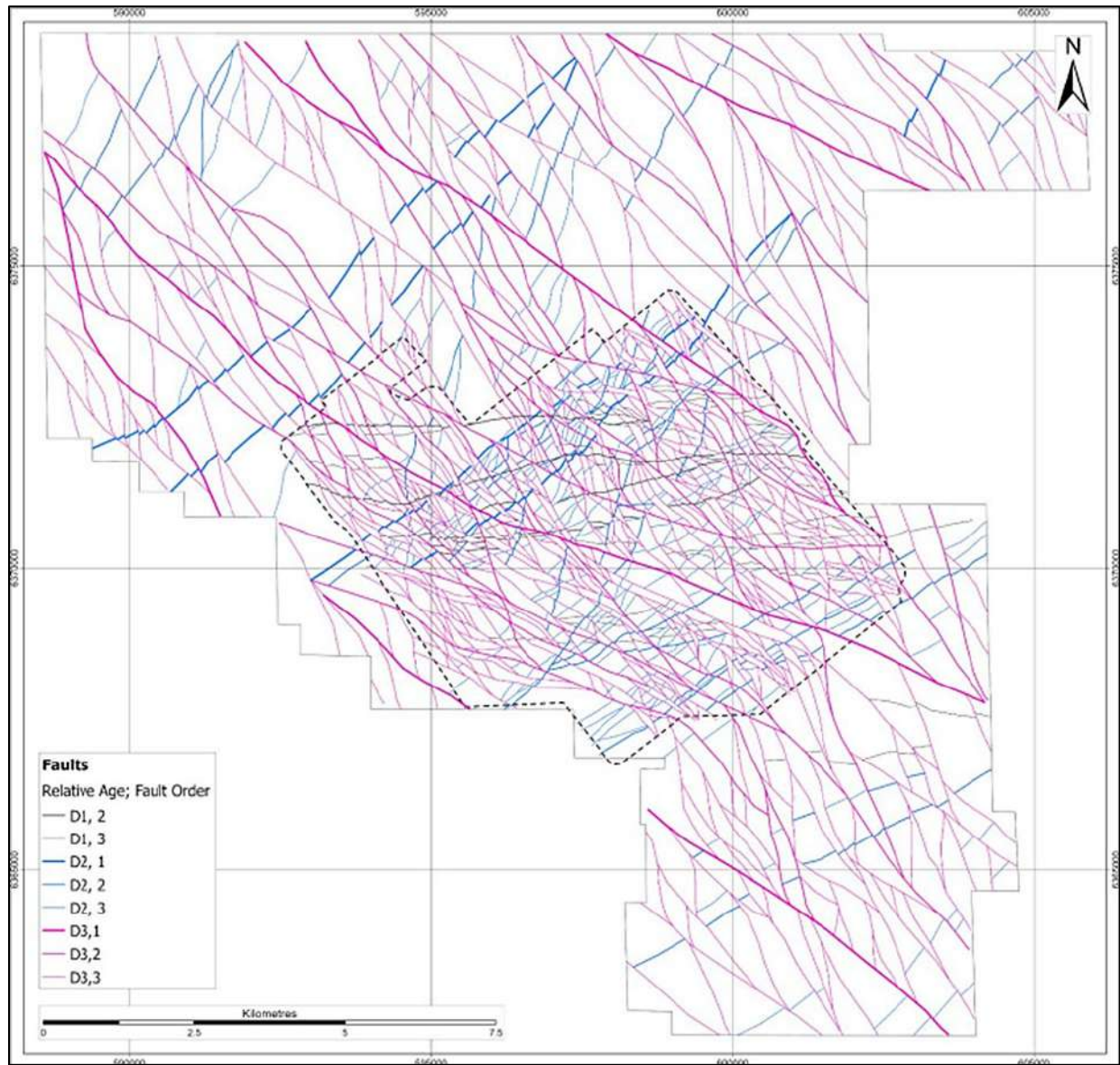
Three generations of faults (D1 to D3) are identified in the magnetic data, which correlate well with observations made in Craggs and Hrabí (2023a) report on field studies (Figure 9.38):

- D1 faults are curvilinear, east - to north-northeast (rare) trending structures and are rare in the interpretation and only defined in the area covered by GMAG. Further interpretation needed to confirm accurate amount of D1 faults;
- D2 faults are linear northeast- trending structures and are commonly observed in clusters along narrow (~500 m wide) corridors. First-order D2 faults are northeast-trending;
- 2nd-order and, to a lesser extent, 3rd-order faults have a bimodal distribution with northeast- and north-northeast - trending faults present; and
- D3 faults are the most abundant structures in the interpretation and evenly distributed across the Ranch Area. These structures form an anastomosing network of southeast- to east-southeast-trending faults. 1st order D3 faults were southeast-trending and have a spacing of between 3 and 4 km, 2nd order faults range in orientation between southeast- and south-southeast-trending, and 3rd order faults trend south-southeast.

Previous work by SRK in 2022 (Craggs and Hrabí, 2023a) determined that mineralization was temporally and geometrically controlled by D3, but was spatially controlled by the intersection of D2 and D3 faults. D3 is associated with dextral kinematics and north to north-northwest shortening. Therefore, shortening-parallel (south- to south-southeast-trending) D3 structures would provide the greatest potential for dilation and mineral precipitation.

The highest density of prospective D3 faults occur in the Bonanza Zone and to the northwest of the Bonanza Zone, with moderately high densities present throughout the North Ranch Zone and toward the south. Intersections of the D2 and D3 fault sets show a strong northeast-trend that is controlled by the location of D2 structural corridors. The highest densities of intersections occur along a northeast-trending corridor from the Albert's Hump and Mag Zones in the southwest to the Tuff Peak Zone in the northeast; however, moderate to high densities also occur in the Ring, Golden Furlong, Patti, and Steve Zones.

FIGURE 9.38 RANCH AREA FAULT INTERPRETATION BY RELATIVE AGE



Source: Craggs and Hrabi (2023a)

10.0 DRILLING

Thesis has completed significant diamond (“DDH”) and reverse circulation (“RC”) drilling programs at the Lawyers-Ranch Property. Drilling took place in the Lawyers Area from 2018 to 2023 and from 2021 to 2023 in the Ranch Area. To date, the Lawyers-Ranch drill hole databases include information for 2,261 drill collar records (1,412 Lawyers and 849 Ranch), of which 902 (442 Lawyers and 460 Ranch) are historical and 1,359 (970 Lawyers and 389 Ranch) have been completed by Thesis. Discussions of data QAQC and validation are provided in Sections 11 and 12 of this Report.

Drilling at the Lawyers-Ranch Property has been discussed in detail in previous Technical Reports by Church *et al*, (2022) and Turner and Hough (2023) for the Lawyers and Ranch Areas, respectively. This section summarizes drilling discussed in the previous reports and provides a more detailed discussion of the new (previously unreported) drilling completed on the Property.

10.1 HISTORICAL DRILLING

The historical drill hole database for the Property dates to 1965 and consists of 902 drill holes (442 Lawyers and 460 Ranch) totalling 94,158 m of drilling (55,334 m at Lawyers and 38,824 m at Ranch). A summary of historical drilling completed on the Lawyers and Ranch Areas is summarized below, with additional details described in Section 6 (History). A discussion of historical drilling validation and any limitations or uncertainty is provided in Sections 12 and 14 of this Report.

10.1.1 Lawyers Area Historical Drilling

The historical drill hole database for the Lawyers Area contains 442 drill holes totalling 55,334 m of drilling (Table 10.1). Most of the work was completed in the 1980s by Kennco and Cheni, and contributed to the development of the Cheni Gold Mine, which included development at the AGB, Cliff Creek, Dukes Ridge, and Phoenix Zones. Following the Closure of the Cheni Mine, the Lawyers Area saw minimal sporadic exploration drilling from 1990 to 2018, when it was acquired by Thesis.

TABLE 10.1
SUMMARY OF THE LAWYERS AREA HISTORICAL DRILLING

Year	Area	Company	Type	Drill Core Size	Quantity	Metres Drilled	Metres Sampled	Target Zones
1965	Lawyers	-	Diamond	-	1	99.0	-	Marmot Lake
1974-1975	Lawyers	Kennco Exploration	Diamond	BQ	11	1,166.6	1014.8	AGB, Cliff Creek
1979-1985	Lawyers	Serem Ltd.	Diamond	BQ	193	21,166.1	5203.3	AGB, Cliff Creek, Duke's Ridge, Phoenix
1985	Lawyers	St. Joe Canada / Imperial Metals Corp. JV	Diamond	-	29	3,003.2	1,239.8	Cliff Creek, Silver Pond Clay, Silver Pond West, Silver Ridge-Creek
1987	Lawyers	St. Joe Canada / Nexus Resource Corp. JV	Diamond	NQ	96	12,802.7	5,706.8	Cliff Creek, Silver Creek, Silver Pond Clay, Silver Pond North, Silver Pond West
1987	Lawyers	Cheni Gold Mines Inc.	Diamond	-	2	516.9	159	Cliff Creek
1988	Lawyers	Bond Gold Canada Inc. / Nexus Resources Corp. JV	Diamond	NQ	17	3,729.3	860.1	Cliff Creek, Silver Creek, Silver Pond North, Silver Pond West
1990-1992	Lawyers	Cheni Gold Mines Inc.	Diamond	BQ	57	7,340.3	1,967.7	Cliff Creek, Dukes Ridge, Phoenix
2005-2006	Lawyers	Bishop Gold Inc.	Diamond	NQ	10	1,508.1	1,142.3	Cliff Creek
2015	Lawyers	PPM Phoenix Precious Metals Corp.	Diamond	HQ	26	4,001.6	3,692.8	Cliff Creek, Dukes Ridge

10.1.2 Ranch Area Historical Drilling

The historical drill hole database for the Ranch Area contains 460 drill holes totalling 38,824 m of drilling (Table 10.2). Much of the work was completed in the 1980s by Energex and was focused on the Bonanza, Thesis II, Thesis III and BV Zones, where drilling led to the completion of historical mineral resource estimates, and subsequent open pit mining by Cheni, who trucked the mineralized material to the Cheni Mine (Lawyers Area) for processing. Upon closure of the Cheni Mine, additional exploration drilling was undertaken at the Bonanza and Thesis II/III Zones by AGC (1997), Bishop Gold (2003), and finally Christopher James in 2007, which was the final drill program completed in the Ranch Area until its acquisition by Thesis in 2021.

TABLE 10.2 SUMMARY OF THE RANCH AREA HISTORICAL DRILLING								
Year	Area	Company	Type	Drill Core Size	Quantity	Metres Drilled	Metres Sampled	Target Zones
1982	Ranch	Kidd Creek Mines Ltd.	Diamond	NQ	12	1,699.5	1,521.7	Alberts Hump, Bonanza, Golden Furlong, Ridge
	Ranch	Lacana Mining Corp.	Diamond	NQ	5	611.4	569.3	Metsantan
1984	Ranch	Kidd Creek Mines Ltd.	Diamond	NQ	19	1,210.3	593.9	Bonanza, BV, Ridge, Thesis II, Thesis III
1985-1988	Ranch	Energex Minerals Ltd.	Diamond	HQ/NQ	308	20,386.6	5,632.0	Bingo, Bonanza, Bonanza South, BV, JK, Thesis II, Thesis III
1986	Ranch	Lacana Mining Corp.	Diamond	BQ	5	615.7	358.0	Patti
1990	Ranch	Cheni Gold Mines Inc.	Diamond	-	24	2,740.0	0.0	BV
1997	Ranch	Americas Gold Corp. / Antares Mining and Exploration Corp. JV	Diamond	HQ/NQ/BTW	25	3,030.1	2,572.6	Bonanza, BV
2003	Ranch	Bishop Resources Inc.	Diamond	BTW	10	712.0	344.7	Bonanza
2006-2007	Ranch	Guardsmen Resources Inc.	Diamond	HQ/NQ2	52	72,118.7	4,072.8	Bonanza, Mickey, Thesis II, Thesis III

10.2 LAWYERS AREA MINERAL RESOURCE DRILLING

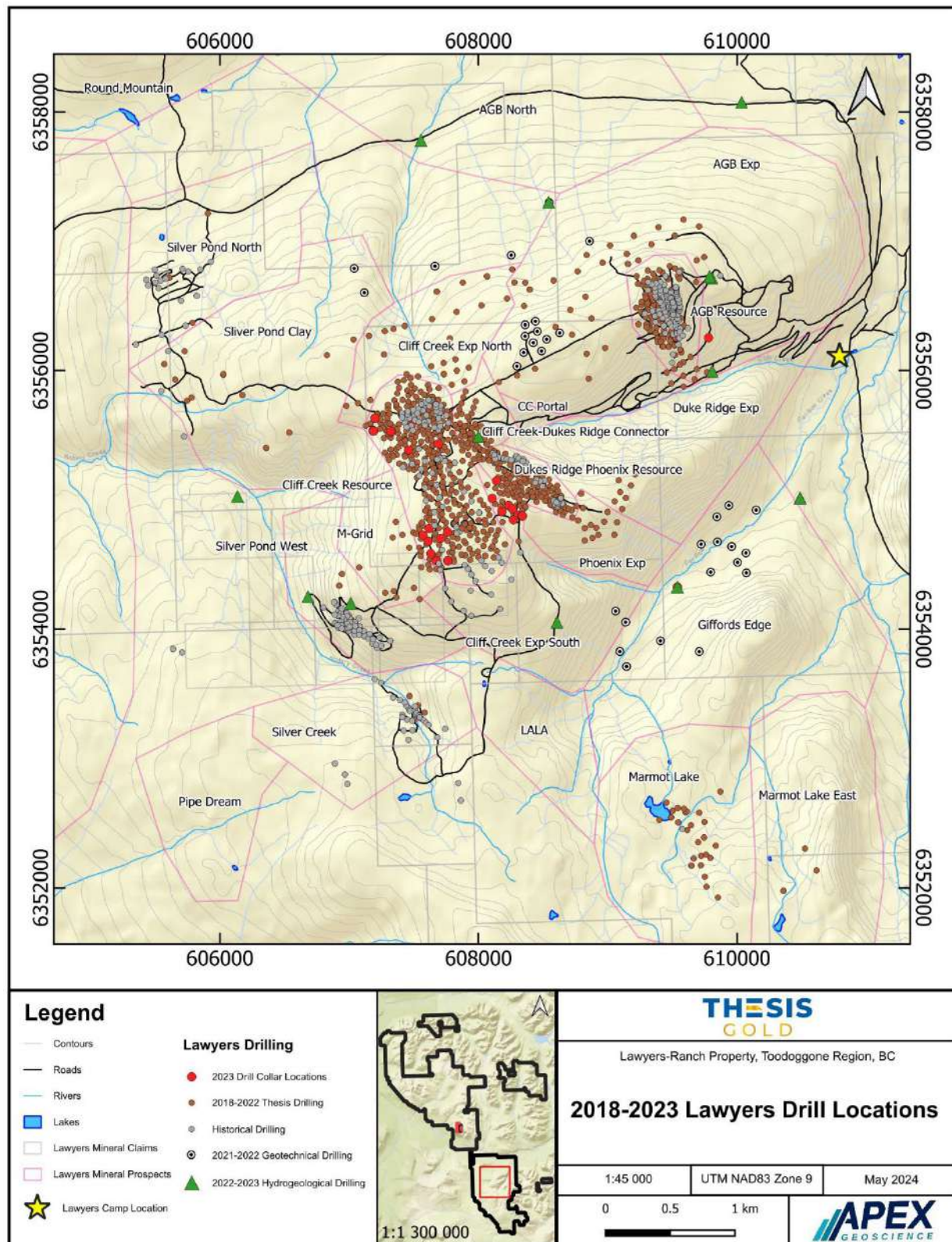
Consecutive annual drill programs have been completed by Thesis in the Lawyers Area from 2018 to 2023, totalling 970 drill holes (646 DDH, 322 RC, and 2 RC/DDH combination “RD”) for 229,622 m (185,101 m DDH, 43,922 RC, and 599 m RD), resulting in the collection of 176,633 samples totalling 222,809 m. Drilling was focused largely on the Cliff Creek, Dukes Ridge, AGB and Phoenix Zones, which comprise the current Lawyers Mineral Resource area (see Section 14). Additional exploration drilling has been completed at the Marmot, Silver Pond Clay, Silver Pond North, Silver Pond West, Silver Creek, and M-Grid Prospects (see section 10.4) and a series of geotechnical and water monitoring drill holes were completed at Lawyers in support of environmental and engineering studies (see section 10.5).

Throughout the 2018 to 2023 period, Lawyers area drill hole collar locations were spotted (located) using a handheld GPS and were oriented/sighted using a compass (2018) or a digital GPS drill alignment tool, DeviSight (2019 to 2022) or Reflex TN14 (2021 to 2023). Collar information, including the initial drill hole azimuth and dip, were entered into digital data loggers by an attending drill geologist who was responsible for final drill alignment. Diamond drill holes were surveyed downhole every 30 m using a Reflex EZ shot (2018 to 2020), Champ Gyro (2020 to 2021) or Reflex Sprint IQ gyro (2022 to 2023). There was no downhole survey completed on the 2018 RC holes; however, those drill holes were generally shallow (22.9 to 181.0 m deep), and therefore no significant deviation was likely. Downhole surveys were completed on the 2020 to 2021 RC drill holes following the completion of each drill hole (prior to removal of drill rods) using a specialized gyro survey instrument. Following the completion of each drill hole, a stake marked with the drill hole name and orientation was placed in the drill hole and final collar locations were determined using the Real-Time Kinematic Differential Global Positioning System (RTK DGPS) survey instrument with cm scale accuracy relative to the established Geodetic Control Monument at AGB.

Most drilling in the Lawyers Area was completed using NQ, HQ, and PQ drill core diameters. The HQ and PQ drill core sizes were specifically utilized in areas where additional drill hole stability or large drill core diameter was required, such as drilling through underground workings (Cliff Creek and AGB Zones) and for geotechnical study and metallurgical sampling purposes.

A summary of drilling by prospect is discussed below and drill hole locations are presented in Figure 10.1.

FIGURE 10.1 LAWYERS AREA DRILLING 2018 TO 2023



10.2.1 AGB Zone

Drilling by Thesis at the AGB Zone commenced in 2019 and to date totals 195 drill holes (129 DDH and 66 RC) totalling 39,360 m (28,582 m DDH and 10,778 m RC) with 37,323 m sampled. A summary of drilling by year is provided in Table 10.3.

TABLE 10.3 SUMMARY OF AGB DRILLING 2019-2023					
Year	Type	Drill Core size	Quantity	Metres Drilled	Metres Sampled
2019	Diamond	HQ/NQ2	10	2,748.95	1,740.39
2020	Diamond	HQ/NQ2	60	12,335.31	11,933.05
	RC	-	42	7,237.52	7,217.74
2021	Diamond	PQ3, HQ, NQ2	58	13,189.68	12,619.93
	RC	-	24	3,540.25	3,509.77
2023	Diamond	NQ2	1	308.00	302.00

The goal of AGB drilling was to define mineralization, assess the extent and position of historical mine workings, and expand the mineralization used to define the Mineral Resource Estimate. Anomalous gold-silver mineralization was intersected in 154 drill holes, confirming and expanding mineralization in the AGB Main, South and West Zones. These Zones are steeply-dipping, are oriented to the northwest, and are controlled by major structures. The styles of mineralization observed at AGB are discussed in Section 7. Drilling around the historical workings confirmed their locations and identified areas where high-grade material was not previously mined-out. Drilling highlights for the 2019 to 2021 programs at AGB are presented in Table 10.4.

TABLE 10.4 2019-2021 AGB ZONE DRILLING HIGHLIGHTS		
Year	Hole ID	Results
2019	19AGBDD002	1.15 g/t Au and 30.5 g/t Ag over 68.00 m
2021	21AGBDD040	81.40 g/t Au and 668.0 g/t Ag over 1.00 m
2021	21AGBDD045	60.14 g/t Au and 236.4 g/t Ag over 3.08 m
2021	21AGBDD054	41.60 g/t Au and 143.0 g/t Ag over 1.00 m

The 2023 drilling at AGB consisted of a single 308 m drill hole (23AGBDD001), which evaluated a coincident chargeability/resistivity geophysical IP anomaly identified by the 2021 survey. Drill hole 23AGBDD001 did not encounter any significant mineralization and returned only one assay of interest. The drill hole encountered a 1.0 m intersection grading 0.65 g/t Au and 3.1 g/t Ag. The IP anomaly is attributed to disseminated magnetite present throughout the unaltered host rock. To date, the AGB Zone extends to 900 m along strike and to 400 m at depth.

10.2.2 Cliff Creek Zone

Drilling by Thesis at the Cliff Creek Zone has been ongoing since 2018. To date, Thesis drilling at Cliff Creek totals 449 drill holes (297 DDH 150 RC, and 2 RD) for 105,298 m (85,168 m DDH, 19,530 m RC, and 599 m RD) with 102,774 m sampled. A summary of drilling by year is provided in Table 10.5. Drilling connecting the historically defined main Cliff Creek and Dukes Ridge Zones has been referred to as the “Connector” or “Cliff Creek East” Zone, and is included within the Cliff Creek and Dukes Ridge drilling discussed below.

TABLE 10.5 SUMMARY OF CLIFF CREEK DRILLING 2018 TO 2023					
Year	Type	Drill Core size	Quantity	Metres Drilled	Metres Sampled
2018	Diamond	NQ2	4	856.92	673.73
	RC	-	14	1,222.23	1,219.19
2019	Diamond	HQ/NQ2	26	5,949.76	5,211.46
2020	Diamond	NQ2	109	18,264.83	18,040.57
	RC/DD	NQ2	2	599.20	599.20
	RC	-	89	12,641.68	12,627.98
2021	Diamond	NQ2	109	36,623.60	35,587.73
	RC	-	47	5,666.22	5,655.55
2022	Diamond	NQ2	20	8,050.26	7,944.26
2023	Diamond	NQ2	29	15,423.00	15,214.30

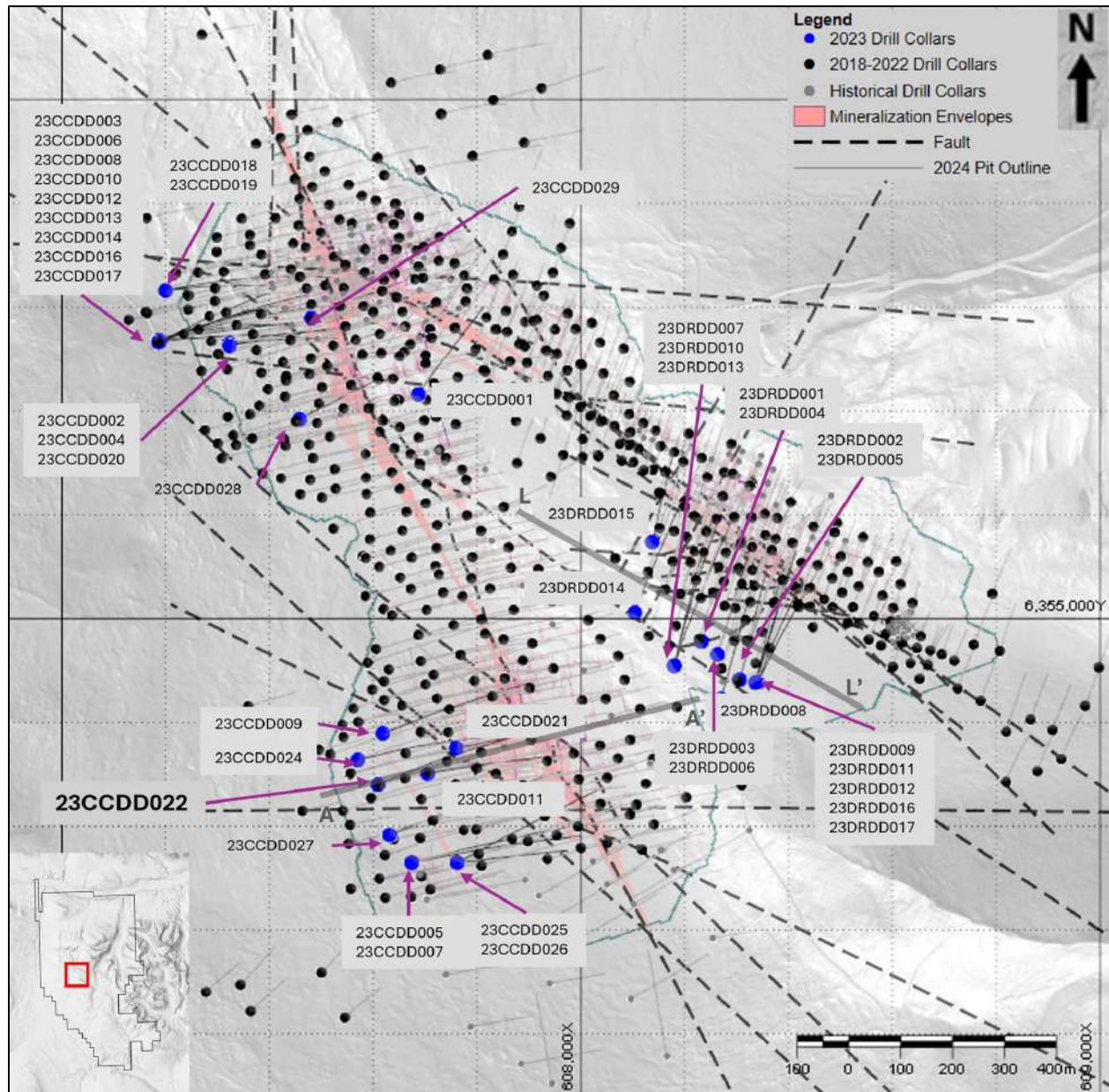
The 2018 to 2022 Cliff Creek drilling focused on confirming existing mineralization, delineating mineralized structures, expanding the mineralization along strike and at depth, and testing connectivity with the Dukes Ridge Zone. Anomalous gold and silver mineralization was encountered in 378 drill holes. The 2018 to 2022 drilling confirmed the presence of significant gold-silver mineralization, including bulk tonnage style mineralization with localized high-grade mineralization, and the continuity between mineralized zones, with the Connector Zone connecting Dukes Ridge to the Cliff Creek Main Zone. Drilling highlights for the 2018 to 2022 programs at Cliff Creek are presented in Table 10.6. The styles of mineralization and structures controlling the mineralization at Cliff Creek are described in Section 7.

TABLE 10.6 2018 TO 2022 CLIFF CREEK ZONE DRILLING HIGHLIGHTS		
Year	Hole ID	Results
2018	18CCDD004	3.17 g/t Au and 40.8 g/t Ag over 7.00 m
2019	19CCDD010	4.39 g/t Au and 43.5 g/t Ag over 12.97 m
2020	20CCDD071	6.25 g/t Au and 273.4 g/t Ag over 17.00 m
2020	20CCDD076	26.65 g/t Au and 831.0 g/t Ag over 2.00 m
2021	21CCDD047	89.50 g/t Au and 154.0 g/t Ag over 1.02 m

TABLE 10.6 2018 TO 2022 CLIFF CREEK ZONE DRILLING HIGHLIGHTS		
Year	Hole ID	Results
2021	21CCDD085	105.50 g/t Au and 389.0 g/t Ag over 1.00 m, and 77.9 g/t Au and 1,675 g/t Ag over 0.49 m
2022	22CCDD007	136 g/t Au and 76.9 Ag g/t Ag over 1.00 m
2022	22CCDD014	37.10 g/t Au and 1,845 g/t Ag over 0.41 m.

Drilling at Cliff Creek completed in 2023 focused on deep drilling to further delineate and expand the underground (below-pit) Mineral Resources. The 2023 drill program consisted of 29 diamond drill holes totalling 15,464 m, of which 15,214 m was sampled (Table 10.7 and Figure 10.2).

FIGURE 10.2 2023 CLIFF CREEK AND DUKES RIDGE DRILL HOLE LOCATIONS



Source: Modified from Thesis (2024a)

TABLE 10.7
2023 CLIFF CREEK DRILL HOLES

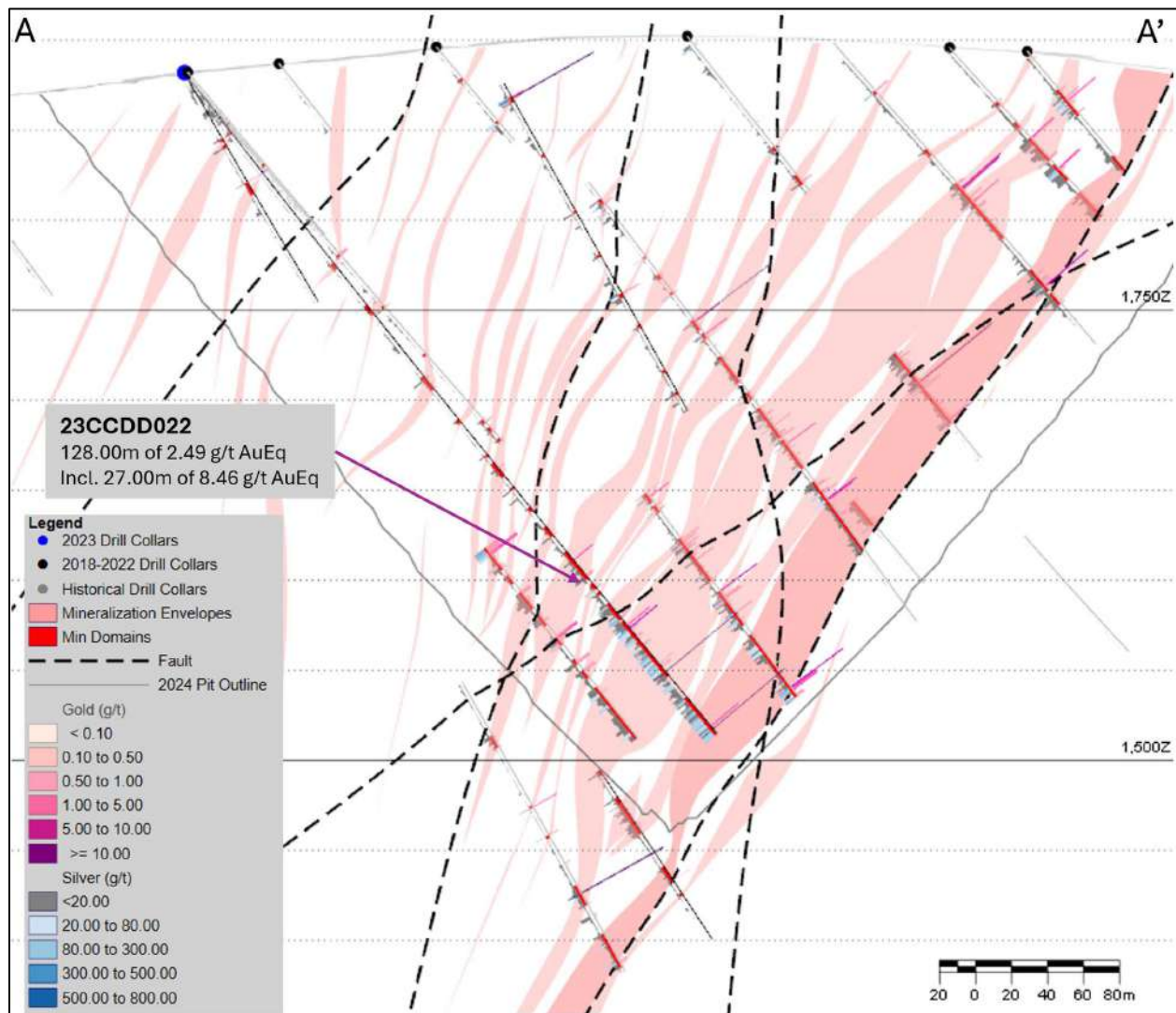
Drill Hole ID	Easting (NAD83Z9)	Northing (NAD83Z9)	Elevation (masl)	Azimuth (°)	Dip (°)	Depth (m)	Drill Type	Drill Core Size	Metres Sampled
23CCDD001	607,686.84	6,355,432.25	1,843.83	33.5	-49.7	330	DD	NQ2	324.81
23CCDD002	607,323.25	6,355,525.34	1,795.09	80.0	-60.6	581	DD	NQ2	575.45
23CCDD003	607,188.66	6,355,532.80	1,759.30	63.3	-66.7	611	DD	NQ2	600.40
23CCDD004	607,323.57	6,355,529.62	1,794.95	84.5	-65.4	521	DD	NQ2	515.19
23CCDD005	607,674.38	6,354,529.98	1,879.98	73.4	-57.7	581	DD	NQ2	576.15
23CCDD006	607,188.60	6,355,532.22	1,759.25	67.8	-58.6	581	DD	NQ2	566.67
23CCDD007	607,674.17	6,354,529.61	1,879.98	78.3	-51.9	560	DD	NQ2	555.20
23CCDD008	607,186.14	6,355,532.71	1,759.36	68.5	-62.0	602	DD	NQ2	588.72
23CCDD009	607,618.34	6,354,778.63	1,878.38	68.7	-50.8	479	DD	NQ2	473.00
23CCDD010	607,187.12	6,355,536.09	1,759.30	74.5	-56.5	620	DD	NQ2	605.00
23CCDD011	607,704.76	6,354,701.25	1,891.61	79.8	-57.3	500	DD	NQ2	495.23
23CCDD012	607,186.74	6,355,535.88	1,759.30	74.8	-67.3	620	DD	NQ2	609.30
23CCDD013	607,186.84	6,355,536.46	1,759.26	71.6	-66.3	608	DD	NQ2	596.60
23CCDD014	607,187.46	6,355,535.43	1,759.21	82.1	-65.3	641	DD	HQ	629.00
23CCDD015	607,186.64	6,355,536.76	1,759.26	70.1	-72.7	41	DD	NQ2	599.00
23CCDD016	607,186.71	6,355,531.85	1,759.38	70.3	-72.5	611	DD	NQ2	608.00
23CCDD017	607,188.64	6,355,533.91	1,759.36	84.7	-59.5	620	DD	NQ2	695.00
23CCDD018	607,199.91	6,355,632.05	1,780.22	80.1	-61.2	701	DD	NQ2	617.35
23CCDD019	607,198.94	6,355,631.61	1,780.14	81.9	-69.3	623	DD	NQ2	572.35
23CCDD020	607,321.34	6,355,530.10	1,794.72	77.9	-70.1	581	DD	NQ2	419.57
23CCDD021	607,759.89	6,354,750.70	1,896.88	77.9	-60.0	422	DD	NQ2	536.00
23CCDD022	607,609.63	6,354,680.49	1,881.98	66.8	-52.2	542	DD	NQ2	559.35
23CCDD023	607,609.40	6,354,679.85	1,881.99	75.7	-60.1	566	DD	NQ2	566.00

TABLE 10.7
2023 CLIFF CREEK DRILL HOLES

Drill Hole ID	Easting (NAD83Z9)	Northing (NAD83Z9)	Elevation (masl)	Azimuth (°)	Dip (°)	Depth (m)	Drill Type	Drill Core Size	Metres Sampled
23CCDD024	607,570.31	6,354,728.05	1,873.79	76.3	-57.0	572	DD	NQ2	554.52
23CCDD025	607,761.78	6,354,529.33	1,885.89	82.7	-67.5	560	DD	NQ2	485.61
23CCDD026	607,761.09	6,354,530.36	1,886.00	62.8	-50.0	491	DD	NQ2	575.49
23CCDD027	607,631.45	6,354,583.26	1,884.97	68.7	-55.0	578	DD	NQ2	331.80
23CCDD028	607,458.39	6,355,384.54	1,837.71	64.1	-58.6	332	DD	NQ2	383.54
23CCDD029	607,480.83	6,355,578.77	1,812.32	66.1	-59.3	389	DD	NQ2	324.81

In the 2023 drilling, anomalous gold and silver mineralization was encountered in 28 drill holes. Drill hole 23CCDD022 intersected a broad interval of moderate mineralization that averaged 1.97 g/t Au and 41.7 g/t Ag over 128.00 m, including a narrow high-grade zone of 316.0 g/t Au and 881.0 g/t Ag over 0.6 m (Figure 10.3). This broad zone includes two intervals of waste, totalling 5 and 8 m, respectively. Drill hole 23CCDD023 intersected two broad zones of mineralization that averaged 1.12 g/t Au and 9.2 g/t Ag over 69.33 m and 0.84 g/t Au and 105.0 g/t Ag over 59.00 m. Drill hole 23CCDD018 intersected 1.86 g/t Au and 66.2 g/t Ag over 28 m, including 17.43 g/t Au and 589.40 g/t Ag over 2.08 m. Drill hole 23CCDD009 intersected a zone of 1.10 g/t Au and 50.0 g/t Ag over 66.53 m. These drill holes helped to better define both a broad zone of mineralization and a high-grade core zone at depth. Mineralization and major structures were intersected where expected, based on previous modelling at Cliff Creek. Mineralization at Cliff Creek has been traced along strike for 1,600 m and to a vertical depth of 650 m. Drilling highlights from the 2023 Cliff Creek Deposit are summarized below in Table 10.8 (Thesis, 2024a).

FIGURE 10.3 CLIFF CREEK CROSS-SECTIONAL PROJECTION A-A' LOOKING NORTH-NORTHWEST



Source: Modified from Thesis (2024a)

Drill Hole ID	From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)	AuEq (g/t)*
23CCDD009	58.00	65.00	7.00	0.63	6.1	0.7
and	380.00	446.53	66.53	1.10	50.0	1.7
including	380.00	382.00	2.00	4.86	29.2	5.2
Including	413.50	442.00	28.50	1.92	76.3	2.9
including	422.50	423.50	1.00	8.27	237.0	11.2

TABLE 10.8
SELECT 2023 CLIFF CREEK DRILL HIGHLIGHTS

Drill Hole ID	From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)	AuEq (g/t)*
23CCDD018	325.68	329.20	3.52	1.750	45.1	2.3
and	473.00	501.00	28.00	1.86	66.2	2.7
including	491.92	494.00	2.08	17.43	589.4	24.8
including	493.05	494.00	0.95	24.50	857.0	35.2
23CCDD021	32.00	35.00	3.00	9.03	201.6	11.6
and	158.00	159.00	1.00	2.81	176.0	5.0
and	234.00	236.00	2.00	0.83	7.3	0.9
and	258.00	409.00	151.00	0.65	11.1	0.8
including	278.00	321.00	43.00	1.45	16.7	1.7
including	285.00	286.00	1.00	8.42	48.8	9.0
including	315.00	316.00	1.00	25.90	9.6	26.0
23CCDD022	280.00	284.00	4.00	0.66	4.0	0.7
and	346.00	359.00	13.00	0.61	8.2	0.7
and	378.00	506.00	128.00	1.97	41.7	2.5
including	426.77	427.40	0.63	14.95	1,010.0	27.6
including	445.00	472.00	27.00	7.54	74.3	8.5
including	468.00	468.60	0.60	316.00	881.0	327.0
23CCDD023	158.00	163.00	5.00	0.32	2.1	0.3
and	307.00	376.33	69.33	1.12	9.2	1.2
including	307.00	312.35	5.35	2.64	7.0	2.7
including	324.00	368.00	44.00	1.37	6.6	1.5
including	346.00	354.00	8.00	4.14	14.7	4.3
including	374.00	376.33	2.33	0.84	105.0	2.2
and	404.00	463.00	59.00	0.86	40.7	1.4
including	420.00	425.00	5.00	3.55	286.6	7.1
including	472.00	474.00	2.00	2.73	4.5	2.8
And	529.53	536.00	6.47	3.64	94.1	4.8
including	529.53	532.00	2.47	8.83	240.5	11.8
23CCDD026	34.00	42.13	8.13	0.32	11.4	0.5
and	376.00	402.00	26.00	1.00	11.4	1.1
including	378.00	381.00	3.00	2.30	45.3	2.9
including	401.00	402.00	1.00	13.10	25.5	13.4
and	439.00	445.00	6.00	0.56	11.5	0.7
*AuEq calculated using an 80:1 Ag to Au ratio and metal recoveries of 90% for Au and 83% for Ag						

10.2.3 Dukes Ridge Zone

Drilling at the Dukes Ridge Zone has been ongoing since 2018 and to date totals 170 drill holes (92 DDH and 78 RC) for 37,931 m (27,990 m DDH and 9,941 m RC), from which 37,244 m were sampled. A summary of drilling by year is provided in Table 10.9.

TABLE 10.9 SUMMARY OF DUKES RIDGE DRILLING 2018 TO 2023					
Year	Type	Drill Core Size	Quantity	Metres Drilled	Metres Sampled
2018	Diamond	NQ2	2	342.59	329.53
	RC	-	11	957.06	954.02
2019	Diamond	NQ2	5	1,100.65	924.54
2020	Diamond	NQ2	12	2,793.40	2,740.32
	RC	-	48	6,669.05	6,667.52
2021	Diamond	PQ/NQ2	24	5,773.50	5,587.51
	RC		19	2,314.95	2,314.95
2022	Diamond	NQ2	32	10,172	10,004.99
2023	Diamond	NQ2	17	7,808	7,720.61

The 2018 to 2022 drilling at Dukes Ridge was focused on confirming existing mineralization, delineating mineralized structures, expanding the mineralization along strike and at depth, and testing connectivity between the Cliff Creek, Dukes Ridge and Phoenix Zones. Anomalous gold and silver results were identified in 130 drill holes, which significantly increased the understanding of the geology of the Dukes Ridge trend. Mineralization consists of near vertical, high-grade narrow vein sets striking west-northwest that intersect northwest-trending hydrothermal breccias and cataclasite defining high-grade mineralized shoots that plunge to the south-southeast. The 2021 and 2022 drilling focused on deeper drilling and intersected the main high-grade zones up to 150 m below previous drilling demonstrating continued expansion potential at depth. Significant mineralization was also identified to the north of the main Dukes Ridge Zone in the Connector Zone (Table 10.10).

TABLE 10.10 2018-2022 DUKES RIDGE ZONE DRILLING HIGHLIGHTS		
Year	Drill Hole ID	Results
2018	18DRRC010	52.02 g/t Au and 846.4 g/t Ag over 3.05 m
2019	19DRDD004	7.85 g/t Au and 696.2 g/t Ag over 3.34 m
2021	21DRDD005	40.00 g/t Au and 1,095 g/t Ag over 0.48 m
2021	21DRDD016	86.40 g/t Au and 3,150 g/t Ag over 0.91 m
2022	22DRDD026	27.20 g/t Au and 757.0 g/t Ag over 0.85 m
2022	22DRDD029	24.40 g/t Au and 1,080 g/t Ag over 0.88 m

The 2023 Dukes Ridge drilling included 17 diamond drill holes totalling 7,808 m, of which 7,721 m was sampled. All 17 drill holes encountered anomalous gold and silver mineralization (Tables 10.11; see Figure 10.2 above). The 2023 drilling was primarily designed to infill and extend mineralization at depth to expand underground Mineral Resource potential.

To date, high grade mineralization at the Dukes Ridge area, including the Connector Zone, spans a strike-length of ~1,100 m and was confirmed at 400 m vertical depth, extending mineralization >200 m deeper than previously reported. Numerous drill holes at Dukes Ridge intersected intervals of high-grade within a broader, lower grade mineralized zone, including drill holes 23DRDD001, 23DRDD002 and 23DRDD003 that intersected 1.03 g/t Au and 51.5 g/t Ag over 45.00 m, 1.25 g/t Au and 65.7 g/t Ag over 68.00 m, and 2.12 g/t Au and 105.0 g/t Ag over 53.00 m, respectively (Table 10.12 and Figure 10.4). These results are the deepest reported to date from Dukes Ridge and demonstrate excellent continuity of high-grade mineralization at depth (Thesis, 2023c). Additionally, the easternmost drill hole testing the main Dukes Ridge Zone at depth, 23DRDD011, intersected an upper and lower zone of broadly dispersed mineralization, including 2.29 g/t Au and 132.1 g/t Ag over 46.00 m and 2.09 g/t Au and 85.3 g/t Ag over 37.00 m. Mineralization remains open to the southeast along strike and at depth (Thesis, 2023d).

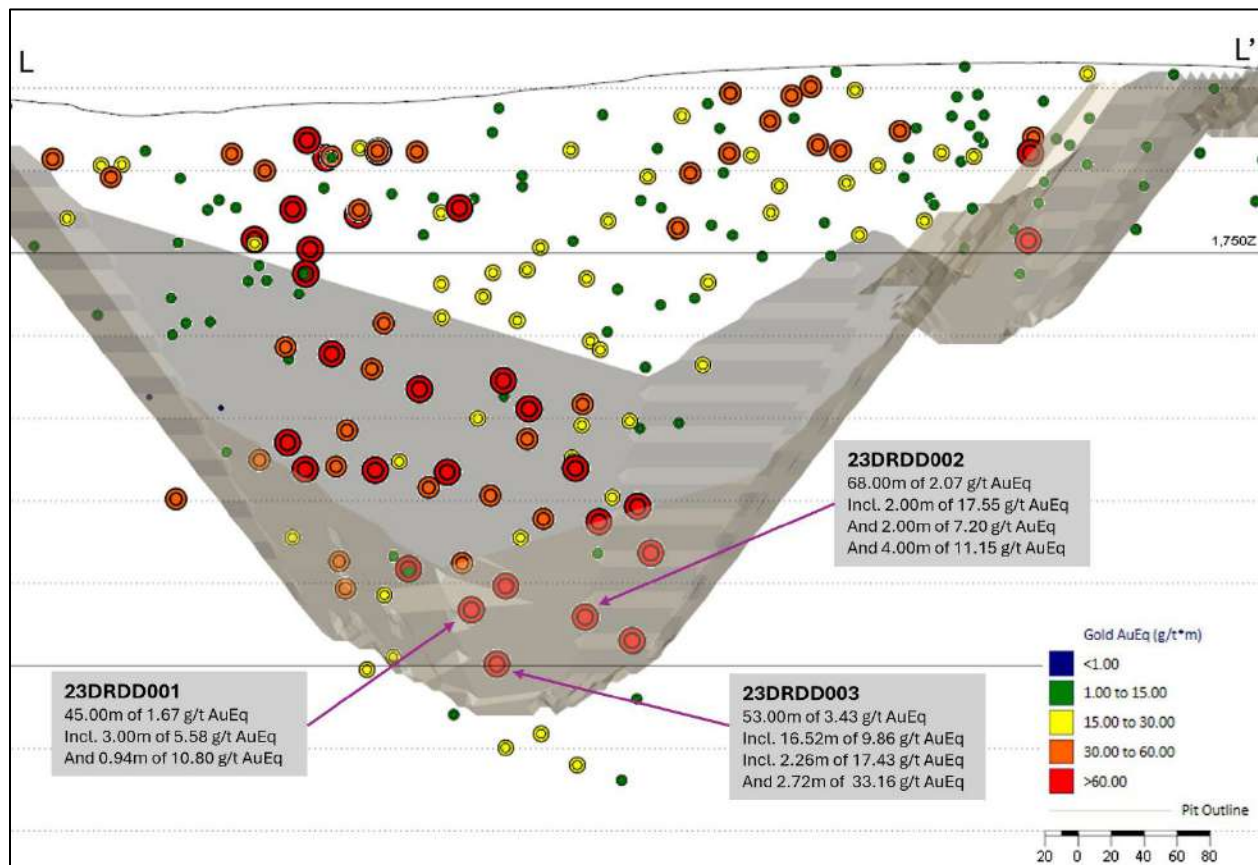
TABLE 10.11
2023 DUKES RIDGE DRILL HOLES

Drill Hole ID	Easting (NAD83Z9)	Northing (NAD83Z9)	Elevation (masl)	Azimuth (°)	Dip (°)	Depth (m)	Drill Type	Drill Core Size	Metres Sampled
23DRDD001	608,232.48	6,354,955.89	1,864.80	18.1	-58.4	438	DD	NQ2	430.20
23DRDD002	608,305.65	6,354,882.14	1,862.51	17.0	-57.2	461	DD	NQ2	455.30
23DRDD003	608,263.34	6,354,930.69	1,863.97	17.1	-61.2	452	DD	NQ2	447.72
23DRDD004	608,232.43	6,354,955.93	1,864.80	20.7	-64.2	476	DD	NQ2	470.40
23DRDD005	608,305.78	6,354,882.14	1,862.51	15.1	-62.0	497	DD	NQ2	489.00
23DRDD006	608,263.50	6,354,931.84	1,863.95	17.2	-65.5	470	DD	NQ2	466.42
23DRDD007	608,179.40	6,354,909.35	1,873.02	12.9	-49.8	500	DD	NQ2	491.83
23DRDD008	608,269.65	6,354,845.26	1,864.82	15.1	-55.0	512	DD	NQ2	507.20
23DRDD009	608,336.80	6,354,876.46	1,860.91	17.2	-49.7	422	DD	NQ2	417.50
23DRDD010	608,179.87	6,354,909.08	1,873.02	14.7	-55.1	503	DD	NQ2	495.50
23DRDD011	608,336.81	6,354,876.41	1,860.85	17.1	-56.0	431	DD	NQ2	427.00
23DRDD012	608,336.72	6,354,876.51	1,860.91	14.1	-63.1	491	DD	NQ2	486.50
23DRDD013	608,180.45	6,354,909.93	1,872.76	20.2	-52.5	503	DD	NQ2	498.50
23DRDD014	608,103.59	6,355,011.44	1,873.05	22.3	-48.8	461	DD	NQ2	456.00
23DRDD015	608,137.47	6,355,147.54	1,846.67	13.1	-50.1	323	DD	NQ2	318.50
23DRDD016	608,340.01	6,354,876.08	1,860.81	21.1	-62.2	458	DD	NQ2	455.44
23DRDD017	608,340.52	6,354,876.60	1,860.84	25.0	-55.0	410	DD	NQ2	407.60

TABLE 10.12
SELECT 2023 DUKES RIDGE DRILL HIGHLIGHTS

Drill Hole ID	From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)	AuEq (g/t)*
23DRDD001	376.00	421.00	45.00	1.03	51.5	1.7
including	390.00	391.57	1.57	2.75	209.5	7.3
including	396.00	399.00	3.00	4.08	120.1	5.6
including	397.72	398.41	0.69	13.45	351.0	17.8
and	404.44	406.00	1.56	3.48	139.3	5.2
and	415.06	418.00	2.94	3.024	130.1	4.7
including	415.06	416.00	0.94	7.34	277.0	10.8
23DRDD02	314.00	318.00	4.00	3.48	171.9	5.6
Including	314.00	316.00	2.00	5.90	271.0	9.3
and	346.00	350.00	4.00	0.50	84.6	1.6
and	370.00	438.00	68.00	1.25	65.7	2.1
including	370.00	372.00	2.00	11.05	520.0	17.6
including	388.00	390.00	2.00	4.97	178.0	7.2
including	424.00	426.00	2.00	2.99	157.0	5.0
including	434.00	438.00	4.00	5.54	449.0	11.2
23DRDD003	326.00	328.00	2.00	6.72	91.8	7.9
and	388.00	441.00	53.00	2.13	105.4	3.4
including	423.20	439.72	16.52	5.75	317.8	9.7
including	423.20	425.46	2.26	10.26	573.7	17.4
including	437.00	439.72	2.72	19.41	1099.7	33.2
including	437.00	437.70	0.70	42.80	2260.0	71.1
23DRDD011	254.71	255.94	1.23	0.64	65.4	1.5
and	325.00	371.00	46.00	2.29	132.1	4.0
including	330.72	332.32	1.60	9.07	640.0	17.1
including	353.00	358.41	5.41	11.42	652.4	19.6
including	356.00	357.36	1.36	24.70	953.0	36.6
including	368.00	371.00	3.00	5.48	216.3	8.2
and	392.00	429.00	37.00	2.09	85.3	3.2
including	392.00	393.00	1.00	8.42	233.0	11.3
including	398.50	399.32	0.82	54.33	3027.3	92.2
23DRDD013	394.00	397.87	3.87	1.75	84.3	2.8
including	395.00	396.00	1.00	5.37	245.0	8.4
and	417.00	418.00	1.00	1.52	29.2	1.9
and	457.00	466.52	9.52	1.53	46.5	2.1
including	463.00	466.00	3.00	3.69	119.9	5.2
including	463.00	464.00	1.00	8.84	271.0	12.2
*AuEq calculated using an 80:1 Ag to Au ratio and metal recoveries of 90% for Au and 83% for Ag						

FIGURE 10.4 LONGITUDINAL PROJECTION OF DRILLING AT DUKES RIDGE WITH 2024 PIT OUTLINE



Source: Modified from Thesis (2023c)

10.2.4 Phoenix Zone

The Phoenix Zone was drilled from 2018 to 2022 and totals 31 drill holes (9 DDH, 22 RC) for 4,149 m (1,382 m DDH and 2,768 m RC) with 3,772 m sampled. A summary of drilling by year is provided in Table 10.13.

TABLE 10.13 SUMMARY OF PHOENIX DRILLING 2018 TO 2022						
Year	Type	Drill Core size	Quantity	Metres Drilled	Metres Sampled	Sub-Zone
2018	Diamond	NQ2	2	293.83	195.63	DR/Phoenix Connector, Phoenix Main
	RC	-	5	438.91	438.91	

TABLE 10.13 SUMMARY OF PHOENIX DRILLING 2018 TO 2022						
Year	Type	Drill Core size	Quantity	Metres Drilled	Metres Sampled	Sub-Zone
2019	Diamond	NQ2	6	968.73	695.67	DR/Phoenix Connector, Phoenix Main
2020	RC	-	12	1,847.12	1,847.12	DR/Phoenix Connector, Phoenix Main
2021	RC	-	5	481.58	481.58	DR/Phoenix Connector
2022	Diamond	NQ2	1	119.00	112.90	DR/Phoenix Connector

From 2018 to 2022, drilling at the Phoenix Zone focused on verifying, defining, and expanding the mineralization, including the high-grade Phoenix Vein and testing connectivity with the Dukes Ridge Zone. Anomalous gold and silver values were intercepted in 31 drill holes, confirming, and extending the Phoenix Zone at depth and along strike connecting to the Dukes Ridge Zone. The Phoenix mineralization (not including Dukes Ridge) has been traced in drilling for 550 m along strike and to 130 m vertical depth. Drilling highlights from 2018 to 2022 of the Phoenix Zone are presented in Table 10.14.

TABLE 10.14 2018 TO 2022 PHOENIX ZONE DRILLING HIGHLIGHTS		
Year	Hole ID	Results
2018	18PXDD002	6.39 g/t Au and 469.8 g/t Ag over 6.95 m
2019	19PXDD001	132.50 g/t Au and 8,560 g/t Ag over 0.90 m
2021	21PXRC004	0.95 g/t Au and 59.7 g/t Ag over 6.10 m
2021	21PXRC005	9.99 g/t Au and 208.0 g/t Ag over 1.52 m
2022	22PXDD001	1.63 g/t Au over 47.6 g/t Ag over 6.59 m

10.3 RANCH AREA MINERAL RESOURCE DRILLING

Consecutive drill programs have been completed in the Ranch Area from 2021 to 2023, totalling 389 drill holes (368 DDH and 21 RC) for 71,694 m (68,481 m DDH and 3,213 m RC), resulting in the collection of 50,999 samples totalling 69,264 m. Drilling has largely focused on the Bonanza, Ridge, Bonanza South, Bingo, Thesis II, Thesis III, BV and JK Zones, which make up the current Mineral Resources area (Section 14). Additional exploration drilling has also been completed at the Patti, Steve and Alberts Hump Prospects, and a series of geotechnical and water monitoring drill holes were completed across the area to support environmental and engineering studies.

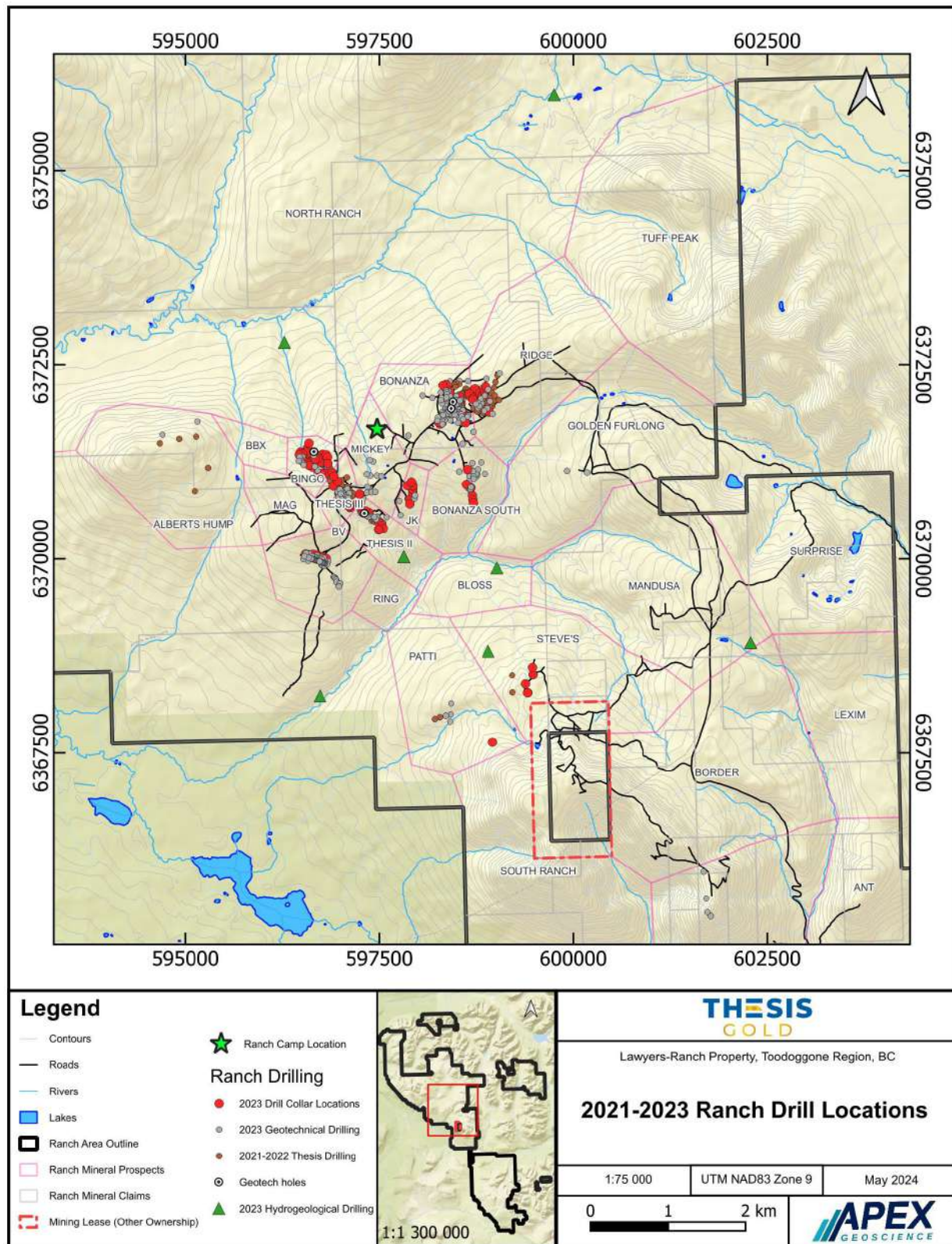
For the 2021 to 2023 Ranch area drill programs, drill holes were spotted (located) using a handheld GPS and were aligned/oriented using a digital GPS drill alignment tool. A DeviSight™ tool was used in 2021 and a Reflex TN14™ was used during the 2022 and 2023 programs. Collar information, including initial drill hole azimuth and dip, were entered into digital data loggers by the attending drill geologist who were responsible for final drill alignment. Downhole surveys were completed on diamond drill holes using a Reflex EZ shot™ (2021) or Reflex Sprint IQ™ gyro (2022 and 2023). For RC drill holes, downhole surveys were completed at the conclusion of each hole (prior to removal of drill rods) using a specialized gyroscope-based tool. Following the completion of each drill hole, a stake marked with the drill hole name and orientation was placed in the drill hole and final locations were determined using a RTK DGPS survey instrument with cm scale accuracy relative to the established base point on the top of the Ridge Zone hill.

Most of the drilling in the Ranch Area resulted in the production of either NQ or HQ size drill core. Occasionally, the drill core was reduced from HQ to NQ in order to complete deeper drill holes and where required by poor ground (rock quality) conditions downhole.

Drill core recovery at Ranch, in general, has been challenging. This due to the degree of alteration present in many of the mineralized zones and, in particular, the presence of highly porous and leached silica breccias as well as brittle structural features. Several methods that have been employed over the years to improve recovery include the use of larger drill core diameters, split tubes, slower rod rotation rates, drill core catcher springs, and thicker drilling fluids. However, even with the implementation of these “best practices”, several holes in key areas have required redrilling.

A summary of drilling by prospect is given below and drill hole locations are presented in Figure 10.5.

FIGURE 10.5 RANCH AREA DRILLING 2021 TO 2023



10.3.1 Bonanza Zone

Drilling at the Bonanza Zone by Thesis began in 2021 and to date totals 91 diamond drill holes for 12,380 m with 11,865 m sampled. A summary of drilling by year is provided in Table 10.15.

TABLE 10.15 SUMMARY OF BONANZA DRILLING 2021 TO 2023					
Year	Type	Drill Core Size	Quantity	Metres Drilled	Metres Sampled
2021	Diamond	HQ/NQ2	44	5,994.00	5,706.96
2022	Diamond	NQ2	22	3,791.67	3,676.27
2023	Diamond	HQ	25	2,594.76	2,481.48

The 2021 and 2022 drilling results at Bonanza have revealed a clear spatial link between gold mineralization and property-scale faulting. More specifically, the Bonanza gold mineralization is controlled by a northwest-southeast oriented fault zone and a cross-cutting northeast-southwest fault. In contrast to historical drill results, which indicated gold mineralization was confined to shallow, near-surface zones, the results from the 2021 and 2022 expansion drilling show that mineralization along the fault structures locally extends from surface over broad intervals to depth. Drilling highlights are presented in Table 10.16.

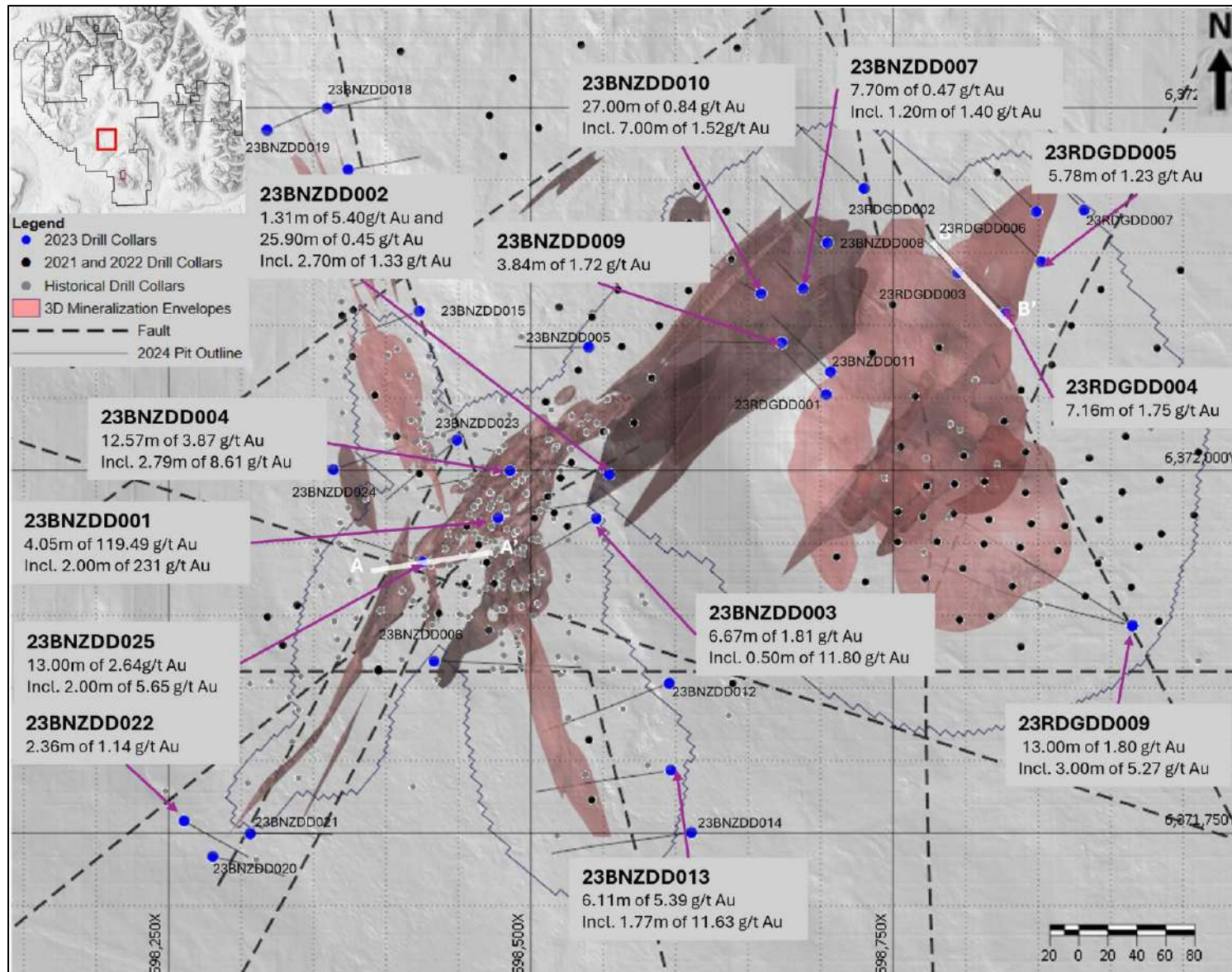
TABLE 10.16 2021-2022 BONANZA ZONE DRILLING HIGHLIGHTS		
Year	Hole ID	Results
2021	21BNZDD001	82.48 g/t Au and 3.3 g/t Ag over 7.00 m
2021	21BNZDD007	129.15 g/t Au and 3.0 g/t Ag over 1.70 m
2021	21BNZDD010	367.00 g/t Au and 9.1 g/t Ag over 0.50 m
2022	22BNZDD003	11.93 g/t Au and 2.1 g/t Ag over 2.00 m, and 22.40 g/t Au and 3.2 g/t Ag over 1.00 m
2022	22BNZDD005	10.05 g/t Au and 24.7 g/t Ag over 0.82 m

The mineralization identified by the 2023 drilling at Bonanza confirmed historical drill results and provided additional pierce points to support the calculation an Initial Mineral Resource Estimate (see Section 14). A total of 25 diamond drill holes totalling 2,595 m were completed, from which 2,481 m (1,951 samples) were assayed (Table 10.17 and Figure 10.6).

TABLE 10.17
2023 BONANZA ZONE DRILL COLLARS

Drill Hole ID	Easting (NAD83Z9)	Northing (NAD83Z9)	Elevation (masl)	Azimuth (°)	Dip (°)	Depth (m)	Drill Type	Drill Core Size	Metres Sampled
23BNZDD001	598,477.30	6,371,967.38	1,696.03	80.1	-50.0	101	DD	HQ	BNZ
23BNZDD002	598,554.06	6,371,997.31	1,697.75	280.0	-50.3	140	DD	HQ	BNZ
23BNZDD003	598,545.07	6,371,966.95	1,697.47	240.0	-50.0	136	DD	HQ	BNZ
23BNZDD004	598,485.53	6,371,999.83	1,698.18	260.1	-49.4	101	DD	HQ	BNZ
23BNZDD005	598,539.87	6,372,084.92	1,698.83	270.1	-50.1	80	DD	HQ	BNZ
23BNZDD006	598,433.19	6,371,868.48	1,690.47	90.1	-50.0	160	DD	HQ	BNZ
23BNZDD007	598,687.94	6,372,125.11	1,706.97	314.6	-50.0	101	DD	HQ	BNZ
23BNZDD008	598,704.67	6,372,156.91	1,706.35	315.0	-49.9	101	DD	HQ	BNZ
23BNZDD009	598,673.07	6,372,087.98	1,712.85	270.0	-49.9	89	DD	HQ	BNZ
23BNZDD010	598,658.81	6,372,121.74	1,706.06	299.9	-50.0	101	DD	HQ	BNZ
23BNZDD011	598,706.92	6,372,068.00	1,715.21	315.1	-50.0	119	DD	HQ	BNZ
23BNZDD012	598,595.45	6,371,853.24	1,687.82	249.9	-49.8	149	DD	HQ	BNZ
23BNZDD013	598,596.60	6,371,793.37	1,684.72	259.9	-49.9	149	DD	HQ	BNZ
23BNZDD014	598,610.76	6,371,750.41	1,682.77	260.1	-50.0	152	DD	HQ	BNZ
23BNZDD015	598,422.90	6,372,109.78	1,699.98	250.1	-49.9	68	DD	HQ	BNZ
23BNZDD016	598,413.97	6,372,140.19	1,698.70	250.2	-49.7	62	DD	HQ	BNZ
23BNZDD017	598,373.92	6,372,207.27	1,687.93	80.1	-50.0	80	DD	HQ	BNZ
23BNZDD018	598,359.44	6,372,249.69	1,680.96	79.8	-50.3	59	DD	HQ	BNZ
23BNZDD019	598,317.93	6,372,234.61	1,685.17	70.0	-49.7	80	DD	HQ	BNZ
23BNZDD020	598,280.52	6,371,733.81	1,681.80	105.0	-50.0	80	DD	HQ	BNZ
23BNZDD021	598,306.37	6,371,749.67	1,683.18	90.1	-50.0	89	DD	HQ	BNZ
23BNZDD022	598,260.72	6,371,758.40	1,683.05	119.8	-50.0	80	DD	HQ	BNZ
23BNZDD023	598,448.89	6,372,021.03	1,700.12	230.2	-50.1	101	DD	HQ	BNZ
23BNZDD024	598,363.71	6,372,000.56	1,701.72	69.9	-49.7	140	DD	HQ	BNZ
23BNZDD025	598,424.78	6,371,937.12	1,695.26	290.0	-50.0	77	DD	HQ	BNZ

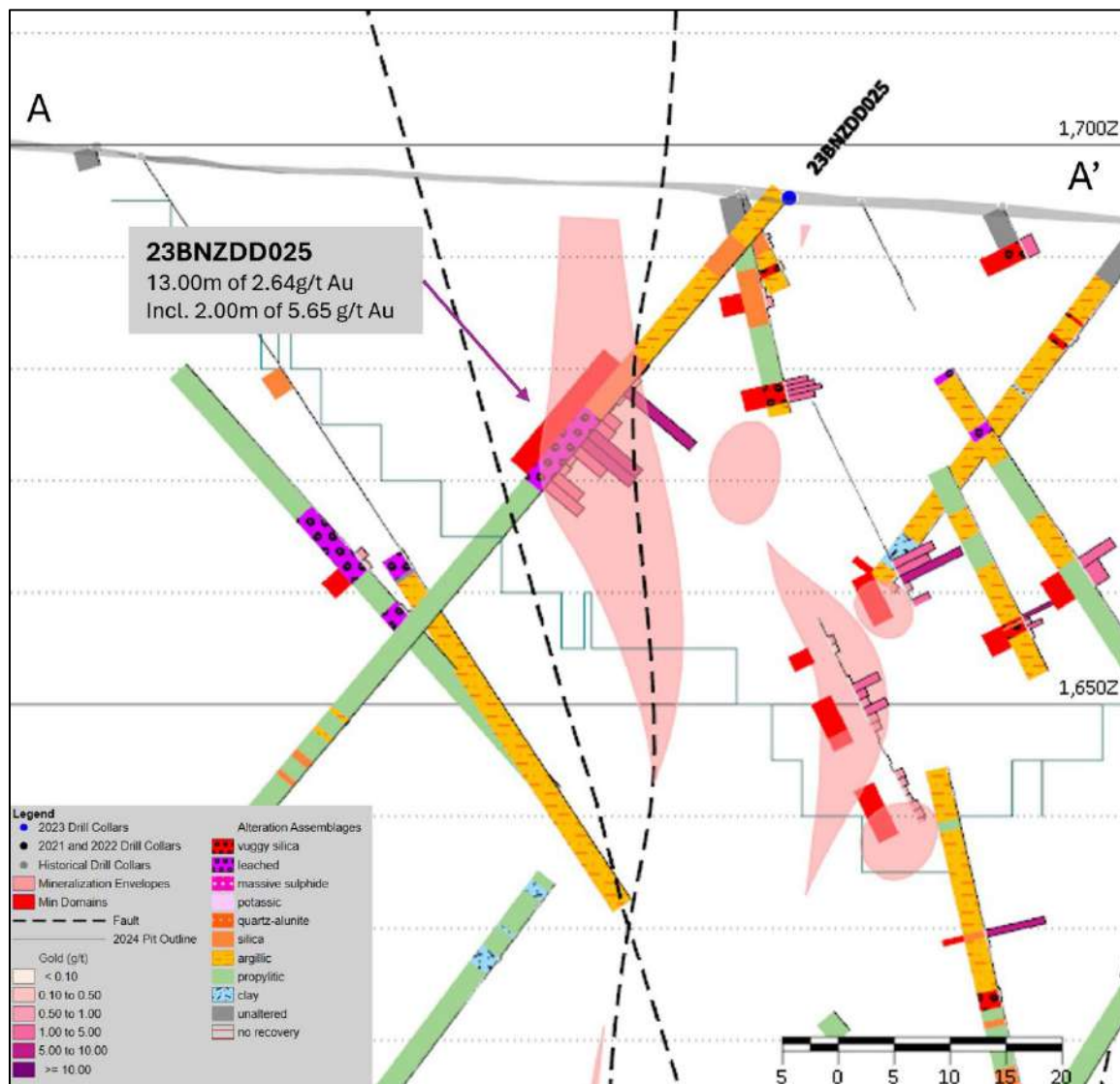
FIGURE 10.6 BONANZA AND RIDGE ZONE DRILL HOLE LOCATION AND HIGHLIGHTS



Source: Modified from Thesis (2023e)

Bonanza Zone drill hole 23BNZDD001 intersected two shallow zones of mineralization: 1) 4.32 g/t Au, 0.5 g/t Ag, and 93 ppm Cu over 3.27 m; and 2) 119.49 g/t Au, 2.9 g/t Ag and 1,886 ppm Cu over 4.05 m, which included a high-grade zone of 231.00 g/t Au, 2.0 g/t Ag and 211 ppm Cu over 2.00 m (Thesis, 2023e). This high-grade intercept is in close proximity to historical high-grade intercepts and confirms the historical drill results. Drill hole 23BNZDD013 was successful at extending high grade mineralization at depth along a southeast spur, intersecting a zone of 5.39 g/t Au, 4.0 g/t Ag, and 717 ppm Cu over 6.11 m, including 1.77 m of 11.63 g/t Au, 8.1 g/t Ag and 1,251 ppm Cu (Thesis, 2023e). Drill hole 23BNZDD025 intersected 13.00 m of mineralization, including 2.64 g/t Au, 2.3 g/t Ag, and 696 ppm Cu (Figure 10.7). This intersection confirmed the historical results along the main mineralized trend. Select drilling highlights from 2023 at the Bonanza Zone are presented in Table 10.18 (see Figure 10.6 above).

FIGURE 10.7 BONANZA CROSS-SECTIONAL PROJECTION A-A' LOOKING NORTH-NORTHWEST



Source: Modified from Thesis (2023e)

TABLE 10.18 SELECT 2023 BONANZA ZONE DRILL HIGHLIGHTS						
Drill Hole ID	From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)	Cu (ppm)
23BNZDD001	7.50	15.87	8.37	0.46	2.91	131
and	22.73	26.00	3.27	4.32	0.46	93
including	23.74	26.00	2.26	6.11	0.42	65
and	30.95	35.00	4.05	119.49	2.91	1,886
including	33.00	35.00	2.00	231.00	2.89	211
23BNZDD002	4.69	6.00	1.31	5.40	0.21	5
and	73.00	98.90	25.90	0.45	2.66	66
including	94.00	96.70	2.70	1.33	5.21	157
23BNZDD003	76.33	83.00	6.67	1.91	1.49	241
including	77.00	81.15	4.15	2.79	1.62	238
including	77.00	77.50	0.50	11.80	6.80	817
23BNZDD004	9.00	21.57	12.57	3.87	3.03	301
including	9.92	12.71	2.79	8.61	4.46	654
23BNZDD007	39.30	47.00	7.70	0.47	8.39	75
including	44.80	46.00	1.20	1.40	11.40	202
23BNZDD009	74.96	78.8	3.84	1.72	19.23	186
23BNZDD010	20.00	47.00	27.00	0.84	5.20	51
including	29.00	36.00	7.00	1.52	4.61	83
and including	42.00	44.00	2.00	1.95	16.08	90
23BNZDD013	93.89	100.00	6.11	5.39	3.99	717
including	94.43	96.20	1.77	11.63	8.06	1,251
23BNZDD022	40.64	43.00	2.36	1.14	7.49	580
23BNZDD025	21.00	34.00	13.00	2.64	2.26	696
including	27.00	29.00	2.00	5.65	2.47	578

10.3.2 Ridge Zone

Drilling at the Ridge Zone by Thesis began in 2021 and to date comprises 69 diamond drill holes totalling 14,163 m with 13,821 m sampled. A summary of drilling by year is provided in Table 10.19.

TABLE 10.19 SUMMARY OF RIDGE DRILLING 2021 TO 2023					
Year	Type	Drill Core size	Quantity	Metres Drilled	Metres Sampled
2021	Diamond	HQ/NQ2	12	1,965.00	1,885.00
2022	Diamond	NQ2	47	10,870.00	10,639.23
2023	Diamond	HQ	10	1,328.00	1,296.31

The 2021 and 2022 drilling at Ridge expanded the previously (historically) identified zone of mineralization with 44 drill holes returning significant gold and silver mineralization. Deeper drilling was particularly effective in intersecting several mineralized zones below the limits of historical drilling, which is consistent with vertical zonation in high sulphidation epithermal systems (Thesis, 2022). Gold and silver mineralization at Ridge coincides with a large 600 m silica alteration footprint and is characterized by higher content of silver, relative to gold, which differs from the nearby Bonanza Zone, which is silver poor, suggesting a difference in mineralization processes. Some selected analytical highlights from the 2021 and 2022 Ridge drill programs are presented in Table 10.20.

TABLE 10.20 2021-2022 RIDGE ZONE DRILLING HIGHLIGHTS		
Year	Drill Hole ID	Results
2021	21RDGDD009	40.30 g/t Au and 379.0 g/t Ag over 1.0 m
2022	22RDGDD017	3.22 g/t Au and 28.8 g/t Ag over 25.0 m
2022	22RDGDD047	58.10 g/t Au and 16.4 g/t Ag over 1.0 m

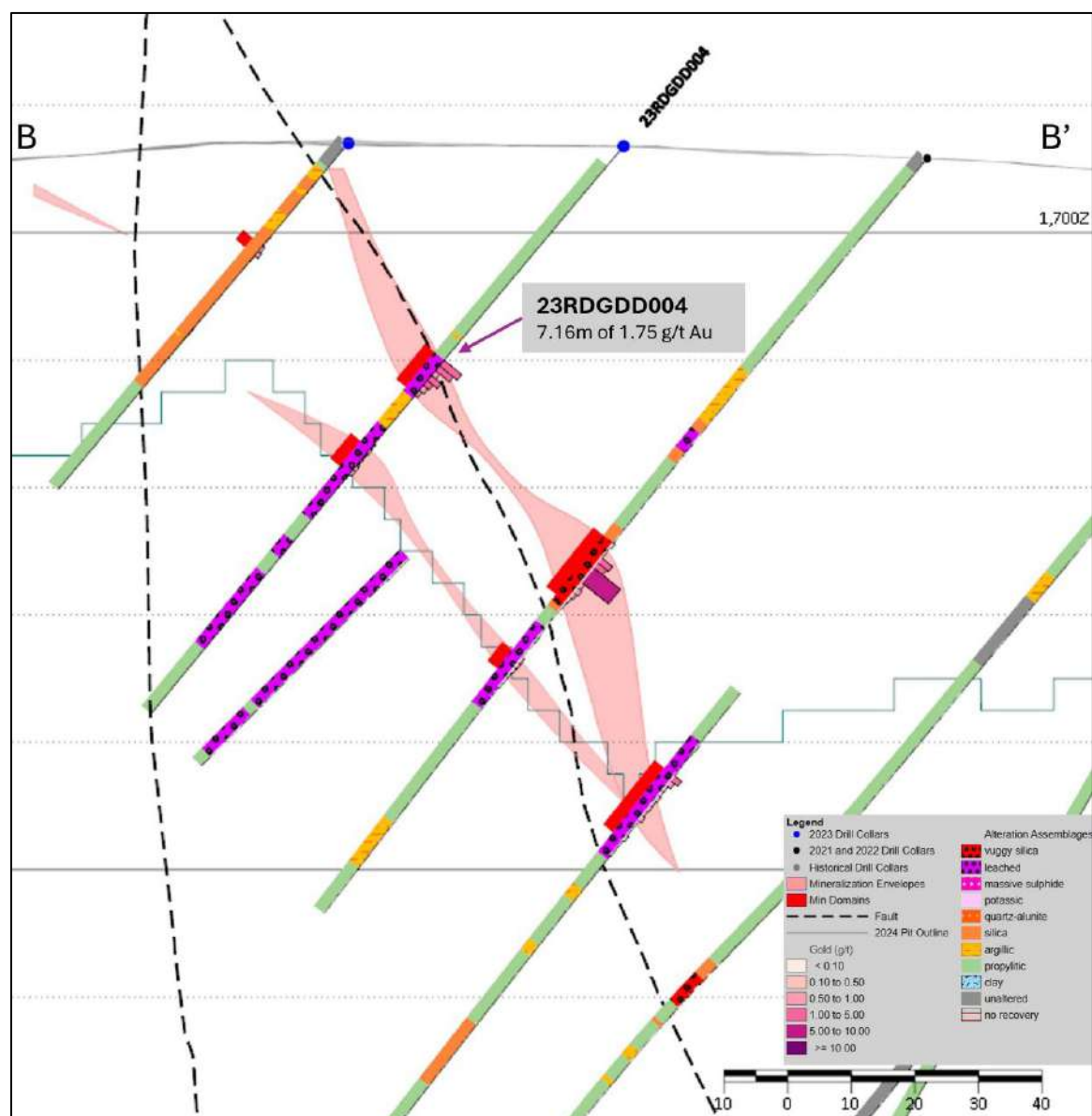
Drilling at the Ridge Zone in 2023 successfully infilled pierce point gaps and expanded mineralization along strike and at depth. A total of 10 diamond drill holes for 1,328 m were completed, 1,296 m of which was sampled (1,099 samples), with 8 holes intersecting significant gold and silver mineralization (Table 10.21, Figure 10.6). The Ridge Zone is one of the few prospects at Ranch that exhibits significant silver mineralization.

TABLE 10.21
2023 RIDGE ZONE DRILL COLLARS

Drill Hole ID	Easting (NAD83Z9)	Northing (NAD83Z9)	Elevation (masl)	Azimuth (°)	Dip (°)	Depth (m)	Drill Type	Drill Core Size	Metres Sampled
23RDGDD001	598,703.68	6,372,052.27	1,715.79	315.0	-50.2	80	DD	HQ	77.61
23RDGDD002	598,729.95	6,372,194.38	1,709.16	314.6	-49.8	101	DD	HQ	98.42
23RDGDD003	598,794.43	6,372,136.31	1,714.03	315.4	-50.4	71	DD	HQ	66.00
23RDGDD004	598,827.45	6,372,108.25	1,713.56	315.0	-50.0	116	DD	HQ	112.00
23RDGDD005	598,852.16	6,372,143.93	1,712.73	315.0	-50.0	110	DD	HQ	105.69
23RDGDD006	598,848.67	6,372,178.32	1,712.28	315.3	-49.9	83	DD	HQ	79.06
23RDGDD007	598,881.71	6,372,179.47	1,711.72	315.0	-50.0	83	DD	HQ	79.97
23RDGDD008	598,871.64	6,372,221.25	1,711.12	314.8	-50.1	80	DD	HQ	75.93
23RDGDD009	598,915.00	6,371,893.00	1,694.03	301.9	-55.3	278	DD	HQ	276.63
23RDGDD010	598,915.01	6,371,893.02	1,694.03	284.9	-62.3	326	DD	HQ	325.00

The 2023 Ridge Zone drilling analytical highlights include drill hole 23RDGDD004, which intersected 1.75 g/t Au, 11.2 g/t Ag and 439 ppm Cu over 7.16 m, including 2.16 m of 3.23 g/t Au, 22.6 g/t Ag and 1,332 ppm Cu (Figure 10.8). This interval successfully extended mineralization closer to the surface. Drill hole 23RDGDD005 was also successful at extending mineralization along strike and to the surface, intersecting 1.23 g/t Au and 7.4 g/t Ag over 5.78 m. Drill hole 23RDGDD009 tested mineralization continuity at depth and intersected 1.80 g/t Au, 7.1 g/t Ag, and 374 ppm Cu over 13.00 m, including a narrow high-grade interval of 5.27 g/t Au, 12.1 g/t Ag and 1,032 ppm Cu over 3.00 m. To date, mineralization at the Ridge Zone has been traced in drilling along a strike length of 300 m and to a vertical depth of 200 m. Select drilling analytical highlights from 2023 at the Ridge Zone are presented in Table 10.22 (see Figure 10.6 above).

FIGURE 10.8 RIDGE CROSS-SECTIONAL PROJECTION B-B' LOOKING NORTHEAST



Source: Thesis (2024)

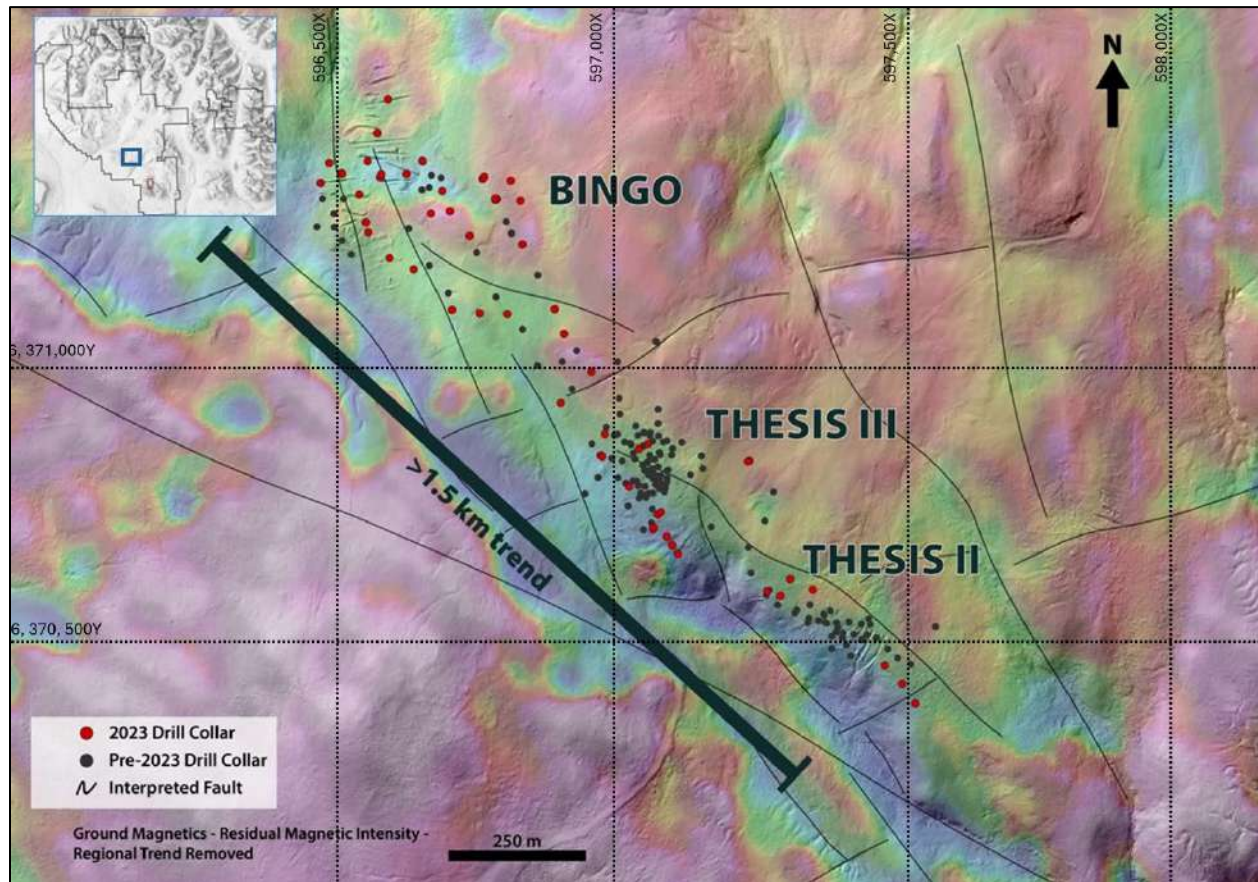
TABLE 10.22 2023 RIDGE ZONE DRILL HIGHLIGHTS						
Drill Hole ID	From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)	Cu (ppm)
23RDGDD001	43.00	43.72	0.72	0.41	1.9	19
23RDGDD003*	11.00	11.88	0.88	0.01	20.4	18
and	21.00	23.00	2.00	0.56	4.4	16
and*	50.17	52.00	1.83	0.00	28.7	722
and*	56.90	57.61	0.71	0.00	41.4	28
23RDGDD004	43.84	51.00	7.16	1.75	11.2	439
including	43.84	46.00	2.16	3.23	22.6	1,332
and	61.00	67.21	6.21	0.32	5.1	43
23RDGDD005	59.22	65.00	5.78	1.23	7.4	31
23RDGDD006	42.00	43.00	1.00	0.29	5.7	30
23RDGDD008	38.14	40.00	1.86	0.57	4.9	142
23RDGDD009	159.00	172.00	13.00	1.80	7.1	374
including	164.00	170.00	6.00	3.34	8.3	679
including	166.00	169.00	3.00	5.27	12.1	1,032
23RDGDD010	203.26	203.98	0.72	0.68	3.7	93

**Denotes anomalous Ag and (or) Cu only sample (no Au)*

10.3.3 Thesis Structural Corridor

The Thesis Structural Corridor (“TSC”) is a continuous complex structure system, which includes the Bingo, Thesis III and Thesis II Zones (Figure 10.9). The 2022-2023 drilling in this system successfully demonstrated continuity between these three zones with mineralization spanning over 1.5 km in strike length and down dip for >300 m. This structure system, which remains open along strike and at depth, is of significant interest and will continue to be a focus of future exploration. Details of drilling at each zone are summarized below.

FIGURE 10.9 OVERVIEW OF THE THESIS STRUCTURAL CORRIDOR



Source: Modified from Thesis (2023f)

10.3.3.1 Bingo Zone

Drilling at the Bingo Zone by Thesis began in 2022 and to date comprises 46 diamond drill holes for 8,106 m of drilling with 7,836 m sampled. A summary of the drilling conducted by Thesis at the Bingo Zone by year is provided in Table 10.23.

Year	Type	Drill Core Size	Quantity	Metres Drilled	Metres Sampled
2022	Diamond	HQ/NQ2	11	3,231.63	3,154.42
2023	Diamond	HQ	35	4,874.00	4,681.97

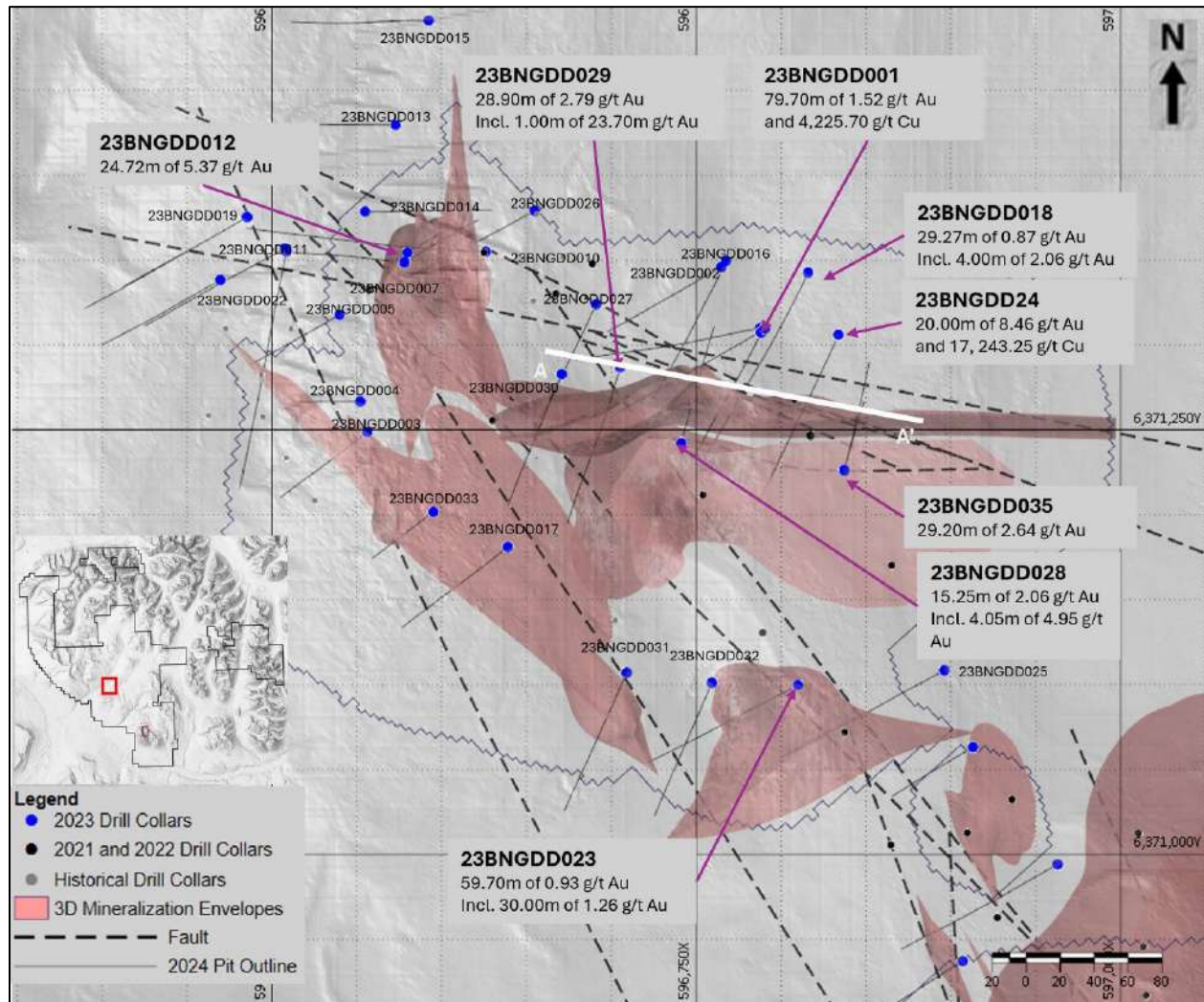
The previously reported 2022 Bingo Zone drilling was designed to confirm historical mineralization and test geochemical and geophysical anomalies identified by fieldwork completed by Thesis (see Turner and Hough, 2022). Anomalous mineralization was intersected in 11 drill

holes, confirming historical results and expanding the extents of the mineralization along strike. Analytical highlights from the 2022 Bingo drilling are provided in Table 10.24.

