Assessment Report

Describing

Diamond Drilling, Reverse Circulation Drilling, Soil Sampling, Prospecting, and Metallurgical Sampling

Performed on the

Kaminak Gold Corporation 100% Owned Coffee Property

May 25th 2014 to November 24th 2014

NTS map sheets 115J/13, 115J/14 and 115J/15

Latitude 62°52'N and Longitude 139°20' W

In the Whitehorse Mining District

Compiled by
Eric Buitenhuis, MSc, G.I.T.

Work completed under the supervision of
Tim Smith, MSc, P.Geo

March 27, 2015

Property	Claim No.	Claim Name	Expiry Date	NTS
COFFEE	1-10	YC46734-YC46739	December 15, 2032	115J14
COFFEE	7-16	YC46740-YC46749	December 15, 2036	115J14
COFFEE	17-18	YC53949-YC53950	December 15, 2032	115J14
COFFEE	19-24	YC53951-YC53956	December 15, 2028	115J14
COFFEE	25-36	YC53957-YC53968	December 15, 2032	115J14
COFFEE	37-54	YC54445-YC54462	December 15, 2032	115J14
COFFEE	55-62	YC54463-YC54470	December 15, 2031	115J14
COFFEE	63-68	YC54471-YC54476	December 15, 2032	115J14
COFFEE	69-92	YC54477-YC54500	December 15, 2031	115J14
COFFEE	93-104	YC60164-YC60175	December 15, 2032	115J14
COFFEE	105-112	YC60176-YC60183	December 15, 2032	115J14
COFFEE	113-128	YC83190-YC83205	December 15, 2030	115J14
COFFEE	129-132	YC83206-YC83209	December 15, 2026	115J14
COFFEE	133-136	YC83210-YC83213	December 15, 2030	115J14
COFFEE	137-140	YC83214-YC83217	December 15, 2026	115J14
COFFEE	141-144	YC83218-YC83221	December 15, 2030	115J14
COFFEE	145-148	YC83222-YC83225	December 15, 2026	115J14
COFFEE	149-152	YC83226-YC83229	December 15, 2030	115J14
COFFEE	153-172	YC83230-YC83249	December 15, 2026	115J14
COFFEE	173-226	YC83250-YC83303	December 15, 2030	115J14
COFFEE	227-276	YC83652-YC83701	December 15, 2030	115J14
COFFEE	277-288	YC89405-YC89416	December 15, 2030	115J14
COFFEE	289-292	YC89417-YC89420	December 15, 2026	115J14
COFFEE	293-304	YC89421-YC89432	December 15, 2030	115J14
COFFEE	305-308	YC89433-YC89436	December 15, 2026	115J14
COFFEE	309-344	YC89437-YC89472	December 15, 2030	115J14
COFFEE	345-404	YC93441-YC93500	December 15, 2027	115J13-115J14
COFFEE	405-410	YC97368-YC97373	December 15, 2027	115J14
COFFEE	411-578	YC92601-YC92768	December 15, 2027	115J13-115J14
COFFEE	579-586	YC92769-YC92776	December 15, 2027	115J14
COFFEE	587-610	YC92777-YC92800	December 15, 2027	115J14-115J13
COFFEE	611-625	YC93351-YC93365	December 15, 2027	115J14-115J13
COFFEE	627-726	YC96801-YC96900	December 15, 2027	115J13-115J14
COFFEE	727-792	YC92535-YC92600	December 15, 2027	115J14
COFFEE	793-865	YC92818-YC92890	December 15, 2027	115J14
COFFEE	866-894	YC93271-YC93299	December 15, 2027	115J14
COFFEE	895-910	YC92801-YC92816	December 15, 2027	115J14
COFFEE	911-960	YD12701-YD12750	December 15, 2028	115J14
COFFEE	961-969	YD13231-YD13239	December 15, 2028	115J14
COFFEE	970-1172	YD13241-YD13443	December 15, 2028	115J14
COFFEE	1173-1180	YD13444-YD13451	December 15, 2024	115J14
COFFEE	1181-1184	YD13452-YD13455	December 15, 2028	115J14
COFFEE	1185-1192	YD13456-YD13463	December 15, 2024	115J14