TABLE 10.24		
2022 BINGO ZONE DRILLING HIGHLIGHTS		
Year	Drill Hole ID	Results
2022	22BNGDD001	15.15 g/t Au and 5.4 g/t Ag over 1.00 m
2022	22BNGDD008	4.12 g/t Au and 8.1 g/t Ag over 5.46 m

The 2023 drilling program conducted at the Bingo Zone successfully verified historical trench results, demonstrated continuity of mineralized zones, expanded mineralization along strike, and identified a new distinct zone of mineralization. A total of 35 diamond drill holes were completed in 2023 comprising 4,874 m of drilling, of which 4,679 m was sampled (3,674 samples). Of the 2023 drill holes, 28 encountered significant Au, Ag and Cu mineralization (Table 10.25 and Figure 10.10).

FIGURE 10.10 2023 BINGO DRILL HOLE LOCATIONS AND HIGHLIGHTS



Source: Modified from Thesis (2023f)

TABLE 10.25
2023 BINGO DRILL HOLES

Drill Hole ID	Easting (NAD83Z9)	Northing (NAD83Z9)	Elevation (masl)	Azimuth (°)	Dip (°)	Depth (m)	Drill Type	Drill Core Size	Metres Sampled
23BNGDD001	596,790.42	6,371309.49	1,653.10	239.6	-49.9	191	DD	HQ	187.40
23BNGDD002	596,764.66	6,371345.94	1,644.76	240.0	-49.9	122	DD	HQ	119.38
23BNGDD003	596,556.08	6,371248.69	1,629.84	229.9	-49.8	101	DD	HQ	96.81
23BNGDD004	596,552.10	6,371266.72	1,628.47	269.5	-50.0	62	DD	HQ	57.19
23BNGDD005	596,539.84	6,371317.73	1,621.71	239.9	-50.1	92	DD	HQ	86.00
23BNGDD006	596,578.11	6,371348.62	1,621.19	59.8	-50.2	77	DD	HQ	42.50
23BNGDD007	596,578.10	6,371348.64	1,621.19	275.0	-49.9	107	DD	HQ	99.42
23BNGDD008	596,788.17	6,371307.33	1,652.88	205.1	-50.3	131	DD	HQ	128.79
23BNGDD009	596,787.74	6,371310.05	1,652.73	257.0	-49.9	170	DD	HQ	167.85
23BNGDD010	596,626.00	6,371354.92	1,624.86	272.6	-50.5	221	DD	HQ	215.14
23BNGDD011	596,507.66	6,371356.77	1,613.49	240.1	-50.0	149	DD	HQ	146.00
23BNGDD012	596,579.88	6,371354.35	1,621.32	59.7	-50.0	44	DD	HQ	36.90
23BNGDD013	596,572.84	6,371429.54	1,606.78	269.5	-55.1	101	DD	HQ	98.32
23BNGDD014	596,554.97	6,371378.58	1,614.58	89.9	-49.9	116	DD	HQ	113.00
23BNGDD015	596,592.40	6,371491.09	1,597.01	270.2	-50.1	129.5	DD	HQ	126.50
23BNGDD016	596,767.56	6,371349.61	1,645.43	205.4	-60.1	182	DD	HQ	179.26
23BNGDD017	596,639.00	6,371181.00	1,643.60	231.4	-49.0	122	DD	HQ	119.00
23BNGDD018	596,815.97	6,371342.61	1,650.67	205.3	-50.1	194	DD	HQ	192.50
23BNGDD019	596,485.36	6,371375.32	1,609.75	240.0	-50.0	173	DD	HQ	168.25
23BNGDD020	596,485.36	6,371375.32	1,609.75	238.7	-68.1	218	DD	HQ	211.70
23BNGDD021	596,508.51	6,371354.97	1,613.90	189.9	-49.8	218	DD	HQ	213.45
23BNGDD022	596,469.62	6,371338.31	1,620.22	240.3	-49.9	125	DD	HQ	121.22
23BNGDD023	596,809.81	6,371099.69	1,660.02	240.4	-64.1	230	DD	HQ	227.00

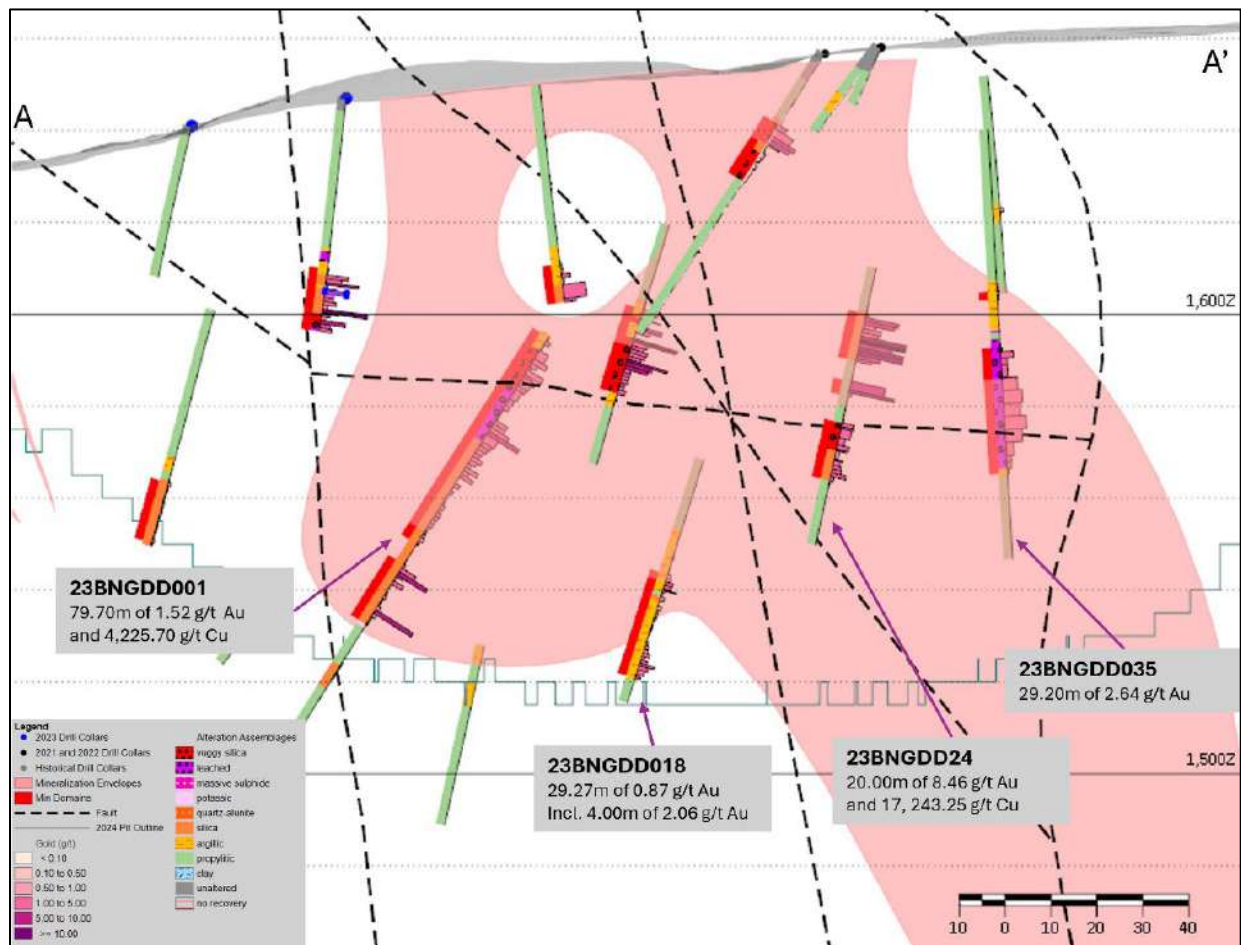
TABLE 10.25
2023 BINGO DRILL HOLES

Drill Hole ID	Easting (NAD83Z9)	Northing (NAD83Z9)	Elevation (masl)	Azimuth (°)	Dip (°)	Depth (m)	Drill Type	Drill Core Size	Metres Sampled
23BNGDD024	596,833.79	6,371306.07	1,655.69	204.6	-54.7	185	DD	HQ	182.32
23BNGDD025	596,896.18	6,371108.41	1,662.89	239.9	-45.0	152	DD	HQ	144.50
23BNGDD026	596,654.79	6,371379.09	1,622.77	240.4	-50.1	150.5	DD	HQ	125.05
23BNGDD027	596,691.00	6,371324.00	1,638.65	204.6	-49.6	137	DD	HQ	132.45
23BNGDD028	596,741.26	6,371242.22	1,655.13	15.00	-49.5	110	DD	HQ	105.50
23BNGDD029	596,705.15	6,371286.81	1,647.01	195.8	-54.9	170	DD	HQ	166.70
23BNGDD030	596,670.70	6,371282.83	1,641.01	203.7	-49.7	131	DD	HQ	128.00
23BNGDD031	596,709.00	6,371107.00	1,662.27	203.9	-50.0	140	DD	HQ	135.62
23BNGDD032	596,759.20	6,371101.09	1,668.45	203.9	-49.9	131	DD	HQ	129.60
23BNGDD033	596,595.12	6,371201.71	1,637.80	232.8	-49.0	69	DD	HQ	60.15
23BNGDD034	596,837.23	6,371226.31	1,661.19	15.0	-49.9	101	DD	HQ	98.00
23BNGDD035	596,837.23	6,371226.31	1,661.19	13.9	-69.0	122	DD	HQ	120.50

A new northwest-trending, broad zone of near-surface gold and copper mineralization was identified in several of the 2023 Bingo Zone drill holes. Drill hole 23BNGDD001 intersected a broad interval of 1.52 g/t Au, 4.4 g/t Ag, and 4,226 ppm (0.42%) Cu over 79.7 m, including a high-grade interval of 5 m with 4.25 g/t Au, 12.6 g/t Ag and 28,116 ppm (2.81%) Cu (Figure 10.11). The high copper values and style of mineralization of this new zone are distinct from other high-grade zones at Ranch. This new zone is defined by stockwork anhydrite and massive silica, rather than the more typical leached and vuggy silica observed elsewhere at Ranch. Located 75 m to the east of drill hole 23BNGDD001, drill hole 23BNGDD024 intersected a strong zone of high-grade Au and Cu, including 20.00 m of 8.46 g/t Au, 37.0 g/t Ag and 17,243 ppm (1.72%) Cu, which successfully extended the mineralized zone. This mineralized intersection includes a 5 m interval that averaged 20.57 g/t Au, 94.9 g/t Ag, and 47,549 ppm (4.76%) Cu. This mineralization remains open along strike and at depth (Thesis, 2024b).

Drill holes 23BNGDD006 and 23BNGDD012 were designed to follow-up on a 2022 drill hole that intersected 50.3 m of 1.86 g/t Au. Drill hole 23BNGDD006 encountered mineralized vuggy silica, however, due to the brittle nature of the rock, drill core recovery was extremely poor (<20%). The drill hole was redrilled as 23BNGDD012 and successfully recovered 24.72 m of mineralized drill core that averaged 5.37 g/t Au, 6.5 g/t Ag, and 98.9 ppm Cu. This drill hole also encountered a deeper high-grade Ag-Cu zone that averaged 8,347 g/t Ag and 320,033 ppm (32.0%) Cu over 9.00 m. Due to drilling complications, drill core recovery from this lower zone was poor and the drill hole was abandoned in mineralization (Thesis, 2023f). Analytical highlights from the 2023 drill program at the Bingo Zone are presented in Table 10.26.

FIGURE 10.11 BINGO CROSS-SECTIONAL PROJECTION A-A' LOOKING NORTH-NORTHEAST



Source: Modified from Thesis (2024b)

Drill Hole ID	From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)	Cu (ppm)
23BNGDD001	75.00	154.70	79.70	1.52	4.4	4,226
including	78.70	113.87	35.17	2.33	5.7	7,724
including	100.00	105.00	5.00	4.25	12.6	28,116
including	139.00	143.5	4.50	3.19	9.7	4,975
23BNGDD006	10.50	14.00	3.50	4.34	4.1	22
and*	53.00	56.00	3.00	0.07	97.7	1,230
and	58.95	65.00	6.05	1.08	14.7	5,870
23BNGDD008	66.32	91.14	24.82	3.38	6.5	3,623

TABLE 10.26 SELECT 2023 BINGO ZONE DRILL HIGHLIGHTS						
Drill Hole ID	From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)	Cu (ppm)
including	72.00	84.00	12.00	5.42	10.5	6,078
including	75.46	76.46	1.00	23.37	52.7	38,325
23BNGDD012	4.10	28.82	24.72	5.37	6.5	99
including	5.95	8.00	2.05	36.60	8.7	33
and	35.00	44.00	9.00	0.05	8,346.8	32,033
23BNGDD018	140.00	169.27	29.27	0.87	4.3	1,309
including	141.00	144.50	3.50	1.62	18.0	4,743
including	164.00	168.00	4.00	2.06	5.9	3,997
23BNGDD023	5.00	14.00	9.00	0.48	0.7	171
and	31.30	91.00	59.70	0.93	18.7	424
including	44.00	74.00	30.00	1.26	33.9	491
23BNGDD024	69.00	89.00	20.00	8.46	37.0	1,7243
including	74.00	79.00	5.00	20.57	94.9	47,549
and including	86.00	89.00	3.00	11.39	74.2	31,274
and	97.00	111.28	14.28	1.97	4.8	4,947
and	160.36	164.26	3.90	2.46	5.3	4,017
23BNGDD028	58.00	73.25	15.25	2.06	7.4	2,350
including	63.95	68.00	4.05	4.95	6.0	7,020
23BNGDD029	47.00	85.9	38.90	2.79	4.8	5,817
including	56.00	57.00	1.00	23.70	6.9	3,330
23BNGDD035	59.93	62.00	2.07	0.36	2.0	288
and	73.00	102.2	29.2	2.64	51.1	7,048
including	74.00	99.5	25.5	2.94	58.2	7,925
including	80.00	92.00	12.00	3.92	12.0	9,003
*Denotes anomalous Ag and or Cu only sample (no Au)						

10.3.3.2 Thesis III Zone

Drilling at the Thesis III Zone began in 2021 and to date comprises 66 drill holes (61 DDH and 5 RC) for 13,051 m (12,594 m DDH and 457 m RC) with 12,595 m (12,138 m DDH and 457 m RC) sampled. A summary of the recent Thesis III prospect drilling by year is provided in Table 10.27.

TABLE 10.27 SUMMARY THEIS III DRILLING 2021 TO 2023					
Year	Type	Drill Core size	Quantity	Metres Drilled	Metres Sampled
2021	Diamond	HQ/NQ2	14	2,251.00	2,107.59
	RC	-	5	457.20	457.20
2022	Diamond	HQ/NQ2	25	7,392.10	7,205.35
2023	Diamond	HQ/NQ2	22	2,951.00	2,824.57

The previously reported 2021 and 2022 Thesis III drilling (Tuner and Hough, 2022) was designed to confirm historical results, expand mineralization, and test continuity between the Thesis II and Bingo Zones. Significant gold-silver mineralization was encountered in 37 drill holes. Furthermore, a new mineralized zone (the “West Zone”) was discovered ~100 m west of the main Thesis III Zone. The 2022 drilling at Thesis III demonstrated continuity of the mineralization between the zones and expanded the Thesis Structural Corridor. Drill holes 22TH3DD021 and 22TH3DD022 tested the gap between the Thesis II and Thesis III Zones, whereas drill hole 22TH3DD017 tested the gap between Thesis III and Bingo Zones. All the drill holes encountered significant mineralization, which expanded the Thesis III Zone to >400 m in strike length (Thesis, 2023a). Analytical highlights from the 2021 and 2022 drilling at Thesis III are presented in Table 10.28.

TABLE 10.28 DRILLING HIGHLIGHTS OF THE THESIS III ZONE FROM 2021-2022		
Year	Drill Hole ID	Results
2021	21TH3DD005 (Thesis III)	110.90 g/t Au and 3.9 g/t Ag over 4.80 m.
2021	21TH3DD007 (Thesis III)	65.90 g/t Au and 5.6 g/t Ag over 1.00 m.
2022	22TH3DD021 (Thesis III)	23.00 g/t Au and 48.9 g/t Ag over 1.00 m.

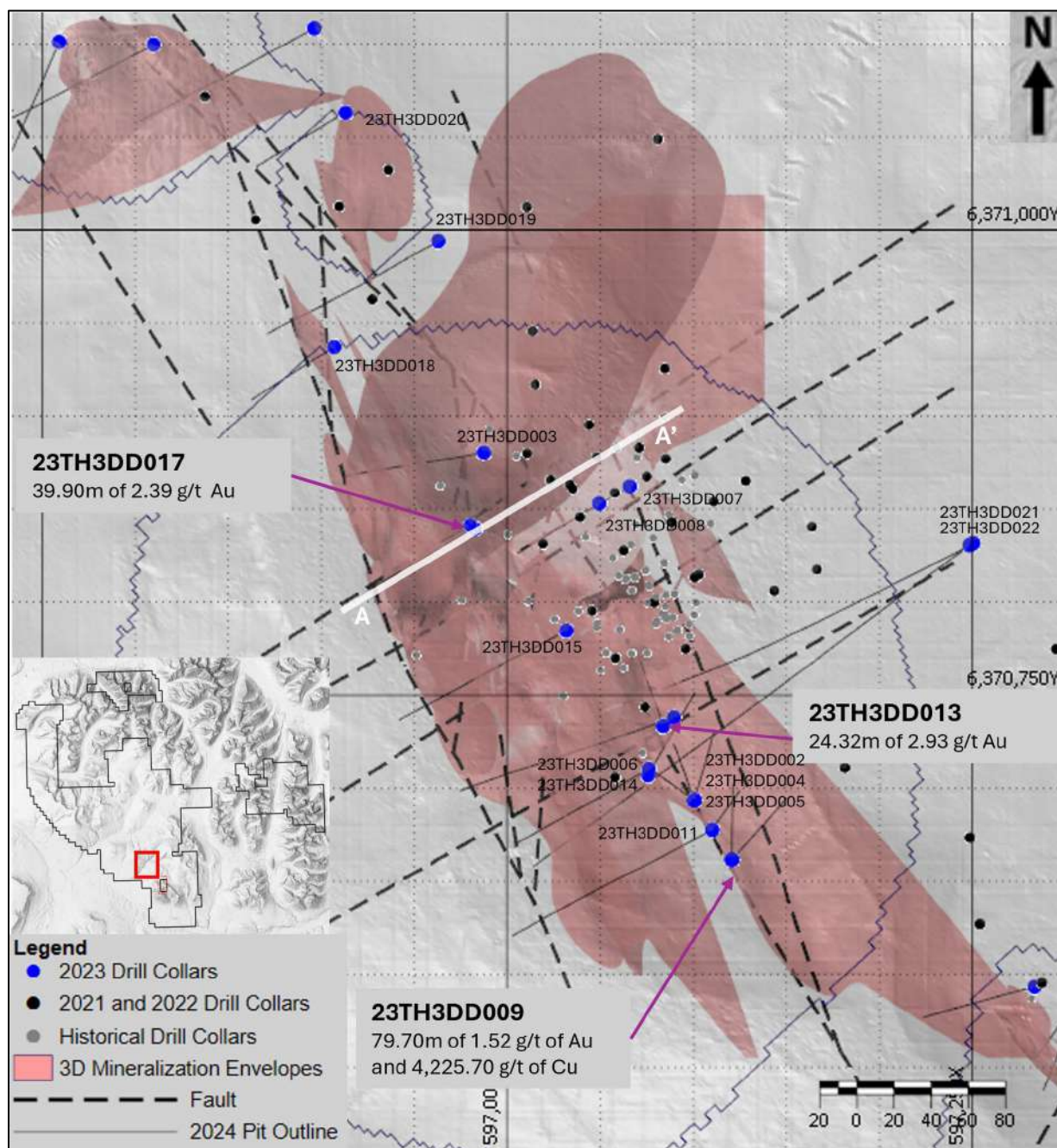
The 2023 drilling at the Thesis III Zone consisted of 22 diamond drill holes totalling 2,951 m, of which 2,825 m (2,407 samples) were sampled (Table 10.29 and Figure 10.12).

TABLE 10.29
2023 THESIS III DRILL HOLES

Drill Hole ID	Easting (NAD83Z9)	Northing (NAD83Z9)	Elevation (masl)	Azimuth (°)	Dip (°)	Depth (m)	Drill Type	Drill Core Size	Metres Sampled
23TH3DD001	597,083.75	6,370,733.53	1,643.04	349.9	-65.0	107	DD	HQ	104.05
23TH3DD002	597,100.54	6,370,693.53	1,637.45	340.3	-65.2	80	DD	HQ	75.15
23TH3DD003	596,987.49	6,370,880.48	1,658.71	259.9	-49.9	122	DD	HQ	119.65
23TH3DD004	597,100.53	6,370,693.54	1,637.45	305.2	-60.0	80	DD	HQ	74.00
23TH3DD005	597,100.55	6,370,693.55	1,637.45	15.2	-60.3	80	DD	HQ	73.60
23TH3DD006	597,075.64	6,370,706.93	1,640.13	29.2	-49.8	80	DD	HQ	74.00
23TH3DD007	597,065.78	6,370,862.29	1,654.67	240.3	-50.1	107	DD	HQ	95.00
23TH3DD008	597,049.33	6,370,853.11	1,655.66	240.1	-50.0	80	DD	HQ	71.00
23TH3DD009	597,120.69	6,370,661.63	1,629.18	41.1	-48.2	71	DD	HQ	65.00
23TH3DD010	597,120.72	6,370,661.65	1,629.18	0.0	-64.1	92	DD	HQ	87.00
23TH3DD011	597,110.16	6,370,677.70	1,634.02	33.4	-64.9	62	DD	HQ	57.85
23TH3DD012	597,110.16	6,370,677.70	1,634.02	240.0	-50.0	191	DD	HQ	186.50
23TH3DD013	597,089.53	6,370,738.04	1,643.11	251.1	-49.8	191	DD	HQ	188.04
23TH3DD014	597,076.04	6,370,710.48	1,640.44	240.0	-65.0	200	DD	HQ	197.00
23TH3DD015	597,031.64	6,370,784.71	1,651.89	240.1	-49.9	161	DD	HQ	158.10
23TH3DD016*	596,980.17	6,370,841.37	1,656.67	240.0	-50.3	29	DD	HQ	0.00
23TH3DD017	596,982.62	6,370,839.44	1,656.51	239.7	-50.2	102	DD	HQ	96.90
23TH3DD018	596,907.00	6,370,937.18	1,660.76	240.3	-50.0	82	DD	HQ	79.17
23TH3DD019	596,962.92	6,370,994.14	1,664.27	240.1	-49.7	164	DD	HQ	159.00
23TH3DD020	596,913.14	6,371,063.13	1,663.29	240.5	-45.0	80	DD	HQ	76.40
23TH3DD021	597,250.44	6,370,831.70	1,634.13	240.1	-50.3	401	DD	HQ	399.66
23TH3DD022	597,248.47	6,370,830.54	1,634.32	233.0	-44.9	389	DD	HQ	387.50

*Drill hole abandoned before target and was not sampled

FIGURE 10.12 2023 THESIS III DRILL HOLE LOCATION AND HIGHLIGHTS

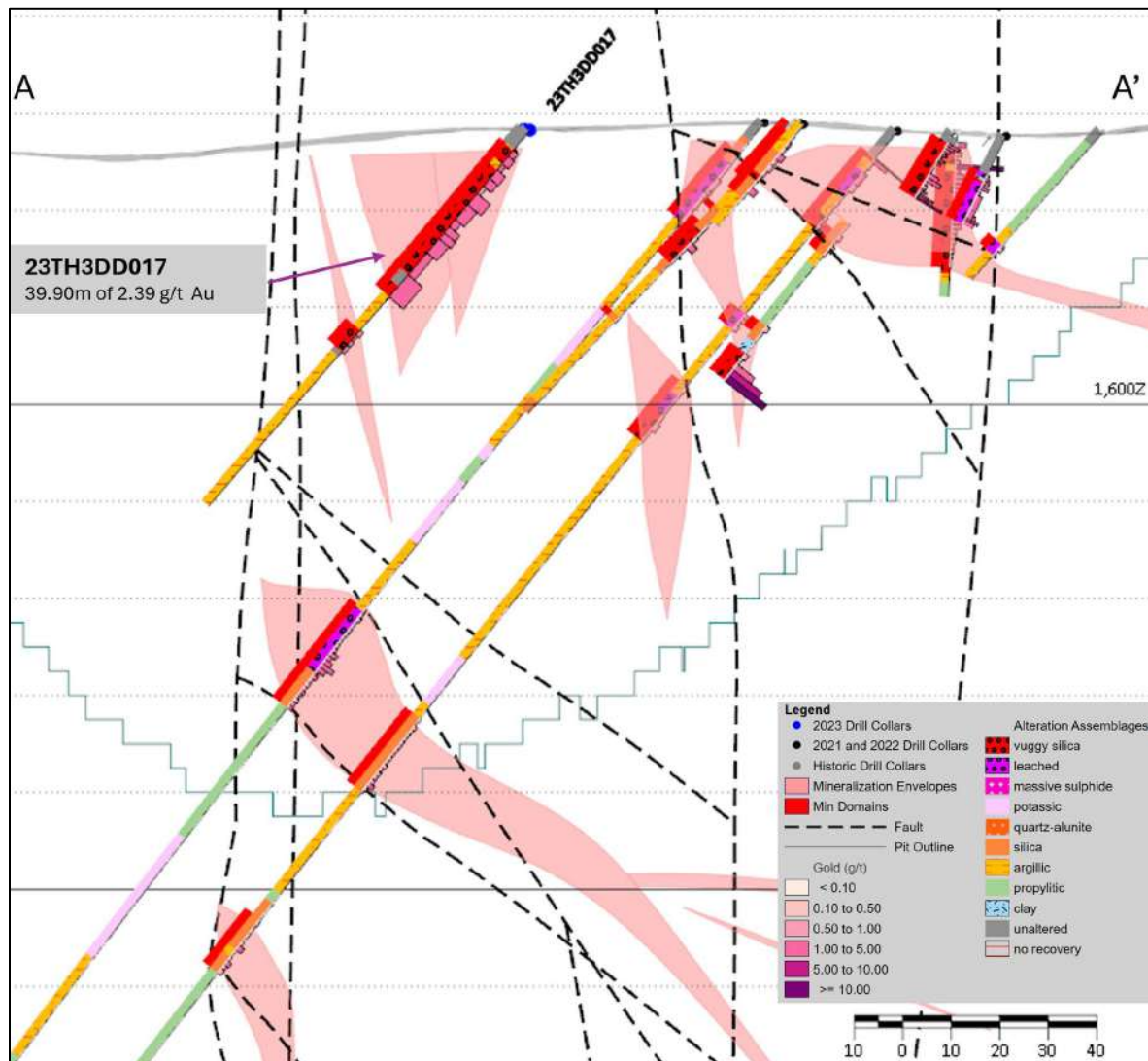


Source: Thesis (2024)

The 2023 drilling conducted at Thesis III successfully confirmed mineralization continuity along strike and at depth building on the results of the previous drilling campaigns. Significant gold-silver-copper mineralization was encountered in 15 drill holes. Notable intercepts include drill hole 23TH3DD013, which intercepted 2.93 g/t Au, 0.8 g/t Ag and 214 ppm Cu over 24.32 m, and drill hole 23TH3DD017, which intersected 2.39 g/t Au, 14.5 g/t Ag, and 883 ppm Cu over 39.90 m, including a 5.92 m interval of 2,736 ppm (0.27%) Cu (Thesis, 2024) (Figure 10.13).

Drill hole 23TH3DD009 intersected a near surface 0.48 m interval averaging 2,490 g/t Ag and 3,010 ppm (0.30%) Cu. To date, mineralization at Thesis III has been confirmed along a strike length of 400 m and to a depth of 300 m. Analytical highlights from the 2023 drill program at Thesis III are presented in Table 10.30.

FIGURE 10.13 THESIS III ZONE CROSS-SECTIONAL PROJECTION A-A' LOOKING NORTHEAST



Source: Thesis (2023)

TABLE 10.30 SELECT 2023 DRILL INTERSECTION HIGHLIGHTS FROM THE THESIS III ZONE						
Drill Hole ID	From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)	Cu (ppm)
23TH3DD001	11.00	24.00	13.00	1.06	1.5	236
including	21.00	24.00	3.00	2.78	3.6	612
and	33.00	90.00	57.00	0.76	1.3	48
including	77.00	78.00	1.00	7.15	11.4	253
and	106.00	107.00	1.00	6.79	2.2	117
23TH3DD007	9.00	16.00	7.00	3.77	1.4	27
and	78.53	97.00	18.47	0.46	1.0	93
23TH3DD009*	14.00	14.48	0.48	0.01	2,490.0	3,010
23TH3DD013	2.96	5.00	2.04	0.64	0.3	20
and	40.68	65.00	24.32	2.93	0.8	214
including	44.00	51.00	7.00	6.79	1.4	464
including	48.00	50.00	2.00	12.68	1.8	310
23TH3DD017	5.10	45.00	39.90	2.39	14.5	883
and	54.08	60.00	5.92	0.67	21.5	2,736
23TH3DD022	309.00	353.00	44.00	0.88	1.4	793
including	309.00	339.00	30.00	1.11	1.1	994
including	323.00	337.00	14.00	1.80	2.0	2,072
including	346.00	353.00	7.00	0.75	3.1	700
and	360.00	363.07	3.07	0.35	1.5	91
*Denotes anomalous Ag and or Cu only sample (no Au)						

10.3.3.3 Thesis II Zone

Drilling at the Thesis II Zone by Thesis Gold began in 2021 and currently comprises 39 diamond drill holes totalling 8,933 m, with 8,458 m sampled. A summary of drilling conducted by year at the Thesis II is provided in Table 10.31.

TABLE 10.31 SUMMARY THESIS II DRILLING 2021 TO 2023					
Year	Type	Drill Core Size	Quantity	Metres Drilled	Metres Sampled
2021	Diamond	HQ/NQ2	9	1,396.42	1,277.63
2022	Diamond	HQ/NQ2	20	6,034.00	5,807.00
2023	Diamond	HQ	10	1,503.00	1,373.13

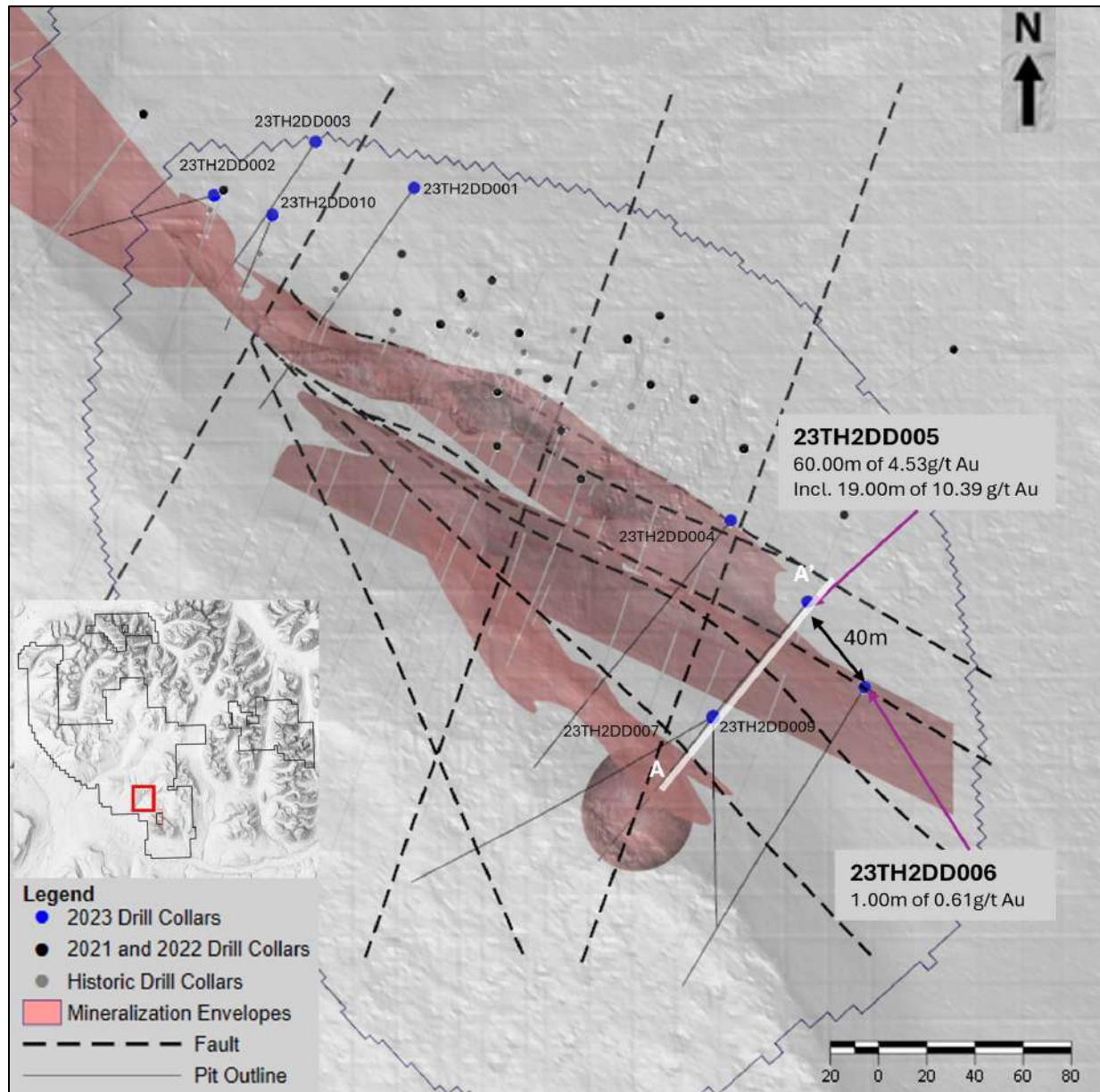
The 2021 and 2022 drilling at Thesis II, which was reported previously (Turner and Hough, 2022) was designed to confirm historical drill results and to expand the zones of mineralization they

identified. Significant gold-silver mineralization was encountered in 26 of the 29 2021-22 drill holes completed at Thesis II, which greatly expanded the geological understanding of the deposit/zone. In addition, the 2021-2022 drilling resulted in the discovery of two new zones of mineralization at the Thesis II prospect, namely the “South Zone” and the parallel “Discovery Zone” (Table 10.32: Thesis, 2022a), and thus the Thesis II Zone now comprises at least three subparallel fault-bound lenses of mineralization. Two drill holes completed between Thesis II and Thesis III encountered mineralization indicating potential continuity between these zones.

TABLE 10.32 2021-2022 THESIS II ZONE DRILLING HIGHLIGHTS		
Year	Drill Hole ID	Results
2021	21TH2DD003 (Thesis II)	6.50 g/t Au and 3.6 g/t Ag over 3.50 m
2022	22TH2DD012 (Thesis II)	46.50 g/t Au and 41.9 g/t Ag over 2.00 m
2022	22TH2DD014 (Thesis II)	27.00 g/t Au and 33.8 g/t Ag over 2.00 m

The 2023 drilling program at the Thesis II Zone consisted of 10 diamond drill holes totalling 1,503 m, of which 1,373 m was sampled (1,151 samples) (Figure 10.14 and Table 10.33).

FIGURE 10.14 2023 THESIS II DRILL HOLE LOCATIONS AND HIGHLIGHTS



Source: Modified from Thesis (2024a)

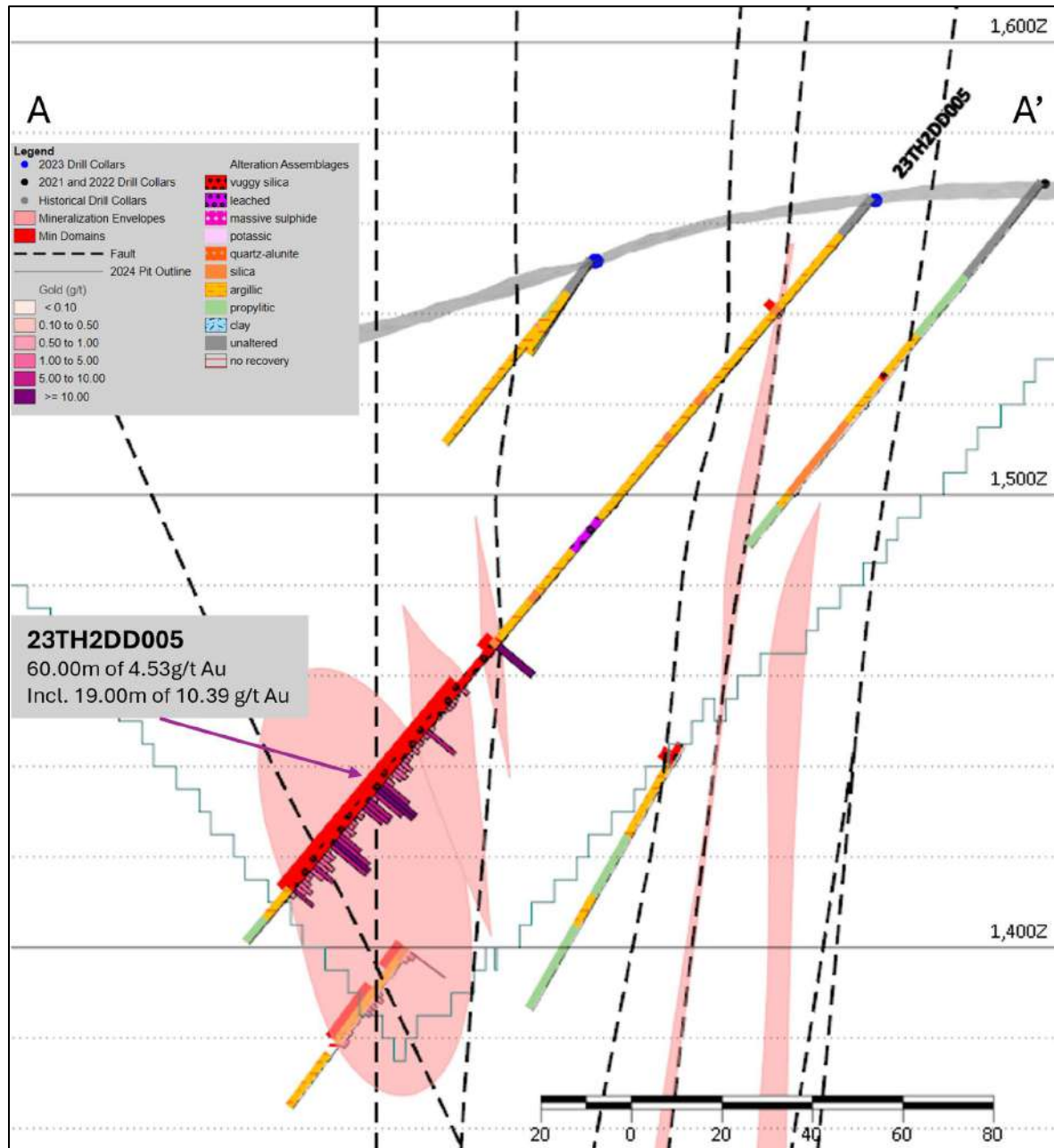
TABLE 10.33
2023 THESIS II DRILL HOLES

Drill Hole ID	Easting (NAD83Z9)	Northing (NAD83Z9)	Elevation (masl)	Azimuth (°)	Dip (°)	Depth (m)	Drill Type	Drill Core Size	Metres Sampled
23TH2DD001	597,366.38	6,370,596.40	1,600.39	215.0	-50.1	176	DD	HQ	170.00
23TH2DD002	597,283.39	6,370,593.32	1,607.45	255.0	-50.4	98	DD	HQ	94.75
23TH2DD003	597,325.52	6,370,615.55	1,606.84	214.9	-49.9	116	DD	HQ	110.00
23TH2DD004	597,497.71	6,370,458.46	1,571.53	217.3	-45.0	188	DD	HQ	177.10
23TH2DD005	597,529.69	6,370,424.68	1,565.12	218.6	-50.2	215	DD	HQ	204.27
23TH2DD006	597,553.28	6,370,389.17	1,557.86	212.0	-50.3	229	DD	HQ	221.50
23TH2DD007	597,490.50	6,370,377.13	1,551.70	240.0	-49.2	215	DD	HQ	204.41
23TH2DD008*	597,490.41	6,370,376.66	1,551.70	179.9	-48.3	50	DD	HQ	0.00
23TH2DD009	597,490.39	6,370,376.60	1,551.70	180.4	-50.1	136	DD	HQ	114.10
23TH2DD010	597,307.60	6,370,585.15	1,605.18	200.4	-50.4	80	DD	HQ	77.00

**Drill hole abandoned before target and was not sampled*

The 2023 drilling conducted at Thesis II successfully demonstrated continuity of mineralized zones by in-filling previous pierce points and extending mineralization along strike to the east. Anomalous gold and silver mineralization was encountered in four drill holes. The most significant drill hole of the 2023 program at Thesis II was 23TH2DD005, which is located at the southeastern end of the Zone (Figure 10.15) and intersected 4.53 g/t Au, 2.1 g/t Ag and 442 ppm Cu over 60.00 m, including 19.00 m of 10.39 g/t Au, 1.9 g/t Ag and 95 ppm Cu. Interestingly, a second step-out drill hole, 23TH2DD006, intersected a low-grade 1.00 m interval that assayed 0.61 g/t Au, suggesting that the northeast-trending structure separating the two drill holes may be offsetting mineralization to the southwest (Thesis, 2024a). To date, mineralization at the Thesis II Zone has a confirmed strike length of 350 m and vertical depth of 270 m. Analytical highlights from the 2023 drilling at Thesis II are presented in Table 10.34.

FIGURE 10.15 THESIS II CROSS-SECTIONAL PROJECTION A-A' LOOKING NORTHWEST



Source: Modified from Thesis (2024a)

TABLE 10.34 SELECT 2023 THESIS II ZONE DRILL HIGHLIGHTS (THESIS, 2024)						
Drill Hole ID	From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)	Cu (ppm)
23TH2DD001	108.12	114.20	6.08	0.53	1.1	138
23TH2DD004	130.26	133.00	2.74	0.83	0.6	75
23TH2DD005	31.67	33.81	2.14	0.59	1.5	28
and	128.28	129.92	1.64	44.80	2.9	42
and	141.00	201.00	60.00	4.53	2.1	442
including	153.00	199.80	46.80	5.61	2.6	559
including	168.00	187.00	19.00	10.39	1.6	95
including	169.00	172.00	3.00	32.84	1.9	26
including	170.00	171.00	1.00	75.60	4.7	29
including	184.00	187.00	3.00	19.09	3.2	61
including	185.00	186.00	1.00	38.30	0.2	294
23TH2DD006	170.00	171.00	1.00	0.61	0.3	11

10.3.4 JK Zone

Drilling at the JK Zone by Thesis Gold began in 2021 and currently comprises 17 diamond drill holes totalling 2,092 m, of which 1,960 m has been sampled. A summary of the recent JK drilling by year is provided in Table 10.35.

TABLE 10.35 SUMMARY OF JK ZONE DRILLING 2021 TO 2023					
Year	Type	Drill Core size	Quantity	Metres Drilled	Metres Sampled
2021	Diamond	NQ2	4	731	677.89
2022	Diamond	HQ	2	268	261.27
2023	Diamond	HQ	11	1,093	1,021.21

The 2021 and 2022 drilling at the JK Zone, which was previously discussed in Turner and Hough (2022), evaluated historical drill results and tested a geophysical target identified by surface exploration work. Four (4) drill holes intersected high-grade gold mineralization. Drill hole 22JKDD001 intersected a zone of mineralization averaging 3.01 g/t Au over 13.87 m, which was hosted in a leached silica zone resembling the main gold-bearing zones at Bonanza. The results from the 2021 and 2022 drill programs indicated the presence of higher-grade gold mineralization than that suggested by historical drilling, likely due to poor drill core recovery and a then incomplete understanding of the structural controls on mineralization within the ZK Zone. The recent 2023 drilling at the JK Zone successfully extended the mineralization to >230 m along strike and demonstrated continuity at depth, expanding on the 2021 and 2022 drilling results.

Drilling at JK in 2023 consisted of 11 diamond drill holes totalling 1,093 m, of which 1,021 m were sampled (781 samples) (Thesis, 2023g) (Table 10.36).

The 2023 drilling at the JK Zone continued to delineate and expand the previously identified zone of mineralization at the prospect. Drill hole 23JKDD005 intersected a 69.83 m interval averaging 1.28 g/t Au, 8.6 g/t Ag and 1,044 ppm (0.10%) Cu, including a 2.0 m interval averaging 5.48 g/t Au, 42.8 g/t Ag, and 13,935 ppm (1.39%) Cu, demonstrating that mineralization extends to at least a vertical depth of 100 m (below surface). Significant results were also returned from drill hole 23JKDD011, the northernmost drill hole completed to date, which intersected 9.37 m of 2.03 g/t Au, 5.7 g/t Ag, and 741 ppm Cu, including a 2.0 m interval averaging 3.81 g/t Au, 9.6 g/t Ag and 1,453 ppm Cu. This drill hole indicated an extension of the mineralized zone ~200 m north along strike from the previous drilling. High-grade mineralization was also encountered in drill hole 23JKDD001, which intersected a 20.0 m interval that averaged 2.93 g/t Au, 7.2 g/t Ag and 987 ppm (0.10%) Cu, including a 4.0 m interval that averaged 7.81 g/t Au, 17.5 g/t Ag, and 3,319 (0.33%) ppm Cu. Drill hole 23JKDD001 succeeded in recovering drill core in an area that has previously been difficult to drill and confirmed the presence of high-grade mineralization. Analytical highlights from 2023 drilling at JK are presented in Table 10.37 and Figure 10.16.

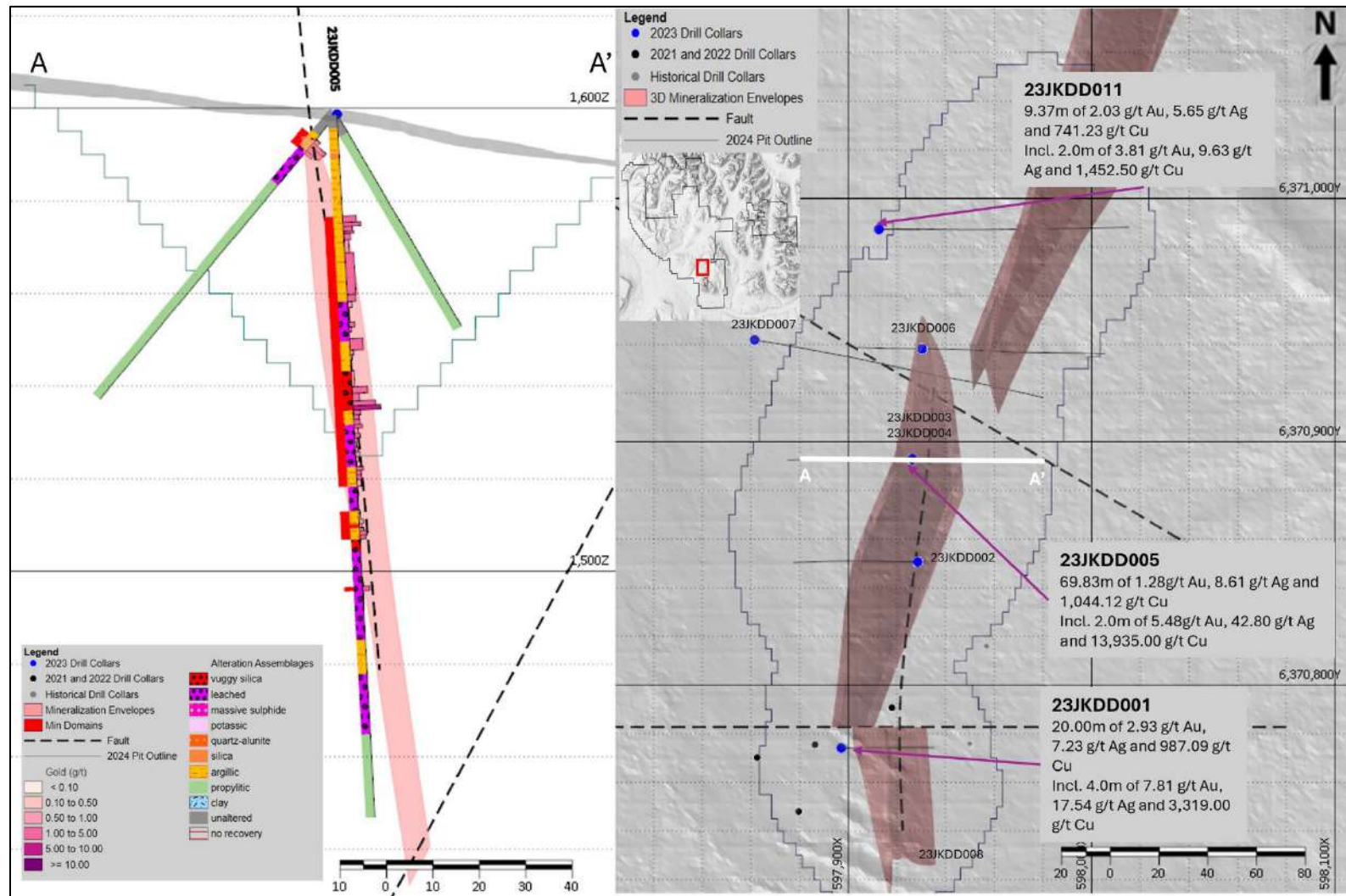
TABLE 10.36
2023 JK DRILL HOLES

Drill Hole ID	Easting (NAD83Z9)	Northing (NAD83Z9)	Elevation (masl)	Azimuth (°)	Dip (°)	Depth (m)	Drill Type	Drill Core Size	Metres Sampled
23JKDD001	597,897.16	6,370,774.11	1,584.89	89.8	-49.8	59	DD	HQ	53.00
23JKDD002	597,928.51	6,370,850.59	1,592.61	270.0	-49.8	80	DD	HQ	75.00
23JKDD003	597,926.17	6,370,892.97	1,598.69	270.2	-50.1	80	DD	HQ	74.00
23JKDD004	597,926.17	6,370,892.97	1,598.69	90.0	-60.0	53	DD	HQ	48.50
23JKDD005	597,926.15	6,370,892.93	1,598.69	90.0	-87.0	152	DD	HQ	149.00
23JKDD006	597,930.25	6,370,938.22	1,601.84	90.5	-50.2	119	DD	HQ	115. 20
23JKDD007	597,930.27	6,370,938.20	1,601.84	270.9	-69.9	80	DD	HQ	77.00
23JKDD008	597,891.20	6,370,706.10	1,575.06	89.9	-50.0	92	DD	HQ	83.00
23JKDD009	597,861.49	6,370,941.92	1,613.71	98.3	-50.2	191	DD	HQ	188.51
23JKDD010*	597,912.59	6,370,987.36	1,609.58	90.4	-50.0	26	DD	HQ	0.00
23JKDD011	597,912.60	6,370,987.37	1,609.58	90.4	-50.2	161	DD	HQ	158.00

**Drill hole abandoned before target and was not sampled*

TABLE 10.37 SELECT 2023 JK ZONE DRILL HIGHLIGHTS						
Drill Hole ID	From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)	Cu (ppm)
23JKDD001	11.00	31.00	20.00	2.93	7.2	987
including	27.00	31.00	4.00	7.81	17.5	3,319
23JKDD002	32.00	38.00	6.00	1.48	4.8	643
23JKDD003	7.00	11.00	4.00	2.64	8.8	119
23JKDD005	22.00	91.83	69.83	1.28	8.6	1,044
including	59.00	67.85	8.85	2.66	21.8	6,734
23JKDD006	35.00	38.00	3.00	1.93	1.0	68
and	48.35	52.00	3.65	1.05	5.77	433
23JKDD011	103.23	112.6	9.37	2.03	5.65	741
including	107.00	109.00	2.00	3.81	9.63	1,453

FIGURE 10.16 2023 JK ZONE DRILLING LOCATION AND HIGHLIGHTS, CROSS-SECTIONAL PROJECTION A-A' LOOKING NORTH

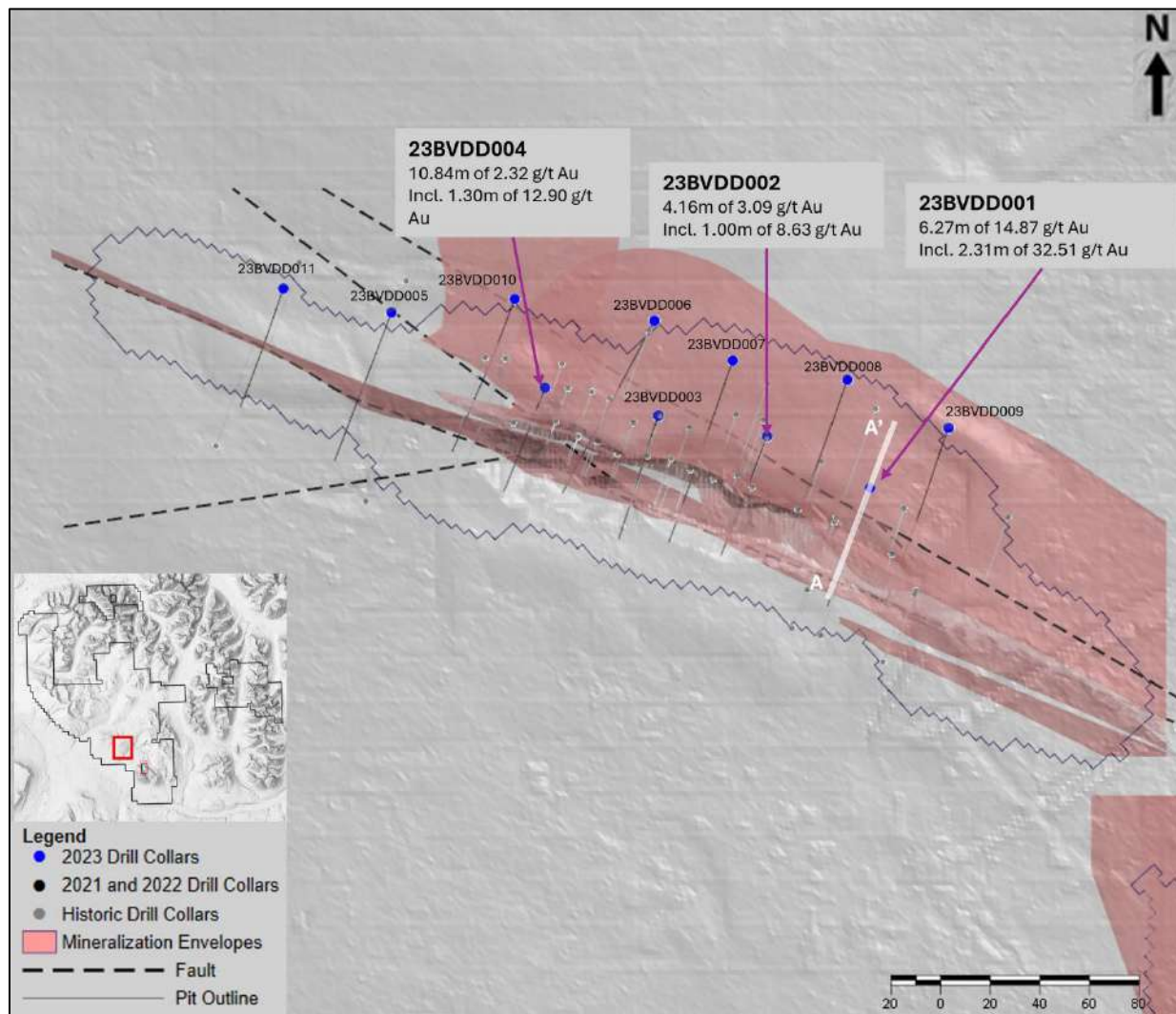


Source: Modified from Thesis (2023g)

10.3.5 BV (Barite Vein) Zone

Thesis Gold conducted its first drilling at the BV (Barite Vein) Zone in 2023. The 2023 program comprised 11 diamond drill holes totalling 1,079 m, of which 1,038 m was sampled (774 samples) (Table 10.38 below and Figure 10.17).

FIGURE 10.17 BV DRILL HOLE LOCATION AND SELECT HIGHLIGHTS



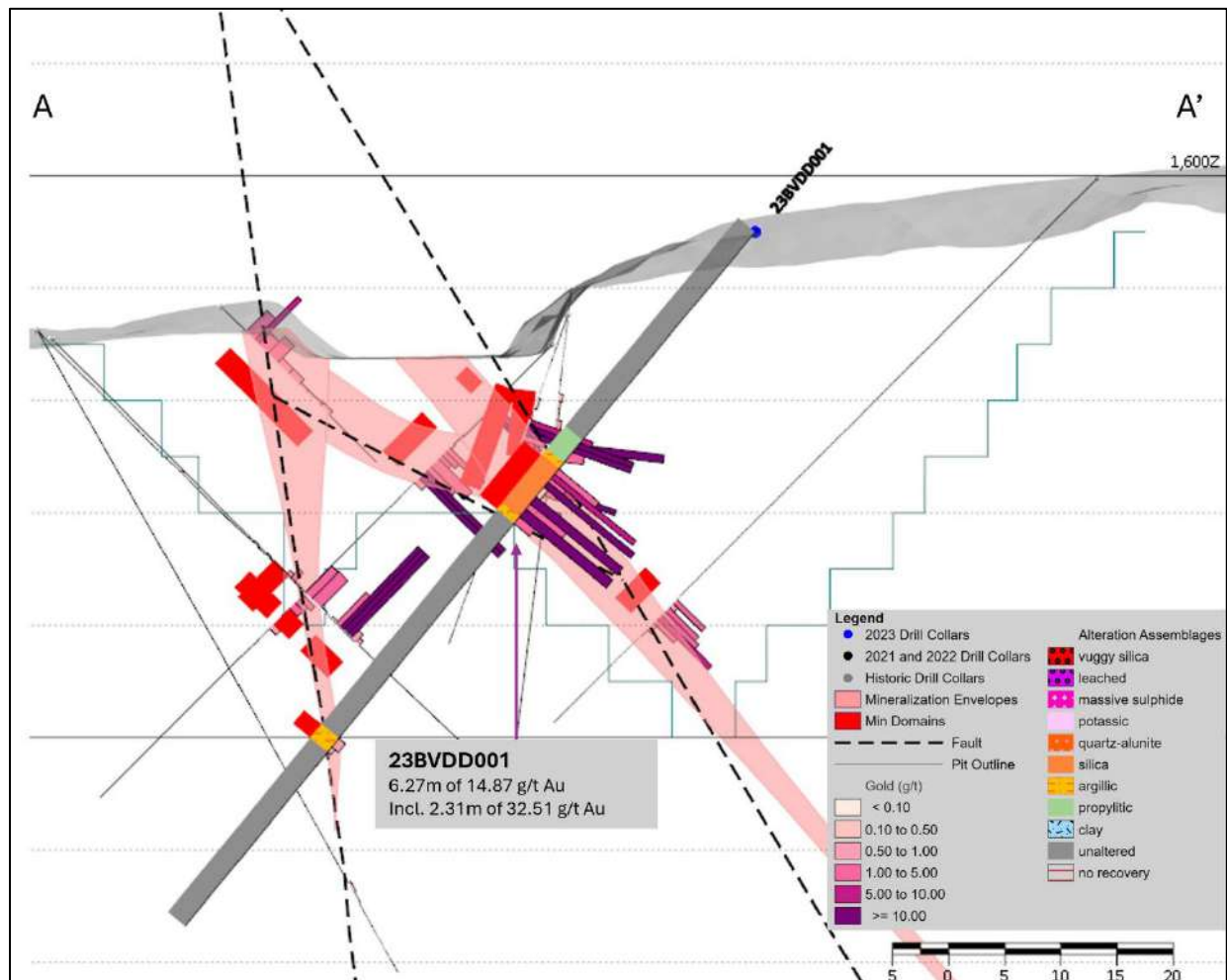
Source: Modified from Thesis (2023h)

TABLE 10.38
2023 BV (BARITE VEIN) DRILL HOLES

Drill Hole ID	Easting (NAD83Z9)	Northing (NAD83Z9)	Elevation (masl)	Azimuth (°)	Dip (°)	Depth (m)	Drill Type	Drill Core Size	Metres Sampled
23BVDD001	596,785.09	6,369,979.43	1,594.99	199.9	-50.3	80	DD	HQ	77.00
23BVDD002	596,743.60	6,370,000.15	1,600.30	200.3	-50.0	80	DD	HQ	75.87
23BVDD003	596,699.72	6,370,008.47	1,601.99	200.5	-49.7	80	DD	HQ	75.00
23BVDD004	596,653.98	6,370,019.71	1,605.77	200.4	-50.2	71	DD	HQ	67.10
23BVDD005	596,592.11	6,370,050.03	1,613.06	200.1	-50.0	101	DD	HQ	98.26
23BVDD006	596,698.16	6,370,046.65	1,610.02	207.9	-49.8	122	DD	HQ	119.50
23BVDD007	596,729.71	6,370,030.72	1,608.12	200.4	-50.1	122	DD	HQ	117.23
23BVDD008	596,775.84	6,370,022.91	1,603.81	200.1	-49.8	122	DD	HQ	119.92
23BVDD009	596,816.71	6,370,003.58	1,595.39	200.1	-50.1	117	DD	HQ	109.77
23BVDD010	596,641.80	6,370,055.51	1,614.08	200.4	-50.1	104	DD	HQ	102.33
23BVDD011	596,548.55	6,370,059.71	1,615.21	200.4	-50.0	80	DD	HQ	76.16

The 2023 drilling at BV confirmed historical results and expanded mineralization at depth. Drill hole 23BVDD001 intersected 14.87 g/t Au, 6.4 g/t Ag and 146 ppm Cu over 6.27 m, including 2.31 m that averaged 32.51 g/t Au, 9.7 g/t Ag, and 76 ppm Cu (Thesis, 2023h) (Figure 10.18). Drill hole 23BVDD004, located at the northeast end of the historical BV Pit, intersected 2.32 g/t Au, 3.0 g/t Ag and 32 ppm Cu over 10.84 m, including a 1.30 m interval that averaged 12.90 g/t Au, 6.0 g/t Ag, and 63 ppm Cu. Analytical results for the 2023 BV drill program are presented in Table 10.39.

FIGURE 10.18 BV CROSS-SECTIONAL PROJECTION A-A' LOOKING WEST-NORTHWEST



Source: Modified from Thesis (2023h)

TABLE 10.39 SELECT 2023 BV ZONE DRILL HIGHLIGHTS						
Drill Hole ID	From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)	Cu (ppm)
23BVDD001	27.42	33.69	6.27	14.87	6.4	146
including	30.60	32.91	2.31	32.51	9.7	76
23BVDD002	27.12	31.28	4.16	3.09	3.1	56
including	28.00	29.00	1.00	8.63	2.9	47
and	64.50	67.00	2.50	1.13	8.5	63
including	66.00	67.00	1.00	1.88	12.6	76
23BVDD003	15.50	20.00	4.50	1.44	0.9	18
and	51.00	54.90	3.90	0.86	1.9	32
including	53.00	54.00	1.00	2.46	2.3	24
23BVDD004	37.70	48.54	10.84	2.32	3.0	32
including	37.70	39.00	1.30	12.90	6.0	63
23BVDD005	52.75	59.50	6.75	0.45	1.5	25
including	55.51	56.50	0.99	1.42	2.3	28
23BVDD006	46.90	49.62	2.72	1.31	6.1	165
and	98.00	98.66	0.66	1.05	7.0	122
23BVDD007	46.00	49.00	3.00	1.25	3.3	78
23BVDD008	59.52	62.50	2.98	0.78	4.82	196
23BVDD009	59.62	61.14	1.52	0.85	3.3	75
23BVDD010	27.90	30.20	2.30	0.72	2.5	63
23BVDD011	38.00	41.00	3.00	4.14	3.0	65
including	40.00	41.00	1.00	11.50	3.2	66

10.3.6 Bonanza South (Eric) Zone

Drilling conducted by Thesis Gold at the Bonanza South Zone (also historically referred to as the Eric Zone/prospect) was completed in 2021 and 2023 (no drilling in 2022). To date, Thesis has completed 24 drill holes (8 diamond and 16 RC drill holes) at Bonanza South that comprise 4,099 m of drilling (1,343 m diamond and 2,755 m RC) with 4,057 m (1,305 diamond and 2,752 m RC) sampled. A summary of the Bonanza South drilling by year is provided in Table 10.40.

TABLE 10.40 SUMMARY OF DRILLING AT BONANZA SOUTH 2021 TO 2023					
Year	Type	Drill Core Size	Quantity	Metres Drilled	Metres Sampled
2021	Diamond	NQ2	2	590.30	580.70
	RC	-	16	2,755.40	2,752.30
2023	Diamond	HQ	6	753.00	724.00

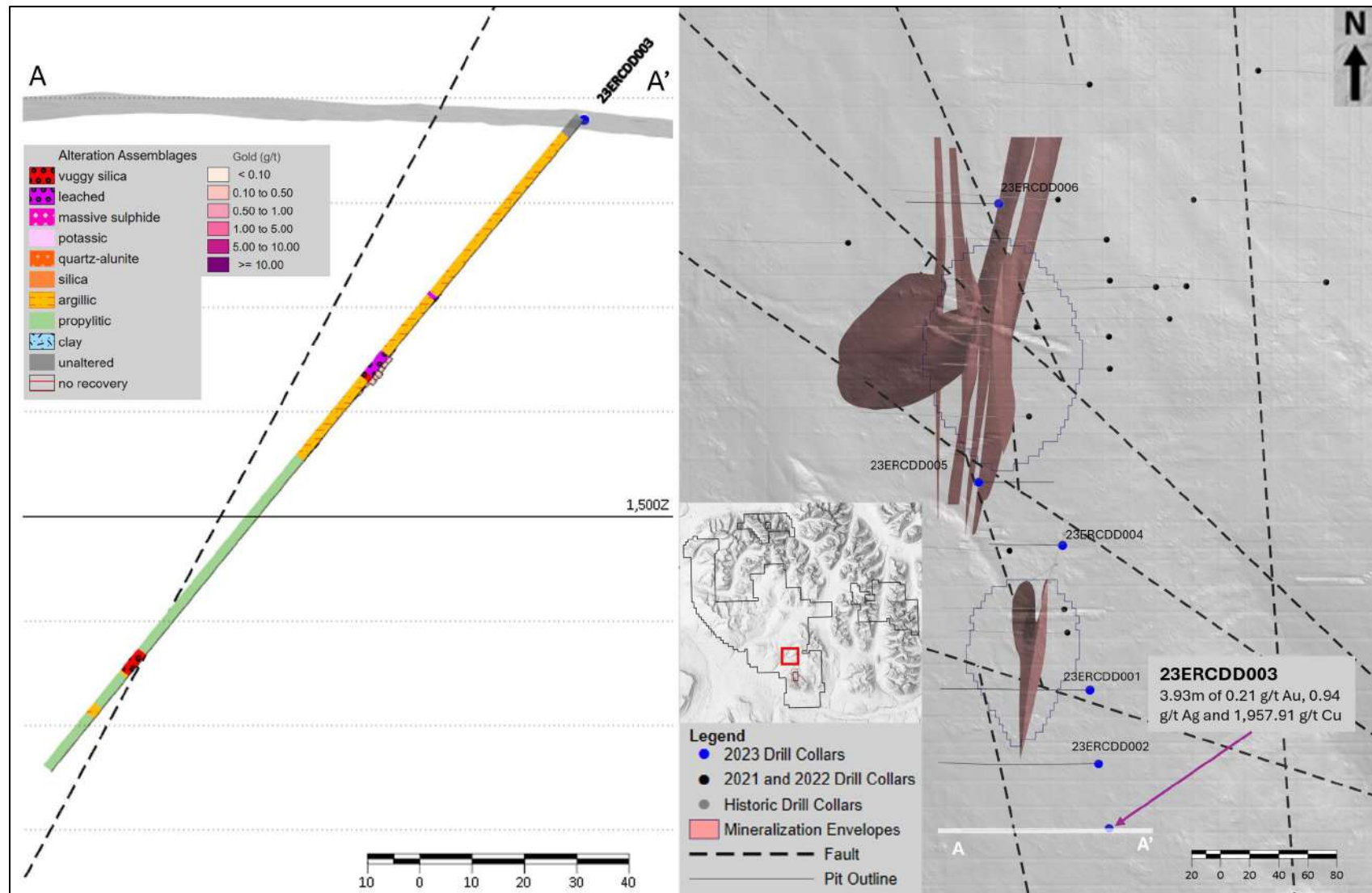
The 2021 Bonanza South drilling confirmed the presence of shallow, low-grade gold mineralization, consistent with historical results. In addition, eight drill holes encountered a new, deeper zone of mineralization (~110 to 212 m vertically below surface) that also yielded broad low-grade Au values. Select analytical highlights for the 2021 Bonanza South drilling are presented in Table 10.41.

TABLE 10.41 2021 BONANZA (ERIC) ZONE DRILLING HIGHLIGHTS		
Year	Hole ID	Results
2021	21EXPRC001	2.67 g/t Au and 2.6 g/t Ag over 19.81 m
2021	21EXPRC009	3.62 g/t Au and 108.2 g/t Ag over 1.52 m

The 2023 Bonanza South drilling was designed to expand known mineralization defined by the previous drill programs at the prospect. The program comprised six (6) diamond drill holes totalling 753 m, of which 724 m was sampled (606 samples) (Table 10.42). Four drill holes encountered favorable vuggy silica alteration, however, only one (1) hole returned significant assay results. Drill hole 23ERCDD003 intersected 0.21 g/t Au, 0.9 g/t Ag and 1,958 ppm Cu over 3.93 m (Figure 10.19). Mineralization at Bonanza South tends to be relatively low-grade and has a confirmed strike length of 350 m and a vertical extent of 200 m.

TABLE 10.42 2023 DRILL HOLES AT THE BONANZA (ERIC) ZONE									
Drill Hole ID	Easting (NAD83Z9)	Northing NAD83Z9	Elevation (masl)	Azimuth (°)	Dip (°)	Depth (m)	Drill Type	Drill Core Size	Metres Sampled
23ERCDD001	598,698.43	6,370,813.88	1,591.45	269.9	-50.4	161	DD	HQ	156.50
23ERCDD002	598,704.27	6,370,763.01	1,583.48	270.0	-50.0	170	DD	HQ	165.66
23ERCDD003	598,711.68	6,370,718.50	1,575.85	269.9	-50.0	161	DD	HQ	157.13
23ERCDD004	598,679.68	6,370,913.46	1,608.48	269.7	-50.0	80	DD	HQ	75.88
23ERCDD005	598,621.92	6,370,957.02	1,615.35	89.7	-49.9	80	DD	HQ	72.33
23ERCDD006	598,635.60	6,371,149.15	1,640.12	270.3	-49.8	101	DD	HQ	96.50

FIGURE 10.19 2023 BONANZA SOUTH DRILL HIGHLIGHTS AND CROSS-SECTIONAL PROJECTION A-A' LOOKING NORTH



Source: Thesis (2024)

10.4 OTHER LAWYERS AND RANCH EXPLORATION DRILLING

10.4.1 Marmot Zone (Lawyers Area)

Drilling conducted at the Marmot Zone by Thesis, including the Marmot Lake and Marmot Lake East Prospects, began in 2020 and comprises 34 diamond drill holes totalling 9,966 m, of which 9,831 m was sampled. A summary of the Marmot Zone drilling by year is provided in Table 10.43.

TABLE 10.43 SUMMARY OF MARMOT DRILLING 2020 TO 2022						
Year	Type	Drill Core size	Quantity	Metres Drilled	Metres Sampled	Sub-Zone
2020	Diamond	NQ2	5	1,434.40	1,418.66	Marmot Lake
2021	Diamond	NQ2	27	8,074.30	7,965.09	Marmot Lake ML East
2022	Diamond	NQ2	2	457.00	446.76	Marmot Lake

The 2020 to 2022 drilling at Marmot tested surface geochemical and geophysical anomalies, mapped mineralized structures. A total of 31 drill holes encountered significant gold and silver mineralization. The 2020 drilling encountered near surface mineralization, which was subsequently expanded with the 2021 to 2022 drilling. The mineralization appears to be open to the north and south along northwest-trending structures, with some offset along north and northeast-trending structures. Potential exists for additional mineralized zones occurring sub-parallel to the main trend, as suggested by surface sampling and mapping. Select analytical highlights from the 2020 to 2022 Marmot Zone drill programs are provided below in Table 10.44.

TABLE 10.44 2020 TO 2022 MARMOT ZONE DRILLING HIGHLIGHTS		
Year	Drill Hole ID	Results
2020	20MLDD005	9.83 g/t Au and 375.0 g/t Ag over 2.00 m.
2021	21MLDD004	16.29 g/t Au and 599.7 Ag over 3.00 m.
2022	22MLDD002	44.90 g/t Au and 1,310 g/t Ag over 0.62 m

10.4.2 Silver Pond Clay and Silver Pond North Zones (Lawyers Area)

Drilling at the Silver Pond Clay (“SPC”) and Silver Pond North (“SPN”) Zones began in 2020 and to date a total of 18 diamond drill holes has been completed (14 - Silver Pond Clay and 4 - Silver Pond North) totalling 7,360 m, of which 7,147 m has been sampled. A summary by year of the Silver Pond North and Clay drilling completed by Thesis is provided in Table 10.45.

TABLE 10.45 SUMMARY OF SILVER POND CLAY AND SILVER POND NORTH DRILLING 2020-2021						
Year	Type	Drill Core size	Quantity	Metres Drilled	Metres Sampled	Sub-Zone
2020	Diamond	NQ2	9	3,914.14	3,804.71	Silver Pond Clay
2021	Diamond	NQ2	5	1,942.50	1,879.32	Silver Pond Clay
	Diamond	NQ2	4	1,503.00	1,462.68	Silver Pond North

The 2020 and 2021 drilling at the SPC and SPN Zones tested surface geochemical and geophysical anomalies, and recently mapped structures. The SPC drilling was challenging, due to the fractured nature of the rock which occasionally affected drill core recovery. A total of 14 drill holes (six at SPC and four at SPN) encountered anomalous gold and silver mineralization. Mineralization at Silver Pond Clay is coincident with northwest-trending veins and structural zones, whereas Silver Pond North mineralization occurs in association with broad alteration zones. Hyperspectral analysis identified higher temperature clay and mica minerals, including dickite, alunite and pyrophyllite, which could suggest that this Zone was formed by more acidic fluids than the other Zones at Lawyers. Broader argillic assemblages with minor anhydrite, along with silicification, increased pyrite and base metal mineralization, is consistent with high sulphidation and porphyry style systems like more typical of the Ranch Area. Analytical highlights from the 2020 and 2021 SPC and SPN drilling programs are presented in Table 10.46.

TABLE 10.46 2020-2021 SILVER POND CLAY AND SILVER POND NORTH ZONE DRILLING HIGHLIGHTS		
Year	Drill Hole ID	Results
2020	20SPCDD009 (Silver Pond Clay)	0.05 g/t Au and 1,885 g/t Ag over 1.00 m.
2021	21SPCDD004 (Silver Pond Clay)	0.59 g/t Au and 0.5 Ag over 33.20 m.
2021	21SPNDD004 (Silver Pond North)	0.25 g/t Au and 0.8 Ag over 99.00 m.

10.4.3 Silver Pond West and Silver Creek Zones (Lawyers Area)

Drilling at the Silver Pond West and Silver Creek Zones was completed in 2021 only and comprised 18 diamond drill holes totalling 3,347 m, of which 3,263 m was sampled. A summary of 2021 10.4.3 Silver Pond West and Silver Creek drilling conducted by Thesis is provided in Table 10.47.

TABLE 10.47 SUMMARY OF SILVER POND WEST AND SILVER CREEK 2021 DRILLING						
Year	Type	Drill Core Size	Quantity	Metres Drilled	Metres Sampled	Sub-Zone
2021	Diamond	NQ2	11	2,017.00	1978.82	Silver Pond West
	Diamond	NQ2	7	1,330.00	1,284.10	Silver Creek

Drilling at the Silver Pond West and Silver Creek Zones was designed to confirm and evaluate the historical drill results and test mineralization continuity. A total of 16 drill holes encountered significant gold-silver mineralization. Sporadic (occasionally high-grade) mineralization was encountered that confirmed the historical drill results. Analytical highlights from the 2021 drilling at the Silver Pond West and Silver Creek Zones is provided below (Table 10.48).

TABLE 10.48 2021 SILVER POND WEST AND SILVER CREEK ZONE DRILLING HIGHLIGHTS		
Year	Drill Hole ID	Results
2021	21SCDD006 (Silver Creek)	0.47 g/t Au and 4.0 g/t Ag over 40.40 m.
2021	21SPWDD006 (Silver Pond West)	57.40 g/t Au and 54.9 g/t Ag over 0.74 m.
2021	21SPWDD007 (Silver Pond West)	35.90 g/t Au and 174.0 g/t Ag over 0.33 m.

10.4.4 M-Gird Zone (Lawyers Area)

Drilling conducted by Thesis at the M-Grid prospect, located to the southwest of Cliff Creek, evaluated a geophysical anomaly and tested historical drilling. Six (6) RC holes totalling 905 m (904 m sampled) were completed in 2021. Minor gold and silver mineralization was intersected in five (5) of the drill holes

10.4.5 Steve Zone (Ranch Area)

Drilling at the Steve Zone began in 2022 and to date comprises eight diamond drill holes totalling 2,529 m, of which 2,489 m was sampled. A summary of drilling by year is provided in Table 10.49.

TABLE 10.49 SUMMARY OF STEVE ZONE DRILLING 2022-2023					
Year	Type	Drill Core size	Quantity	Metres Drilled	Metres Sampled
2022	Diamond	NQ2	2	1,113.43	1,100.27
2023	Diamond	HQ/NQ2	6	1,416.00	1,389.20

Thesis completed a drill program in 2022 at the Steve Zone that consisted of two drill holes spaced ~200 m apart. Both drill holes encountering significant alteration along with several interesting gold intersections. Drill hole 22STVDD001 intersected 0.97 g/t Au and 1.1 g/t Ag over 119.2 m. Although somewhat deep (~350 m below surface), the alteration and mineralization intersected in the 2022 drilling at Steve is interpreted as corresponding to surface alteration (mapped silica-rich zones) and anomalous rock sample geochemically.

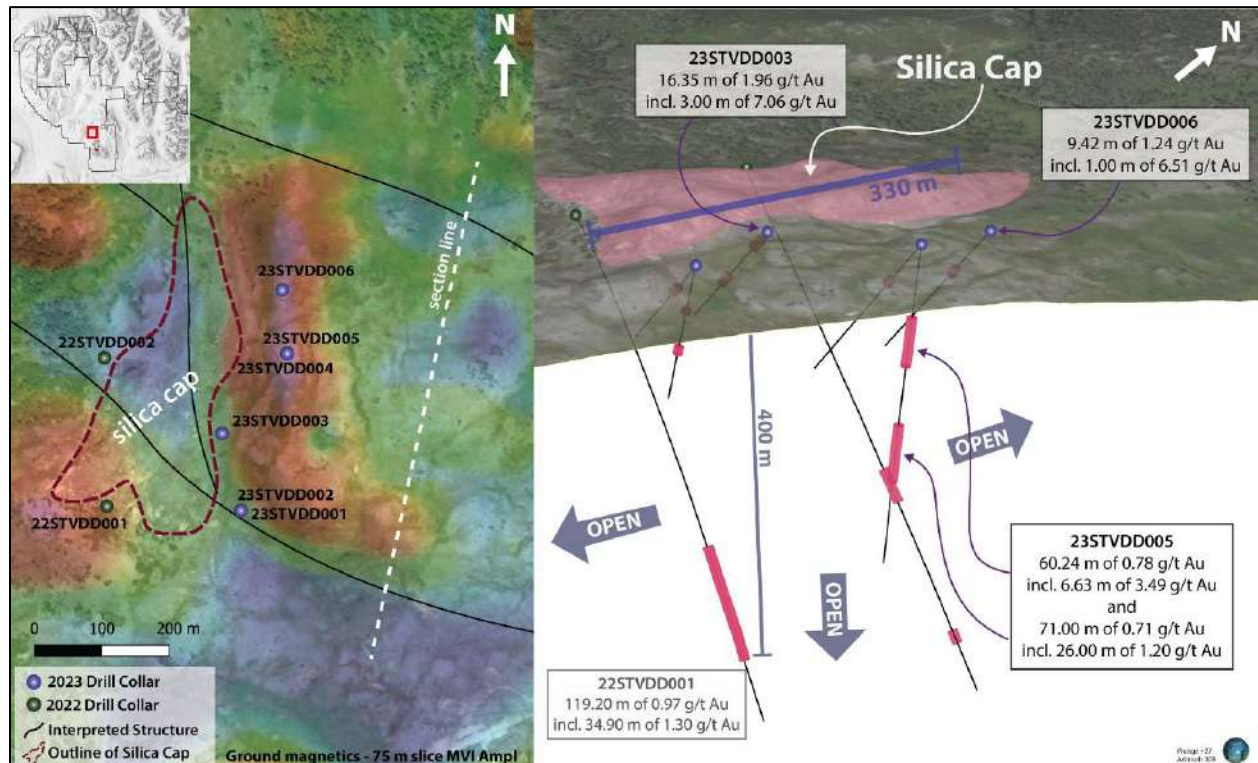
The 2023 drilling program at the Steve Zone consisted of six (6) diamond drill holes totalling 1,416 m, of which 1,389 m (1,369 samples) were assayed (Table 10.50).

TABLE 10.50
2023 STEVE ZONE DRILL HOLES

Drill Hole ID	Easting (NAD83Z9)	Northing (NAD83Z9)	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Drill Type	Core Size	Sampled (m)
23STVDD001	599413.7	6368274.3	1,697.1	270.2	-50	155.0	DD	HQ	146.18
23STVDD002	599412.0	6368273.0	1,697.1	269.5	-75	173.0	DD	HQ	170.00
23STVDD003	599385.5	6368386.6	1,688.3	270.1	-50.1	182.0	DD	HQ	177.50
23STVDD004	599482.0	6368506.0	1,675.0	270.1	-50	263.0	DD	HQ	260.00
23STVDD005	599480.6	6368506.4	1,674.7	270.3	-79.9	389.0	DD	HQ/NQ	387.00
23STVDD006	599474.4	6368600.2	1,657.1	269.8	-50.1	254.0	DD	HQ/NQ	248.52

Drilling at the Steve Zone in 2023 successfully confirmed up-dip and along strike continuity of the mineralization defined in 2022. The zone of mineralization was extended from surface to a vertical depth of >400 m and a strike length of 330 m (Thesis, 2023b). Highlights include drill hole 23STVDD003, which intersected near surface mineralization averaging 1.96 g/t Au, 5.3 g/t Ag, and 9 ppm Cu over 16.35 m, including 3.00 m zone averaging 7.06 g/t Au and 19.4 g/t Ag. Notably, drill hole 23STVDD005 intersected two broad zones of moderate mineralization comprising a shallower zone that averaged 0.78 g/t Au, 6.1 g/t Ag, and 118 ppm Cu over 60.24 m and a deeper zone that averaged 0.71 g/t Au, 1.9 g/t Ag, and 58 ppm Cu over 71.00 m. The mineralization appears to be continuous along a major northeast-trending structure. Analytical highlights from the 2023 drilling at the Steve prospect are presented in Table 10.51 and illustrated in Figure 10.20.

FIGURE 10.20 2023 STEVE ZONE DRILL HOLE LOCATIONS AND HIGHLIGHTS



Source: Thesis (2023b)

Drill Hole ID	From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)	Cu (ppm)
23STVDD001	45.00	50.50	5.50	0.51	2.0	61
23STVDD002	56.00	61.00	5.00	0.37	2.8	85
and	106.00	113.00	7.00	0.24	1.8	93
23STVDD003	14.00	30.35	16.35	1.96	5.3	9
including	18.00	28.00	10.00	3.01	7.4	8
including	23.00	26.00	3.00	7.06	19.4	9
and	96.00	111.00	15.00	0.38	0.8	46
23STVDD004	76.00	85.00	9.00	0.30	5.4	92
23STVDD005	90.00	150.24	60.24	0.78	6.1	118
including	96.00	102.63	6.63	3.49	34.7	347
including	116.00	123.00	7.00	1.53	2.9	234
and	221.00	292.00	71.00	0.71	1.9	58
including	251.00	277.00	26.00	1.20	3.2	74

TABLE 10.51 SELECT 2023 DRILL HIGHLIGHTS FROM THE STEVE ZONE						
Drill Hole ID	From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)	Cu (ppm)
including	276.00	277.00	1.00	5.05	10.5	310
23STVDD006	82.00	91.42	9.42	1.24	8.3	239
including	83.66	84.66	1.00	6.51	22.4	191

10.4.6 Patti Zone (Ranch Area)

Drilling at the Patti Zone by Thesis began in 2022 and to date comprises three (3) diamond drill holes totalling 2,372 m, of which 2,357 m was sampled. A summary of the Patti Prospect drilling by year is provided in Table 10.52.

TABLE 10.52 SUMMARY OF PATTI DRILLING 2022-2023					
Year	Type	Drill Core Size	Quantity	Metres Drilled	Metres Sampled
2022	Diamond	NQ2	2	1,414.00	1,403.49
2023	Diamond	HQ	1	958.00	954.00

The 2022 drill program at the Patti Zone consisted of two diamond drill holes that were designed to confirm historical drilling results and further define the mineralized zone. Gold mineralization at Patti is associated with massive barite in veins and breccias. The barite veins are fracture controlled, with east-southeast strike and sub-vertical dip. The Patti drill holes intersected broad zones of intense alteration with weaker gold mineralization (<1.5 g/t Au). Analytical highlights are summarized in Table 10.53.

TABLE 10.53 2022 PATTI ZONE DRILLING HIGHLIGHTS		
Year	Drill Hole ID	Results
2022	22PATDD001	1.01 g/t Au and 1.0 g/t Ag over 1.78 m
2022	22PATDD002	0.95 g/t Au and 57.8 g/t Ag over 2.95 m

The 2023 drilling at the Patti Zone consisted of a single (958 m) drill hole that was designed to test a magnetic anomaly below drill hole 22PATDD01, which had to be abandoned in mineralization due to drilling complications. A total of 954 m of this hole was sampled (766 samples). Mineralization in drill hole 23PATDD001 was encountered much deeper than expected. It consisted firstly of a 15.73 m zone that averaged 0.32 g/t Au, 0.8 g/t Ag and 38 ppm Cu, beginning at 654 m downhole and a second narrow 1.38 m zone of 0.46 g/t Au, 1.96 g/t Ag and 61.23 ppm Cu at 804.62 m downhole, which correlates with the mineralization intersected in

2022. This hole targeted a sizeable magnetic anomaly, but did not yield any obvious geological explanations other than elevated disseminated magnetite in unaltered volcanic rocks in the lower portions of the drill hole.

10.4.7 Alberts Hump Zone (Ranch Area)

The 2022 drill program at Alberts Hump consisted of five (5) drill holes totalling 2,604 m, of which 2,568.33 m was sampled (1,840 samples). Drill holes encountered intense quartz and alunite alteration that extends from surface to 150 m depth, but did not encounter any anomalous gold, and therefore failing to explain the surface geochemical signature. Three drill holes intersected narrow quartz veins with anomalous Cu, Pb, and Zn mineralization and low gold grades at a vertical depth from surface of >400 m. The mineralization styles encountered in the deep drilling at Albert's Hump are consistent with low sulphidation epithermal systems, rather than the high sulphidation epithermal system observed at the other Zones and Prospects. A notable intercept of gold and silver mineralization from drill hole 22ABHDD001 averaged 1.15 g/t Au and 0.6 g/t Ag over 1 m. Drill hole 22ABHDD002 intersected 2.19 m of 0.51% Cu at downhole depth of 558 m and drill hole 22ABHDD003 intersected 2.13 m of 3.02% Zn at a depth of 426.52 m. No drilling was completed at Alberts Hump in 2023.

10.5 GEOTECHNICAL AND HYDROGEOLOGIC DRILLING

10.5.1 Lawyers Area

In 2021 and 2022, Thesis contracted Knight Piésold ("KP") to assist JDS Energy and Mining Inc. ("JDS") with the collection of hydrogeological and geotechnical data in the field across the Lawyers Area. In total, 50 geotechnical holes, 11 hydrogeological holes, and 118 test pits were completed (Table 10.54).

The purpose of these programs was to further investigate the Cliff Creek, AGB, and Dukes Ridge pit areas for rock quality properties and hydrogeological characteristics used in mine planning, and to evaluate the geotechnical and hydrogeological conditions at locations proposed for a Tailings Storage Facility ("TSF"), Waste Rock Storage Facilities ("WRST"), and Process Plant. APEX and KP personnel supervised drilling operations and all drill core was logged by APEX personnel in 2021 and solely by KP personnel in 2022. Televue data were collected and assembled by DGI Geoscience Inc. and drill core strength tests were completed by Queens University Department of Mining in 2021. Additional geotechnical testing was completed in 2022, including soil assessment of test pit samples and rock mass classification.

Drill core resulting from the Geotechnical programs was logged in the same manner as the Project's exploration drill core, as described in Section 11 of this Report, with the recording of additional data including rock hardness, weathering/alteration, and joint conditions and orientations. Additional analysis of the drill holes included Standard Penetration Testing ("SPT") of overburden materials, packer testing, and the installation of Vibrating Wire Piezometers ("VWP") and Standpipe Piezometers. A summary of the geotechnical drilling completed in 2021 and 2022 is included in Table 10.54 and their locations are illustrated in Figure 10.21.