COFFEE	1193-1196	YD13464-YD13467	December 15, 2028	115J14
COFFEE	1197-1204	YD13468-YD13475	December 15, 2024	115J14
COFFEE	1205-1208	YD13476-YD13479	December 15, 2028	115J14
COFFEE	1209-1216	YD13480-YD13487	December 15, 2024	115J14
COFFEE	1217-1416	YD13488-YD13687	December 15, 2028	115J14
COFFEE	1421-1429	YD13692-YD13700	December 15, 2028	115J14
COFFEE	1430	YD42501	December 15, 2028	115J14
COFFEE	1435-1496	YD42506-YD42567	December 15, 2028	115J14
COFFEE	1497-1714	YD42701-YD42918	December 15, 2028	115J14-115J15
COFFEE	1715-1718	YD43085-YD43088	December 15, 2028	115J14
COFFEE	1719-1781	YD43929-YD43991	December 15, 2028	115J14-115J13
COFFEE	1782-1954	YD43992-YD44164	December 15, 2027	115J13-115J14
COFFEE	1955-1986	YD16283-YD16314	December 15, 2024	115J14
COFFEE	1987-1992	YD16315-YD16320	December 15, 2028	115J14
COFFEE	1993-1996	YD16321-YD16324	December 15, 2024	115J14
COFFEE	1997-2012	YD16325-YD16340	December 15, 2028	115J14
COFFEE	2013-2016	YD16341-YD16344	December 15, 2024	115J14
COFFEE	2017-2028	YD16345-YD16356	December 15, 2028	115J14
COFFEE	2029-2032	YD16357-YD16360	December 15, 2024	115J14
COFFEE	2033-2044	YD16361-YD16372	December 15, 2028	115J14
COFFEE	2045-2048	YD16373-YD16376	December 15, 2024	115J14
COFFEE	2049-2060	YD16377-YD16388	December 15, 2028	115J14
COFFEE	2061-2064	YD16389-YD16392	December 15, 2024	115J14
COFFEE	2065-2076	YD16393-YD16404	December 15, 2028	115J14
COFFEE	2077-2080	YD16405-YD16408	December 15, 2024	115J14
COFFEE	2081-2092	YD16409-YD16420	December 15, 2028	115J14
COFFEE	2093-2096	YD16421-YD16424	December 15, 2024	115J14
COFFEE	2097-2124	YD16425-YD16452	December 15, 2028	115J14
COFFEE	2125-2346	YD89255-YD89476	December 15, 2028	115J15-115J14
COFFEE	2347-2846	YD91501-YD92000	December 15, 2024	115J15-115J14
COFFEE	2847-2936	YD90101-YD90190	December 15, 2024	115J15
CREAM	1-22	YC60088-YC60109	December 15, 2028	115J13
CREAM	23-68	YC83144-YC83189	December 15, 2027	115J13
LION	1-16	YC83761-YC83776	December 15, 2028	115J14
SUGAR	1-10	YC95568-YC95577	December 15, 2029	115J15

CONTENTS

1.0 Introduction....1

2.0 Location and Access....1

3.0 Climate and Physiography....3

4.0 Land Tenure....4

5.0 Permits and Authorization....7

6.0 Underlying Agreements....7

7.0 Property History....7

8.0 Regional Geology....8

9.0 Property Geology....9

9.1 Lithologies....11

9.1.1 Felsic Gneiss....11

9.1.2 Biotite Schist....12

9.1.3 Muscovite Schist....13

9.1.4 Biotite Amphibolite....14

9.1.5 Amphibolite....15

9.2 Interleaved Metagabbro and Amphibolite....16

9.2.1 Ultramafics....17

9.2.2 Granite....19

9.2.3 Dykes....20

9.3 Structure....22

9.3.1 Structural Geology....22

9.3.2 Metamorphic Foliation....22

9.3.3 Jurassic Shearing....22

9.3.4 Brittle Fracturing and Faulting....23

10.0 Alteration and Mineralization....24

10.1 Mineralization....24

10.1.1 Supremo 26
10.1.2 Latte 28
10.1.3 Double Double 33
10.1.4 Kona 33
10.1.5 Americano, Americano West and Espresso 35
10.1.6 Macchiato and Cappuccino 36
10.1.7 Sugar 36
10.1.8 Sumatra 36
10.1.9 Arabica 37
10.2 Coffee Weathering Profiles 37
10.3 Cyanide Solubility Analyses 37
10.4 Oxide Categorization 38
10.5 Three Dimensional Modelling of Oxidation Surfaces 38
10.6 Three Dimensional Modelling of Structure and Gold Mineralization 38
10.7 Structural Domain Wireframes 38
10.8 Gold Mineralization Wireframes 38
11.0 Deposit Types 40
12.0 Current Work 42
12.1 2014 Drilling 42
12.2 Infill and Exploration Core Drilling 47
12.3 Hydrogeological Core Drilling 50
12.4 Geotechnical Core Drilling 50
12.5 Metallurgical Core Drilling 50
12.6 Reverse Circulation Drilling 51
12.7 Drilling Locations (Zones) 55
12.7.1 Supremo 55
12.7.2 Latte & Latte North 55
12.7.3 Double Double 61
12.7.4 Kona 61
12.7.5 Kona North 61
12.7.6 Cappuccino and French Press 61
12.7.7 Macchiato 61

12.7.8 Proposed Heap Leach Facility 61
12.7.9 Waste Dumps 64
12.7.10 Soil Sampling 64
12.7.11 Rock Chip Sampling (Trenching) 67

13.0 Sampling Method and Approach 70
13.1 Drill Core Sampling 70
13.2 Reverse Circulation Chip Sampling 70
13.3 Soil Sampling 71
13.4 Rock Chip Sampling 71

14.0 Sample Preparation, Analyses and Security 72
14.1 Historical Sampling 72
14.2 Sampling by Kaminak 72
14.3 Specific Gravity Data 74
14.4 Quality Assurance and Quality Control Programs 74

15.0 Data Verification 76
15.1 Verification by Kaminak 76

16.0 Mineral Processing and Metallurgical Testing 77
16.1 Core Borehole Composite Metallurgical Testing 2014 by Kappes, Cassiday and Associates 77
16.1.1 Summary of Metallurgical Test Work 77
16.1.2 Sample Receipt and Preparation 80
16.1.3 Head Analyses 80
16.1.4 Bottle Roll Leach Test Work 80
16.1.5 Column Leach Test Work 81
16.2 Bulk Sample Metallurgical Testing 2014 by Kappes, Cassiday, and Associates 81
16.2.1 Sample Composite Selection for the Bulk Sample Metallurgical Test Program 81
16.2.2 Summary of Metallurgical Test Work 81
16.2.3 Head Analyses 82
16.2.4 Bottle Roll Leach Test Work 82

17.0 Preliminary Economic Assessment 83
17.1 Introduction 83
17.2 Mineral Processing and Metallurgical Testing 83
17.3 Mineral Resource Estimate 87

17.4 Mineral Reserve Estimate 91
17.5 Mining 91
17.5.1 Open Pit Mine Plan and Phasing 91
17.5.2 Mine Schedule 93
17.6 Waste Management 95
17.7 Recovery Methods 95
17.8 Project Infrastructure 102
17.9 Environment Assessment and Permitting 102
17.9.1 Social Considerations 102
17.10 Capital Costs 102
17.11 Operating Costs 103
17.12 Economic Analysis 104
17.13 Conclusions 106
17.14 Recommendations 106

18.0 Statement of Expenditures 108

19.0 References 111

Table of Figures

Figure 2.1: Coffee Project Location Map 2
Figure 3.1: Physiography of the Coffee project. 4
Figure 4.1: Mineral Tenure Map 6
Figure 9.1: Geologic map of the Coffee property, with cross section. 11
Figure 9.2: Quartzo-feldspathic Augen Bearing Gneiss from Supremo Area, Borehole CFD0002 at 144m. 12
Figure 9.3: Biotite Schist in Drill Core and Thin Section 13
Figure 9.4: Felsic Schist in Drill Core and Thin Section 14
Figure 9.5: Thin Section Images of Biotite Amphibolite and Massive Amphibolite 15
Figure 9.6: Drill Core Samples of Metagabbro 16
Figure 9.7: Thin Section Images of Metagabbro 17
Figure 9.8: Thin Section Images of Ultramafic Slivers from CFD0035 at 253 m 18
Figure 9.9: Core Box Photo of a Thin Ultramafic Sliver in CFD0164 from 31.8 - 36.14 m 19
Figure 9.10 Thin Section Images of Serpentinized Ultramafics 19
Figure 9.11: Coffee Creek Granite in Drill Core and Thin Section 20
Figure 9.12: Dykes in Grab Samples, Drill Core, and Thin Section. 21
Figure 10.1: Gold Mineralization Textures at Supremo 27
Figure 10.2: Expression of the Latte Structure at Surface Looking East (Section 583250mE) 28
Figure 10.3: Disseminated Mineralization within the Latte Zone 30
Figure 10.4: Core photographs of Latte Zone Pyritic Faults and Sulphide-matrix Breccia 31
Figure 10.5: Late Brecciation of Mineralized Intervals at the Latte Zone 32
Figure 10.6: Gold Mineralization Textures at Double Double 34
Figure 10.7: Gold Mineralization Textures at Kona 35
Figure 12.1: Overview plan map of drilling on the Coffee Property. Proposed locations of the Leach Pad and Waste Dump also indicated. 43
Figure 12.2: Plan map of drilling in the eastern region of the Supremo Zone. 56
Figure 12.3: Plan map of drilling in the northern region of the Supremo Zone. 57
Figure 12.4: Plan map of drilling in the southern region of the Supremo Zone, with planned South Waste Dump superimposed. 58
Figure 12.5: Plan map of drilling in the western region of the Latte Zone. 59
Figure 12.6: Plan map of drilling in the eastern region of the Latte Zone and Connector Zone. 60
Figure 12.7: Plan map of drilling in the Double Double Zone. 62
Figure 12.8: Plan map of drilling at the Kona and Kona North Zones. 63
Figure 12.9: Overview plan map of soil sampling at the Coffee property, with 2014 infill soil locations indicated. 65
Figure 12.10: Detailed plan map of 2014 infill soil sampling locations at the Coffee property. 66
Figure 12.11: Plan map of both exploration and metallurgical trenches excavated at the Coffee property. 2014 trenching indicated in red. 69
Figure 16.1: Plan map of metallurgical trenches and drill holes used for composites in the main resource area. 78
Figure 16.2: Plan map of drill holes used for metallurgical test work from the Kona Zone. 79
Figure 17.1: Supremo Leaching Profiles 98
Figure 17.2: Latte Leaching Profiles 99