TABLE 10.54
2021-2022 GEOTECHNICAL DRILLING WORK SUMMARY

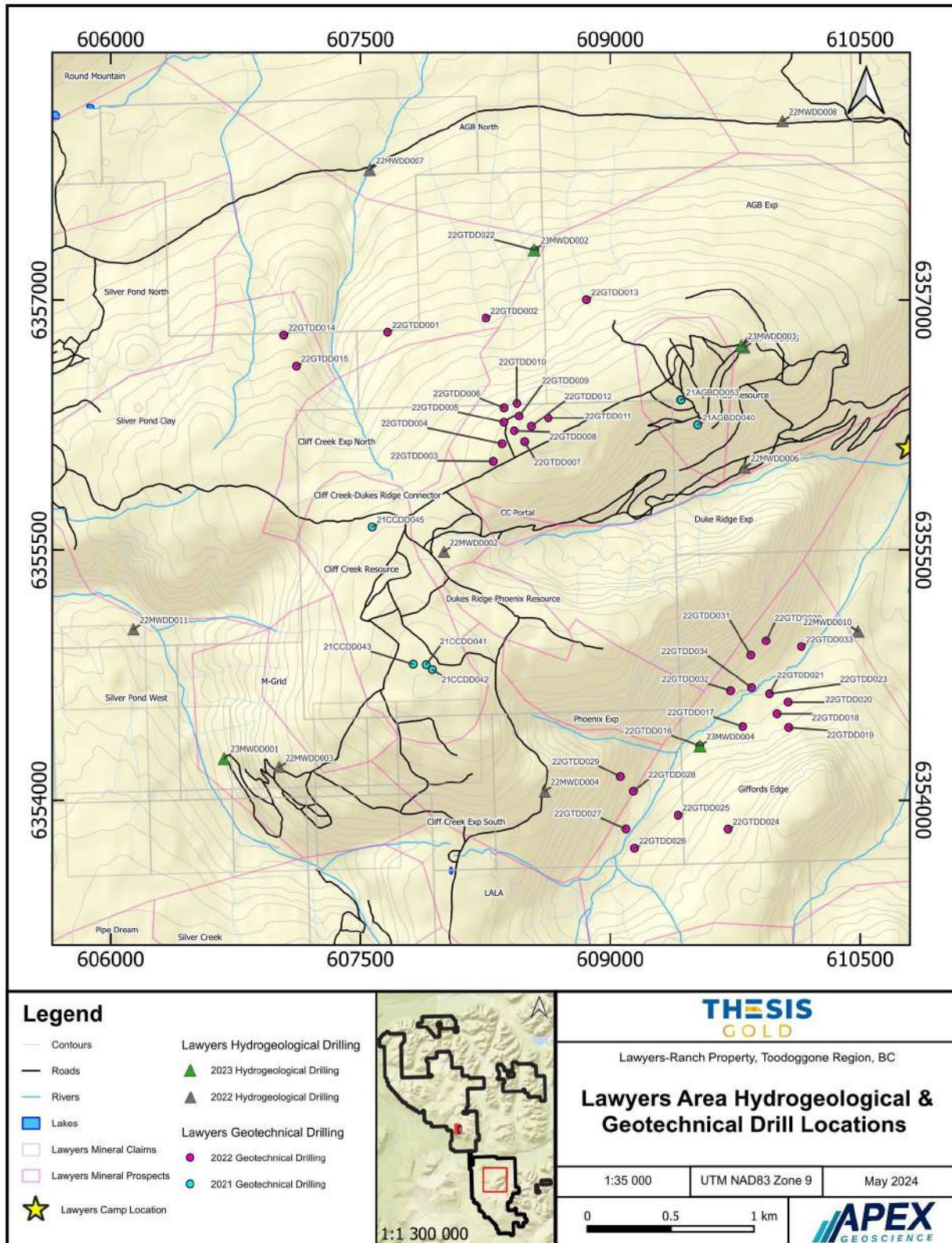
Area	Drill Hole ID	Hole Depth (m)	Packer Testing	VWP
Cliff Creek	21CCDD045	336.0	X	X
			X	
	21CCDD042	431.0	X	
	21CCDD043	461.0	X	
	21CCDD041	482.0	X	
AGB	21CCDD055	181.0		X
	21AGBDD053	297.0		X
	21AGBDD041	251.0	X	
WRSF	21AGBDD040	215.0	X	
	22GTDD001	19.0		
	22GTDD002	28.3		
	22GTDD003	31.3		
	22GTDD004	31.25		
	22GTDD005	14.78		
	22GTDD006	31.19		
	22GTDD007	31.25		
	22GTDD008	31.23		
	22GTDD009	31.32		
	22GTDD010	31.21		
	22GTDD011	31.13		
	22GTDD012	31.31		
	22GTDD013	17.82		
	22GTDD014	19.28		
	22GTDD015	17.79		
	22GTDD022	19.20		
TSF	22GTDD016	32.76		
	22GTDD017	32.78		
	22GTDD018	37.27		
	22GTDD019	35.85		
	22GTDD020	37.27		
	22GTDD021	11.98		
	22GTDD023	35.66		
	22GTDD024	34.11		
	22GTDD025	45.68		

TABLE 10.54 2021-2022 GEOTECHNICAL DRILLING WORK SUMMARY				
Area	Drill Hole ID	Hole Depth (m)	Packer Testing	VWP
	22GTDD026	37.88		
	22GTDD027	36.91		
	22GTDD028	37.12		
	22GTDD029	38.14		
	22GTDD030	34.67		
	22GTDD031	35.10		
	22GTDD032	38.56		
	22GTDD033	60.74		
	22GTDD034	59.83		

Twenty-eight packer tests were completed in six geotechnical drill holes as the holes were advanced. Multi-point VWPs were installed in drill holes in the Cliff Creek and AGB Zone areas to facilitate long-term monitoring of groundwater levels.

Results from the available data suggest permeable geologic structures are present at site. At the Cliff Creek Zone, the results suggest that the permeability of the rock is low to elevated (10^{-8} to 10^{-6} m/s) in the first 100 to 150 m below surface. The higher permeability test results at shallow depths are likely attributable to geologic structures. All the other testing resulted in moderate to very low permeabilities (5×10^{-7} m/s or less), which decreased to 10^{-8} m/s or at depths >200 m below surface. Results from AGB suggested moderate permeability of the rock on the order of 10^{-7} m/s and elevated permeability of geologic structures on the order of 10^{-6} m/s. These results are supported by the relatively large volumes of grout required to backfill drill holes for VWP installations (drill holes 21CCDD045 and 21AGBDD053), deep water levels recorded during shut-in tests (drill hole 21CCDD041), and elevated packer test results in deeper intervals of drill hole (21AGBDD041). Groundwater flow along these structures is expected to be the main contribution of groundwater flow to the open pits as they are developed (Gatus, 2022).

FIGURE 10.21 2022-2023 LAWYERS GEOTECHNICAL AND HYDROGEOLOGIC DRILL HOLE LOCATIONS



Hydrogeological drill holes were completed in 2022 by Palmer with the purpose of characterizing potential contamination migration and baseline conditions of ground water at various locations in the Lawyers Area (Brandebourger *et al.*, 2022). Water monitoring wells were installed in 10 drill holes, of which 8 were single monitoring wells, one was a nested monitoring well, and one was a deep monitoring well (Figure 10.21).

In 2023, additional hydrological drill holes were completed by Palmer (23MWDD001, 23MWDD002, 23MWDD004), thus bringing the number of monitoring wells to 13 (Table 10.55 and Figure 10.21). Additionally, one well (drill hole 23MWDD003) was reinstalled to replace a collapsed well (drill hole 22MWDD005) from 2022. All four monitoring wells were fitted with 2-inch (50.8 mm) diameter PVC screens and risers. The new wells were installed to obtain a more in-depth characterization of the hydrogeological baseline conditions at proposed mine infrastructure sites, and to assess surface water and groundwater interactions (Ecologic and Palmer, 2024). Each new monitoring well was instrumented with a water level data logger with co-located barometric pressure loggers to continuously measure groundwater pressure.

TABLE 10.55 2023 LAWYERS AREA HYDROGEOLOGIC DRILL HOLES						
Drill Hole ID	Palmer Well ID	Easting (NAD83Z9)	Northing (NAD83Z9)	Elevation (masl)	Depth (m)	Note
22MWDD001	MW-001a	610,486	6,355,013	1,465	15.2	
22MWDD002	MW-004	607,999	6,355,490	1,841	34.9	
22MWDD003	MW-006	607,010	6,354,199	1,739	36.2	
22MWDD004	MW-005	608,606	6,354,052	1,773	48.6	
22MWDD005	MW-003	609,805	6,356,716	1,745	46.7	(replaced)
22MWDD006	MW-002	609,807	6,355,995	1,571	35.8	
22MWDD007	MW-007	607,554	6,357,781	1,462	25.4	
22MWDD008	MW-011	610,034	6,358,075	1,447	24.4	
22MWDD009	MW-001b	610,486	6,355,013	1,465	26.2	
22MWDD010	MW-001c	610,486	6,355,013	1,465	30.5	
22MWDD011	MW-008	606,136	6,355,026	1,535	23.5	
23MWDD001	MW-013	606,680	6,354,250	1,584	30.5	
23MWDD002	MW-012	608,541	6,357,302	1,605	30.0	
23MWDD003	MW-015	609,787	6,356,727	1,748	35.0	Replaces 22MWDD005
23MWDD004	MW-014	609,537	6,354,324	1,519	15.5	

10.5.2 Ranch Area

In 2023, a small geotechnical drill core program was conducted at the Ranch Area, which comprised the collection of more detailed geotechnical data from drill holes that were primarily planned as part of the Exploration and Mineral Resource Definition drill program. The program consisted of four (4) diamond drill holes (Figure 10.22 and Table 10.56), with drill core recovered using split tubes and oriented using a Champ Ori tool (operated by the Radius drillers). Geotechnical logging was completed at the drill core shack by APEX personnel.

Core from the 2023 Geotechnical drill holes was logged in the same manner as the Project's exploration drill core, as described in Section 11 of this Report, but with the recording of additional data including:

- Total Drill Core Recovery (TCR).
- Rock Quality Designation (RQD).
- Intact Rock Hardness Index.
- Intact Weathering/Alteration Index.
- Joint Conditions (Roughness, Weathering, Infillings).
- Joint Orientations.

TABLE 10.56 2023 GEOTECHNICAL COLLARS AND DRILLING ORIENTATIONS								
Zone/ Deposit	Drill Hole ID	Easting	Northing	Elevation (masl)	Azimuth (°)	Dip (°)	Hole Depth (m)	Drill Hole Size
Bingo	23BNGDD026	596,655	6,371,379	1,623	240.4	-50.1	150.50	HQ
Bonanza	23BNZDD023	598,449	6,372,021	1,700	230.2	-50.1	101.00	HQ
Bonanza	23BNZDD025	598,425	6,371,937	1,695	290.0	-50.0	77.00	HQ
Thesis II	23TH2DD010	597,308	6,370,585	1,605	200.4	-50.4	80.00	HQ

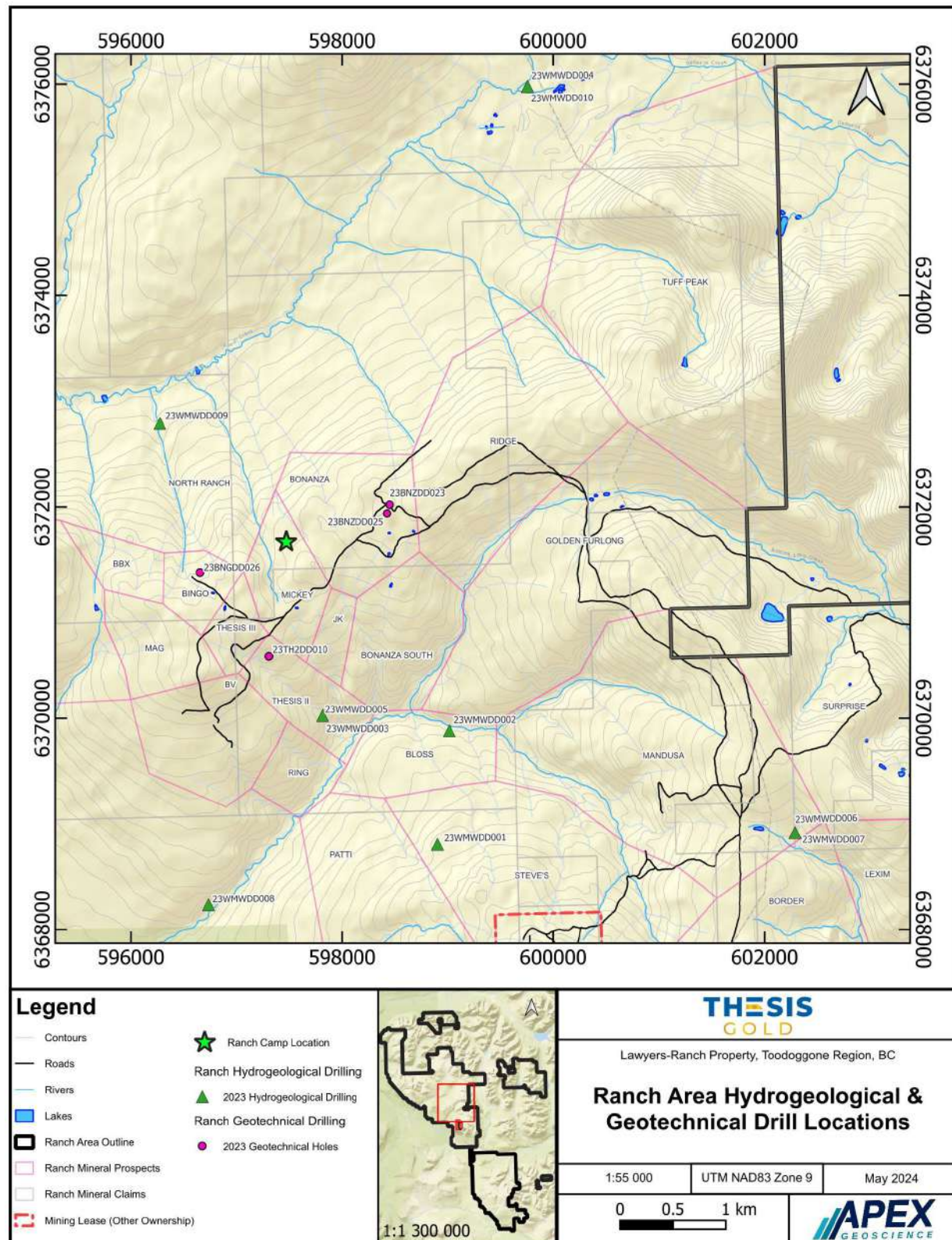
Note: Coordinates are in NAD83Z9.

In 2023, Palmer completed a comprehensive groundwater monitoring well installation program at Ranch to collect baseline data. A total of ten (10) 2-inch monitoring wells was drilled and 8 well installations were completed. One site (drill hole MW_RA03) had to be attempted multiple times, resulting in two failed holes (Table 10.57 and Figure 10.22). Sites were located near anticipated future mining and mine infrastructure; six sites were completed as single monitoring wells, and another drilling location (drill hole MW-RA07A/B) was completed as a nested monitoring well (Ecologic and Palmer, 2024a).

To evaluate surface water and groundwater interactions and groundwater to support stream baseflows, five small diameter (1 inch) shallow drive-point mini-piezometers were installed in August 2023. Each monitoring well and mini-piezometer was instrumented with a water level data logger with co-located barometric pressure loggers to continuously measure groundwater pressure.

TABLE 10.57 2023 RANCH MONITORING WELL INSTALLATIONS						
Drill Hole ID	Palmer Well ID	Easting (NAD83Z9)	Northing (NAD83Z9)	Elevation (masl)	Depth (m)	Note
23WMWDD001	MW_RA01	598,902	6,368,806	1,584	44.0	
23WMWDD002	MW_RA02	599,015	6,369,883	1,453	29.0	
23WMWDD003	MW_RA03A	597,815	6,370,025	1,460	20.0	Failed hole
23WMWDD004	MW_RA03B	599,755	6,375,978	1,446	20.0	Failed hole
23WMWDD005	MW_RA03D	597,815	6,370,025	1,460	40.0	
23WMWDD006	MW_RA07	602,287	6,368,917	1,693	20.0	
23WMWDD007	MW_RA07b	602,287	6,368,917	1,694	44.0	
23WMWDD008	MW_RA06	596,735	6,368,234	1,348	25.0	
23WMWDD009	MW_RA04	596,274	6,372,789	1,404	23.0	
23WMWDD010	MW_RA05	599,755	6,375,978	1,446	20.0	

FIGURE 10.22 2023 RANCH AREA GEOTECHNICAL AND HYDROGEOLOGICAL DRILL HOLE LOCATIONS



11.0 SAMPLE PREPARATION, ANALYSIS AND SECURITY

Information relating to the sample preparation, analyses and security of the historical drilling undertaken by previous operators at the Lawyers-Ranch Property between 1982 and 2007 is scarce and discussed in brief only in the following section. Information regarding the historical drilling carried out at the Property by PPM in 2015 is discussed, as is the sampling procedures employed at the Lawyers-Ranch Project by Thesis Gold's geological consultants, APEX, since 2018. All sampling since 2018 was performed by geologists or sampling technicians trained and overseen by APEX senior geologists.

11.1 HISTORICAL SAMPLE COLLECTION, PREPARATION AND SECURITY

Little is known about the sample preparation, analyses and security procedures used during historical drill programs carried out at the Lawyers-Ranch Property prior to 2015. Previous efforts to verify historical Property drill hole data are discussed in Section 12.1 of this Technical Report.

Various Assessment Reports for the period from the early 1980s to the mid-2000s in the Ranch Area, describe the drill core being routinely cut and sampled, the standard sample interval being ~0.5 m to 1.0 m. Samples during the 1987 program were cut at 5 m intervals in the mineralized zone and 10 m intervals in areas of suspected low-grade material in the 1987 program. Changes in alteration and (or) lithology were reported to influence sample intervals considerably. Samples were either shipped to CDN Resource Laboratories in Delta BC or Acme Analytical Laboratories in Vancouver BC and analysed geochemically for Au, Ag and Cu. Au and Ag were analysed by Aqua Regia digest with Atomic Absorption finish or fire assay with gravimetric finish. Quality Assurance/Quality Control procedures were not reported for any of the 1980s drill campaigns and the 2006 campaign was reported to have included "*a rigorous QA/QC program, which included insertion of standards and blanks for each batch of samples*"; however, QC sample performance was not reported.

Sample preparation, analyses and security procedures undertaken during the historical drilling carried out at Lawyers by PPM in 2015 is reported in Lane *et al.* (2018) and the following is a summary of this discussion.

"All 2015 drill core was transported from the drill site by one of the drillers or by a representative of PPM and securely stacked outside of the core logging facility until being brought inside for logging. Onsite core sample security was not a concern because of the remote location of the project."

Drill Core Handling Procedures

Drill core handling procedures from drill to laboratory consisted of the following:

- *HQ core was transferred from the core tube to four-foot-long wooden core boxes by a member of the drill crew;*

- *The drillers labelled the core boxes with drill hole number and box number, and placed a wooden block marked with the depth in feet at the end of each run of core;*
- *At the end of each drill shift, filled core boxes were transported to the core logging facility;*
- *At the core logging facility, core boxes were laid out in order to ensure all boxes were present and to ensure markers were correctly located and labelled;*
- *A PPM technician or geologist then converted block measurements from feet to metres and core recovery measurements were determined and recorded for each run;*
- *Core was geologically logged using hard copy forms designed for the Project; data was later entered into an electronic database;*
- *The geologist determined the core to be sampled by marking it with bright coloured wax crayons to indicate the start and end of each sample interval. Each sample interval was tagged with a unique identification number, and the data was recorded on a Sample Record form. Each sample interval was also marked with a centre-line;*
- *The geologist marked samples for density measurements approximately every 10 m; measurements were taken on-site and recorded; and*
- *Core was photographed sequentially from collar to 'End of Hole' in wet conditions prior to being moved to an adjacent core cutting shack for halving using a water-cooled diamond saw.*

Drill core sampling procedures were as follows:

- *Core boxes to be sampled were laid out in numerical order and lids removed;*
- *Sections of competent core were halved using a diamond saw, with half of the core for each sample placed in its own pre-numbered bag with matching pre-numbered sample tag; the other half of the core was returned to the core box;*
- *Sections of badly fractured core and gouge were carefully halved using a square-nosed cement trowel, and bagged as per the procedure listed above;*
- *All bagged samples were closed tightly with zip ties and packed together with QA/QC samples (that were inserted into the core sample stream at a prescribed frequency) into large rice bags at a rate of 3-7 per rice bag; each rice bag was labelled with the project name, drill hole ID and sample number range and then sealed with a zip tie;*
- *Once sampling was complete, core boxes were carefully stacked on wooden pallets, covered with plywood lids, shrink wrapped and secured with steel banding.*

Sample Shipping:

- *Each shipment consisted of: a) multiple packed rice bags representing one or more drill hole's worth of core samples, b) a Sample Record form, and c) a laboratory requisition form;*
- *Core sample shipments were made from site to a private secure location in Prince George by staff, and subsequently delivered directly to Bureau Veritas Minerals Laboratories (BV) in Vancouver, British Columbia, by a bonded commercial carrier; and*
- *BV's receiver logged receipt of the rice bags into the company's tracking system.*

Analytical Methods

PPM selected Bureau Veritas Minerals Laboratories (BV) in Vancouver, British Columbia to conduct its analysis of drill core from the 2015 drill program. BV maintains ISO 9001:2015 accreditation for quality management system certification.

There is no relationship between PPM and the BV or between Crystal and BV.

The Quality Assurance/Quality Control (QA/QC) program described in the following sections was designed to allow for verification of the analytical results from historical exploration conducted on the Cliff Creek North and Dukes Ridge Zones for which there were tabulated analytical data for gold and silver in the WEL reports, but no laboratory analytical certificates.

Sample Preparation:

- *Each sample received by BV lab staff was dried and individually crushed and pulverized following preparation procedure PRP70-250 whereby samples are jaw crushed until 80% of the sample material passes through a 10-mesh screen.*
- *From this material a 250 g riffle split sample is collected and then pulverized in a mild steel ring-and-puck mill until 85% passes through a 200-mesh screen.*
- *A 0.25 g split of each milled sample is collected for multi-element analysis and a 30 g split of each milled sample is collected for gold assay.*

Sample Analytical Procedures:

- *The following laboratory procedures were used to analyse 2015 drill core samples and associated QA/QC samples. There were no third-party lab analyses performed on the 2015 samples. Laboratory certificates of analysis for all of the analyses completed in 2015 are in the possession of PPM and its geological consultants and are provided in an Appendix in Lane (2016).*

Multi-element and Silver Analyses:

- *A 0.25 g split of each milled sample was evaluated for 45 elements, including silver, by a four-acid digestion in which the sample split is heated in HNO₃-HClO₄-HF to fuming and then taken to dryness. The residue is dissolved in HCl and analysed using ICP-ES/MS analysis (method MA200). Samples returning more than 200 ppm Ag were re-analysed using a 1 g/100 mL aqua regia digestion by AAS (method AR401).*

Gold Analysis:

- *A 30 g split of each milled sample was evaluated for gold by lead collection fire assay fusion with an AAS finish (method FA430). Samples returning >10 ppm Au were re-analysed utilizing lead collection fire assay with a gravimetric finish on a 30 g sample (method FA530).*

Quality Assurance / Quality Control Procedures

A systematic QA/QC program was instituted by PPM that included the insertion of blanks, standards and duplicate core samples into the regular core sample stream. A total of 757 core interval samples (excluding duplicates) were collected and a total of 114 quality control samples (41 blanks, 42 standards and 31 core duplicates) were inserted into the sample stream at a rate of at least one blank, one standard and one duplicate for every 24 core interval samples.

Blank Analysis

A total of 40 blanks were submitted to BV as part of the project's total sample shipment. The blank material used was a commercially available pulp (CDN-BL-10) purchased from CDN Resource Laboratories Ltd. (CDN). For gold, 24 of the blanks assayed at or below the detection limit (0.005 g/t Au) and for plotting purposes have been assigned a value of 0.0025 ppm Au, 12 assayed from 0.006 to 0.008 g/t Au and four assayed 0.010 to 0.012 g/t Au. The 4 highest values may indicate that the lab was enduring some level of procedural inadequacy, but because the values are still considered to be very low, it is more likely that there was some minor variability in the blank material itself. For silver, 32 of 40 blanks returned a value of 0.2 to 0.3 ppm Ag, 4 blanks returned values of 0.1 ppm Ag or less, and 4 blanks returned values of 0.4 to 0.5 ppm Ag). The results form a tight cluster just above detection in the 0.2 to 0.3 ppm Ag range. Overall, the results indicate acceptable sample preparation at BV.

Standards Analysis

A total of 42 gold or multi-element certified reference standards (CR"), also purchased from CDN, were submitted to BV as part of the project's total sample shipment. There were eight different CRS used during the program; they cover a range of gold values from 0.799 to 35.25 ppm Au. Two of the CRS provide reference values for silver; however, CRS pulps were not analysed for over-limit silver values, and therefore only one of the silver CRS was of use.

The gold values for the CRS ... typically plot within (or very close to within) the “between lab” 2 standard deviations ... indicating that adequate care and proper procedures were implemented during sample preparation and analysis.

The silver values for standard CDN-GS-5H show a slight positive bias; most results plot above the certified reference value and four results plot higher than the “between lab” 2 standard deviations.

Drill Core Sample Duplicates Comparison

Drill core duplicates are used to monitor sample submissions for switched samples, data variability due to laboratory error, homogeneity of sample preparation and/or natural inhomogeneity of sampled mineralisation. A total of 31 core sample duplicate pairs were made by quarter-splitting the second half of the core. Duplicate samples were analysed at the same time as the original sample. For gold, two-thirds (21 of 31) of the duplicate pairs have a difference of >25% between the original and the duplicate assay. These samples have a range of gold values from just above detection limit to about 6 g/t Au. The results indicate that there is significant variance in gold at all grades. This is most likely due to the irregular distribution of gold in epithermal systems, and the difficulty in taking duplicate samples in vein and breccia mineralisation that inherently has an erratic distribution of values. For silver, however, this appears not to be the case, especially when the highest-grade result is removed (resulting in a very strong correlation of the remaining duplicate pairs). This suggests that silver values are more evenly distributed, at least at lower concentrations, and that there may be more than one mineral species controlling the distribution of silver.

Adequacy of Sample Preparation, Security and Analytical Procedures

The Authors conclude that security, sample collection, sample preparation and analytical procedures employed during the 2015 drill program meet or exceed current best management practices. Continued use of a comprehensive QA/QC program is recommended to ensure that all analytical data can be confirmed to be reliable. There were eight certified reference standards used in 2015; in future programs the number of certified reference standards should be reduced to 3 or 4 and cover a range of gold and silver values that coincide with the range of grades typically observed at the Lawyers Project.

Overall, adequate care and proper procedures were used to obtain reliable gold and silver results in the 2015 diamond drilling program at the Lawyers Project.”

The Author agrees with the conclusions made regarding the adequacy of the Lawyers property 2015 drill hole data. The Author concludes that the sample preparation, analytical and security procedures used by PPM during the 2015 drill program were adequate and the 2015 drill data are of good quality and satisfactory for use in the Mineral Resource Estimate in this Report.

11.2 SAMPLE COLLECTION, PREPARATION AND SECURITY

11.2.1 Drilling Sample Collection, Preparation and Security

11.2.1.1 RC Chip Processing and Sampling

RC drilling and chip sampling at the Lawyers-Ranch Property began in 2018. RC drill holes were sampled in 1.52 m intervals (5 ft) from collar depth to “end-of-hole” (EOH). In 2018, sample data was recorded at the drill (at the time of sample collection) directly into sample tag books and in notebooks to be transcribed following each shift into an excel spreadsheet. The sample data from each shift was later added to the Project’s drilling database. During the 2020 and 2021 RC drill programs, sample data was recorded by APEX geologists and technicians at the drill during the sampling process directly into digital dataloggers running an application (Fulcrum) that had been customized for RC sample collection. There was no RC drilling completed at the Project in 2019, 2022, or 2023.

Sample collection for a given RC drill run was conducted by placing a 5-gallon pail beneath the RC rig cyclone to collect drill cuttings. At the completion of the run, the sample collection pail was removed, and the contents were run through a portable riffle splitter to collect a $\frac{1}{8}$ subsample for laboratory analysis. The $\frac{1}{8}$ subsample was collected in a poly bag, labelled with a unique sample ID (inside and outside bag), which was recorded before being set aside. At the end of the hole, the “lab samples” were placed in poly-woven rice sacks and groups of which were gathered to form a sample shipment. Each rice sack was closed by cable ties and secured with a security seal. Sample shipments were transported to ALS Global Laboratories in Kamloops or Vancouver British Columbia, or Yellowknife Northwest Territories for preparation. Following their receipt at the ‘prep-lab’, the rice sack security seal numbers and condition were reported to APEX for verification and no significant issues with RC sample security between site and the ‘prep-lab’ were noted. Following preparation, ALS Global transported sample pulps for analysis at its main Laboratory in Vancouver, B.C. ALS Global is an accredited analytical company and is fully independent of P&E, APEX and Thesis Gold.

The remaining sample material, following the collection of the $\frac{1}{8}$ analytical sample at the drill, was placed in a large poly bag marked with the appropriate sample ID. These “retention samples” were gathered into large poly-woven mega-bags and were archived on site. A small handful-sized subsample was also collected from each RC sample interval and was placed in an appropriately labelled kraft bag, which was transported to the drill core shack for chip logging by APEX geologists. A representative chip tray was created for all RC drill holes, which were archived on site for future reference. RC chip logging included the recording of dominant and minor lithologies, mineralization, alteration, structures (gouge), veining, and brecciation.

Where no sample was returned at the drill, the interval would be skipped, but noted as “no recovery”. Zones with low recovery and excessively wet samples were also noted as there was the potential for lost material in both cases.

A total of 31,117 RC sample intervals were collected between 2018 and 2023 on the Lawyers-Ranch drill programs (excluding duplicates and QA/QC samples). The collection of RC chip samples by year at the Project is provided in Table 11.1.

TABLE 11.1 SUMMARY OF 2018 TO 2021 RC DRILL SAMPLING		
Year	Lawyers Area	Ranch Area
2018	1,714	-
2019	-	-
2020	18,858	-
2021	8,441	2,104
Total	29,013	2,104

There were no sample security issues with the 2018, 2020, or 2021 Lawyers-Ranch RC sample shipments. All RC samples remained in the custody of APEX personnel in camp between the collection and sampling and in the custody of commercial carriers between camp and the laboratory. It is the opinion of the Authors that the procedures followed during the 2018, 2020, and 2021 Lawyers-Ranch RC sampling programs were sufficient to ensure sample integrity and sample security from sample collection in the field to their receipt at the Laboratory.

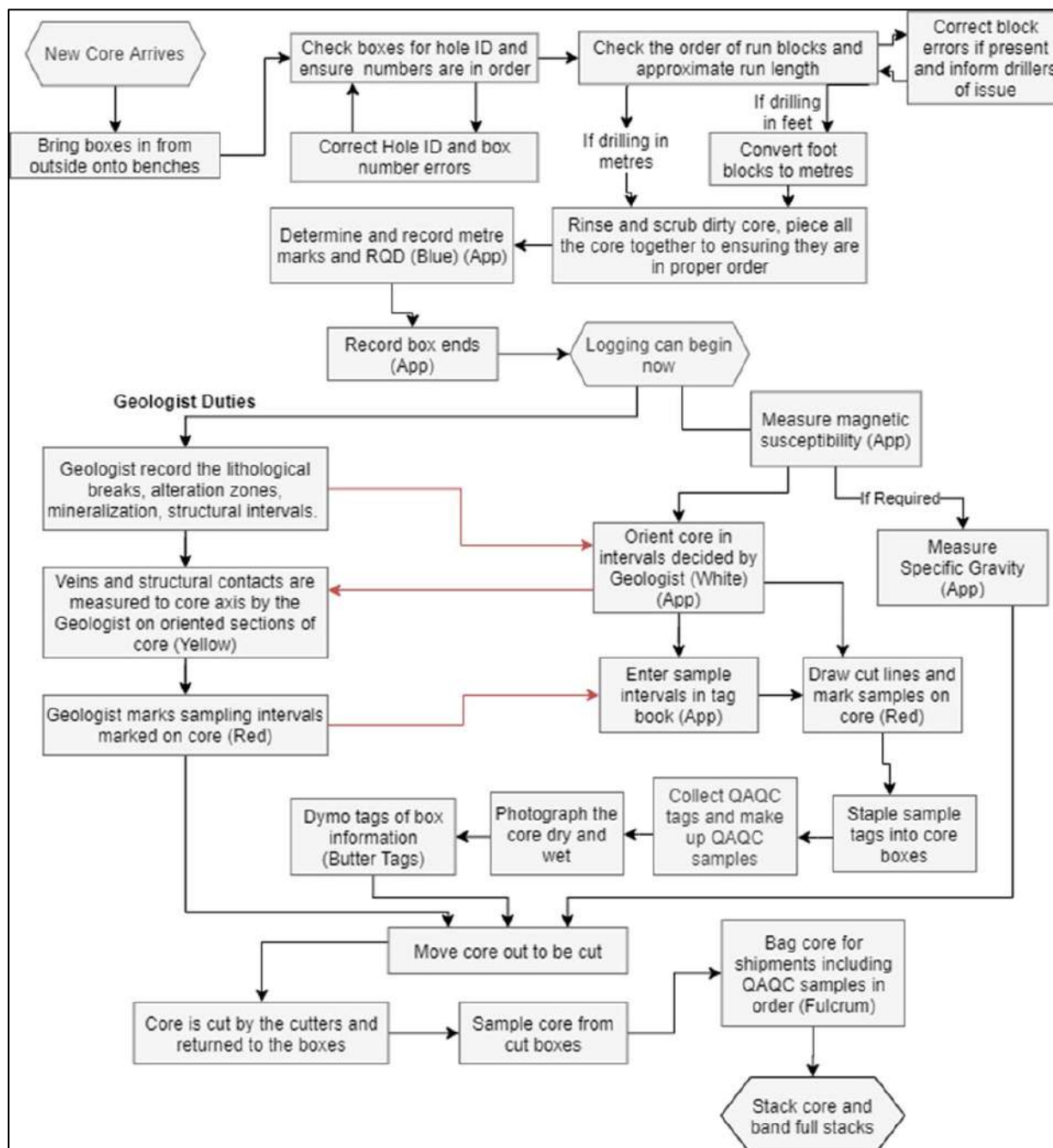
11.2.1.2 Diamond Drilling Core Processing

Following the acquisition of the Lawyers and the Ranch Properties, archived historical drill core was identified on both properties and relogging and sampling programs were conducted by APEX personnel, on behalf of the Company, between 2018 and 2020. Holes identified for the relogging and infill sampling programs were chosen based on their prospective geological locations and historical assay results. The “relogging” of the historical drill core was carried out in the same manner as regular drill core logging, as described below.

Throughout the 2018 to 2023 Lawyers and Ranch drill programs, drill core was delivered to the respective drill core shack by the drill contractor. Drill hole IDs, box numbers, and block depths were checked as the drill core arrived and “quick logging” was completed on the new drill core. Any issues identified during the initial drill core inspection or quick-logging process (i.e. drill core block depth inconsistencies) were immediately discussed with the drill foreman and were resolved to the satisfaction of the logging geologist. Formal drill core logging commenced with the cleaning and realignment (piecing back together) of the drill core. This was followed by Geotechnical data collection including drill core recovery, rock quality designation (RQD), and magnetic susceptibility. In 2019, Scintillometer data was collected on select drill holes. Drill core was oriented across selected intervals to confirm drill measurements and record orientations of major structures. The drill core was logged by APEX geologists for lithology, mineralization, alteration, major structures, veining, and brecciation. Bulk density measurements were taken, using the wet and dry weight method, for each major lithology and alteration type. All information was recorded

in digital data loggers, or a computer-based logging program (developed by Rogue Geoscience Ltd.). The drill core was marked for sampling and wet and dry photographs were taken. When marked for sampling, the drill core was moved to the drill core shack for cutting. All drill core logging procedures conform to industry standard practices and a flow chart illustrating the details of the drill core shack workflow is presented in Figure 11.1.

FIGURE 11.1 2018 TO 2023 DRILL CORE SHACK WORKFLOW



Source: APEX (2024)

11.2.1.3 Diamond Drill Core Sampling

Infill sampling of historical drill core was carried out by APEX between 2018 and 2020. Drill holes identified for the relogging and infill sampling programs were chosen based on their locations and historical assay results. Sampling was completed by infilling un-sampled sections or sections of the drill core for which assay results had not been reported. Quarter drill core samples were collected throughout intervals that were historically sampled. In total, infill drill core samples were collected from 32 historical diamond drill holes at the Project, including one from 2005, five (5) from 2006, two (2) from 2007, and 24 from 2015. A total of 1,906 infill samples were collected representing 2,834 m of historical drill core. Infill samples were collected in the same manner as modern samples, as discussed below. A limited number of samples (49) were collected as ¼ drill core samples due to only half the drill core being present. Sampling methodology, shipping, and laboratory preparation and analysis were the same as with the modern drill samples. The QAQC for the infill sampling is included with those of the corresponding year of regular drilling. A total of 154 QAQC samples were inserted into the ‘infill sample’ stream, including 71 CRMs, 29 blank pulp CRMs, 24 coarse blanks, and 42 field duplicates.

After completion of the geological and geotechnical logging of the drill core, the logging geologist marked the drill core with sample intervals ranging in size from a minimum of 30 cm to a maximum of 2 m. Sampling in 2018 was focused around visibly altered and veined intervals, whereas sampling in subsequent years was completed over the full length of the drill hole (below overburden). The majority of 2018 drill holes were subsequently ‘infill sampled’ in 2019.

The average sample interval length across all diamond drilling performed by Thesis from 2018 to 2023 was 1.24 m. This changed very little from 2018 to 2023. The instruction to logging geologists was to restrain sampling within visibly altered and/ (or) mineralized zones to ~1 m intervals and ~2 m intervals within unmineralized zones. Regardless, all sample intervals were selected in order to honour changes in lithology, alteration, veining, or mineralization. In rare circumstances, smaller sample intervals (to a minimum of 0.12 m) were required to honour features such as narrow faults. Similarly, larger sample intervals (up to a maximum of 16 m) occasionally resulted due to the presence of zones with poor drill core recovery. Sample tags, pre-printed with sample IDs (and bar codes), were marked with the sample meterage and were attached to the drill core boxes at the beginning of each sample interval. Additionally, the sample ID was also written on the drill core at the start of each sample by China marker and “cutting line” was marked along the drill core as a guide for the drill core cutters. All sample intervals were recorded in digital data loggers and within the assay tag books, which were kept for archival purposes.

After the complete length of drill core for a given hole was logged and marked and tagged for sampling, the completed drill core boxes were photographed (dry and wet), and then transported to the cut shack where the drill core was cut in half using saws with diamond-tipped blades. The drill core cutter placed half of the cut drill core from each sample interval, along with a section of the associated sample tag, were placed into poly bags that had been pre-labelled with the sample ID and were sealed with cable ties. The drill core cutter placed the remaining half of the cut drill core back into the drill core box, which remain on site for archival purposes. The individual drill core sample bags were gathered and placed into poly-woven rice bags that were closed with cable ties and secured with security seals, which were recorded and prepared for shipment to ALS

laboratories. All sampling information, including the details of sample bagging, security seals and shipment numbering, was recorded in digital data loggers. A total of 196,515 drill core sample intervals were collected between 2018 and 2023 as a result of the Lawyers-Ranch diamond drill programs (excluding duplicates and QA/QC samples). A statistical summary of the collection of drill core samples by year at the Project is provided in Table 11.2.

TABLE 11.2 SUMMARY OF 2018 TO 2023 DIAMOND DRILL CORE SAMPLING		
Year	Lawyers Area	Ranch Area
2018	891	-
2019	7,166	-
2020	47,940	-
2021	60,438	8,577
2022	14,813	25,595
2023	16,372	14,723
Total	147,620	48,895

Sample Shipping and Handling

Sample shipments were transported from site by both plane and truck depending on shipment sizes and backhaul availability. Shipments transported by plane were flown on chartered aircraft (normally Tsayta Aviation Ltd.) as shipments comprising individual security-sealed rice bags to Smithers, BC where they were received by the Project's expeditors with Rugged Edge Holdings Ltd. ("REH"). REH personnel placed the samples on pallets or in mega-bags before being taken to Bandstra Trucking for shipment to an ALS preparation facility. Shipments transported from site via truck were packed in mega bags (or occasionally wrapped up on pallets) on site. Shipments on pallets had each rice bag of samples individually sealed with a security seal. Those in mega bags had the mega bag sealed with a numbered metal cable seal. Sample shipments were normally transported from site to Prince George, BC, by the Project's expediting company (Chu Cho Industries) as backhauls on regular supply trips. Occasionally, other backhaul opportunities were utilized for sample transport to Prince George, including APEX and Radius Drilling vehicles. During the 2019 and 2020 drilling programs, APEX transported drilling samples to Prince George. Ultimately, the Project's expeditor delivered all road transported sample shipments to Bandstra Trucking in Prince George, where they were shipped to ALS Global Laboratories for preparation and analysis. During 2020, sample shipments were transported by APEX personnel to the Kemess Mine warehouse, located ~60 km south from the Project, where Bandstra Trucking made weekly deliveries and arrangements were made for the backhauling of the Project's samples by Bandstra from Kemess to Prince George, and then on to an ALS facility.

The primary ALS sample preparation facility used was in Kamloops, BC between 2018 and 2020 with the secondary being Yellowknife, NT. In 2021 the ALS Mexico preparation facilities became

the primary by way of Vancouver with Yellowknife, NT and Kamloops, BC being the secondaries. In 2022 and 2023 sample preparation was spread across all the ALS prep labs to maximize turn around times.

During the 2021 season, ALS transported samples from their Vancouver, BC preparation facility to ALS facilities in Chihuahua and Hermosillo, Mexico due to major back logs at its Canadian sample preparation facilities. Prepared sample pulps were then sent internally by ALS from their respective preparation facilities to the main ALS Laboratory in North Vancouver, B.C., for final analysis. In 2020, a limited number of samples was sent by to ALS, following preparation, for analysis at its laboratory facility in Lima, Peru due to backlogs at the North Vancouver laboratory.

All of the 2018 through 2023 Lawyers-Ranch Project drill core samples were analysed by ALS Global Laboratories, which is an accredited analytical facility and is fully independent of P&E, APEX and Thesis Gold.

Throughout the 2018 to 2023 drill programs, there were no significant issues with sample security, or chain of custody, between site and any of the respective ALS laboratory facilities utilized.

11.3 ANALYTICAL PROCEDURES

The 2018-2023 Lawyer-Ranch Project exploration samples (soil, rock, RC chips and core) were submitted for preparation and analysis to ALS Global (ALS). Sample preparation took place at one of several ALS facilities, depending on capacity, including Kamloops, BC; Vancouver, BC; Langley, BC; Whitehorse, Yukon; Yellowknife, Northwest Territories (“NT”); Chihuahua, Mexico; and Hermosillo, Mexico. Master Pulps were then shipped by ALS to their North Vancouver, BC laboratory for analysis, with a very limited set of samples in 2020 being sent internally by to ALS to their Lima, Peru laboratory for analysis due to backlogs. ALS is a fully independent analytical company, and is independent of P&E, APEX and Thesis Gold, and complies with the data quality objectives of the International Standards Organization (ISO/IEC 17025:2017 and ISO 9001:2015).

11.3.1 Drilling Samples

All 2018-2023 Lawyer-Ranch Project drill samples (core and RC chip) were sent to ALS Global for preparation and analysis. All of the drill samples were prepared by the techniques comprising ALS prep-code PREP-31, which includes the crushing of the entire sample to 70% passing 2 mm ($P_{70}(-2\text{ mm})$), homogenizing, and the rifle splitting of a 250 g subsample for pulverization to better than 85% passing 75 μm . The resulting master pulps from each sample were then shipped for analysis to ALS’ primary analytical laboratory in North Vancouver, BC.

All of the 2018-2023 drilling samples were submitted to ALS Global for gold fire assaying and multi-element ICP analysis.

Projects drill samples collected prior to 2022 (2018-2021 drilling samples), were analysed for gold (au) by a standard 30 g fire assay technique (ALS code Au-ICP21), which includes the fusion of a 30 g sample aliquot followed by a wet chemical (ICP-AES) finish. The 2022 and 2023 Lawyers

Area gold concentrations continued to be analysed for gold by the same fire assay technique. The 2022 and 2023 Ranch Area gold concentrations were analysed for gold by the same fire assay technique as the earlier samples (as above), but the assay was performed on a larger (50 g) sample aliquot (ALS code Au-ICP-22). Regardless of the aliquot size, both assay techniques have a lower detection limit of 0.001 ppm (1 ppb) Au. Any samples with initial gold assay values >10 ppm (Au) were identified as “overlimit” results requiring follow-up gravimetric assaying, which utilized the same aliquot size as was used for the initial fire assay and had an upper detection limit of 10,000 ppm Au (ALS codes Au-GRA21 and Au-GRA22 for 30 g and 50 g aliquots, respectively).

Analysis for silver and 47 other elements was conducted using multi-element geochemical analysis by the ME-MS61 technique (ALS code ME-MS61), which is an ICP-MS analysis following a near-total (four-acid) digestion of a 0.25 g sample aliquot. Initial silver (Ag) “overlimit” ICP-MS results >100 ppm (Ag) were analysed by a follow-up “ore grade” analysis using an additional 0.4 g sample aliquot with a four-acid digestion and an ICP-AES finish (ALS code Ag-OG62). Further silver (Ag) “overlimit” results (i.e. Ag-OG62 results >1,500 ppm Ag) were analysed with a 30 g gravimetric fire assay (ALS code Ag-GRA21), which has an upper detection limit of 10,000 ppm (Ag). Initial copper, lead, and zinc (Cu, Pb, Zn) “overlimit” ICP-MS results (>10,000 ppm) were analysed by a follow-up “ore grade” analysis on an additional 0.4 g sample aliquot with a four-acid digestion and ICP-AES finish (OG62), which has an upper detection limit of 50% (for Cu, Pb and Zn).

A variety of QA/QC samples including CRMs, blanks, and duplicates were used to monitor data quality throughout the drill programs. QA/QC samples were inserted at a minimum every 10 samples for the 2018 to 2023 drilling and infill sampling programs. There were a total of 26,069 CRM samples and blanks, 2,494 field duplicates, and 1,738 coarse blanks inserted into the 2018 to 2023 Lawyer-Ranch Project drill and infill sampling programs, which comprised 229,538 actual drilling samples.

In the opinion of the Authors of this Report, the assay and geochemical analyses completed on the 2018 to 2023 Lawyer-Ranch Project drilling and “in-fill historical drilling” samples were appropriate for the sample type and the intended use.

11.4 QUALITY ASSURANCE – QUALITY CONTROL

11.4.1 Drilling QAQC

A comprehensive QA/QC program was implemented throughout all of the 2018 to 2023 Lawyer-Ranch drilling programs to ensure that all samples collected were analysed to acceptable degrees of accuracy and precision. The 2018 to 2023 drill programs QA/QC protocols included the collection of field duplicate (quartered core) samples, the insertion of coarse blank and blank pulp samples, and a variety of other CRMs at a minimum rate of 1 CRM per 10 samples. The 2018-2020 historical drilling infill sampling programs followed these same insertion rates and procedures with the exception of field duplicates. The 2018 to 2023 Lawyer-Ranch drill programs resulted in the collection of 229,538 drill core and RC chip samples. Inserted in the sample stream were 26,069 CRMs (1:8.8 CRM:sample ratio) including 18,407 CRMs and 7,662 blank pulp (CRMs). In addition, a total of 1,737 coarse blank samples were inserted into the sample stream

and a total of 2,494 field duplicates were collected. This represents a total of 31,141 total QC samples and an overall ratio of 1:7.6 (QC sample: drilling sample). The 2018 to 2023 Lawyers-Ranch drilling sample and QC sample statistics are summarized in Table 11.3.

During the 2018 (Lawyers) drill program, CRMs and blank pulps were inserted at every sample number ending in a multiple of 10. The CRM inserted at every tenth sample was randomly selected from the CRMs utilized that year and a blank pulp. Field duplicate samples were collected on every 20th sample starting with the sample numbers ending in 05 (05, 25, 45, 65, 85). No coarse blanks were utilized during the 2018 drill program. During the 2019 (Lawyers) drill program, the same QC sample insertion procedures from the 2018 drill program were followed with the addition of coarse blank sample insertion alternating with blank pulps. This resulted in a 2:1:1 CRM: blank pulp: coarse blank insertion ratio.

Given that coarse blank samples are primarily intended to test for issues during the sample preparation stage of analysis (i.e. lack of crusher cleaning leading to sample-to-sample contamination), and that field duplicate drill core samples are intended to examine sample variance and thus require measurable concentrations of the element of interest (i.e. Au and Ag) to be effective, modifications were made to the 2020 Lawyers-Ranch drill program QC sampling protocol. Instead of regular coarse blank sample insertion and drill core duplicate sample collection, which resulted in an excessive number of such samples testing samples away from (outside of) mineralized zones, the logging geologists were instructed to use their discretion in order to focus the use of these samples within altered and (or) mineralized zones.

Starting with the 2020 Lawyers-Ranch drill program, each mineral zone intersected would have one coarse blank inserted, and one field duplicate collected, within the anticipated zone of mineralization. For larger zones of alteration/mineralization (>40-50 m), an additional set of coarse blank and field duplicate samples were inserted/collected. For RC drilling, the insertion of coarse blank samples, and the collection of field duplicate samples, remained systematic (predetermined) with coarse blanks inserted on the samples ending in 45 and 95 and field duplicates collected on the samples ending in 25 and 75.

CRM and blank insertion into the drill sample stream remained systematic throughout the 2020 Lawyers-Ranch drill program, with the random selection of a CRM or a blank pulp sample at each of the samples ending in a multiple of 10. From 2020 onward select CRMs were inserted preferentially in specific zone. OREAS 603b was inserted only in areas with expected higher-grade mineralization due to both a higher Au certified value as well as an overlimit Ag certified value. At the Ranch Area OREAS 611 and later CDN-GS-15C were also inserted into areas expected to return elevated (overlimit) Au values. The Cu-bearing CRMs CDN-CM-19, CDN-CM-29, and CDN-CM-47 were all preferentially inserted into zones with visible copper mineralization. These QC insertion protocol proceeded in 2021 to 2023. In 2023 the protocol for insertion of overlimit Au CRMs was changed with CRMs OREAS 611 and CDN-GS-15C being inserted by ALS only when drill samples required overlimit gravimetric assay.

TABLE 11.3 SUMMARY OF 2018 TO 2023 LAWYER-RANCH PROPERTY DRILL QC SAMPLE INSERTION										
QC Sampling	2018	2019	2020		2021		2022		2023	
	Lawyers	Lawyers	Lawyers	Ranch	Lawyers	Ranch	Lawyers	Ranch	Lawyers	Ranch
Total Drilling Samples	3,405	7,877	67,108	85	68,879	10,681	14,813	25,595	16,372	14,723
Total QC Samples (QC Sample Ratio, 1:x)	591 1:5.8	1,371 1:5.7	9,110 1:7.4	9 1:9.4	8,560 1:8.0	1,497 1:7.1	1,762 1:8.4	3,415 1:7.5	1,900 1:8.6	2,085 1:7.1
Duplicates	192	461	627	0	395	216	38	253	42	270
Coarse Blanks	0	230	540	0	417	136	63	166	49	136
Blanks (pulp)	200	230	2,357	3	2,144	347	570	827	493	491
CRMs	199	450	5,586	6	5,604	798	1,091	2,169	1,316	1,188
Total CRMS (CRM Sample Ratio, 1:x)	399 1:8.5	680 1:11.6	7,943 1:8.4	9 1:9.4	7,748 1:8.9	1,145 1:9.3	1,661 1:8.9	2,996 1:8.5	1,809 1:9.0	1,679 1:8.8

In total, there were 20 CRMs inserted into the sample streams generated by the 2018 to 2023 Lawyer-Ranch drill programs. The specific CRMs utilized during each drill program changed over time as CRMs were either determined to be less reliable or were no longer available. Whenever a CRM was exhausted (i.e. no longer available from its supplier), the Project's supply of the CRM would be completely exhausted prior to switching to a replacement CRM, in order to avoid possible confusion with the replacement CRM, which were selected with Au ($\pm$ Ag) concentrations similar to the exhausted CRM. Any CRMs that were found to be performing poorly were discontinued. Tables 11.4 to 11.9 show the breakdown of CRMs used at the Lawyers-Ranch Project since 2018, including their certified values and grade groupings. CRMs were produced by and purchased from two different commercial CRM manufacturers; CDN Resource Laboratories (CDN) in Langley, BC, and OREAS North America Inc. (OREAS), purchased from Sudbury, ON. Throughout the 2018-2023 Lawyers-Ranch drilling programs, CDN-BL-10 (CDN Labs) was the main blank pulp CRM used.

Throughout the 2019-2023 Lawyers-Ranch Project drilling programs, coarse blank material was provided by APEX. The Coarse blank material was made from Athabasca Quartzite cobbles collected from a gravel pit located west of Edmonton, AB. The raw quartzite material was submitted to TSL Laboratories in Saskatoon, SK, where it was crushed to (-)1 inch. The crushed quartzite material was homogenized and placed in 5-gallon pails. TSL was instructed to select a sample from each of the pails for fire 30 g fire assaying. All of the assay tests yielded gold (Au) values below detectable limits (<5 ppb Au). In 2021, APEX added silver (Ag) assaying to its coarse blank testing protocol and all subsequent Ag test assays returned below detectable values (<0.2 ppm Ag).

Field duplicate (or "drill core" duplicate) samples were collected by cutting the drill core sample in half in the same way as a normal drill core sample with one half returned to the drill core box for archiving and the other becoming the sample. However, for drill core duplicate samples, the "sample" half of the drill core is quartered (cut in half again) with $\frac{1}{4}$ of the drill core collected as the original sample and the other $\frac{1}{4}$ of the drill core collected as the duplicate sample. In order to avoid confusion, and potential bias, the drill core cutters were instructed to place the drill core from one side of the quartered drill core into one sample bag the other side into the other bag (i.e., left side of the quartered drill core into one bag and the right side into the other).

TABLE 11.4 2018-2023 LAWYERS AREA AU CRMS							
Au CRMs Lawyers Area	Certified Value Au (ppm)	2018	2019	2020	2021	2022	2023
OREAS 231	0.542				700	337	478
CDN-GS-P6C	0.767			836			
CDN-CM-29	0.72			150			
OREAS 601b	0.775			220	905		
OREAS 232	0.902			218	220		
CDN-GS-1V	1.02	103	89				

TABLE 11.4 2018-2023 LAWYERS AREA AU CRMS							
Au CRMs Lawyers Area	Certified Value Au (ppm)	2018	2019	2020	2021	2022	2023
CDN-GS-1Z	1.155		134	804	1,821	387	401
CDN-GS-1X	1.299			214			
CDN-CM-47	1.13					4	1
CDN-GS-1P5T	1.75			1,333			
CDN-CM-19	2.11			195			
OREAS 237	2.21			226	1,675	332	145
OREAS 238	3.03						233
CDN-GS-3U	3.29			1,265			
CDN-GS-5T	4.76	96	81	6			
CDN-GS-6E	6.06		97				
CDN-GS-6F	6.87		49	46			
OREAS 603b	5.21			73	283	31	58

TABLE 11.5 2020-2023 RANCH AREA AU CRMS					
Au CRMs Ranch Area	Certified Value Au (ppm)	2020	2021	2022	2023
OREAS 151a	0.043			5	
OREAS 231	0.542		267	742	424
CDN-GS-1Z	1.155	2	241	201	
CDN-CM-47	1.13			344	312
OREAS 504c	1.48			2	
CDN-GS-1P5T	1.75	2			
OREAS 237	2.21		221	223	
OREAS 238	3.03			495	432
CDN-GS-3U	3.29	2			
OREAS 603b	5.21		69	58	3
OREAS 611	15.7			66	
CDN-GS-15C	15.62			33	17

TABLE 11.6 2018-2023 LAWYERS AREA AG CRMS							
Ag CRMs Lawyers Area	Certified Value Ag (ppm)	2018	2019	2020	2021	2022	2023
OREAS 231	0.177				700	337	478
OREAS 601b	50.1			220	905		
CDN-GS-1V	71.7	103	89				
CDN-GS-P6C	66			836			
CDN-GS-1X	68.5			214			
CDN-CM-47	69					4	1
CDN-GS-1Z	89.5		134	804	1821	387	401
CDN-GS-1P5T	92			1,333			
CDN-GS-5T	126	96	81	6			
OREAS 603b	301			73	283	31	58

TABLE 11.7 2020-2023 RANCH AREA AG CRMS					
Ag CRMs Ranch Area	Certified Value Ag (ppm)	2020	2021	2022	2023
OREAS 231	0.177		267	742	424
CDN-GS-1Z	89.5	2	241	201	
OREAS 611	80			66	
CDN-CM-47	69			344	312
OREAS 603b	301		69	58	3

TABLE 11.8 2018-2023 LAWYERS AREA CU CRMS							
Cu CRMs Lawyers Area	Certified Value Cu (ppm)	2018	2019	2020	2021	2022	2023
OREAS 231	161				700	337	478
OREAS 601b	1,010			220	905		
CDN-CM-29	7,420			150			
CDN-CM-47	7,240					4	1
OREAS 603b	9,730			73	283	31	58
CDN-CM-19	20,200			195			

TABLE 11.9 2020-2023 RANCH AREA CU CRMS				
Cu CRMs Ranch Area	Certified Value Cu (ppm)	2021	2022	2023
OREAS 231	161	267	742	424
CDN-CM-47	7,240	0	344	312
OREAS 603b	9,730	69	58	3
OREAS 611	11,700	0	66	0

The following sections describe and discuss the detailed results of QAQC sampling that was completed throughout the 2022 and 2023 Lawyers and Ranch drilling campaigns that have not been previously reported. For the Ranch project area drilling, a comprehensive discussion of QAQC analytical data collected prior to 2023 can be found in a previous Technical Report by Turner and Hough (2023). For the Lawyers project area drilling, a comprehensive discussion of QAQC analytical data collected during the 2018, 2019 and 2020 drilling programs can be found in a previous Technical Report by Stone *et al.* (2021), and the QAQC data for the 2021-2022 Lawyers drill programs can be found in Church *et al.* (2022).

11.4.1.1 2018 Lawyers Area Drill Program QAQC Results

The QAQC sampling conducted as part of the 2018 Lawyers drill program included 199 CRMs, 200 blank (pulp) CRMs, and 192 drill core duplicates inserted into the 3,405 drill samples. The CRMs used were CDN-GS-1V, CDN-GS-5T, and the blank CRM CDN-BL-10. The CDN CRMs were evaluated relative to their certified value and their expected (acceptable) analytical range, which is defined as two times the inter-lab standard deviation resulting from the round robin testing of the CRM. An analytical “failure” is defined as an analytical result that is greater than three times the inter-lab standard deviation. During the 2018 drill program, there were five “failures” of CDN-GS-1V and a single “failure” for CDN-GS-5T with respect to Au results, which represents a total “failure” rate of only 3%, which is acceptable. Furthermore, there were only two “failures” of CDN-GS-1V with respect to Ag results, which is also an acceptable number. Statistical summaries of the gold and silver analytical results for the 2018 drill program CRMs are presented in Tables 11.10 and 11.11, respectively. Three (1.5%) blank pulp CRM samples (CDN-BL-10) returned gold assay results over the 0.01 ppm (10 ppb) Au certified value for the material, and no results were returned over the 0.05 ppm (50 ppb) Au “warning value”. The blank is not certified for silver, but the results were still evaluated and there were no results over 1 ppm Ag. The 2018 drill core duplicate samples indicated no significant sample bias with a correlation coefficient of 0.75 and an R^2 of 0.56 for Au and 0.99 and 0.99 for Ag, respectively. In short, the 2018 drilling program QAQC sample results do not suggest any significant analytical issues with respect to the accuracy or precision of the 2018 drill program sample analyses.

TABLE 11.10
2018 LAWYERS AREA AU CRM RESULTS SUMMARY

CRM	Au – Certified Values			2018 Lawyers Au Assay Statistics					
	Certified Value Au (ppm)	2SD	%RSD	n	Mean Au (ppm)	2SD	%RSD	Total 3SD Failures	% 3SD Fails
CDN-GS-1V	1.02	0.098	4.8%	103	1.00	0.238	12.0%	5	4.85%
CDN-GS-5T	4.76	0.21	2.2%	96	4.81	0.273	2.8%	1	1.04%
Total				199				6	3.02%

Note: SD = standard deviation, RSD = relative standard deviation, n = sample size.

TABLE 11.11
2018 LAWYERS AREA AG CRM RESULTS SUMMARY

CRM	Ag – Certified Values			2018 Lawyers Ag Assay Statistics					
	Certified Value Ag (ppm)	2SD	%RSD	n	Mean Ag (ppm)	2SD	%RSD	Total 3SD Failures	% 3SD Fails
CDN-GS-1V	71.7	5	3.5%	103	71.44	14.975	10.5%	2	1.94%
CDN-GS-5T	126	10	4.0%	96	127.75	8.613	3.4%	0	0.00%
Total				199				2	1.01%

Note: SD = standard deviation, RSD = relative standard deviation, n = sample size.

11.4.1.2 2019 Lawyers Area Drill Program QAQC Results

The QAQC program implemented as part of the 2019 drill program included 450 CRMs, 230 blanks, 230 coarse blanks, and 461 field duplicates inserted into the 7,877 drill samples. The CRMs used were CDN-GS-1V, CDN-GS-1Z, CDN-GS-5T, CDN-GS-6E, CDN-GS-6F, and the blank CDN-BL-10. There was a total of 13 (2.89%) “failures” with respect to Au results and 11 (3.62%) “failures” with respect to Ag results. CRM “failures” are determined by those exceeding 3SD variance from the certified value. The results of the CRMs can be observed in Tables 11.12 and 11.13.

CRM CDN-GS-1Z analyses comprised the majority of the “failures” noted above. This CRM had elevated variance with respect to Au results with no bias and tight (3.3% relative standard deviation (RSD) variance for Ag results with a slight (2.3%) positive bias. Given the reasonable precision of the results as a whole, in conjunction with the lack of “failures” exhibited by the other CRMs with similar concentrations, it is likely that the elevated “failure” results of CRM CDN-GS-1Z reflect inhomogeneity of the CRM rather than an issue with the analyses. No other significant issues were noted with the analyses of the 2019 Lawyers drill program CRMs.

Of the 230 blank analyses (CDN-BL-10), five (2.1%) returned results over the 0.01 ppm Au certified value and there were no results over the 0.05 ppm Au “warning value”. CDN-BL-10 is not certified for silver; however, the results were still evaluated and there were no results over 1 ppm Ag. The field duplicates indicated no significant bias with a correlation coefficient of 0.93 and an R^2 of 0.87 for Au and 0.89 and 0.79 for Ag, respectively. There was no significant carry-over of grade between samples identified by the coarse blank analysis with the highest coarse blank result being 0.023 ppm Au and having a <0.5% carry-over. The 2019 QAQC program results do not suggest any significant issues with respect to the accuracy or precision of the 2019 Lawyers drill program results.

TABLE 11.12 2019 LAWYERS AREA AU CRM RESULTS SUMMARY									
CRM	Au – Certified Values			2019 Lawyers Au Assay Statistics					
	Certified Value Au (ppm)	2SD	%RSD	n	Mean Au (ppm)	2SD	%RSD	3SD Failures	% 3SD Fails
CDN-GS-1V	1.02	0.098	4.8%	89	1.02	0.127	6.2%	1	1.12%
CDN-GS-1Z	1.155	0.095	4.1%	134	1.15	0.132	5.7%	6	4.48%
CDN-GS-5T	4.76	0.21	2.2%	81	4.81	0.248	2.6%	1	1.23%
CDN-GS-6E	6.06	0.3	2.5%	97	6.08	0.410	3.4%	3	3.09%
CDN-GS-6F	6.87	0.28	2.0%	49	6.74	0.321	2.4%	2	4.08%
Total				450				13	2.89%

Note: SD = standard deviation, RSD = relative standard deviation, n = sample size.

TABLE 11.13 2019 LAWYERS AREA AG CRM RESULTS SUMMARY									
CRM	Ag – Certified Values			2019 Lawyers Ag Assay Statistics					
	Certified Value Ag (ppm)	2SD	%RSD	n	Mean Ag (ppm)	2SD	%RSD	3SD Failures	% 3SD Fails
CDN-GS-1V	71.7	5	3.5%	89	72.06	4.797	3.3%	0	0.00%
CDN-GS-1Z	89.5	4.4	2.5%	134	91.59	5.971	3.3%	11	8.21%
CDN-GS-5T	126	10	4.0%	81	127.42	9.761	3.8%	0	0.00%
Total				304				11	3.62%

Note: SD = standard deviation, RSD = relative standard deviation, n = sample size.

11.4.1.3 2020 Lawyers Area Drill Program QAQC Results

The QAQC program implemented as part of the 2020 Lawyers Area drill program included 5,586 CRMs, 2,357 blanks, 540 coarse blanks, and 627 field duplicates inserted into the 67,108 drill samples. The CRMs used in 2020 were obtained from CDN Labs and OREAS Canada and included; CDN-GS-1Z, CDN-GS-5T, CDN-GS-6F, CDN-GS-P6C, CDN-GS-1X, CDN-GS-1P5T, CDN-GS-3U, CDN-CM-29, CDN-CM-19, OREAS 232, OREAS 601b, OREAS 237, OREAS 603b, and the blank CDN-BL-10.

As discussed below, a number of changes were made with respect to the CRMs being utilized during the Lawyers 2020 drill program. CDN-GS-1X and OREAS 232 were added to the program as alternatives to CDN-GS-1Z. CDN-GS-P6C, CDN-GS-1P5T, and CDN-GS-3U were brought in to test grades between the 0.5 and 5 ppm Au range. CDN-CM-19 and CDN-CM-29 were added to test Cu results as some significant Cu mineralization had been observed. OREAS 601b and OREAS 237 were brought in as replacements for CDN-GS-P6C and CDN-GS-3U after poor performance. Finally, OREAS 603b replaced CDN-GS-6F.

There was a total of 406 (7.27%) “failures” with respect to Au results during the 2020 drilling QAQC program, along with 222 (6.37%) “failures” with respect to Ag results, and 14 (2.19%) “failures” with respect to Cu results. CRM “failures” are determined by those exceeding 3SD variance from the certified value. The results of the CRMs can be observed in Tables 11.14, 11.15, and 11.16. The CRMs CDN-GS-P6C, CDN-GS-1X, CDN-GS-1P5T, and CDN-GS-3U represent the vast majority (93%) of the failures with respect to Au results. There was moderate positive bias (2.5%) observed in the CRM Au results dominantly in the same poor performing CRMs. The Ag results for CDN-GS-P6C, CDN-GS-1X, and CDN-GS-1Z showed the majority of the Ag “failures”, 196 (88%). CDN-GS-P6C and CDN-GS-1X showed high variance, whereas CDN-GS-1P5T, CDN-GS-1Z, and CDN-GS-P6C showed a weak positive bias, 2.3%, 3.0% and 1.9%, respectively. As with the analysis in 2019 CDN-GS-1Z is observed to be internally consistent and is not considered to be of concern, other than a limited number of more distant outliers. The CRM “failures” did not appear to be temporally bound with “failures” spaces relatively evenly across all certificates, project areas, and throughout the year. As a small subset of samples were processed at the ALS analytical facilities in Lima, Peru the CRM results produced by the two labs were compared with each other. The Lima lab had an overall failure rate 1% lower than the Vancouver lab. As a result of these CRM results a check assay program and umpire assay program were carried out in addition to a limited round robin check on the CDN CRMs. The results of these three programs are discussed in sections 11.4.3.4, 11.4.3.5, and 11.4.3.6.

Of the 2,357 blank analyses, 19 (0.8%) CDN-BL-10 returned results over the 0.01 ppm Au certified value, but there were no results over the 0.05 ppm Au “warning value”. CDN-BL-10 is not certified for silver; however, the results were still evaluated and there was only a single result of 125 ppm Ag which had corresponding unusual multielement geochemistry results, indicating that the CRM used was not likely a blank. The field duplicates indicated no significant bias with a correlation coefficient of 0.93 and an R^2 of 0.86 for Au and 0.88 and 0.78 for Ag, respectively. There was no significant carry-over of grade between samples identified by the coarse blank analysis with the highest coarse blank result being 0.066 ppm Au and having a <0.5% carry-over.

The 2020 Lawyers project drilling QAQC program results raised some concerns with regards to analytical accuracy and precision and CRM quality. The data indicated that the issues were, however, related to inhomogeneity issues with the CRMs themselves and not related to laboratory (analytical) issues. In order to test this hypothesis, new CRMs were added to the QAQC program to replace the “problematic” CRMs and significant umpire and check assay programs were completed. There was no significant issue with the data from the new (replacement) CRMs or the results of the 2020 Umpire and Check Assay programs, which supported the conclusion that the QAQC issues identified during the first half of the 2020 Lawyers drilling program were the result of issues with the CRMs themselves, and that there were no significant issues with the analytical results from the 2020 Lawyers Area drill program.

TABLE 11.14
2020 LAWYERS AREA AU CRM RESULTS SUMMARY

CRM	Au – Certified Values			2020 Lawyers Au Assay Statistics					
	Certified Value Au (ppm)	2SD	%RSD	n	Mean Au (ppm)	2SD	%RSD	Total 3SD Failures	% 3SD Fails
CDN-CM-29	0.72	0.068	4.7%	150	0.72	0.097	6.8%	6	4.00%
CDN-GS-P6C	0.767	0.078	5.1%	835	0.81	0.172	10.6%	117	14.01%
OREAS 601b	0.775	0.042	2.7%	220	0.79	0.545	34.4%	2	0.91%
OREAS 232	0.902	0.046	2.5%	218	0.90	0.045	2.5%	1	0.46%
CDN-GS-1Z	1.155	0.095	4.1%	804	1.17	0.109	4.7%	14	1.74%
CDN-GS-1X	1.299	0.132	5.1%	214	1.30	0.250	9.6%	19	8.88%
CDN-GS-1P5T	1.75	0.17	4.9%	1,331	1.80	0.613	17.0%	138	10.37%
CDN-CM-19	2.11	0.22	5.2%	195	2.15	0.180	4.2%	0	0.00%
OREAS 237	2.21	0.108	2.4%	226	2.22	0.069	1.5%	1	0.44%
CDN-GS-3U	3.29	0.26	4.0%	1,265	3.38	0.602	8.9%	104	8.22%
CDN-GS-5T	4.76	0.21	2.2%	6	4.97	0.433	4.4%	1	16.67%
OREAS 603b	5.21	0.418	4.0%	73	5.31	1.051	9.9%	1	1.37%
CDN-GS-6F	6.87	0.28	2.0%	46	6.77	0.314	2.3%	2	4.35%
Total				5,583				406	7.27%

Note: CRM = certified reference material, SD = standard deviation, RSD = relative standard deviation, n = sample size.

TABLE 11.15 2020 LAWYERS AREA AG CRM RESULTS SUMMARY									
CRM	Ag – Certified Values			2020 Lawyers Ag Assay Statistics					
	Certified Value Ag (ppm)	2SD	%RSD	n	Mean Ag (ppm)	2SD	%RSD	3SD Failures	% 3SD Fails
CDN-GS-P6C	66	5.5	4.2%	836	67.26	11.002	8.2%	103	12.32%
OREAS 601b	50.1	3.48	3.5%	220	50.17	3.191	3.2%	0	0.00%
CDN-GS-1Z	89.5	4.4	2.5%	804	92.15	6.139	3.3%	81	10.07%
CDN-GS-1X	68.5	8.5	6.2%	214	68.57	13.109	9.6%	12	5.61%
CDN-GS-1P5T	92	5.1	2.8%	1,333	94.11	6.415	3.4%	26	1.95%
CDN-GS-5T	126	10	4.0%	6	131.00	9.466	3.6%	0	0.00%
OREAS 603b	301	20	3.3%	73	301.67	8.492	1.4%	0	0.00%
Total				3,486				222	6.37%

Note: CRM = certified reference material, SD = standard deviation, RSD = relative standard deviation, n = sample size.

TABLE 11.16 2020 LAWYERS AREA CU CRM RESULTS SUMMARY									
CRM	Cu – Certified Values			2020 Lawyers Cu Assay Statistics					
	Certified Value Cu (ppm)	2SD	%RSD	n	Mean Cu (ppm)	2SD	%RSD	3SD Failures	% 3SD Fails
CDN-CM-29	7,420	300	2.0%	150	7,417.73	419.601	2.8%	4	2.67%
OREAS 601b	1,010	40	2.0%	220	992.19	44.827	2.3%	7	3.18%
CDN-CM-19	20,200	700	1.7%	195	20,152.82	831.108	2.1%	2	1.03%
OREAS 603b	9,730	460	2.4%	73	9,518.22	399.226	2.1%	1	1.37%
Total				638				14	2.19%

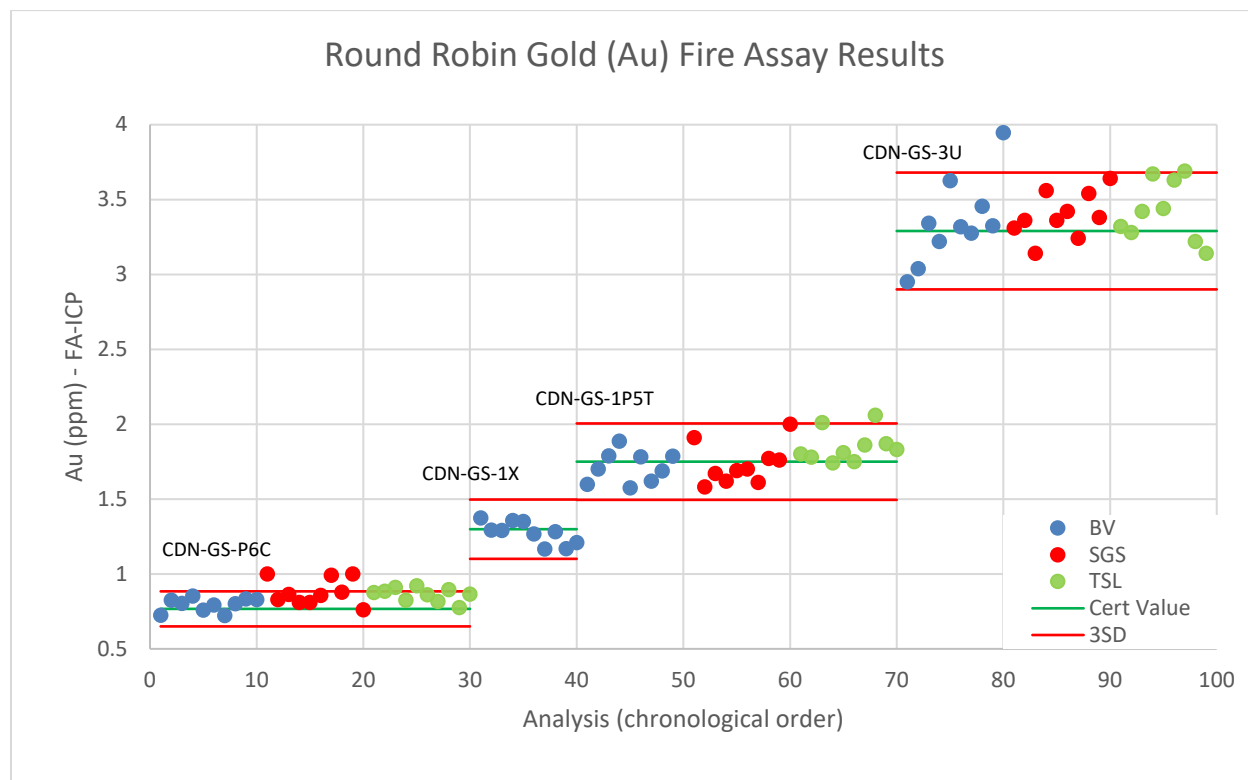
Note: CRM = certified reference material, SD = standard deviation, RSD = relative standard deviation, n = sample size.

11.4.1.4 2020 Lawyers Area CRM Round Robin Results

Due to the excessive analytical variance observed in the gold assay results of several of the CDN Labs CRMs used in the 2020 Lawyers Drill Program, a limited round robin analytical program was undertaken in order to examine the results for several of the problematic CRMs at several different analytical laboratories. The 2020 CRM Round Robin test program involved the submission of 30 CRMs, 10 of each of three different CDN CRMs used in 2020, to three different labs. An additional 10 samples of a fourth CDN CRM was sent to a on of the round robin laboratories for a total of 100 CRM analyses. The primary CRMs submitted were CDN-GS-1P5T, CDN-GS-P6C, CDN-GS-3U, each with 30 samples submitted for analysis, plus 10 samples of CDN-GS-1X. The laboratories used for the round robin test were TSL Laboratories Inc. (“TSL”) located in Saskatoon, SK, SGS Canada Inc. (SGS) located in Vancouver, BC, and Bureau Veritas (BV) located in Vancouver, BC. All of these labs are accredited and fully independent of each other, P&E, APEX and Thesis.

The round robin test results (Figure 11.2) confirmed that there is significant variance, and a positive bias, observed in CDN-GS-1P5T, CDN-GS-P6C, CDN-GS-3U consistent with the results obtained from the analyses of these CRMs at ALS Laboratories during the 2020 drilling program. The Round Robin test results support the conclusion that the high degree of variance observed in the analytical data for the CRMs listed above was the result of issues (inhomogeneity) with the CRMs themselves as opposed to any analytical issues with the laboratories. Use of the problematic CRMs listed above has been discontinued and the results of the check assay and umpire programs have been used to help validate the results of the 2020 Drilling data.

FIGURE 11.2 PLOT OF 2020 AU ROUND ROBIN ASSAY DATA FOR THE 2020 CDN CRMS



Source: APEX (2024)

11.4.1.5 2020 Lawyers Area Check Assay Program Results

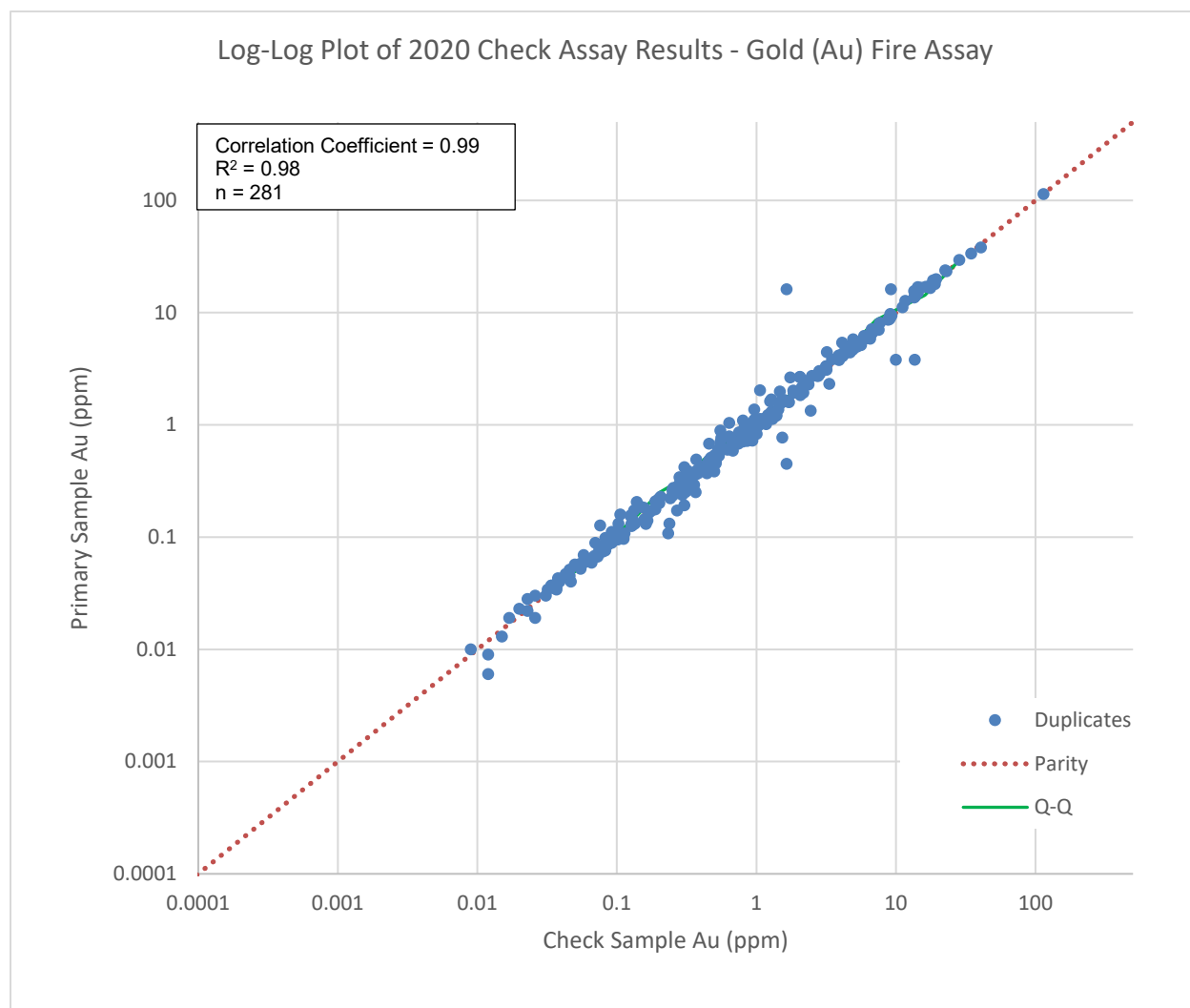
Due to the high variance exhibited by the analytical results from several of the CRMs used in the 2020 Lawyers drilling QAQC program, and to test the overall performance of the primary analytical laboratory (ALS), a “check assay” program was conducted. This involved the assaying of duplicate (second) pulp aliquots from 281 2020 Lawyers drill samples. The 281 check assay samples were geographically well-distributed from shallow and deep mineralized intersections at Cliff Creek, Dukes Ridge and AGB (NB – 8 of the 281 check assay samples selected had an insufficient amount of remaining pulp, and therefore a second pulp was produced for these samples from their remaining coarse reject material).

A set of 28 QC samples, comprising CRMs and blanks, was submitted to ALS for insertion into the sequence of check analyses and their results all fell within expected limits.

All 281 of the samples were analysed by the same analysis as the primary samples (Au-ICP21 and ME-MS61). Of these samples 21 Au and 74 Ag results were above the upper limit for the analytical technique and proceeded to follow-up overlimit analysis (Au-GRA22 and AG-OG62). A further five Ag analysis results required additional follow-up silver assaying (Ag-GRA21). The results for Au and Ag comparisons between primary and check assay samples can be observed in Figures 11.3 and 11.4, respectively.

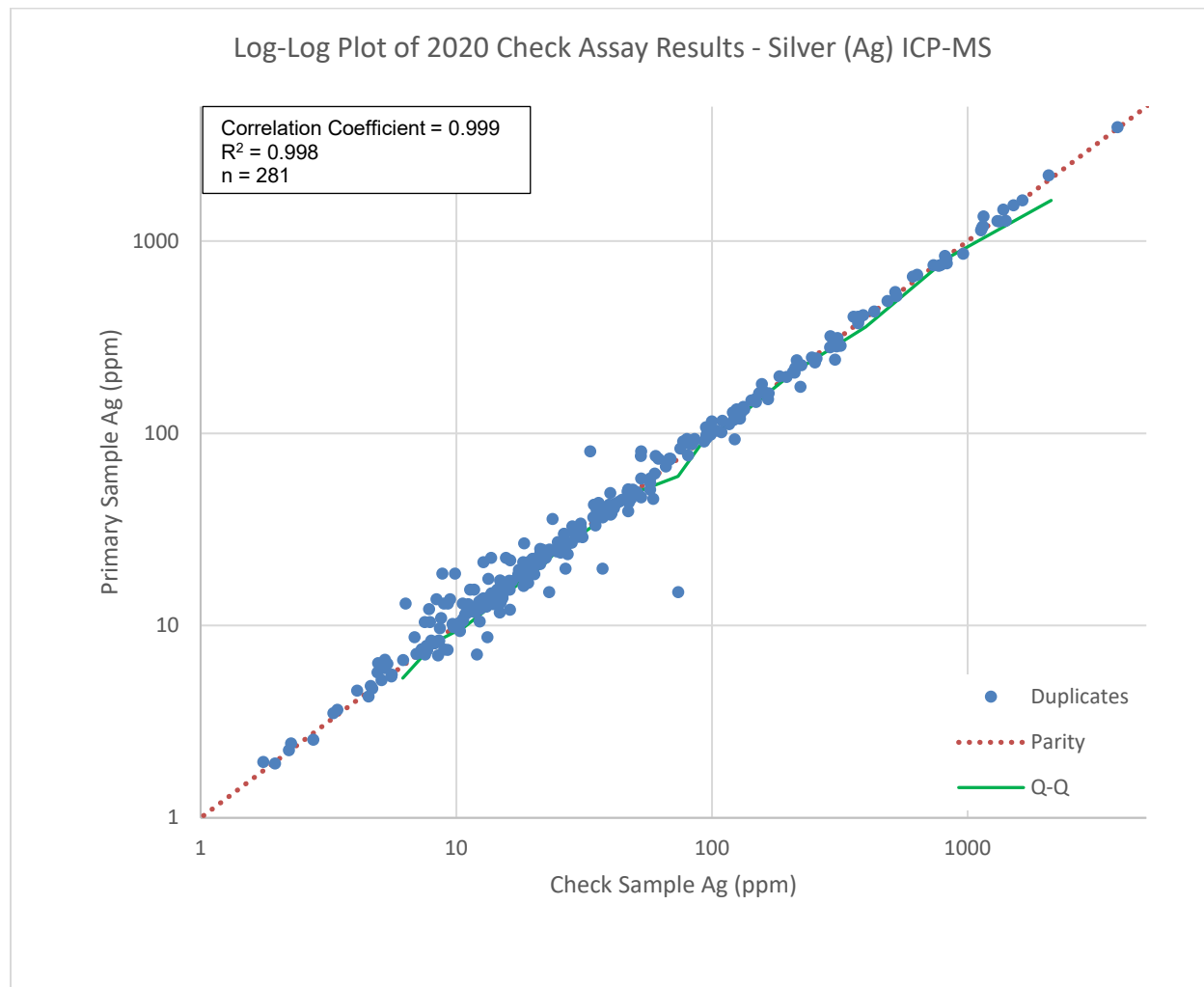
In short, the 2020 drilling sample check assay results showed excellent correlation and very low variance between the original and the “check” (pulp duplicate) analytical results. The correlation coefficients for Au and Ag are 0.991 and 0.999, respectively. The 2020 “check assay” data provides further evidence of an overall high level of accuracy and precision in the 2020 Au and Ag results. It also illustrates that sample preparation procedures employed by ALS are sufficient to create reasonably well homogenized pulps that yield consistent (repeatable) analytical results. Together, this data provides additional support for the conclusion that there were no significant issues with respect to the Au and Ag analytical results from the 2020 Lawyers Area drill program.

FIGURE 11.3 LOG-LOG PLOT OF 2020 AU CHECK ASSAY DATA FOR THE 2020 ALS DRILL SAMPLES



Source: APEX (2024)

FIGURE 11.4 LOG-LOG PLOT OF 2020 AG CHECK ASSAY DATA FOR THE 2020 ALS DRILL SAMPLES



Source: APEX (2024)

11.4.1.6 2020 Lawyers Area Umpire Assay Program Results

Due to the high variance exhibited by the analytical results from several of the CRMs used in the 2020 Lawyers drilling QAQC program, and to test the overall performance of the primary analytical laboratory (ALS), an “umpire assay” program was conducted. This involved 434 duplicate (second) pulp aliquots from the 2020 Lawyers drill program being collected by ALS and submitted for analysis at a different laboratory. Bureau Veritas (BV) was selected as the laboratory for the 2020 umpire assay program. BV is an accredited ISO/IEC 17025:2017 lab and is independent of ALS, APEX, P&E and Thesis. Samples were geographically well-distributed from shallow and deep mineralized intersections at Cliff Creek, Dukes Ridge and AGB.

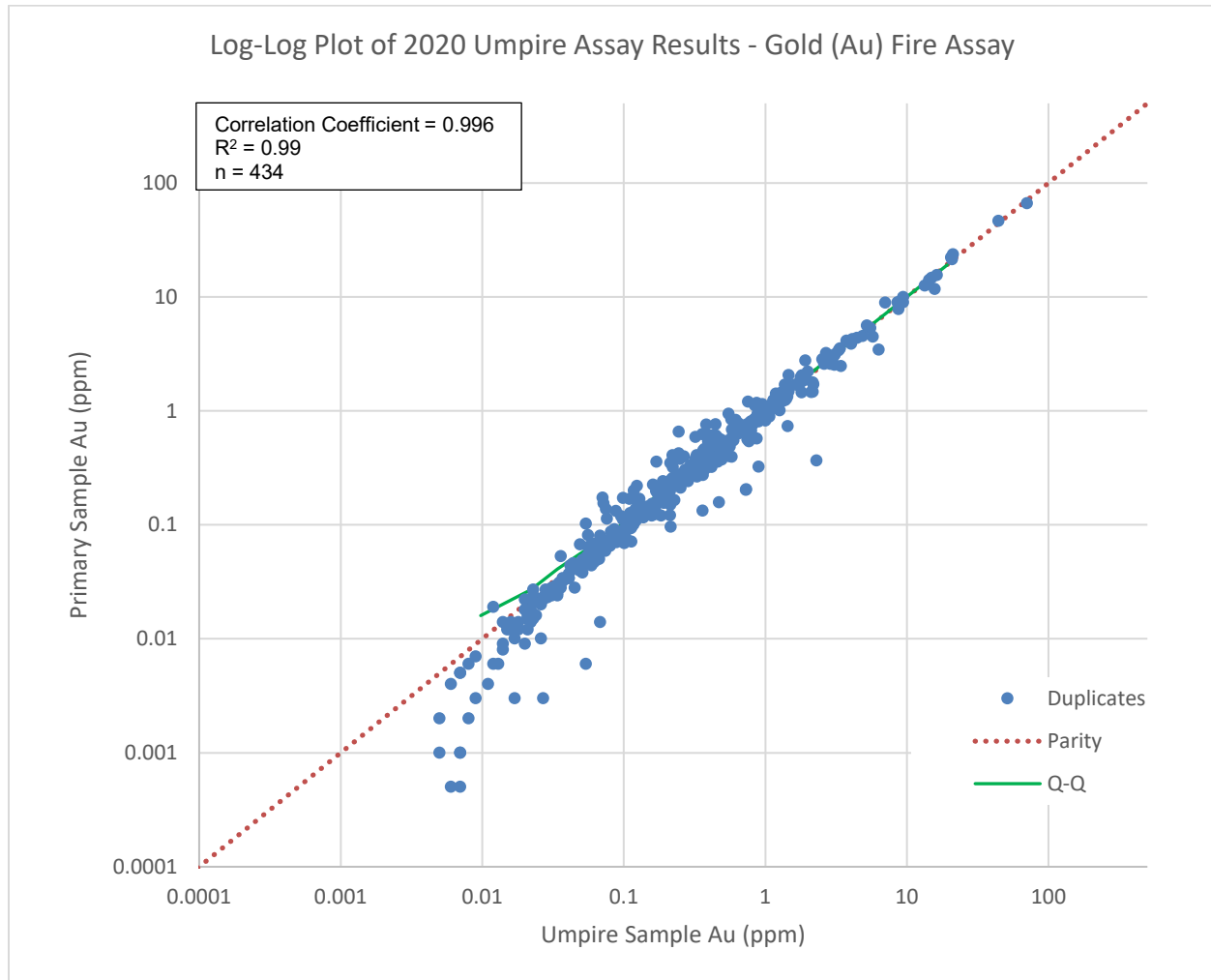
A set of 45 QC samples, comprising CRMs and blanks, were submitted to BV for insertion into the sequence of umpire analyses and their results all fell within expected limits.

All 434 of the samples were analysed by the same techniques as the primary analyses, which are represented by BV lab codes FA330 and MA250. FA330 is a standard 30 g (aliquot) fire assay technique with wet chemical finish (ICP-emission spectroscopy, ICP-ES) with an upper limit of detection (LOD) of 10 ppm Au. MA250 is an ICP-MS multi-element analytical technique involving a four-acid digestion of a 0.25 g sample aliquot with an upper detection limit of 200 ppm Ag.

The results for the 434 Umpire analyses included 11 Au and 27 Ag results that were above the upper limit for their respective analytical techniques and were followed-up by overlimit analysis (FA530 and MA370). FA530 is a 30 g aliquot fire assay technique with a gravimetric finish. MA370 is a four-acid (1 g sample aliquot) ICP-ES technique with a detection limit of 1,500 ppm Ag. One overlimit Ag analysis result required additional follow-up by a silver assay (FA530-Ag). FA530-Ag is a 30 g aliquot fire assay technique with a gravimetric finish. The results for Au and Ag comparisons between primary and check assay samples can be observed in Figures 11.5 and 11.6, respectively.

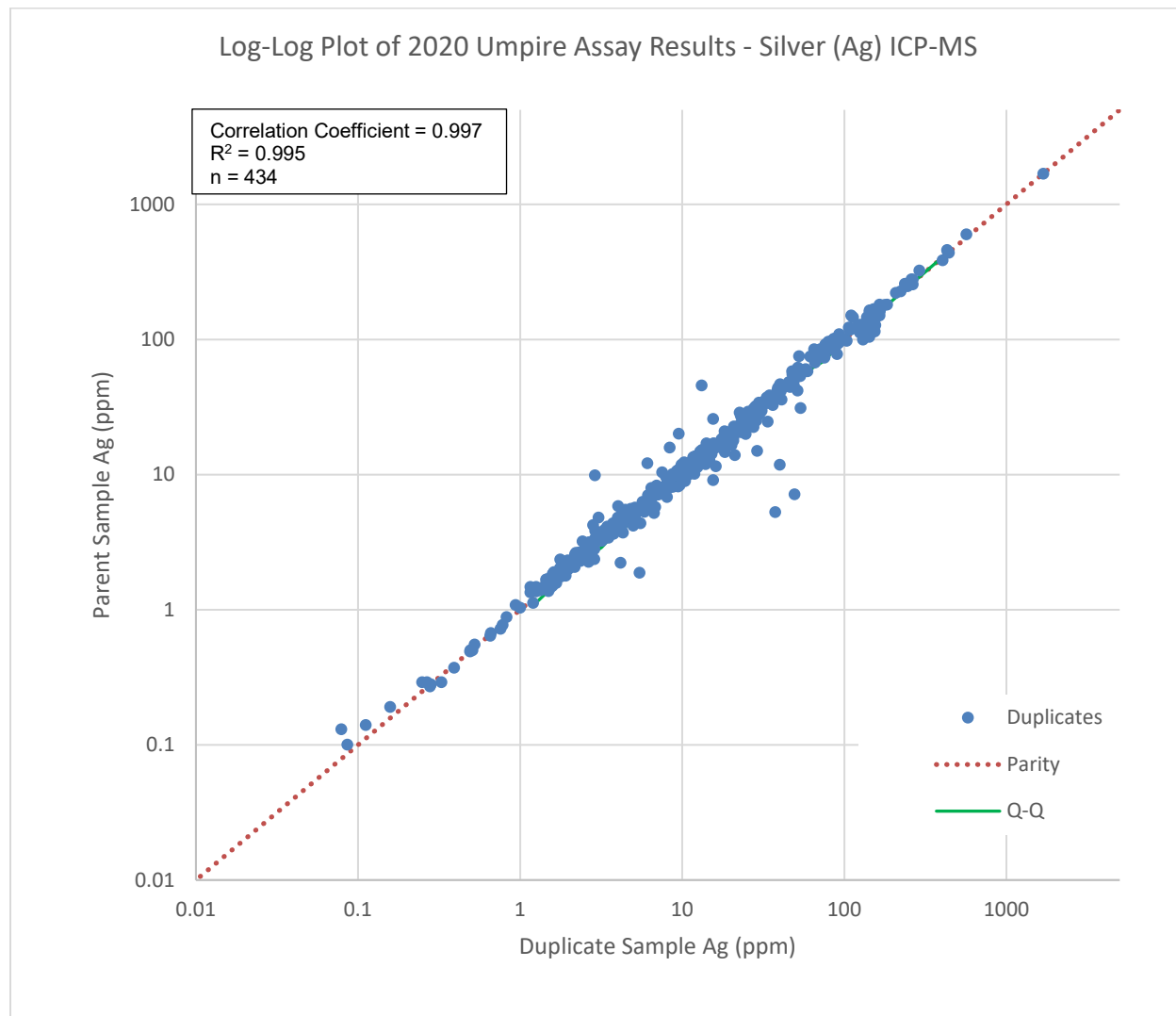
The results showed excellent correlation and very low variance between the original and the “umpire” analytical results. The correlation coefficients for Au and Ag are 0.996 and 0.997, respectively. There is a shift at lower Au concentrations, <0.01 ppm (<10 ppb) Au, showing a negative bias in the umpire sample results; this is likely due to a difference in the lower limits of detection between the two labs. The 2020 “umpire assay” data provides further evidence of an overall high level of accuracy and precision in the 2020 Au and Ag results generated by ALS Laboratories. It also illustrates that sample preparation procedures employed by ALS are sufficient to create reasonably well homogenized pulps that yield consistent (repeatable) analytical results. Together, this data provides additional support for the conclusion that there were no significant issues with respect to the Au and Ag analytical results from the 2020 Lawyers Area drill program.

FIGURE 11.5 LOG-LOG PLOT OF 2020 AU UMPIRE ASSAY DATA FOR THE 2020 ALS DRILL SAMPLES



Source: APEX (2024)

FIGURE 11.6 LOG-LOG PLOT OF 2020 AG UMPIRE ASSAY DATA FOR THE 2020 ALS DRILL SAMPLES



Source: APEX (2024)

11.4.1.7 2020 Ranch Area Infill Sampling Program QAQC Results

The QAQC program implemented as part of the analytical procedure for the 2020 Ranch Area historical drill core infill sampling program included six CRMs and three blanks inserted into the 85 drill samples. No coarse blanks or field duplicates were included in this sampling. The CRMs used were CDN-GS-1Z, CDN-GS-1P5T, CDN-GS-3U, and the blank was CDN-BL-10.

There were no “failures” with respect to Au or Ag analyses of the 9 CRMs inserted into the 2020 Ranch Area historical drill core infill sampling program. CRM “failures” are determined by those exceeding 3SD variance from the certified value. The results of the CRMs can be observed in Tables 11.17 and 11.18. Both of the CDN-GS-1P5T results were outside 2SD range with one being

high and one low. Given the limited number of analysis as part of this program there can be no significant statistical determination of the results. The samples making up this program were submitted, prepared, and analysed in close association with those of the 2020 Lawyers Area drill program. The 2020 Ranch Area infill sampling QAQC program results do not indicate any significant issues with regards to accuracy of the infill sampling results.

TABLE 11.17 2020 RANCH AREA INFILL SAMPLING AU CRM RESULTS SUMMARY									
CRM	Au – Certified Values			2020 Ranch Au Assay Statistics					
	Certified Value Au (ppm)	2SD	%RSD	n	Mean Au (ppm)	2SD	%RSD	3SD Failures	% 3SD Fails
CDN-GS-1Z	1.155	0.095	4.1%	2	1.14	0.057	2.5%	0	0.00%
CDN-GS-1P5T	1.75	0.17	4.9%	2	1.78	0.622	17.5%	0	0.00%
CDN-GS-3U	3.29	0.26	4.0%	2	3.33	0.212	3.2%	0	0.00%
Total				6				0	0.00%

Note: CRM = certified reference material, SD = standard deviation, RSD = relative standard deviation, n = sample size.

TABLE 11.18 2020 RANCH AREA INFILL SAMPLING AG CRM RESULTS SUMMARY									
CRM	Ag – Certified Values			2020 Ranch Ag Assay Statistics					
	Certified Value Ag (ppm)	2SD	%RSD	n	Mean Ag (ppm)	2SD	%RSD	3SD Failures	% 3SD Fails
CDN-GS-1Z	89.5	4.4	2.5%	2	91.6	2.263	1.2%	0	0.00%
CDN-GS-1P5T	92	5.1	2.8%	2	92.95	4.384	2.4%	0	0.00%
Total				4				0	0.00%

Note: CRM = certified reference material, SD = standard deviation, RSD = relative standard deviation, n = sample size.

11.4.1.8 2021 Lawyers Area Drill Program QAQC Results

The QAQC program implemented as part of the 2021 Lawyers Area drill program included 5,604 CRMs, 2,144 blanks, 417 coarse blanks, and 395 field duplicates inserted into the 68,879 drill samples. All of the poorly performing CRMs from previous years were replaced and the 2021 drilling QAQC program utilized CRMs CDN-GS-1Z, OREAS 231, OREAS 232, OREAS 601b, OREAS 237, OREAS 603b and the blank CDN-BL-10.

There was a total of 68 (1.22%) “failures” with respect to 2021 CRM Au assay results, 161 (4.34%) “failures” with respect to Ag analytical results, and 33 (1.75%) “failures” with respect to Cu analytical results. CRM “failures” are determined by those exceeding 3SD variance from the certified value. The results of the CRMs can be observed in Tables 11.19, 11.20, and 11.21. The CRM CDN-GS-1Z represented half (57%) of the “failures” with respect to Au and the majority (89%) of the failures with respect to Ag. OREAS 601b represents the majority (85%) of the “failures” with respect to Cu. As has been discussed previously, there is a certain amount of heterogeneity inherent to CRM CDN-GS-1Z, which is believed to be the cause of this CRM’s higher than expected proportion of the total number of gold assay “failures”. Overall, the performance of CDN-GS-1Z is acceptable and not of significant concern. The other results of note for the Au CRMs is the slight positive bias (2.7%) in OREAS 603b. The majority of the Cu “failures” for OREAS 601b are believed to be due to the extremely tight (2.0% RSD) and regular interlaboratory variance. OREAS 601b shows a slight negative bias (-1.1%). All CRMs “failures” were reviewed and if they occurred within mineralized intersections the corresponding samples were flagged for re-assay.

Of the 2,144 blank analyses completed during the 2021 Lawyers Area drill program, 21 (1.0%) of the CDN-BL-10 blanks returned results over the 0.01 ppm Au certified value and there were only two (0.1%) results over the 0.05 ppm (50 ppb) Au “warning value”. The highest value 0.364 ppm Au was not inserted within or analysed with any significant mineralization in the drill core samples. CDN-BL-10 is not certified for silver, but the results were still evaluated. There were no significant Ag results with all analysis below 1 ppm Ag. The field duplicates indicated no significant bias with a correlation coefficient of 0.95 and an R^2 of 0.91 for Au and 0.96 and 0.93 for Ag, respectively. There was no significant carry-over of grade between samples identified by the coarse blank analysis with the highest coarse blank result being 0.051 ppm Au and having a 1 <0.1% carry-over. The 2021 Lawyers Area drill QAQC program results do not suggest that there are any significant issues or concern with regards to the 2021 Lawyers drill sample results.

TABLE 11.19 2021 LAWYERS AREA AU CRM RESULTS SUMMARY									
CRM	Au – Certified Values			2021 Lawyers Au Assay Statistics					
	Certified Value Au (ppm)	2SD	%RSD	n	Mean Au (ppm)	2SD	%RSD	Total 3SD Failures	% 3SD Fails
OREAS 231	0.542	0.03	2.8%	700	0.54	0.023	2.1%	5	0.71%
OREAS 601b	0.775	0.042	2.7%	900	0.77	0.139	9.0%	11	1.22%
OREAS 232	0.902	0.046	2.5%	220	0.91	0.030	1.6%	0	0.00%
CDN-GS-1Z	1.155	0.095	4.1%	1,817	1.18	0.173	7.4%	39	2.15%
OREAS 237	2.21	0.108	2.4%	1,675	2.23	0.094	2.1%	10	0.60%
OREAS 603b	5.21	0.418	4.0%	273	5.35	2.006	18.7%	3	1.10%
Total				5,585				68	1.22%

Note: CRM = certified reference material, SD = standard deviation, RSD = relative standard deviation, n = sample size.

TABLE 11.20 2021 LAWYERS AREA AG CRM RESULTS SUMMARY									
CRM	Ag – Certified Values			2021 Lawyers Ag Assay Statistics					
	Certified Value Ag (ppm)	2SD	%RSD	n	Mean Ag (ppm)	2SD	%RSD	Total 3SD Failures	% 3SD Fails
OREAS 231	0.177	0.048	13.6%	700	0.18	0.064	17.6%	14	2.00%
OREAS 601b	50.1	3.48	3.5%	905	50.82	3.187	3.1%	3	0.33%
CDN-GS-1Z	89.5	4.4	2.5%	1,819	92.17	8.251	4.5%	144	7.92%
OREAS 603b	301	20	3.3%	283	305.94	13.164	2.2%	0	0.00%
Total				3,707				161	4.34%

Note: CRM = certified reference material, SD = standard deviation, RSD = relative standard deviation, n = sample size.

TABLE 11.21 2021 LAWYERS AREA CU CRM RESULTS SUMMARY									
CRM	Cu – Certified Values			2021 Lawyers Cu Assay Statistics					
	Certified Value Cu (ppm)	2SD	%RSD	n	Mean Cu (ppm)	2SD	%RSD	3SD Failures	% 3SD Fails
OREAS 231	161	18	5.6%	700	162.62	8.916	2.7%	0	0.00%
OREAS 601b	1,010	40	2.0%	905	999.31	51.217	2.6%	28	3.09%
OREAS 603b	9,730	460	2.4%	283	9,582.16	436.134	2.3%	5	1.77%
Total				1,888				33	1.75%

Note: CRM = certified reference material, SD = standard deviation, RSD = relative standard deviation, n = sample size.

11.4.1.9 2021 Ranch Area Drill Program QAQC Results

The QAQC program implemented as part of the 2021 Ranch Area drill program included 798 CRMs, 347 blanks, 136 coarse blanks, and 216 field (core) duplicates inserted into the 10,681 drill samples. The CRMs used were CDN-GS-1Z, OREAS 231, OREAS 237, OREAS 603b and the blank CDN-BL-10.

There was a total of 9 (1.13%) “failures” with respect to Au results, 20 (3.47%) “failures” with respect to Ag results, and two (0.60%) “failures” with respect to Cu results. CRM “failures” are determined by those exceeding 3SD variance from the certified value. The results of the CRMs can be observed in Tables 11.22, 11.23, and 11.24. All CRMs “failures” were reviewed and if they occurred within mineralized intersections the corresponding samples were flagged for re-assay. The CRM failure rate was minimal (acceptable) and there were no significant issues related to the analytical results of the CRMs as part of the 2021 Ranch drilling QAQC program.

Of the 347 blank analyses, two (0.6%) of CDN-BL-10 returned results >0.01 ppm Au certified value. There were no results over the 0.05 ppm Au “warning value”. CDN-BL-10 is not certified for silver, but the results were still being examined. There were no significant Ag results with all analysis <1 ppm Ag.

The 2021 Ranch drill program field (core) duplicates indicated no significant bias with a correlation coefficient of 0.93 and an R^2 of 0.86 for Au and 0.95 and 0.91 for Ag, respectively.

There was a single elevated coarse blank sample that returned an assay result of 0.132 ppm Au that followed an elevated/mineralized sample that assayed 1.185 ppm Au. The carry-over of grade between samples is still relatively insignificant, being ~2% when accounting for the mass of the samples, but the result was still raised with ALS.

Overall, the 2021 Ranch Area drill program QAQC sampling results did not identify any significant analytical issues with the 2021 Ranch drilling sample results.

TABLE 11.22 2021 RANCH AREA AU CRM RESULTS SUMMARY									
CRM	Au – Certified Values			2021 Ranch Au Assay Statistics					
	Certified Value Au (ppm)	2SD	%RSD	n	Mean Au (ppm)	2SD	%RSD	3SD Failures	% 3SD Fails
OREAS 231	0.542	0.03	2.8%	267	0.54	0.023	2.1%	1	0.37%
CDN-GS-1Z	1.155	0.095	4.1%	241	1.18	0.120	5.1%	5	2.07%
OREAS 237	2.21	0.108	2.4%	221	2.24	0.105	2.3%	3	1.36%
OREAS 603b	5.21	0.418	4.0%	67	5.39	1.833	17.0%	0	0.00%
Total				796				9	1.13%

Note: CRM = certified reference material, SD = standard deviation, RSD = relative standard deviation, n = sample size.

TABLE 11.23 2021 RANCH AREA AG CRM RESULTS SUMMARY									
CRM	Ag – Certified Values			2021 Ranch Ag Assay Statistics					
	Certified Value Ag (ppm)	2SD	%RSD	n	Mean Ag (ppm)	2SD	%RSD	3SD Failures	% 3SD Fails
OREAS 231	0.177	0.048	13.6%	267	0.18	0.052	14.4%	8	3.00%
CDN-GS-1Z	89.5	4.4	2.5%	241	91.65	5.249	2.9%	12	4.98%
OREAS 603b	301	20	3.3%	69	306.33	9.553	1.6%	0	0.00%
Total				577				20	3.47%

Note: CRM = certified reference material, SD = standard deviation, RSD = relative standard deviation, n = sample size.

TABLE 11.24 2021 RANCH AREA CU CRM RESULTS SUMMARY									
CRM	Cu – Certified Values			2021 Ranch Cu Assay Statistics					
	Certified Value Cu (ppm)	2SD	%RSD	n	Mean Cu (ppm)	2SD	%RSD	3SD Failures	% 3SD Fails
OREAS 231	161	18	5.6%	267	163.49	10.468	3.2%	2	0.75%
OREAS 603b	9,730	460	2.4%	69	9,626.38	424.873	2.2%	0	0.00%
Total				336				2	0.60%

***Note:** CRM = certified reference material, SD = standard deviation, RSD = relative standard deviation, n = sample size.*

11.4.1.10 2022 Lawyers Area Drill Program QAQC Results

The QAQC program implemented as part of the 2022 Lawyers Area drill program included 1,091 CRMs, 570 blanks, 63 coarse blanks, and 38 field duplicates inserted into the 14,813 drill samples. The CRMs used were CDN-GS-1Z, CDN-CM-47, OREAS 231, OREAS 237, OREAS 603b and the blank CDN-BL-10.

From the analyses of the 1,091 CRMs, there were 15 (1.37%) “failures” with respect to Au assay results, 20 (4.48%) “failures” with respect to Ag results, and 1 (0.27%) “failure” with respect to Cu results. CRM “failures” are determined by those exceeding 3SD variance from the certified value. A statistical summary of the results of the 2022 Lawyers drilling CRMs is presented in Tables 11.25, 11.26, and 11.27. OREAS 231 Ag “failures” and high variance were likely a result of proximity to the LOD for the analytical technique (ME-MS61, 0.01 ppm Ag). All CRMs “failures” were reviewed and if they occurred within mineralized intersections the corresponding samples were flagged for re-assay. There are no significant concerns with respect to the CRM results.

Of the 570 blank analyses, four (0.7%) CDN-BL-10 CRMs returned results over the 0.01 ppm Au certified value including a single result over the 0.05 ppm Au “warning value”. This single elevated blank result was 0.277 ppm Au and occurred within a mineralized zone. CDN-BL-10 is not certified for silver; however, the results were still evaluated and there were no significant Ag results with all analyses below 1 ppm Ag. The field duplicates indicated no significant bias with a correlation coefficient of 0.97 and an R^2 of 0.94 for Au and 0.96 and 0.92 for Ag, respectively. There was no significant carry-over of grade between samples identified by the coarse blank analyses with the highest coarse blank result being 0.058 ppm Au and having a <0.1% carry-over.

The summer program in 2022 was not included in the Church *et al.* (2022) Technical Report. These totals are included in those above for the 2022 drilling program. The summer drilling included 1,965 drill samples. Approximately half of this drilling was geotechnical and hydrogeological and not drilling Mineral Resource areas though samples were still collected and QAQC procedures were still observed. There were 146 CRMs, 73 blanks, 3 coarse blanks, and 2 field duplicates inserted into the drill sample stream. Results of these CRMs can be observed in Figures 11.7 to 11.15. There was a single Au CRM “failure” and four Ag CRM “failures”, all of which were CDN-GS-1Z. None of these occurred within relevant mineralized zones. There was a small positive bias in the CDN-GS-1Z Ag results. All CDN-GS-BL10 results were below the certified value (0.01 ppm Au) and there were no significant Ag results Figures 11.16 and 11.17. Duplicates were in agreement and coarse blanks returned detection limit Au values (0.001 ppm Au).

The 2022 Lawyers Area drill sample QAQC program results do not indicate that there are any significant issues or concern with regards to the accuracy or precision in the analytical results of the actual 2022 Lawyers area drilling program sample results.

TABLE 11.25 2022 LAWYERS AREA AU CRM RESULTS SUMMARY									
CRM	Au – Certified Values			2022 Lawyers Au Assay Statistics					
	Certified Value Au (ppm)	2SD	%RSD	n	Mean Au (ppm)	2SD	%RSD	3SD Failures	% 3SD Fails
OREAS 231	0.542	0.03	2.8%	337	0.54	0.063	5.9%	5	1.48%
CDN-CM-47	1.13	0.11	4.9%	4	1.14	0.105	4.6%	0	0.00%
CDN-GS-1Z	1.155	0.095	4.1%	387	1.17	0.105	4.5%	6	1.55%
OREAS 237	2.21	0.108	2.4%	332	2.23	0.120	2.7%	3	0.90%
OREAS 603b	5.21	0.418	4.0%	31	5.17	1.883	18.2%	1	3.23%
Total				1,091				15	1.37%

Note: CRM = certified reference material, SD = standard deviation, RSD = relative standard deviation, n = sample size.

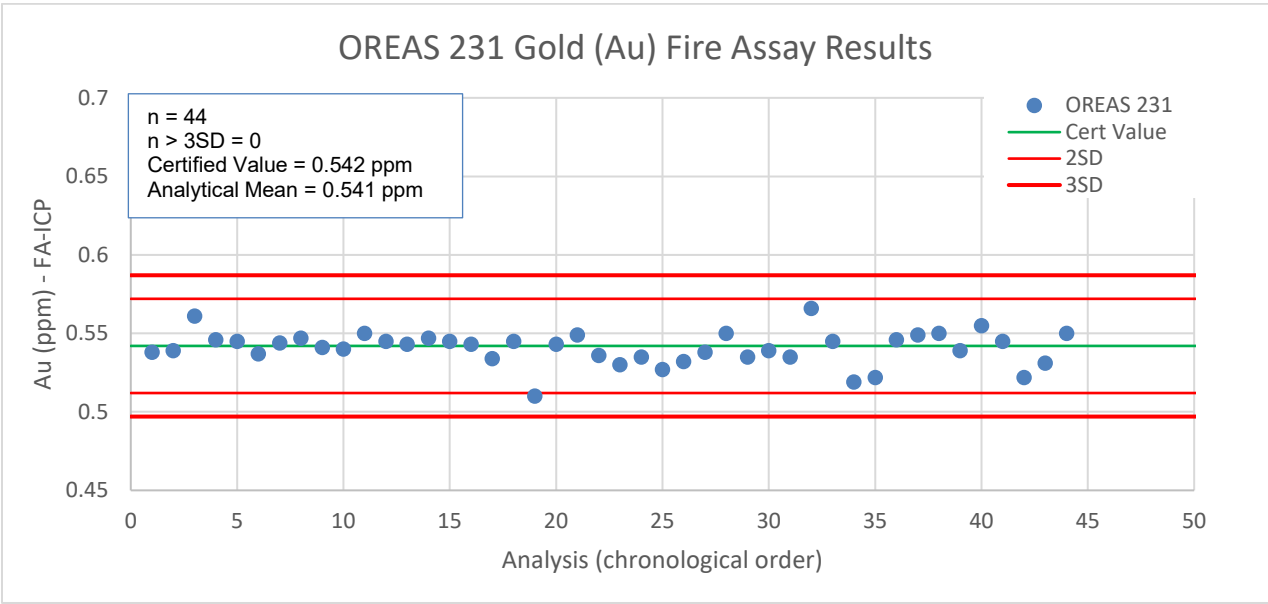
TABLE 11.26 2022 LAWYERS AREA AG CRM RESULTS SUMMARY									
CRM	Ag – Certified Values			2022 Lawyers Ag Assay Statistics					
	Certified Value Ag (ppm)	2SD	%RSD	n	Mean Ag (ppm)	2SD	%RSD	3SD Failures	% 3SD Fails
OREAS 231	0.177	0.048	13.6%	337	0.18	0.041	11.7%	3	0.89%
CDN-CM-47	69	6	4.3%	4	71.20	4.665	3.3%	0	0.00%
CDN-GS-1Z	89.5	4.4	2.5%	387	91.96	5.702	3.1%	31	8.01%
OREAS 603b	301	20	3.3%	31	304.84	9.988	1.6%	0	0.00%
Total				759				34	4.48%

Note: CRM = certified reference material, SD = standard deviation, RSD = relative standard deviation, n = sample size.

TABLE 11.27 2022 LAWYERS AREA CU CRM RESULTS SUMMARY									
CRM	Cu – Certified Values			2022 Lawyers Cu Assay Statistics					
	Certified Value Cu (ppm)	2SD	%RSD	n	Mean Cu (ppm)	2SD	%RSD	3SD Failures	% 3SD Fails
OREAS 231	161	18	5.6%	337	161.63	19.625	6.1%	1	0.30%
CDN-CM-47	7,240	280	1.9%	4	7,260.00	230.362	1.6%	0	0.00%
OREAS 603b	9,730	460	2.4%	31	9,557.74	384.177	2.0%	0	0.00%
Total				372				1	0.27%

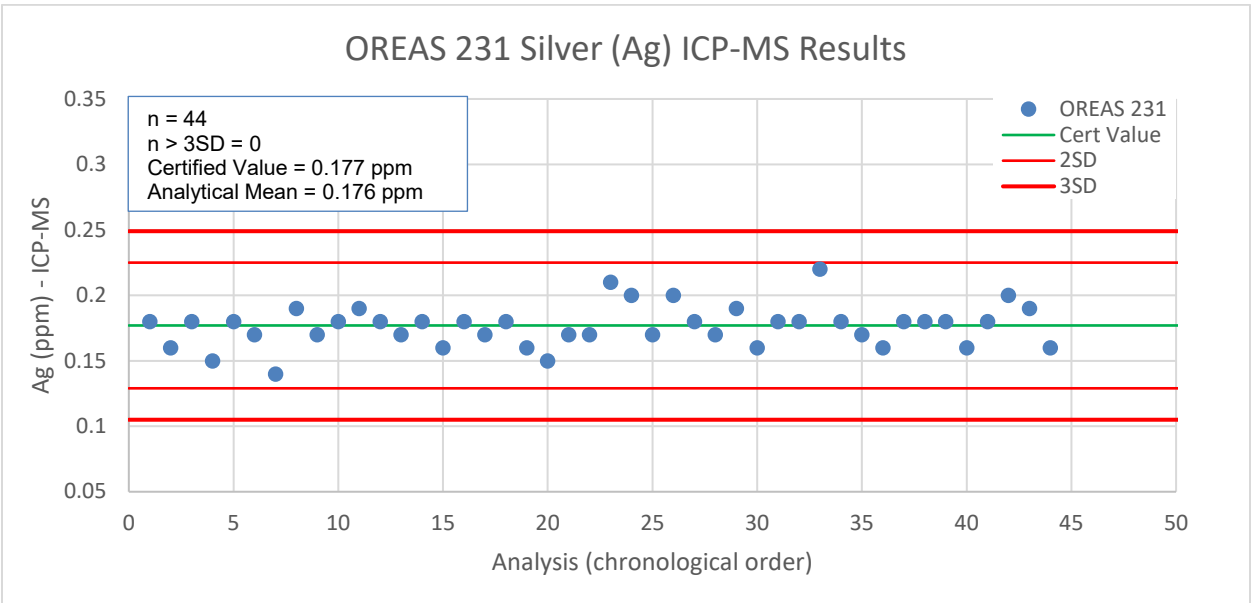
Note: CRM = certified reference material, SD = standard deviation, RSD = relative standard deviation, n = sample size.

FIGURE 11.7 2022 LAWYERS AREA SUMMER DRILL PROGRAM OREAS 231 GOLD ASSAY RESULTS



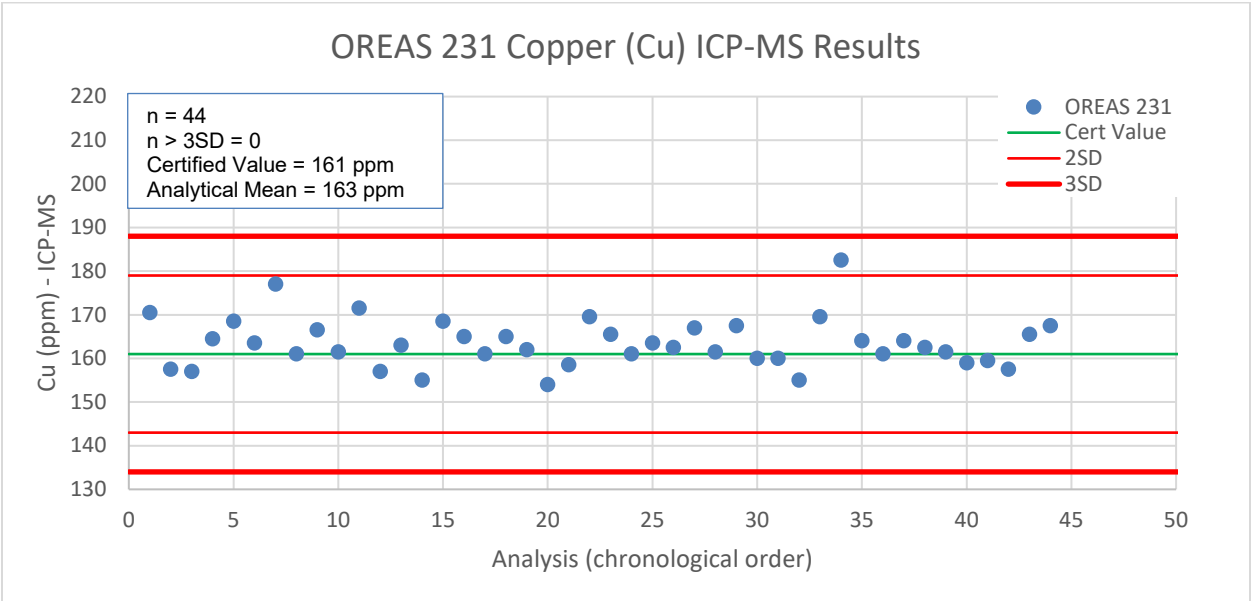
Source: APEX (2024)

FIGURE 11.8 2022 LAWYERS AREA SUMMER DRILL PROGRAM OREAS 231 SILVER ASSAY RESULTS



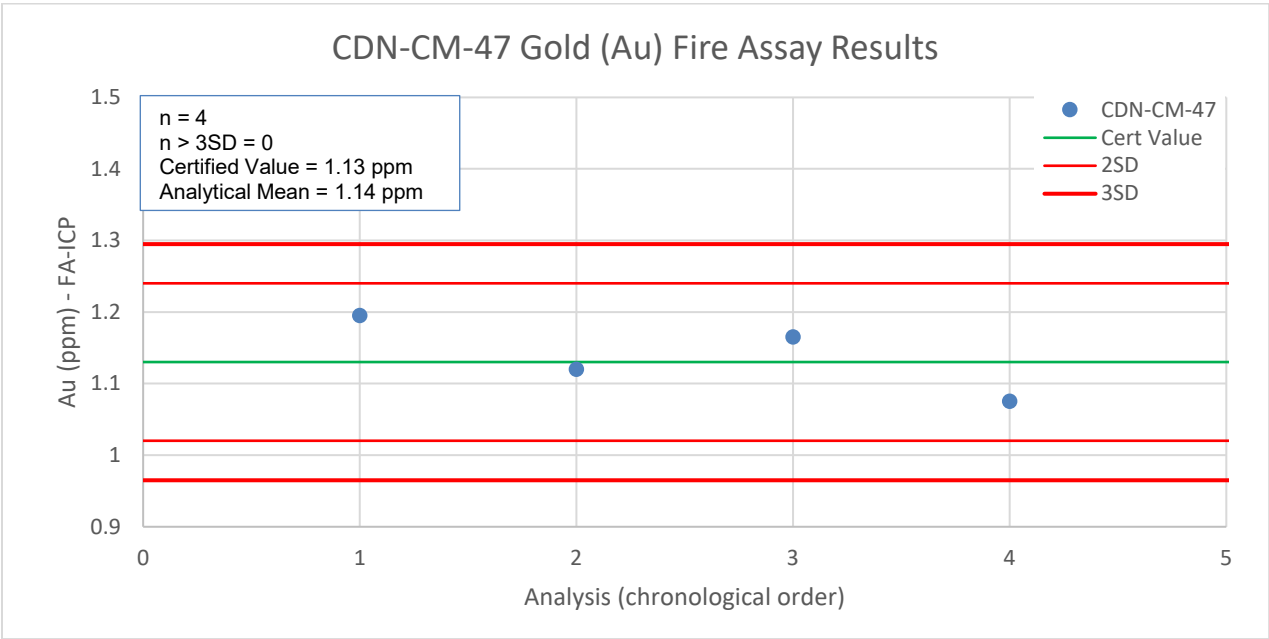
Source: APEX (2024)

FIGURE 11.9 2022 LAWYERS AREA SUMMER DRILL PROGRAM OREAS 231 COPPER ASSAY RESULTS



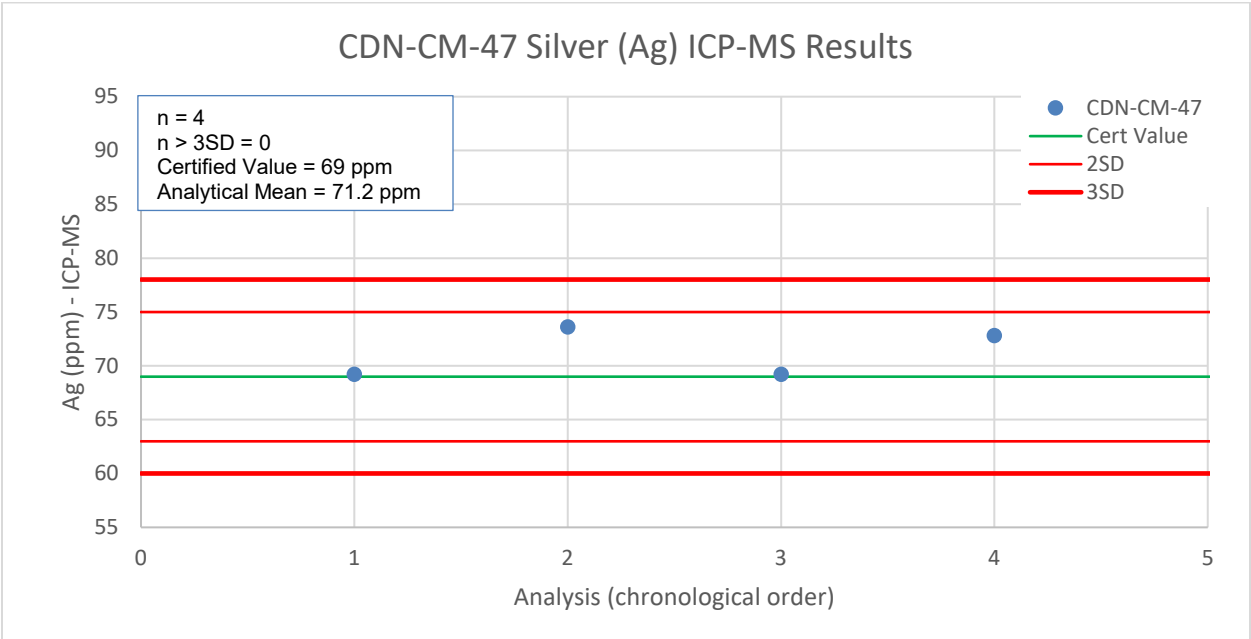
Source: APEX (2024)

FIGURE 11.10 2022 LAWYERS AREA SUMMER DRILL PROGRAM CDN-CM-47 GOLD ASSAY RESULTS



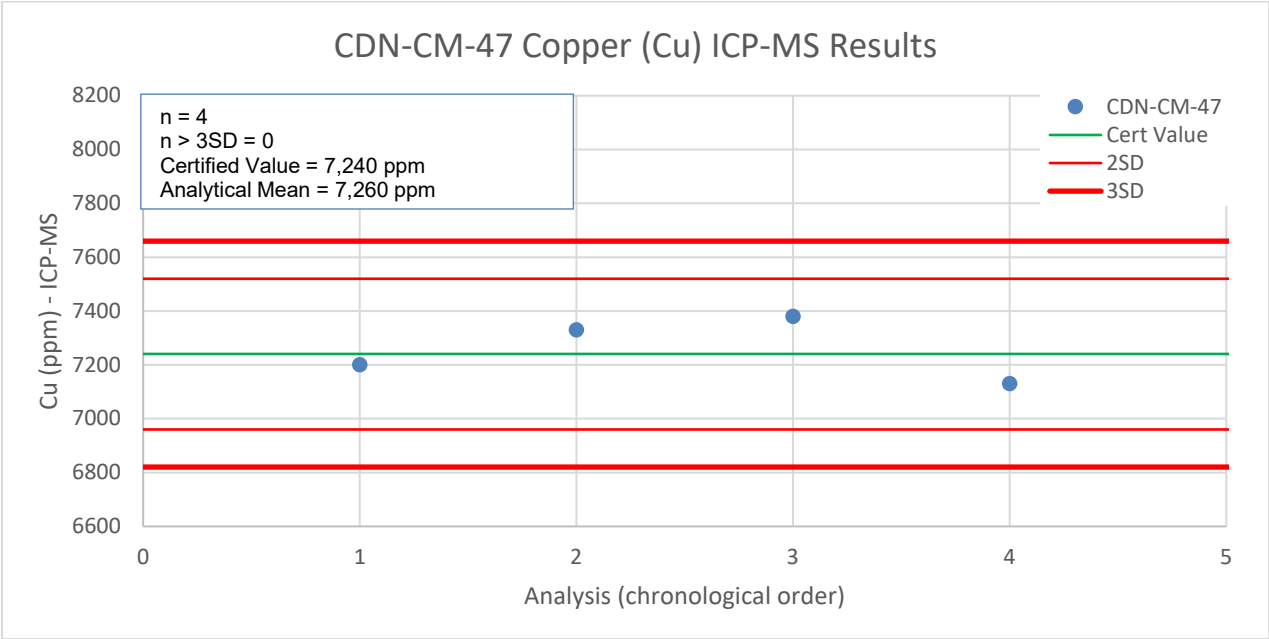
Source: APEX (2024)

FIGURE 11.11 2022 LAWYERS AREA SUMMER DRILL PROGRAM CDN-CM-47 SILVER ASSAY RESULTS



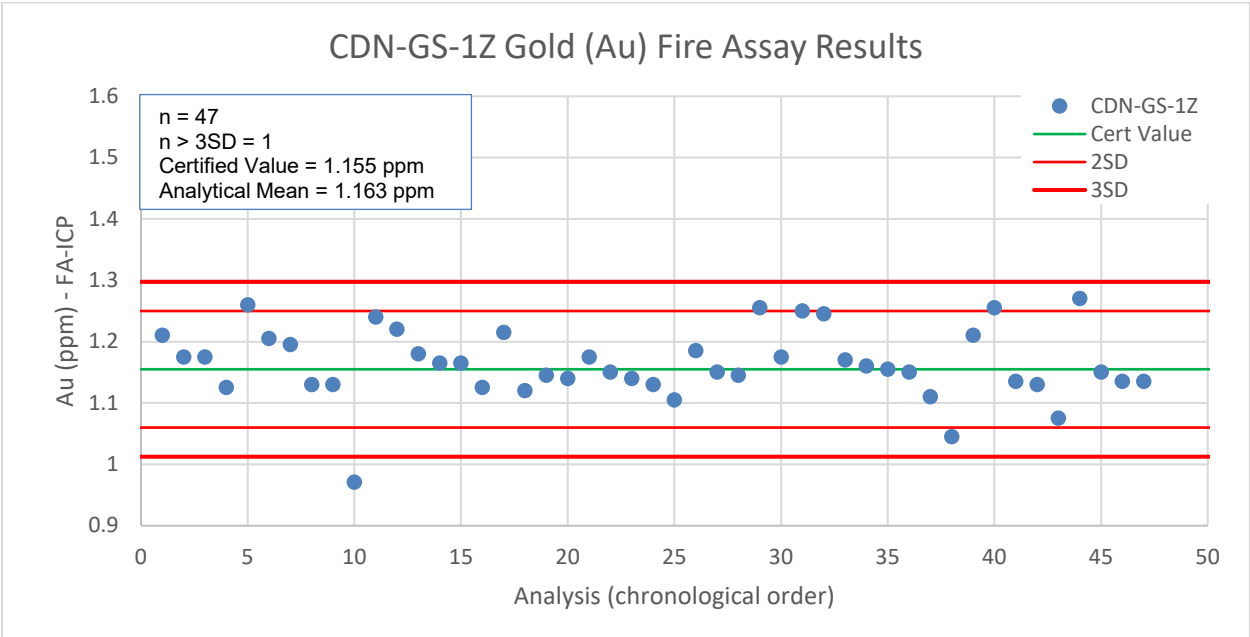
Source: APEX (2024)

FIGURE 11.12 2022 LAWYERS AREA SUMMER DRILL PROGRAM CDN-CM-47 COPPER ASSAY RESULTS



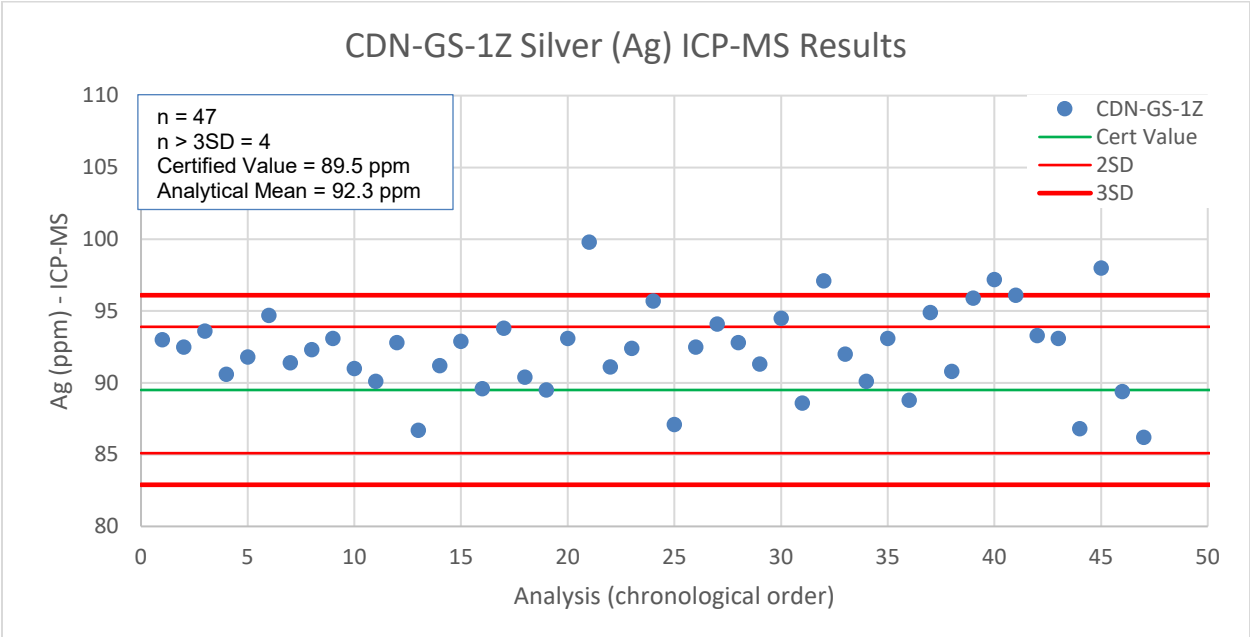
Source: APEX (2024)

FIGURE 11.13 2022 LAWYERS AREA SUMMER DRILL PROGRAM CDN-GS-1Z GOLD ASSAY RESULTS



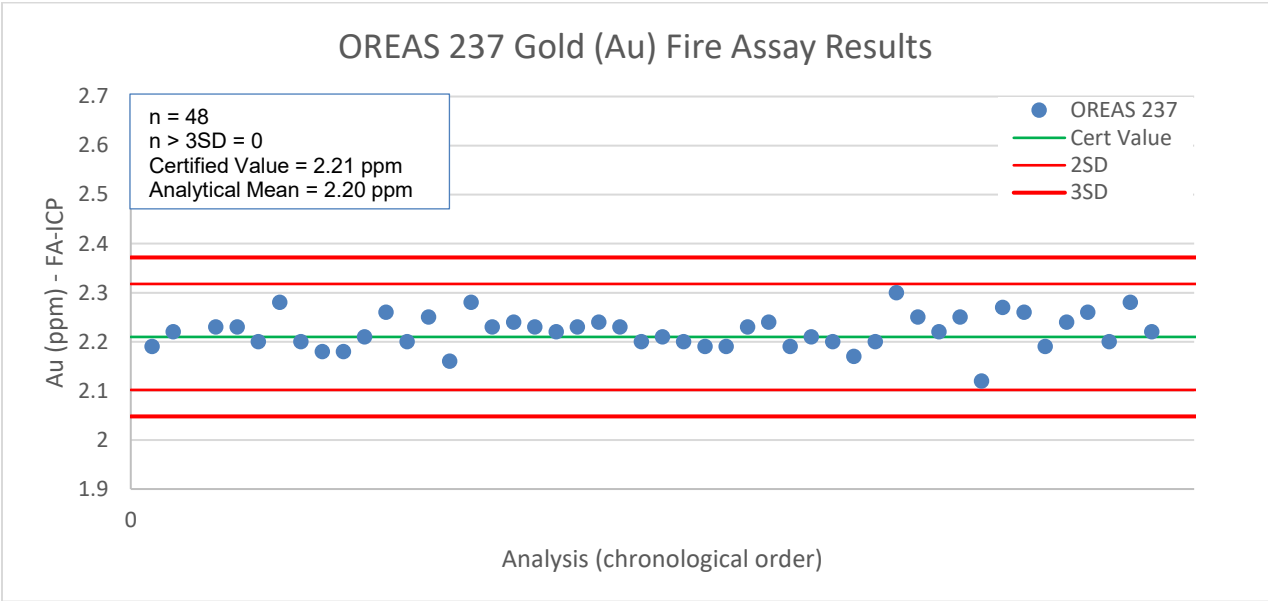
Source: APEX (2024)

FIGURE 11.14 2022 LAWYERS AREA SUMMER DRILL PROGRAM CDN-GS-1Z SILVER ASSAY RESULTS



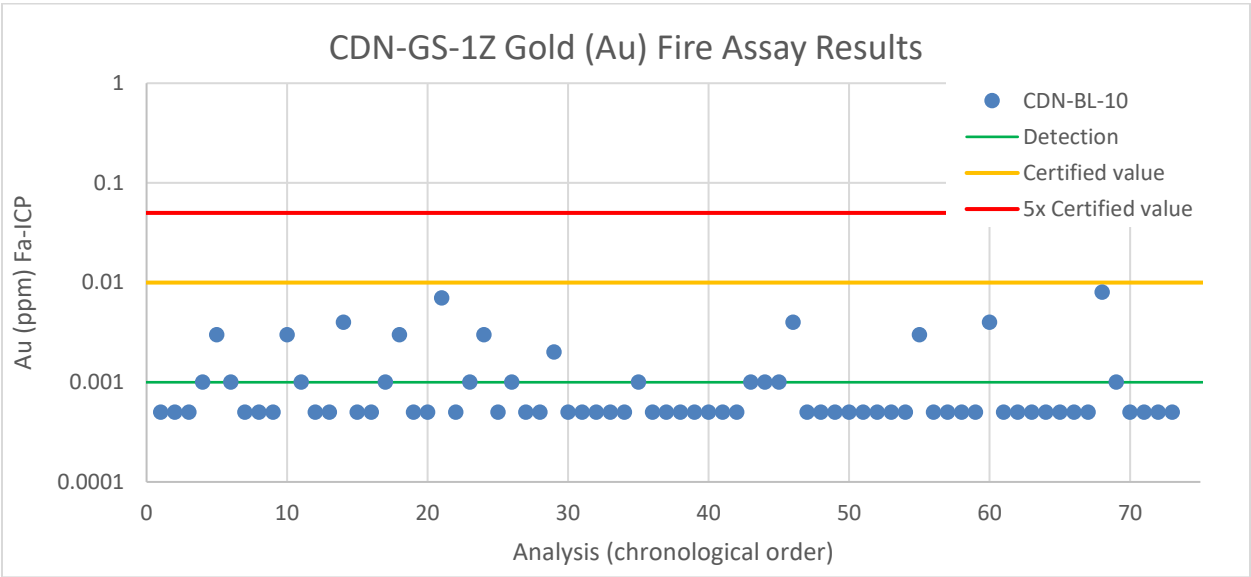
Source: APEX (2024)

FIGURE 11.15 2022 LAWYERS AREA SUMMER DRILL PROGRAM OREAS 237 GOLD ASSAY RESULTS



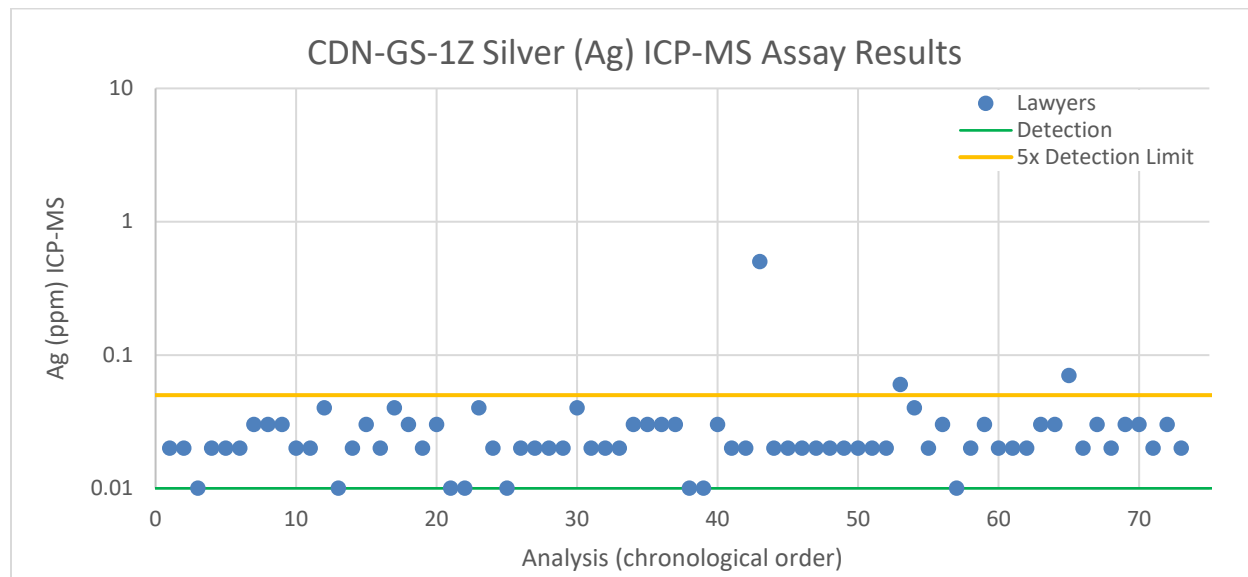
Source: APEX (2024)

FIGURE 11.16 2022 LAWYERS AREA SUMMER DRILL PROGRAM CDN-BL-10 GOLD ASSAY RESULTS



Source: APEX (2024)

FIGURE 11.17 2022 LAWYERS AREA SUMMER DRILL PROGRAM CDN-BL-10 SILVER ASSAY RESULTS



Source: APEX (2024)

11.4.1.11 2022 Ranch Area Drill Program QAQC Results

The QAQC program implemented as part of the 2022 Ranch Area drill program included 2,169 standard CRMs, 827 blank CRMs, 166 coarse blanks, and 253 field (core) duplicates inserted into the 25,595 drill samples. The CRMs used were CDN-GS-1Z, CDN-CM-47, CDN-GS-15C, OREAS 231, OREAS 237, OREAS 238, OREAS 603b, OREAS 611, OREAS 151a, OREAS 504c, and the blank CDN-BL-10. CRM OREAS 611 was added specifically to test the accuracy of the Au overlimit assaying of samples with >10 ppm Au. However, this CRM was depleted during the program, and was no longer available from the supplier, and therefore it was replaced by CRM CDN-GS-15C. Similarly, CRM OREAS 237 supplies were depleted during the program and were replaced with CRM OREAS 238. CRMs OREAS 151a and OREAS 504c were inserted by error by ALS after being pulled from another project's collection of CRM "replacement samples" when there was a failed fusion requiring additional sample material.

Of the 2,169 CRM analyses, there were 35 (1.64%) Au assay "failures", 32 (2.28%) Ag "failures", and 12 (0.99%) Cu "failures". CRM "failures" are determined as results exceeding a 3SD variance from the certified value. Statistical summaries of the 2022 Ranch drill program CRM analytical results are provided in Tables 11.28, 11.29, and 11.30. CRM OREAS 151a "failures" and high variance were likely a result of proximity to the lower LOD for the analytical technique (Au-ICP22, 0.01 ppm Au). This is also likely the case, as noted previously, for OREAS 231 Ag analyses. All CRMs "failures" were reviewed and if they occurred within mineralized intersections the surrounding samples were flagged for re-assay. That stated, there were no significant issues with respect to the results of the analyses performed on the 2022 Ranch Area drill program CRMs.

Of the 827 blank analyses, only three (0.4%) CDN-BL-10 returned results >0.01 ppm Au certified value with none >0.05 ppm Au "warning value". CDN-BL-10 is not certified for silver, but the

results were still evaluated and there were no significant Ag results with all analyses <1 ppm Ag. The field duplicates indicated no significant bias with a correlation coefficient of 0.80 and an R^2 of 0.64 for Au and 0.98 and 0.95 for Ag, respectively. There was no significant carry-over of Au or Ag grade between samples observed in the coarse blank analytical data with the highest coarse blank result being 0.018 ppm Au.

The 2022 Ranch Area drill program QAQC sample results do not suggest that there were any significant issues or concern with respect to the overall accuracy or precision in the analytical results from the 2022 Ranch Area drill program.

TABLE 11.28 2022 RANCH AREA AU CRM RESULTS SUMMARY									
CRM	Au – Certified Values			2022 Ranch Au Assay Statistics					
	Certified Value Au (ppm)	2SD	%RSD	n	Mean Au (ppm)	2SD	%RSD	Total 3SD Failures	% 3SD Fails
OREAS 151a	0.043	0.004	4.7%	5	0.05	0.047	49.6%	4	80.00%
OREAS 231	0.542	0.03	2.8%	741	0.54	0.052	4.8%	4	0.54%
CDN-CM-47	1.13	0.11	4.9%	344	1.14	0.119	5.2%	5	1.45%
CDN-GS-1Z	1.155	0.095	4.1%	199	1.18	0.256	10.9%	2	1.01%
OREAS 504c	1.48	0.09	3.0%	2	1.48	0.007	0.2%	0	0.00%
OREAS 237	2.21	0.108	2.4%	222	2.23	0.393	8.8%	9	4.05%
OREAS 238	3.03	0.16	2.6%	493	3.05	0.427	7.0%	6	1.22%
OREAS 603b	5.21	0.418	4.0%	44	5.31	4.589	43.2%	0	0.00%
CDN-GS-15C	15.62	0.74	2.4%	33	15.60	0.683	2.2%	0	0.00%
OREAS 611	15.7	1.202	3.8%	57	15.25	10.775	35.3%	5	8.77%
Total				2,140				35	1.64%

Note: CRM = certified reference material, SD = standard deviation, RSD = relative standard deviation, n = sample size.

TABLE 11.29 2022 RANCH AREA AG CRM RESULTS SUMMARY									
CRM	Ag – Certified Values			2022 Ranch Ag Assay Statistics					
	Certified Value Ag (ppm)	2SD	%RSD	n	Mean Ag (ppm)	2SD	%RSD	Total 3SD Failures	% 3SD Fails
OREAS 231	0.177	0.048	13.6%	741	0.18	0.051	14.2%	6	0.81%
CDN-CM-47	69	6	4.3%	344	70.16	7.149	5.1%	9	2.62%
CDN-GS-1Z	89.5	4.4	2.5%	197	92.19	26.411	14.3%	15	7.61%
OREAS 603b	301	20	3.3%	58	305.17	10.917	1.8%	0	0.00%
OREAS 611	80	3.22	2.0%	66	80.87	4.179	2.6%	2	3.03%
Total				1,406				32	2.28%

Note: CRM = certified reference material, SD = standard deviation, RSD = relative standard deviation, n = sample size.

TABLE 11.30 2022 RANCH AREA CU CRM RESULTS SUMMARY									
CRM	Cu – Certified Values			2022 Ranch Cu Assay Statistics					
	Certified Value Cu (ppm)	2SD	%RSD	n	Mean Cu (ppm)	2SD	%RSD	3SD Failures	% 3SD Fails
OREAS 151a	1,660	100	3.0%	5	1,655.00	1,812.975	54.8%	0	0.00%
OREAS 231	161	18	5.6%	742	162.60	18.837	5.8%	1	0.13%
CDN-CM-47	7,240	280	1.9%	344	7,317.38	370.089	2.5%	9	2.62%
OREAS 504c	11,100	600	2.7%	2	0.000	0.000	0.000	0	0.00%
OREAS 603b	9,730	460	2.4%	58	9,602.41	436.595	2.3%	0	0.00%
OREAS 611	11,700	440	1.9%	66	11,640.15	719.662	3.1%	2	3.03%
Total				1,217				12	0.99%

Note: CRM = certified reference material, SD = standard deviation, RSD = relative standard deviation, n = sample size.

11.4.1.12 2023 Lawyers-Ranch Project Drill Program QAQC Results

The QAQC program implemented as part of the 2023 Lawyer-Ranch Project drill program included 2,504 CRMs (1,316 from Lawyers and 1,188 from Ranch), 984 blanks (493 from Lawyers and 491 from Ranch). This represents 10.0% of drill samples with a 2.7:1 CRM and blank insertion ratio for Lawyers and 10.0% of drill samples with a 2.4:1 CRM and blank insertion ratio for Ranch. Additionally, there were 185 coarse blanks inserted into the drill sample stream (49 for Lawyers and 136 for Ranch drilling) representing 0.3% and 0.8% of the Lawyers and Ranch drill samples, respectively. Finally, there were 312 field (drill core) duplicates collected comprising 42 from Lawyers and 270 from Ranch, with represents 0.2% and 1.6% of the drill samples from the Lawyers and Ranch drill programs, respectively.

Certified Reference Materials

The CRMs utilized as part of the 2023 Lawyers-Ranch Project drilling QAQC program were CDN-GS-1Z, CDN-CM-47, CDN-GS-15C, OREAS 231, OREAS 237, OREAS 238, OREAS 603b, and the blank CDN-BL-10.

Of the 2,504 CRM analyses, there were 28 “failures” with respect to Au assay results, 20 (1.52%) from Lawyers and 8 (0.67%) from Ranch. There were 60 “failures” with respect to Ag analyses of the CRMs, with 47 (5.02%) from Lawyers and 13 (1.76%) from Ranch, and 16 “failures” with respect to Cu results, with 4 (0.75%) from Lawyers and 12 (0.99%) from Ranch. CRM analytical “failures” are determined as those results exceeding 3SD from the certified value. A statistical summary of the 2023 Lawyers-Ranch drill program QAQC CRM results is presented in Tables 11.31 to 11.36.

TABLE 11.31 2023 LAWYERS AREA AU CRM RESULTS SUMMARY									
CRM	Au – Certified Values			2023 Lawyers Au Assay Statistics					
	Certified Value Au (ppm)	2SD	%RSD	n	Mean Au (ppm)	2SD	%RSD	Total 3SD Failures	% 3SD Fails
OREAS 231	0.542	0.03	2.8%	478	0.54	0.020	1.9%	1	0.21%
CDN-CM-47	1.13	0.11	4.9%	1	1.07			0	0.00%
CDN-GS-1Z	1.155	0.095	4.1%	401	1.18	0.118	5.0%	14	3.49%
OREAS 237	2.21	0.108	2.4%	145	2.22	0.087	2.0%	2	1.38%
OREAS 238	3.03	0.16	2.6%	233	3.07	0.143	2.3%	2	0.86%
OREAS 603b	5.21	0.418	4.0%	57	5.23	0.222	2.1%	1	1.75%
Total				1,315				20	1.52%

Note: CRM = certified reference material, SD = standard deviation, RSD = relative standard deviation, n = sample size.

TABLE 11.32 2023 RANCH AREA AU CRM RESULTS SUMMARY									
CRM	Au – Certified Values			2023 Ranch Au Assay Statistics					
	Certified Value Au (ppm)	2SD	%RSD	n	Mean Au (ppm)	2SD	%RSD	Total 3SD Failures	% 3SD Fails
OREAS 231	0.542	0.03	2.8%	424	0.54	0.027	2.5%	3	0.71%
CDN-CM-47	1.13	0.11	4.9%	312	1.14	0.123	5.4%	2	0.64%
OREAS 238	3.03	0.16	2.6%	432	3.05	0.144	2.4%	3	0.69%
OREAS 603b	5.21	0.418	4.0%	3	5.29	0.133	1.3%	0	0.00%
CDN-GS-15C	15.62	0.74	2.4%	17	15.64	0.429	1.4%	0	0.00%
Total				1,188				8	0.67%

Note: CRM = certified reference material, SD = standard deviation, RSD = relative standard deviation, n = sample size.

TABLE 11.33 2023 LAWYERS AREA AG CRM RESULTS SUMMARY									
CRM	Ag – Certified Values			2023 Lawyers Ag Assay Statistics					
	Certified Value Ag (ppm)	2SD	%RSD	n	Mean Ag (ppm)	2SD	%RSD	Total 3SD Failures	% 3SD Fails
OREAS 231	0.177	0.048	13.6%	478	0.19	0.068	18.4%	22	4.60%
CDN-GS-1Z	89.5	4.4	2.5%	401	92.02	5.578	3.0%	25	6.23%
OREAS 603b	301	20	3.3%	58	303.24	10.612	1.7%	0	0.00%
Total				937				47	5.02%

Note: CRM = certified reference material, SD = standard deviation, RSD = relative standard deviation, n = sample size.

TABLE 11.34 2023 RANCH AREA AG CRM RESULTS SUMMARY									
CRM	Ag – Certified Values			2023 Ranch Ag Assay Statistics					
	Certified Value Ag (ppm)	2SD	%RSD	n	Mean Ag (ppm)	2SD	%RSD	Total 3SD Failures	% 3SD Fails
OREAS 231	0.177	0.048	13.6%	424	0.18	0.039	10.9%	1	0.24%
CDN-CM-47	69	6	4.3%	312	70.08	7.509	5.4%	12	3.85%
OREAS 603b	301	20	3.3%	3	305.33	13.317	2.2%	0	0.00%
Total				739				13	1.76%

Note: CRM = certified reference material, SD = standard deviation, RSD = relative standard deviation, n = sample size.

TABLE 11.35 2023 LAWYERS AREA CU CRM RESULTS SUMMARY									
CRM	Cu – Certified Values			2023 Lawyers Cu Assay Statistics					
	Certified Value Cu (ppm)	2SD	%RSD	n	Mean Cu (ppm)	2SD	%RSD	Total 3SD Failures	% 3SD Fails
OREAS 231	161	18	5.6%	478	161.95	19.953	6.2%	2	0.42%
OREAS 603b	9,730	460	2.4%	58	9,553.28	405.011	2.1%	2	3.45%
Total				536				4	0.75%

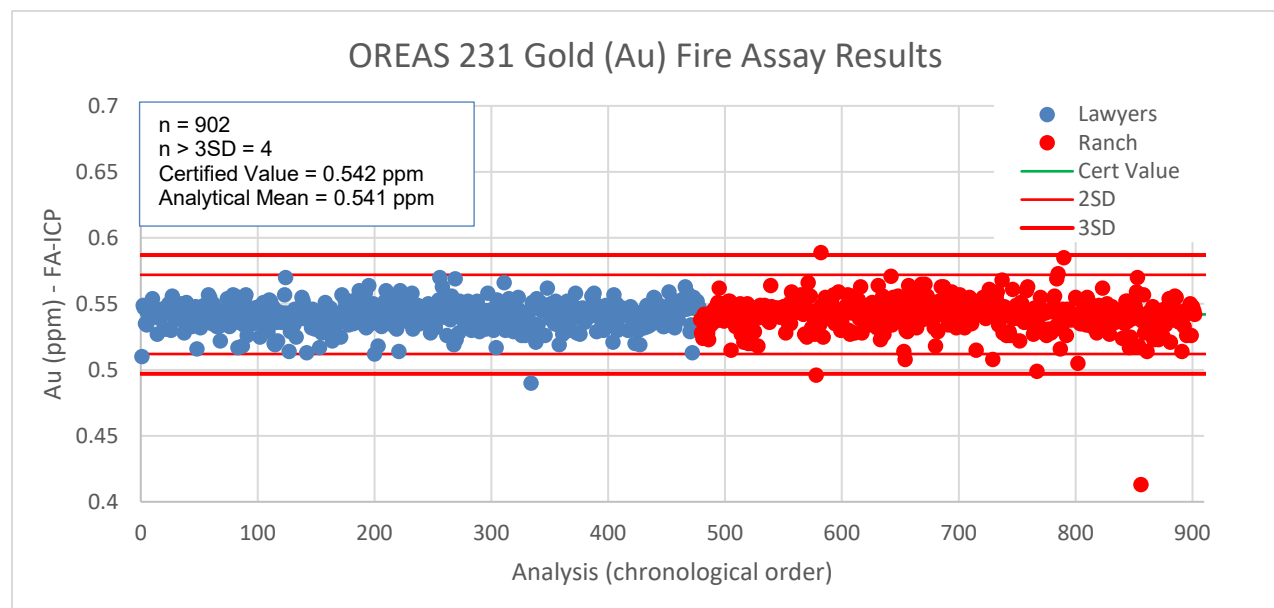
Note: CRM = certified reference material, SD = standard deviation, RSD = relative standard deviation, n = sample size.

TABLE 11.36 2023 RANCH AREA CU CRM RESULTS SUMMARY									
CRM	Cu – Certified Values			2023 Ranch Cu Assay Statistics					
	Certified Value Cu (ppm)	2SD	%RSD	n	Mean Cu (ppm)	2SD	%RSD	Total 3SD Failures	% 3SD Fails
OREAS 231	161	18	5.6%	424	161.90	17.330	5.4%	2	0.47%
CDN-CM-47	7,240	280	1.9%	312	7,256.06	365.187	2.5%	7	2.24%
OREAS 603b	9,730	460	2.4%	3	9,400.00	491.121	2.6%	0	0.00%
Total				739				9	1.22%

Note: CRM = certified reference material, SD = standard deviation, RSD = relative standard deviation, n = sample size.

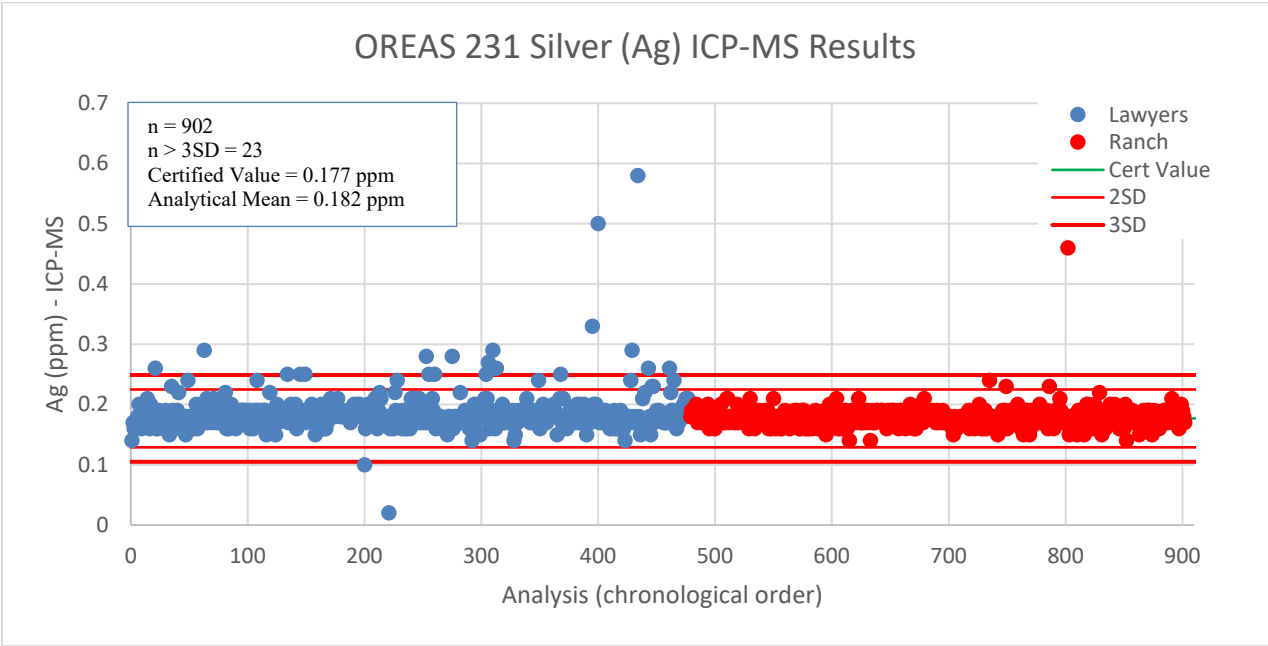
The results of CRM OREAS 231 are discussed in greater detail below due to the fact that several of its 2023 Ag and Cu analytical “failures” occurred within, or in proximity to, mineralized intervals. However, the overall performance of the CRM was good and there were no significant issues with its analyses. A total of 902 OREAS 231 samples were analysed during the 2023 Lawyers-Ranch drill programs, 478 from Lawyers and 424 from Ranch. Of these analyses, 4 Au (0.4%), 23 Ag (2.5%), and 4 Cu (0.4%) analyses returned values outside the 3SD error tolerances for these elements (Figures 11.18, 11.19, 11.20). In general, the Au assay results for the OREAS 231 samples were very good with a low variance and no significant bias. However, six of the 23 total Ag “failures” occurred in mineralized zones. As previously discussed, it is likely that the high Ag variance and “failures” exhibited by the OREAS 231 samples is related to the low Ag content which is close to the lower detection limit for Ag by the ME-MS61 (ICP) analytical technique. That said, and out of an abundance of caution, the samples surrounding the six Ag “failures” have been flagged for re-assay. Additionally, one (1) Cu analytical “failure” occurred within a relevant mineralized zone and, again, the surrounding samples have been flagged for re-assay. The remaining OREAS 231 “failures” occurred within zones with no significant mineralization and thus no follow-up assaying was deemed necessary.

FIGURE 11.18 2023 DRILL PROGRAM OREAS 231 GOLD ASSAY RESULTS



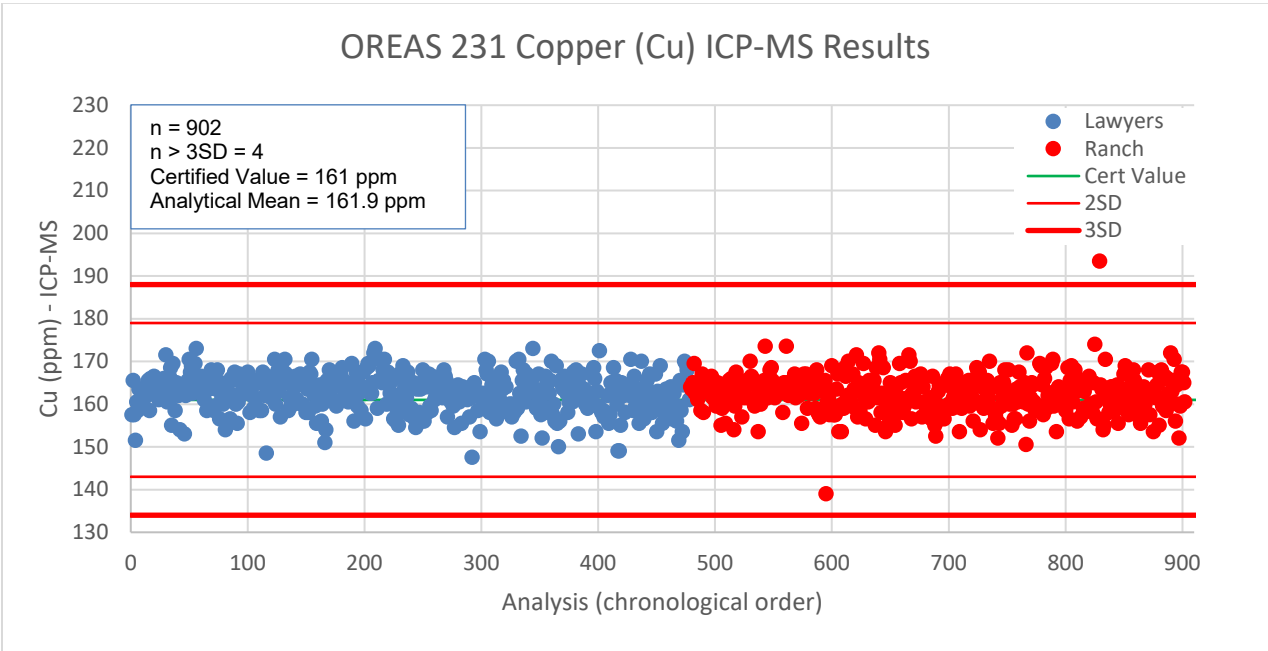
Source: APEX (2024)

FIGURE 11.19 2023 DRILL PROGRAM OREAS 231 SILVER ASSAY RESULTS



Source: APEX (2024)

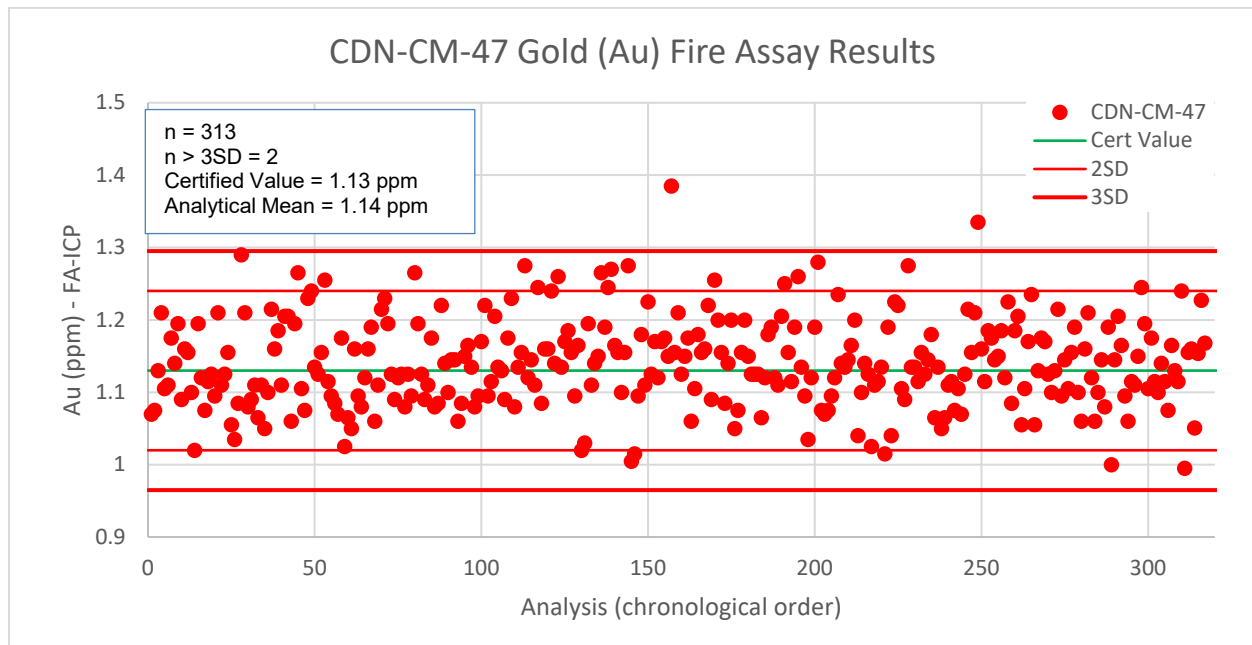
FIGURE 11.20 2023 DRILL PROGRAM OREAS 231 COPPER ASSAY RESULTS



Source: APEX (2024)

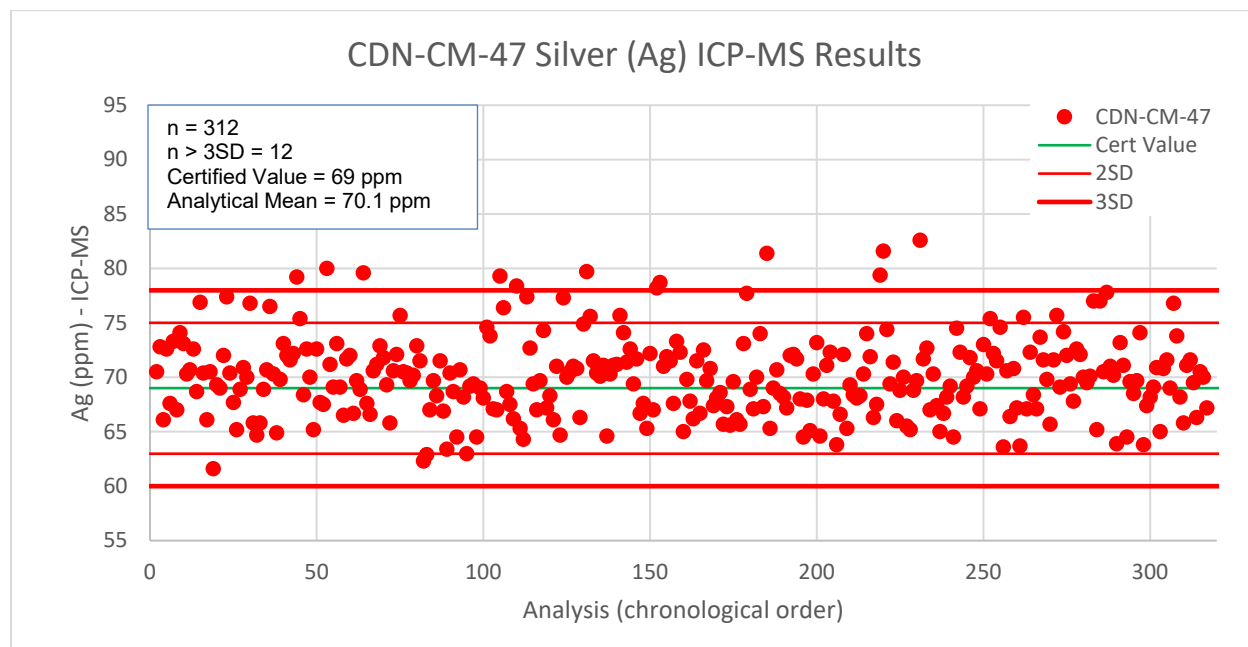
A total of 313 CDN-CM-47 CRM samples were analysed during the 2023 Lawyers-Ranch drill programs, with only a single sample being part of the Ranch Area drill program. Of the 313 analyses, only two Au (0.6%), 12 Ag (3.8%), and 7 Cu (2.2%) analyses results plotted outside 3SD tolerances (Figures 11.21, 11.22 and 11.23). None of the Au failures, a Ag failure and a Cu failure occurred in zones of mineralization. The failure rates are within acceptable limits, however, the samples surrounding the two noted (mineral zone) “failures” have been flagged for future re-assay. There was no significant bias observed in the CDN-CM-47 results.

FIGURE 11.21 2023 DRILL PROGRAM CDN-CM-47 GOLD ASSAY RESULTS



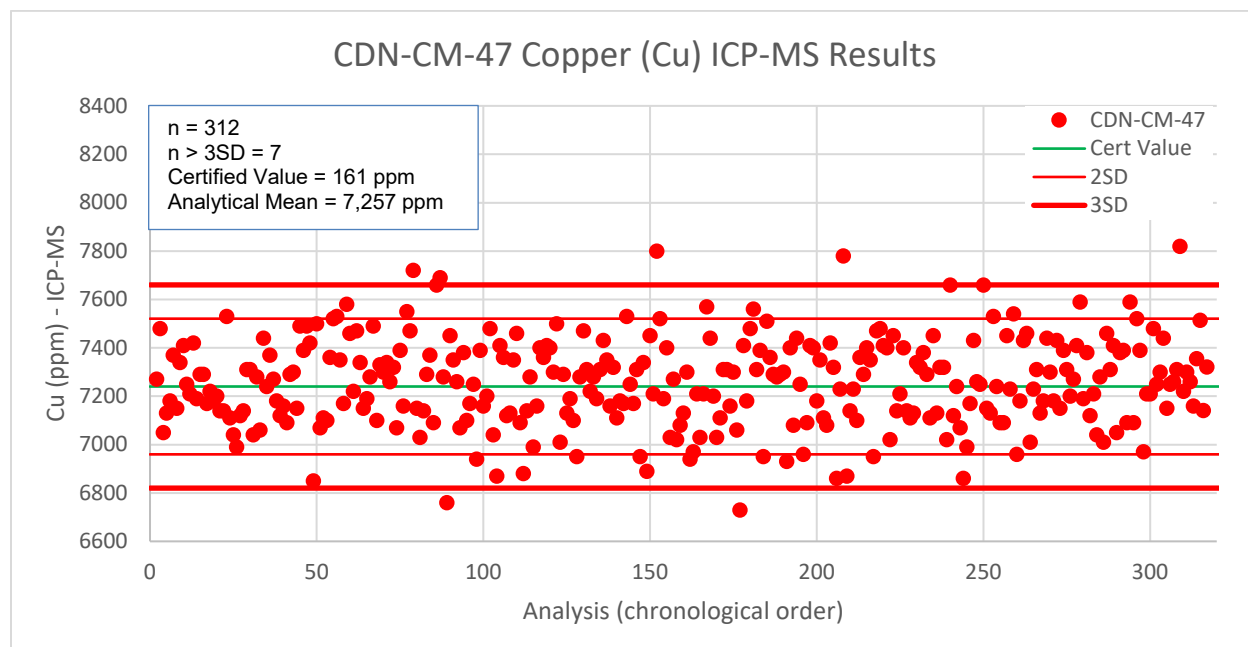
Source: APEX (2024)

FIGURE 11.22 2023 DRILL PROGRAM CDN-CM-47 SILVER ASSAY RESULTS



Source: APEX (2024)

FIGURE 11.23 2023 DRILL PROGRAM CDN-CM-47 COPPER ASSAY RESULTS

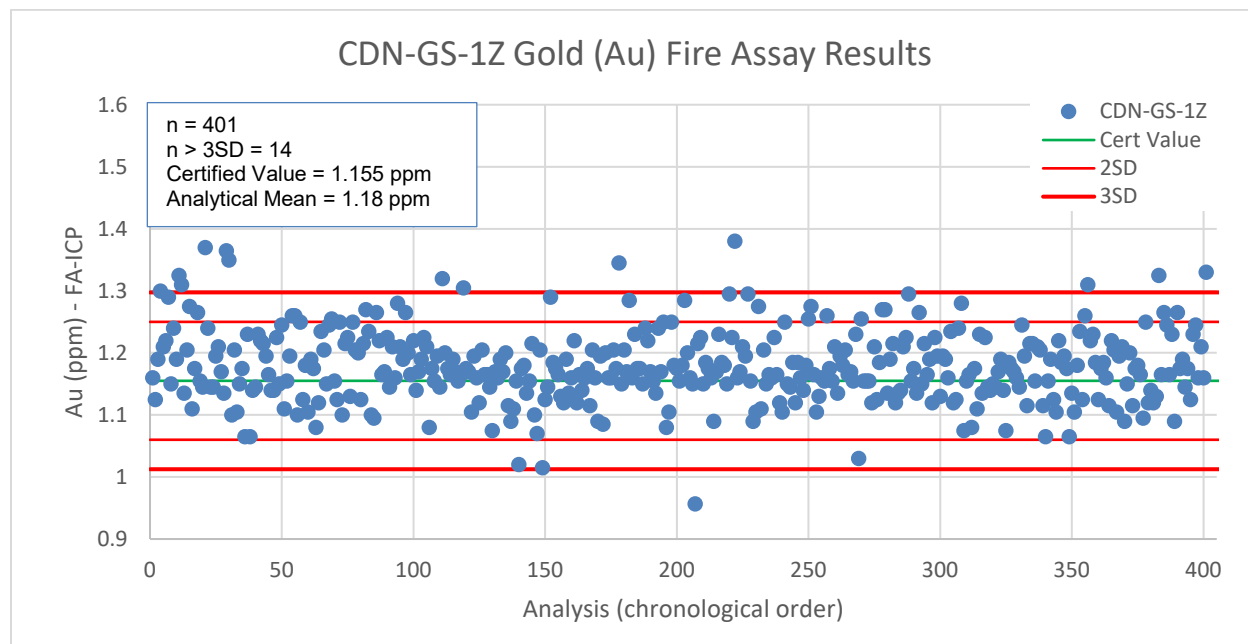


Source: APEX (2024)

A total of 401 CDN-GS-1Z samples were analysed during the 2023 Lawyers-Ranch drill programs, with all samples being part of the Lawyers Area drill program. Of the 401 analyses,

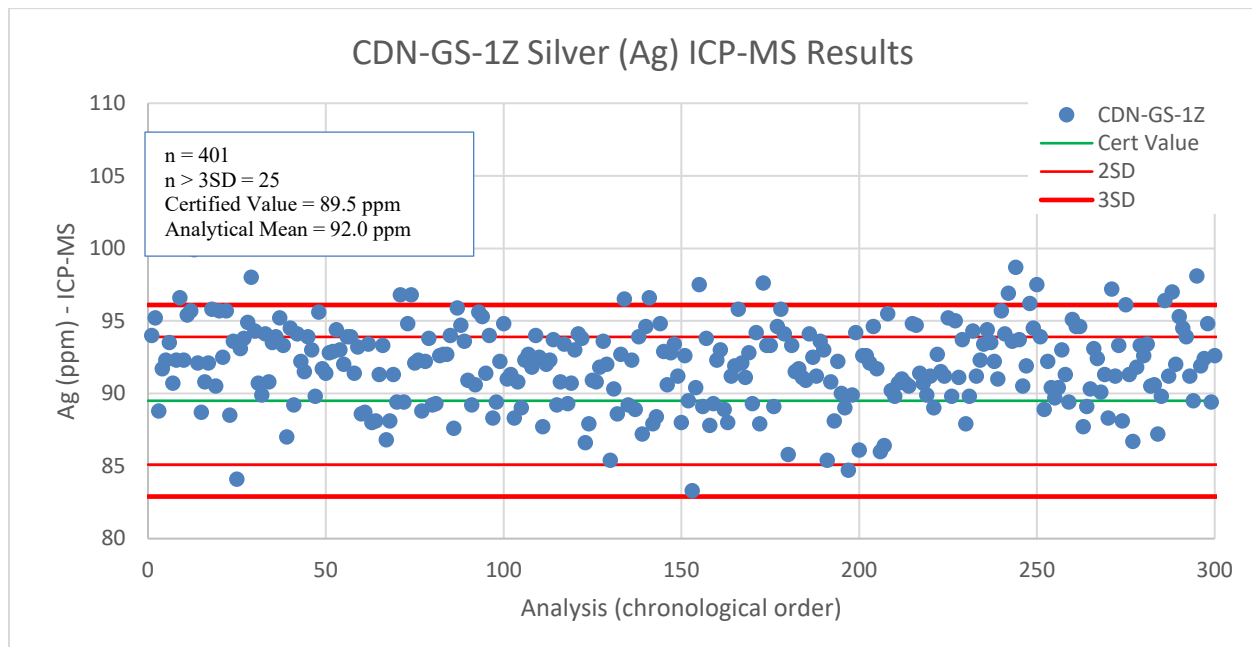
14 gold (3.49%) and 25 silver (6.23%) analyses returned concentrations outside 3SD tolerances (Figures 11.24 and 11.25), with 10 of the gold “failures” and 1 of the silver “failures” occurring within mineralized intervals. The samples surrounding these 11 “failures” were flagged for re-assay. The positive bias 2.0% and 2.8% for Au and Ag, respectively, in CDN-GS-1Z CRMs is a known issue with the CRM and can be observed throughout nearly 4,000 assay results processed at ALS’s Vancouver laboratory. As a result, it can be concluded that this issue is related to an error in the certified value for the CRM rather than an analytical issue at the laboratory.

FIGURE 11.24 2023 DRILL PROGRAM CDN-GS-1Z GOLD ASSAY RESULTS



Source: APEX (2024)

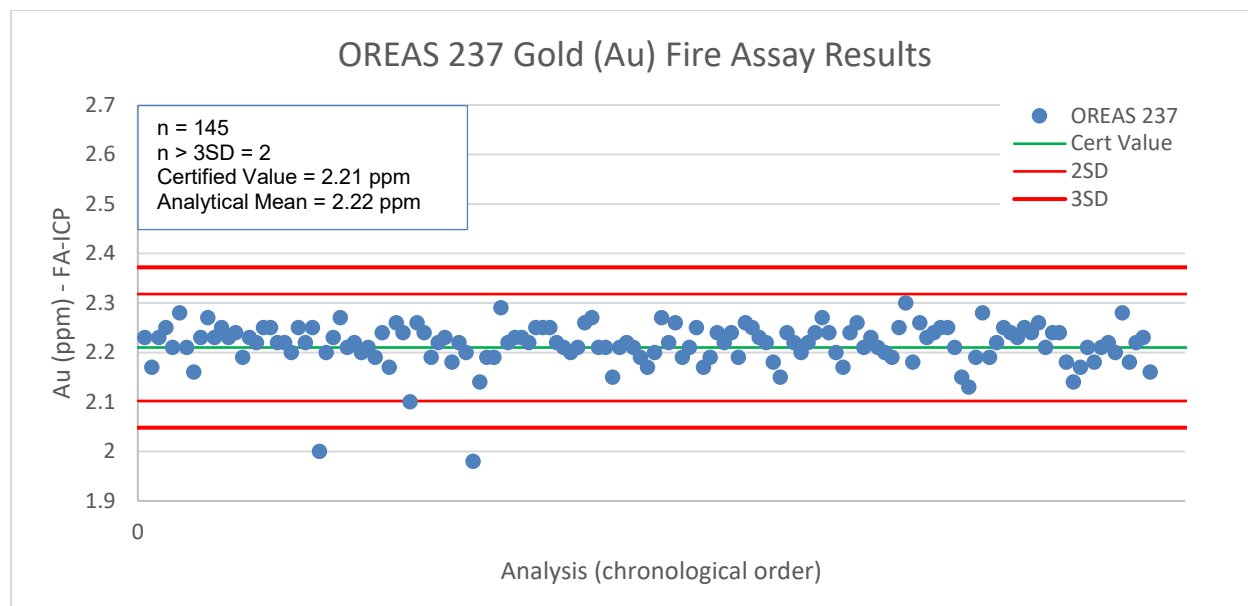
FIGURE 11.25 2023 DRILL PROGRAM CDN-GS-1Z SILVER ASSAY RESULTS



Source: APEX (2024)

A total of 145 OREAS 237 samples were analysed during the 2023 Lawyers-Ranch drill programs, with all samples being part of the Lawyers Area drill program. Of the 145 analyses, two gold (1.37%) concentrations fell outside of the 3SD range (Figure 11.26). Gold assay variance for CRM OREAS 237 was very tight and there was no significant bias observed in the results. Both of the CRM failures occurred in zones with no significant mineralization and no follow-up was deemed necessary.

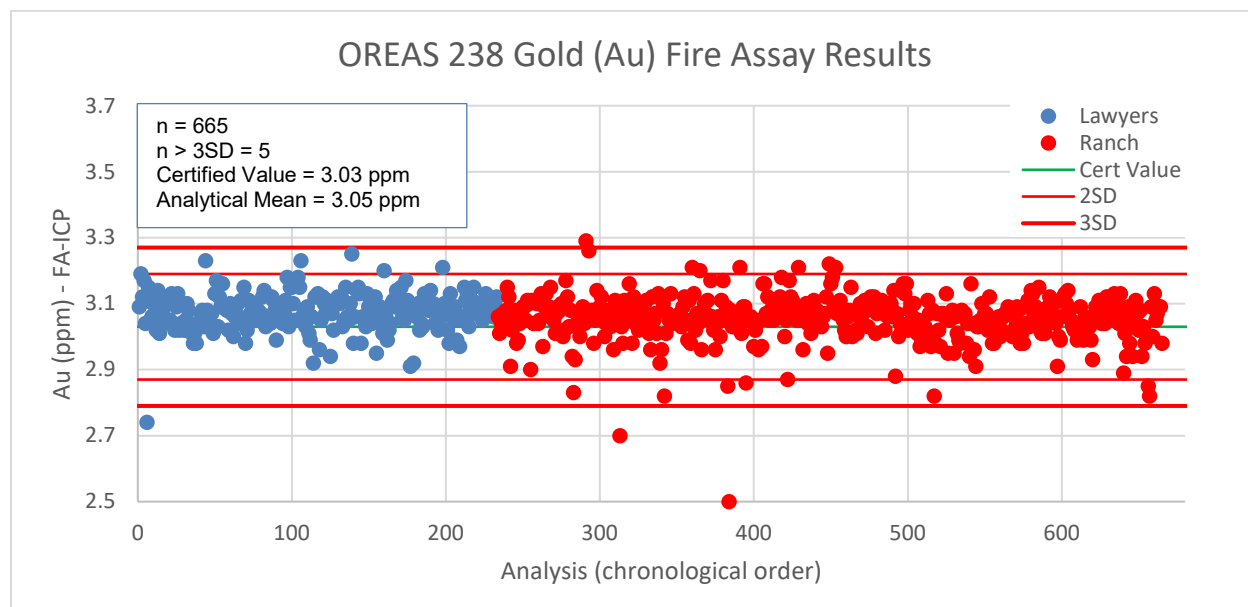
FIGURE 11.26 2023 DRILL PROGRAM OREAS 237 GOLD ASSAY RESULTS



Source: APEX (2024)

A total of 665 OREAS 238 CRM samples were analysed during the 2023 Lawyers-Ranch drill programs, 233 from Lawyers and 432 from Ranch. Of the 665 analyses, only five Au (0.75%) concentrations fell outside of the 3SD range (Figure 11.27). Overall, the OREAS 238 samples preformed well with tight variance and no significant bias. None of five Au “failures” for OREAS 238 occurred within zones of mineralization and thus no follow-up was required.