List of Tables

Table 9-1: Tectonic Events at Coffee 22
Table 10-1: Main Mineralized Zones Investigated by Drilling on the Coffee Project Area 25
Table 12-1: Summary of 2014 Drilling on the Coffee property 42
Table 12-2: Salient assay results from 2014 drilling 44
Table 12-3: Summary table of 2014 Infill and Exploration Core drilling 48
Table 12-4: Summary of 2014 Hydrogeological Core Drilling 50
Table 12-5: Summary of 2014 Geotechnical Core Drilling 50
Table 12-6: Summary of 2014 Metallurgical Core Drilling 51
Table 12-7: Summary table of 2014 RC Drilling 52
Table 12-8: List of Exploration and Metallurgical trenches excavated in 2014 67
Table 14-1: Specifications of the Certified Control Samples Used by Kaminak in 2014 75
Table 15-1: Count of Batch Re-runs by Year 76
Table 16-1: Summary of Received Core Composite Samples 80
Table 16-2: List of 2014 metallurgical trenches. 81
Table 16-3: Summary table of columns constructed from the 2014 metallurgical trenches. 82
Table 17-1: Summary of Bottle Roll Leach Test Work - Core Composites 84
Table 17-2: Summary of Column Leach Test Work – Core Composites 85
Table 17-3: Summary of Bottle Roll Leach Test Work – Bulk Samples 87
Table 17-4: Summary of Column Leach Tests – Bulk Samples 87
Table 17-5: Estimate of Mineral Resources for the Coffee Project* 90
Table 17-6: Mine Planning Optimization Input Parameters 92
Table 17-7: Proposed Mining Plan 93
Table 17-8: LOM Production Schedule 94
Table 17-9: Distribution of Material Types in Final Mine Plan 97
Table 17-10: Ultimate Gold Recovery and Reagent Consumption Used in the Production Model for Each Area 98
Table 17-11: Annual Gold Production 101
Table 17-12: LOM Capital Costs 103
Table 17-13: LOM Operating Costs (excluding costs capitalized in pre-production) 104
Table 17-14: Economic Results 105
Table 17-15: Economic Sensitivities 106
Table 17-16 Cost Estimate to Advance Project to Feasibility Stage 107
Table 18-1: Table of Expenditures for the Coffee Gold Project during 2014 108

Table of Enclosures

1 **2014 Digital Supporting Documents** ..... 1 DVD disk

1.1 **2014 Preliminary Economic Assessment** 309p

1.2 **2014 Drill Logs**
1.2.1 Diamond Drill Hole Logs 279p
1.2.2 RC Drill Logs 211p

1.3 **2014 Assay Results by Drill Hole**
1.3.1 Latte Drill Results 2014 ..... 24p
1.3.2 Kona Drill Results 2014 ..... 12p
1.3.3 Supremo Drill Results 2014 ..... 102p
1.3.4 Double Double Drill Results 2014 ..... 28p
1.3.5 Non Resource Drill Results 2014 ..... 44p

1.4 **2014 Assay Certificates**
1.4.1 Drill Hole Assay Certificates 2014 ..... 394 PDFs
1.4.2 Soil Sample Assay Certificates 2014 ..... 21 PDFs
1.4.3 Trench Sample Assay Certificates 2014 ..... 39 PDFs

1.5 **2014 Drill Cross Sections**
1.5.1 Supremo Central Sections 2014 ..... 87p
1.5.2 Supremo West Sections 2014 ..... 75p
1.5.3 Latte Sections 2014 ..... 62p
1.5.4 Double Double Sections 2014 ..... 31p
1.5.3 Kona Sections 2014 ..... 16p

1.6 **Raw Digital Data**
1.6.1 2014_SoilGeochem.csv
1.6.2 2014_TrenchGeochem.csv

List of Appendices

A **Statements of Qualifications** 114

1.0 INTRODUCTION

This is an assessment report on the Coffee Gold Project, located in the Dawson Range, west-central Yukon. The project encloses multiple gold occurrences within a large ~600 km^2 exploration concession. In 2014, 147 core boreholes (26,893 m) and 206 reverse circulation boreholes (25,867 m) were drilled for exploration, infill, condemnation, hydrogeological, and metallurgical purposes. An infill soil sampling program (2,976 samples) and a total of 63 exploration and metallurgical trenches were excavated A total of **$12,707,871** was spent over the course of this work. The material in this report outlines the details of the 2014 program and has largely been taken from the Preliminary Economic Assessment prepared for Kaminak by JDS Energy and Mining Inc.