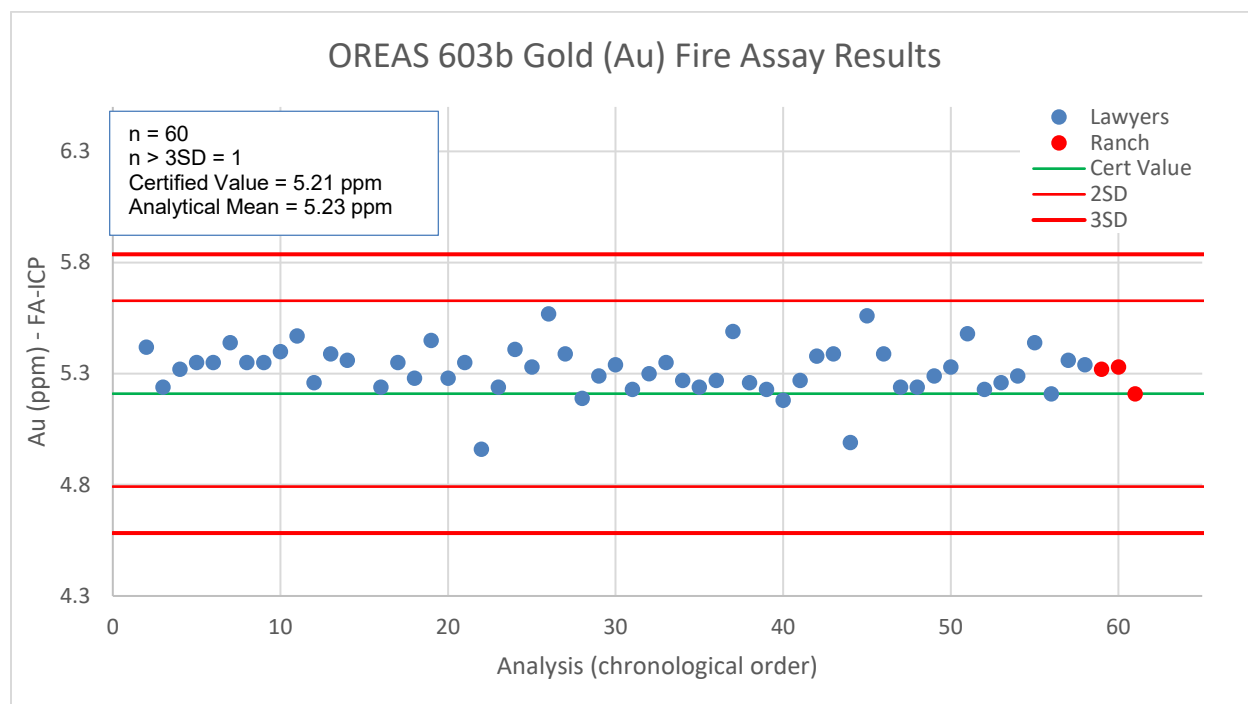
FIGURE 11.27 2023 DRILL PROGRAM OREAS 238 GOLD ASSAY RESULTS



Source: APEX (2024)

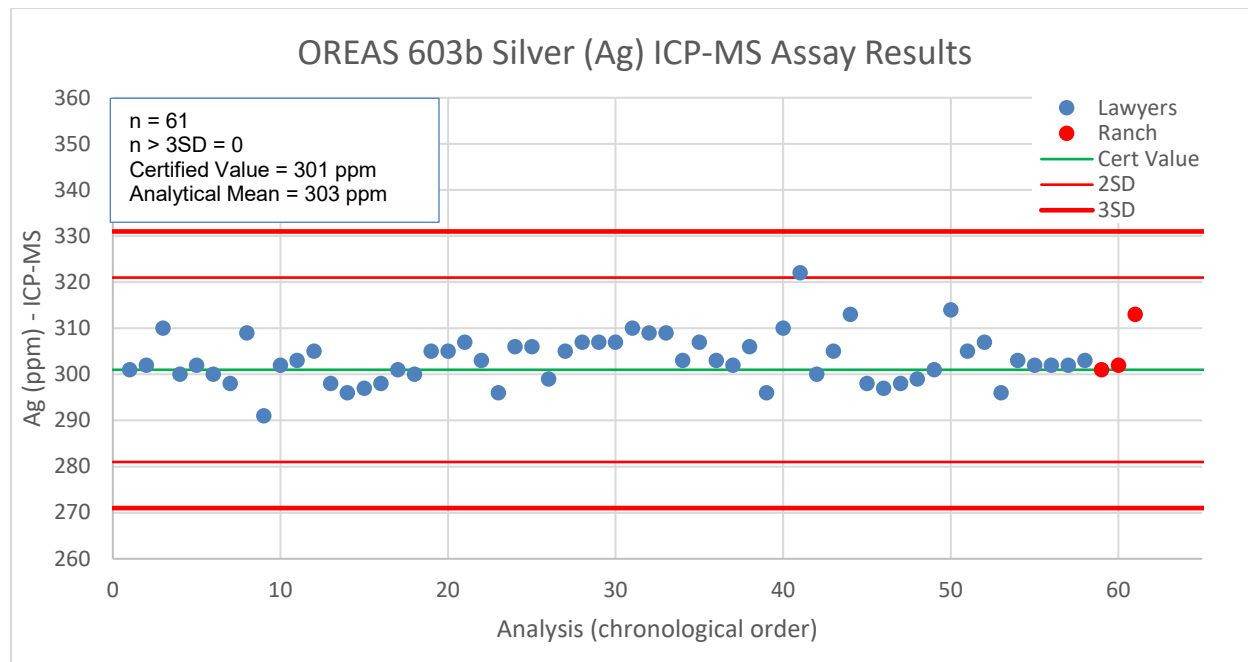
A total of 61 OREAS 603b ‘high-grade’ gold CRM samples were analysed during the 2023 Lawyers-Ranch drill programs – 58 from Lawyers and 3 from Ranch. Of the 61 analyses, one Au value (1.67%) and two (2) Cu values (3.28%) fell outside of their respective 3SD ranges. All of the silver results fell within acceptable limits (see Figures 11.28 to 11.30). The single “failed” OREAS 603b Au value was actually the result of a reporting error whereby the CRM assay and that of an adjacent actual drill core sample were switched. This error was identified and corrected by matching the trace element chemistry of the CRM, from previous analyses, with that of the “switched” drill core sample. Regardless, this error occurred outside of any mineralized zones. Also, the two Cu “failures” did not occur within zones of Cu mineralization. The Au, Ag, and Cu results have an overall very low variance. Only Cu results had a minimal 1.8% negative bias, Au and Ag results had no significant bias. As a result, it was concluded that there were no significant issues with the 2023 analyses of the OREA 603b CRMs.

FIGURE 11.28 2023 DRILL PROGRAM OREAS 603B GOLD ASSAY RESULTS



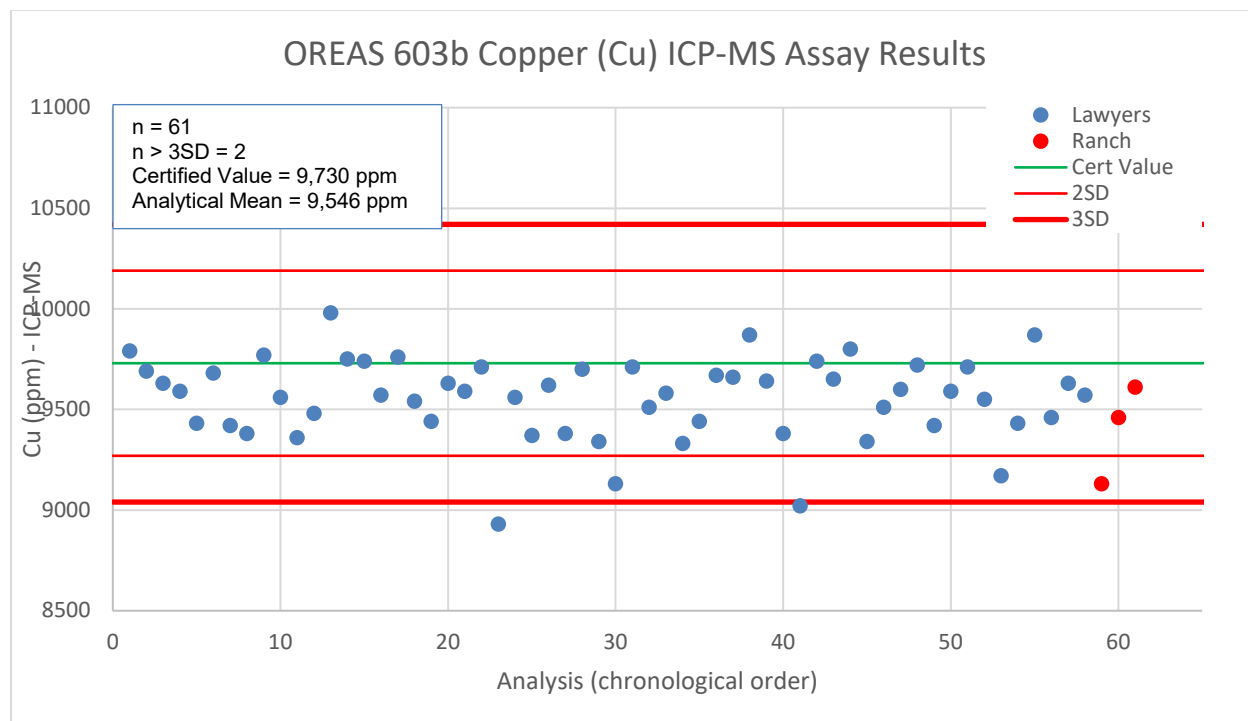
Source: APEX (2024)

FIGURE 11.29 2023 DRILL PROGRAM OREAS 603B SILVER ASSAY RESULTS



Source: APEX (2024)

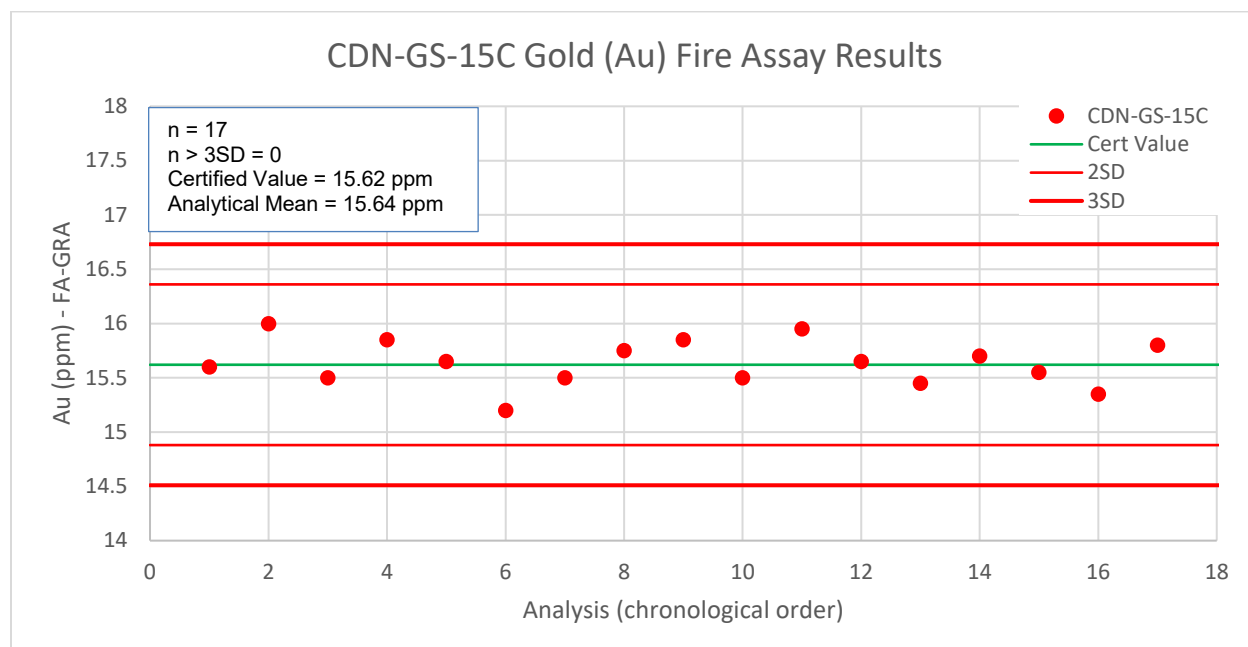
FIGURE 11.30 2023 DRILL PROGRAM OREAS 603B COPPER ASSAY RESULTS



Source: APEX (2024)

A total of 17 CDN-GS-15C CRM samples were analysed during the 2023 Lawyers-Ranch drill programs. All of these CRM samples were assayed by the Au-GRA22 technique to test this overlimit assay technique. All of the CDN-GS-15C gold assay values fell within the two standard deviation error tolerance and there was no significant bias observed (Figure 11.31).

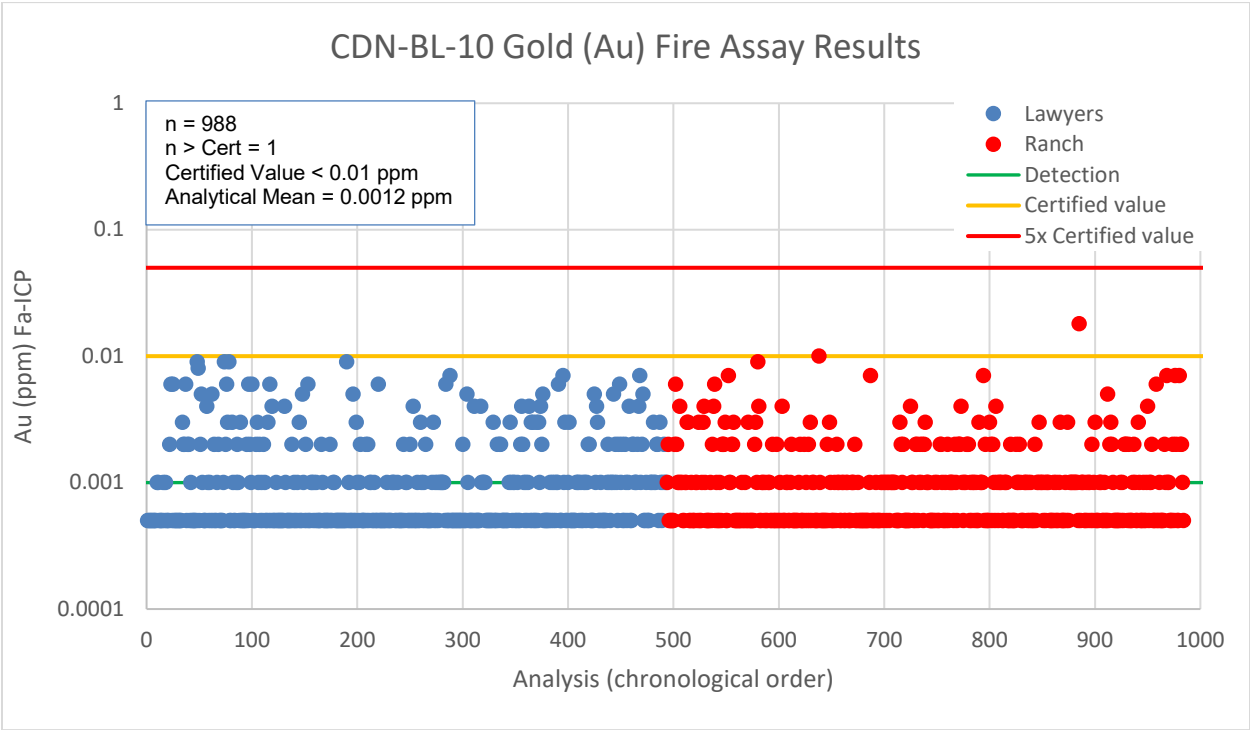
FIGURE 11.31 2023 DRILL PROGRAM OREAS 603B GOLD ASSAY RESULTS



Source: APEX (2024)

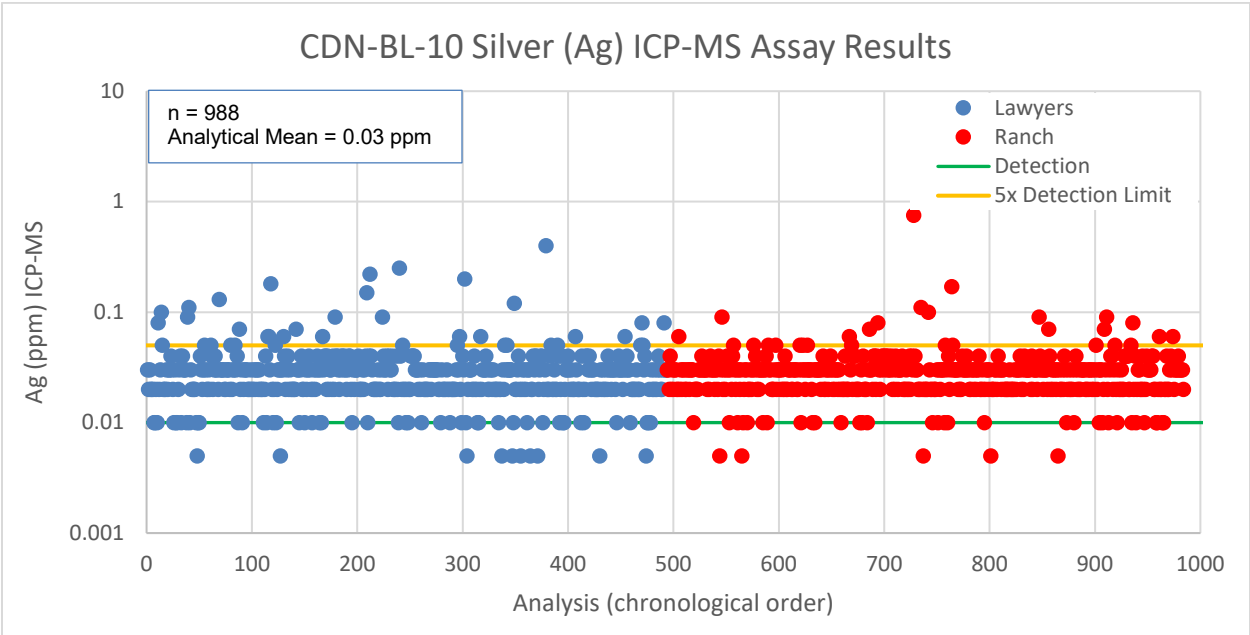
Of the 988 CDN-BL-10 blank analyses conducted as part of the 2023 Lawyers-Ranch drilling QAQC program, one (1) Au result (0.1%) exceeded the 0.01 ppm Au certified value and there were no results over the 0.05 ppm Au “warning value” (Figure 11.32). The average value for the CDN-BL-10 analysis was 0.0012 ppm Au. CDN-BL-10 is not certified for silver; nevertheless, the Ag results were evaluated and there were no values exceeding 1 ppm Ag (Figure 11.33). Similarly, CDN-BL-10 is not certified for copper, but no significantly elevated Cu results were identified. However, a distinct difference between the Cu results for the blanks inserted into the Lawyers and Ranch project sample streams can be observed in Figure 11.34. The blanks used throughout both drill programs were from the same source and were packaged and shipped to the lab indistinguishably by APEX personnel. The average difference was 3.3 ppm (Cu) with an average of 25.2 ppm Cu for the Lawyers blanks and an average of 28.5 ppm Cu for the Ranch blanks. However curious, this “Cu variance” was not considered to be a significant issue no further analyses are required based on a review of the entirety of the 2023 blank pulp (CDN-BL-10) analyses.

FIGURE 11.32 2023 DRILL PROGRAM CDN-BL-10 GOLD ASSAY RESULTS



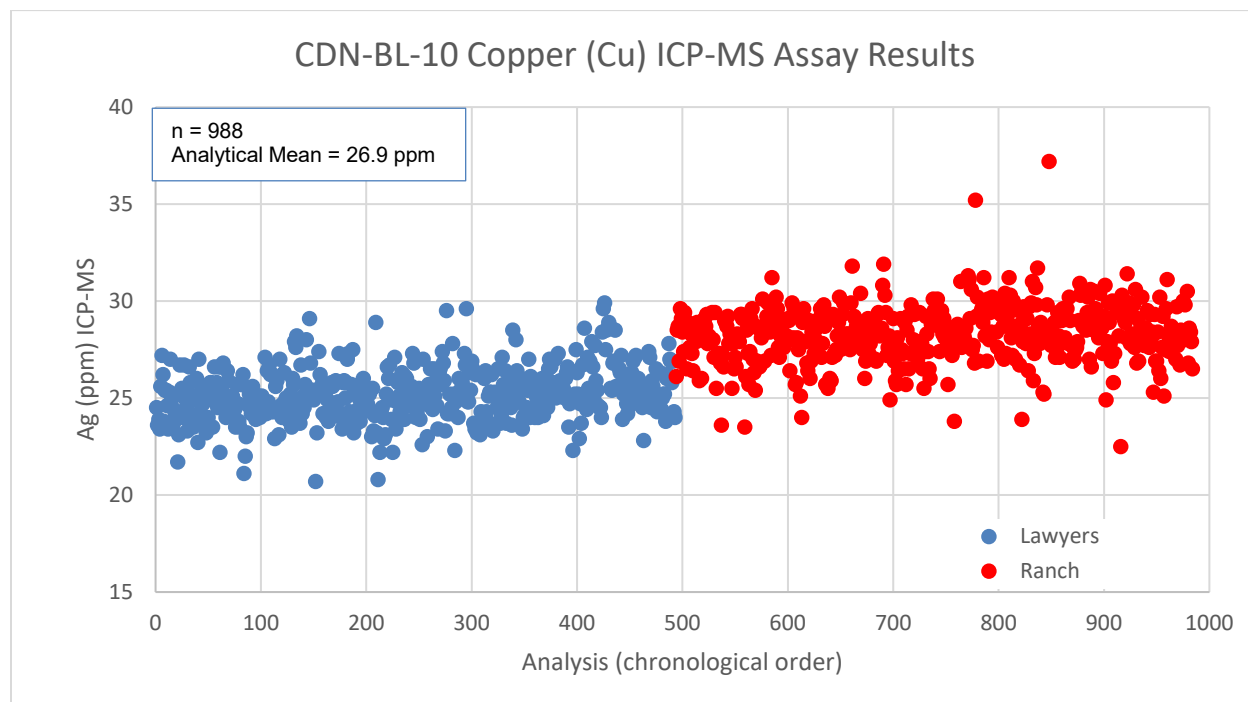
Source: APEX (2024)

FIGURE 11.33 2023 DRILL PROGRAM CDN-BL-10 SILVER ASSAY RESULTS



Source: APEX (2024)

FIGURE 11.34 2023 DRILL PROGRAM CDN-BL-10 COPPER ASSAY RESULTS



Source: APEX (2024)

Coarse Blanks

A total of 185 coarse blank samples were analysed during the 2023 Lawyers-Ranch Project drill programs, with 49 samples inserted into the Lawyers drill sample stream and 136 into the Ranch drill sample stream. The average values for the 185 coarse blank samples were 0.005 ppm Au, 0.154 ppm Ag, and 8.69 ppm Cu (note that values below detection were replaced with $\frac{1}{2}$ LOD values). In total 9 coarse blank Au assays (4.9%) returned values above the warning threshold of 0.025 ppm Au (calculated as 5x the detection limit during certification of the coarse blank material at TSL Laboratories). Figure 11.35 illustrates that the majority of these 10 elevated results followed mineralized drill core samples that assayed >1 ppm Au. Although the 2023 coarse blank Au assay data shows an overall weak correlation with the gold concentration in the preceding drill core sample (correlation coefficient = 0.53), the “carry-over” (or contamination) from the preceding samples appears to be minimal with the highest being 0.7%. This resulted from the highest assaying coarse blank sample (0.095 ppm Au), which weighed 0.28 kg, in comparison to its preceding sample that assayed 2.69 ppm Au, but weighed 1.4 kg. The highest gold grade in the preceding samples to the 185 2023 coarse blank samples was 68.6 ppm Au, and its following coarse blank sample assayed only 0.059 ppm Au.

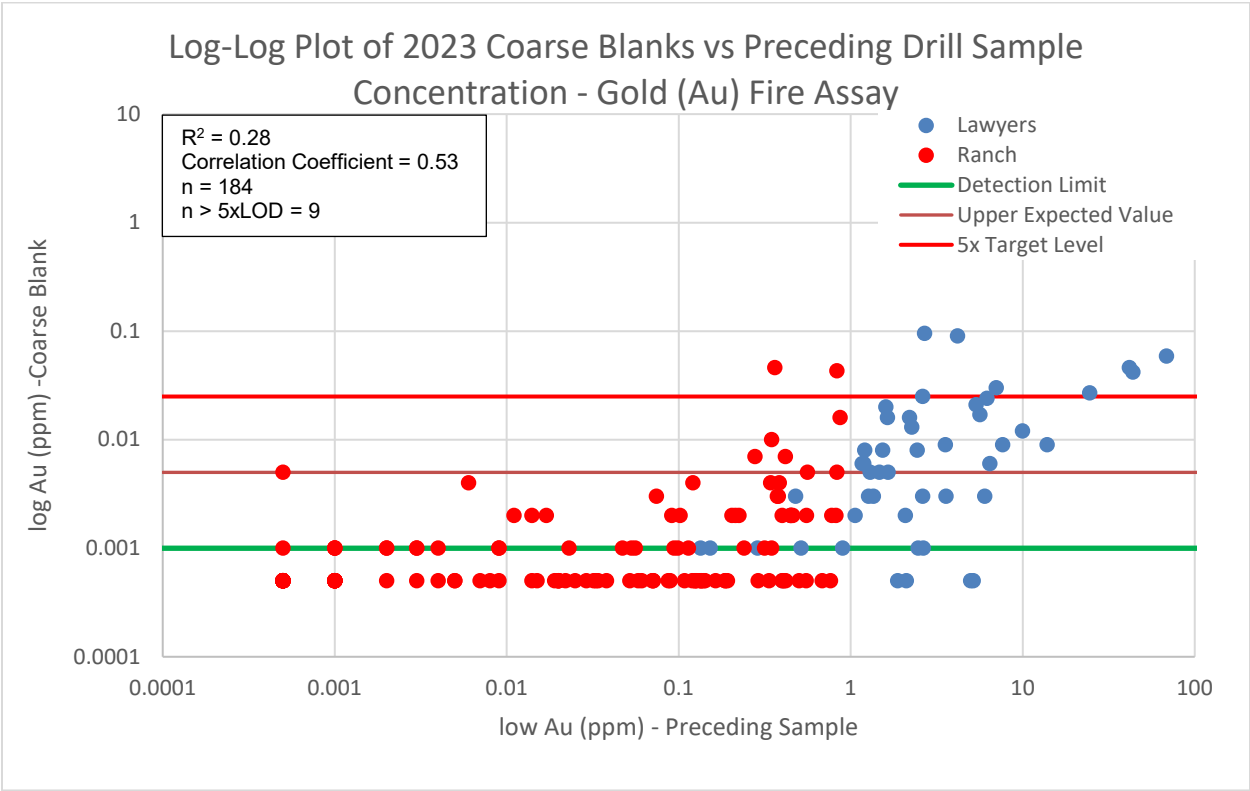
The coarse blank material used in 2023 was tested for silver (as well as gold) during its “certification” at TSL, in Saskatoon. A multi-acid digestion ICP analysis was conducted on 16 sub-samples of the coarse blank material at TSL and all 16 results were below detectable limits (<0.2 ppm Ag). As a result, a “warning level” of 0.5 ppm Ag (5 X $\frac{1}{2}$ the detection limit) was used to monitor the analytical results for the material in subsequent QAQC programs. As with the 2023

Au results, a weak correlation between the Ag results for the preceding samples and their following coarse blank samples was observed. Of the 185 coarse blank samples, 10 (5.4%) returned Ag values exceeded the 0.5 ppm Ag “warning level” (Figures 11.36). The highest Ag result was 2.36 ppm Ag with a preceding sample result of 74.1 ppm Ag. The highest silver value in the preceding samples to the coarse blanks was 994 ppm Ag, which was followed by a coarse blank sample that returned a value of 0.44 ppm Ag.

The coarse blank material used during the 2023 Lawyers and Ranch drill programs was not tested for copper during its analysis at TSL Laboratories. As a result, an arbitrary “warning level” of 100 ppm (0.01%) Cu was used to monitor inter-sample contamination. As with the Au and Ag results discussed above, a weak correlation between the Cu values of the preceding samples and their following coarse blank sample was observed. A total of three coarse blank samples (1.6%) returned Cu values that exceeded the “warning level” (Figure 11.37). The highest coarse blank Cu result was 302 ppm Cu, which followed the preceding sample with the highest copper content of 88,100 ppm (8.81%) Cu.

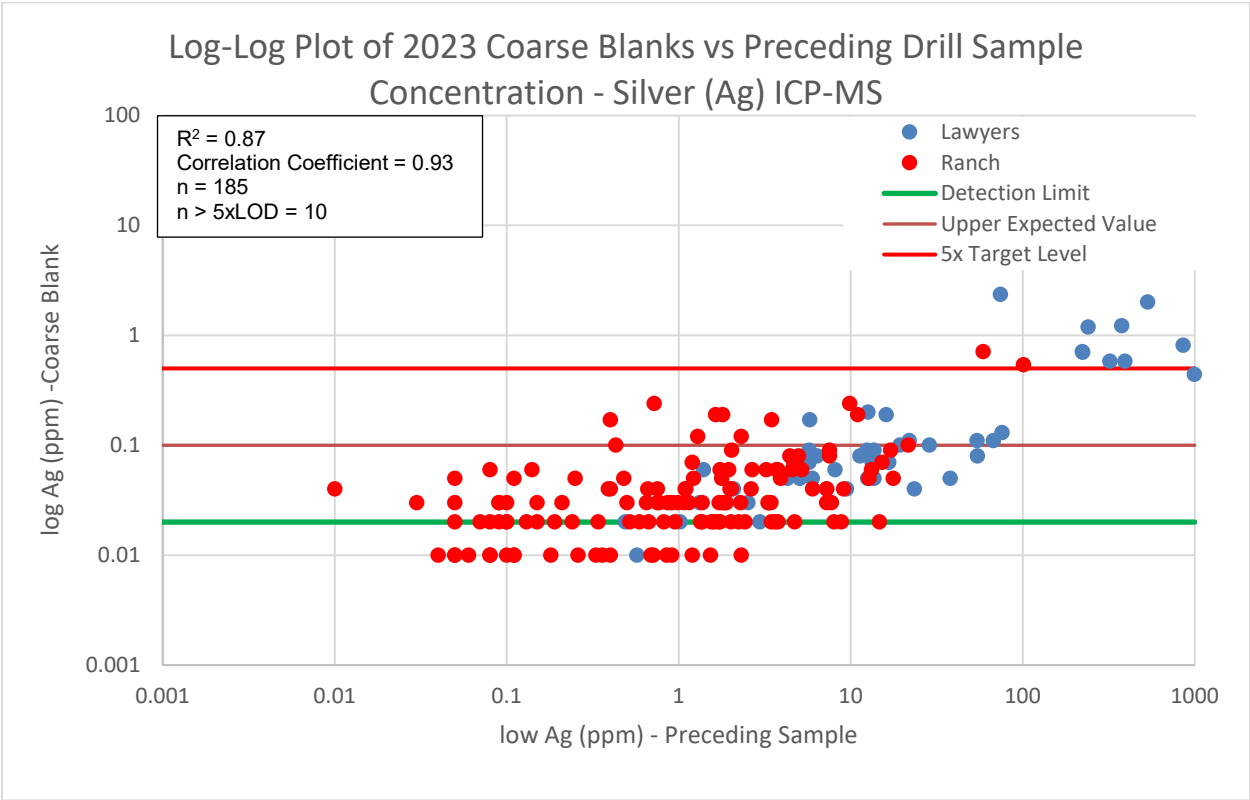
In general, the correlations observed in the Au, Ag, and Cu result between the 185 coarse blank samples and their preceding drill core samples throughout the 2023 Lawyers and Ranch drilling program were relatively weak. Furthermore, it was observed that sample-to-sample contamination of coarse blank samples that followed well-mineralized drill core samples was minimal. As a result, it is the opinion of the Authors of this Report that there are no significant issues indicated by the analytical results of the coarse blank samples inserted into the 2023 Lawyers-Ranch drill program sample streams.

FIGURE 11.35 LOG-LOG PLOT OF GOLD ASSAY RESULTS IN COARSE BLANKS COMPARED TO PRECEDING SAMPLES



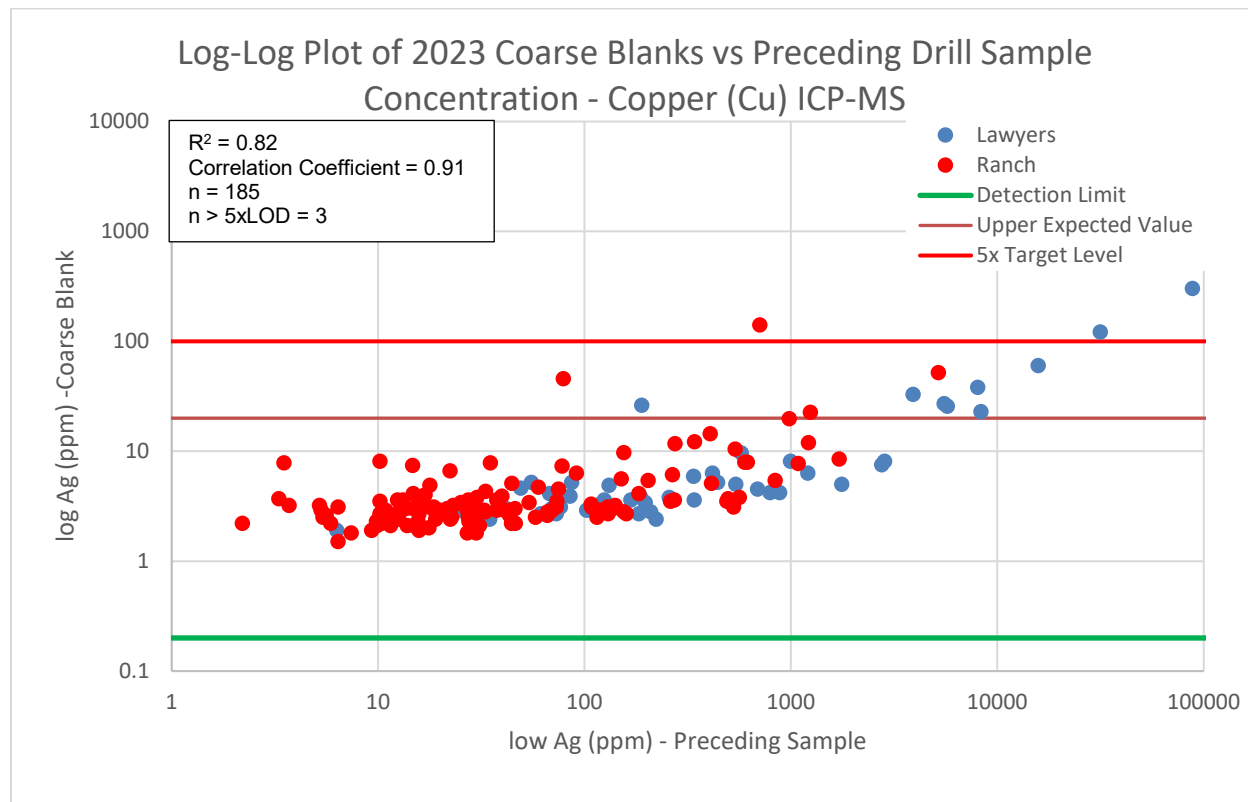
Source: APEX (2024)

FIGURE 11.36 LOG-LOG PLOT OF SILVER ASSAY RESULTS IN COARSE BLANKS COMPARED TO PRECEDING SAMPLES



Source: APEX (2024)

FIGURE 11.37 LOG-LOG PLOT OF COPPER ASSAY RESULTS IN COARSE BLANKS COMPARED TO PRECEDING SAMPLES



Source: APEX (2024)

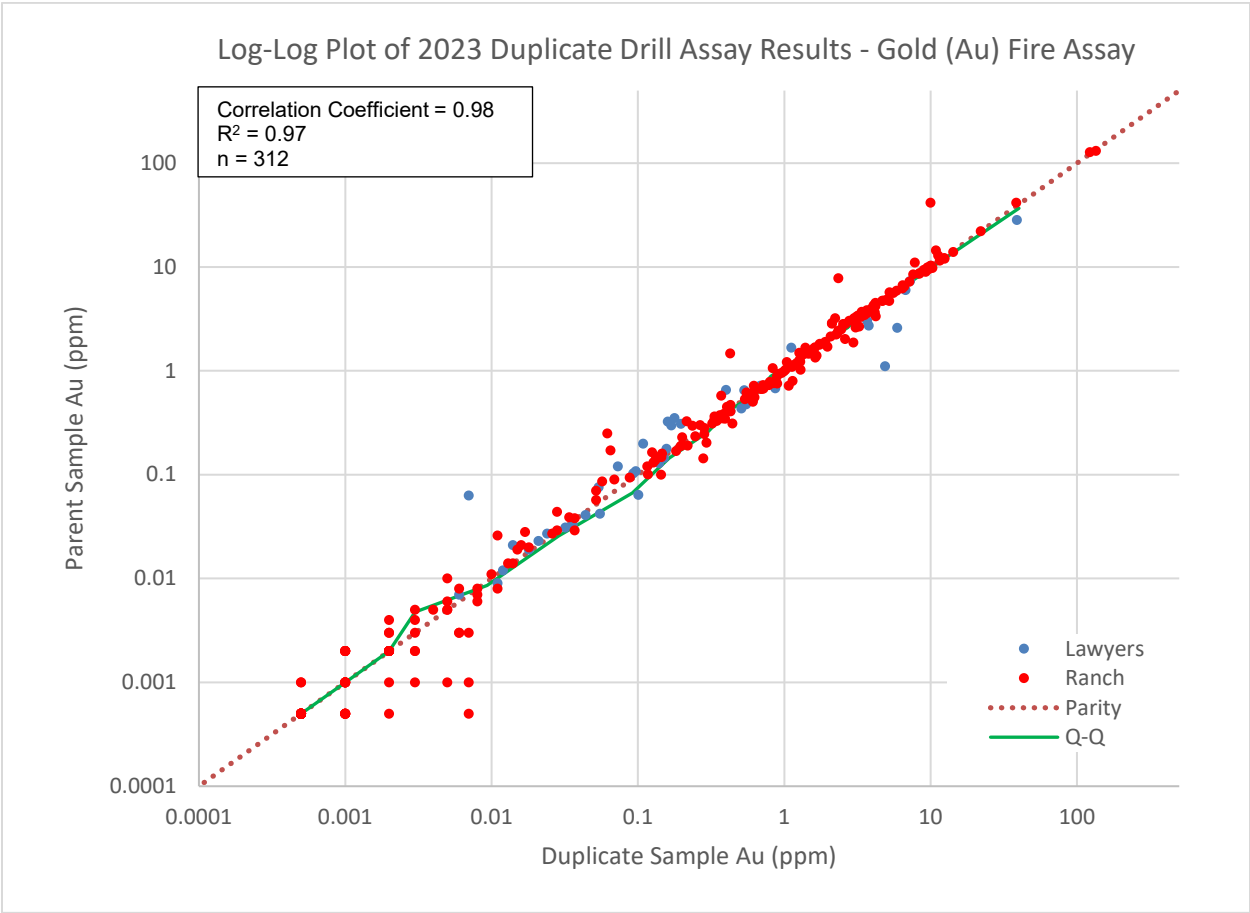
Duplicates

As part of the 2023 Lawyers-Ranch drilling QAQC program, 312 duplicate drill core samples were collected (42 from Lawyers and 270 from Ranch). Duplicate gold, silver, and copper assay results were compared to their “parent” samples to examine the repeatability of analytical data. Duplicate drill core sampling provides a means of examining and measure “sample variance” which, particularly for gold assays, can help identify and quantify the so-called “nugget effect” that can result from an irregular distribution of mineralization within the drill core (sample).

For the 2023 Lawyers and Ranch drilling, drill core duplicate samples were collected by cutting the drill core in half with one of the halves being returned to the drill core box for archiving and the other half being cut in half again (quartered) with $\frac{1}{4}$ of the drill core going into each of 2 sample bags: one being the “parent” sample; and the other the “duplicate” sample. In short, the 2023 duplicate drill core analytical results for Au, Ag and Cu display very good correlation (see Figures 11.38, 11.39 and 11.40). The correlation coefficients for parent-duplicate analytical pairs were 0.98, 0.91, and 0.99 for Au (fire assay), and Ag and Cu (ICP-MS), respectively. Note that the Cu correlation was calculated by excluding the results $>10,000$ ppm Cu). In general, the duplicate drill core sampling conducted throughout the 2023 Lawyers-Ranch drilling has demonstrated excellent repeatability and does not indicate any significant issues with respect to

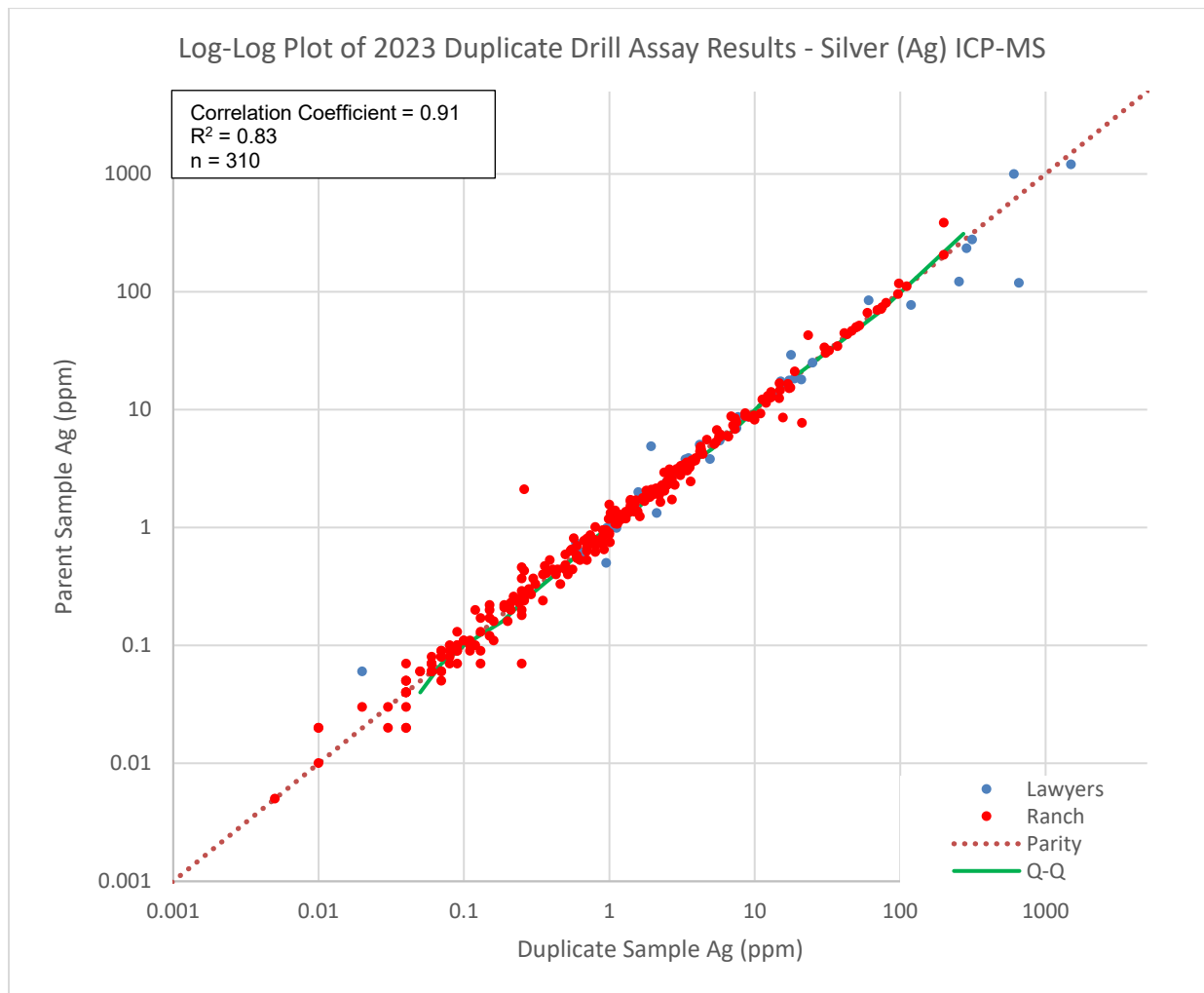
sample variance. In particular, the drill core duplicate Au data exhibits reasonable variance and there is no evidence of a significant “nugget effect” in the data.

FIGURE 11.38 LOG-LOG PLOT OF 2023 DRILL DUPLICATE GOLD ASSAY RESULTS



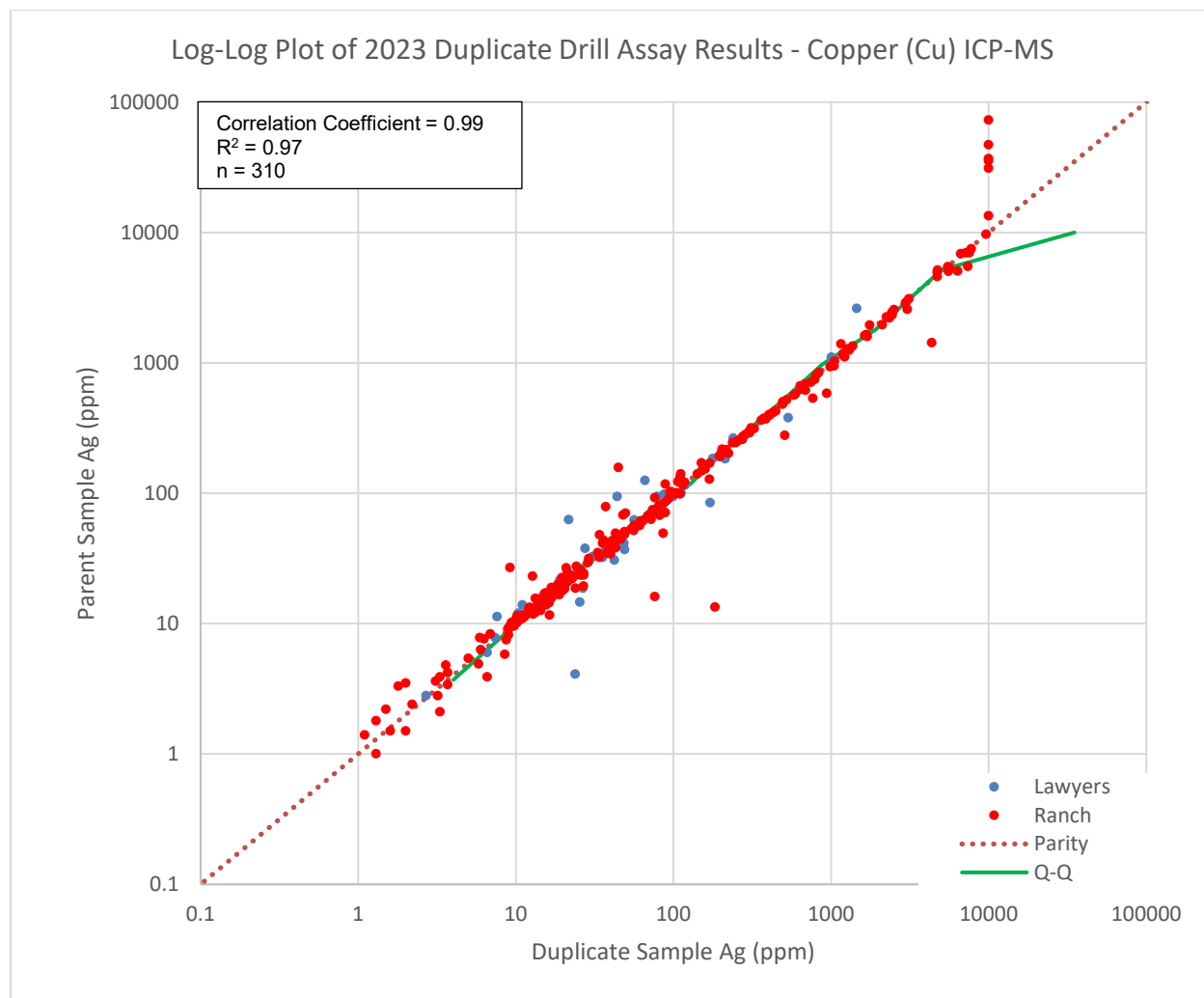
Source: APEX (2024)

FIGURE 11.39 LOG-LOG PLOT OF 2023 DRILL DUPLICATE SILVER ASSAY RESULTS



Source: APEX (2024)

FIGURE 11.40 LOG-LOG PLOT OF 2023 DRILL DUPLICATE COPPER ASSAY RESULTS



Source: APEX (2024)

11.4.1.13 2023 Ranch Area Umpire Assay Program Results

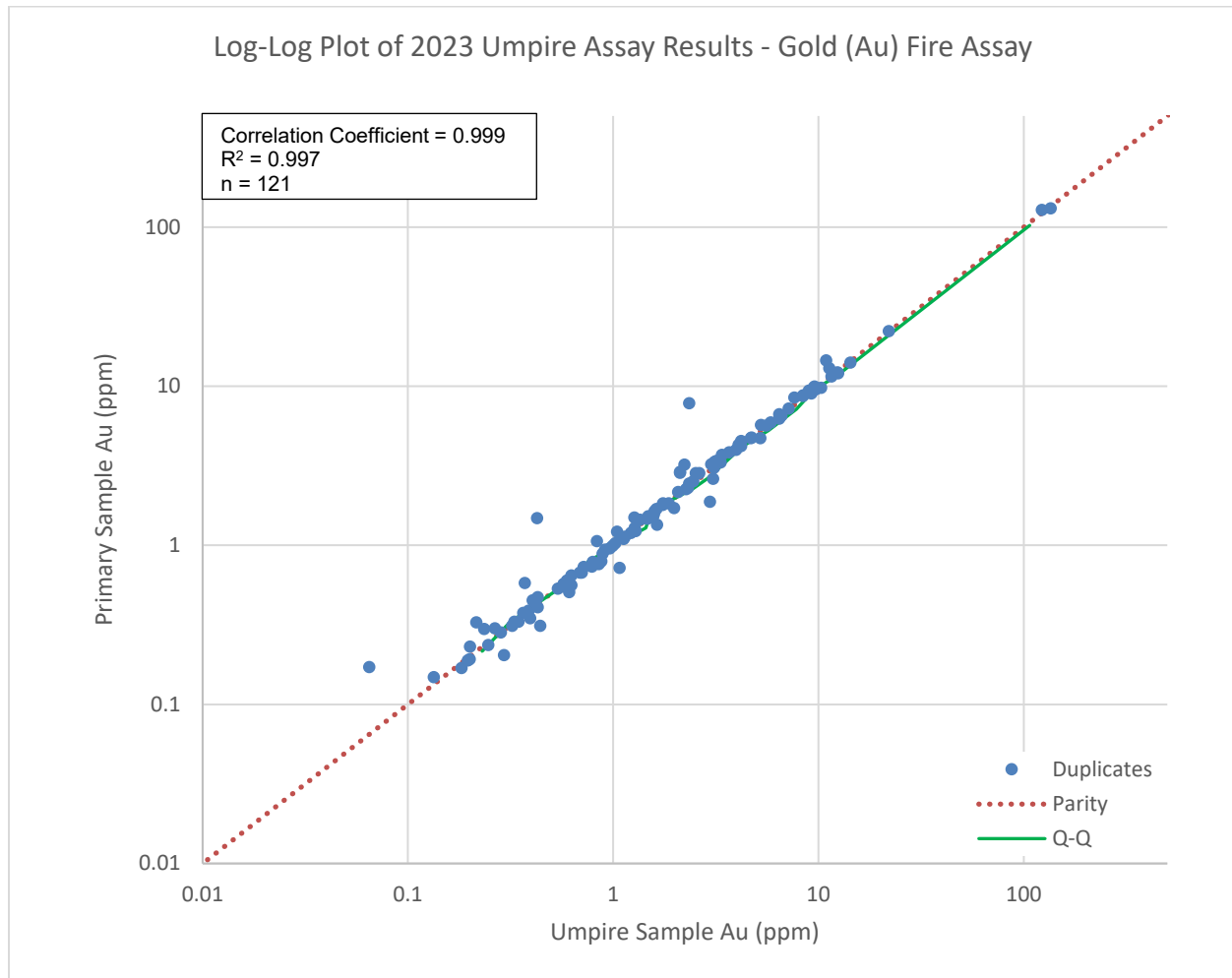
In early 2024, as a due diligence check on the overall analytical performance of the Project's primary laboratory (ALS) in preparation for the Mineral Resource estimation discussed in a following section of this Report, a significant "umpire assay" program was conducted on Ranch drill samples collected between 2021 through 2023. This involved the collection by ALS of duplicate (second) pulp aliquots from 121 drill samples that were sent for analysis at a second laboratory. Bureau Veritas (BV) was selected as the lab for the 2023 umpire program. BV is an accredited ISO/IEC 17025:2017 lab and is independent of ALS, APEX, P&E and Thesis. Samples were geographically well-distributed from shallow and deep mineralized intersections across the Ranch Area. At least one "umpire" sample was selected from each mineralized interval, within each major mineralized zone, and from each year (drill program).

A set of 15 QC samples, comprising CRMs and blanks, were submitted to BV for insertion into the sequence of umpire samples. An examination of these QC results did not identify any issues as all of the results fell within expected limits.

All 121 of the 2023 Ranch “umpire” drilling samples were analysed by the same techniques as the primary samples, which included BV lab codes FA330 and MA250. FA330 is a standard 30 g fire assay technique with wet chemical finish (ICP- ES) and has a lower detection limit of 0.002 ppm (2 ppb) Au and an upper limit of 10 ppm Au. MA250 is a standard multi-element ICP (ICP-MS) geochemical analysis with a four-acid digest of a 0.25 g aliquot. The MA250 technique has lower detection limits of 0.02 ppm for Ag and 0.1 ppm for Cu and upper limits of 200 ppm for Ag and 10,000 ppm (1.0%) for Cu. Of the 121 “umpire” samples, 11 Au, 27 Ag, and 6 Cu results were found to be above the upper reporting limits for the respective metals and their analytical technique and were follow-up by overlimit analyses (BV overlimit analytical codes FA530 and MA370), however, the overlimit Cu samples were not analysed any further in error. FA530 is a 30 g aliquot fire assay technique with a gravimetric finish and MA370 is an ICP-ES technique involving a four-acid (near total) digest of a minimum 1 g sample aliquot. Graphs illustrating the Au, Ag, and Cu data for the original (ALS) analytical results in comparison to the “umpire” (BV) analyses are prided in Figures 11.41, 11.42, and 11.43, respectively.

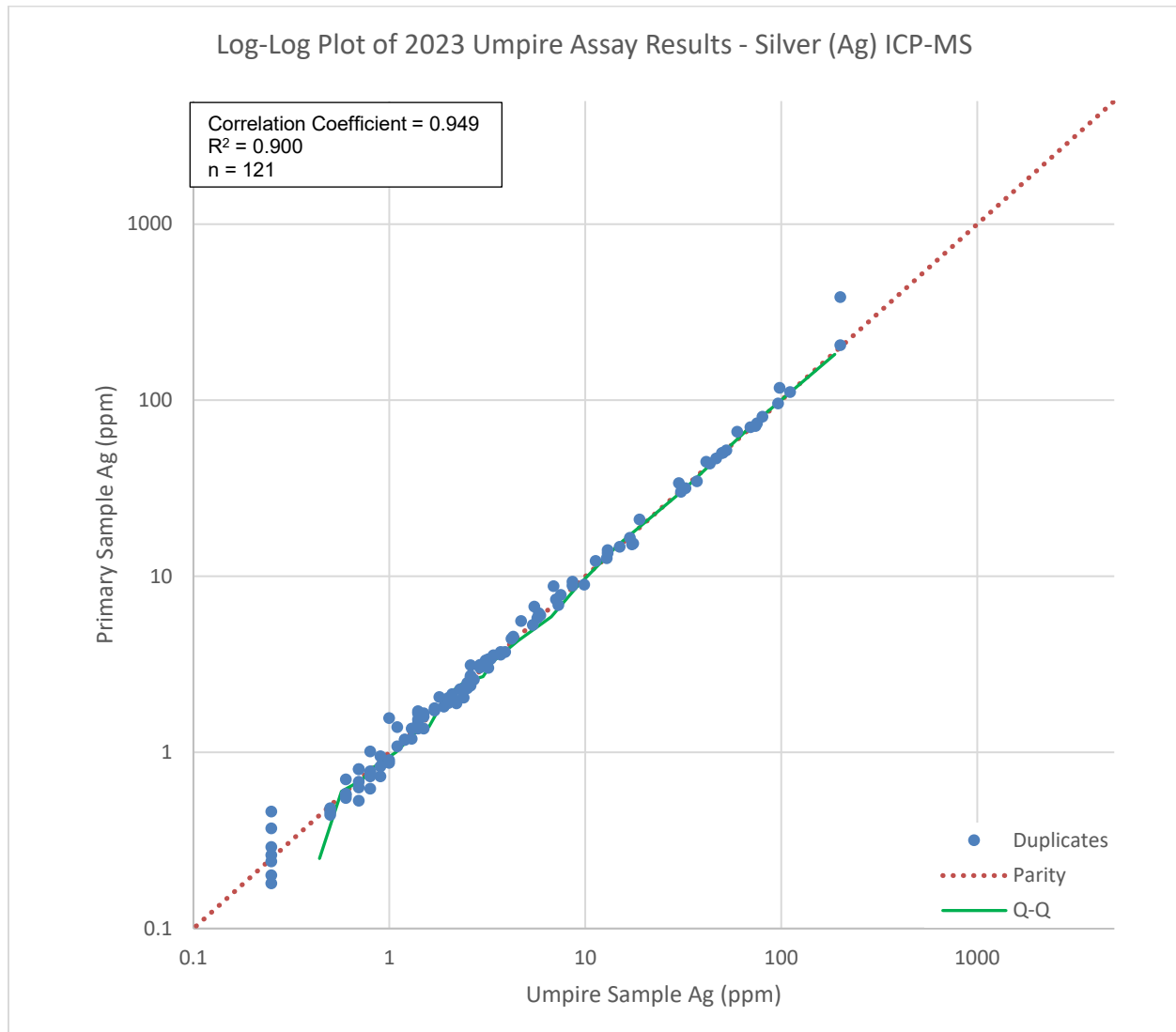
The results showed excellent correlation and very low variance between the original and the “umpire” analytical results. The correlation coefficients for Au, Ag, and Cu are 0.999, 0.959, and 0.999, respectively. The line of samples at low concentrations <0.5 ppm for Ag are likely a result of proximity to the lower LOD for MA250 (0.02 ppm Ag). The 2023 “umpire” data provides further evidence of an overall high level of accuracy and precision in the 2021 to 2023 Ranch Area drilling analyses. It also illustrates that sample preparation procedures employed by ALS are sufficient to create reasonably well homogenized pulps that yield consistent (repeatable) analytical results. Together, this data provides additional support for the conclusion that there were no significant issues with respect to the Au and Ag analysis results produced by the 2021 to 2023 Ranch Area drill programs.

FIGURE 11.41 LOG-LOG PLOT OF 2023 AU UMPIRE ASSAY DATA FOR THE 2021-2023 ALS DRILL SAMPLES



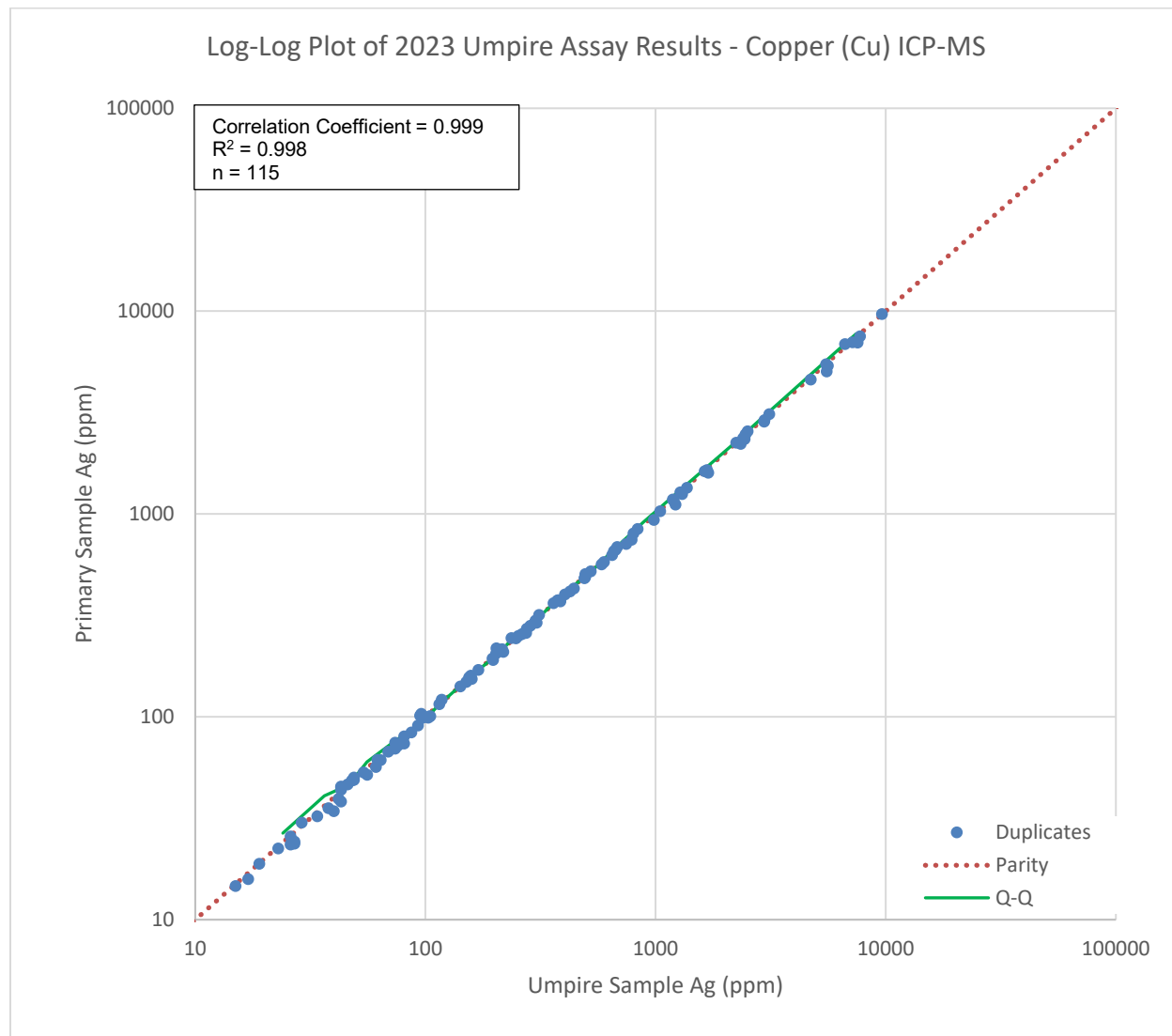
Source: APEX (2024)

FIGURE 11.42 LOG-LOG PLOT OF 2023 AG UMPIRE ASSAY DATA FOR THE 2021-2023 ALS DRILL SAMPLES



Source: APEX (2024)

FIGURE 11.43 LOG-LOG PLOT OF 2023 CU UMPIRE ASSAY DATA FOR THE 2021-2023 ALS DRILL SAMPLES



Source: APEX (2024)

11.5 ADEQUACY OF SAMPLE COLLECTION, PREPARATION, SECURITY AND ANALYTICAL PROCEDURES

The Author of this report section has reviewed the comprehensive QAQC procedures utilized at the Lawyers-Ranch Project by Thesis Gold and by APEX Geoscience Ltd., its geological consultant. This includes not only the analytical QAQC program utilized to monitor the results of all drill program sample analyses, but also the protocols and procedures used to ensure sample security from site to laboratory and those employed to monitor and verify the quality of all other related data collection from drill collar and drill hole surveying to drill core logging and sampling. As a result of the review, it is the opinion of the Author that:

- The drill core handling and sample shipping procedures and protocols utilized at the Project are in-line with industry standards and are adequate for maintaining sample security from the drill to the laboratory;
- The protocols and procedures used to ensure the quality of all drilling related data acquisition, from drill hole collar and downhole surveying to drill core logging and sampling data, are in-line with industry standards and are adequate for ensuring data quality throughout the drilling and drill core logging and sampling process;
- The analytical techniques being applied to the Lawyers-Ranch drill samples are appropriate for the geological targets being evaluated;
- The drilling program QAQC samples being utilized are appropriate for the geological target being evaluate and the expected tenor of the mineralization; and
- The types and insertion/collection frequency of the drill program QAQC sampling being utilized at the Project are appropriate and sufficient to allow for the monitoring of the quality of the drill sample analyses.

It is the opinion of the Author that there are no significant issues or sources of error affecting the current (2018 to 2023) Lawyers-Ranch drilling database.

12.0 DATA VERIFICATION

12.1 P&E DATA VERIFICATION

12.1.1 Drill Hole Data Verification

APEX provided the Authors with a compilation of all the historical and recent drilling data on the Lawyers-Ranch Property. APEX completed a detailed review of all the compiled historical data for the Lawyers Area over 2019-2020, which included the Cliff Creek, Dukes Ridge, Phoenix and AGB Zones. The appraisal involved reviewing and referencing all the original data sources (including all original logs, reports, assay certificates where available and all drill hole maps). Any drill holes that were not able to be validated by APEX (i.e., holes for which there was no confidence in the results or location) were removed from the compilation.

Independent verification of the historical data supplied by APEX was undertaken by the Authors in 2022. Verification was carried out by randomly selecting 21 out of a total of 273 of the 1974 to 2006 historical drill holes included in the current resource estimate database (representing 15.5% of the historical data over this time period) for checking against the original Assessment Report data. The greater majority of the data verified was from the earlier drilling from 1974 to 1990. “From-To” intervals and survey and assay data were all checked, and no material errors were observed in the data.

Further independent verification was carried out of the newly supplied data in 2024 by the Authors. A total of 197 samples from two randomly selected historical drill holes from the updated Lawyers data were verified, bringing the verified percentage of historical samples in the updated data to 10.0%. A further 1,803 samples from 61 randomly selected historical drill holes (drilled between 1982 to 2006 at the Ranch Area) were verified by the Authors, representing 10.2% of the overall historical data in the Ranch database. “From-To” intervals and survey and assay data were all checked, and no material errors were observed in the data.

The Authors have also reviewed the results of the 2015 verification drilling undertaken at the Cliff Creek North and Dukes Ridge Zones, and Thesis’ own more recent verification drilling and are satisfied that the collective verification drilling undertaken at Lawyers confirms the location and tenor of mineralization reported in the historical drill data (for which complete assay and location information is known). A total of three twin holes were drilled at Cliff Creek North during the 2015 program (CC15-06, CC15-07 and CC15-08) and comparison results are tabulated in Table 12.1.

The 2020-2021 drilling undertaken by Thesis, designed to intersect the historical underground stopes at both Cliff Creek and AGB, also gives increased confidence to stope model boundaries and underground workings. The Authors consider that there is generally good agreement between the historical mine plan stopes and other historical data, and where stopes and underground levels were intersected in modern drilling (as demonstrated in Figure 12.1 and 12.2). Historical drill traces shown in green and modern drill traces (2019-2021) shown in black and AuEq for shown as purple circles along drill trace.

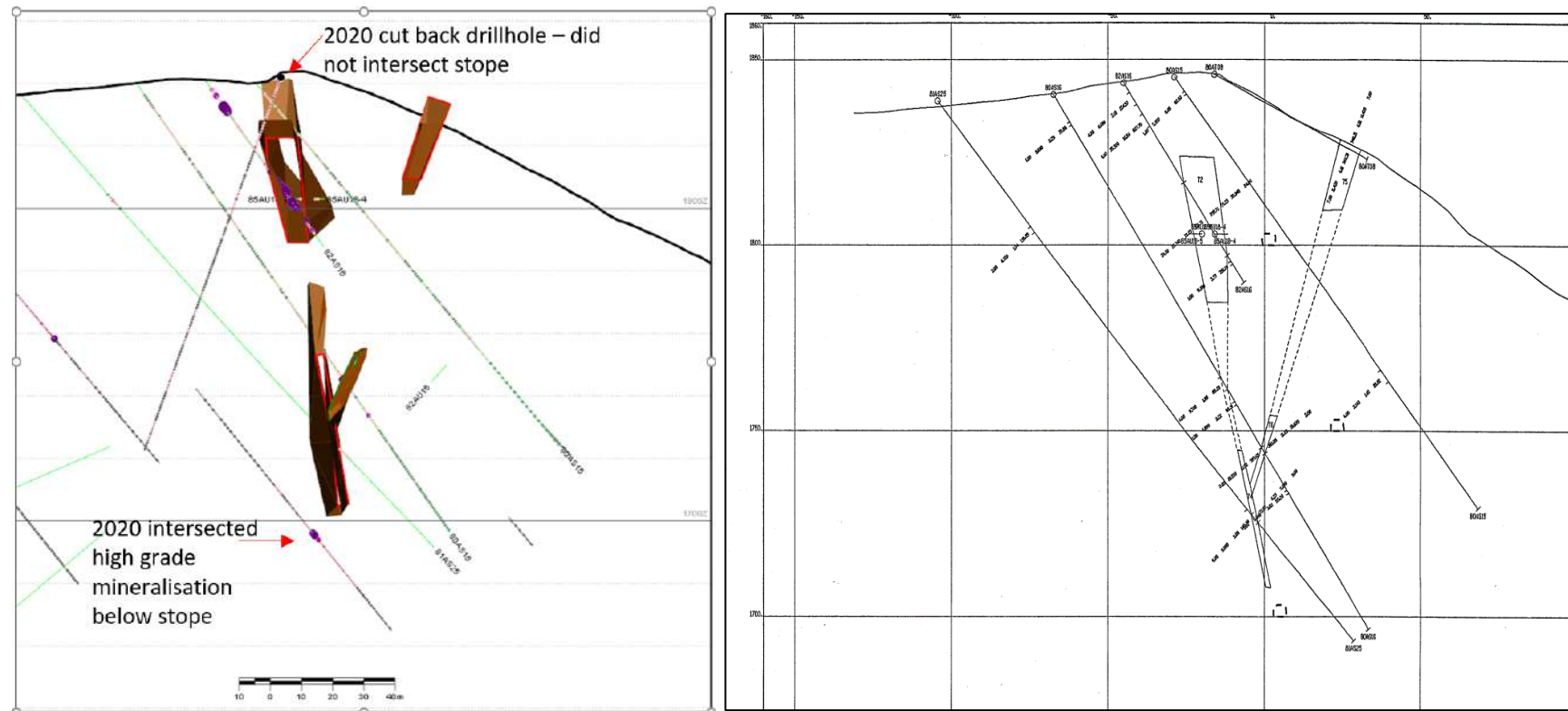
TABLE 12.1 COMPARISON OF WEIGHTED AVERAGES BETWEEN ORIGINAL DRILL HOLES AND 2015 TWIN DRILL HOLES							
Drill Hole ID		From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)	Comment
Original Twin	84CC-14	9	15	6	7.19	298.3	footwall hole
	CC15-06	10.37	16.75	6.38	12.56	400	footwall hole
Original Twin	83CC-04	20	22	2	11.66	1	footwall hole
	and	56	70	14	14.62	779	footwall hole
	CC15-07	20	22	2	<1.00	5.4	footwall hole
	and	54.86	59.44	4.58	void – no core		footwall hole
	and	59.44	60.2	0.76	15.70	622	footwall hole
Original Twin	84CC-38	90	105	15	4.63	215.4	hanging wall hole
	CC15-08	89	105	16	2.06	69.6	hanging wall hole

Source: APEX (2022)

12.1.2 Drill Hole Data Validation

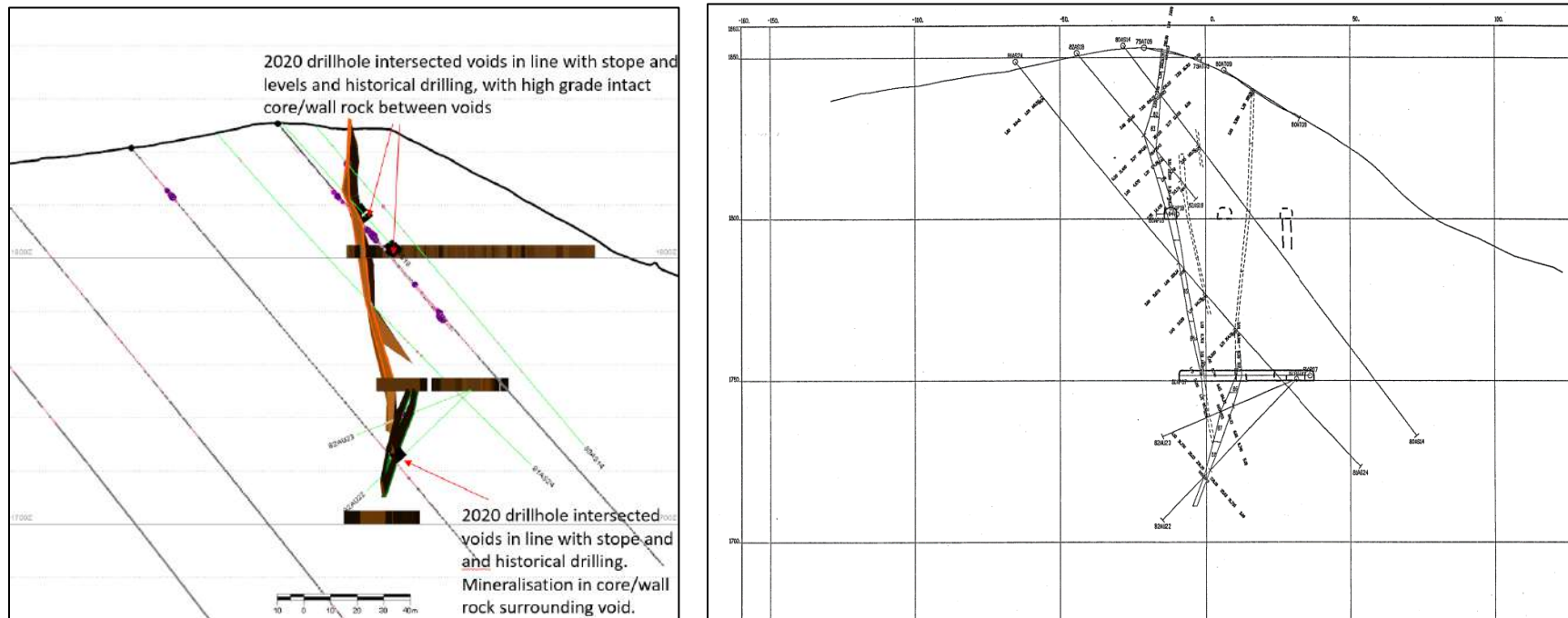
The Authors also validated the Mineral Resource database by checking for inconsistencies in analytical units, duplicate entries, interval, length or distance values less than or equal to zero, blank or zero-value assay results, out-of-sequence intervals, intervals or distances greater than the reported drill hole length, inappropriate collar locations, survey and missing intervals and coordinate fields. A few minor errors were identified and corrected in the database.

FIGURE 12.1 AGB CROSS-SECTIONAL PROJECTION LOOKING NORTHWEST – HISTORICAL STOPE MODEL COMPARED TO DRILLING



Source: APEX (2021)

FIGURE 12.2 AGB CROSS-SECTIONAL PROJECTIONS: 2021 STOPE MODEL AND MODERN DRILLING (LEFT) AND HISTORICAL DRILLING AND 1986 MINE PLAN (RIGHT)



Source: APEX (2021)

12.1.3 2018 to 2022 Assay Verification

The Authors conducted verification of the Lawyers drill hole assay database for gold and silver, by comparison of the database entries with assay certificates, downloaded directly by the Authors from the ALS Webtrieve. Assay certificates were downloaded in comma-separated values (“csv”) format. Assay data ranging from 2018 through 2021 were verified in April of 2021 and data from 2021 to 2022 were checked in September of 2022.

In April 2021, ~29% (14,628 out of 50,604 samples) of the entire Cliff Creek Zone database were verified for gold and silver and ~80% (14,628 out of 18,235 samples) of the constrained database for gold and silver were verified. Approximately 29% (7,629 out of 26,702 samples) of the entire Dukes Ridge-Phoenix-AGB Zones database were also verified for gold and silver at that time, and ~68% (7,629 out of 11,253 samples) of the constrained database for gold and silver were verified. Very few minor discrepancies were encountered in the data, which are not considered by the Authors to be material to the current Mineral Resource Estimate.

Assay verification undertaken in September 2022, was undertaken on a single updated assay database for all 2021 to 2022 samples from all deposit areas. Approximately 22% of assays (17,067 out of 78,682 assays) for both gold and silver were checked against the laboratory data and no discrepancies were encountered.

In May of 2024, assay verification of the updated 2023 assays in the Lawyer’s database and the 2020 to 2023 assays in the Ranch database, was carried out by the Authors. Assays for gold, silver and copper (Ranch) were checked against the laboratory data. Approximately 99% of assays (15,965 out of 16,175 assays) for the Ranch Area and 73% (32,806 out of 44,696 assays) for the Lawyers Area were checked and no material discrepancies were encountered.

12.2 P&E SITE VISIT AND INDEPENDENT SAMPLING

The Lawyers Area was visited by Mr. Brian Ray, P.Geo., of P&E, from September 16 to 19, 2020, and July 6 to 7, 2022 for the purpose of completing site visits that included visiting drilling sites, outcrops, GPS location verifications, logging and sampling facilities, drill core storage, inspection of drill core recovery and mineralization, review of data collection procedures, discussions, and due diligence sampling.

Mr. Ray collected 32 samples from ten diamond drill holes during the 2020 site visit and 40 samples from 39 diamond drill holes during the 2022 site visit. Samples were selected from holes drilled at the Cliff Creek, AGB and Dukes Ridge Zones, during the 2018 to 2021 period. A range of high-, medium- and low-grade samples were selected from the stored drill core. Samples were collected by taking a quarter cut of the drill core with the other quarter drill core remaining in the drill core box. Individual samples were placed in plastic bags with a uniquely numbered tag, after which all samples were collectively placed in a larger bag for delivery to the lab. Samples from the 2020 site visit were delivered by Mr. Ray to the ALS Global laboratory in Vancouver for analysis. Samples from the 2022 site visit were couriered to the P&E office in Brampton by Mr. Ray, and then delivered to the Actlabs laboratory in Ancaster, Ontario by P&E personnel for analysis.

The Lawyers-Ranch Project was visited on November 4 and 6, 2023, by Mr. Yungang Wu, P.Geo., of P&E, for the purposes of completing a site visit and an independent sampling program. Mr. Wu visited Cliff Creek-Duke Ridge and Ranch drill sites and verified six of the 2023 drill hole collars with a handheld GPS. The drill sites were mostly rehabilitated on hole completion. The XY collar locations were well matched with the collar locations provided in the database with variations of 0 to 5 m.

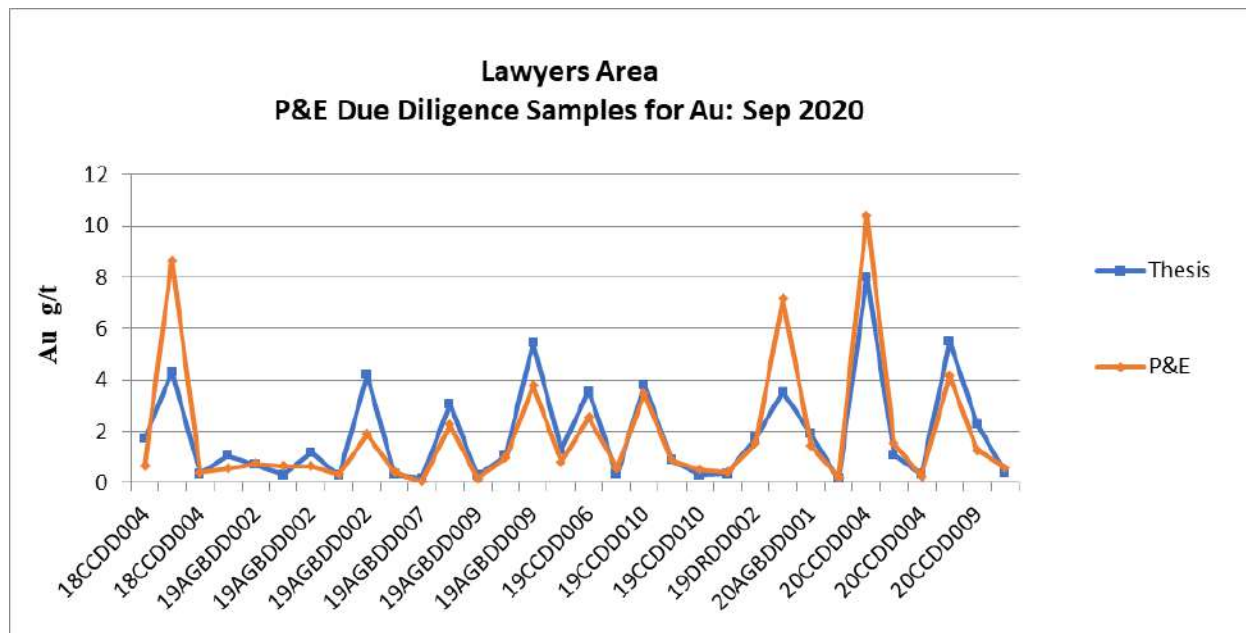
Mr. Wu discussed sample QA/QC and logging procedures with APEX geologists. Mr. Wu also visited the outdoor drill core storage area at the Lawyers and Ranch Camps, where the 2021 to 2023 drill core is stored and collected 30 samples from 30 drill holes. Samples were collected by taking a quarter cut of the NQ drill core with the other quarter drill core remaining in the drill core box. Samples were selected from a range of grades and placed in a plastic bag with a unique tag. Each bag was sealed, and all the collected samples were placed into two rice bags and delivered to Activation Laboratories, (“Actlabs”), a certified analytical laboratory in Ancaster, ON. At no time were any officers or employees of Thesis notified as to the location of the samples to be collected. Results of the Lawyers-Ranch Property site visits verification samples for both gold, silver and copper are presented in Figures 12.3 to 12.11.

Samples at ALS were analysed for gold by fire assay with atomic absorption finish, with results >10 g/t Au further analysed by fire assay with gravimetric finish. Samples were analysed for silver by means of 4-acid digestion with atomic absorption finish. Bulk densities were determined by water displacement method on all 32 samples. ALS developed and implemented at each of its locations a Quality Management System (QMS) designed to ensure the production of consistently reliable data. The system covers all laboratory activities and takes into consideration the requirements of ISO standards. ALS maintains ISO registrations and accreditations. ISO registration and accreditation provides independent verification that a QMS is in operation that meets all requirements of ISO/IEC 17025:2017 and ISO 9001:2015. All ALS geochemical hub laboratories are accredited to ISO/IEC 17025:2017 for specific analytical procedures.

Samples at Actlabs were analysed for gold by fire assay with either Instrumental Neutron Activation Analysis (“INAA”) or AA finish, with results >20,000 ppb Au further analysed by fire assay with gravimetric finish. Samples were analysed for silver by means of aqua regia or 4-acid digestion with ICP-OES finish. Ranch Area samples in 2023 were also analysed for copper by 4-acid digestion with ICP finish. Bulk densities were determined by water displacement method on all samples. The Actlabs’ Quality System is accredited to international quality standards through ISO/IEC 17025:2017 and ISO 9001:2015. The accreditation program includes ongoing audits, which verify the QA system and all applicable registered test methods. Actlabs is also accredited by Health Canada.

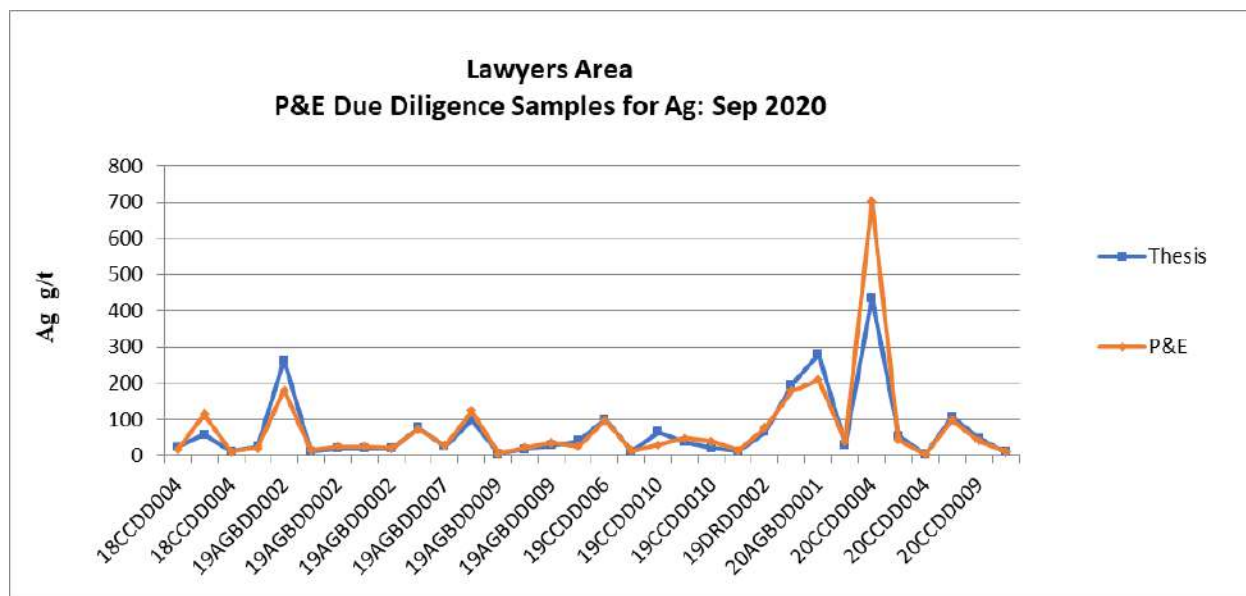
The Authors inserted QC samples into the sample stream of verification samples, including CRMs and certified blank material, sourced from CDN, to monitor accuracy and contamination. No material issues were observed in the QC data.