2.0 LOCATION AND ACCESS

The Coffee project is located within the Dawson Range, approximately 130 km south of Dawson City and approximately 160 km northwest of Carmacks. The claims form an irregular rectangular block situated parallel to and south of the Yukon River (Figure 2.1). The Casino copper-gold porphyry deposit (Western Copper Corporation) is located approximately 30 km southeast of the main drilled zones on the Coffee project.

Access to the property is by airplane or helicopter from Whitehorse and/or Dawson and by barge via the Yukon River. In 2011, Kaminak constructed a 23 km road from the barge landing at the Coffee project camp to the Supremo and Latte drilling areas. This road was the main access to the exploration activities from 2012 to 2014.

There are currently no all-weather or winter roads connecting the Coffee project to any of the major communities in the Yukon, although Kaminak is permitted for a winter road from Carmacks. An airstrip is located at the Coffee project camp approximately 10 km from the areas of gold mineralization.

River transport along the Yukon River, with multiple barge access points to the Coffee project camp is available for five months during the summer period when the river is free of ice. The barge landing is located at the camp.

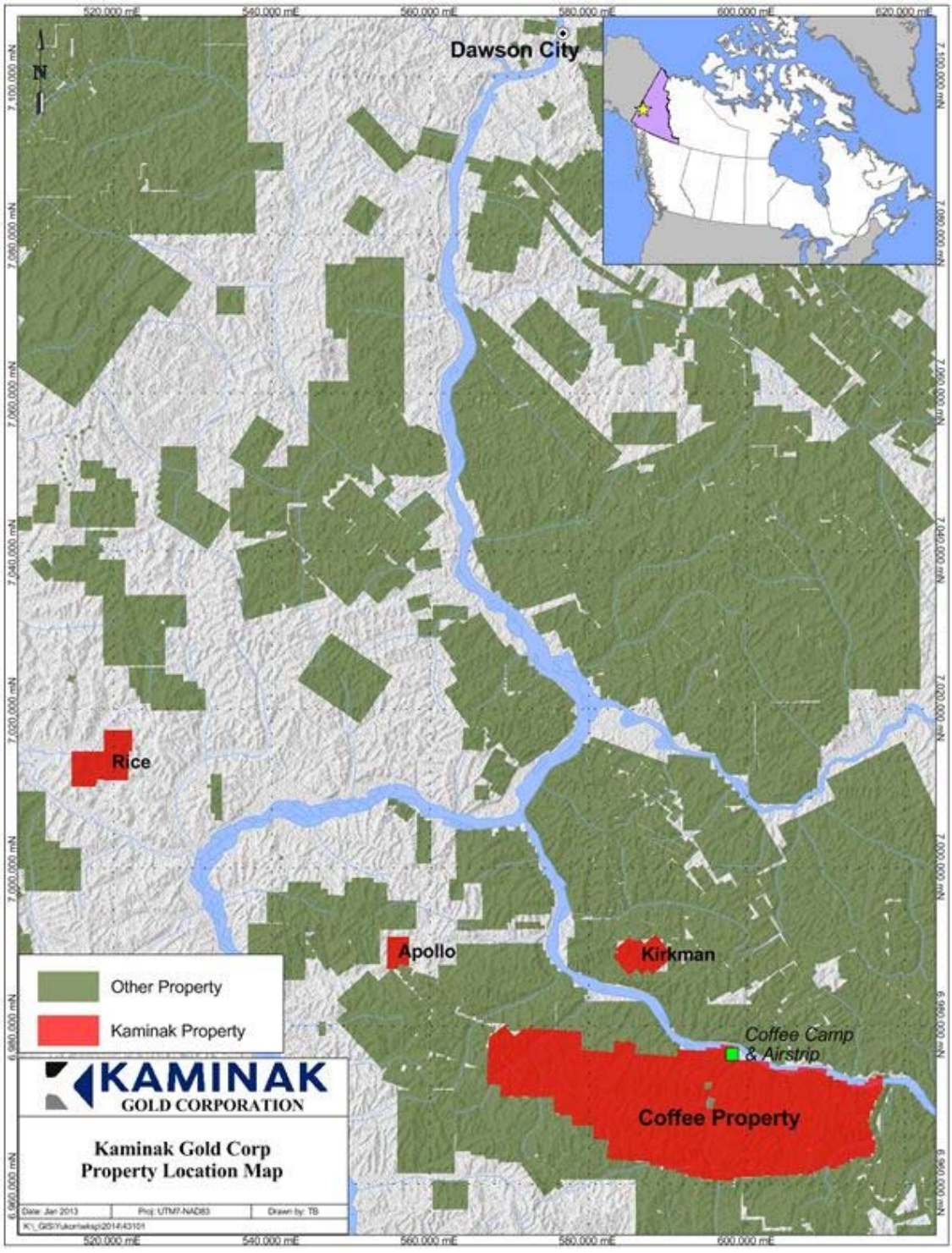


Figure 2.1: Coffee Project Location Map

3.0 CLIMATE AND PHYSIOGRAPHY

The Yukon has a subarctic continental climate with a summer mean temperature of 10° C and a winter mean temperature of -23° C. Summer and winter temperatures can reach up to 35°C and 55°C, respectively. Dawson City, the nearest access point, has a daily temperature average above freezing for 180 days per year.