FIGURE 12.3 RESULTS OF LAWYERS SEPTEMBER 2020 AU VERIFICATION SAMPLING BY THE AUTHOR



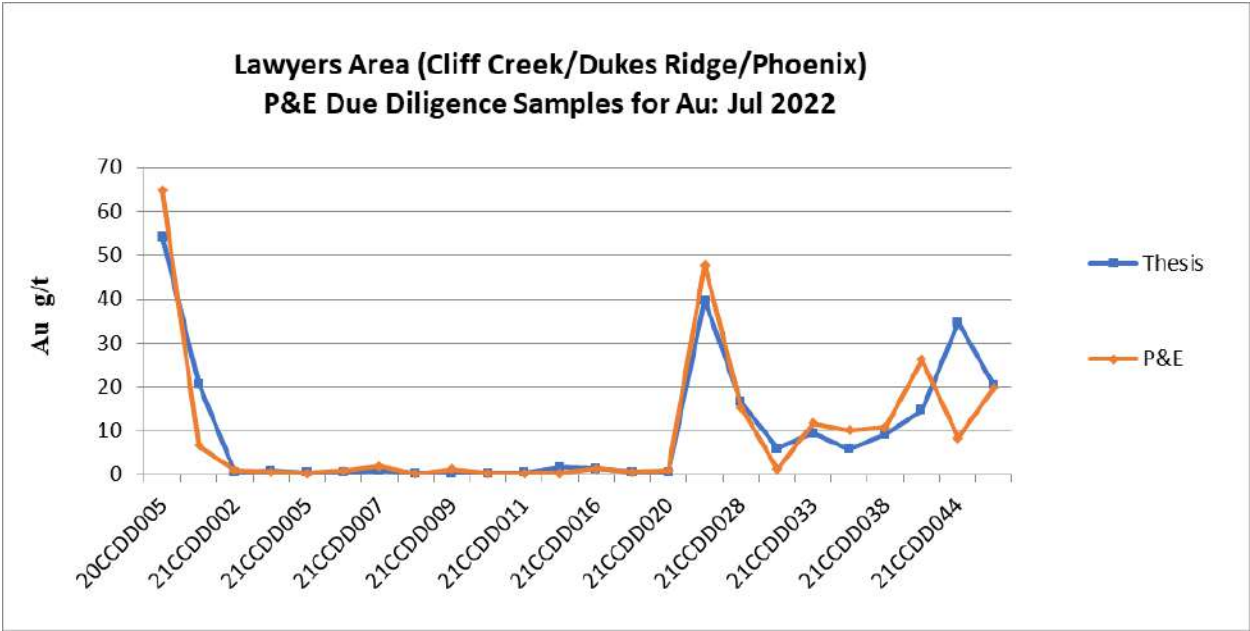
Source: P&E (2021)

FIGURE 12.4 RESULTS OF LAWYERS SEPTEMBER 2020 AG VERIFICATION SAMPLING BY THE AUTHOR



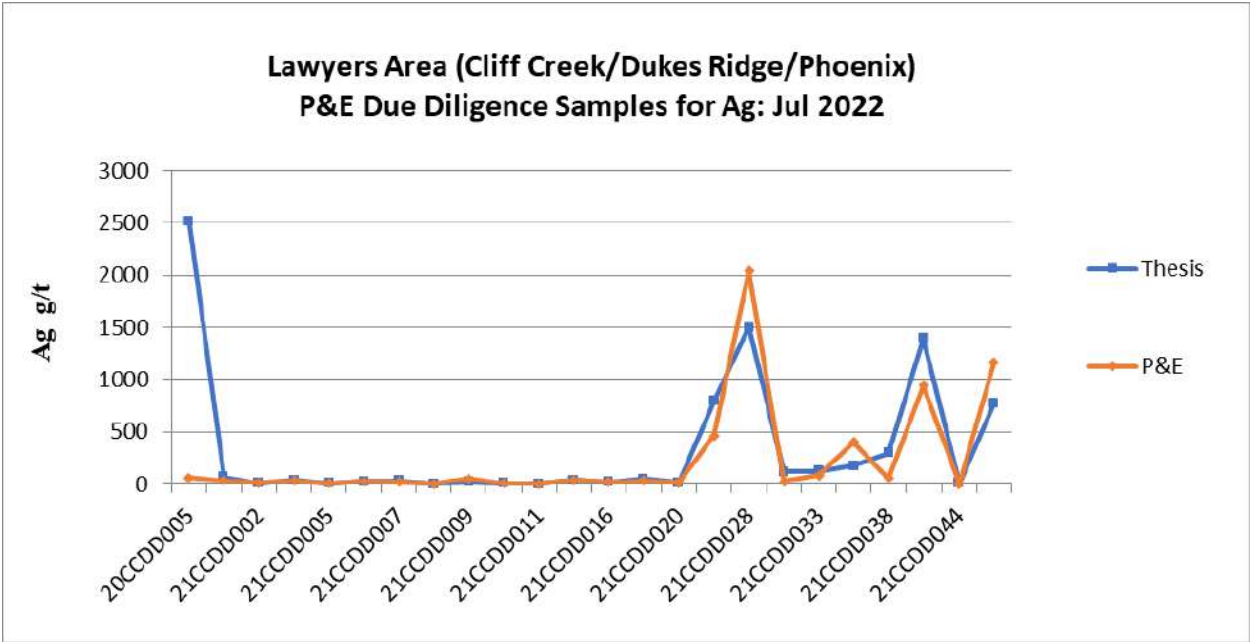
Source: P&E (2021)

FIGURE 12.5 RESULTS OF LAWYERS JULY 2022 AU VERIFICATION SAMPLING BY THE AUTHOR



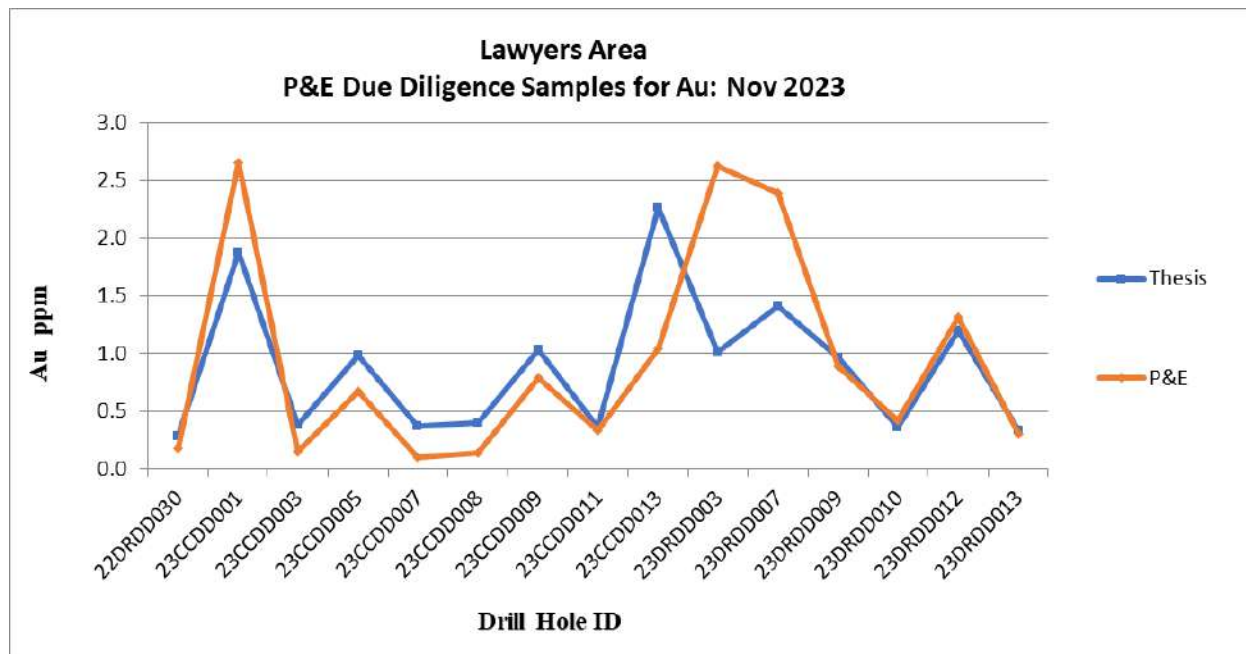
Source: P&E (2022)

FIGURE 12.6 RESULTS OF LAWYERS JULY 2022 AG VERIFICATION SAMPLING BY THE AUTHOR



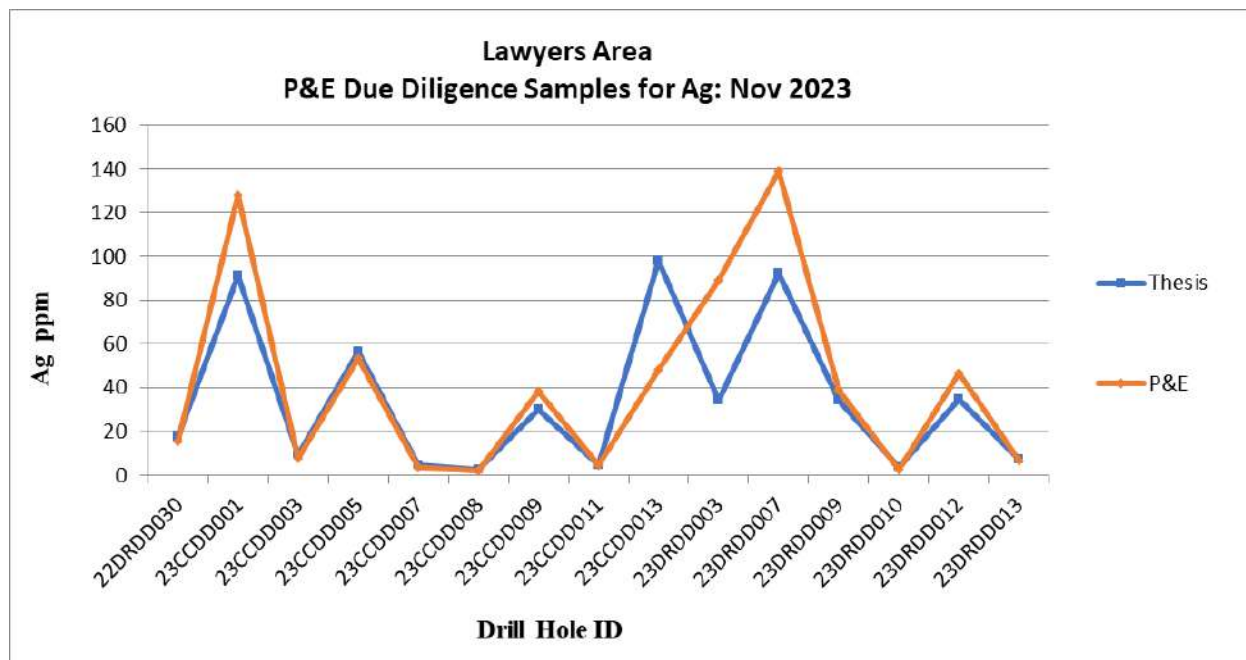
Source: P&E (2022)

FIGURE 12.7 RESULTS OF LAWYERS NOVEMBER 2023 AU VERIFICATION SAMPLING BY THE AUTHOR



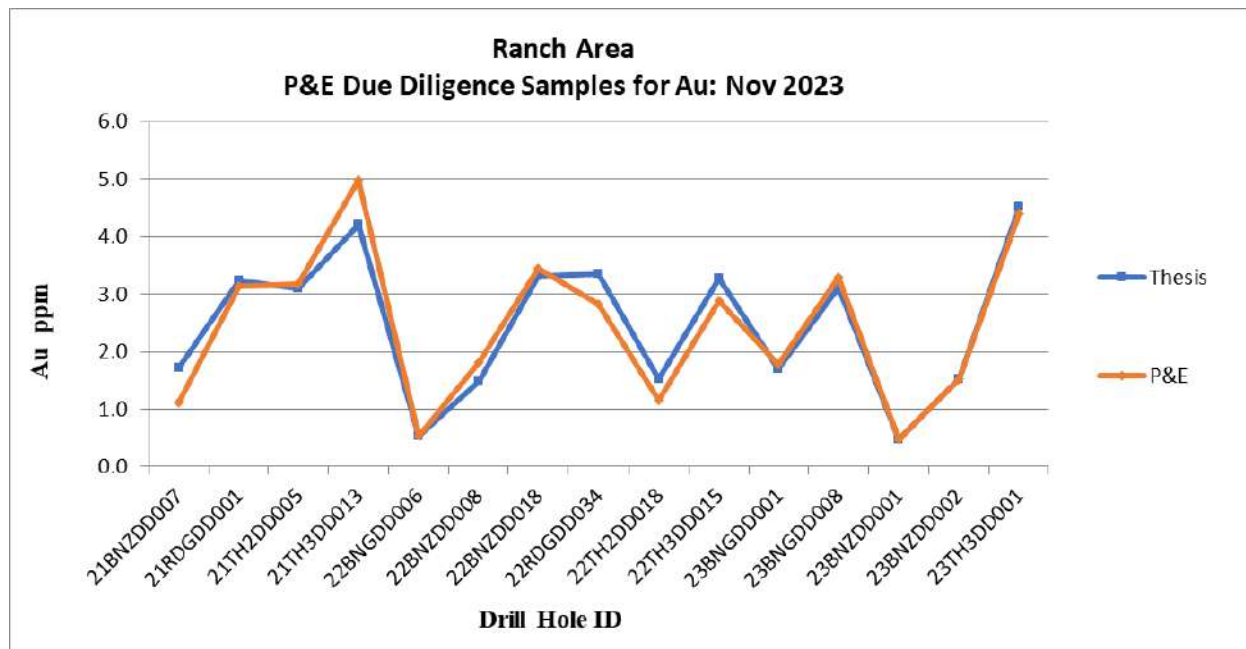
Source: This Study

FIGURE 12.8 RESULTS OF LAWYERS NOVEMBER 2023 AG VERIFICATION SAMPLING BY THE AUTHOR



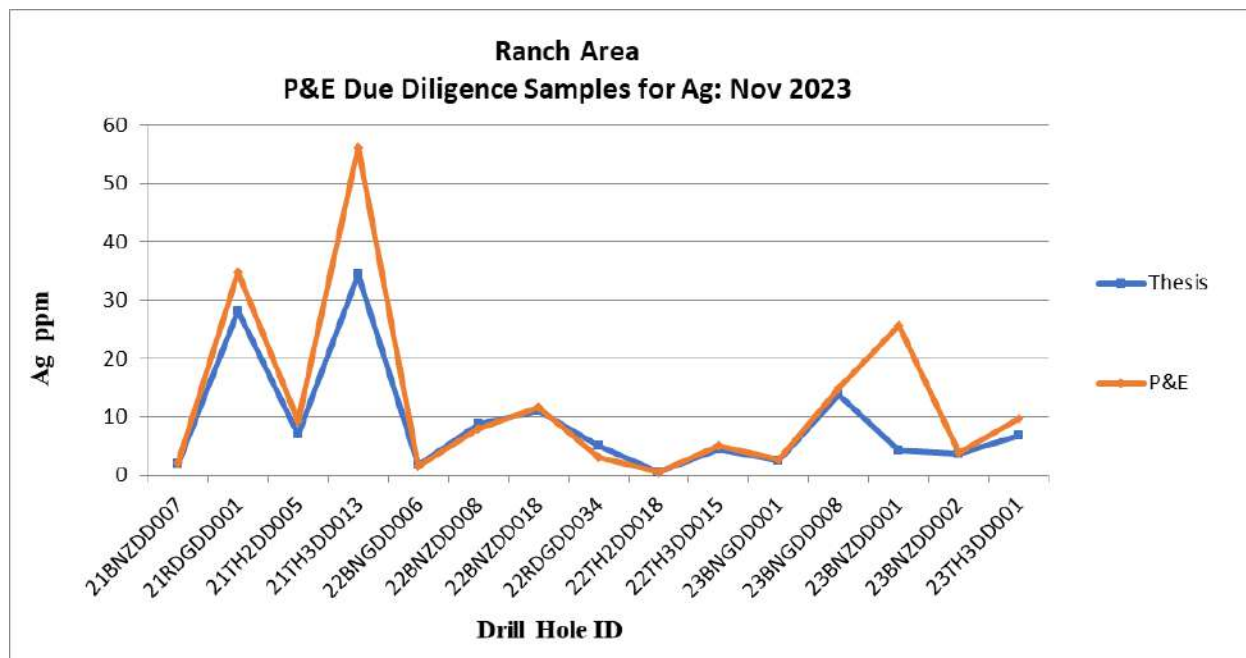
Source: This Study

FIGURE 12.9 RESULTS OF RANCH NOVEMBER 2023 AU VERIFICATION SAMPLING BY THE AUTHOR



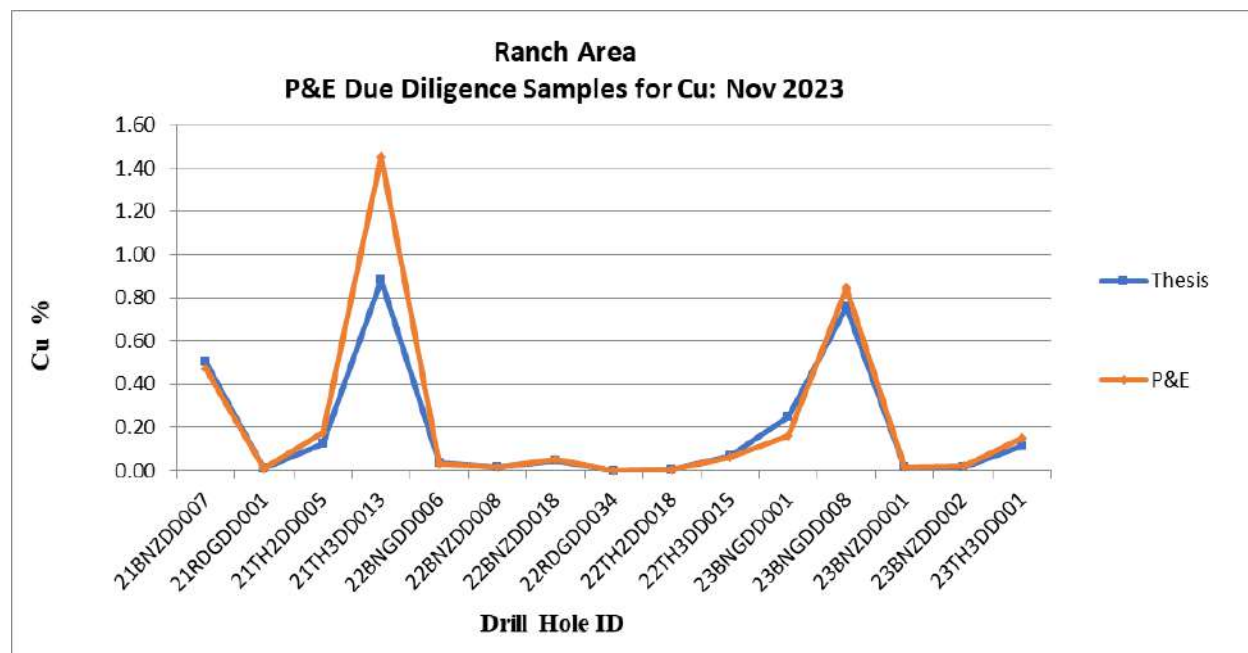
Source: This Study

FIGURE 12.10 RESULTS OF RANCH NOVEMBER 2023 AG VERIFICATION SAMPLING BY THE AUTHOR



Source: This Study

FIGURE 12.11 RESULTS OF RANCH NOVEMBER 2023 CU VERIFICATION SAMPLING BY THE AUTHOR



Source: This Study

The presence of a nugget effect in the data is evident. However, the Authors consider that there is acceptable correlation between the Au, Ag and Cu assay values in Thesis' database and the independent verification samples collected by the Authors and analysed at ALS and Actlabs. It is the opinion of the Authors that the data are of good quality and appropriate for use in the current Mineral Resource Estimate.

12.3 LIMITATIONS ON DATA VERIFICATION

The historical and recent drilling data compilation was not without issue. Several uncertainties were identified and were discussed in previous Technical Reports on the Lawyers-Ranch Property (Eccles *et al.*, 2020; Church *et al.*, 2022; Turner and Hough, 2023). The primary recommendation for mitigating the uncertainties noted was to undertake a significant amount of additional drilling relative to the historical drilling, conducted with a robust analytical QA/QC program. A significant portion of early drilling at the Lawyers-Ranch Property was conducted in order to evaluate and validate historical drill results.

The following is a list of issues/uncertainties pertaining to historical drilling at the Property:

- It is not clear in many of the Mineral Assessment Reports whether the geochemical assay intervals are reported as downhole lengths or true widths, it was assumed that the data reported down-hole drill core interval lengths and not true widths;

- Historical drill core recovery information is limited, and thus reported sample interval lengths may not accurately reflect the true chemistry of the intervals noted;
- Some drill hole data was incapable of being sufficiently verified and, as a result, any drill holes, for which results or location were not able to be adequately verified, were excluded from the Mineral Resource database;
- It is assumed that historical sampling was focused on high-grade zones associated with distinct visual indicators (vuggy silica and hydrothermal breccia);
- At Ranch, it is unknown if the historical drilling and selective sampling had issues with drill core recovery; and
- The Phoenix stope model was generated using both historical and modern drilling and essentially envelopes the high-grade Phoenix vein from surface. Phoenix high-grade material was historically mined from surface and subsequently backfilled; no documentation of the location or physical size of the mined material exists. As a result, there is lower confidence for the Phoenix stope model than for Cliff Creek and AGB; however, it is assumed to be generally representative of the previously mined material, based on historical cross-sections, reports, and recent drilling. It consists of a very minor portion of the deposits.

12.4 ADEQUACY OF DATA

Verification of the Lawyers-Ranch Project data, used for the current Mineral Resource Estimate, has been undertaken by the Authors, including verification of historical drilling data (prior to 2015) from hard-copy reports, drill hole logs, cross-sections and maps. This work provides confidence in the historically reported mineralization of the Cliff Creek North, Dukes Ridge, Phoenix and AGB Zones (Lawyers Area) and the mineralized zones of the Ranch Area. Information obtained from recent drilling (planned to drill through voids and backfill) increases confidence in the location and models of the underground workings and stope models at Cliff Creek and AGB. The small stope model for the Phoenix Zone has the lowest confidence; however, it is still assumed to be generally representative of the previously mined material, based on historical cross-sections, reports, and recent drilling.

The Authors consider that there is good agreement between historical assays and recent drilling, which is demonstrated by the 2015 twin hole and other verification drilling, and extensive infill and confirmation drilling completed by Thesis. Detailed QA/QC, check assaying and umpire assaying have been performed on the recent drilling with no material issues found, and the Authors' site visit samples reveal acceptable correlation between the original and verification samples.

The Authors are satisfied that sufficient verification of both the historical (pre-2015 for which complete assay and location information exists) and recent (2015 to 2023) drill hole data has been undertaken and that the supplied data are of good quality and suitable for use in the current Mineral Resource Estimate for the Lawyers-Ranch Project.

12.5 METALLURGY DATA VERIFICATION

The PEA metallurgical testing and related laboratory reporting was primarily undertaken by SGS Canada Inc., located in Burnaby BC. SGS is globally recognized in the mining industry and accredited with International Standards Organization (ISO) 9001 for quality assurance, and ISO/IEC 17025 for general requirements of laboratory competence in testing and calibration.

Metallurgical samples were logged in as received from a courier, and then followed and analysed with strict quality control. Analyses includes blanks and duplicates with inserted internationally certified reference material from CANMET and USGS standards. Test results are reviewed internally by the labs, and then externally by the Author. Resulting calculated process feed head grades are compared to assayed head grades for agreement and, if justified, testing is repeated to provide reproducibility.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

Metallurgical testing was performed to develop a processing scenario for treating mineralized samples from the Lawyers and Ranch Areas. Based on the stipulated study specifications, the process plant feed from the various mineral zones of the two adjacent Areas would be processed at one location situated in the Lawyers Area.

The laboratory testwork was performed principally by SGS Canada Inc., at their facility in Burnaby BC, beginning in September 2023, and completed in April 2024. An SGS report detailing sample preparation, and all test procedures and results was issued on May 24, 2024.

13.1 HISTORICAL INFORMATION

Historically, the Lawyers Area has had significantly more testwork performed than Ranch. This situation is partly due to its longer history of known mineralization, and includes a period of production, beginning in 1989 as Cheni Gold Mines (“Cheni”), along with prior associated metallurgical evaluation. More recently, a September 30, 2022 PEA report on Lawyers was issued by lead consultant JDS Energy and Mining Inc. and at that time the Mineral Resource was looked at primarily being exploited as a bulk tonnage mining scenario. The first known testwork for Ranch began in early 2022. Since mid-2021, metallurgical testwork instruction and supervision for both the Ranch and Lawyers Areas, along with flowsheet development, including for this Report has been undertaken by F. Wright Consulting Inc.

13.1.1 Lawyers Area

13.1.1.1 Historical Operations

Correspondence relating to Cheni’s Lawyers Project suggest historical metallurgical work dating back to the early 1980s was undertaken, although no specific reports were sourced. Following project evaluation, an underground mine using cyanide leaching of whole-mineralized material with a design throughput of 550 ton (500 tonnes) per day was constructed. The original expected mine life was 10 years (Wright Engineers, 1986), with proven and probable mineral reserves of 1,037,600 tons @ 0.209 oz. Au/ton (7.2 g/t Au) and 7.57 oz. Ag/ton (260 g/t Ag). Mineralization was hosted in a quartz vein stockwork and breccia zones. Although the head grades from this underground operation are considerably higher than a bulk open-pit mining scenario, there were no reports that indicated major issues with the processing circuits. Subsequent studies suggested making a flotation concentrate following leaching. The purpose was to improve precious metal recoveries, principally silver, by more aggressive leach procedures, although this procedure was never implemented. The operations were closed in 1992 due to considerations of mineable grades and economics. Between 1989 and 1992, Cheni produced 171,177 oz. Au and 3,548,459 oz Ag. During the mid-1990s, Cheni removed the process plant equipment, reclaimed the mine site, and subsequently allowed the mineral tenures covering the area to lapse.

13.1.1.2 1982 to 2021 Metallurgical Reporting

Historical technical reports primarily focused on mineral reserve estimates, although some authors provided abbreviated statements relating to the metallurgical response. These statements are of limited benefit, because sample source and specific laboratory procedures were not provided at the time. In addition, historical metallurgical testing was performed on samples that had gold and silver grades which could be an order of magnitude or higher than for the current processing concept.

Three composite samples were provided for the 1989 study, with the sample sources identified simply as from the Cliff Creek Zone. The composites were described as Comp. 1, being close to projected mill feed grade; Comp. 2 of a higher grade and having a high work index; and Comp. 3 as having elevated clay content. A mineralogy examination did not identify native gold in any of the three samples; rather gold occurred as electrum inclusions in pyrite and, in one instance, in goethite in Comp. 1. Native and electrum silver appeared generally as inclusions in pyrite, and the silver minerals argentite / acanthite were observed.

Only Comp. 1 and 3 were submitted for cyanide bottle roll studies. Comp. 2 was used for grinding evaluation and Comp. 3 for liquid / solid separation studies. The leach procedures used 72 hours of retention at pH 11 maintaining 1 g/L NaCN and indicated that most of the precious metal dissolution occurred within the first 48 hours, although silver lagged gold. There is no indication in the reporting if gravity pre-treatment was incorporated. The Bond Ball Mill Work Index (BBWi) and results of the two cyanide leach tests are provided in Table 13.1.

TABLE 13.1 LAKEFIELD PROGRESS REPORT NO. 3 (JULY 1989) – SUMMARY FOR CHENI								
Comp. ID	Head Analyses			BBWi	72-hour CN Recovery		CN Tailing Grade	
	Au (g/t)	Ag (g/t)	SG	kWh/ton	% Au	% Ag	Au (g/t)	Ag (g/t)
1	4.4	210	2.69	17.2	93.6	67.8	0.30	61.4
2	39	1484	2.76	19.1	n/a	n/a	n/a	n/a
3	7.2	339	2.66	17.3	94.1	61.0	0.45	125

Source: Lakefield Research, Ontario

Note: Comp. = composite, SG = specific gravity, BBWi = bond ball mill work index, CN = cyanide.

The Lakefield Progress 3 report conclusions indicated an expected leach recovery of 94% gold and 64% silver. Cyanide was maintained at 1 g/L and consumption was given at ~0.7 g/t. Flotation of the leach residue recovered an additional 3% gold and 13% silver into a low-grade concentrate that might be subjected to further processing, such as high intensity leaching (IC). The estimated thickener area was calculated at 0.08 m²/t/day at pH 11 with using 40 g/t Percol™ 156. From this result, a vacuum filter cake could be produced with a moisture content of 18%. The full-scale filtration rate for the anticipated mill feed was given as 212 kg/m² – h.

A May 2003 technical report by Paul A. Hawkins & Associates Ltd., of Calgary Alberta, covering the Lawyers and AL Properties for Bishop Resources, included the following statement on metallurgical response:

“several process routes pointed to the considerable variability in metallurgical responses for ore types on the properties. Some ore close to surface is fully oxidized with clean sulfides at depth following a transition zone. Variable amounts of copper are present and will cause problems with a cyanidation circuit like that used at the previous Lawyers mill. For possible heap leaching, the exfoliation of some ore types will most likely cause plugging of the pile and disintegration of pellets if agglomeration, which it appears will be essential for some material. Freezing during the winter months will also probably cause disintegration of agglomerates.”

The reference of mineral resource variability, copper as a cyanicide, and challenges to heap leaching are noteworthy. Unfortunately, the corresponding sample origin for supporting these statements was not available.

Pegg Geological indicated in their December 2003 technical report that during 1982 to 1986, Cheni had metallurgical testwork carried out by Lakefield Research, of Lakefield, Ontario (“Lakefield”). This testwork was performed on samples from the AGB and Cliff Creek Zones, although no specific information on head grades or sample location was provided. It was also reported that Lakefield stated that the results indicated that the optimum grind would be 80% minus 90 µm. Gold recovery increased slightly at finer grinds, whereas silver recovery increased more rapidly. Lakefield testing indicated that cyanidation of the mineralized material, and a subsequent cyanidation of the flotation concentrate resulted in total recoveries of ~95% Au and 82% Ag.

Another brief summary of the Lakefield studies by Giroux Consultants, was provided in an April 2018 Technical Report for Crystal Exploration Inc. It was noted, as in the Pegg Technical Report, that Lakefield had performed periodic testing between 1982 to 1986, primarily on the AGB Zone, and with one sample from Cliff Creek. It was also noted that the sample origins are not known, although the AGB material is thought to have been collected from underground workings. Overall head grades are not provided, although it is stated from a reference that *“the samples being tested were too rich in gold and silver to be representative”*. The work index (considered to be Bond Ball Work Index) was given as 19.2 kWh/t for the Cliff Creek sample and ranged from 16.7 to 19.2 kWh/t for the AGB samples. The summary indicates that the optimum grind for cyanide leaching was 80% passing 90 µm. The optimum leach time was 48 hours for gold and considerably longer for silver. The overall recovery during the 48-hour primary leach was 93.4% Au and 46.6% Ag, although there was no distinguishing between Cliff Creek and AGB samples. Flotation and intense leaching of the concentrate from primary leach residue added a further 1.6% to recovered gold and 35.4% to the silver recovery. This resulted in total reported recoveries of 95% Au and 82% Ag, matching the Pegg report data.

A January 1986 report issued by Serem Inc. was provided in April 2021. This report consisted of two sections, with the first section focusing on geotechnical and infrastructure issues. The second section provided metallurgical data generated from Lakefield Research. In the initial Lakefield test program, six samples with head grades ranging from ~3.5 g/t Au to ~60 g/t Au, and ~220 g/t Ag to 1,600 g/t Ag were submitted for cyanide bottle roll test. Standard bottle roll conditions

maintained 1 g/L NaCN, at pH 11 to 11.5, with a leach retention time of 48 hours. The grind was varied from ~70% -200 Tyler mesh (“mesh”) to ~92% passing 200 mesh on each sample. The best response was from finer grinding and higher-grade material. Apart from the lowest grade sample (3.5 g/t Au and 219 g/t Ag), the recoveries averaged ~95% to 96% for gold at the coarser grind and improving to a 97% to 98% range with the finer grind. For the lower grade sample, the gold recovery was 91.6% at the coarser grind and 94.2% at the finer grind.

For silver, the lowest grade sample provided a recovery of 59.9% Ag at the coarser grind, improving to 64.5% at the finer grind. Silver recovery on the other samples was variable from 69% to 87% at ~70% passing 200 mesh and 75% to 91% at ~92% passing 200 mesh. Decreasing retention time or cyanide addition adversely affected precious metal recovery.

A 2012 laboratory report by Inspectorate Services of Richmond BC, for Mountainside Exploration, was obtained for review. This was a limited test program focused on a single composite sample from Cliff Creek Zone, grading 13.1 g/t Au, 762 g/t Ag, and 1.42% total S. A series of three conventional flotation test procedures were completed by Inspectorate varying grind of the float feed. Using a primary grind product size of 80% particle passing (P₈₀) of 108 µm, led to recovery of 89% Au and 83% Ag. The corresponding sulphide concentrate had a grade 318 g/t Au and 18,500 g/t Ag. It was indicated by Inspectorate that further improvements to flotation cleaning performance might be accomplished with regrind of the rougher concentrate.

In March 2021, the historical Lakefield Reports issued for Cheni were sourced directly from SGS Canada Ltd., Burnaby BC (“SGS”). These consisted of three progress reports sequentially dated December 1987, August 1988, and July 1989. The earlier of these reports have the highest composite sample head analyses with progressively lower heads as testwork proceeded. Progress Reports 1 and 2 mostly corroborate the summaries from the technical reports referenced above. Progress Report 3 from 1989 is the most pertinent, building on the previous laboratory studies and having slightly better recovery than the earlier work. The final Lakefield report also used samples of a lower, more representative head grades that was more in line with the then projected mill feed. In summary of the historical laboratory studies, all had been performed on samples representing mineralized material from high grade intervals. Gold leach recoveries were shown to be consistently >90%, whereas silver recoveries trended to be significantly lower.

13.1.1.3 Comminution Study

As part of the Lawyers 2022 PEA metallurgical evaluation, beginning in late-2020 and continuing into 2022, a test program was undertaken on material obtained from split drill core as a first phase of comminution investigation. This work was performed principally by ALS Metallurgical Laboratory (“ALS”), located in Kamloops, BC. Basic leach response and solid settling characterization were also undertaken as part of the study. This program was performed on material from three drill core intervals from the Cliff Creek Zone. The initial comminution work did not include crushing or semi-autogenous grinding (“SAG”) mill test procedures, because the sample provided was limited by the upper particle size available from the split NQ/HQ drill core. The phase 1 results were provided on three samples for abrasion and ball mill work determination by ALS in an April 27, 2021 report. This report was followed by a more comprehensive phase 2 report dated May 27, 2022 (Rev.1) that included testing of 19 samples including PQ drill core used

for SAG testing. These procedures consisted of SMC (SAG Mill Comminution), Bond low impact Crusher (Cwi), Bond abrasion (Ai), Bond rod mill (BRWi), and ball mill (BBWi) work index. A further four samples were submitted for JK Drop Weight testing, 1h had accompanying basic mineralogy included.

The samples were mostly found to be above average in hardness, although results varied considerably. Cwi ranged from 4.0 to 19.1 kWh/t, with an average of 12.9 kWh/t. The Ai averaged 0.241 g, with a range of 0.017 to 0.438 g. The BRWi averaged 15.7 kWh/t, with a range of 8.9 to 18.4 kWh/t. BBWi averaged 16.8 kWh/t, with a range of 12.4 to 19.0 kWh/t.

Full JK Dropweight tests were conducted on the same four samples that had basic mineralogy work done. data provided SMC A*b values ranging from 28 to 115 and SAG Circuit Specific Energy (SCSE) values ranging from 6.5 to 11.6 kWh/t. On average, the SMC results are reported to be mid-range in the JK Tech results database.

Based on the ALS laboratory results, comminution modelling for Lawyers was performed by Contract Support Services of California, USA, in a report dated June 30 2022. Modelling included two options: the first SABC Circuit (SAG with pebble crushing followed by a ball mill); and option two modelled closed circuit tertiary crusher with a ball mill. This work was followed-up by separate comminution design, as part of the September 30 PEA technical report.

13.2 2022 PEA PROCESS FLOWSHEET

A comprehensive PEA metallurgical test program was undertaken in 2021 and 2022 for Benchmark Metals, to establish a treatment flowsheet for open pitable Mineral Resources that had been established at Lawyers. Investigations were conducted by several laboratories in the fields of mineralogy, gravity, flotation, cyanidation, and associated auxiliary circuits for Merrill Crowe, counter current decantation (CCD), dewatering, detoxification, and some related environmental evaluation. The work is well summarized in Section 13 of the September 30, 2022 PEA technical report, with the responsible laboratories referenced, along with their associated reporting detailing results and procedures.

A supplementary 412rogramm was also performed to investigate the relatively poor response of some silver zones to direct leaching. The testwork was performed by BV Labs and reported by F. Wright Consulting in a memorandum dated June 5, 2022. The premise for the work was based on related technical literature, that a passive surface sulphur layer can form on silver electrum particles during cyanide leaching. This result becomes more relevant to recovery losses for coarser electrum particles and is supported by previous mineralogical examinations of some Lawyers samples. It was anticipated that a leach – regrind – leach would allow for additional electrum surface exposure to the lixiviant and allow for recovery improvements. The findings showed that for three higher grade silver samples tested, there was an increase in silver dissolution recovery ranging from ~10% to 32% by using the two-stage leach procedure. Gold recovery was also improved marginally, likely due to gold that is associated within the electrum. The results are likely only specific to certain zones where higher silver electrum is present, and at least partially explains the poor silver leach response historically reported at Lawyers. Although there was

insufficient information to include such a circuit for the 2022 PEA, further investigation is recommended.

Due to the Mineral Resources identified at the time, which were low in sulphide content and showing good gold dissolution in cyanide, the laboratory findings supported treatment consisting of conventional whole-rock leaching. Optimization testwork suggested a primary grind targeting an 80% product passing size (P_{80}) of 106 μm incorporating centrifugal gravity concentration, followed by a leach retention time of 36 hours. The pregnant leachate solution (“PLS”) values were recovered with CCD and precipitated by Merrill Crowe. Response of the concept flowsheet was undertaken and detailed in a March 11, 2022 report by SGS on a master composite sample grading 1.01 g/t Au, 39.9 g/t Ag, and 0.07% S. The leach recovery provided for 91% gold and 70% for silver. Average cyanide consumption was 0.12 kg/t NaCN, and for lime was 1.61 kg/t.

13.3 2022 RANCH SCOPING STUDY

A scoping level process study was undertaken for Ranch as a standalone project beginning in Spring 2022. Laboratory testing was primarily performed by Bureau Veritas (“BV”) metallurgical laboratory located in Richmond BC. Prior to that study, no other metallurgical programs for Ranch were known to have been undertaken. The BV test results were provided in a report dated October 3, 2022. There were no associated economic or technical reporting related to this data undertaken at that time.

Samples were originally selected by APEX Geological from -6 mesh, 2021 assay rejects. Sample selection was based on Mineral Resource considerations, drill core logging and geochemistry data. During May 2022 at the BV lab, the samples were blended into 14 drill hole composites comprised from contiguous drill core intervals of 4 m to 26 m in length. These composites represent various mineralogy from specific depth and zones of the Mineral Resource. Composite identification (Met Comp. ID) and description relating to zone of origin, drill hole number, and depth are provided in Table 13.2 below.

TABLE 13.2 RANCH ASSAY REJECTS – DRILL HOLE SAMPLE ID FOR 2022 METALLURGICAL TEST PROGRAM					
Met Comp. ID (DH Depth m)	Zone	Drill Hole (DH) Number	Geo ID from	Geo ID to	Description
BN3 (12-30)	Bonanza	21BNZDD03	B0015105	...125	Higher S, Shallow potential oxidation & cyanide, sig Cu ~400 ppm
BN3 (30-35)	Bonanza	21BNZDD03	B0015126	...131	Lower S, but with elevated Au
BN7 (34-42)	Bonanza	21BNZDD07	B0015383	...393	Higher Au, Cu Intervals with 1-3% S
BN7 (42-46)	Bonanza	21BNZDD07	B0015394	...397	Lower Gold Copper Intervals, ~1% S

TABLE 13.2 RANCH ASSAY REJECTS – DRILL HOLE SAMPLE ID FOR 2022 METALLURGICAL TEST PROGRAM					
Met Comp. ID (DH Depth m)	Zone	Drill Hole (DH) Number	Geo ID from	Geo ID to	Description
RZ9 (131-143)	Ridge	21RDGDD009	B0019189	...202	Deeper with moderate Cu (~0.2%), high Ag, 5-10% S
RZ9 (143-153)	Ridge	21RDGDD009	B0019203	...213	Deeper with elevated Cu+Ag
RZ9 (153-158)	Ridge	21RDGDD009	B0019214	...221	Deeper with lower Cu @~500 ppm possible cyanide issue
RZ12 (36-40)	Ridge	21RDGDD012	B0007323	...326	~1% sulphur, potentially oxidized
RZ12 (40-49)	Ridge	21RDGDD012	B0007327	...338	Very low sulphur, low (<100 ppm) potentially oxide Cu, modest Au
RZ12 (52-58)	Ridge	21RDGDD012	B0007343	...348	RZ12 (52-58) very low sulphur, similar to No. 9
MZ7 (23-41)	Main	21TH3DD007	B0010824	...845	Main Zone upper intercept, <200 ppm Cu, ~4% S (Thesis 3)
MZ8 (105-111)	Main	21TH2DD008	B0008312	...318	Main Zone elevated Cu (Thesis 2)
MZ8 (111-131)	Main	21TH2DD008	B0008319	...346	Main Zone, <200 ppm Cu, ~3-4% S (Thesis 2)
LW8 (163-189)	Main	21TH2DD008	B0008368	...401	Lower West Zone Thesis 2, <200 ppm Cu, 1-4% S

Sources: F. Wright Consulting Inc. and APEX Geoscience Ltd.

Notes: Met. Comp. = metallurgical composite, Geo = geology, sig. = significant,

The head analyses for each of the drill hole composites included fire assay, multi-element analyses by ICP, sulphur speciation, and gold cyanidable analytical data. A summary of the head analyses is provided in Table 13.3.

TABLE 13.3
RANCH MET SAMPLE HEAD ASSAYS FOR 2022 METALLURGICAL TEST PROGRAM

Composite Sample ID	Head Analyses					Sulphur Oxidation (%)	Cyanidable Au Head Analyses		
	Au (g/t)	Ag (g/t)	Cu (tot) (%)	S (tot) (%)	S (%)		Calc Head g/t Au	Tail g/t Au	Rec. % Au
BN3 (12-30)	10.9	3.2	0.04	6.92	6.41	7.4	13.44	3.52	73.9
BN3 (30-35)	9.85	0.7	0.01	1.27	0.44	65.4	13.22	3.16	76.1
BN7 (34-42)	39.7	4.9	0.89	4.06	3.29	19.0	34.53	32.39	6.48
BN7 (42-46)	0.97	0.6	<0.01	1.12	0.94	16.1	0.78	0.28	64.1
RZ9 (131-143)	0.83	179	0.17	6.45	5.79	10.2	0.86	0.46	46.5
RZ9 (143-153)	13.1	177	0.90	12.7	11.9	5.9	14.33	11.71	18.3
RZ9 (153-158)	1.96	29	0.05	3.03	2.91	4.0	1.97	0.83	57.8
RZ12 (36-40)	2.62	47	<0.01	0.93	0.92	1.1	2.39	0.17	92.9
RZ12 (40-49)	2.29	24	<0.01	0.08	0.06	n/a	2.27	0.11	95.2
RZ12 (52-58)	1.11	18	<0.01	0.06	<0.05	n/a	1.16	0.08	93.1
MZ7 (23-41)	2.01	1.1	<0.01	4.05	3.64	10.1	1.7	0.66	61.2
MZ8 (105-111)	1.40	2.2	0.17	3.71	3.64	1.9	1.33	0.77	42.1
MZ8 (111-131)	1.19	0.8	<0.01	3.36	3.27	2.7	1.05	0.41	60.9
LW8 (163-189)	1.27	0.7	<0.01	2.62	2.44	6.9	1.16	0.36	69.0

Sources: F. Wright Consulting Inc. and BV Metallurgical Laboratories.

Notes: Met. = metallurgical, Tail = tailings, Rec. = recovery, tot = total,

Fire assay provided gold grades that varied from 0.83 to 39.7 g/t, without an obvious relationship to other elements. Silver content was close to 180 g/t in two of the composite samples and was more strongly associated with copper, although not necessarily a strong correlation. Silver grades were otherwise <50 g/t, and in half the composites <5 g/t.

Appreciable copper was detected in three of the higher sulphur (pyrite) samples at 0.17%, 0.89% and 0.90% Cu. The more detailed ICP data in the BV reporting showed elevated arsenic and antimony tended to follow the copper. Mercury is also highest in these intervals, although remains at levels of ≤ 10 ppm. There was mostly minor oxidation of the copper sulphide minerals indicated. Organic carbon was typically $\leq 0.02\%$ detection limit.

Mineralogical analyses were performed on the highest-grade copper sample RZ9 (143-153) that consisted of two bulk mineral analyses (“BMA”) and a single particle mineral analyses (“PMA”). The findings identified that the major sulphide mineral present was pyrite, typically accounting for well over 90% of total sulphides present. The three samples with copper minerals principally contain chalcopyrite, bornite and chalcocite. Tennantite and tetrahedrite were also present in minor amounts, which would contribute arsenic and antimony in a final copper concentrate.

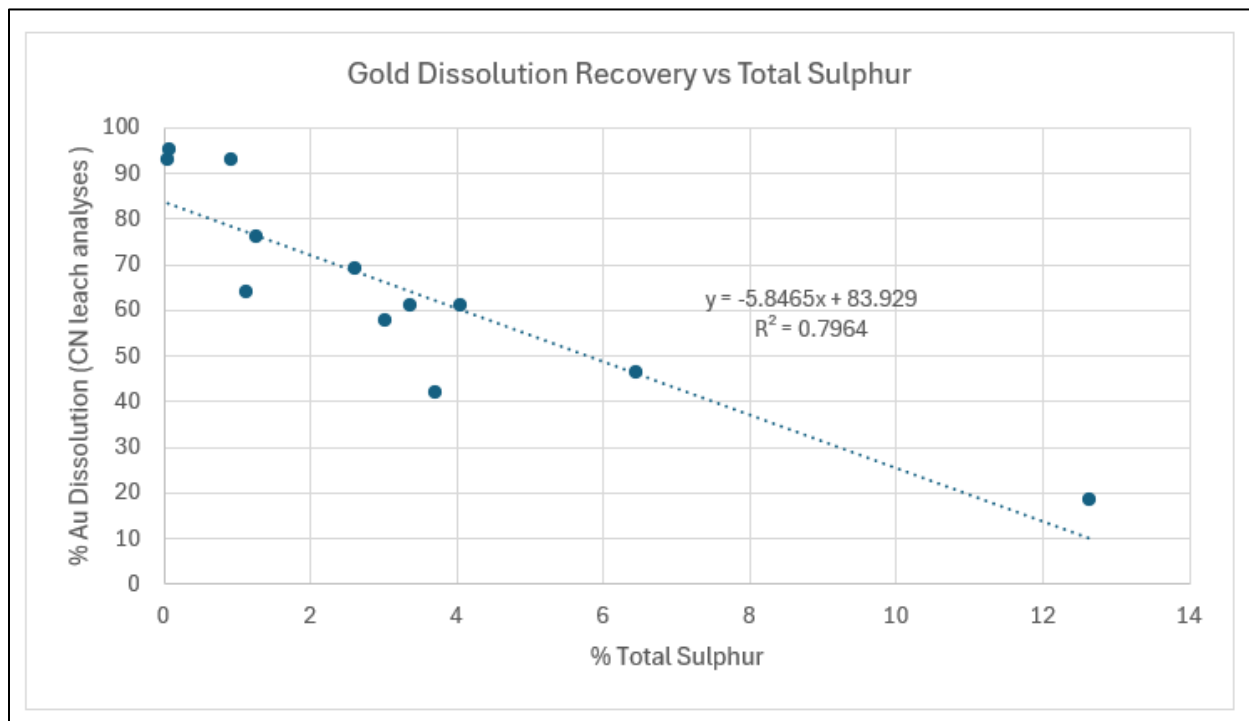
The PMA analyses suggested that sulphides should be well liberated from gangue minerals, but that there was a more intimate association between pyrite and copper sulphides, likely requiring an exceptionally fine regrind to separate. Gold occurred primarily as native gold with some electrum and other trace gold minerals present. It was estimated that 85% of the observed gold particles were <5 µm in size, in the single sample that was examined.

Further material characterization was performed on a master composite that was blended from six of the drill hole composites and labelled as Comp. R-MC1. Head assay of the master composite was 1.3 g/t Au, 2 g/t Ag, 285 ppm Cu, and 3.0% S. The master composite was used for baseline bulk float testing and gold leach response of the resulting concentrate, as discussed in the leaching section below. Comp R-MC1 also was subjected to grindability using Bond Ball Mill Work Index (BBWi) procedures to a closing screen size of 106 µm, resulting in a response of 16.1 kWh/t, indicating rock of moderate hardness.

A significant processing variable relating to both flotation and leaching is the sulphur content that ranged widely in the 14 composites. Total sulphur ranged from <0.1% to >12% S. A fluctuating majority of the sulphur was present as sulphide sulphur (S²⁻), with one exception, BN3 (30-35) that had ~65% sulphide oxidation indicated. Most of the composites had sulphur content of between 1 to 7% S with modest gold, and low silver and copper grades.

Of notable interest in the head assay data is the decreasing response of gold leachability verses increasing total sulphur content. Figure 13.1 plots this relationship, with two higher gold grade outlier points removed, improving the linear relationship.

FIGURE 13.1 GOLD DISSOLUTION RECOVERY VERSUS TOTAL SULPHUR FOR RANCH AREA



Source: This Study

The data shows that leachability of the Ranch material will decrease with increasing sulphur content.

This relationship was confirmed subsequently by standard cyanide bottle roll testing, following gravity pre-treatment.

The gravity recovery procedure consisted of centrifugal concentration using a Knelson centrifugal concentrator with a feed weight of 1 to 2 kg. The Knelson concentrate was then partially cleaned by hand panning down to suitable grades used for intense cyanidation, smelting and Doré production.

The concentrate was hand panned down to 2 to 3 g of concentrate, in order that it could be assayed to extinction, as part of the precious metal balance. Knelson and pan tailing were then combined for downstream bench scale testing using either flotation or cyanide leaching.

The gravity procedures were initially performed on the same composites at varying grind. The resulting data showed only minor improvements with finer grinding. Between different composite samples at the target grind of $P_{80} \sim 106 \mu\text{m}$, there could be high variation in gravity response as summarized in Table 13.4.

TABLE 13.4 RANCH SUMMARY OF GRAVITY PRE-TREATMENT ON WHOLE ROCK										
Sample ID	Test No.	Gravity Grade		Gravity Recovery		Calc Head		Calc or Measured Head		Sample Feed Wt. kg
		Au (g/t)	Ag (g/t)	Au (%)	Ag (%)	Au (g/t)	Ag (g/t)	Cu (%)	S (%)	
BN3 (12-30)	GC2	514	<50	7.7	n/a	13.4	4	0.04	6.92	2
BN3 (12-30)	GC3	815	<50	11.1	n/a	13.2	3	0.04	6.92	2
BN7 (34-42)	GF1	11,155	354	47.6	11.8	42.0	5	0.90	4.14	1
BN7 (34-42)	GF3	12,698	1,035	50.7	28.3	44.8	7	0.89	4.20	1
MZ7 (23-41)	GC12	472	n/a	46.4	n/a	2.03	1	<0.01	4.05	2
MZ8 (105-111)	GF16	85.9	169	5.8	4.2	1.27	3	0.014	3.75	2
LW8 (163-189)	GC15	124	n/a	12.3	n/a	1.38	0.7	<0.01	2.62	1
RZ9 (131-143)	GC6	11.8	994	2.8	1.1	0.83	198	0.17	6.45	1
RZ9 (143-153)	GF4	372	986	4.2	1.1	15.8	166	0.87	12.8	1
RZ9 (153-158)	GC16	40.0	n/a	3.2	n/a	1.89	29	0.05	3.03	1
RZ12 (36-40)	GF23	241.0	n/a	7.3	n/a	2.51	low	low	0.98	2
RZ12 (40-49)	GC9	45.3	<50	2.9	n/a	2.28	22	<0.01	0.08	2

Sources: F. Wright Consulting Inc. and BV Metallurgical Laboratories

The results show significant variability, but mostly there is only a modest response to gravity pre-treatment. Typically for average to lower grade samples, <15% of the gold would be expected to be recovered by centrifugal concentration. The hand-panned concentrate also varied significantly in grade. Two of the composites show much higher gravity recovery, approaching 50%, although only one of these, a high-grade composite Comp. BN7 (34-72), resulted in a high gravity concentrate grade. Based on these scoping results, it appears that coarse gold can be present, although this would be in minority of most potential mill feed. The use of gravity pre-treatment prior to downstream treatment appears to be warranted.

Froth flotation had scoping evaluation performed on the three types of feed consisting of low sulphide (or oxide) material; sulphides with pyrite/copper minerals; and sulphides occurring principally as pyrite.

Two of the 14 composites received were considered oxide samples containing <0.1% total S. A further two composites had copper of ~0.9% Cu, along with corresponding elevated silver. The remaining ten composites make up the majority, and it was on this material most of the flotation work was focused. These remaining composites contained mainly pyrite, consisting of ~1% to 12% total sulphur. Some of this sulphur was oxidized, based on the difference between sulphide S and total S analyses provided previously for the head samples. The initial flotation testing showed that a modest primary grind of 80% passing particle size (P₈₀) ~106 µm, and possibly coarser, is sufficient to recover most precious metals into a bulk sulphide concentrate. The selected procedure for the initial cleaning of the bulk concentrate depended on the indicated

mineralogy for the various composite samples. Based on this, the composites have been separated into four general flotation procedures, as follows:

- **Differential Copper Flotation:** Performed on samples containing increased copper content (~0.9% Cu), with the goal of producing a saleable Cu-Au concentrate, followed by a separate pyrite concentrate that contained additional gold values;
- **Bulk Sulphide Flotation:** Representing the majority of the composite samples with a moderate to higher sulphur content, of primarily pyrite. These composites had lower amounts of silver, base metals, and detrimental (penalty) elements. A master composite was blended from this type of material and labeled as Comp. R-MC1 for baseline evaluation. This work focused on following the gold balance to a cleaned final concentrate suitable either for sale, or alternately to evaluate for leaching;
- **Differential Gold Sulphide Flotation:** Composites containing higher pyrite are evaluated for producing two separate gold concentrates. The primary, higher grade concentrate would first be generated to estimate returns from sale to smelters where higher payment of precious metal values can be expected. Additional scavenging of precious metals would be to a lower value secondary concentrate, typically at a grade too low for smelter sale, but was evaluated for leach response; and
- **Precious Metal Oxide Flotation:** Performed on very low sulphide and oxidized feeds to follow precious metal response, primarily focused on gold.

The bulk flotation results for pyrite composites, including the master composite, and for a blended oxide sample, are provided in Table 13.5.

TABLE 13.5
RANCH – SUMMARY OF BULK OPEN CYCLE FLOTATION RESPONSE

Composite ID	Test No.	Test Feed Wt. (kg)	Calc. % S in Feed	No. of Cleaning Stages	Cleaner Conc. Mass (%)	Gold Grade (g/t Au)			Gold Recovery (%)	
						Calc. Head	Cleaner Conc.	Tailing	Cleaner Conc.	Bulk*
RZ9 (153-158)	F8	1	3.08	1	9.7	2.05	18.1	0.25	85.8	89.9
MZ8 (111-131)	F9	1	3.37	1	13.4	1.08	7.3	0.09	90.5	93.7
BN7 (42-46)	F10	1	1.30	1	4.7	0.90	18.0	0.05	93.1	95.3
RZ12(40-49&52-58)	F12	4	0.07	3	0.10	1.41	248	0.66	17.7	56.7
BN3 (30-35)	F13	2	1.24	3	1.3	12.2	893	0.18	93.6	98.7
RZ12(36-40)	F14	2	0.88	2	1.4	2.43	66.4	0.81	37.5	69.4
LW8 (163-189)	F15	2	2.56	3	6.8	1.22	15.7	0.07	87.9	95.2
MZ8 (105-111)	GF16	2	3.75	3	10.2	1.27	9.8	0.09	78.5	94.8
BN3 (12-30)	F17	2	7.07	3	14.2	13.9	93.0	0.20	95.0	98.9
RZ9 (131-143)	F18	2	6.47	3	13.8	0.96	6.4	0.03	91.5	97.4
MZ7 (23-41)	F22	2	4.05	3	9.1	2.29	22.2	0.07	87.8	97.8
RZ12(36-40), R	GF23	2	0.98	2	3.0	2.51	53.0	0.25	63.8	91.9
Comp. R-MC1 (master comp. for POX)	F24	4	2.88	0 (Ro. only)	25.3	1.32	4.93	0.09	N/A	95.0

Sources: F. Wright Consulting Inc. and BV Metallurgical Laboratories.

Notes: * includes Rougher & Rougher Scavenger concentrate, plus gravity if used (one test only GF16= 5.8% grav. Au recovery, GF23=7.3% grav. Au). GF23 is repeat of test F14.

wt. = weight, calc. = calculation, conc. = concentrate, grav. = gravity.

The feed weight available for some of these initial float tests was limited, in order that the cleaning of a bulk concentrate was done in just a single stage. This cleaning still provided reasonable upgrading with minimal gold losses to be expected. Follow-up work used additional cleaning stages.

Gold recovery is mostly in the ninety percent range, with some samples providing >95% bulk recovery, all of which subsequently showed good cleaning characteristics. Final concentrate grades varied depending on the number of cleaning stages employed and the gold to sulphur ratio in the feed. Not all composites would be able to achieve the minimum targeted smelter feed grade of >30 g/t gold, although preferably higher to improve payment terms.

Two of the samples showed poor float response for gold. This includes the oxide blend of RZ12 (40-49 and 52-58), which was a mixture of two similar sub-composites. This sample provided an excellent ratio of concentration upgrading to 248 g/t Au, although the bulk gold recovery is only 56%. Although this sample responds well to whole-rock leaching, significant improvements to flotation recovery would likely prove challenging. Cyanide leaching of the tailing might need to be considered if flotation is pursued.

A second sample that gave a poor initial bulk float response was test F14 for composite RZ12 (36-40), which provided a bulk gold float recovery of 69%. This composite had a high percent (65%) of sulphide oxidation present. Consequently, it was tested again with modified reagent conditions similar to that used for the oxide sample blend. The use of reagent modifications included use of stronger frother, modified collectors, a sulphidizing agent (NaSH), and activator (CuSO₄). The more aggressive procedures also incorporated the use of gravity, finer primary grinding, and increasing float retention times. The results were significantly improved response to 92% bulk gold recovery.

Differential flotation testing was also undertaken at a scoping level, primarily to investigate the separation and upgrading of precious metals and, if present, copper minerals from pyrite. Differential procedures included the use of more selective reagents, such as depressants (slurry pH and (or) synthetic depressant). The goal of the testing was to produce a higher-grade concentrate for sale, which was feasible. The differential float tests outlining the response for gold silver concentrate is provided in Table 13.6.

The results show upgrading the gold grades to a primary concentrate was available, yielding 40 to 461 g/t Au, depending on head grade and sulphur ratio. Recovery to the first concentrate was 39% and 65% for the two samples tested, whereas the overall recovery to both concentrates for gold and silver exceeded 90%.

In addition, similar differential float procedures were undertaken at two higher grade copper samples with results summarized in Table 13.7.

TABLE 13.6 RANCH – SUMMARY OF PRECIOUS METAL RESPONSE TO DIFFERENTIAL FLOTATION										
Gold – Silver Primary Rougher Conc.										
Comp. ID	Test No.	Calc. Head			Primary Concentrate (3 cleaning stages)					
		Au (g/t)	Ag (g/t)	S (%)	Ro. % Mass	3rd Cl. % Mass	Au Ro. % Distr.	3rd Cl. Ag g/t	3rd Cl. Au % Distr.	3rd Cl. Au (g/t)
BN3 (12-30)	F19	11.0	4.1	6.5	14.9	1.6	92.0	41	65.2	461
RZ9 (153-158)	F20	1.86	39	2.9	8.8	1.8	77.3	426	38.7	39.7
Secondary Sc. Conc. Summary										
Comp. ID	Test No.	Secondary Conc. (two stage cleaning to leach)						Tailing	Bulk Rec.	
		Ro. % Mass	2nd Cl. % Mass	Au Ro. % Distr.	2nd Cl. Au % Distr.	2nd Cl. Au (g/t)	2nd Cl. % CN Au Rec.	Au (g/t)	% Au	% Ag
BN3 (12-30)	F19	16.1	2.2	6.9	3.0	14.9	42.4	0.18	98.9	91.6
RZ9 (153-158)	F20	12.4	2.0	15.8	8.8	16.3	56.8	0.16	93.1	94.0

Sources: F. Wright Consulting Inc. and BV Metallurgical Laboratories.

Notes: Calc. = calculated, Conc. = concentrate, Ro. = rougher, Cl. = cleaning, Distr. = distribution, Rec. = recovery,

TABLE 13.7 RANCH – RESPONSE SUMMARY OF COPPER AND GOLD RESPONSE TO DIFFERENTIAL FLOTATION										
Copper -Gold Summary for Ro. Float										
Comp. ID	Test No.	Calc. Head			Primary Cu Concentrate (3 cleaning stages)					
		Au (g/t)	Cu (%)	S (%)	3rd Cl. Cu (%)	Ro. / 3rd Cl. % Mass	Cu Ro. % Distr.	3rd Cl. Cu % Distr.	3rd Cl. Au % Distr.	3rd Cl. Au (g/t)
RZ9 (143-153)	F11	15.4	0.90	10.1	24.2	10.5/1.5	82.2	41.1	21.1	295
RZ9 (143-153) R*	F25	16.5	0.91	12.2	19.8	11.8/1.1	80.4	24.6	29.5	430
RZ9 (131-143)	F21	0.79	0.18	6.4	6.9	11.2/1.7	86.0	63.7	34.5	15.9
Secondary Sc. Float										
Comp. ID	Test No.	Secondary Conc. (two stage cleaning to leach)						Tailing	Total Flt. Rec.	
		Ro. % Mass	2nd Cl. % Mass	Au Ro. % Distr.	2nd Cl. Au % Distr.	2nd Cl. Au (g/t)	2nd Cl. % CN Au Rec.	Au, (g/t)	% Cu (to 1st Cl. Conc.)	% Au (both Ro Conc.)
RZ9 (143-153)	F11	12.3	8.3	21.5	20.0	36.9	N/A	3.87	52.5	80.6
RZ9 (143-153) R*	F25	30.2	14.9	30.2	29.2	32.3	N/A	0.64	49.0	97.4
RZ9 (131-143)	F21	12.6	4.3	15.3	9.7	1.8	37.2	0.04	76.8	96.2

Sources: F. Wright Consulting Inc. and BV Metallurgical Laboratories

Notes: *R denotes repeat test on same sample with modified procedures, using synthetic depressant in prim & CuSO₄ in secondary float.

Calc. = calculated, Conc. = concentrate, Ro. = rougher, Cl. = cleaning, Distr. = distribution, Rec. = recovery, N/A = not available,

The scoping level differential flotation testing showed a copper concentrate containing associated precious metals can be produced. A composite sample with 0.9% Cu in the feed was sufficiently cleaned to a concentrate grade exceeding 22% Cu. The use of a trial synthetic pyrite depressant (Convrij 3027 in test F25) did not improve results over simple pH control with lime. A low-grade composite of 0.18% Cu appears unlikely to produce a saleable copper concentrate, as shown by test F21.

The copper concentrate also recovered much of the gold and silver present, with most of the remaining precious metals cleaned into a secondary pyrite concentrate. Precious metal grades in the concentrate will depend on head grade and ratio to sulphides. Fine regrinding of the copper rougher concentrate appears to be required prior to cleaning in three to four stages. Mineralogy that was previously discussed shows fine association of copper minerals within pyrite. The cut-off grade for copper to a differential flotation circuit will require additional study.

The differential float tests undertaken on higher grade sulphide feeds might produce a higher-grade primary gold concentrate for smelter sale, that could offer more attractive permitting and economics than leaching of a bulk low grade concentrate on-site. The secondary lower grade float concentrate would likely need to be treated on-site by other means. The data suggest a high gold grade from a primary (differential float) concentrate can be produced and account for up to three quarters of the contained gold. This included samples with elevated sulphide content. Such a concentrate could reasonably be expected to achieve 92% or higher payables from appropriate smelters.

To evaluate leach response, bottle roll testing was undertaken. The tests varied particle size distribution (PSD) of each feed, with most initial testing incorporating gravity pre-treatment. Baseline test conditions for the whole-rock leach tests were for 40% solids at pH 10.5 using hydrated lime (CaCO_3), at a retention time of 48 hours maintaining between 1.0 to 1.5 g/L NaCN. Additionally, more aggressive procedures were implemented on some of the sulphide samples showing the poorest initial recovery. These included much finer grinding and the use of lead nitrate, along with higher cyanide dosage and pH. A single follow-up test was undertaken on oxide feed Comp. RZ12 (52-58) and was operated under less aggressive conditions with 24 hours retention time and a primary grind P_{80} of 127 μm , with no gravity pre-treatment. A summary of the response with samples segregated by sulphur content is provided in Table 13.8.

TABLE 13.8
RANCH – WHOLE ROCK LEACH

TABLE 13.8 RANCH – WHOLE ROCK LEACH											
Sample ID	Test No.	Feed K ₈₀ (µm)	Head Grade (assayed unless calc avail.)				Feed Ratio Au:S	% Au Recovery			Residue Grade Au (g/t)
			Calc. Au (g/t)	Calc. Ag (g/t)	Meas. Cu (%)	Meas. S (%)		Gravity Au (%)	Leach Au (%)	Overall Au (%)	
Low Cu, high Au, S											
BN3 (12-30)	GC1	125	13.4	4	0.04	6.92	1.9	6.7	63.1	69.8	4.04
	GC2	102	13.4	4	0.04	6.92	1.9	7.7	61.6	69.3	4.12
	GC3	70	13.2	3	0.04	6.92	1.9	11.1	58.7	69.8	3.99
higher NaCN	GC14*	25	11.7	<5	0.04	6.92	1.9	12.3	59.6	71.9	3.28
Low to Modest Cu, high Ag, S, low Au:S ratio											
RZ9 (131-143)	GC4	128	0.97	192	0.17	6.45	0.2	2.1	51.7	53.9	0.45
	GC5	102	0.87	189	0.17	6.45	0.1	1.3	52.9	54.3	0.40
	GC6	71	0.90	191	0.17	6.45	0.1	2.8	50.9	53.6	0.42
with high pH & PbNO ₃	C17**	34	0.95	179	0.17	6.45	0.1	n/a	54.3	54.3	0.43
RZ9 (153-158)	GC16	28	2.10	~29	0.05	3.03	0.7	3.2	59.7	62.9	0.70
No copper, pyrite with modest Au:S ratio											
MZ7 (23-41)	GC10	128	2.49	2	<0.01	4.05	0.6	50.3	39.7	89.9	0.25
	GC11	102	1.91	1	<0.01	4.05	0.5	45.6	41.5	87.1	0.25
	GC12	71	2.03	1	<0.01	4.05	0.5	46.4	35.7	82.1	0.36
LW8 (163-189)	GC15*	33	1.28	<5	<0.01	2.62	0.5	12.3	63.1	75.4	0.34
No copper, and v. low pyrite (<0.1%S)											
RZ12 (40-49)	GC7	128	2.32	24	<0.01	0.08	29.0	1.6	94.6	96.2	0.09
	GC8	102	2.30	24	<0.01	0.08	28.8	1.7	94.4	96.1	0.09
	GC9	71	2.28	22	<0.01	0.08	28.5	2.9	93.6	96.5	0.08
RZ12 (52-58)(24h)	C13	127	1.18	~18	<0.01	0.06	19.7	n/a	89.0	89.0	0.13

Sources: F. Wright Consulting Inc. and BV Metallurgical Laboratories

Notes: Standard leach at moderate grind as shown for 48 hours (C13 at 24 hr), starting 1.5 g/L NaCN at pH 10.5. G suffix denotes gravity pretreatment.

*Aggressive conditions very fine grind <38 um for 48 hours starting 2 g/L NaCN at pH 10.5-11

**More aggressive conditions = pH 11.5-12, +500 g/t lead nitrate, very fine grind <38 um for 48 hours starting 2 g/L NaCN
Calc. = calculated, Meas. = measured.

As shown previously in the cyanidable analyses of the head composites, there was a decreasing gold dissolution with increasing sulphur content, which correlates to the bottle roll data. The decreased leach response is likely contributed by fine or interstitial gold associated with the sulphides. This result is supported by the initial mineralogy, and a further study for gold deportment that was undertaken using dynamic – secondary ion mass spectrometry (“D-SIMS”) analyses on the bulk master rougher concentrate.

The whole-rock leach for the sulphide composite feeds (>1% S) show poor to modest precious metal dissolution, ranging from ~53% up to 89% gold recovery, with corresponding tailing losses of 0.25 to 4.0 g/t Au, depending on the sample. Examination of the detailed data shows the silver response is even lower. Although some silver recoveries were as high as 80%, most showed lower than 50% recovery. Depending on the mineral zone, the silver content has low to modest economic relevance, although in the higher-grade zones, the silver response is an important consideration.

For the oxide samples of RZ12 (40-49), the gold dissolution recovery was excellent at ~96%, using moderate leaching procedures. The corresponding silver recovery on a head grade of 24 g/t had silver dissolution approaching 80%. RZ12 (52-58) using a shortened leach retention time had 89% gold recovered.

Examination of the kinetic leach data suggests variable retention time is required from as little as 12 hours to over 48 hours, depending on the sample. Typically, the leach kinetics and recovery were shown to be relatively grind insensitive over moderate particle size range of 74 to 125 µm. Going with ultrafine grinding, and more aggressive reagent adjustments did not significantly improve the leach response for the whole-rock sulphide feeds. This result indicates that a portion of the gold particles might be interstitial (sub-µm) or in solid solution within the sulphide mineralization. This premise is supported by mineralogical examination.

Initial baseline leaching of bulk flotation concentrates was carried out on some of the sulphide composites. Leaching was initially done without regrinding and using 30 hours of static retention time at 20% solids, adjusting to pH 11 with lime (Ca(OH)_2), and starting with 2 g/L sodium cyanide (NaCN). These results are summarized in Table 13.9.

TABLE 13.9 RANCH – LEACH OF BULK FLOAT CONCENTRATE												
Comp. ID	Test No.	Test Feed Wt. (g conc)	Calc. % S in Float Feed	Cleaner Conc. Mass (%)	Silver Grade (g/t)		Gold Grade (g/t)		% Recovery		Reagents (kg/t)	
					Calc. Feed. Ag	Residue Ag	Feed Au	Residue Au	Silver	Gold	NaCN	Ca(OH) ₂
BN3 (30-35)	CF13	19	1.24	1.3	n/a	n/a	893	80.2	n/a	91.0	11.6	2.1
RZ12 (36-40)	CF14	21	0.88	1.4	642	86	66.4	2.93	86.6	95.6	9.1	1.9
LW8 (163-189)	CF15	100	2.56	6.8	n/a	n/a	15.7	5.27	n/a	66.5	2.3	0.92
MZ8 (105-111)	(G)CF16	100	3.75	10.2	19.7	18	9.8	9.78	8.4	35.2	14.4	0.82
BN3 (12-30)	CF17	100	7.07	14.2	n/a	n/a	93.0	32.8	n/a	64.8	2.93	0.86
RZ9 (131-143)	CF18	100	6.47	13.8	1264.0	1089	6.4	2.96	13.8	53.5	3.43	0.68
MZ7 (23-41)	CF22	170	4.05	9.1	~11	n/a	22.2	4.21	n/a	81.0	3.10	1.6

Sources: F. Wright Consulting Inc. and BV Metallurgical Laboratories

Notes: n/a= not available as lower silver material and Ag not followed in balance, Wt. = weight, Conc. = concentrate, Calc. = calculated.

As would be expected from the whole-rock leaching results, the corresponding sulphide concentrates also show poor to modest gold dissolution. Based on the limited composites evaluated, the material with lower sulphur content in the float feed achieved improving gold recovery and satisfactory silver recovery. Higher sulphide feeds had lower dissolution, with one third to two thirds of contained gold yielded to the PLS. Silver dissolution was typically low, commonly <15% in the higher sulphide material.

Cyanide consumption during concentrate leaching was also shown to be elevated, despite the reduced slurry density used. Although not optimized, maintaining 2 g/L NaCN for 30 hours resulted in a consumption between 2 to 14 kg/t NaCN. Higher cyanide consumption was correlated to increased solution fouling, based on the reducing power titration with 0.1N KmnO₄. Fouling rose on feeds with increased sulphide and base metal content, most notably copper.

Due to the reduced gold recovery in leaching of sulphide concentrate, further evaluation using pre-treatment was performed. A baseline rougher concentrate was generated in float test F24 using the master composite Comp. R-MC1. Based on the response of this composite, a simple sulphide flotation is expected to achieve >95% gold recovery into a minimum grade >5 g/t Au bulk concentrate for most feeds. Higher concentrate grade would be available with additional cleaning. The F24 concentrate was blended and, then using standard cyanide analytical procedures, showed a little over half the gold being recovered. Silver is less of a concern as the concentrate only analysed 7.7 g/t Ag, although it is important for other zones in the Mineral Resource. The combined rougher concentrate was then subjected to two different pre-treatment procedures.

The first pre-treatment procedure consisted of ultrafine grinding of the F24 concentrate to a particle size P₈₀ ~14 µm, followed by an atmospheric leach with 10 g/L NaCN at pH 12 with lime and oxygen sparging. Kinetic dissolution of gold was followed for 30 hours.

The next pre-treatment procedure used pressure oxidation (“POX”) with 30 minutes autoclave retention time at 220°C and 120 psi oxygen overpressure. The resulting residue was then bottle leached under standard conditions (no air sparging for 30 h @ 1.5 g/L NaCN). The results summary for leaching with pre-treatment are compared in Table 13.10.

TABLE 13.10 RANCH – LEACH OF FLOAT CONCENTRATE FOLLOWING PRETREATMENT								
Test No.	Test Type	Grind K ₈₀ (µm)	Gold Grade (g/t)		% Recovery		Reagents (kg/t)	
			Calc. Head	Residue Au	Silver (hd = 7.7 g/t)	Gold	NaCN	Ca(OH) ₂
N/A	50 g – standard CN assay	87	5.94	2.76	N/A	53.5	N/A	caustic
CF24	atm. oxidative leach	14	6.22	1.60	54.1	74.0	15.3	12.3
C-POX1	no regrind to POX	87 (to POX)	5.88	0.32	35.5	94.6	7.7	13.0

Sources: F. Wright Consulting Inc. and BV Metallurgical Laboratories.

Note: Calc. = calculated, hd = head, POX = pressure oxidation, N/A = not applicable or not available, hd = head.

The results show that the untreated concentrate had a baseline gold recovery of 54%, consistent with earlier flotation concentrate leach data. Ultrafine grinding with oxygen sparging and high cyanide at atmospheric conditions improved the gold leach recovery to 74%. The detailed kinetic data provided in the BV reporting shows gold dissolution still increasing at 30 hours, in order that longer retention time should further improve gold recovery.

POX results provided the highest gold recovery, achieving a gold leach recovery of 95%, within an estimated 24 hours. The work, although not optimized, indicates that excellent gold recoveries can be achieved with more sophisticated processing techniques.

In conclusion, the scoping study showed a significant variation in mineral processing response for the different mineralized Zones at Ranch. This result was primarily dependent on the sulphide content of the various mineralized Zones. The increased copper and zinc content of some material further increased the complexity relating to precious metal recovery.

13.4 2023 AND 2024 COMBINED RANCH AND LAWYERS STUDY

SGS Laboratories in Burnaby BC began a PEA metallurgical test program in late-September 2023 on samples obtained from both the Ranch and Lawyers Areas. The objective of the testing was to establish a preliminary flowsheet with mass balance and payables recovery on treating material from both properties either separately, or as blended feed.

13.4.1 Sample Selection and Compositing

SGS received 14 drill hole intervals from the Ranch Area and 17 drill hole intervals from the Lawyers Area. The samples were sourced primarily from 2021 to 2023 archived assay rejects and selected by APEX in consultation with F. Wright Consulting Inc. to represent the various mineralized zones of the Project. Each of the interval samples were blended and analysed for

precious metals, sulphur speciation and multi-elements. Sample receiving details and tracking by SGS is provided in their final report issued on May 24, 2024. A summary of the compositing of the drill hole (“DH”) interval samples along with their location origin is presented in Table 13.11.

TABLE 13.11 METALLURGICAL COMPOSITE ID VERSUS DRILL HOLE (DH) ORIGIN					
Met Comp. ID	Corresponding DH No. and Interval (m)			Area	Zone
2T03: 82-95	22TH2DD003	82.00	94.79	Ranch	Thesis 2
2T16: 51-59	22TH2DD016	51.00	59.40	Ranch	Thesis 2
3T09: 19-28	21TH3DD009	18.50	28.00	Ranch	Thesis 3
AB21: 4-16	20AGBDD021	3.55	16.00	Lawyers	AGB Zone
AB37: 28-38	20AGBDD037	28.00	38.00	Lawyers	AGB Zone
BN06: 24-37	21BNZDD006	24.00	36.50	Ranch	Bonanza
BN08: 21-32	22BNGDD008	21.20	32.00	Ranch	Bingo
BN13: 22-33	21BNZDD013	23.45	32.45	Ranch	Bonanza
BN16:18-29	21BNZDD016	18.34	29.00	Ranch	Bonanza
BN19: 41-50	22BNZDD019	41.00	50.00	Ranch	Bonanza
BN32: 12-17	21BNZDD032	12.00	17.00	Ranch	Bonanza
BV01: 27-34	23BVDD001	27.42	33.69	Ranch	BV Zone
CC10: 103-113	21CCDD010	103.34	113.00	Lawyers	Cliff Creek
CC16: 16-25	21CCDD016	16.21	25.00	Lawyers	Cliff Creek
CC35 348:358	21CCDD035	347.76	358.00	Lawyers	Cliff Creek
CC48:168-177	21CCDD048	168.00	177.00	Lawyers	Cliff Creek
CC59: 38-48	21CCDD059	38.00	48.04	Lawyers	Cliff Creek
CC63: 286-298	20CCDD063	286.00	298.00	Lawyers	Cliff Creek
CC70: 435-445	20CCDD070	435.00	445.00	Lawyers	Cliff Creek
CC75: 120-125	21CCDD075	119.55	125.00	Lawyers	Cliff Creek
CC85: 118-127	21CCDD085	118.21	126.76	Lawyers	Cliff Creek
CS61: 338-348	21CCDD061	337.80	348.00	Lawyers	Cliffs South
DR01: 92-99	18DRDD001	92.00	99.00	Lawyers	Dukes Ridge
DR03: 418-427	23DRDD003	417.88	427.40	Lawyers	Dukes Ridge
DR04: 84-92	19DRDD004	83.54	92.00	Lawyers	Dukes Ridge
DR1: 30-39	21DRDD001	30.03	39.00	Lawyers	Dukes Ridge
DR16: 322-332	21DRDD016	322.00	331.60	Lawyers	Dukes Ridge
JK01: 50-54	22JKDD001	50.00	54.00	Ranch	JK Zone
RD04: 97-108	22RDGDD004	96.60	108.00	Ranch	Ridge
RD07:9-21	21RDGDD007	8.90	21.00	Ranch	Ridge
RD10:116-122	21RDGDD010	116.00	122.00	Ranch	Ridge

Sources: F. Wright Consulting Inc. and APEX Geoscience Ltd.

Each drill hole interval was composited, blended and submitted for analyses. The lab reporting provides detailed head analyses with a summary of primary elements of interest shown in Table 13.12.

TABLE 13.12 DRILL HOLE COMPOSITE HEAD ASSAYS – 2023 TEST PROGRAM							
Location	Au (g/t)	Ag (g/t)	S (%)	S= (%)	Cu (g/t)	Pb (g/t)	Zn (g/t)
Ranch Met ID							
2T03: 82-95	1.66	9.8	1.44	0.93	1,190	198	134
2T16: 51-59	0.41	1.1	0.48	0.42	14	<20	<10
3T09: 19-28	3.07	1.7	5.2	4.9	181	<20	12
BN06: 24-37	3.73	10	5.33	5.24	459	130	309
BN08:21-32	1.54	4.1	5.77	5.13	1,650	31	43
BN13: 22-33	2.21	1.2	3.43	3.41	171	142	31
BN16: 18-29	7.36	3.4	2.91	1.84	320	84	39
BN19: 41-50	0.79	12.2	0.04	<0.05	14	79	11
BN32: 12-17	1.06	2.6	0.01	<0.05	24	<20	<10
BV01: 27-34	13.2	6.9	3.48	1.12	154	97	37
JK01: 50-54	1.5	5.9	5.75	4.19	1,360	124	18
RD04: 97-108	3.2	59.2	1.85	1.43	2,990	230	118
RD07: 9-21	0.31	31	0.05	<0.05	80	39	<10
RD10: 116-122	6.46	110	9.47	8.89	15,900	469	1,160
Lawyers Met ID							
AB21: 4-16	2.16	210	0.03	< 0.05	33	72	149
AB37: 28-38	2.01	61	0.02	< 0.05	74	165	498
CC10: 103-113	1.72	122	1.41	1.45	70	304	592
CC16: 16-25	0.59	6.6	0.81	0.88	36	< 20	81
CC35: 348:358	2.01	26.2	1.78	1.85	318	1290	1,970
CC48: 168-177	5.64	162	1.07	1.15	68	145	222
CC59: 38-48	1.97	35	0.23	0.20	38	56	158
CC63: 286-298	3.54	125	0.81	0.85	71	31	123
CC70: 435-445	7.53	349	1.90	2.02	676	2,800	2,400
CC75: 120-125	1.99	21.4	1.56	1.57	34	47	70
CC85: 118-127	7.35	181	0.56	0.56	98	22	70
CS61: 338-348	20.9	1,669	1.16	1.26	374	357	377
DR01: 30-39	3.84	33.2	0.73	0.72	47	26	77
DR01: 92-99	0.98	50.6	0.6	0.59	48	26	98
DR03: 418-427	2.69	138	0.61	0.62	141	532	306

TABLE 13.12 DRILL HOLE COMPOSITE HEAD ASSAYS – 2023 TEST PROGRAM							
Location	Au (g/t)	Ag (g/t)	S (%)	S= (%)	Cu (g/t)	Pb (g/t)	Zn (g/t)
DR04: 84-92	3.14	253	0.74	0.79	88	102	177
DR16: 322-332	13.3	446	1.45	1.55	284	500	475

Sources: F. Wright Consulting Inc. and SGS Canada Inc.

Note: Base metal ICP by 4-acid digestion, Met ID = metallurgical identification.

The samples provided had widely ranging grades from 0.3 to 21 g/t Au and 1 to 1,670 g/t Ag. The Ranch material and the deeper samples from Lawyers underground Mineral Resource generally provided a higher sulphur content compared to Lawyers material closer to surface. Oxidation as exhibited by the difference between sulphide sulphur (S⁼) and total sulphur was present to varying degrees. Base metals typically increased with sulphur content. Copper was the principal base metal with the highest grade – 1.59%, although was otherwise <0.2%, and <100 ppm Cu for the upper zones of Lawyers.

There was no obvious relationship between precious metals and the other elements in the metallurgical samples, with the best correlation shown between increasing sulphur content to gold evident at Ranch. Although this is still a poor correlation, it is relevant to the float response. Arsenic and antimony tended to follow copper, although at <750 ppm (based on aqua regia digestion), and below the 40 ppm detection limit in most samples.

Portions of some of the drill hole composites were retained for individual bench scale process response. Additional portions were further composited to represent specific mineral zones, with calculated head analyses based on the sub-samples. The corresponding IDs for the blended zone composites are provided in Table 13.13.

TABLE 13.13 ZONE COMPOSITES		
Composite ID	Related Sub-sample	Weight Used (kg)
Ranch Zone		
RCU (copper)	BN08: 21-32	0.8
	RD04: 97-108	3.5
	RD10: 116-122	2.2
		6.5
RHS (high sulphur)	3T09: 19-28	6.7
	BN06: 24-37	14.8
	JK01: 50-59	11.0
		32.5
RLS (low sulphur)	2T16: 51-59	3.1

TABLE 13.13 ZONE COMPOSITES		
Composite ID	Related Sub-sample	Weight Used (kg)
	BN19: 41-50	2.0
	BN32: 12-17	6.8
	RD07: 9-21	5.8
		17.7
RMS (mid sulphur)	2T03: 82-95	12.2
	BN13: 23-33	12.8
	BN16: 18-29	2.4
	BV01: 27-34	2.0
		29.4
Lawyers Zone		
Comp. AGB	AB21: 4-16	9.8
	AB37:28-38	9.8
		19.6
Comp. CCU	CC35: 348-358	10.0
(Cliff Creek underground)	CC63: 286-298	8.5
	CC70: 435-445	8.1
		26.6
Comp. DRU	DR03: 418-427	8.5
(Dukes Ridge underground)	DR16: 322-332	7.5
		16.0
Comp. OCC	CC10: 103-113	10.5
(Cliff Creek open pit)	CC16: 16-25	2.0
	CC48: 168-177	4.0
	CC59: 38-48	7.8
	CC75: 120-125	2.0
	CC85: 118-127	2.0
	CS61: 338-348	2.0
		30.3
Comp. ODR	DR01: 30-39	10.2
(Dukes Ridge open pit)	DR01: 92-99	7.7
	DR04: 84-92	8.1
		26.0

Source: F. Wright Consulting Inc.

The zone composites were used for most of the laboratory open cycle flotation and cyanide bottle roll leaching evaluation, typically preceded by gravity. The calculated head grades formulated during blending were compared versus those from individual bench scale testing. The laboratory study culminated with procedures to simulate a combined circuit of the conceptual flowsheet, using master composites. A total of three master composites were formulated by blending material from both properties, producing higher, moderate and low feed grades. The master composites blending recipes and head assays are presented below in Table 13.14.

TABLE 13.14 MASTER COMPOSITES					
Zone	Weight		Assay		
Composite ID	(kg)	% Distr.	Au (g/t)	Ag (g/t)	Total S (%)
Composite M1 (HG)			for tests F45+ FLC2 (5 Cycles)		
RHS	12	50.3	2.8	7.3	5.4
CCU	6.07	25.4	4.18	156	1.6
DRU	5.8	24.3	7.66	282	1.1
Calc Hd =	23.87	100.0	4.33	112	3.4
Assay Hd=			4.53*	116	3.5
Composite M2 (MG)			for tests F46+ FLC1 (5 cycles)		
RMS	10.95	43.9	3.2	5	2.6
OCC	14	56.1	3.88	197	1.0
Calc Hd =	24.95	100.0	3.58	113	1.7
Assay Hd=			4.06*	112	1.6
Composite M3 (LG)			for tests F47+ FLC3 (6 cycles)		
RLS	6.94	21.9	0.67	13.5	0.11
ODR	15.55	49.2	2.78	107	0.70
AGB	9.15	28.9	2.09	136	0.03
Calc Hd =	31.64	100.0	2.12	95	0.38
Assay Hd=			2.27*	94	0.37

Sources: F. Wright Consulting Inc. and SGS Canada Inc.

Note: *Precious metal assay by screened metallics, Distr. = distribution. Hd = head, HG = high grade, MG = mid grade, LG = low grade.

The calculated and measured heads for the master composites showed good reconciliation apart from Comp. M2, which showed a higher gold grade in the assayed head. As the gold grade decreases, there is a minor reduction in silver grade and a more marked decrease in sulphur content evident for the three composites.

13.4.2 Grinding

Detailed comminution testing for circuit design was performed for the Lawyers Area during the September 2022 PEA, as discussed previously. This historical study included testing for crushing, semi-autogenous grinding, ball mill grinding, and abrasion. Samples to date that were made available for Ranch, including for this study, were comprised of assay rejects, which limited comminution testing to Bond Ball Mill Work Index (BBWi) evaluation.

Five drill hole composites, three of which were from Ranch and two from Lawyers, were selected for BBWi evaluation using a closing sieve mesh size of 106 µm. The results are summarized Table 13.15.

TABLE 13.15 DRILL HOLE COMPOSITES – BOND BALL MILL GRINDABILITY							
Sample ID	Mesh of Grind	F₈₀ (µm)	P₈₀ (µm)	Gram per Revolution	Work Index (kWh/t)	Hardness Percentile	Category
2T16: 51-59	150	1,918	81	1.06	18.1	86	Hard
BN08: 21-32	150	1,702	80	1.36	14.9	57	Medium
BN16: 18-29	150	1,861	80	1.31	15.2	61	Moderately Hard
CC48: 168-177	150	2,229	86	0.97	19.8	93	Very Hard
CC63: 286-298	150	2,032	81	1.17	16.6	76	Hard

Source: SGS Canada Inc.

Note: F₈₀ = feed 80%, passing size of the feed to the comminution process in micrometres, P₈₀ = 80% passing.

The results agree with historical findings and indicate the rock had a variable response from medium to hard, ranging from 14.9 kWh/t to 19.8 kWh/t at a closing sieve size of 150 Tyler mesh (106 µm). The primary grind selected for the conceptual flowsheet used 80% passing product particle size (P₈₀) of 125 µm, which is modestly coarser than most of the bench work performed in the 2022 Lawyers study. This coarser primary grind was based on the flotation response discussed below.

13.4.3 Gravity Pretreatment

The historical data, and metallics gold analyses from some of the DH hole intervals, suggest gravity pretreatment would be beneficial to many areas of each of the two properties. Consequently, gravity procedures were included for almost all testwork to remove coarse gold prior to downstream flotation and (or) leaching.

The typical laboratory procedure consisted of using a single stage Knelson centrifugal concentrator with 2 to 4 kg of ground feed. The Knelson concentrate was partially cleaned to a grade suitable for intense cyanidation. Cleaning was accomplished using a Mozzley super panner, producing a few grams of concentrate suitable for assaying to extinction, allowing for a more accurate circuit metal balance.

It should be noted that, due to the fact the entire low weight feed stream is sent to the Knelson, the equivalent commercial gold recovery would typically be lower. This is a result that in actual operations the Knelson bowl volume / cycle times typically take a lower feed ratio, and commonly split from the ball mill (cyclone underflow) recycle stream. However, the overall recovery is not affected, because such differences consist of free gold that would otherwise report to the float concentrate.

The bench scale results varied widely, primarily related to head grade and mineralogy. Gravity gold recovery ranged from <5% to 50%, with silver recovery ranging from <2% to 18%.

13.4.4 Flotation

Based on scoping results and due to the higher sulphide zones present at Ranch, and in the newly identified deeper mineralized zones at Lawyers, flotation was investigated as a principal processing option. This testing also included samples with lower sulphide content. The initial phase looked at the kinetic response, while varying the grind at different feed grades. Each of the three samples was subjected to three grinds with a P_{80} target of 74, 106, and 125 μm . This work suggested a similar float response, with only minor differences in tailing losses between the coarse and fine grind. The gold losses were 0.06 g/t Au in one sample and 0.01 g/t Au for the remaining two samples in using the coarsest grind. For silver, the differences were below detection limit (2 g/t Ag) to 6 g/t Ag. Although further optimization is recommended, the targeted product grind for flotation feed for this study was P_{80} 125 μm .

Both bulk and differential flotation were evaluated, following gravity pretreatment. The PSD was measured and the 80% passing particle size (K_{80}) was followed for each test. The bulk method used potassium amyl xanthate (“PAX”) as collector, methyl isobutyl carbinol (“MIBC”) as frother, at the natural slurry pH.

The open cycle bulk float response is provided in Table 13.16.

TABLE 13.16 BULK FLOTATION RESPONSE															
Test No.	Comp. ID	Calc Head Au (g/t)	Grav. Grade Au (g/t)	Grav. Rec. % Au	Grind K ₈₀ (µm)	Cleaner 3 rd Conc. Mass (%)	Gold Grade (g/t Au)			3 rd Cl. Conc.		Gold Recovery (%)			
							Flt. Calc. Head	Cleaner 3 rd Conc.	Tailing	% S	Ag (g/t)	Cleaner Conc.	Ro. Conc	Total*	
F10 (drill comp)	BN08 (21-32)	1.65	10	1.7	120	14.0	1.62	10.4	0.09	34.2	26	88.4	94.5	96.2	
F11 (regrind 11u)	BN08 (21-32)	1.58	11	2.2	120	12.6	1.55	11.0	0.08	36.6	27	87.7	93.8	96.1	
F12	RHS	3.18	184	12.7	125	13.8	2.78	18.4	0.13	29.6	46	79.9	84.4	97.1	
F13	CCU	4.57	379	24.0	126	3.7	3.49	85.5	0.11	33.9	3,720	69.6	74.0	97.9	
F14	DRU	7.63	699	24.1	125	3.4	5.81	145	0.53	26.0	6,340	64.8	70.0	94.1	
F15	OCC	4.13	667	40.4	127	2.6	2.47	84.4	0.21	31.0	6,180	53.0	55.0	95.5	
F16	RMS	3.20	207	18.2	142	7.0	2.62	30.7	0.31	24.2	51	67.0	73.8	92.0	
F17 (regrind 10u)	RMS	3.28	262	15.5	142	6.5	2.78	35.6	0.30	26.7	56	70.4	76.9	92.3	
F18	ODR	2.70	602	43.3	130	1.9	1.53	51.4	0.36	29.5	3,240	35.3	44.8	88.0	
F19	RLS	0.83	216	15.9	128	0.25	0.70	42.2	0.47	19.4	459	12.9	31.1	46.9	
F20	AGB	1.50	233	31.1	130	0.08	1.04	150	0.54	6.9	10,100	8.0	36.4	67.5	
F21 (50:50 blend)	AGB+ RHS	2.52	208	17.5	122	6.1	2.08	25.8	0.35	28.9	713	62,5	70.8	88.3	
F22 (50:50 blend)	CCU+ RLS	2.38	320	29.0	125	2.0	1.69	65.1	0.24	31.7	3,350	55.6	62.0	91.1	
Unweighted Average =		3.01		21	128	5.7	2.32	58.1	0.29	27.6	2,639	57.7	66.7	87.9	

Source – F. Wright Consulting Inc./SGS Canada Inc.

Note: *Includes gravity along with rougher float recovery, does not include float cleaning losses to be provided in locked cycle testing.

Comp. = composite, Grav. = gravity, K₈₀ = 80% passing particle size, Wt. = weight, Conc. = concentrate, Flt. = flotation, Calc. = calculated, Cl. = cleaner, Ro. = rougher.

The results indicate that the higher sulphide material responded well to bulk flotation with gold recoveries when accounting for gravity pretreatment in the mid- to high- ninety percent range. The lower sulphide blends gave a poor flotation response of between 47 to 88% gold recovery. Silver followed a similar trend with overall recoveries ranging from 34 to 97%, depending on head grade. A further issue was that feed with a higher sulphur to gold ratio provided lower grades, down to as low as 10 g/t Au ,to the final cleaned concentrate. This result decreases smelter terms (payables) and increases transport costs.

The concentrate was also shown to be partially refractory to cyanidation, as discussed further in the following section, eliminating conventional cyanidation as the best processing option. To evaluate overcoming these challenges, differential flotation was investigated in order to produce a higher-grade primary concentrate for sale, and a lower grade secondary float concentrate for more aggressive leaching procedures. Differential flotation focussed on producing a primary (rougher) higher grade concentrate (including copper if present). This was accomplished by using a selective collector. Following preliminary testing A208 was most often used as the collector. The pH was increased by lime addition during cleaning to assist in depression of pyrite. The secondary (scavenger) concentrate was then cleaned as per the bulk procedure using PAX.

The differential flotation results are presented in the following tables, with Table 13.17 showing the mass pull and gold concentrate grades, and with Table 13.18 providing the gold recovery distribution.

TABLE 13.17 DIFFERENTIAL FLOTATION – GOLD AND SULPHUR MASS PULL WITH CONCENTRATE GRADES													
Comp. ID	Calc. Head		Cl. Conc. Grades Au (g/t)			Final Tail	Sulphur Grades S (%)			Mass Pull %			
	Au (g/t)	S (%)	Gravity	3rd Ro.	2nd Scav.	Au (g/t)	3rd Ro.	2nd Scav.	Flt. Tail	Bulk Ro.	3rd Ro.	Bulk Scav.	2nd Scav.
RHS	2.71	5.23	95	45.7	3.32	0.12	48.1	9.7	1.15	12.5	2.78	16.2	6.19
CCU	4.08	1.40	456	174	8.87	0.12	42.9	17.9	0.07	6.55	1.27	9.91	1.77
DRU	8.42	1.01	914	374	34.3	0.54	39.7	5.7	0.05	6.08	1.10	10.2	1.21
OCC	3.39	0.74	652	180	13.7	0.20	45.7	17.2	0.04	4.39	0.76	7.11	0.97
RMS (A208)	3.05	2.30	245	98.3	5.25	0.24	44.9	5.0	0.52	7.66	1.27	9.57	2.93
ODR	2.56	0.58	536	137	23.4	0.35	44.1	7.2	0.04	4.28	0.59	9.42	0.73
AGB+ RHS	2.62	2.47	137	53.8	9.28	0.36	46.8	5.6	0.50	9.63	2.18	10.5	2.37
RLS+ CCU	2.49	0.71	358	168	8.08	0.29	42.3	1.3	0.05	6.33	0.58	9.16	0.83
RMS (3418)	2.01	2.28	150	25.4	3.37	0.26	39.9	4.1	0.52	9.24	3.63	9.78	2.09

Sources: F. Wright Consulting Inc. and SGS Canada Inc.

Notes: Comp. = composite, Calc. = calculated, Cl. = cleaner, Ro. = rougher, Tail = tailings, Scav = scavenger,
Flt Tail = flotation tailings.

TABLE 13.18 DIFFERENTIAL FLOTATION GOLD RECOVERY										
Comp. ID	Head Au g/t		Grav. % Rec.	Ro. % Rec*	3 rd Cl Ro. % Rec	Scavenger (% Rec. / g/t Au)			Au Float % Rec.	
	Mill	Float				% Bulk	2 nd Cl Rec	2 nd Cl (g/t)	Bulk Flt	Grav+ Flt*
RHS	2.71	2.47	9.2	85.2	51.5	11.4	8.3	3.32	87.7	96.8
CCU	4.08	2.76	32.6	88.2	80.4	8.1	5.7	8.87	65.0	97.5
DRU	8.42	6.37	24.5	83.2	67.7	9.7	6.5	34.3	70.1	92.4
OCC	3.39	1.94	43.0	81.5	70.3	10.3	6.9	13.7	51.8	94.8
RMS	3.05	2.46	19.8	80.5	51.0	12.2	6.3	5.25	83.9	86.4
ODR	2.56	1.64	36.3	63.7	49.1	14.8	10.5	23.4	52.0	88.2
AGB+RHS	2.62	2.20	16.3	72.3	53.4	8.9	10.0	9.28	72.8	89.0
RLS+CCU	2.49	1.62	35.3	76.2	59.9	8.2	4.2	8.08	54.9	90.2

Sources: F. Wright Consulting Inc. and SGS Canada Inc.

Notes: Comp. = composite, Head = head grade ??, Grav. = gravity, Rec. = recovery, Ro. = rougher, Cl. = cleaner,
Flt = flotation.

The differential flotation (including gravity pretreatment) provided satisfactory total gold recoveries of between 86 to 96%, although some tailing grade could remain elevated at between 0.24 to 0.54 g/t Au. The majority of the gold and silver reported to the primary concentrate, with grades into the final product at typically >50 g/t Au, to as high as 374 g/t Au. The secondary float concentrate grade was between 3 to 34 g/t Au. The silver mostly responded well with gravity plus flotation recovery, totalling between 65% to 95%. Silver grades in the float concentrates fluctuated widely, depending on head grade, with a majority reporting to the primary concentrate.