The Coffee property is located in the northern Dawson Range, forming a moderate plateau that escaped Pleistocene glaciation. As such, the topography of the area is defined by stream erosion resulting in gently rounded hills with tightly incised valleys. Across the property, elevations range from 400 m to 1,500 m above sea level. The majority of the property is above tree line and contains short shrubby vegetation. The Coffee project claims encompass an area of partially tree-covered hills on the Yukon Plateau, incised by mature drainages that are part of the Yukon River watershed. The property has local mature pine forests with thick moss cover on the ground. Bedrock exposures are scarce (Figure 3.1).

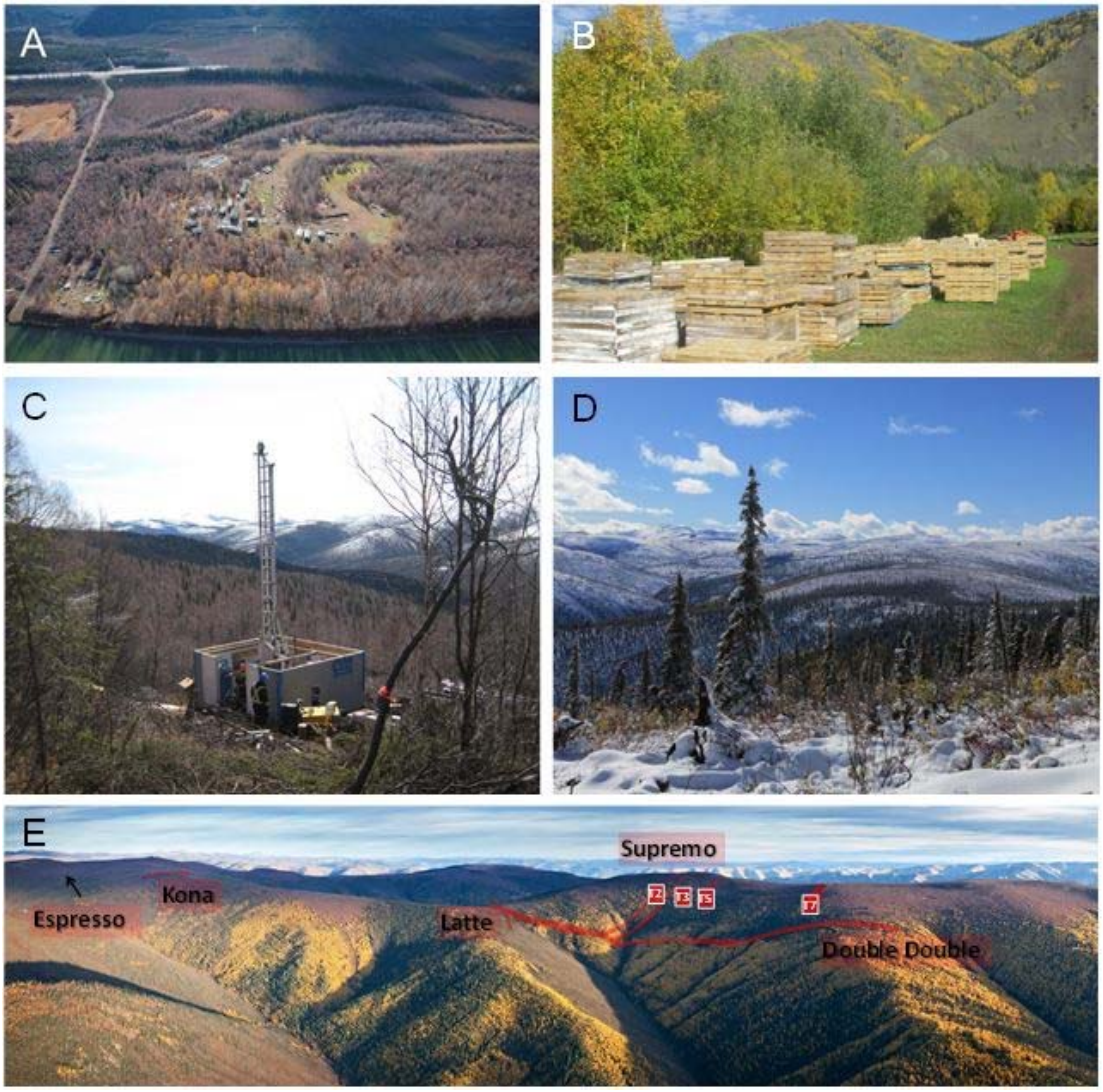


Figure 3.1: Physiography of the Coffee project.
A) Overview of the Coffee project camp looking south.
B) Core yard at Coffee project camp looking north.
C) Active core drilling at Double Double looking southeast.
D) View looking west-southwest towards Latte from the Supremo Zone.
E) Aerial overview looking northwest of the Espresso, Kona, Latte, Supremo, and Double Double mineralized zones.