13.4.5 Leaching

Cyanide leaching was performed separately on whole rock, flotation concentrate, and flotation tailings, to evaluate the response to the developing flowsheet. The results showed a similar response to the historical data with higher sulphide material, either as whole rock or as flotation concentrate showing a poor response.

Whole-rock leaching was undertaken on nine zone composites using a moderate grind targeting P₈₀ 106 µm, and with gravity pretreatment. There was 1 to 2 g/L NaCN cyanide concentration maintained with a leach retention time of 48 hours. The results are presented in Table 13.19.

TABLE 13.19 WHOLE ROCK LEACHING							
Comp. ID	Grind K ₈₀ (µm)	Calc. Head		Recovery		Tailing Grade	
		Au (g/t)	Ag (g/t)	% Au	% Ag	Au (g/t)	Ag (g/t)
CCU	106	4.82	186	91.7	82.3	0.40	33
DRU	132	9.39	331	89.7	67.9	0.97	107
OCC	104	4.28	217	86.3	76.8	0.59	51
AGB	128	2.53	156	92.9	69.0	0.18	48
ODR	109	2.85	115	95.5	80.8	0.13	22
RHS	104	3.25	7	46.9	28.8	1.73	5
RMS	119	3.22	9	74.1	65.4	0.84	2
RLS	128	0.80	14	93.8	61.6	0.05	5
RCU	81	4.12	190	58.7	69.5	1.73	59

Sources: F. Wright Consulting Inc. and SGS Canada Inc.

The results confirm historical work and show the overall recovery to be variable. Gold recovery ranged from 47% to 95% and silver recovery from 29% to 82%. If looking at the detailed laboratory data, the leach kinetics for some samples modestly continued to increase the precious metals dissolution even after 48 hours, despite the use of gravity pretreatment.

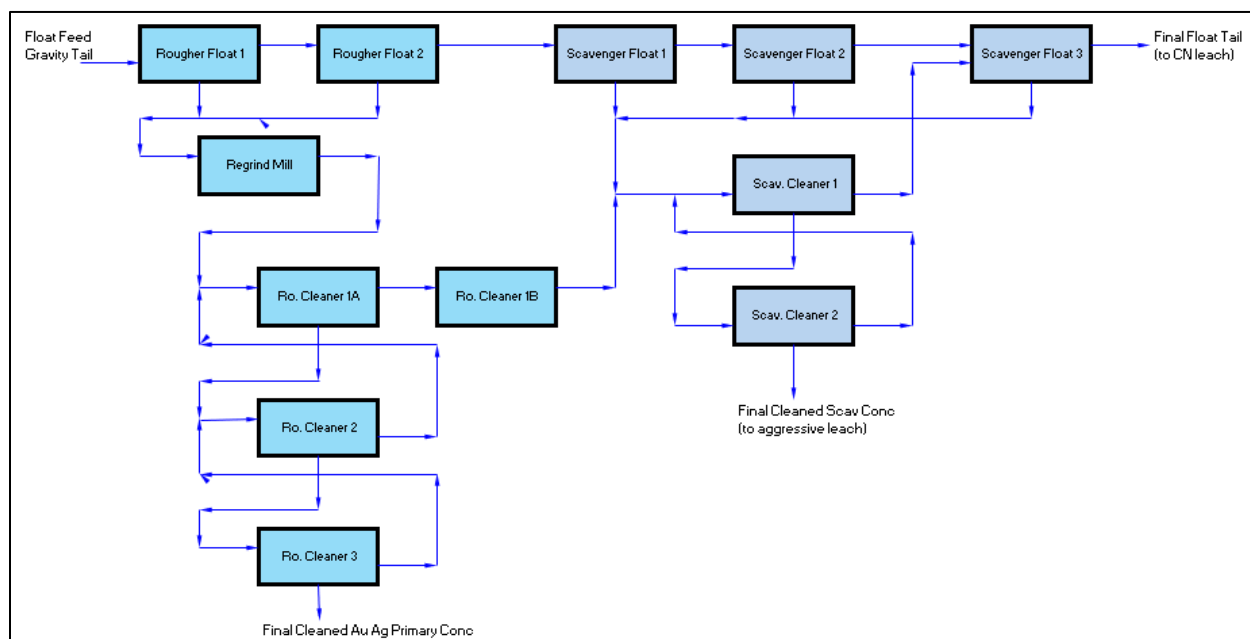
The leaching of the corresponding float concentrates of the zone composites showed a similar variable response with the lower sulphide materials achieving >90% for both gold and silver recovery. For the higher sulphide feed, the leach recovery was lower, averaging between half to three quarters for gold and less for silver. Scavenging additional values in the leaching of float

tailing resulted in recoveries up to 80% gold and 75% silver, although these could be significantly lower depending on the grade and mineralogy of the float tailing.

13.5 FLOWSHEET DEVELOPMENT AND RESPONSE

The response from the various process methods tested for mineral zone samples in the 2023/2024 metallurgical program was in good agreement to the historical data. Based on these results, a circuit flowsheet was developed for treating the varying mineralogy from both the Ranch and Lawyers Areas. The final phase of the laboratory process study was undertaken to establish the preliminary recoveries for precious metals at various grades using the concept flowsheet. This consisted of gravity pre-treatment, followed by differential flotation, and scavenging further precious metal credits by cyanide leaching. The differential flotation was conducted in locked cycle on three different master composites. The locked cycle schematic is provided in Figure 13.2.

FIGURE 13.2 LOCKED CYCLE FLOTATION CIRCUIT FOR THE LAWYERS-RANCH PROJECT



Source: This Study

The primary (rougher) float was cleaned in three stages following regrinding (targeted to P₈₀ 38 µm) using procedures developed in open cycle testing. A selective collector and lime for pyrite depression was used during this step. The resulting concentrate offers precious metal grade consistently better suited for sale, and allows to better balance on-site leach response to the smelter terms and transport costs to maximize revenue. Marketing such a concentrate should remove a significant portion of the precious metals associated with sulphides that were shown to respond poorly to cyanidation. This procedure would also remove most of the elevated base metals present that were primarily identified locally in the Ranch and Lawyers underground Mineral Resources. Based on limited sample availability, any future Mineral Resource containing copper might also be adapted to this flowsheet. The first stage flotation would allow the opportunity to produce a

copper concentrate with gold credits, should further exploration confirm that such a Mineral Resource is present on portions of Ranch. Although scoping level data suggests a satisfactory product might be produced from higher copper zones at Ranch, there is currently insufficient information to establish a mining cut-off grade and corresponding concentrate grade-recovery response for copper. Regardless, both copper and zinc are cyanicides and will negatively impact leaching due to slowing kinetics and increased reagent consumption. An additional benefit of producing a separate primary concentrate is the cyanicides and other potentially detrimental elements of concern (As, Sb) are removed, decreasing net acid generating potential from site for transfer to smelters. This result should improve tailings quality with respect acid rock drainage and heavy metal dissolution. Initial testing by SGS on flowsheet evaluation showed two of the three final float tailing generated had a ratio of neutralization potential to acid producing potential of >2 . So, these materials are expected to be potentially non-acid generating. The higher sulphide feed produced final tailing that remains potentially acid generating.

The second stage flotation would be used to collect additional precious metals, particularly silver into a lower grade scavenger concentrate. These precious metals are still associated with sulphides and can also be partially refractory to leaching depending on the zone of origin. This concentrate contains a low percent of the original feed mass, while retaining significant precious metal credits. Consequently, more aggressive leaching techniques could be applied, as only a small throughput circuit would be required. The secondary concentrate was leached with oxygen and elevated lixiviant. Based on some historical research data, the circuit includes a small attrition regrind of the residue that is then combined for a second stage leach with the cyanidation of the float tailing. Static and kinetic thickening was performed on the tailing for thickener sizing in a CCD circuit.

Three master composites representing high, moderate, and lower grade precious metal and sulphide grades were blended from Ranch and Lawyers materials and subjected to evaluation of the process flowsheet. The response and distribution of gold and silver to the treatment circuits is provided in Table 13.20.

TABLE 13.20
CONCEPTUAL FLOWSHEET METALLURGICAL RESPONSE

Test ID	Product Name	Grade , g/t		Recovery, %	
		Au	Ag	Au	Ag
Comp.M2(MG)-FLC1	Gravity Conc	513	3342	37.7	8.0
	Cln3 Conc	169	7965	50.3	76.9
	Scav Cln2 Conc leach - 1st stage Leach			2.7	4.0
	Scav Cln2 Conc leach - 2nd stage Leach			0.2	0.4
	Final Tail leach			5.8	7.1
	Total			96.6	96.3
Comp.M1(HG)-FLC2	Gravity Conc	366	1190	20.4	2.4
	Cln3 Conc	161	5261	65.4	78.5
	Scav Cln2 Conc leach - 1st stage Leach			3.3	4.8
	Scav Cln2 Conc leach - 2nd stage Leach			0.3	0.7
	Final Tail leach			4.5	8.0
	Total			94.0	94.6
Comp.M3(LG)-FLC3	Gravity Conc	385	4644	37.0	9.8
	Cln3 Conc	182	11379	40.5	55.7
	Scav Cln2 Conc leach - 1st stage Leach			3.2	3.4
	Scav Cln2 Conc leach - 2nd stage Leach			0.1	0.4
	Final Tail leach			15.7	17.1
	Total			96.4	86.3

Source: SGS Canada Inc.

The data indicate that the overall precious metal recovery is particularly good and that most of the gold and silver commonly reports to the primary (cleaned rougher) float concentrates. The primary concentrate resulted in recovering 40% to 65% of the gold with grades over 160 g/t Au. The majority of silver realized grades of over 5,000 g/t Ag. An additional 8 to 20% of the gold and 12 to 24% of the silver was then scavenged by leaching the secondary concentrate and the float tailing, with the remaining recovery established during gravity pre-treatment. This procedure results in an overall laboratory flowsheet recovery range of 93 to 96% for gold and 86 to 96% for silver.

13.6 METALLURGICAL OVERVIEW

The current test program has been completed to a preliminary estimate level for metallurgical response. Future work to advance the Project will require additional studies to confirm the processing approach. All of the various mineral zones over the expected metal and sulphur grade range of both properties, including near and below the estimated mining grade cut-off grades should be included in future studies. Additionally, further testwork should investigate the use of pre-concentration at Ranch, especially given the transportation distances between that Mineral Resource and proposed plant site. If copper is considered a potential by-product from some of the mineralized zones, then additional study is required.

The 2023/2024 PEA laboratory test program developed a process approach to recover gold and silver from the combined Lawyers-Ranch Property. The study first investigated the use of leaching at Ranch, where the majority of the material has shown a higher sulphide and base metal content

than Lawyers. Since 2022, higher sulphide Mineral Resource zones were also identified at Lawyers. Leach response for silver had been shown to be lower at Lawyers, and with these newer higher sulphide zones, a refractory component to gold and silver leaching was also identified. These findings indicated that modifications to an earlier processing approach were needed for optimum treatment. Consequently, this study investigated the use of flotation prior to leaching. The findings showed that a combination of gravity, flotation and leaching provided the most flexibility in adequately processing the various materials from Lawyers and Ranch. Based on the current concept flowsheet and samples received, the resulting unweighted average recovery was shown to be 95% for gold and 92% for silver. These recoveries are based on laboratory data without accounting for minor miscellaneous potential circuit losses that will vary, depending on feed grade and mineral zone of origin.

14.0 MINERAL RESOURCE ESTIMATES

14.1 INTRODUCTION

The 2024 Lawyers-Ranch Project Mineral Resource Estimate (2024 Lawyers-Ranch MRE) herein is based on drilling completed on the Lawyers-Ranch Property between 1975 and 2023. It supersedes the 2022 Preliminary Economic Assessment (2022 Lawyers MRE) for the Lawyers Gold-Silver Project prepared by Church *et al.* (2022). The AGB Zone in the Lawyers Area was not updated and is restated from the 2022 Lawyers MRE. Previous historical MRE are discussed in Section 6 of this Report. They are all considered historical, are not to be relied upon, and are not discussed further in this Report.

This Report section details an updated NI 43-101 MRE completed for the Lawyers Area by Mr. Warren Black, M.Sc., P.Geo. of APEX Geoscience Ltd. (APEX) of Edmonton, Alberta, Canada under the direct supervision of Mr. Eugene Puritch, P.Eng., FEC, CET and Mr. Yungang Wu, M.Sc., P.Geo., both of P&E Mining Consultants Inc. (P&E) of Brampton, Ontario. Mr. Eugene Puritch and Mr. Yungang Wu are independent Qualified Persons as defined in NI 43-101 and take responsibility for the MRE and Section 14 herein. Mr. Yungang Wu, M.Sc., P.Geo. of P&E, visited the Property on November 4 to 6, 2023, and reviewed the drill core from the 2021 to 2023 drill programs completed by Benchmark, as discussed in Section 12.7.

The workflow implemented for the calculation of the 2024 Lawyers-Ranch MRE was completed using Micromine™ commercial Mineral Resource modelling and mine planning software (v.24.0), Deswik™ (v.23.0), and Resource Modelling Solutions Platform™ (RMSP; v.1.14.0). Supplementary data analysis was completed using the Anaconda Python distribution (v.3.9.7) and a custom Python package developed by APEX.

Mineral Resource modelling was conducted in the UTM coordinate system relative to the North American Datum (“NAD”) 1983 Zone 9N (EPSG:26909). The Mineral Resource utilized a block model with a size of 5 m (X) by 5 m (Y) by 5 m (Z) to honour the mineralization wireframes for grade estimation. Gold and silver grades were estimated for each block in both the Ranch and Lawyers Areas using Ordinary Kriging (“OK”) with locally varying anisotropy (“LVA”) to ensure grade continuity in various directions and is reproduced in the block model. Copper grades were estimated using the same method, but only for the Ranch Area. The MRE is reported as undiluted. Details regarding the methodology used to calculate the MRE are documented in this 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 DRILL HOLE DATA DESCRIPTION

Data from Thesis's 2018 to 2023 drilling programs were captured and validated on-site during the drill program by APEX personnel. After the 2023 program, APEX personnel compiled the results with the previously validated historical data, as discussed in section 12. In the opinion of Mr. Wu, the current Lawyers-Ranch Project drill hole database is in good condition, and Mr. Wu accepts the database and considers it suitable to use in ongoing Mineral Resource estimation.

The Mineral Resource Estimation drill hole database is summarized in Table 14.1. In total, 1,906 drill holes (totalling 333,570 m) make up the database, of which 819 (totalling 119,611 m) were not considered in the previous Mineral Resource Estimation.

Drilling on the Lawyers Project completed by Thesis indicates that historical drilling (pre-2018) selectively sampled zones of intense hydrothermal brecciation (core zone) based on visual logging, focusing only on areas targeted for underground mining within the Cliff Creek and Phoenix Zones. Thesis' drilling and infill sampling programs identified significant mineralization outside these core zones, revealing potential Mineral Resources for open-pit mining scenarios (bulk zone). Consequently, historical drilling comprises many unsampled intervals within the grade estimation domains, particularly in the bulk zones.

APEX personnel evaluated each historical drill hole to determine the percentage of samples collected within their intersections within the bulk and core zone grade estimation domains. A historical drill hole is excluded from core zone grade estimation if it sampled <70% of its intersection within the core zone. Similarly, if a historical drill hole sampled <70% of its intersection within the bulk zone, it is excluded from bulk zone grade estimation. For historical drill holes that sampled 70% or more of their core or bulk zone intersections, unsampled intervals within the Cliff Creek Zone are assigned nominal background gold and silver values for Mineral Resource grade estimation, whereas missing intervals at the Phoenix Zone are populated with nominal waste values. Nominal background values for core and bulk lodes are determined by flagging and compositing 2.0 m intervals from nearby unassayed historical drilling intervals. These missing intervals are paired with up to five nearby modern assayed composites within 20 m for core lodes and 22.5 m for bulk lodes, and the average of the paired composites is utilized. In the Cliff Creek, Dukes Ridge and Phoenix Zones, 42,067 m of drilling intersects the grade estimation domains, of which 127.78 m (0.3%) is historical unsampled intervals that are assigned a nominal background value. In-fill drilling in 2021 by Thesis significantly reduced reliance on historical drill holes and the number of intervals requiring nominal background values.

Any unsampled intervals in the drill hole database at Cliff Creek, Dukes Ridge, and Phoenix Zones completed during and after 2018, and all unsampled intervals at AGB and the Ranch Area not due to insufficient recovery, are assigned nominal waste values. Insufficient recovery was assigned to intervals during logging where no drill core was recovered, or the amount recovered was insufficient for sampling.

In the Ranch Area, challenging drilling conditions sometimes result in low drill core recovery rates. Intervals of modern drilling were classified as insufficient recovery and treated as null values

if the drill core recovery rate was <20% or if the sample length was 3 m or more with a recovery rate <40%. These criteria were met in 192 intervals, totalling 719 m of drilling.

TABLE 14.1 LAWYERS-RANCH PROPERTY DRILL HOLE SUMMARY				
Zone Name	Drill Hole Type	Year Drilled	Number of Drill Holes	Total Metres
Cliff Creek	New Surface	2023	28	15,423
	Previous Surface	1975-2022	558	138,865
	Total	1975-2023	586	154,288
Dukes Ridge - Phoenix	New Surface	2023	17	7,808
	Previous Surface	1983-2022	185	20,767
	Previous Underground	1992	12	470
	Total	1983-2023	214	29,045
AGB	New Surface	-	-	-
	Previous Surface	1974-2021	275	50,381
	Previous Underground	1982-1985	57	3,476
	Total	1974-2021	332	53,857
Ranch	New Surface	1982-2023	774	96,380
	Previous Surface	-	-	-
	Total	1982-2023	774	96,380
Total	New Surface	1982-2023	819	119,611
	Previous Surface	1975-2022	1,018	210,013
	Previous Underground	1982-1985, 1992	69	3,946
	Total	1975-2023	1,906	333,570

Source: APEX (2024)

14.2.1 Data Verification

The Authors validated the Mineral Resource database in GEMSTTM 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 drill hole length, inappropriate collar locations, survey and missing interval and coordinate fields. A few errors were identified and corrected in the database. The Authors consider the supplied database suitable for Mineral Resource estimation.

14.3 GRADE ESTIMATION DOMAIN INTERPRETATION

Grade estimation domain wireframes were developed through implicit modelling and domain coding, following an iterative process incorporating numerous geological inputs. Expert modelling geologists who are deeply knowledgeable about the deposit contributed insights and review at

different stages of the domain modelling process. Adjustments to the domain coding were made based on their feedback. This peer review and refinement cycle continues until the final grade estimation domains are established. Key inputs defining the boundaries and orientation of these domains are:

- Drill hole logging of breccia zones, veining, alteration, lithology, and mineralization domains;
- Structural models were built using logged faults, orientation measurements and surface measurements; and
- Gold, silver, and copper assays.

Mineralization in the Lawyers Area is characterized as low-sulphidation and is primarily associated with fault breccias, hydrothermal breccias, quartz veining, potassic alteration, and silicification. Additionally, mineralization can be associated with epidote alteration, minor veining, hematite veinlets, or fractures in specific zones. Faults trending northwest and west-northwest control mineralization in the Lawyers Area, which reflects the original volcanic basin geometry. The fault hosted mineralization is interpreted as typically syn-faulting mineralized. Commonly, the intersection lineation of two fault planes defines the orientation of a plunging high-grade shoot. APEX personnel built 3-D fault models using 2018 to 2023 oriented core drilling data. The fault model constrains grade estimation domains within defined fault blocks.

Mineralization at the Ranch Area is characterized as high-sulphidation and typically consists of leached, vuggy or massive silica flanked by broader zones of argillic alteration. There appear to be both stratigraphic and structural controls on the orientation of Ranch mineralization; southeast-trending faults are interpreted to be typically syn-faulting-mineralized and spatially related to prior northeast-trending faults. APEX personnel built 3-D fault models using drill core data to guide grade estimation domain modelling.

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, gold and silver assays, and drill core photos. The primary goal is to ensure a single 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. Figures 14.1 and 14.2 illustrate the 3-D estimation domains for the Lawyers and Ranch Areas, respectively. Figures 14.3 and 14.4 illustrate the estimation domains for the Lawyers and Ranch Areas, respectively in plan view.

The Authors reviewed the domain wireframes and considered the interpretation and wireframes reasonably constructed. It is suggested that some low grade (below AuEq cut-off) samples at the edges of domains should be excluded in future Mineral Resource Estimate updates.

APEX personnel wireframed areas with historical mining excavations and extracted volumes were depleted from the MRE. APEX personnel created topographic and overburden surfaces. All mineralization wireframes were clipped above the top of the bedrock surfaces.

Grade estimation domains across the Lawyers-Ranch Project can be grouped based on their geological characteristics, style of mineralization, and location. Table 14.2 illustrates the grouping utilized for grade capping and grade estimation. Table 14.3 lists the grade estimation domains in each grouping. Grade capping levels are determined by evaluating grouped domains (“capping group”) that illustrate similar mineralization styles to ensure sufficient composites to detect outliers. Robust experimental variograms can only be derived for grade estimation domains that contain sufficient data. Therefore, grade estimation domains are grouped (“estimation group”) with the most representative variogram.

TABLE 14.2 GRADE ESTIMATION DOMAIN GROUPING AND DESCRIPTIONS			
Mineral Resource Zones	Grade Domain Groups	Capping Groups	Description
Cliff Creek	Cliff Creek Main	CCM-HG	Defined by strong alteration, veining and hydrothermal breccia associated with the major NW structural trend.
		CCM-Core	Defined by strong alteration, veining and hydrothermal breccia associated with the major NW structural trend.
	Cliff Creek North	CCN-HG	Well defined mineralization, up dip and north of the Cliff Creek Main Zone, typically associated with veining and alteration along steeper WNW structures.
		CCN-LG	Narrow mineralized bodies, up dip and north of the Cliff Creek Main Zone, typically occurring as stacked lenses and associated with weaker veining and alteration.
	Cliff Creek South	CCS	Typically occurring as stacked lenses and associated with weaker veining and alteration up-dip of the major NW structural trend.
	Cliff Creek East	CCE	Referred to as Cliff Creek East or the Connector Zone occurring between Cliff Creek Main and Dukes Ridge; mineralization is typically defined by strong alteration and hydrothermal brecciation, which follow WNW structures - eventually intersecting with Cliff Creek main zone.
Dukes Ridge	DR	DR-FB1	Steeply dipping NW and WNW trending bodies, mix of breccia, stockwork and isolated veins with local potassic halos south of the Main Dukes Ridge mineralization towards the Phoenix Zone.
		DR-FB2	Steeply dipping NW-SE trending bodies, mix of breccia, stockwork and isolated veins with local

TABLE 14.2 GRADE ESTIMATION DOMAIN GROUPING AND DESCRIPTIONS			
Mineral Resource Zones	Grade Domain Groups	Capping Groups	Description
			potassic halos, which are truncated by the LIM7 fault (mineralization occurring in the footwall).
		DR-FB3-LG	Steeply dipping NW-SE trending bodies, mix of breccia, stockwork and isolated veins with local potassic halos, occurring on the footwall of the major Dukes Ridge fault (Hem Gouge).
		DR-FB4-HG	Steeply dipping NW-SE trending bodies, high-grade mineralization in mix of cataclasite breccia, stockwork and isolated veins with local potassic halos, which make up the main Dukes Ridge mineralization.
		DR-FB4-LG	Steeply dipping NW-SE trending bodies, mix of breccia, stockwork and isolated veins with minor cataclasite and local potassic halos, which make up the main Dukes Ridge mineralization.
Phoenix	PX	PX	Mix of both large open space filling veins with crustiform textures and minor veins with potassic altered halos.
AGB	AGB Main	AGB Main	Commonly hydrothermal breccia zone - strong veining and alteration (potassic and silica) common. Sooty sulphides and visible mineralization common.
		AGB Main/North Minor	Skinny low-grade mineralization.
	AGB South	AGB South	Weak-mod veining and alteration, veins are typically later stage Vn3 (amethyst open space filling).
		AGB South Minor	Narrow low-grade domain to the South.
	AGB West	AGB West	Weaker veining and alteration, mineralization maybe controlled by narrow hem veinlets? - appear to be higher in strata than main zone - associated with interbedded ash layers.
		AGB West Minor	Skinny low-grade domain to the West.
Ranch	Bonanza Core	BNZ-Main	High-grade mineralization in the main part of Bonanza associated with hydrothermal breccias and vuggy silica at the confluence of multiple local structures.

TABLE 14.2
GRADE ESTIMATION DOMAIN GROUPING AND DESCRIPTIONS

Mineral Resource Zones	Grade Domain Groups	Capping Groups	Description
		BNZ-FSW1	BV mineralization, associated with barite and hydrothermal breccias along steeply-dipping high-grade structures, associated with narrow alteration zones.
		BV-Main-Steep	
		BV-Main-Mod	
		BV-Iso	South of the historical pit only defined by historical drilling.
	Bonanza Other	BNZ-FNW1	Steeply-dipping mineralization following local structure.
		BNZ-FNW3	Steeply-dipping mineralization following local structure.
		BNZ-FSW2	Steeply-dipping mineralization following local structure.
		BNZ-NE	Shallower-dipping bodies caused by fluid permeating from local structures along stratigraphy.
		BNZ-NW	Shallower-dipping bodies caused by fluid permeating from local structures along stratigraphy.
	Thesis 3	TH3-2-Core	Shallow subvertical domain with both structural and stratigraphic control and intense vuggy silicification.
	Thesis 2	TH2	Subvertical NW-SE trending Thesis 2 mineralization associated with vuggy silica bodies controlled by local structures.
		TH3-2	Shallow subvertical domains with both structural and stratigraphic control and intense vuggy silicification.
		TH3-3	Mineralization at moderate depth, forming moderately dipping bodies with both structural and stratigraphic control, associated with massive and vuggy silicification.
		TH3-4	Steeply dipping deep NW-SE trending bodies with vuggy and massive silica controlled by local structures.
		JK-Main	Narrow intervals of hydrothermal breccias in subvertical N-S trending bodies.
		JK-Other	Laterally offset narrow intervals of hydrothermal breccias in subvertical NE-SW trending bodies.

TABLE 14.2 GRADE ESTIMATION DOMAIN GROUPING AND DESCRIPTIONS			
Mineral Resource Zones	Grade Domain Groups	Capping Groups	Description
		BNZ-S-Main	Narrow intervals of vuggy silica and sulphide mineralization in subvertical N-S trending bodies.
		BNZ-S-FB	
		BNZ-S-Iso	
		BNG-North	Broad near surface bodies comprised of leached and vuggy silica, with high grade mineralization and poor drill core recovery.
		BNG-North-Steep	Steeply-dipping E-W trending bodies comprised of stockwork anhydrite and copper sulphosalts (enargite).
		BNG-SW-Steep	Steeply-dipping NE-SW trending body comprised of leached and vuggy silica.
		BNG-Central	structurally and stratigraphically controlled bodies comprised of massive silica.
		BNG-SE	Steeply to moderately dipping bodies between Bingo and Thesis 3.
	Ridge	RDG-Steep	Mineralization following the major NE structure, high-grade is associated with vuggy silica.
		RDG-Horiz	Moderate and lower grade mineralization shallowly dipping likely controlled by stratigraphy where major structures intersect.

Source: APEX (2024)

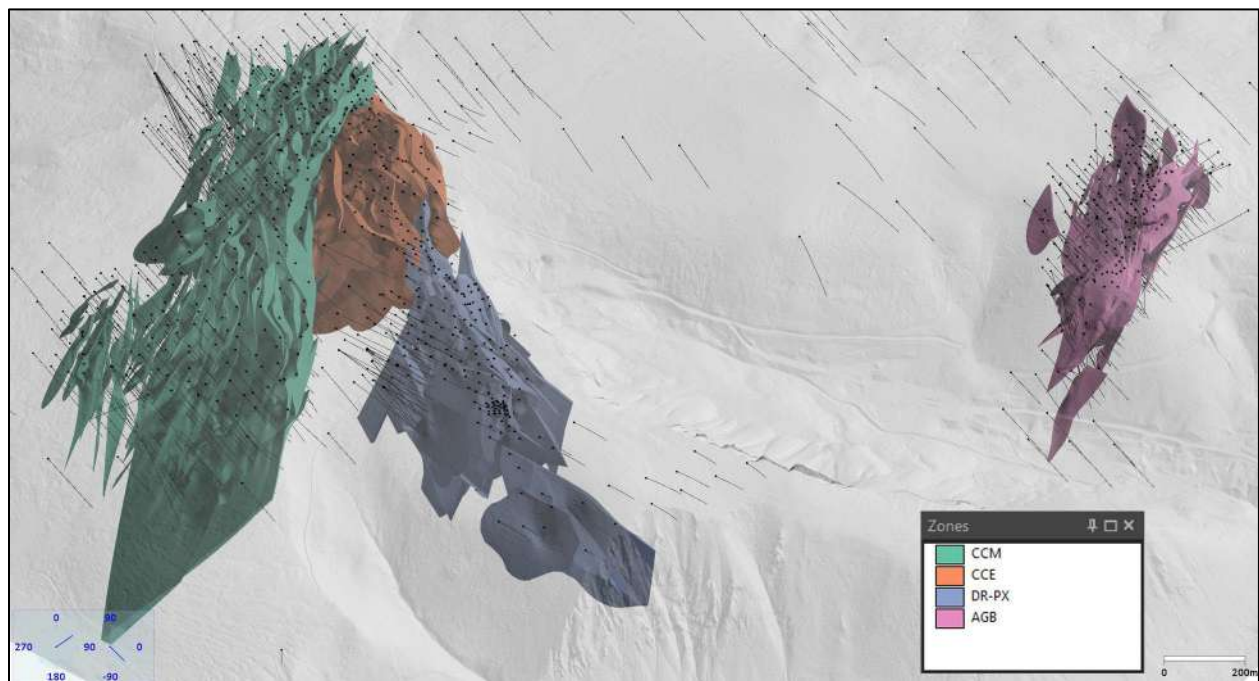
TABLE 14.3 LIST OF GRADE ESTIMATION DOMAINS IN GRADE ESTIMATION DOMAIN GROUPING	
Estimation Group	List of Domains
CCM	E-W-1_CCM1-core, E-W-1_CCM1, N-3-FW_CCM1-core, N-3-FW_CCM1-FW.1, N-3-FW_CCM1-FW, N-3-FW_CCM1, N-3-HW_CCM1-core, N-3-HW_CCM1.1, N-3-HW_CCM1.2, N-3-HW_CCM1, N-3-HW_CCM2.1, N-3-HW_CCM2.3, N-3-HW_CCM21, N-3-HW_CCM2, N-3-HW_CCM3, E-W-1_CCN-F, E-W-1_CCN13, E-W-1_CCN16, E-W-1_CCN1, E-W-1_CCN7.1, E-W-1_CCN7.2, E-W-1_CCN7, E-W-1_CCN9.1, E-W-1_CCN9, N-3-HW_CCN-A, N-3-HW_CCN-B, N-3-HW_CCN-C, N-3-HW_CCN-D, N-3-HW_CCN-E, N-3-HW_CCN-F, N-3-HW_CCN10.1, N-3-HW_CCN10, N-3-HW_CCN12.1, N-3-HW_CCN13.2, N-3-HW_CCN18, N-3-HW_CCN19, N-3-HW_CCN1, N-3-HW_CCN2, N-3-HW_CCN3, N-3-HW_CCN4, N-3-

TABLE 14.3 LIST OF GRADE ESTIMATION DOMAINS IN GRADE ESTIMATION DOMAIN GROUPING	
Estimation Group	List of Domains
	HW_CCN5, N-3-HW_CCN6, N-3-HW_CCN7, N-3-HW_CCN9, N-3-HW_CCW', N-3-HW_CCS10.1, N-3-HW_CCS10, N-3-HW_CCS11, N-3-HW_CCS13.1, N-3-HW_CCS13.2, N-3-HW_CCS13, N-3-HW_CCS14, N-3-HW_CCS15.1, N-3-HW_CCS15.2, N-3-HW_CCS15, N-3-HW_CCS16, N-3-HW_CCS17, N-3-HW_CCS18, N-3-HW_CCS19.1, N-3-HW_CCS19.2, N-3-HW_CCS19, N-3-HW_CCS1, N-3-HW_CCS20, N-3-HW_CCS21, N-3-HW_CCS22, N-3-HW_CCS23, N-3-HW_CCS24, N-3-HW_CCS2, N-3-HW_CCS3, N-3-HW_CCS6, N-3-HW_CCS8.1, N-3-HW_CCS8, N-3-HW_CCS9.1, N-3-HW_CCS9, N-3-HW_CC3, N-3-HW_CC4
CCE	E-W-1_CCE1, E-W-1_CCE5, N-3-FW_CCE-A, N-3-FW_CCE-B, N-3-FW_CCE-D, N-3-FW_CCE1, N-3-FW_CCE3.1, N-3-FW_CCE3, N-3-FW_CCE4.1, N-3-FW_CCE4.2, N-3-FW_CCE4, N-3-FW_CCE5.1, N-3-FW_CCE5, N-3-FW_CCE7.1, N-3-FW_CCE7, N-3-FW_CCE8.1, N-3-FW_CCE8, N-3-FW_CON1.1, N-3-FW_CON1, N-3-FW_CON1.2
DR-PX	DR200, FB1-HW_DR2a, FB1-HW_DR2, FB1-HW_DR31, FB1-HW_DR32, FB1-HW_DR33, FB1-HW_DR3, FB2-WEDGE_DR-B.1, FB2-WEDGE_DR-B.2, FB2-WEDGE_DR-B.3, FB2-WEDGE_DR-B, FB2-WEDGE_DR-C.1, FB2-WEDGE_DR-C, FB2-WEDGE_DR34, FB3-FW_DR-FW.1, FB3-FW_DR-FW.2, FB3-FW_DR-FW.3, FB3-FW_DR-FW.4, FB3-FW_DR-FW, FB3-FW_DREW62, FB4-NW_DR1a, FB4-NW_DR1, FB4-SE_DR-D.2, FB4-SE_DR-D, FB4-SE_DR-E, FB4-SE_DR-F.1, FB4-SE_DR-F.2, FB4-SE_DR-F, FB4-SE_DR1a, FB4-SE_DR1b, FB4-SE_DR1c, FB4-SE_DR1d, FB4-SE_DR1, FB4-WEDGE_DR-D.1, FB4-WEDGE_DR-D.2, FB4-WEDGE_DR-D, FB4-WEDGE_DR-E, FB4-WEDGE_DR1a, FB4-WEDGE_DR1b, FB4-WEDGE_DR1c, FB4-WEDGE_DR1, N-3-FW_DREW53, FB3-FW_Other2, FB3-FW_Other3, FB4-SE_DR34, FB3-HW_PX1, FB3-HW_PX2, FB3-HW_PX41, FB3-HW_PX4, FB3-HW_PX5, FB3-HW_PXS1, FB3-HW_PXS2, FB3-HW_PXS3
AGB Main	AGB7D, AGBM1, AGB Core, AGBM2, AGBN1, AGBN2, AGBN3
AGB South	AGBS1, AGBS2, AGBS3, AGBS4, AGBS5
AGB West	AGBW1, AGBW2, AGBW3, AGBW4, AGBW5
BNZ-Core	BNZ_Main, BNZ_FSW1, BNZ_FSW1b, BNZ_FSW1c, BV_1, BV_10, BV_2, BV_4, BV_5, BV_6, BV_9
BNZ-Other	BNZ_FNW1, BNZ_FNW1b, BNZ_FNW1c, BNZ_FNW3b, BNZ_FSW2, BNZ_FSW2b, BNZ_FSW2d, BNZ_NE1, BNZ_NE2, BNZ_NE3, BNZ_NE4, BNZ_NW1a, BNZ_NW1b, BNZ_NW3, BNZ_NW3b, BNZ_NE5
TH3	TH3_2-core
TH2	TH2_1, TH2_2, TH2_3, TH2_4, TH2_5, TH3_2-3a, TH3_2-3b, TH3_2-5, TH3_2-6, TH3_2-7, TH3_2-9, TH3_2-9a, TH3_2-9b, TH3_2-core-NE, TH3_3-1, TH3_3-2, TH3_3-3, TH3_3-4, TH3_3-5, TH3_4-2, TH3_4-3,

TABLE 14.3 LIST OF GRADE ESTIMATION DOMAINS IN GRADE ESTIMATION DOMAIN GROUPING	
Estimation Group	List of Domains
	TH3_4-4, TH3_4-5, JK_1, JK_3, JK_3a, JK_4, BNZ-S_main-trend1, BNZ-S_main-trend2, BNZ-S_main-trend3, BNZ-S_north, BNZ-S_south, BNZ-S_south-iso, BNG_1, BNG_2, BNG_4, BNG_5, BNG_6, BNG_7, BNG_7b, BNG_8, BNG_9
RDG	RDG_1, RDG_2b, RDG_3, RDG_4, RDG_F10, RDG_F10b, RDG_F10c, RDG_F10d

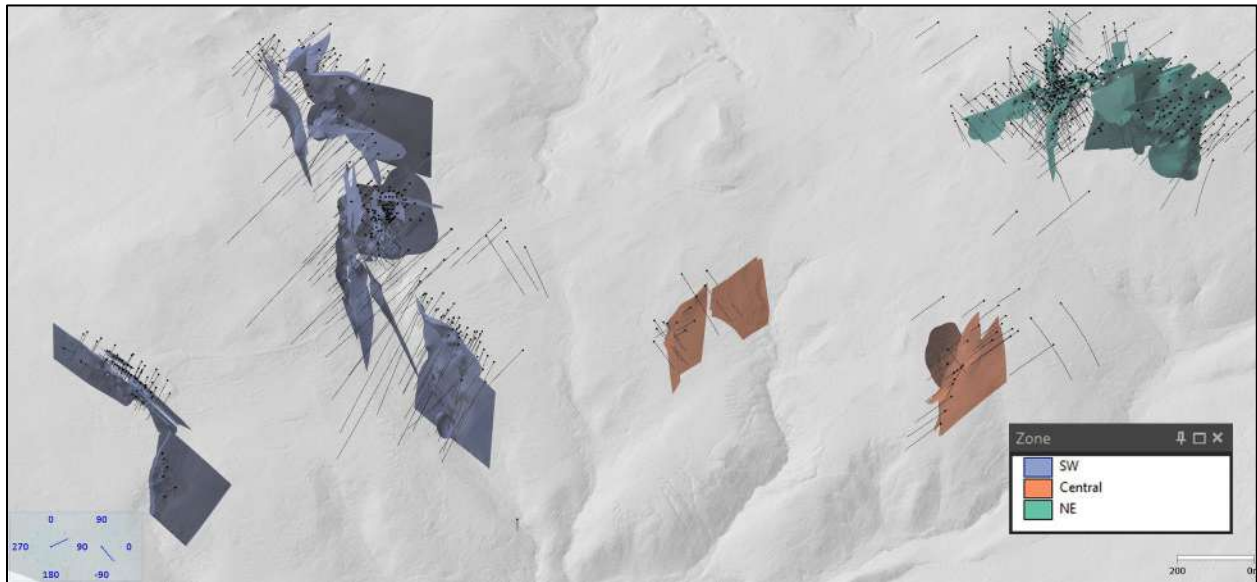
Source: APEX (2024)

FIGURE 14.1 ORTHOGONAL VIEW OF THE LAWYERS AREA GRADE ESTIMATION DOMAINS



Source: APEX (2024)

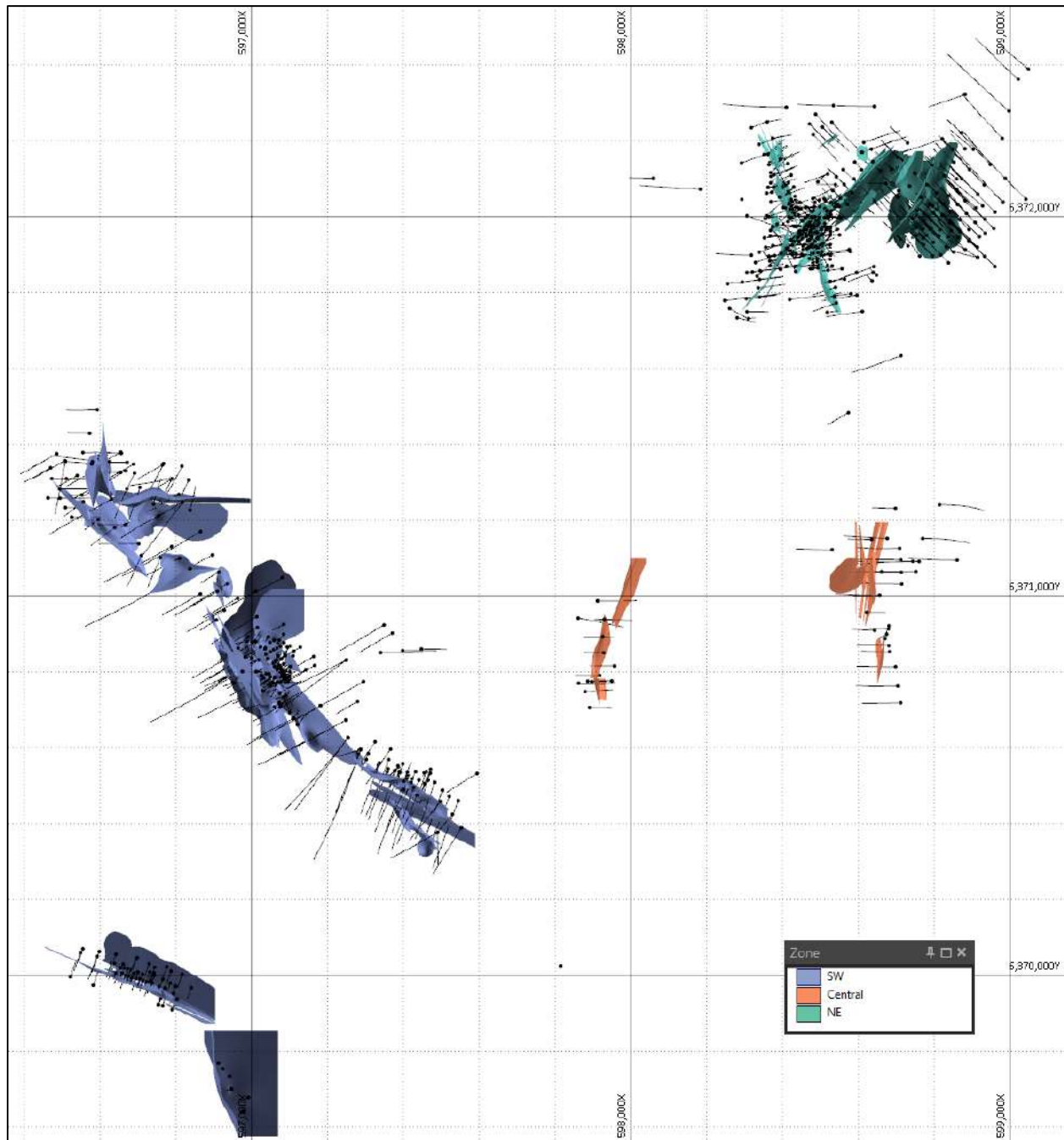
FIGURE 14.2 ORTHOGONAL VIEW OF THE RANCH AREA GRADE ESTIMATION DOMAINS



Source: APEX (2024)

*P&E Mining Consultants Inc.
Thesis Gold Inc., Lawyers-Ranch Gold-Silver Project, Report No. 458*

FIGURE 14.4 PLAN VIEW OF THE RANCH AREA GRADE ESTIMATION DOMAINS



Source: APEX (2024)

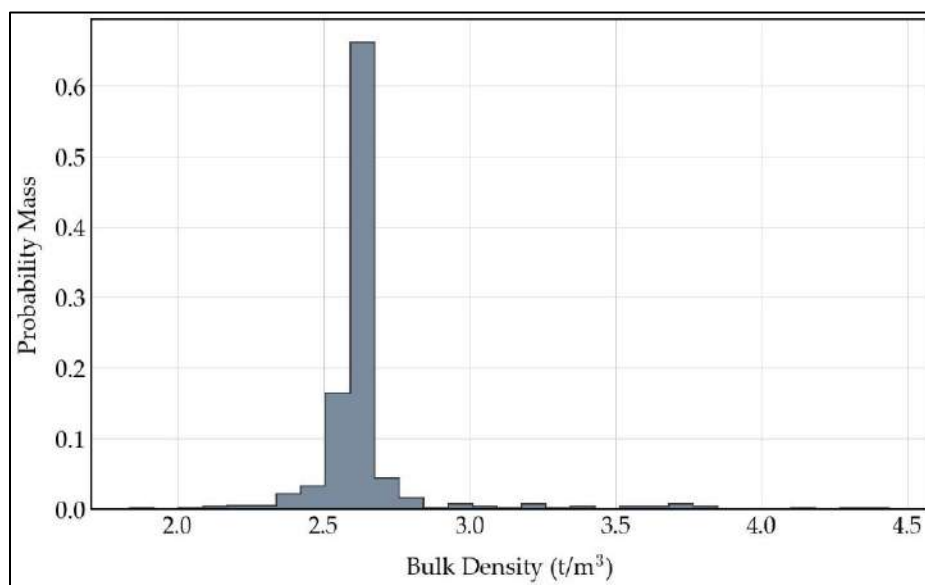
14.4 EXPLORATORY DATA ANALYSIS

14.4.1 Bulk Density

Bulk density measurements collected in the field use the Archimedes method. A limited number of drill core samples measured in the field were submitted to a lab for wax-coated bulk density measurements. Although the small sample size prevents a comprehensive comparison, initial results suggest that field bulk density measurements are adequate proxies for bulk density. This is expected given the geological characteristics of most mineralization. However, in the Ranch Area, zones of leached-vuggy material require additional wax-coated bulk density measurements to ensure accuracy. To date, only historical drill core samples from these zones have been tested. Fresh material is needed to better understand the bulk density characteristics of the leached-vuggy material.

A total of 2,538 field bulk density measurements were collected from drill holes completed from 2019 to 2023 at the Cliff Creek, Dukes Ridge, and Pheonix Zones. Of which, 620 are located within the mineralization domains. The wireframe-constrained bulk density ranged from 1.84 to 4.44 t/m³ (Figure 14.5). A uniform bulk density value of 2.67 t/m³ was applied for all mineralized grade estimation domains in the Mineral Resource models. The waste bulk density ranged from 1.72 to 4.30 t/m³. A uniform bulk density value of was 2.65 t/m³ was applied to waste for pit optimization.

FIGURE 14.5 **CONSTRAINED BULK DENSITY FOR CLIFF CREEK FROM 2019-2023 DRILL HOLES**

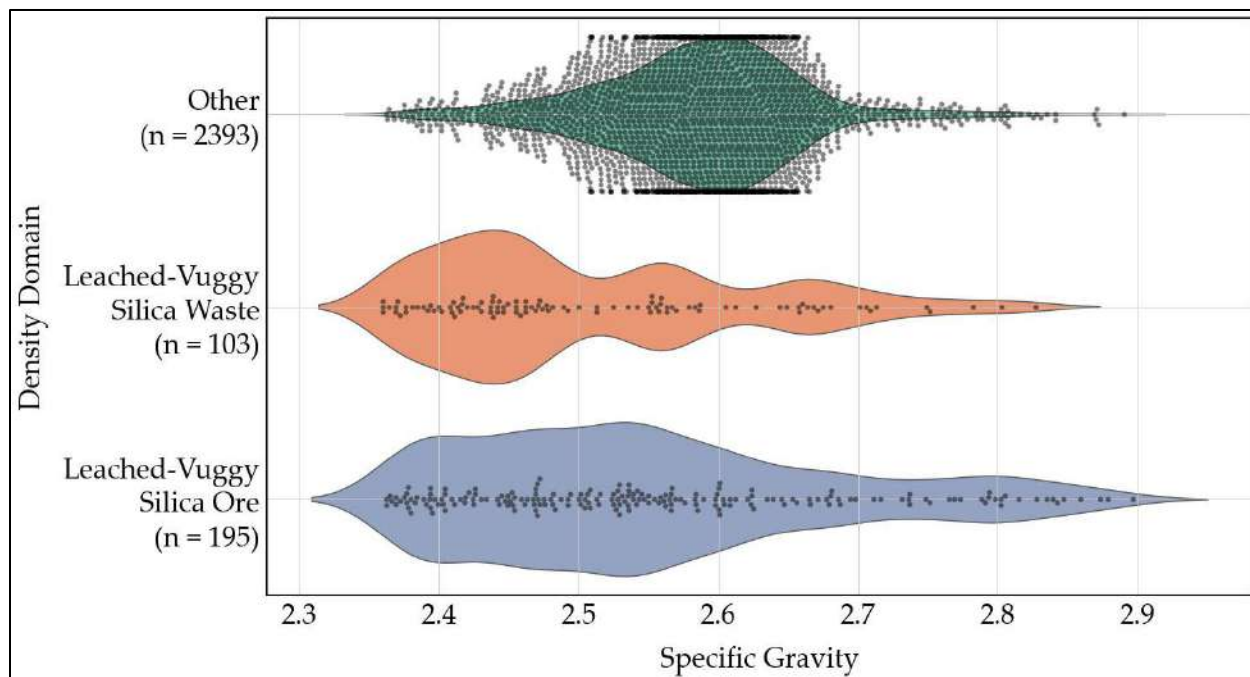


Source: APEX (2024)

During the 2021-2023 drill hole programs in the Ranch Area, 3,064 bulk density measurements were collected in the field. Exploratory data analysis (EDA) identified three key bulk density domains (Figure 14.6): mineralized leached-vuggy silica (2.53 t/m³), unmineralized

leached-vuggy silica (2.47 t/m³), and all other Ranch drill core (2.59 t/m³). The Mineral Resource model for the Ranch Area assigns one of these three bulk density values based on 3-D wireframes representing the distribution of each bulk density domain.

FIGURE 14.6 BULK DENSITY MEASUREMENTS FOR RANCH AREA GROUPED BY BULK DENSITY DOMAIN



Source: APEX (2024)

14.4.2 Raw Analytical Data

Table 14.4 presents the summary statistics for the raw (not composited) assays from sample intervals within the grade estimation domains. The assays within each grade estimation domain exhibit a single coherent statistical population.

TABLE 14.4
RAW ASSAY STATISTICS FOR THE LAWYERS-RANCH MINERAL RESOURCE AREAS

Statistic	Au				Ag				Cu
	CC	DRPX	AGB	Ranch	CC	DRPX	AGB	Ranch	Ranch
Count	28,932	7,454	8,461	12,403	28,932	7,454	8,461	12,403	12,403
Mean	0.76	0.84	1.23	3.44	22.87	33.62	51.39	4.49	0.052
Standard Deviation	4.05	5.11	10.90	20.12	121.57	177.17	184.05	20.98	0.335
Coefficient of Variation	5.34	6.11	8.83	5.84	5.32	5.27	3.58	4.67	6.4
Min	0.0005	0.0005	0.0005	0.0005	0.01	0.01	0.03	0.01	0
10 Percentile	0.03	0.04	0.03	0.17	1.11	1.99	6.44	0.01	0
50 Percentile	0.2	0.22	0.17	0.95	4.33	8.55	20.40	0.58	0.002
90 Percentile	1.37	1.19	1.95	5.45	37.00	50.77	87.20	7.96	0.062
Max	316	219.14	682.28	1,356.00	7,622.00	8,560.00	8,170.00	902.00	19.050

Source: APEX (2024) Au and Ag units are g/t; Cu units are %

Note: CC = Cliff Creek, DRPX = Dukes Ridge – Phoenix, AGB = Amethyst Gold Breccia.

14.4.3 Compositing Methodology

Drill hole sample interval lengths within the grade estimation domains range from 0.05 to 8.38 m. A composite length of 2.0 m was selected for the Lawyers Area. In comparison, a 1.5 m composite length was selected for the Ranch Area, since most sample interval lengths are equal to or less than that length. Composites that are $\pm 25\%$ of the target composite length are not considered for grade estimation.

A balanced compositing method was selected, which uses regularized length composites based on the combined length of samples in each contiguous unit, defined as the drill hole segment between domain boundary contacts. The composite length for each contiguous unit is chosen to closely match a predefined target composite length, ensuring uniformity across the unit. For example, with a contiguous unit measuring 4.5 m and a target composite length of 2 m, the method would split the contiguous unit into two composites of 2.25 m each. In comparison, traditional compositing would generate two composites with lengths of 2.0 m and a third with a length of 0.5 m. This method aims to maintain a consistent support volume across the grade estimation domain, reducing the impact of short composites and their potential bias on grade interpolation.

14.4.4 Grade Capping

Composites are capped to a specified maximum value to ensure metal grades are not overestimated by including outlier values during grade estimation. Log-probability plots illustrating each composite's values are used to identify outlier values that appear greater than expected relative to each grade estimation domain's commodity distribution. Composites identified as potential outliers on the log-probability plots are evaluated in three-dimensions ("3-D") to determine whether they are part of a high-grade trend. Identified outliers that are deemed part of a high-grade trend may still require grade capping. In that case, 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 group. Table 14.5 indicates 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 detailed in Table 14.5 are applied to all composites used to calculate the MRE.

TABLE 14.5 GRADE CAPPING LEVELS APPLIED TO COMPOSITES BEFORE GRADE ESTIMATION								
Mineral Resource Area	Grade Capping Group	No. Composites	Au		Ag		Cu	
			Capping Level (g/t)	No. Capped Composites	Capping Level (g/t)	No. Capped Composites	Capping Level (%)	No. Capped Composites
CCDRPX	CCM-HG	7,737	62	2	1,730	6	-	-
	CCM-Core	824	22	3	650	9	-	-
	CCN-HG	784	15.1	1	400	2	-	-
	CCN-LG	1,610	15	3	800	1	-	-
	CCS	2,743	14.2	1	320	4	-	-
	CCE	1,888	18	1	600	5	-	-
	DR-FB1	565	5	3	-	0	-	-
	DR-FB2	319	12	1	-	0	-	-
	DR-FB3-LG	464	-	0	160	2	-	-
	DR-FB4-HG	2323	30	2	600	7	-	-
	DR-FB4-LG	216	2.3	2	150	4	-	-
	PX	197	15	1	280	3	-	-
AGB	AGB Main	2,134	44	8	1,360	4	-	-
	AGB Main/North Minor	216	1.5	3	84	1	-	-
	AGB South	999	11	10	156	10	-	-
	AGB South Minor	269	2.6	4	25	15	-	-
	AGB West	995	9.9	1	320	3	-	-
	AGB West Minor	87	0.55	3	101	1	-	-
Ranch	BNZ-Main	1,334	90	7	32	3	3.000	2
	BNZ-FSW1	528	120	3	11	3	0.807	3

TABLE 14.5
GRADE CAPPING LEVELS APPLIED TO COMPOSITES BEFORE GRADE ESTIMATION

Mineral Resource Area	Grade Capping Group	No. Composites	Au		Ag		Cu	
			Capping Level (g/t)	No. Capped Composites	Capping Level (g/t)	No. Capped Composites	Capping Level (%)	No. Capped Composites
	BNZ-FNW1	226	7.9	1	9.5	5	0.051	1
	BNZ-FNW3	4	-	0	-	0	-	0
	BNZ-FSW2	174	20	4	6	7	0.073	3
	BNZ-NE	247	8	2	37	5	0.850	2
	BNZ-NW	71	1.08	7	2.7	2	0.079	1
	BV-Main-Steep	146	18	3	8	3	-	0
	BV-Main-Mod	118	27.1	1	9	1	0.023	1
	BV-Iso	43	3.31	3	7.5	6	-	0
	TH3-2-Core	1,175	94	4	26	5	0.100	6
	TH2	700	30	3	36	2	0.800	3
	TH3-2	377	4.8	3	15	3	0.120	4
	TH3-3	172	2.9	5	9	1	0.070	5
	TH3-4	524	10	2	15.2	4	0.120	1
	JK-Main	98	3.6	6	32	2	0.600	3
	JK-Other	11	-	0	-	0	-	0
	BNZ-S-Main	137	1.8	3	21	6	1.130	3
	BNZ-S-FB	26	1.54	3	9	3	0.420	1
	BNZ-S-Iso	21	1.5	1	1.5	2	0.023	2
	BNG-North	84	5.67	2	35	5	0.225	6
	BNG-North-Steep	195	8.86	6	60	2	3.500	3
	BNG-SW-Steep	169	-	0	17.6	3	2.000	1
	BNG-Central	53	3	2	4	6	0.070	2

TABLE 14.5 GRADE CAPPING LEVELS APPLIED TO COMPOSITES BEFORE GRADE ESTIMATION								
Mineral Resource Area	Grade Capping Group	No. Composites	Au		Ag		Cu	
			Capping Level (g/t)	No. Capped Composites	Capping Level (g/t)	No. Capped Composites	Capping Level (%)	No. Capped Composites
	BNG-SE	63	1.94	4	4	5	0.075	5
	RDG-Steep	354	15	5	315	2	1.700	1
	RDG-Horiz	167	7	2	51	4	0.125	6

Source: APEX (2024)

Note: CCDRPX = Cliff Creek-Dukes Ridge-Phoenix, AGB = Amethyst Gold Breccia.

14.4.5 Declustering

Data collection commonly focuses on high-value areas, resulting in sparse areas being underrepresented in the raw composite statistics and distributions. Spatially representative (declustered) statistics and distributions are required for accurate validation. Declustering techniques calculate a weight for each datum, giving more weight to data in sparse and less in dense areas. Using cell sizes indicated in Table 14.6, APEX personnel applied cell declustering to calculate weights for each composite inside a grade estimation domain.

TABLE 14.6 DECLUSTERING CELL SIZES		
Mineral Resource Area	Prospect / Subgroup	Cell Declustering Size (m)
CCDRPX	-	35
AGB	-	51
Ranch	BNZ-Main	7
	BNZ-Other	17
	TH3-Core	10
	TH3-Other	22
	TH2	30
	RDG	15
	BNG	35
	BNZ-S	30
	BV	32
	JK	37

Source: APEX (2024)

Note: CCDRPX = Cliff Creek-Dukes Ridge-Phoenix, AGB = Amethyst Gold Breccia.

14.4.6 Final Composite Statistics

Summary statistics for the declustered and capped composites contained within the interpreted grade estimation domains are presented in Table 14.7. The commodity assays within the grade estimation domain generally exhibit coherent individual statistical populations.

TABLE 14.7
SUMMARY STATISTICS FOR THE DECLUSTERED AND CAPPED COMPOSITES

Statistic	Au				Ag				Cu			
	CC	DRPX	AGB	Ranch	CC	DRPX	AGB	Ranch	CC	DRPX	AGB	Ranch
Count	15,586	4,084	4,700	7,217	15,586	4,084	4,700	7,217	-	-	-	0.722
Mean	0.71	0.64	0.69	2.41	20.8	26.6	36.1	5.0	-	-	-	0.042
Standard Deviation	2.47	2.05	2.32	7.10	83.2	91.3	81.8	17.7	-	-	-	0.171
Coefficient of Variation	3.48	3.18	3.35	2.94	4.0	3.4	2.3	3.6	-	-	-	4.0
Min	0.0005	0.0005	0.0005	0.0005	0.005	0.005	0.240	0.005	-	-	-	0.000
10 Percentile	0.06	0.09	0.03	0.24	1.4	3.1	5.6	0.0	-	-	-	0.000
50 Percentile	0.26	0.25	0.17	0.92	5.1	9.7	17.2	0.8	-	-	-	0.004
90 Percentile	1.38	1.10	1.42	4.58	38.1	47.2	66.9	9.7	-	-	-	0.073
Max	106.53	57.40	44.00	120.00	2,956.0	3,725.1	1,360.0	315.0	-	-	-	3.500

Source: APEX (2024)

Notes: Statistics consider declustering weights and capping.

Au and Ag units are g/t; Cu units are %, CC = Cliff Creek, DRPX = Dukes Ridge - Phoenix, AGB = Amethyst Gold Breccia.

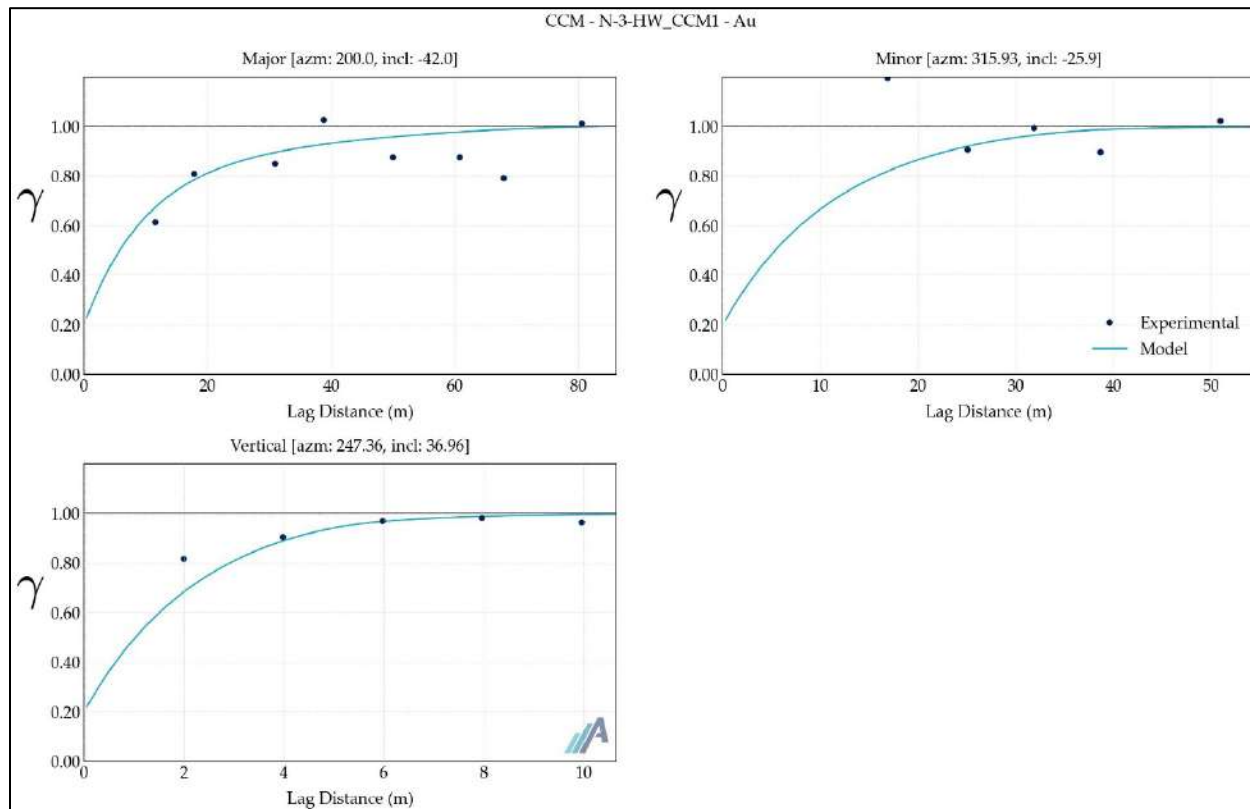
14.5 VARIOGRAPHY AND GRADE CONTINUITY

Experimental semi-variograms are calculated along the major, minor, and vertical principal directions of continuity, defined by three Euler angles. These angles describe the orientation of anisotropy through a series of left-hand rule rotations that are:

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

APEX calculated standardized correlograms for each Mineral Resource Zone using composite data. In each zone, the primary geological factors affecting mineralization guided the main directions for continuity, which served as the basis for variogram calculations. Figure 14.7 illustrates a gold variogram modelled using composites from N-3-HW_CCM1, the largest domain at Cliff Creek. Table 14.8 details the variogram parameters used for kriging in each Zone.

FIGURE 14.7 N-3-HW_CCM1 GOLD SEMI-VARIOGRAM



Source: APEX (2024)

TABLE 14.8
STANDARDIZED SEMI-VARIOGRAM PARAMETERS

Com- modity	Grade Estimation Group	Ang1	Ang2	Ang3	Sill	C0	Structure 1					Structure 2				
							Type	C1	Ranges (m)			Type	C2	Ranges (m)		
									Major	Minor	Vert- ical			Major	Minor	Vert- ical
Au	CCM	LVA	LVA	LVA	1	0.2	Exp	0.5	40.0	30.0	6.0	Sph	0.3	90.0	60.0	7.0
	CCE	LVA	LVA	LVA	1	0.2	Exp	0.65	30.0	30.0	6.0	Sph	0.15	90.0	40.0	6.0
	DR-PX	LVA	LVA	LVA	1	0.2	Exp	0.60	30.0	30.0	8.0	Sph	0.20	90.0	40.0	8.0
	AGB Main	165	-10	86	1	0	Exp	0.9	30.0	15.0	10.0	Sph	0.1	95.0	45.0	10.0
	AGB South	260	-60	0	1	0.3	Exp	0.5	50.0	25.0	5.0	Sph	0.2	95.0	40.0	20.0
	AGB West	200	-60	35	1	0	Exp	0.85	40.0	25.0	7.0	Sph	0.15	90.0	50.0	7.0
	BNZ-Core	LVA	LVA	LVA	1	0.2	Exp	0.70	12.0	12.0	7.5	Sph	0.10	35.0	25.0	7.5
	BNZ-Other	LVA	LVA	LVA	1	0.2	Exp	0.70	12.0	12.0	7.5	Sph	0.10	35.0	25.0	7.5
	TH3	LVA	LVA	LVA	1	0.2	Exp	0.70	12.0	12.0	7.5	Sph	0.10	35.0	25.0	7.5
	TH2	LVA	LVA	LVA	1	0.35	Exp	0.45	35.0	35.0	9.0	Sph	0.20	60.0	40.0	9.0
	RDG	LVA	LVA	LVA	1	0.1	Exp	0.70	35.0	35.0	7.5	Sph	0.20	90.0	70.0	7.5
Ag	CCM	LVA	LVA	LVA	1	0.2	Exp	0.5	40.0	30.0	6.0	Sph	0.3	90.0	60.0	7.0
	CCE	LVA	LVA	LVA	1	0.2	Exp	0.65	30.0	30.0	6.0	Sph	0.15	90.0	40.0	6.0
	DR-PX	LVA	LVA	LVA	1	0.2	Exp	0.60	30.0	30.0	8.0	Sph	0.20	90.0	40.0	8.0
	AGB Main	165	-10	86	1	0	Exp	0.9	30.0	15.0	10.0	Sph	0.1	95.0	45.0	10.0
	AGB South	260	-60	0	1	0.3	Exp	0.5	50.0	25.0	5.0	Sph	0.2	95.0	40.0	20.0
	AGB West	200	-60	35	1	0	Exp	0.85	40.0	25.0	7.0	Sph	0.15	90.0	50.0	7.0
	BNZ-Core	LVA	LVA	LVA	1	0.2	Exp	0.70	12.0	12.0	7.5	Sph	0.10	35.0	25.0	7.5
	BNZ-Other	LVA	LVA	LVA	1	0.2	Exp	0.70	12.0	12.0	7.5	Sph	0.10	35.0	25.0	7.5
	TH3	LVA	LVA	LVA	1	0.2	Exp	0.70	12.0	12.0	7.5	Sph	0.10	35.0	25.0	7.5
	TH2	LVA	LVA	LVA	1	0.35	Exp	0.45	35.0	35.0	9.0	Sph	0.20	60.0	40.0	9.0
	RDG	LVA	LVA	LVA	1	0.1	Exp	0.70	35.0	35.0	7.5	Sph	0.20	90.0	70.0	7.5

TABLE 14.8 STANDARDIZED SEMI-VARIOGRAM PARAMETERS																
Com- modity	Grade Estimation Group	Ang1	Ang2	Ang3	Sill	C0	Structure 1					Structure 2				
							Type	C1	Ranges (m)			Type	C2	Ranges (m)		
									Major	Minor	Vert- ical			Major	Minor	Vert- ical
Cu	CCDRPX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BNZ-Core	LVA	LVA	LVA	1	0.2	Exp	0.70	12.0	12.0	7.5	Sph	0.10	35.0	25.0	7.5
	BNZ-Other	LVA	LVA	LVA	1	0.2	Exp	0.70	12.0	12.0	7.5	Sph	0.10	35.0	25.0	7.5
	TH3	LVA	LVA	LVA	1	0.2	Exp	0.70	12.0	12.0	7.5	Sph	0.10	35.0	25.0	7.5
	TH2	LVA	LVA	LVA	1	0.35	Exp	0.45	35.0	35.0	9.0	Sph	0.20	60.0	40.0	9.0
	RDG	LVA	LVA	LVA	1	0.1	Exp	0.70	35.0	35.0	7.5	Sph	0.20	90.0	70.0	7.5

Source: APEX (2024)

Abbreviations: C0 – nugget effect; C1 – covariance contribution of first structure; C2 – covariance contribution of second structure; Vert – vertical; Sph – spherical variogram; Exp – exponential variogram. The sill and covariance contributions have been standardized to 1.

14.6 BLOCK MODEL

14.6.1 Block Model Parameters

The block models used to calculate the 2024 Lawyers-Ranch MRE fully encapsulate the Lawyers and Ranch Deposit grade estimation domains described in Section 14.3. No blocks were estimated outside of the grade estimation domains. The grid definitions used are described in Tables 14.9 and 14.10 for the Lawyers and Ranch Areas, respectively.

A block volume factor that represents the percentage of each block's inclusion within each grade estimation domain is calculated and used to:

- Flag the dominant domain by volume for each block; and
- Calculate the percentage of mineralized material and waste for each block.

TABLE 14.9 LAWYERS AREA BLOCK MODEL GRID DEFINITION			
Parameter	Block Size (m)	Minimum Extent (Centre of Block)	Number of Blocks
X (Easting)	5	607,210	680
Y (Northing)	5	6,353,335	780
Z (Elevation)	5	900	220
Rotation (Z axis):	340		

Source: APEX (2024)

Notes: *Origin for a block model in RMSPTM represents the coordinates of the centroid of the block with minimum U, V, and Z. Block axis U and V represent the X and Y, respectively, after rotation.

TABLE 14.10 RANCH AREA BLOCK MODEL GRID DEFINITIONS				
Grid	Parameter	Block Size (m)	Minimum Extent (Center of Block)	Number of Blocks
Central	X (Easting)	2.5	597546	600
	Y (Northing)	5	6370335	240
	Z (Elevation)	5	1340	95
	Rotation (Z axis):	0		
	Zones	JK, BNZ-S		
North East	X (Easting)	5	598,569	300
	Y (Northing)	2.5	6,371,135	488
	Z (Elevation)	5	1,465	69
	Rotation (Z axis):	310		
	Zones	BNZ, RDG		

TABLE 14.10 RANCH AREA BLOCK MODEL GRID DEFINITIONS				
Grid	Parameter	Block Size (m)	Minimum Extent (Center of Block)	Number of Blocks
South West	X (Easting)	5	594962	500
	Y (Northing)	2.5	6,370,485	1200
	Z (Elevation)	5	1270	106
	Rotation (Z axis):	48		
	Zones	BNG, BV, TH2, TH3		

Source: APEX (2024)

Notes: *Origin for a block model in RMSP™ represents the coordinates of the centroid of the block with minimum U, V, and Z. Block axis U and V represent the X and Y, respectively, after rotation.

14.7 GRADE ESTIMATION METHODOLOGY

14.7.1 Grade Estimation of Mineralized Material

Ordinary Kriging (“OK”) was used to estimate metal grades for the 2024 Lawyers-Ranch MRE block model. Only blocks that intersect the mineralization domains were estimated for metal grades.

Grade estimation uses locally varying anisotropy (LVA), which utilizes different rotation angles to set the variogram model’s principal directions and search ellipsoid for each block. Trend oriented wireframe surfaces assign these angles to blocks within the estimation domain, enabling structural complexities to be captured in the estimated block model.

During grade estimation for each domain, the nugget effect and covariance contributions of the standardized variogram model are scaled to match the variance of the composites within that domain. The ranges used for each mineralized zone are unchanged from the standardized variogram model.

Boundaries between grade estimation domains and country rock are considered hard boundaries which indicate data from outside a domain can’t be used for grade estimation within that domain.

A one to four-pass estimation method was utilized in most grade estimation groups to control Kriging’s inherent smoothing and manage the influence of high-grade samples, ensuring correct volume variance is achieved at the selected block scale. Each pass has specific rules, including limits on the number of composites considered per drill hole, search sector, and total, as outlined in Table 14.11. Although these rules introduce local bias, they improve the global accuracy of the grade and tonnage estimates above the reported cut-off.

TABLE 14.11 BLOCK MODEL GOLD INTERPOLATION PARAMETERS								
Grade Estimation Group	Pass	Max Search Ranges (m)			No. of Ellipse Sectors	Min No. of Comps	Max No. of Comps	Max No. of Comps per DH
		Major	Minor	Vertical				
CCM	1	30.0	30.0	6.0	1	1	30	2
	2	90.0	40.0	6.0	1	1	30	2
	3	180.0	80.0	12.0	1	1	30	2
CCE	1	40.0	30.0	6.0	1	1	30	2
	2	90.0	60.0	6.0	1	1	30	2
	3	180.0	120.0	12.0	1	1	30	2
DR-PX	1	30.0	30.0	8.0	1	1	30	2
	2	90.0	40.0	8.0	1	1	30	2
	3	180.0	120.0	16.0	1	1	30	2
AGB Main	1	30	30	10	4	2	16	2
	2	90	45	10	4	1	24	2
	3	180	90	20	4	1	32	3
AGB South	1	30	30	7	4	2	16	2
	2	90	50	7	4	1	24	2
	3	180	100	20	4	1	32	3
AGB West	1	40	40	10	2	2	8	2
	2	95	40	20	4	1	32	4
	3	190	80	40	4	1	32	4
BNZ-Core	1	12.0	12.0	7.5	1	3	30	2
	2	35.0	25.0	7.5	1	1	30	2
BNZ-Other	1	35.0	25.0	7.5	1	3	30	2
	2	70.0	50.0	15.0	1	1	30	2
	3	105.0	75.0	15.0	1	1	30	2
TH3	1	12.0	12.0	7.5	1	1	30	2
	2	35.0	25.0	7.5	1	1	30	2
	3	70.0	50.0	15.0	1	1	30	2
TH2	1	35.0	35.0	9.0	1	3	30	2
	2	60.0	40.0	9.0	1	1	30	2
	3	90.0	60.0	15.0	1	1	30	2
	4	120.0	80.0	15.0	1	1	30	2
RDG	1	90.0	70.0	7.5	1	1	30	4

Source: APEX (2024)

14.7.2 Grade Estimation of Waste Material

The open pit optimization for evaluating reasonable prospects for eventual economic extraction relies on a whole block grade. Therefore, blocks that contain waste are diluted by estimating a waste metal value that is volume-weight averaged with the estimated metal grade. It is desired that the behaviour of metal at the boundary between the estimation domain and waste beyond its boundary is reproduced. The nature of mineralization at the mineralized/waste contact is evaluated and used to determine a flag for composites that are used to condition a waste metal estimate for blocks containing waste material. For the Lawyers and Ranch Areas, only composites outside the estimation domains are used to estimate a waste metal value.

14.8 MODEL VALIDATION

14.8.1 Statistical Validation

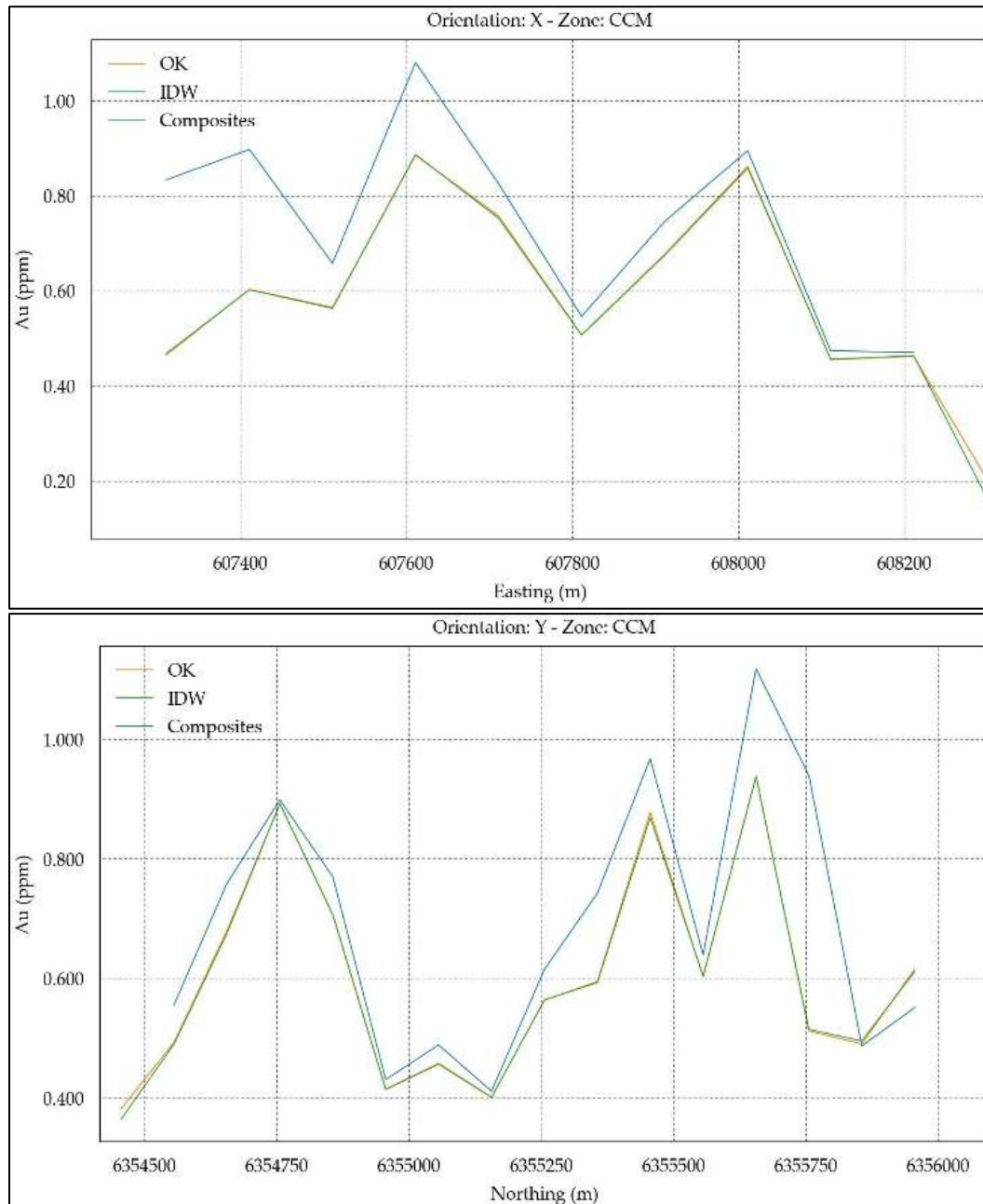
APEX staff conducted statistical tests to validate that the block model accurately reflects drill hole data. Swath plots confirm directional trends, whereas volume-variance analysis verifies accurate mineral quantity estimates at different cut-off grades.

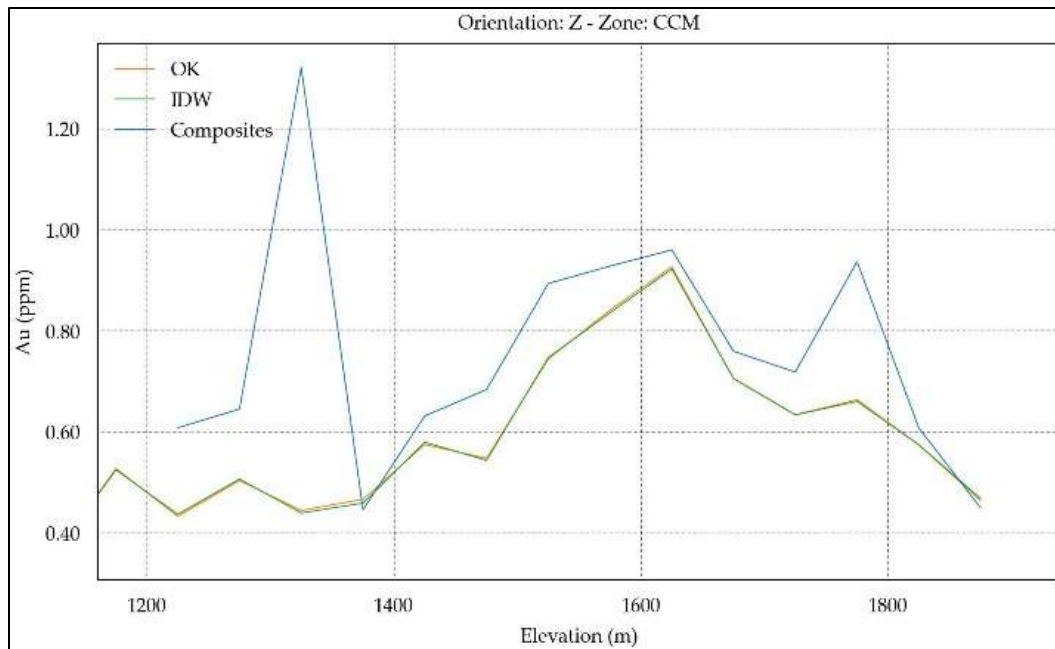
14.8.1.1 Direction Trend Analysis Validation

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. Examples of the swath plots used to validate the MRE are illustrated in Figure 14.8.

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

FIGURE 14.8 CCM DOMAIN ESTIMATION GROUP EASTING SWATH PLOT





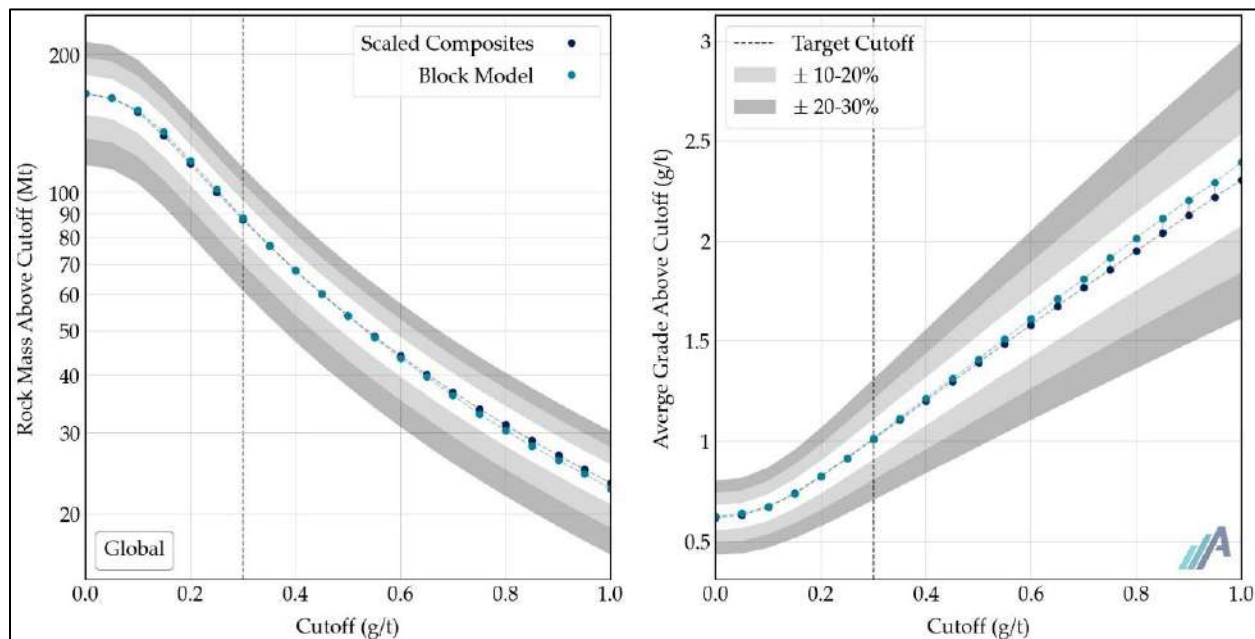
Source: APEX (2024)

14.8.1.2 Volume-Variance Analysis Validation

Smoothing is an intrinsic property of Kriging, and as described in Section 14.7, volume-variance corrections were used to mitigate its effects. Theoretical histograms were calculated to verify the correct level of smoothing, indicating the anticipated variance and distribution of each estimated metal for the chosen block model size. Scaled composite histograms were utilized to compute expected tonnes and average grades above various cut-offs. The comparison between the expected model variance and the variance of the estimated model confirmed that the appropriate level of smoothing was achieved for the estimated blocks' scale.

Overall, the estimated grades illustrate the desired amount of smoothing as illustrated in Figure 14.9. Additional modifications to the search strategy would introduce excessive bias.

FIGURE 14.9 VOLUME-VARIANCE ANALYSIS FOR AU IN CCDRPX GRADE ESTIMATION DOMAINS



Source: APEX (2024)

Note: CCDRPX = Cliff Creek-Dukes Ridge-Phoenix.

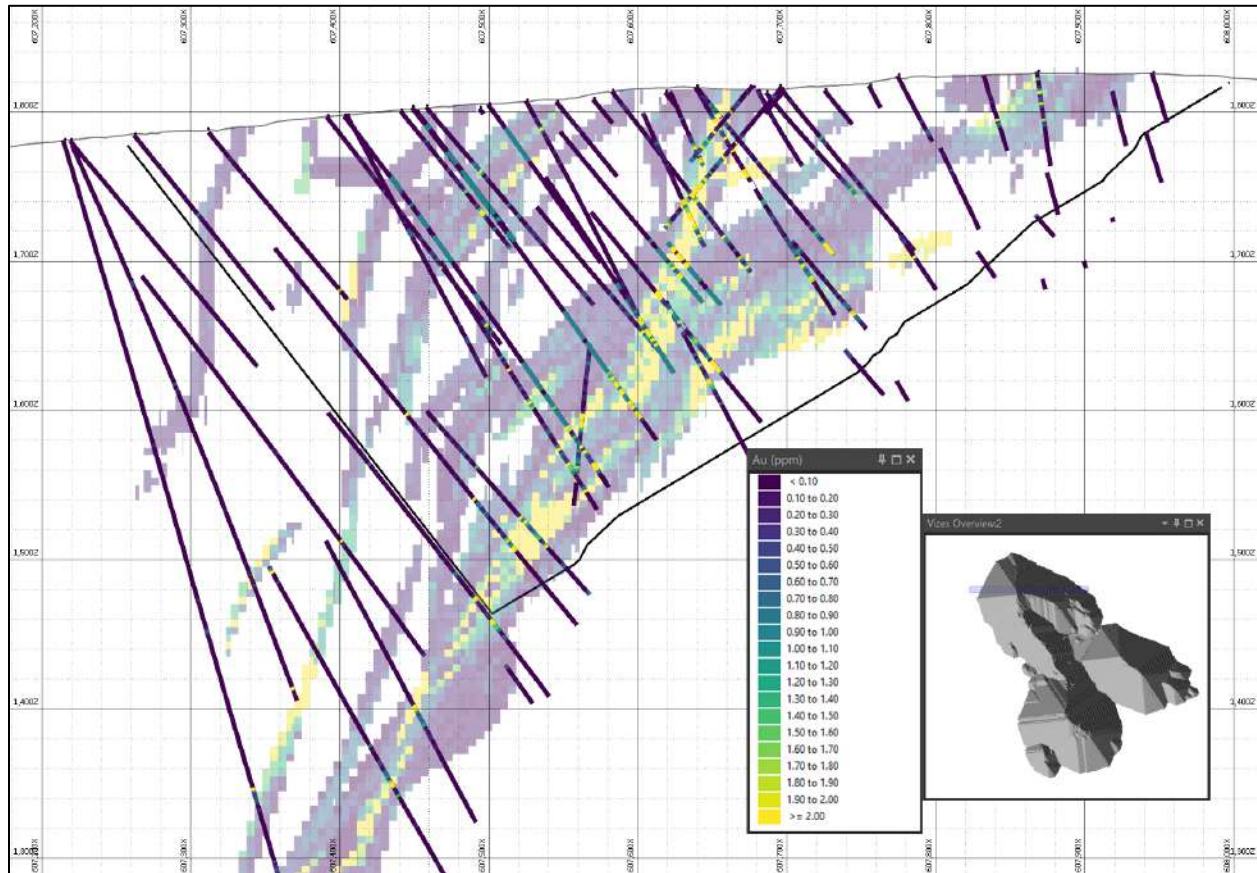
14.8.1.3 Contact Analysis Validation

As described in Section 14.7.2, blocks within the 2024 Lawyers-Ranch MRE block model containing waste are diluted using the estimated and mineralized values. Ideally, the nature of mineralization at the mineralization/waste contact observed in the composites is reproduced in the block model. The mineralization/waste contact profile is adequately reproduced with some under-estimation near the boundaries into mineralized material.

14.8.2 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 drill hole 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. Figures 14.10 to 14.13 illustrate the grade estimation and classification.

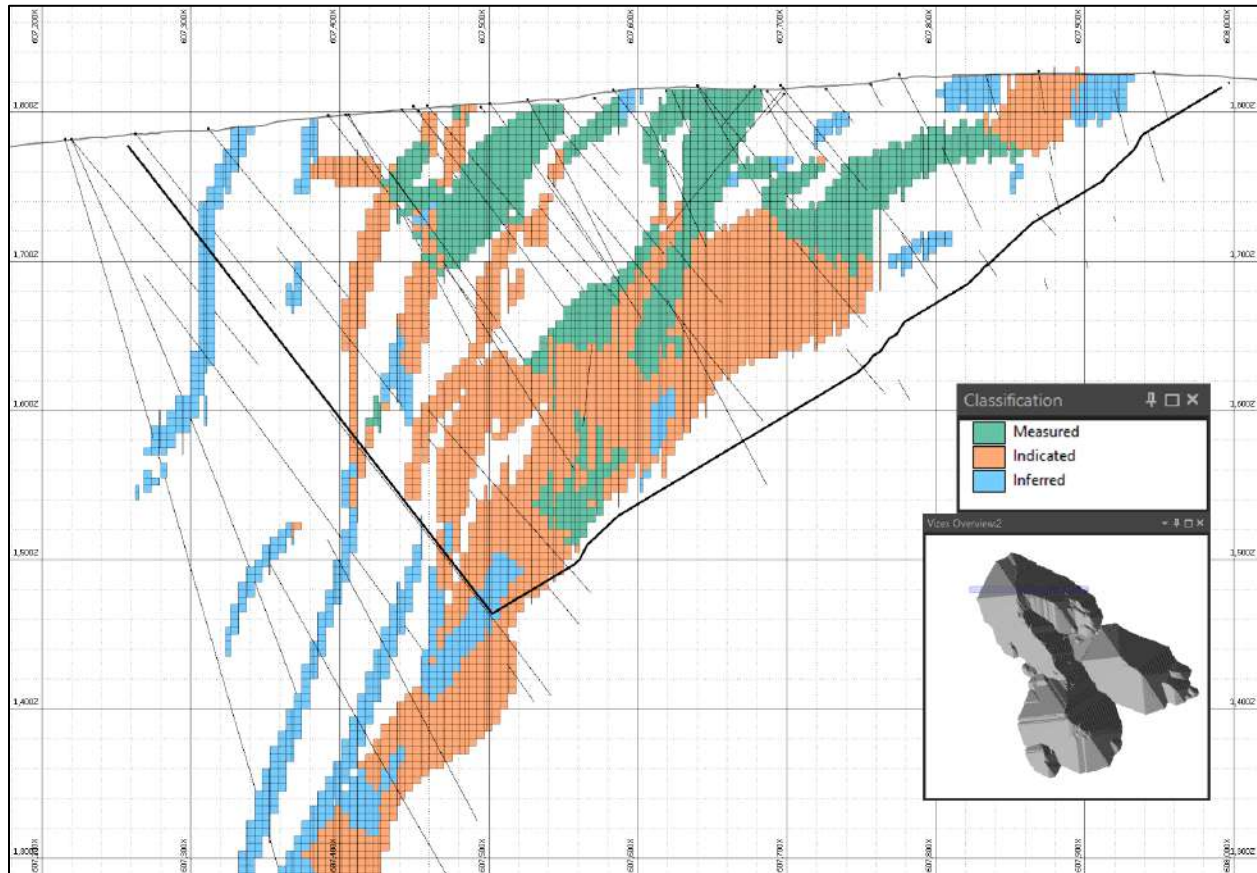
FIGURE 14.10 CROSS-SECTION PROJECTION LOOKING NORTH ALONG 6,355,675 N OF THE GOLD BLOCK MODEL AND US\$1,850/OZ AU PIT SHELL AT CLIFF CREEK



Source: APEX (2024)

Note: Pit Shell = bold black line.

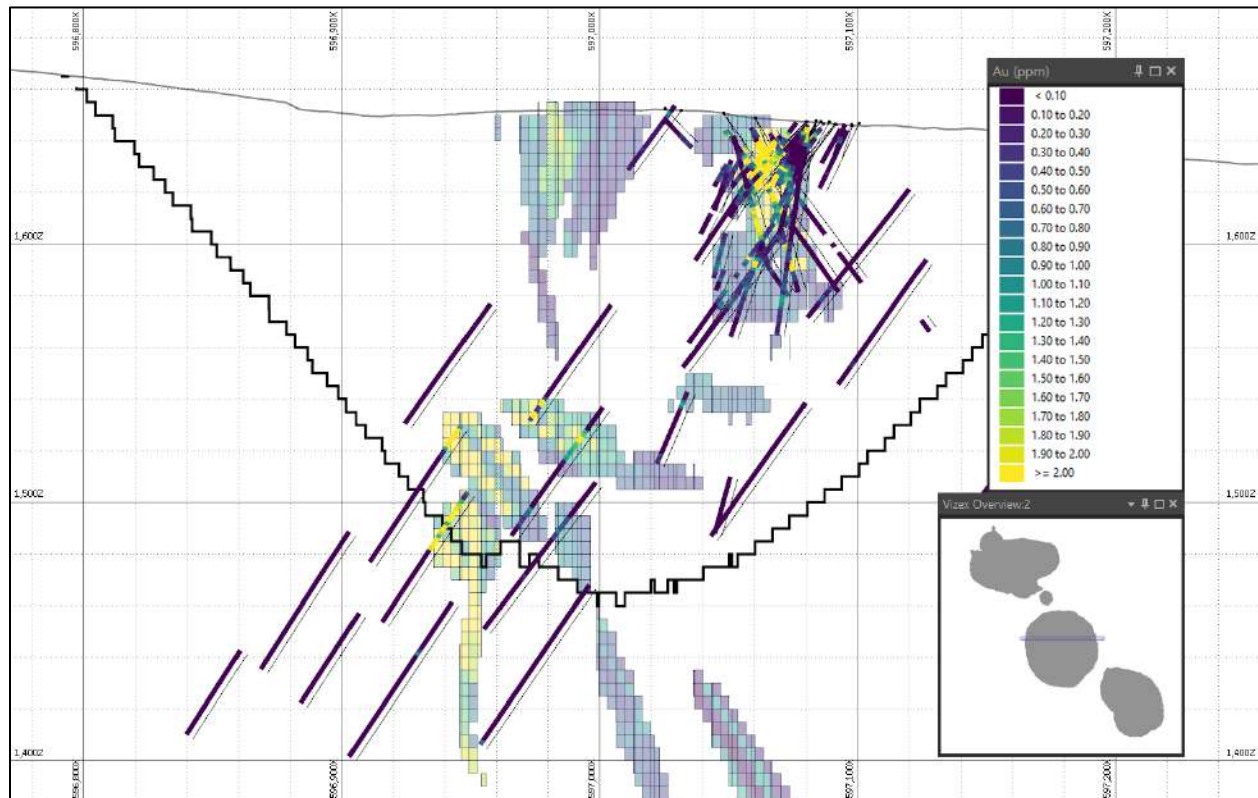
**FIGURE 14.11 CROSS-SECTION PROJECTION LOOKING NORTH ALONG 6,355,675 N OF
THE CLASSIFICATION BLOCK MODEL AND US\$1,850/OZ AU PIT SHELL AT
CLIFF CREEK**



Source: APEX (2024)

Note: Pit Shell = bold black line.

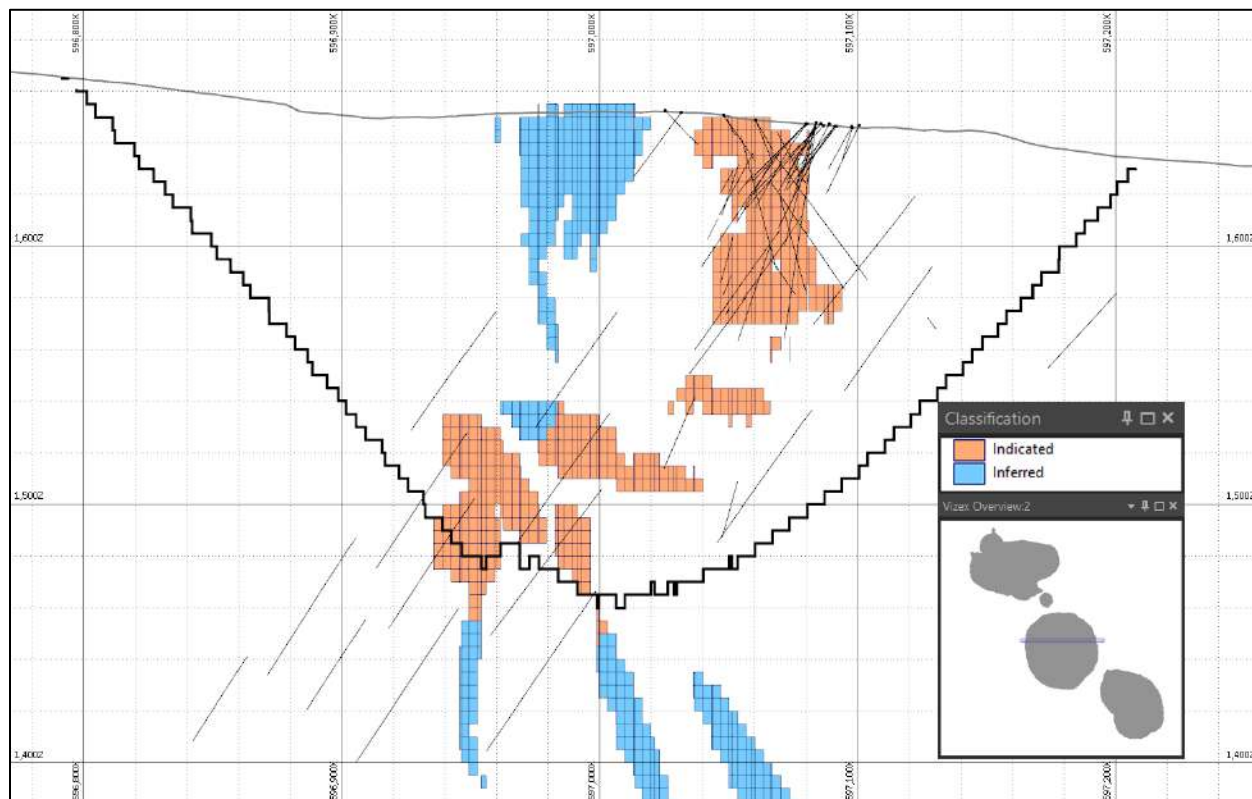
FIGURE 14.12 CROSS-SECTION PROJECTION LOOKING NORTH ALONG 6,370,785 N OF THE GOLD BLOCK MODEL AND US\$1,850/OZ AU PIT SHELL AT THESIS 2



Source: APEX (2024)

Note: Pit Shell = bold black line.

FIGURE 14.13 CROSS-SECTION PROJECTION LOOKING NORTH ALONG 6,370,785 N OF THE CLASSIFICATION BLOCK MODEL AND US\$1,850/OZ AU PIT SHELL AT THESIS 2



Source: APEX (2024)

Note: Pit Shell = bold black line.

14.9 MINERAL RESOURCE CLASSIFICATION

14.9.1 Classification Definitions

The 2024 Lawyers-Ranch 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.

14.9.2 Classification Methodology

According to the CIM definition standards, the 2024 Lawyers-Ranch MRE is classified as Measured, Indicated and Inferred. The classification of the 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.
- Level of confidence in the assigned densities.
- Metallurgical information available for potential recoveries.

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 of the block that 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. This process is completed separately from grade estimation.

Table 14.12 details the range of the search ellipsoids and the number of composites found within the ellipse for a block to be flagged with that pass number. The passes are executed in sequence from pass 1 to 3.

TABLE 14.12 SEARCH RESTRICTIONS APPLIED DURING EACH RUN OF THE MULTIPLE-PASS CLASSIFICATION STRATEGY					
Mineral Resource Area	Classification	Minimum No. of Drill holes	Ranges (m)		
			Major	Minor	Vertical
Lawyers	Measured	3	40	40	20
	Indicated	3	90	45	20
	Inferred	1	90	45	20
Ranch	Indicated	3	40	30	30
	Inferred	1	60	40	30

14.10 REASONABLE PROSPECTS FOR EVENTUAL ECONOMIC EXTRACTION

According to CIM guidelines, reported mineral resources must demonstrate reasonable prospects for eventual economic extraction (“RPEEE”). The following section describes the parameter assumptions and methodologies used to constrain the 2024 Lawyers-Ranch MRE statement.

14.10.1 Open Pit Parameters

The Mineral Resource block model underwent several pit optimization scenarios using Deswik’s Pseudoflow pit optimization. The economic assumptions constraining the open pit Mineral Resource Estimate and reporting cut-off are detailed in Table 14.13. The resulting pit shells were used to constrain the reported pit-constrained Mineral Resources in this Report, with a 0.4 g/t gold equivalent grade (AuEq) cut-off applied.

TABLE 14.13 PARAMETERS USED FOR PIT-CONSTRAINED MINERAL RESOURCE ESTIMATE		
Parameters	Unit	Value
Gold Price	US\$/oz	1,850
Silver Price	US\$/oz	23
Copper Price	US\$/tonne	8,800 (Ranch only)
Exchange Rate	US\$/C\$	0.76
Gold Recovery	%	90 (Lawyers) 92 (Ranch)
Silver Recovery	%	80
Copper Recovery	%	85 (Ranch only)
Ore and Waste Mining Cost	C\$/t mined	3.5
Processing Cost	C\$/t processed	15
G&A Cost	C\$/t processed	5
Pit Slope	degrees	52

14.10.2 Out-of-Pit Mineral Resource Parameters

The 2024 Lawyers-Ranch MRE block model was used to develop various stope scenarios with RPM Global, focusing on achieving a minimum grade for mined material. The longhole open stope mining method was selected for the underground 2024 Lawyers-Ranch MRE. The resulting stopes had a minimum horizontal width of 1.5 m and dimensions of 15 m in both length and height. Based on the parameters and costs detailed in Table 14.14, the material within the mining shapes required a minimum grade of 1.5 g/t AuEq to meet the criteria for RPEEE. Therefore, the stope optimization scenario with a minimum grade of 1.5 g/t AuEq constrains the MRE in this Report. All material within the mining shapes is reported in a “take-all” approach, regardless of whether its estimated grades exceed the reporting cut-off grade.

TABLE 14.14 PARAMETERS USED FOR RESOURCE CONSTRAINING UNDERGROUND POTENTIAL		
Parameters	Unit	Value
Gold Price	US\$/oz	1,850
Silver Price	US\$/oz	23
Copper Price	US\$/tonne	8,800 (Ranch)
Exchange Rate	US\$/C\$	0.76
Gold Recovery	%	90 (Lawyers) 92 (Ranch)
Silver Recovery	%	80
Copper Recovery	%	85 (Ranch)
Mining Cost	C\$/t mined	80
Processing Cost	C\$/t processed	15
G&A Cost	C\$/t processed	5
Assumed Open Stope Dimensions (W x H x L)	Metres	1.5x15x15

Grade Equivalency Calculations

A AuEq is used as a grade cut-off in the 2024 Lawyers-Ranch MRE. These grade equivalents are calculated considering metal prices and metal recoveries outlined in Table 14.13. Ratios are calculated using the following formula:

$$ratio = \frac{price_{secondary} \times recovery_{secondary}}{price_{primary} \times recovery_{primary}}$$

The above formula assumes that the units of the grades and prices are all the same unit and that the recovery is in decimal percent. If different units are considered, the appropriate unit conversions are applied. Table 14.15 presents the rounded AuEq equivalency ratios used to calculate equivalent calculations.

TABLE 14.15 GOLD EQUIVALENCY RATIOS		
Metal	Unit	Ratio
Au	g/t	1.0
Ag	g/t	80
Cu	%	0.7315

14.11 MINERAL RESOURCE ESTIMATE

The 2024 Lawyers-Ranch MRE is reported in accordance with the Canadian Securities Administrators' NI 43-101 rules 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 April 26, 2024.

Mineral Resource modelling was conducted in the UTM coordinate system relative to the NAD83 Zone 9N (EPSG:26909). The Mineral Resource utilized a block model with a size of 5 m (X) by 5 m (Y) by 5 m (Z) to honour the mineralization wireframes for grade estimation. Gold and silver grades were estimated for each block in both the Ranch and Lawyers Areas using Ordinary Kriging ("OK") with locally varying anisotropy ("LVA") to ensure grade continuity in various directions is reproduced in the block model. Copper grades were estimated using the same method, but only for the Ranch Area. The MRE is reported as undiluted. Details regarding the methodology used to calculate the MRE are documented in this Report section.

The Mineral Resource block model underwent several pit optimization scenarios using Deswik's Pseudoflow™ pit optimization. The resulting pit shells were used to constrain the reported pit-constrained Mineral Resources in this Report, with a 0.4 g/t gold equivalent grade (AuEq) cut-off applied.

The 2024 Lawyers-Ranch MRE block model was used to develop various stope scenarios focusing on achieving a minimum grade for mined material. The longhole open stope mining method was selected for the underground 2024 Lawyers-Ranch MRE. The stope optimization scenario with a minimum grade of 1.5 g/t AuEq constrains the MRE in this Report. All material within the mining shapes is reported in a "take-all" approach, regardless of whether its estimated grades exceed the reporting cut-off grade.

The 2024 Lawyers-Ranch Project MRE comprises Measured and Indicated Mineral Resources of 4.0 million ounces (Moz) grading 1.51 g/t gold equivalent ("AuEq") contained within 82.0 million tonnes and Inferred Resources of 727 thousand ounces grading 1.82 g/t AuEq contained within 12.4 million tonnes. Table 14.16 presents the complete 2024 Lawyers-Ranch Project MRE statement.

TABLE 14.16
SUMMARY OF MEASURED, INDICATED AND INFERRED MINERAL RESOURCES
OF THE LAWYERS-RANCH PROJECT ⁽¹⁻⁹⁾

Mineral Resource Area	Cut-off AuEq (g/t)	Classification	Tonnes (k)	Au (g/t)	Ag (g/t)	Cu (%)	AuEq (g/t)	Au (koz)	Ag (Moz)	Cu (kt)	AuEq (koz)
Pit-Constrained Mineral Resource Estimate											
CC-DR-PX	0.4	Measured	29,490	1.06	35.6	-	1.51	1,006	33.7	-	1,428
		Indicated	36,693	1.00	26.0	-	1.33	1,183	30.6	-	1,566
		M&I	66,183	1.03	30.3	-	1.41	2,189	64.4	-	2,994
		Inferred	5,222	0.93	26.8	-	1.27	157	4.5	-	213
AGB	0.4	Measured	6,497	1.26	51.6	-	1.90	262	10.8	-	397
		Indicated	3,713	0.85	35.2	-	1.29	102	4.2	-	154
		M&I	10,210	1.11	45.6	-	1.68	364	15.0	-	551
		Inferred	69	0.54	31.6	-	0.94	1	0.1	-	2
Ranch	0.4	Indicated	4,259	2.01	9.5	0.06	2.21	275	1.3	3	303
		Inferred	5,207	1.79	5.3	0.12	2.03	300	0.9	6	339
Total	0.4	Measured	35,987	1.10	38.5		1.58	1,268	44.5	0	1,825
		Indicated	44,665	1.09	25.2	0.01	1.41	1,561	36.1	3	2,023
		M&I	80,652	1.09	31.1		1.48	2,829	80.7	3	3,848
		Inferred	10,498	1.36	16.2	0.06	1.64	458	5.5	6	554
Out-of-Pit Mineral Resource Estimate											
CC-DR-PX	1.5	Indicated	984	2.26	71.0	-	3.15	72	2.2	-	100
		Inferred	1,147	2.40	70.4	-	3.28	89	2.6	-	121
AGB	1.5	Indicated	374	1.34	94.4	-	2.52	16	1.1	-	30
		Inferred	178	1.85	34.1	-	2.28	11	0.2	-	13
Ranch	1.5	Inferred	579	1.76	4.9	0.19	2.07	33	0.1	1	39
Total	1.5	Indicated	1,359	2.01	77.4		2.98	88	3.4	0	130
		Inferred	1,903	2.16	47.1	0.06	2.82	132	2.9	1	173

TABLE 14.16
SUMMARY OF MEASURED, INDICATED AND INFERRED MINERAL RESOURCES
OF THE LAWYERS-RANCH PROJECT ⁽¹⁻⁹⁾

Mineral Resource Area	Cut-off AuEq (g/t)	Classification	Tonnes (k)	Au (g/t)	Ag (g/t)	Cu (%)	AuEq (g/t)	Au (koz)	Ag (Moz)	Cu (kt)	AuEq (koz)
Total Mineral Resource Estimate											
All	Combined	Measured	35,987	1.10	38.5		1.58	1,268	44.5	0	1,825
		Indicated	46,023	1.11	26.7	0.01	1.46	1,648	39.5	3	2,153
		M&I	82,010	1.11	31.9		1.51	2,917	84.0	3	3,978
		Inferred	12,401	1.48	20.9	0.06	1.82	590	8.3	8	727

Source: APEX (2024)

Notes:

1. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
2. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
3. 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.
4. 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.
5. Historical mined areas were removed from the block-modelled Mineral Resources.
6. The Lawyers Area includes the Cliff Creek (CC), Dukes Ridge (DR), Phoenix (PX), and AGB zones. The MRE for the CC-DR-PX Zones has been updated. The AGB block model remains unchanged from the 2022 MRE but is restated with updated RPEEE constraints.
7. Economic assumptions used include US\$1,850/oz Au, US\$23/oz Ag, 0.76 US\$:C\$ FX, process recoveries of 90% and 92% Au for Lawyers and Ranch, respectively, 88% Ag for both projects, 85% Cu for Ranch, a C\$15/t processing cost, and a G&A cost of C\$5/t. The resulting gold equivalency ratio of Au:Ag ratio was 1:80 and Au:Cu was 1:7315.
8. The constraining pit optimization parameters were C\$3.25/t mineralized and waste material mining cost and 52° pit slopes. Pit-constrained Mineral Resources are reported at an AuEq cut-off of 0.4 g/t.
9. The Out-of-Pit Mineral Resources include blocks below the constraining pit shell within underground mining shapes. A mining cost of C\$85/t mineralized, in addition to the economic assumptions above, results in an underground (UG) AuEq cut-off of 1.5 g/t. Mining shapes are generated using stope optimization with an objective of maximizing the total metal above the cut-off with a minimum dimension of 1.5 m (W) by 15 m (H) by 15 m (L). All "take all" material within the mining shapes is reported, regardless of whether the estimated grades are above the optimized cut-off grade.

14.12 MINERAL RESOURCE ESTIMATE 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 14.17.

TABLE 14.17 SENSITIVITIES OF IN-PIT-CONSTRAINED MINERAL RESOURCE ESTIMATES OF LAWYERS-RANCH PROJECT									
Cut-off AuEq (g/t)	Tonnes (k)	Au (g/t)	Ag (g/t)	Cu (%)	AuEq (g/t)	Au (koz)	Ag (Moz)	Cu (kt)	AuEq (koz)
Measured and Indicated									
1.5	20,831	2.61	72.4	0.01	3.53	1,748	48.5	2	2,363
1.0	34,493	1.93	54.1	0.01	2.61	2,139	60	2	2,899
0.9	38,822	1.79	50.3	0.01	2.43	2,235	62.8	2	3,031
0.8	44,097	1.65	46.5	0.01	2.24	2,340	66	2	3,175
0.7	50,665	1.51	42.6	0	2.05	2,455	69.4	2	3,333
0.6	58,580	1.37	38.7	0	1.86	2,575	73	2	3,498
0.5	68,485	1.23	34.9	0	1.67	2,702	76.8	3	3,673
0.4	80,652	1.09	31.1	0	1.48	2,829	80.7	3	3,848
0.3	96,170	0.96	27.3	0	1.3	2,955	84.5	3	4,022
Inferred									
1.5	3,565	2.73	26.3	0.15	3.26	313	3	5	374
1.0	5,452	2.14	21.9	0.11	2.56	375	3.8	6	448
0.9	6,013	2.01	20.8	0.1	2.41	388	4	6	465
0.8	6,637	1.88	19.9	0.09	2.26	402	4.3	6	483
0.7	7,381	1.75	19.2	0.09	2.11	416	4.5	6	500
0.6	8,223	1.62	18.3	0.08	1.96	430	4.8	6	518
0.5	9,261	1.49	17.2	0.07	1.8	444	5.1	6	536
0.4	10,498	1.36	16.2	0.06	1.64	458	5.5	6	554
0.3	12,318	1.19	14.8	0.05	1.45	472	5.9	7	574

Source: APEX (2024)

14.12.1 Risk and Uncertainty in the Mineral Resource Estimate

The Lawyers-Ranch Project carries inherent risks in utilizing significant historical drilling, most notably due to the unknown accuracy and precision of some of the historical drill hole collar locations, downhole surveys, and assays. Thesis has performed an extensive review to verify and validate the historical drilling collar locations, significantly reducing that source of risk and uncertainty. Furthermore, this risk is also reduced by the fact that the current Mineral Resources are based on mainly modern drilling.

Modelling structurally controlled epithermal deposits has inherent geological risk. This deposit style is very complex in terms of geological and mineralization continuity. Connecting drill hole intercepts of thin mineralized domains into continuous interpretations is a source of uncertainty. Pit-constrained Mineral Resources have less risk as mining does not need to be as selective as Out-of-Pit Mineral Resources. De-risking the geological continuity for this deposit style requires rigorous interpretation and high-quality orientated structural data from drilling. The current mineralization domain interpretations are well-founded and supported by modern drilling, commonly in several differing orientations based on significant structural modelling using orientated drill core. There are some areas with wider-spaced drilling that, with additional drilling, may cause changes in the mineralization domain interpretations.

The uncertainty surrounding bulk density, particularly in the vuggy silica, remains until additional wax-coated bulk density measurements are captured and compared to field measurements to ensure their accuracy for both the Lawyers and Ranch Mineral Resource areas. Currently, there are limited wax-coated bulk density measurements. Moreover, the drill core submitted for wax-coated measurements at the Ranch Area was from historical drill core that has undergone some weathering. Fresh material from the Ranch Area's leached-vuggy zones is essential to determine bulk density characteristics.

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, socioeconomic, marketing, political or other relevant factors that might materially affect the results of this MRE, and there appear to be no apparent impediments to developing the MRE at the Lawyers-Ranch Project.

15.0 MINERAL RESERVE ESTIMATES

This section is not applicable to this Report.

16.0 MINING METHODS

This section is not applicable to this Report.

17.0 RECOVERY METHODS

This section is not applicable to this Report.

18.0 PROJECT INFRASTRUCTURE

This section is not applicable to this Report.

19.0 MARKET STUDIES AND CONTRACTS

This section is not applicable to this Report.

20.0 ENVIRONMENTAL STUDIES, PERMITS, AND SOCIAL OR COMMUNITY IMPACTS

This section is not applicable to this Report.

21.0 CAPITAL AND OPERATING COSTS

This section is not applicable to this Report.

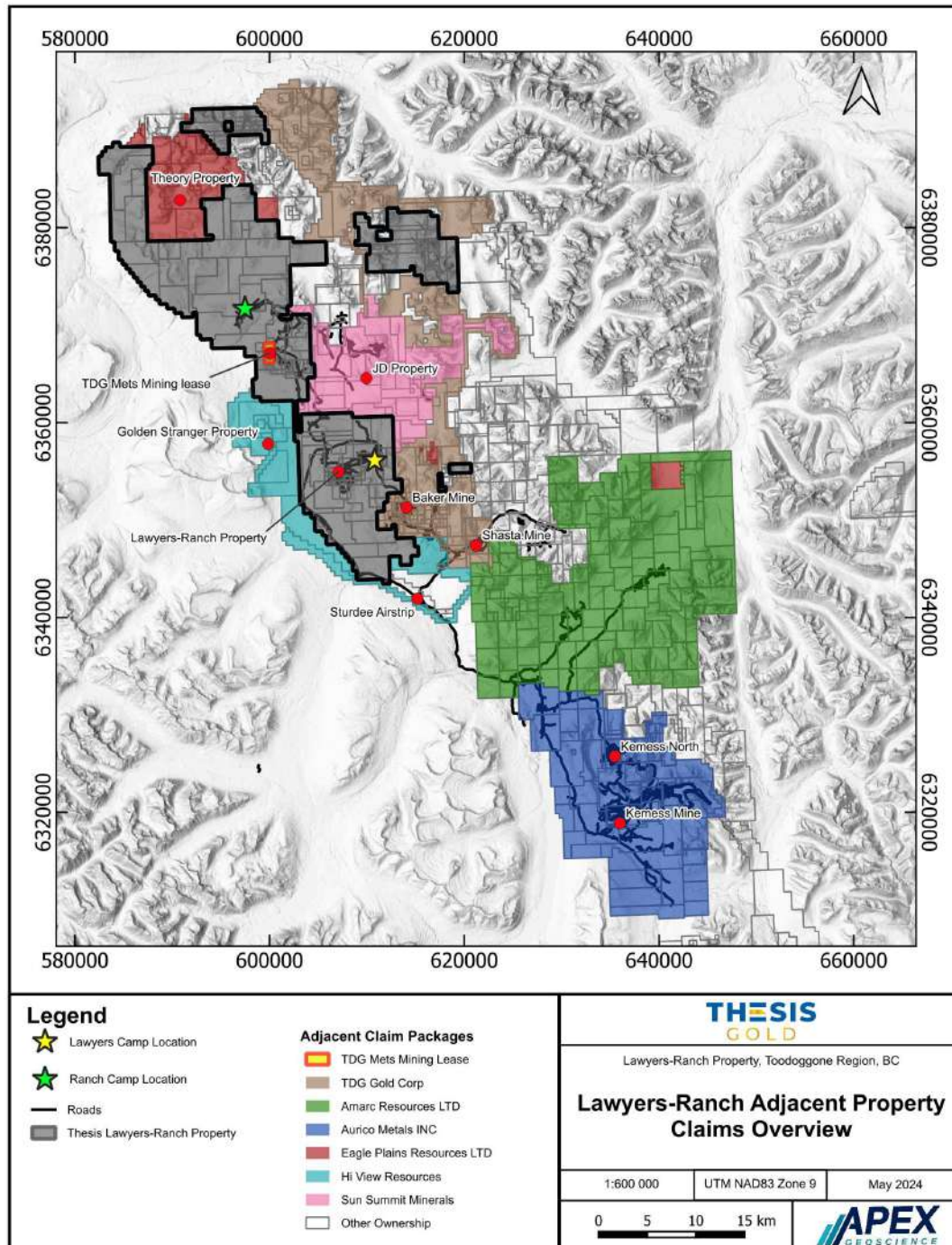
22.0 ECONOMIC ANALYSIS

This section is not applicable to this Report.

23.0 ADJACENT PROPERTIES

The information outlined in this section relates to properties adjacent to the Lawyers-Ranch Project. The tenure ownership of the area surrounding the Lawyers-Ranch Property is illustrated in Figure 23.1. Sources of information for this section include public company websites and news releases as listed in Section 27.

FIGURE 23.1 ADJACENT PROPERTIES



23.1 TDG GOLD CORP. PROJECTS

A Mineral Lease owned by TDG Gold Corp. (“TDG”) is situated within the Lawyers-Ranch Project boundary (Figure 23.1). A Mineral Lease in B.C is the tenure type intended for mining. TDG completed an exploration program on the Mets Lease in 2023, which included confirmatory diamond drilling at the A-Zone and ground geochemical and geophysical surveys. The 2023 exploration drilling coupled with geochemical and geophysical surveys confirmed historical drill results and identified that the anomalous trend containing the A-zone could be traced for >1,300 m. The program also identified three new geophysical target areas for future follow-up (TDG, 2023).

In addition to the Mets Lease, TDG has been exploring the historical Baker-Shasta Mines area, located due east of the Lawyers Area. The Baker Mine operated intermittently between 1981 and 1997, when it was placed on care and maintenance and subsequently closed. There are five main veins in six defined zones at the Baker Project. Two veins (A and B veins) were mined historically and produced 41,281 oz gold and 765,565 oz silver recovered from 81,878 tonnes of mineralized material (TDG, 2024).

TDG is also evaluating the former Shasta Mine area, located 7.5 km southeast of the Baker Mine. On May 1st, 2023, TDG filed an updated NI 43-101 Mineral Resource Estimate for the Shasta Deposit, which includes an Indicated Mineral Resource of 514,800 contained ounces in 12.6 million metric tonnes grading 1.27 g/t gold equivalent at a 0.4 g/t Au cut-off grade, and an Inferred Mineral Resource of 496,300 contained ounces within 15.4 million metric tonnes grading 1.0 g/t gold equivalent (TDG 2023a).

23.2 JD PROPERTY

The JD Property is located 11 km north-northeast of the Lawyers-Ranch Property (Figure 23.1). JD was acquired by Sun Summit Minerals (“Sun Summit”) in January 2024 (Sun Summit, 2024). The JD Property hosts epithermal gold-silver mineralization and porphyry related copper-gold mineralization. Most historical drilling focused on the Finn Target, where a broad zone of near-surface, epithermal related gold-silver mineralization has been defined along 500 m strike length and 350 m depth (Sun Summit, 2024a, 2024b). Additionally historical drilling at the Creek Zone, located 3 km to the west of the Finn Zone, defined a 450 m long zone of high-grade mineralization highlighted by an intercept of 4.0 m of 61.2 g/t Au in drill hole CZ97-008 (Sun Summit, 2024c). Recent data compilation efforts have identified a trend of coincident rock and soil geochemical anomalies that link the Finn and Creek Zones and define the 4.5 km long Finn-to-Creek gold-silver corridor (Sun Summit, 2024d). Sun Summit has announced that it intends to carry out geochemical and geophysical surveys and drilling in 2024 (Sun Summit, 2024d).

23.3 THEORY PROPERTY

The Theory Property was acquired by Eagle Plains Resources Ltd. (“Eagle Plains”) in late-2023. Theory is located directly north of the Lawyers-Ranch Property (Eagle Plains, 2024) (Figure 23.1). Exploration by previous operators has been intermittent since the mid-1960s and encouraging mineralization and alteration associated with epithermal and porphyry systems has

been documented (Eagle Plains, 2024). Of particular interest are the Fred 1 and Fred 4 Showings, where grab samples of quartz-carbonate vein systems returned results ranging from background levels up to 4.34 g/t Au and 1,480 g/t Ag at Fred 1 and up to 10.26 g/t Au and 44.8 g/t Ag at Fred 4. Compilation and interpretation of historical data are underway and will be used to recommend future work. The Theory Property is available for option and Eagle Plains is actively seeking partners (Eagle Plains, 2024).

23.4 KEMESS MINE

The Kemess Mine is located 44 km southeast of the Lawyers-Ranch Property (Figure 23.1). Kemess is owned by Centerra Gold. Open pit mining at Kemess South from 1988 to 2011 produced ~3 million ounces of gold and 750 million pounds of copper from porphyry-style mineralization (Chevrier *et al.*, 2016). Infrastructure on-site includes a processing plant, airstrip, and power line connected to the BC Hydro grid via Mackenzie. The Mine is currently in care and maintenance. Nevertheless, some brownfields exploration work has been performed on the Property.

In 2016, Centerra Gold (then AuRico Metals Inc.) released a 43-101 Mineral Resource Estimate for the Kemess Underground Project, 6 km north of the main mine site. Confirmation and exploration drilling and technical studies are planned for 2024, with the intent to develop an updated hybrid pit/underground mining and processing concept, based on current extraction methods and commodity prices (Centerra, 2024).

23.5 GOLDEN STRANGER

The Golden Stranger claims are directly west and south of the Lawyers Area claim block (Figure 23.1). They are optioned by Zeal Exploration, a wholly-owned subsidiary of Hi View Resources (“Hi View”). A 2023 field program consisting of prospecting and geochemical sampling was completed at Golden Stranger, in which surface mineralization was identified and assay results are pending (Hi View, 2024). The sampling program also identified points of interest that will be used alongside historical work and airborne survey data to plan a 2024 exploration program in search of gold, silver, and copper (Hi View, 2024).

23.6 OTHER PROPERTIES ADJACENT TO THE LAWYERS-RANCH PROPERTY

Two other Mineral Claim groups/properties occur directly adjacent to the Lawyers-Ranch Property. These include claims owned by Integrated Minerals Management Inc. and Evergold Corp which are being explored for Cu-Au porphyry and Au-Ag epithermal mineralization.

The Authors have not visited any of these properties and have not been able to verify the information discussed in this Section. The information is not necessarily indicative of the mineralization on the Property that is the subject of this Technical Report.

24.0 OTHER RELEVANT DATA AND INFORMATION

To the best of the Authors' knowledge there are no other relevant data, additional information or explanation necessary to make the Technical Report understandable and not misleading.

25.0 INTERPRETATION AND CONCLUSIONS

In August 2023, Thesis Gold Inc. (“TGI”) changed its name to Thesis Gold (Holdings) Inc. (“TGHI”) and entered a merger agreement, where TGHI became a wholly-owned subsidiary of Benchmark Metals, based on the completion of a share exchange program. Benchmark subsequently changed its name to Thesis Gold Inc. (“Thesis”) (Thesis, 2023). This transaction resulted in Thesis (formerly Benchmark Metals) acquiring a 100% interest in the Ranch Property.

Thesis has recently completed and released a revised Mineral Resource Estimate (“MRE”) for the Lawyers Area Deposits and an initial MRE for the Ranch Area (see Company press release dated May 1, 2024). Thesis announced the combination of the Lawyers and Ranch Projects into the new Lawyers-Ranch Project by reporting combined Mineral Resources for the two project areas and by announcing the company’s intention to initiate a Preliminary Economic Assessment of the combined Lawyers-Ranch MREs. As a result, this Technical Report is intended to support the recently announced MREs in the Lawyers and Ranch Areas and represents the initial Technical Report for the newly combined Lawyers-Ranch Project.

The Authors and Co-Authors of each section of this Report are listed in Table 2.1, who in acting as independent Qualified Persons as defined by NI 43-101, take responsibility for those sections of this Report as indicated in the “Certificate of Author” included in Section 28 of this Report. The Authors and Co-authors acknowledge the helpful cooperation of APEX Geoscience Ltd. (“APEX”) Thesis’s management and exploration consultants on the Lawyers-Ranch Property, especially Ms. Emily Laycock, Ms. Rachelle Hough, Mr. Warren Black, Mr. Andrew Turner, and Mr. Michael Dufresne, who quickly addressed all data and material requests, and responded openly and helpfully to all questions. Initial drafts of Sections 2 to 14 and 23 were provided by APEX and have been reviewed, edited, revised and accepted by the Authors. A draft copy of the Report has been reviewed for factual errors by Thesis and the Authors have relied on Thesis’ knowledge of the Property in this regard.

Mr. Yungang Wu, P.Geo. and an independent Qualified Person under the terms of NI 43-101, completed a site visit to the Lawyers-Ranch Property on November 4 to 6, 2023. As part of the site visit, confirmation samples from selected drill core intervals were taken by Mr. Wu and submitted to Actlabs in Ancaster, ON. During the site visit, Mr. Wu was accompanied by Mr. Edward Parker, a Senior Geologist with APEX. The details of the results of the data verification sampling are provided in Section 12 of this Report.

25.1 GENERAL PROJECT INFORMATION

25.1.1 Property Description

The Lawyers-Ranch Property is located in northern British Columbia, ~300 km north of Smithers BC, 450 km north-northwest of Prince George BC, and 45 km northwest of the Kemess Mine, a past-producing copper-gold mine currently owned by Centerra Gold. The Property is situated in the Liard and Omineca Mining divisions with the Lawyers Area centred at Latitude 57°18’44’’N and Longitude 127°11’55’’W and the Ranch Area centred at Latitude 57°29’N and Longitude 127°22’W.

The Lawyers-Ranch Property consists of 100 contiguous mining claims (41,233 ha) and an additional 34 non-contiguous mining claims (8,334 ha) for a total of 134 claims and 49,567 ha. These mineral claims are 100% owed by Thesis Gold Inc. (formerly Benchmark Metals Inc.), either directly or through its whole-owned subsidiaries PPM Phoenix Precious Metals Corp (“PPM”) and Thesis Gold (Holdings) Inc. (“TDH”).

As of the effective date of this Report (May 1, 2024), the BC MTO (Mineral Titles Online system) showed that all of the claims composing the Lawyers-Ranch Project are in good standing. There are no other annual property payments or obligations required to maintain the Property. Most claims have a “good to” date of 2032 or 2034. However, 34 non-contiguous claims have “good to” dates in 2024 (9) and 2025 (25). In order to maintain these claims in good standing, either the filing of assessment work or a “pac payment” is required prior to their respective expiry dates.

25.1.2 Royalties/Obligations

The Lawyers-Ranch Property is subject to agreements covering separate yet contiguous portions of the property and are described in detail below.

25.1.2.1 Lawyers Area

Thesis (formerly Benchmark) announced in a press release dated September 19, 2019 that the Company closed its business combination with PPM, whereby PPM became a wholly-owned subsidiary of Benchmark, including its 100% interest in the Lawyers Property. Pursuant to a share exchange agreement, Benchmark (now Thesis) made a \$250,000 cash payment and issued 12 million common shares to the former shareholders of PPM. In addition, the former PPM shareholders were granted a 0.5% net smelter return (NSR) royalty with respect to any production from the original Lawyers portion of the Property. The 0.5% NSR was sold by Guardsmen (on behalf of the original shareholders of PPM Phoenix Precious Metals Corp.) to Royal Gold Inc. in 2022. The NSR applies to the 37 claims that remain registered in the name of PPM.

25.1.2.2 Ranch Area

The Ranch Project, originally comprising 31 mineral claims, was acquired by TGH from Guardsmen Resources Inc. (“Guardsmen”), pursuant to an Acquisition Agreement dated August 18, 2020 and finalized October 30, 2020 (see the Company press releases). Pursuant to the terms of the Acquisition agreement, TGH made a cash payment of \$250,000 to Guardsmen and issued 14 million common shares of TGH (at a deemed value of \$0.375/share) to Guardsmen, Severin Holdings Inc., 678119 Alberta Ltd., and Jemseg Capital Inc. Finally, a 2% net smelter return (NSR) royalty was granted on the Ranch Gold Project to Guardsmen.

25.2 PERMITTING

The original Lawyers Area covers the site of the past-producing Cheni Gold Mine and, as a result, contains historical mine workings, several small waste rock dumps, and a historical tailings storage facility (“TSF”) within the permit area. Thesis has closed access to these sites. The historical waste rock dumps and TSF have not been disturbed or used by Thesis and the liability/responsibility for ongoing monitoring of the TSF resides with the Ministry. The portals that accessed the underground mine workings at the AGB Zone have been closed and reclaimed (buried) and the Cliff Creek portal remains physically open, although it remains closed from access (barricaded). Annual water quality monitoring of the Cliff Creek portal discharge is conducted by Thesis to ensure compliance with water quality standards and the Company awaits the issuance of an Effluent Discharge Permit (pending) for the portal.

Exploration activities on the Lawyers portion of the Project are conducted under Mineral Exploration Permit MX-13-100. The permit was issued in 2003 to Guardsmen and was subsequently transferred to PPM in 2011 and finally to Benchmark in 2018. Benchmark (now Thesis) successfully amended its permit in 2019 and 2020 to support expanded exploration programs at the Lawyers Area. The Current permit was updated June 30th, 2022, and allows for activities through May 27th, 2027 including surface drilling; camp and associated buildings; exploration access construction, fuel storage and the reactivation of the upper 39 km of the former Cheni Mine access road between the Sturdee Airstrip and the Lawyers Camp. As part of the Permit, a reclamation bond in the amount of \$1,573,891 has been posted with the BC Government, with an additional security payment of \$90,508 required prior to July 1, 2024 for a total Reclamation Liability Amount of \$1,664,399 to be held under exploration permit MX-13-100.

Thesis holds water licences and camp water system, food service facilities and general health approvals for industrial camp use. Thesis has also acquired all necessary authorizations from the BC Ministry of Energy, Mines and Low Carbon Innovation (“EMLCI”), Fisheries and Oceans Canada (“DFO”), and BC ministry of Forests (“FOR”) pertaining to the upper Cheni Road (“Ring Road”) reactivation.

The Ranch Area of the Lawyers-Ranch Property is located east of the Spatsizi Plateau Wilderness Provincial Park. This, coupled with a significant amount of sensitive alpine areas, means that exploration activities at the Ranch Area requires careful planning and execution to mitigate and minimize disturbances. Although small-scale mining (excavation) was conducted in the Ranch Area in the 1980s, there are no significant mining or milling products or structures, or other significant environmental liabilities, within the Ranch permit area.

Exploration activities in the Ranch Area are conducted under Permit MX-100000113, which approves certain mineral exploration activities including diamond drilling, camp building, exploration access construction and fuel storage, which is valid until June 30, 2026. Thesis holds water licences and camp water system, food service facilities and general health approvals for industrial camp use. As part of the current Permit, a reclamation bond of \$320,000 has been posted with the BC Government. A Park Use Permit for Spatsizi Park (outside the Property) is currently in application, which will allow Thesis to complete baseline environmental monitoring, including water sampling, within the park. A Heritage Inspection Permit is also pending.

25.3 ENVIRONMENTAL STUDIES

Historically, a series of environmental studies were performed prior to the construction of the Cheni Mine, including a Stage 1 Environmental Assessment Report compiled by Norecol in 1986 (Norecol, 1986). More recently, comprehensive environmental studies have been conducted to inform the ongoing exploration activities and establish an environmental baseline to support future environmental assessment processes. Information collected by these studies will be included in an Environmental Assessment application prior to project construction. These include:

- Collection of site-specific climate and atmospheric data;
- Hydrological and fisheries habitat assessments of all crossings along the Ring Road, and aquatic resource assessments at streams and rivers throughout the site;
- Water quality and hydrological monitoring at nearby creeks and rivers;
- Hydrogeological installations to monitor groundwater levels and quality;
- Rare plant surveys;
- Terrain and soil sample classification surveys;
- Archaeological overview assessment (“AOA”) and preliminary field reconnaissance (“PFR”);
- Daily and ongoing wildlife monitoring during exploration programs;
- Remote camera monitoring along the Ring Road and throughout the Project to identify/monitor wildlife, raptor, bird and bat use; and
- Caribou habitat modelling.

25.4 COMMUNITY ENGAGEMENT

Thesis has established several agreements with indigenous groups including a trilateral Exploration Cooperation and Benefit Agreement with the Takla, Tsay Keh Dene, and Kwadacha First Nations and an Exploration Agreement with the Tahltan Central Government (“TCG”). Through the trilateral agreement, Thesis has established and funds an Implementation Committee, with sub-committees, including an Environmental Management Committee and a Business Opportunities Committee, that meet regularly to share project updates, detail economic opportunities, and consult with Indigenous groups. Through the TCG Exploration Agreement, Thesis provides information regarding its ongoing activities and potential economic opportunities to the TCG and its members. Thesis will continue its engagement with local indigenous groups.

25.5 GEOLOGY AND MINERALIZATION

The Lawyers-Ranch Property is situated in the Toodoggone Region, which is underlain by strata of the Stikine Terrane within the Intermontane Belt of the Canadian Cordillera. The Stikine Terrane consists of Paleozoic to Mesozoic Island arc assemblages and overlying Mesozoic sedimentary sequences. The oldest rocks exposed in the region are crystalline limestones of the Lower Permian Asitka Group, which are unconformably overlain by, or in thrust contact with, mafic volcanic rocks of the Upper Triassic Takla Group (equivalent to the Stuhini Group to the west). Takla Group volcanic rocks are in turn overlain by bimodal volcanic and sedimentary strata of the Lower-Middle Jurassic Toodoggone Formation of the Hazelton Group (Lane *et al.*, 2018).

The Toodoggone Formation volcanic rocks are made up of mainly subaerial successions of pyroclastic and epiclastic rocks that are calc-alkaline andesitic to dacitic in composition. Toodoggone volcanics display broad open folds with bedding generally less than 25 degrees dipping predominantly to the west. Potassium-argon dating of hornblende and biotite indicate that Toodoggone volcanism ranges from 204 to 182 Ma and can be divided into two main volcanic events. 1) an older, lower stage of volcanism dominated by andesitic pyroclastics and flows characterized by widespread propylitic and zeolitic alteration; and 2) a younger, upper stage of volcanism dominated by andesitic ash-flow tuffs which generally lack significant epithermal alteration (Diakow *et al.*, 1993). Intense and repeated faulting led to the development of a regional-scale collapse feature, the “Toodoggone Depression” (Bowen, 2007); which localized epithermal gold-silver mineralization at a variety of localities including Shasta, Lawyers, and Ranch (Bowen, 2014). All the known epithermal gold-silver deposits and occurrences are restricted to the lower Toodoggone Formation volcanics and underlying units.

Late Triassic to Middle Cretaceous intrusions are exposed throughout the Toodoggone region. The most significant intrusion-related precious metal and porphyry mineralization occurs in the Early Jurassic granodioritic to quartz monzonitic bodies known as the Black Lake Suite intrusions. These bodies are thought to be comagmatic with Toodoggone volcanics (Bowen, 2014), and host significant porphyry copper-gold mineralization in several areas, including the former Kemess South Mine and multiple other deposits on the Kemess Property in the southeastern part of the Toodoggone region (Lane *et al.*, 2018).

A recent update to the regional geology was completed in 2021 by the BC Geological Survey (Ootes, 2023). This work suggests that the epithermal mineralization in the Toodoggone Region is preserved within the axial trace of a large-scale open fold related to a northwest plunging, northeast vergent, synclinorium-anticlinorium pair. The Black Lake Suite (southern part of the Lawyers-Ranch area) is considered to be coincident with the hinge zone of the axial trace and the spatial, and possibly temporal, coincidence of epithermal mineralization with the anticlinorium axial trace may suggest a link between folding, intrusion and epithermal mineralization (Ootes, 2023).

The Lawyers-Ranch Property exhibits somewhat genetically similar alteration and mineralization styles. The Lawyers Area deposits consist of structurally-controlled low to intermediate sulphidation epithermal mineralization. The Ranch Area deposits are primarily of the high-

sulphidation (acid-sulphate) epithermal type, more consistent with a classic boiling controlled hydrothermal system that was depth limited and discontinuous.

25.6 EXPLORATION RESULTS AND INTERPRETATIONS

25.6.1 Soil Sampling

Currently there are 40,311 soil samples within the Lawyers-Ranch Property exploration database, comprising 19,968 historical soil samples collected prior to Thesis' involvement in the Project, and 20,343 recent samples, including 945 duplicates, collected by Thesis between 2018 and 2023. Thesis collected a total of 7,586 soil samples, including 318 duplicates, between 2018 and 2022 at the Lawyers Area, and In the Ranch Area, Thesis collected a total of 12,757 soil samples, including 627 duplicates, between 2021 and 2023.

The majority of the Lawyers area claim block has been evaluated by soil geochemical sampling. Similarly, most of the Ranch claim area, particularly surrounding the known areas of mineralization, has been tested by soil geochemical sampling. Northern parts of the claim block, along with some peripheral claims, have only recently been acquired by Thesis and have not yet seen any significant exploration work. In short, soil geochemical sampling at the Lawyers-Ranch Project has identifying anomalies that correlate with known areas of mineralization, which are being used to identify and evaluate new prospects for continued exploration work.

25.6.1.1 Lawyers Area

At the Lawyers Area, there is good correlation between Au, Ag, and Cu anomalies with known areas of mineralization comprising the current Lawyers MRE's. In addition, soil geochemical sampling has been successful in identifying new zones of interest across the Property, including several well-defined Au-Ag and Au-Ag-Cu anomalies that occur throughout the Silver Pond North Zone extending northwest through the Round Mountain Prospect and into the Kodah Prospect. A north-northwest trending gold anomaly occurs in the Marmot Lake East area, and a small southeast-northwest trend of gold anomalies occur to the north of the Black Lake Alteration Corridor. A significant Cu-in-soil anomaly has been identified west of, and within, the Black Lake Alteration Corridor extending to the southeastern corner of the Lawyers claims. In addition, anomalous concentrations of pathfinder elements tellurium (Te), thallium (Tl), arsenic (As), and antimony (Sb), commonly associated with porphyry and epithermal systems, are observed along the Kodah and Round Mountain trend and at the Black Lake Alteration Corridor.

25.6.1.2 Ranch Area

The 2021-2023 soil geochemical surveys were successful in identifying anomalous trends in important pathfinder elements associated with epithermal mineralization. Lead (Pb) and zinc (Zn) exhibit weak anomaly trends at the Patti and Bonanza Zones, whereas strong arsenic (As) anomalies are present west of Albert's Hump. Base metal results from 2021 revealed a large northeast trending base metal soil anomaly at Albert's Hump with elevated As, Pb, Sb, and Zn values. Antimony (Sb) anomalies are typically coincident with other base metals (Pb, Zn, As),

including prominent trends at Thesis III and west of Albert's Hump. Moderate silver anomalies were observed at Mandusa, Golden Furlong, Bonanza, Ring and South BV. Elevated gold values were identified mainly at the Bonanza, Mickey, Thesis II, Thesis III, and Ridge areas. Weaker Au anomalies were identified at the JK, Bonanza South, Golden Furlong, and South Patti areas. Elevated Au, Ag, and Cu soil values occur at the Border Zone, and Steve Zone. Anomalous silver Ag-in-soil values are located at the Metsantan Zone. Lead, zinc and arsenic exhibit weak soil anomaly trends with some moderate results returned from the west side of the soil grid.

25.6.2 Rock Sampling

There are currently 11,007 rock samples within the Lawyers-Ranch exploration database comprising 6,802 historical rock samples, collected prior to Thesis' involvement in the Project, and 4,275 recent samples collected by Thesis (2,828 samples at the Lawyers Area and 1,447 samples at the Ranch area) between 2018 and 2023.

25.6.2.1 Lawyers Area

The 2018 to 2023 rock sampling programs were successful in defining new areas of interest and confirming known occurrences of mineralization at most of the historical zones. The anomalous samples exhibited alteration and mineralization styles consistent with those observed in the main resource areas. Sampling in the Marmot Lake, Round Mountain, Black Lake Alteration Corridor and Giffords Edge areas commonly returned samples with anomalous Au, Ag and Cu. Sampling at the Marmot Lake East Zone returned the highest number of high-grade samples, with 22 samples containing >1 ppm Au, 49 samples containing >20 ppm Ag, and 17 samples containing >50 ppm Cu. Many of the rock samples from the Black Lake Alteration Corridor also returned gold assays of interest. In addition, rock samples collected from different prospects show unique geochemical signatures, such as elevated Pb, Zn and Cu at Cliff Creek compared to relatively base metal poor results from the AGB and Marmot areas, suggestive of metal zonation.

25.6.2.2 Ranch Area

The 2020-2023 rock sampling programs conducted at the Ranch area were successful in confirming mineralization at historical prospects and identified new prospects (areas of mineralization) in previously under-explored areas of the property. The BV, BV South, Patti, Metsantan, Border, Mickey and Bonanza Zones yielded several rock samples with anomalous gold and silver values. The anomalous samples exhibited mineralization styles consistent with those within the main resource areas. High-grading rock samples from unexplored prospects are associated with vuggy silica textures, like those found at the main mineral zones. Rock samples from the Metsantan, Mickey, and BV areas consistently returned elevated Au values. Sampling at the BV area returned values of 77.8 ppm Au, 49.3 ppm Ag and 101 ppm Cu (sample B096575). Five additional samples from BV returned values >5 ppm Au. Another sample (B0005941) collected at Border area also returned values of 2.74 ppm Au, 503 ppm Ag, and 20 ppm Cu. Sampling at Mickey confirmed historical rock sample results with several anomalous results >0.1 ppm Au. High-grading rock samples from Mickey and other new prospect areas are associated with vuggy silica textures, like those associated with the Ranch resource area mineralization.

25.6.3 Geophysical Surveying

Following the acquisition of the property, Thesis has completed airborne geophysical and ground geophysical surveys across large portions of the Lawyers-Ranch Project.

25.6.3.1 Airborne Surveying

In 2018 and 2021, airborne radiometric, magnetic and electromagnetic (Time Domain EM) surveying was flown that together covered the entirety of the Lawyers Area comprising 1,912 line-km and a total area of ~173 km².

In 2020 and 2021, airborne radiometric, magnetic and electromagnetic (Time Domain EM) surveying was flown that together covered the majority of the Ranch Area (at that time) comprising 2,057 line-km covering a total area of ~187 km².

At the Lawyers, several high priority areas of interest, comprising coincident airborne geophysical anomalies, were identified as “exploration target zones” for possible epithermal Au-Ag mineralization. The targets were selected based on a combination of airborne inductively induced polarization product of apparent resistivity (RES) and Cole-Cole time-constant (Tau), and the radioelement ratio of potassium to thorium measured in percentage and equivalent ppm, respectively. Two of the Lawyers area airborne geophysical ‘zones of interest’ comprise areas of known mineralization, with one comprising a cluster of anomalies stretching from Cliff Creek to Marmot Lake, and the second covering the AGB and AGB North areas, and the remaining three zones located along a prominent north-south structure toward the west side of the claim block.

The Ranch VTEM survey identified key areas of interest, including a central deep magnetic body and northern low resistivity zones, suggesting potential intrusive-related and hydrothermal alteration mineralization. Preliminary interpretation indicates the presence of buried lower resistivity rocks (<45 ohm-m) with a possible west-northwest to east-southeast trend. The survey highlighted favorable exploration targets, emphasizing low magnetic anomalies and structural intersections as primary areas for further investigation, including a notable ~20 km northwest-trending linear magnetic low associated with potential hydrothermal fluid conduits.

25.6.3.2 Ground Geophysical Surveying

Between 2019 and 2023, Thesis completed ground magnetics (MAG), Very Low Frequency (VLF) EM, and 2-D and 3-D DC-resistivity and Induced Polarization (DCIP) surveys at the Lawyers-Ranch Property.

Ground magnetics surveying between 2019 and 2023 at the Lawyers-Ranch Property comprises 2,129 line-km along 1,025 traverse lines covering a total area of ~12,724 ha. This total comprises 1,015.8 line-km along 584 traverse lines covering ~6,266 ha at the Lawyers area and 1,113 line-km along 441 traverse lines covering ~6,458 ha at the Ranch area. The VLF surveying was conducted at the same time as the ground magnetics surveying and was completed only at the Lawyers area comprising 979 line-km of VLF surveying along 554 traverse lines.

DCIP surveying in 2020 and 2021 at the Lawyers-Ranch Property comprises 271 line-km (for both transmitter and receiver lines) along 98 lines covering ~2,487 ha. In the Lawyers Area, 142.1 line-km of DCIP surveying was completed along 63 lines covering ~937 ha. In the Ranch Area, 129.3 line-km of DCIP surveying was completed along 35 lines covering an area of ~1,550 ha.

Lawyers

Ground Geophysical surveys at the Lawyers Area were successful in identifying several correlating crossover anomalies which were used to identify geological map units, structures and potential mineralized zones. Ground magnetic and VLF surveys identified several north-northwest structures which are associated with mineralization in the Lawyers Resource Area and are present throughout the Lawyers Area. The DCIP surveys have identified several chargeability and resistivity anomalies, which have potential to correlate with massive silica alteration commonly associated with mineralization. These coinciding structures and anomalies are present at several prospects throughout the Lawyers Area including Kodah, Arctic, E-Grid, Lala, Marmot Silver Pond Clay, Silver Pond West and Silver Creek and warrant further evaluation.

Ranch

Ground Geophysical survey at the Ranch Area was successful in identifying several anomalies including a north-northeast trending linear magnetic low with correlates to a large fault structure that defines the Thesis structural corridor. Several similar anomalies occur throughout the ranch Resource Area defining mineralization controlling northwest, and north-northeast structures. The DCIP surveys at Ranch have identified several correlating resistivity and chargeability highs which have been interpreted to represent zones of silicification what are often accompanied by mineralization. These coincident geophysical responses of low amplitude magnetic response and high resistivity and chargeability signatures occur throughout the Ranch area including at the Albert Hump, Patti and Steve Zones and further exploration of these prospects and similar anomalies is warranted.

25.7 DRILLING

Thesis has completed significant diamond (“DDH”) and reverse circulation (“RC”) drilling programs at the Lawyers Area of the Project since 2018 and at the Ranch Area of the Project since 2021. To date, the Lawyers-Ranch drill hole databases include information for 2,261 drill collar records (1,412 at Lawyers and 849 at Ranch), of which 902 (442 at Lawyers and 460 at Ranch) are historical. To date, Thesis Gold has completed 1,359 drill holes at the Lawyers-Ranch Project (970 at Lawyers and 389 at Ranch).

The historical drill hole database for the Property dates to 1965 and consists of 902 drill holes (442 Lawyers and 460 Ranch) totalling 94,158 m of drilling (55,334 m at Lawyers and 38,824 m at Ranch). Historical drilling at the Lawyers Area targeted the AGB, Cliff Creek, Dukes Ridge, Marmot Lake, Phoenix, Silver Creek, Silver Pond Clay, Silver Pond North, Silver Pond West and Silver Creek Zones. Historical drilling at the Ranch Areas targeted the Alberts Hump, Bingo,

Bonanza, Bonanza South, BV, Golden Furlong, JK, Metsantan, Mickey, Patti, Ridge, Thesis II and Thesis III Zones.

Thesis has completed consecutive drill programs at the Lawyers Area from 2018 to 2023 totalling 970 drill holes (646 DDH, 322 RC, and 2 RC/DDH combination “RD”) for 229,622 m (185,101 m DDH, 43,922 RC, and 599 m RD), Resulting in the collection of 176,633 samples totalling 222,809 m. Drilling was focused largely on the Cliff Creek, Dukes Ridge, AGB and Phoenix Zones, which comprise the current Lawyers Mineral Resource area. Additional exploration drilling has been completed at the Marmot, Silver Pond Clay, Silver Pond North, Silver Pond West, Silver Creek, and M-Grid Prospects, and a series of geotechnical and water monitoring drill holes have also been completed at the Lawyers Mineral Resource area in support of ongoing environmental and engineering studies.

Thesis has completed consecutive drill programs at the Ranch Area from 2021 to 2023 totalling 389 drill holes (368 DDH and 21 RC) for 71,694 m (68,481 m DDH and 3,213 m RC), resulting in the collection of 50,999 samples totalling 69,264 m. Drilling has largely focused on the Bonanza, Ridge, Bonanza South, Bingo, Thesis II, Thesis III, BV and JK Zones, which make up the current Ranch Mineral Resource area, with exploration drilling completed at the Patti, Steve and Alberts Hump Prospects.

The most significant result of the drilling conducted by Thesis at the Lawyers-Ranch Project has been the identification of extensive zones of broad, moderate to lower-grade gold $\pm$ silver mineralization. The mineralization that has been identified and drilled by Thesis comprises significant potentially open-pitiable Mineral Resources that was previously unrecognized, even at the Lawyers Area, the site of the former Cheni Mine that was active in the late 1980s and early 1990s. At this time, metal prices were much lower than today, and the focus was underground development of narrow, high-grade structures.

Significant potential remains for the possible expansion of the currently defined Mineral Resources at the Project through further drilling. In addition, recent exploration surface results and ‘exploration drilling’ results outside of the Mineral Resource areas, represent a significant potential for further discoveries at the Lawyers-Ranch Project.

25.8 QAQC

The Authors have reviewed the comprehensive QAQC procedures utilized at the Lawyers-Ranch Project by Thesis Gold and by APEX Geoscience Ltd., its geological consultant. This includes not only the analytical QAQC program utilized to monitor the results of all drill program sample analyses, but also the protocols and procedures used to ensure sample security from site to laboratory and those utilized to monitor and verify the quality of all other related data collection from drill collar and drill hole surveying to drill core logging and sampling. As a result of the review, it is the opinion of the Authors that;

- The drill core handling and sample shipping procedures and protocols Utilized at the Project are in-line with industry standards and are adequate for maintaining sample security from the drill to the laboratory,

- The protocols and procedures used to ensure the quality of all drilling related data acquisition, from drill hole collar and downhole surveying to drill core logging and sampling data, are in-line with industry standards and are adequate for ensuring data quality throughout the drilling and drill core logging and sampling process,
- The analytical techniques being applied to the Lawyers-Ranch drill samples are appropriate for the geological targets being evaluated,
- The drilling program QAQC samples being utilized are appropriate for the geological target being evaluate and the expected tenor of the mineralization, and
- The types and insertion/collection frequency of the drill program QAQC sampling being utilized at the Project are appropriate and sufficient to allow for the monitoring of the quality of the drill sample analyses.

In short, it is the opinion of the Authors that there are no significant issues or sources of error affecting the current (2018-2023) Lawyers-Ranch drilling database.

25.9 DATA VERIFICATION

Verification of the Lawyers-Ranch Project data, used for the current Mineral Resource Estimate, has been undertaken by the Authors, including verification of historical drilling data (prior to 2015) from hard-copy reports, drill hole logs, cross-sections and maps. This work provides confidence in the historically reported mineralization of the Cliff Creek North, Dukes Ridge, Phoenix and AGB Zones and the Ranch Area mineralized zones. Information obtained from recent drilling (planned to drill through voids and backfill) increases confidence in the location and models of the underground workings and stope models at Cliff Creek and AGB. The small stope model for the Phoenix Zone has the lowest confidence; however, it is still assumed to be generally representative of the previously mined material, based on historical cross-sections, reports, and recent drilling.

The Authors consider there is good agreement between historical assays and recent drilling, which is demonstrated by the 2015 twin hole and other verification drilling, and extensive infill and confirmation drilling completed by Benchmark. Detailed QA/QC, check assaying and umpire assaying have been performed on the recent drilling with no material issues found, and the Author's site visit samples reveal acceptable correlation between the original and verification samples.

The Authors are satisfied that sufficient verification of both the historical (pre-2015 for which complete assay and location information exists) and recent (2015 to 2023) drill hole data has been undertaken and that the supplied data are of good quality and suitable for use in the current Mineral Resource Estimate for the Cliff Creek, Dukes Ridge, Phoenix and AGB Zones in the Lawyers Area and the mineralized zones in the Ranch Area.

25.10 METALLURGY

Thesis commenced metallurgical testing of the Lawyers Area deposits in 2021 and of the Ranch Area deposits in 2022. The metallurgical testwork, along with flowsheet development, for both the Lawyers and Ranch Areas has been developed and supervised by F. Wright Consulting Inc. (“FWC”).

A previous Technical Report on the Lawyers Project was prepared in September of 2022 (Church *et al.*, 2022), prior to its combination with the Ranch Project. That Report comprised a Preliminary Economic Assessment (“PEA”) that was produced by lead consultant JDS Energy and Mining Inc., which incorporated metallurgical testwork results prepared under the supervision of FWC and was, at that time, focused on a bulk tonnage (open pit) mining scenario for the Lawyers Area Mineral Resources. The average precious metal recoveries used in the 2022 Lawyers PEA were 92.1% for gold and 60.6% for silver for the AGB Zone and 92.5% for gold and 83.0% for silver for the Cliff Creek Zones.

More recently, a PEA level test program has been initiated to investigate and optimize the recovery of gold and silver from the combined Lawyers-Ranch Property. The 2023/24 Lawyers-Ranch Project metallurgical study first investigated the use of leaching at Ranch, where the majority of the material has shown a higher sulphide and base metal content than Lawyers. Since 2022, higher sulphide Mineral Resource zones were also identified at Lawyers. Leach response for silver had been shown to be lower at Lawyers, and with these newer higher sulphide zones, a refractory component to gold and silver leaching was also identified. These findings indicated that modifications to an earlier processing approach were needed for optimum treatment. Consequently, this study investigated the use of flotation prior to leaching. The findings showed that a combination of gravity, flotation and leaching provided the most flexibility in adequately processing the various materials from Lawyers and Ranch. Based on the 2024 concept flowsheet and samples received, the resulting unweighted average recovery was shown to be 95% for gold and 92% for silver. These recoveries are based on laboratory data without accounting for minor miscellaneous potential circuit losses that will vary, depending on feed grade and mineral zone of origin.

25.11 MINERAL RESOURCE ESTIMATES

The 2024 Lawyers-Ranch MRE is reported in accordance with the Canadian Securities Administrators’ NI 43-101 rules 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 April 26, 2024.

Mineral Resource modelling was conducted in the UTM coordinate system relative to NAD83 Zone 9N (EPSG:26909). The Mineral Resource utilized a block model with a size of 5 m (X) by 5 m (Y) by 5 m (Z) to honour the mineralization wireframes for estimation. Gold and silver grades were estimated for each block in both the Ranch and Lawyers areas using ordinary Kriging (“OK”) with locally varying anisotropy (“LVA”) to ensure grade continuity in various directions is reproduced in the block model. Copper (Cu) grades were estimated using the same method,

but only for the Ranch area. The MRE is reported as undiluted. Details regarding the methodology used to calculate the MRE are documented in this Technical Report section.

The 2024 Lawyers-Ranch MRE block model was evaluated by several pit optimization scenarios using Deswik's Pseudoflow™ pit optimization software. The resulting pit shells were used to constrain the reported open-pit resources in this Report with a 0.4 g/t gold equivalent grade ("AuEq") cut-off applied. Additionally, the deeper ("below pit") portions of the 2024 Lawyers-Ranch MRE block model was evaluated for its underground mining potential by various stope scenarios focused on achieving a minimum grade for mined material. The longhole open stope mining method was selected for the underground 2024 Lawyers-Ranch MRE assessment. The stope optimization scenario with a minimum grade of 1.5 g/t AuEq constrains the MRE in this report. All material within the mining shapes is reported in a "take-all" approach, regardless of whether its estimated grades exceed the reporting cut-off grade.

The 2024 Lawyers-Ranch Project MRE comprises Measured and Indicated Mineral Resources of 4.0 million ounces (Moz) grading 1.51 grams per tonne (g/t) gold equivalent (AuEq) contained within 82.0 million tonnes and Inferred Resources of 727 thousand ounces grading 1.82 AuEq contained within 12.4 million tonnes. Table 14.15 presents the complete 2024 Lawyers-Ranch Project MRE statement.

TABLE 25.1 SUMMARY OF MEASURED, INDICATED AND INFERRED MINERAL RESOURCES OF THE LAWYERS-RANCH PROJECT ⁽¹⁻⁸⁾											
Mineral Resource Area	Cut-off AuEq (g/t)	Classification	Tonnes (k)	Au (g/t)	Ag (g/t)	Cu (%)	AuEq (g/t)	Au (koz)	Ag (Moz)	Cu (kt)	AuEq (koz)
Pit-Constrained Mineral Resource Estimate											
Lawyers	0.4	Measured	35,987	1.1	38.5	-	1.58	1,268	44.5	-	1,825
		Indicated	40,406	0.99	26.8	-	1.32	1,285	34.8	-	1,721
		M&I	76,393	1.04	32.3	-	1.44	2,554	79.4	-	3,546
		Inferred	5,291	0.93	26.9	-	1.26	158	4.6	-	215
Ranch	0.4	Indicated	4,259	2.01	9.5	0.06	2.21	275	1.3	3	303
		Inferred	5,207	1.79	5.3	0.12	2.03	300	0.9	6	339
Total	0.4	Measured	35,987	1.1	38.5	0	1.58	1,268	44.5	0	1,825
		Indicated	44,665	1.09	25.2	0.01	1.41	1,561	36.1	3	2,023
		M&I	80,652	1.09	31.1	0	1.48	2,829	80.7	3	3,848
		Inferred	10,498	1.36	16.2	0.06	1.64	458	5.5	6	554
Out-of-Pit Mineral Resource Estimate											
Lawyers	1.5	Indicated	1,359	2.01	77.4	-	2.98	88	3.4	-	130
		Inferred	1,325	2.33	65.5	-	3.15	99	2.8	-	134
Ranch	1.5	Inferred	579	1.76	4.9	0.19	2.07	33	0.1	1	39
Total	1.5	Indicated	1,359	2.01	77.4	0	2.98	88	3.4	0	130
		Inferred	1,903	2.16	47.14	0.06	2.82	132	2.9	1	173
Total Mineral Resource Estimate											
All	Combined	Measured	35,987	1.1	38.5	0	1.58	1,268	44.5	0	1,825
		Indicated	46,023	1.11	26.7	0.01	1.46	1,648	39.5	3	2,153
		M&I	82,010	1.11	31.9	0	1.51	2,917	84.0	3	3,978
		Inferred	12,401	1.48	20.9	0.06	1.82	590	8.3	8	727

Source: APEX (2024)

Notes:

1. *Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.*
2. *The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.*
3. *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.*
4. *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.*
5. *Historical mined areas were removed from the block-modelled Mineral Resources.*
6. *Economic assumptions used include US\$1,850/oz Au, US\$24/oz Ag, 0.76 US\$:C\$ FX, process recoveries of 90% and 92% Au for Lawyers and Ranch, respectively, 88% Ag for both projects, 85% Cu for Ranch, a C\$15/t processing cost, and a G&A cost of C\$5/t. The resulting gold equivalency ratio of Au:Ag ratio was 1:80 and Au:Cu was 1:7315.*
7. *The constraining pit optimization parameters were C\$3.25/t mineralized and waste material mining cost and 52° pit slopes. Pit-constrained Mineral Resources are reported at an AuEq cut-off of 0.4 g/t.*
8. *The Out-of-Pit Mineral Resources include blocks below the constraining pit shell within underground mining shapes. A mining cost of C\$85/t mineralized, in addition to the economic assumptions above, results in an underground (UG) AuEq cut-off of 1.5 g/t. Mining shapes are generated using stope optimization with an objective of maximizing the total metal above the cut-off with a minimum dimension of 1.5 m (W) by 15 m (H) by 15 m (L). All “take all” material within the mining shapes is reported, regardless of whether the estimated grades are above the optimized cut-off grade.*

25.12 RISKS AND UNCERTAINTIES

In general, the Authors are not aware of any material risks or uncertainties other than those that are present with respect to the evaluation and potential development of all mineral exploration properties. Furthermore, the Authors are not aware of any specific environmental, permitting, legal, title, taxation, socioeconomic, marketing, political or other relevant factors that might materially affect the results of the MRE presented in this Report, or that might impede continued exploration and development at the Lawyers-Ranch Project.

25.12.1 Environmental

The Lawyers Area was the site of the past-producing Cheni Gold Mine and contains historical mine workings, including the now reclaimed former processing plant site, several small waste rock piles (rock dumps) and a tailings storage facility. The former processing plant site is currently being used as a laydown area and is the site of the Lawyers drill core logging (and storage) facilities. The historical waste rock dump and tailings pond has not been disturbed or used by Thesis; the liability and responsibility for ongoing monitoring of this area resides with the Ministry. Thesis has also applied for an Effluent Discharge Permit with respect to water that flows naturally from the former Cliff Creek Mine Portal, as requested by the Ministry.

Although small scale mining (excavation) was conducted in the Ranch area in the 1980s, there are no significant waste rock structures, tailings or other such processing plant products within the permit area.

25.12.2 Mineral Resource Estimate

The Authors are not aware of any other significant material risks to the MRE discussed in this Report, other than the normal risks that are inherent to mineral exploration and development in general.

The Lawyers-Ranch Project drilling database includes a significant amount of historical drill data, which represents a risk related to the unknown accuracy and precision of some of the historical drill hole collar locations, downhole surveys, and assays. Thesis has performed an extensive review of the historical drill data to verify and validate historical drilling collar locations. Additionally, Thesis has now completed a significant amount of modern drilling, the results of which have been used to validate historical drill data and significantly reduce this source of risk and uncertainty.

Modelling structurally controlled epithermal deposits has inherent geological risk. This deposit style is very complex in terms of geological and mineralization continuity. Connecting drill hole intercepts of thin mineralized domains into continuous interpretations is a source of uncertainty. Open pit Mineral Resources have less risk, as mining does not need to be as selective as underground Mineral Resources. De-risking the geological continuity for this deposit style requires rigorous interpretation and high-quality orientated structural data from drilling. The current mineralization domain interpretations are well-founded and supported by modern

drilling, commonly in several different orientations, on significant structural modelling using orientated drill core. There are some areas with wider-spaced drilling that, with additional drilling, may cause changes in the mineralization domain interpretations.

26.0 RECOMMENDATIONS

It is the opinion of the Authors that the Lawyers-Ranch Project represents a ‘Property of Merit’ that continues to demonstrate significant discovery potential, and warrants additional exploration and development work. This section describes recommendations for future work at the Project that comprise a total estimated expenditure of \$22.6M, summarized in Table 26.1.

The recommended work for the Project has been separated into four programs: 1) exploration work; 2) ongoing environmental management and baseline studies; 3) additional metallurgical testwork; and 4) the completion of a revised/updated PEA for the newly combined Lawyers-Ranch Project. As summarized below, the estimated cost for recommended exploration work at the Project is \$10.3M, the estimated cost for ongoing project management and other administrative costs is \$5.4M, the estimated cost for ongoing environmental management and baselines studies is \$4.8M, the estimated cost for additional metallurgical testing is \$0.9M, and the estimated cost for the completion of a revised/updated PEA for the Lawyers-Ranch Project is \$1.2 M.

TABLE 26.1 ESTIMATED COSTS FOR RECOMMENDED WORK AT THE LAWYERS-RANCH PROJECT		
Item	Description	Cost Estimate (C\$)
Exploration	(detail breakdown given in Table 26.2 below)	10,300,000
Administrative	Project Management	1,900,000
	Permitting	1,600,000
	Community Engagement	1,100,000
	Site Construction and Ongoing Reclamation	800,000
Environmental Baseline Studies	Environmental Baseline studies and Site Monitoring	4,800,000
Metallurgical Studies		900,000
Engineering and PEA		1,200,000
Total		22,600,000

26.1 RECOMMENDED EXPLORATION WORK

A field exploration program is recommended for the Ranch Area claims, specifically on the newly acquired northern and northeastern claims. This recommended work program includes geological mapping, mineral prospecting, rock and soil sampling, and geophysical surveys. This program is estimated to cost \$0.7M.

Additional drilling is recommended totalling 24,000 m. Most of the recommended drill program (~20,000 m) is intended to upgrade and expand the Mineral Resources at Cliff Creek and Dukes Ridge (Lawyers Area) and Bingo, Thesis II, Thesis III, Bonanza, Ridge, JK and BV Zones (Ranch Area). Additional exploration drilling (~4,000 m) is also recommended at several (mainly Ranch Area) targets, including Steve, Ring, Golden Furlong and Mandusa. In total, the

recommended drill program at the Project represents an estimated expenditure of \$10.3M (Table 26.1 Exploration and Table 26.2 details).

26.2 RECOMMENDED ENVIRONMENTAL MANAGEMENT AND BASELINES STUDIES

The recommended work for the Lawyers-Ranch Project includes various ongoing work programs, such as administrative and logistical programs, infrastructure upgrades, continued First Nations engagement, environmental monitoring, reclamation, and baseline environmental studies. These programs allow for real-time evaluation of potential impacts related to the ongoing exploration activities at the Project and entail programs that allow for the development and implementation of mitigation strategies and site reclamation. The cost for the Project's ongoing project management, permitting, community engagement, and site construction and reclamation programs is estimated to be \$5.4M (Table 26.1 Administrative).

In addition, Thesis has initiated baseline environmental (and related) studies that are intended to provide data sufficient to allow for the eventual preparation of an Environmental Impact Statement ("EIS") for a potential development project at the Property. Currently, the minimum required threshold of 2-years of data collection has been achieved at the Lawyers Area and data collection is half-way to the minimum requirement at the Ranch Area. The cost of the completion of the recommended baseline environmental work is estimated to be \$4.8M (Table 26.1 Environmental Baseline Studies).

TABLE 26.2
RECOMMENDED LAWYERS-RANCH PROJECT EXPLORATION WORK

<u>Program Details</u>				<u>Costs</u>
EXPLORATION				
Administrative/General				
Administration and Project Management				\$150,000
Permitting				\$50,000
subtotal				\$200,000
Fieldwork				
	<u>people</u>	<u>days/samples</u>	<u>rate</u>	
Prospecting (mapping/sampling)	4	28	\$650	\$72,800
sample analysis		500	\$50	\$25,000
Soil Geochemical Sampling	4	28	\$500	\$56,000
sample analysis		4000	\$40	\$160,000
Logistics				
camp/accommodations	8	28	\$250	\$56,000
helicopter		45 hrs	\$2,500	\$112,500
sample shipping, supplies and misc.				\$17,700
subtotal				\$500,000
Drilling				
	<u>holes</u>	<u>depth (m)</u>	<u>rate (/m all-in)</u>	
Resource Infill and Expansion Drilling				
Lawyers ("below pit" targets)	6	500	\$400	\$1,200,000
Dukes Ridge ("below pit" targets)	6	500	\$400	\$1,200,000
Bingo	10	250	\$400	\$1,000,000
Thesis II	10	250	\$400	\$1,000,000
Thesis III	10	250	\$400	\$1,000,000
Bonanza	10	150	\$400	\$600,000
Ridge	6	300	\$400	\$720,000
JK	10	150	\$400	\$600,000
BV	10	150	\$400	\$600,000
Subtotal	19,800	m		\$7,920,000
Exploration Drilling				
Steve	6	300	\$400	\$720,000
Ring	4	200	\$400	\$320,000
Golden Furlong	4	200	\$400	\$320,000
Mandusa	4	200	\$400	\$320,000
Subtotal	4,200	m		\$1,680,000
Total	24,000	m		\$10,300,000

26.3 RECOMMENDED METALLURGICAL TESTWORK

Metallurgical assessment to date has been completed to a PEA level. Currently, a conceptual flowsheet has been developed that uses gravity, differential flotation, leaching of the scavenger float concentrate, and leaching of final float tail with PLS recovered by CCD. The primary concentrate would be sold to a smelter, and remaining products leached in separate circuits, and then combined for Merrill Crowe precipitation to produce Doré on-site. As designed, the current circuit provides for an average laboratory gold recovery of 95% and average silver recovery of 92% (with minor miscellaneous circuit losses expected in a commercial operation).

Further metallurgical testwork is recommended to advance the Project to a Pre-Feasibility level, as follows:

- **Pre-Concentration:** Investigate the use of pre-concentration of mined material at Ranch, given the transportation distances between the Mineral Resources there and the proposed plant site at Lawyers. Pre-concentration might include various methods for dry mineralized material sorting and DMS;
- **Comminution:** Further testing is required with the updated Mineral Resource, particularly at Ranch. The amount and type of comminution testwork will depend on whether pre-concentration is incorporated;
- **Treatment Methods and Optimization:** Further optimization of the process design criteria is recommended, including for downstream treatment, such as PLS recovery, leach detoxification and tailing characterization and handling. Additional testing is also recommended to better support treatment aspects, such as justification for separate leaching of scavenger concentrate and float tailing. This work can include a trade-off study between CCD to carbon adsorption for soluble metal recovery, depending on soluble silver values in the tail PLS and the liquid-solid separation characteristics of the float tailing slurry;
- **Byproduct Values:** Dependent on Mineral Resource data, there may be byproduct credits, particularly relating to some zones at Ranch with elevated copper content. Studies would involve additional mineralogy and bench-scale testwork focused on flotation to establish acceptable mining cut-off grades, and the grade-to-recovery relationship for concentrate; and
- **Variability Testing:** Following optimization and confirmation of the flowsheet, variability testing is required. This testing would be for the various geological zones, spatial areas, and mineralogy of both Areas moving forward. The samples should cover all the expected grade ranges down to cut-off grade and possibly below, in order to investigate future use of low-grade stockpiles. This testwork would include full circuit simulation studies to cover the anticipated mine schedule, particularly in the initial years of production.

The total cost of this work is estimated to be \$0.9M.

26.4 UPDATED PEA FOR THE LAWYERS-RANCH PROJECT

This Technical Report on the newly combined Lawyers-Ranch Project supersedes the previous Report for the former Ranch Project (Turner and Hough, 2023) and a Technical Report that included a PEA for the Lawyers Project (Church *et al.*, 2022). Based on the updated MRE for the Lawyers Area Deposits and the initial MRE for the Ranch Area Deposits as described in this Report, it is recommended that a revised PEA be completed for the combined Lawyers-Ranch Project. The estimated cost for this recommended work item is \$1.2M.

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28.0 CERTIFICATES

CERTIFICATE OF QUALIFIED PERSON

WILLIAM STONE, PH.D., P.GEO.

I, William Stone, Ph.D., P.Geo, residing at 4361 Latimer Crescent, Burlington, Ontario, do hereby certify that:

1. I am an independent geological consultant working for P&E Mining Consultants Inc.
2. This certificate applies to the Technical Report titled “Technical Report and Updated Mineral Resource Estimate of the Lawyers-Ranch Gold-Silver Project, Stikine Terrane, British Columbia”, (the “Technical Report”) with an effective date of May 1, 2024 (the “Effective Date”).
3. I am a graduate of Dalhousie University with a Bachelor of Science (Honours) degree in Geology (1983). In addition, I have a Master of Science in Geology (1985) and a Ph.D. in Geology (1988) from the University of Western Ontario. I have worked as a geologist for a total of 35 years since obtaining my M.Sc. degree. I am a geological consultant currently licensed by the Professional Geoscientists Ontario (License No 1569).

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” for the purposes of NI 43-101.

My relevant experience for the purpose of the Technical Report is:

• Contract Senior Geologist, LAC Minerals Exploration Ltd.	1985-1988
• Post-Doctoral Fellow, McMaster University	1988-1992
• Contract Senior Geologist, Outokumpu Mines and Metals Ltd.	1993-1996
• Senior Research Geologist, WMC Resources Ltd.	1996-2001
• Senior Lecturer, University of Western Australia	2001-2003
• Principal Geologist, Geoinformatics Exploration Ltd.	2003-2004
• Vice President Exploration, Nevada Star Resources Inc.	2005-2006
• Vice President Exploration, Goldbrook Ventures Inc.	2006-2008
• Vice President Exploration, North American Palladium Ltd.	2008-2009
• Vice President Exploration, Magma Metals Ltd.	2010-2011
• President & COO, Pacific North West Capital Corp.	2011-2014
• Consulting Geologist	2013-2017
• Senior Project Geologist, Anglo American	2017-2019
• Consulting Geoscientist	2020-Present

4. I have not visited the mineral property (the “Property”) that is the subject of this Technical Report.
5. I am responsible for authoring Sections 2 to 10 and 15 to 24, and co-authoring Sections 1, 25, 26 and 27 of this Technical Report.
6. I am independent of the Issuer and the Property, applying the test in Section 1.5 of NI 43-101.
7. I have had prior involvement with the Property that is the subject of this Technical Report: I was a “Qualified Person” for a technical report titled “Preliminary Economic Assessment Lawyers Gold-Silver Project, Stikine Terrane, BC”, with an effective date of September 9, 2022. I was also a “Qualified Person” for a technical report titled “Updated Mineral Resource Estimate of the Lawyers Gold-Silver Property, Omineca Mining Division, British Columbia, Canada”, with an effective date of May 11, 2021.
8. I have read NI 43-101 and Form 43-101F1 and this Technical Report has been prepared in compliance therewith.
9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: May 1, 2024

Signed Date: June 13, 2024

{SIGNED AND SEALED}
[William Stone]

William E. Stone, Ph.D., P.Geo.

CERTIFICATE OF QUALIFIED PERSON

YUNGANG WU, P.GEO.

I, Yungang Wu, P.Geo, residing at 3246 Preserve Drive, Oakville, Ontario, L6M 0X3, do hereby certify that:

1. I am an independent consulting geologist contracted by P&E Mining Consultants Inc.
2. This certificate applies to the Technical Report titled “Technical Report and Updated Mineral Resource Estimate of the Lawyers-Ranch Gold-Silver Project, Stikine Terrane, British Columbia”, (the “Technical Report”) with an effective date of May 1, 2024 (the “Effective Date”).
3. I am a graduate of Jilin University, China, with a Master’s degree in Mineral Deposits (1992). I have worked as a geologist for 30 plus years since graduating. I am a geological consultant and a registered practising member of the Professional Geoscientists Ontario (Registration No. 1681).

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” for the purposes of NI 43-101.

My relevant experience for the purpose of the Technical Report is as follows:

• Geologist –Geology and Mineral Bureau, Liaoning Province, China	1992-1993
• Senior Geologist – Committee of Mineral Resources and Reserves of Liaoning, China	1993-1998
• VP – Institute of Mineral Resources and Land Planning, Liaoning, China	1998-2001
• Project Geologist–Exploration Division, De Beers Canada	2003-2009
• Mine Geologist – Victor Diamond Mine, De Beers Canada	2009-2011
• Resource Geologist– Coffey Mining Canada	2011-2012
• Consulting Geologist	2012-Present

4. I visited the Lawyers-Ranch Property (the “Property”) that is the subject of this Technical Report from November 4 to 6, 2024.
5. I am responsible for authoring Section 12.2, and co-authoring Sections 1, 14, 25, 26 and 27 of this Technical Report.
6. I am independent of the Issuer and the Property, applying the test in Section 1.5 of NI 43-101.
7. I have had prior involvement with the Property that is the subject of this Technical Report: I was a “Qualified Person for a technical report titled “Updated Mineral Resource Estimate of the Lawyers Gold-Silver Property, Omineca Mining Division, British Columbia, Canada”, with an effective date of May 11, 2021.
8. I have read NI 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance therewith.
9. As of the Effective Date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: May 1, 2024

Signed Date: June 13, 2024

{SIGNED AND SEALED}

[Yungang Wu]

Yungang Wu, P.Geo.

CERTIFICATE OF QUALIFIED PERSON

JARITA BARRY, P.GEO.

I, Jarita Barry, P.Geo., residing at 9052 Mortlake-Ararat Road, Ararat, Victoria, Australia, 3377, do hereby certify that:

1. I am an independent geological consultant contracted by P&E Mining Consultants Inc.
2. This certificate applies to the Technical Report titled “Technical Report and Updated Mineral Resource Estimate of the Lawyers-Ranch Gold-Silver Project, Stikine Terrane, British Columbia”, (the “Technical Report”) with an effective date of May 1, 2024 (the “Effective Date”).
3. I am a graduate of RMIT University of Melbourne, Victoria, Australia, with a B.Sc. in Applied Geology. I have worked as a geologist for over 17 years since obtaining my B.Sc. degree. I am a geological consultant currently licensed by Engineers and Geoscientists British Columbia (License No. 40875) and Professional Engineers and Geoscientists Newfoundland & Labrador (License No. 08399). I am also a member of the Australasian Institute of Mining and Metallurgy of Australia (Member No. 305397);

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” for the purposes of NI 43-101.

My relevant experience for the purpose of the Technical Report is:

- Geologist, Foran Mining Corp. 2004
- Geologist, Aurelian Resources Inc. 2004
- Geologist, Linear Gold Corp. 2005-2006
- Geologist, Búscore Consulting 2006-2007
- Consulting Geologist (AusIMM) 2008-2014
- Consulting Geologist, P.Geo. (EGBC/AusIMM) 2014-Present

4. I have not visited the mineral property (the “Property”) that is the subject of this Technical Report.
5. I am responsible for authoring Sections 11, 12.1, 12.3, and 12.4, and co-authoring Sections 1, 25, 26 and 27 of this Technical Report.
6. I am independent of the Issuer and the Property, applying the test in Section 1.5 of NI 43-101.
7. I have had prior involvement with the Property that is the subject of this Technical Report: I was a “Qualified Person” for a technical report titled “Preliminary Economic Assessment Lawyers Gold-Silver Project, Stikine Terrane, BC”, with an effective date of September 9, 2022. I was also a “Qualified Person” for a technical report titled “Updated Mineral Resource Estimate of the Lawyers Gold-Silver Property, Omineca Mining Division, British Columbia, Canada”, with an effective date of May 11, 2021.
8. I have read NI 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance therewith.
9. As of the Effective Date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: May 1, 2024

Signed Date: June 13, 2024

{SIGNED AND SEALED}

[Jarita Barry]

Jarita Barry, P.Geo.

CERTIFICATE OF QUALIFIED PERSON

EUGENE PURITCH, P. ENG., FEC, CET

I, Eugene J. Puritch, P. Eng., FEC, CET, residing at 44 Turtlecreek Blvd., Brampton, Ontario, L6W 3X7, do hereby certify that:

1. I am an independent mining consultant and President of P&E Mining Consultants Inc.
2. This certificate applies to the Technical Report titled “Technical Report and Updated Mineral Resource Estimate of the Lawyers-Ranch Gold-Silver Project, Stikine Terrane, British Columbia”, (the “Technical Report”) with an effective date of May 1, 2024 (the “Effective Date”).
3. I am a graduate of The Haileybury School of Mines, with a Technologist Diploma in Mining, as well as obtaining an additional year of undergraduate education in Mine Engineering at Queen’s University. In addition, I have also met the Professional Engineers of Ontario Academic Requirement Committee’s Examination requirement for a Bachelor’s degree in Engineering Equivalency. I am a mining consultant currently licensed by the: Professional Engineers and Geoscientists New Brunswick (License No. 4778); Professional Engineers, Geoscientists Newfoundland and Labrador (License No. 5998); Association of Professional Engineers and Geoscientists Saskatchewan (License No. 16216); Ontario Association of Certified Engineering Technicians and Technologists (License No. 45252); Professional Engineers of Ontario (License No. 100014010); Association of Professional Engineers and Geoscientists of British Columbia (License No. 42912); and Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists (No. L3877). I am also a member of the National Canadian Institute of Mining and Metallurgy.

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” for the purposes of NI 43-101.

I have practiced my profession continuously since 1978. My summarized career experience is as follows:

- Mining Technologist - H.B.M. & S. and Inco Ltd., 1978-1980
- Open Pit Mine Engineer – Cassiar Asbestos/Brinco Ltd., 1981-1983
- Pit Engineer/Drill & Blast Supervisor – Detour Lake Mine, 1984-1986
- Self-Employed Mining Consultant – Timmins Area, 1987-1988
- Mine Designer/Resource Estimator – Dynatec/CMD/Bharti, 1989-1995
- Self-Employed Mining Consultant/Resource-Reserve Estimator, 1995-2004
- President – P&E Mining Consultants Inc, 2004-Present

4. I have not visited the mineral property (the “Property”) that is the subject of this Technical Report.
5. I am responsible for co-authoring Sections 1, 14, 25, 26 and 27 of this Technical Report.
6. I am independent of the Issuer and the Property, applying the test in Section 1.5 of NI 43-101.
7. I have had prior involvement with the Property that is the subject of this Technical Report: I was a “Qualified Person” for a technical report titled “Preliminary Economic Assessment Lawyers Gold-Silver Project, Stikine Terrane, BC”, with an effective date of September 9, 2022. I was also a “Qualified Person” for a technical report titled “Updated Mineral Resource Estimate of the Lawyers Gold-Silver Property, Omineca Mining Division, British Columbia, Canada”, with an effective date of May 11, 2021.
8. I have read NI 43-101 and Form 43-101F1. This Technical Report has been prepared in compliance therewith.
9. As of the Effective Date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: May 1, 2024

Signed Date: June 13, 2024

{SIGNED AND SEALED}

[Eugene Puritch]

Eugene Puritch, P.Eng., FEC, CET

CERTIFICATE OF QUALIFIED PERSON

FRANK WRIGHT, P.ENG.

I, Frank R. Wright, P.Eng., of Delta, BC, do hereby certify that:

1. I am currently employed as a Metallurgical Engineer with F. Wright Consulting Inc., with an office at: #45-10605 Delsom Cr. Delta BC, Canada V4C 0A4.
2. This certificate applies to the Technical Report titled “Technical Report and Updated Mineral Resource Estimate of the Lawyers-Ranch Gold-Silver Project, Stikine Terrane, British Columbia”, (the “Technical Report”) with an effective date of May 1, 2024 (the “Effective Date”).
3. I am a graduate of University of Alberta, in Edmonton, AB Canada with a Bachelor of Science in Metallurgical Engineering in 1979, and from Simon Fraser University in Burnaby, BC Canada with a Bachelor of Business Administration in 1983. I am a member in good standing with the Engineers and Geoscientists British Columbia (License #15747) and Permit to Practice #1001106. I am a member of the Canadian Institute of Mining and Metallurgy. I have continuously practiced my profession in the areas of hydrometallurgy, environmental, and mineral process engineering since 1979 as an employee of various resource companies and consulting firms. Since 1998, I have been the principal and a self-employed consultant with F. Wright Consulting Inc., primarily providing services, including the co-authoring of technical reports for junior and mid-tier mineral exploration and mining firms.

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” for the purposes of NI 43-101.

4. I have not visited the mineral property (the “Property”) that is the subject of this Technical Report.
5. I am responsible for authoring Sections 12.5, and 13, and co-authoring Sections 1, 25, 26 and 27 of this Technical Report.
6. I am independent of the Issuer and the Property, applying the test in Section 1.5 of NI 43-101.
7. I have had prior involvement with the Property that is the subject of this Technical Report, with the prior reporting of metallurgical data, as included in related sections of a technical report titled “Preliminary Economic Assessment Lawyers Gold-Silver Project, Stikine Terrane, BC”, with an effective date of September 9, 2022. Also, the prior reporting of metallurgical data, as included in related sections of a technical report titled “Updated Mineral Resource Estimate of the Lawyers Gold-Silver Property, Omineca Mining Division, British Columbia, Canada”, with an effective date of May 11, 2021.
8. I have read NI 43-101 and Form 43-101F1 and this Technical Report has been prepared in compliance therewith.
9. As of the Effective Date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: May 1, 2024

Signed Date: June 13, 2024

{SIGNED AND SEALED}

[Frank Wright]

Frank Wright, P.Eng.