4.0 LAND TENURE

The Coffee project is located in west-central Yukon, within the Whitehorse Mining District, Canada, 130 kilometers (km) south of Dawson City. The project comprises 3,021 contiguous claims covering an aggregate area of approximately 60,230 hectares (ha). The Coffee property covers parts of 1:50 000 scale national topographic system (NTS) map sheets 115J-13, 115J-14, and 115J-15. The main mineralized zones at the project are located roughly at the UTM NAD83 coordinates of 6,974,000mN and 584,000mE.

The main Coffee project claim block consists of 3,021 registered claims (2,927 Coffee, 68 Cream, 16 Lion, and 10 Sugar). The entire claim block covers an area measuring approximately 50 km by 12 km (Figure 4.1). The boundaries of the individual claims have not been legally surveyed.

The mineral rights include surface rights under the Yukon Territory Quartz Mining Act, including access to the property under a Class 4 Mining Land Use Permit to undertake exploration activities and the right to extract mineralized material from surface pursuant to the grant of a Quartz Lease.

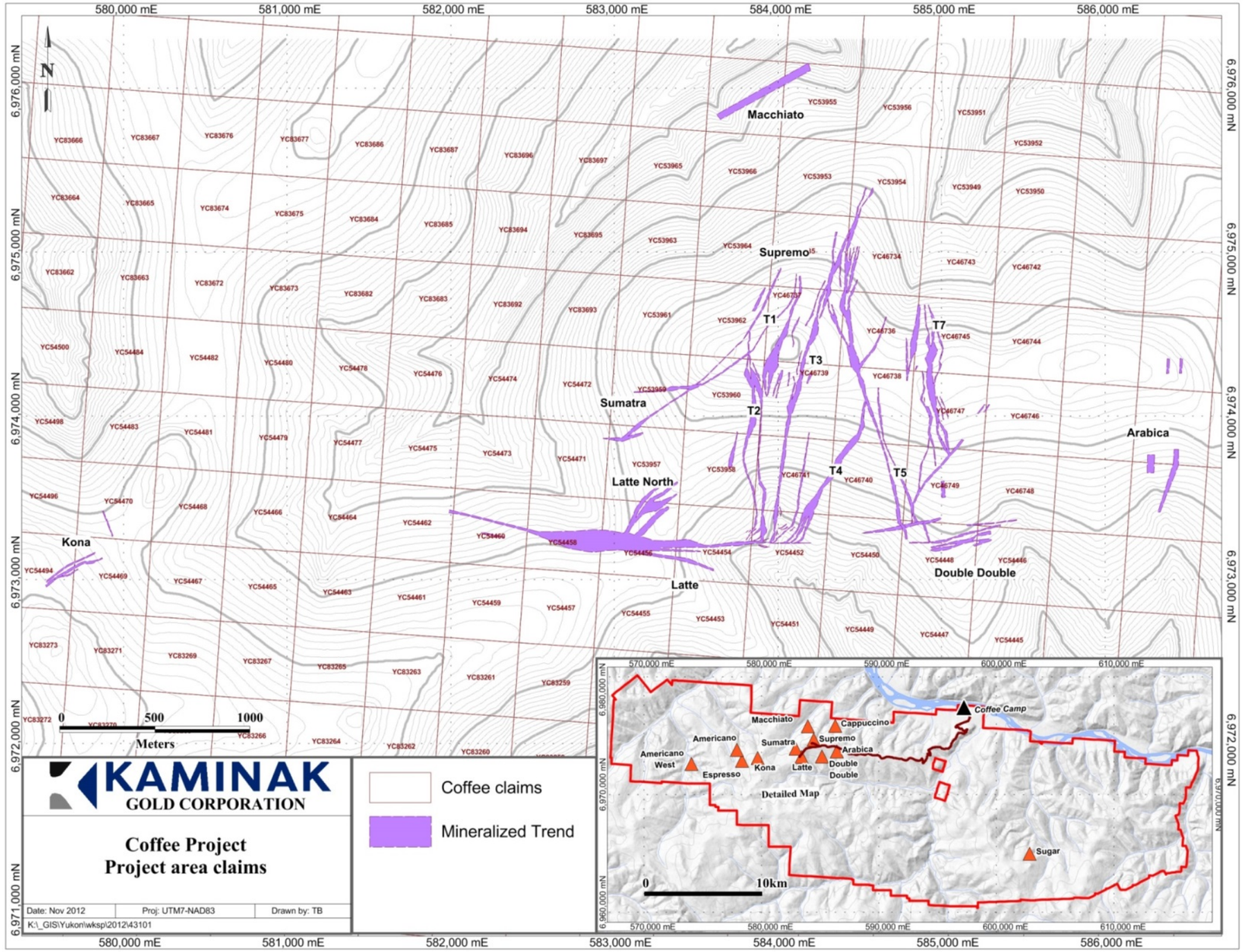


Figure 4.1: Mineral Tenure Map

5.0 PERMITS AND AUTHORIZATION

Kaminak has obtained all permits and authorizations required from governmental agencies to allow surface drilling and exploration activities on the Coffee project.

The Energy, Mines and Resources Department of the Yukon Government issued a Class 4 Quartz Mining Permit on July 12th, 2011, amended on February 29, 2012, with an expiry date of July 11, 2016. The Class 4 Permit includes provisions for: an 80-person camp (Coffee Camp) located on the Yukon River near the confluence with Coffee Creek, a 40 km access road, temporary trails to allow improved access to the property, a winter road, and surface drilling and exploration activities on the Coffee project. The Class 4 Mining Land Use Permit (#LQ00312a) is the sole permit necessary for the exploration work currently undertaken.

The Yukon Water Board issued a Class B Water Licence on April 18, 2012 (licence number MN12-014), with an expiry date of July 11, 2016. The Class B Water Licence was required when the camp numbers increased from 50 persons.

Kaminak has obtained and complied with any applicable permit requirements to conduct mineral exploration on the Coffee project claims.

6.0 UNDERLYING AGREEMENTS

Kaminak's rights to the Coffee claims were acquired from prospector Mr. Shawn Ryan of Dawson City, through an agreement dated April 27, 2009 (amended and restated on June 9, 2009 and further amended on March 25, 2010 and March 30, 2011). Pursuant to that agreement, in 2011 Kaminak earned a 100% legal and beneficial interest in the property by making cash payments of C$400,000; issuing 2,000,000 shares; and fulfilling a C$1,800,000 work commitment.

There is a 2% net smelter returns royalty (NSR) on the property, payable to Mr. Ryan, subject at any time to a 1% buy-back for C$2 million, with annual advance royalty payments of C$20,000 commencing December 31, 2013. Subject to the 2% NSR payable to Mr. Ryan, the property is free and clear of all liens and third party interests.

7.0 PROPERTY HISTORY

The Coffee project area has limited hard rock exploration history and only minor placer activity. Coffee project has experienced sporadic exploration for placer gold from the turn of the last century to 1982. Hard rock exploration in the area before 1981 was limited to reconnaissance work in the 1960s and 1970s for porphyry copper.

C.D.N. Taylor, P.Eng., (Atlantic Energy Limited, August 1981) reported that soil and silt samples collected from Coffee Creek, near the confluence of the Yukon River, contained "uniformly high, double digit arsenic values." Taylor recommended that Coffee Creek be re-sampled during low water table levels (cited in Jaworski and Meyer, 2000).

Deltango Gold Ltd. conducted silt and soil sampling in 1999 in the area of the Coffee project claims and recommended further work, based on anomalous results (Jilson, 2000). In 1999-2000, a brief Coffee project area exploration program was conducted by consultants for Prospector International Resources. This program involved stream sediment sampling of secondary drainages, contour and ridgeline reconnaissance soil sampling, rock sampling of available outcrop and prospecting, and minor fluid inclusion work. The 1999 work identified an open-ended reconnaissance soil gold anomaly. The 2000 work further delineated this anomaly to be approximately 400 by 900 m and further soil sampling in addition to mechanized trenching were recommended (Jaworski and Meyer 2000; Jaworski and Vanwermeskerken 2001).

In 2006 and 2007, Ryanwood Exploration conducted grid sampling and ridge-top soil sampling traverses on the Coffee project claims (Ryan, 2007; Ryan, 2008).

In June 2009, Kaminak executed an option agreement with Mr. Shawn Ryan to acquire the Coffee project. Following this agreement, Kaminak expanded the soil sampling grid in the Coffee areas, developing targets at Supremo, Latte, Kona, Espresso and Double Double. Trenching, geological mapping, and prospecting were conducted at all of these target areas. Kaminak pursued exploration and infill drilling programs in 2010, 2011, 2012, 2013, and 2014 on Supremo, Latte, Latte North, Double Double, Kona, Kona North, Espresso, Americano, Americano West, Sugar, Sumatra, Arabica, French Press, Cappuccino, and Macchiato.

The exploration and drilling activities completed by Kaminak in 2014 are discussed in Section 11.

8.0 REGIONAL GEOLOGY

The Coffee project is located in the Yukon-Tanana Terrane (YTT), an accreted pericratonic rock sequence that covers a large portion of the Omineca Belt in the Yukon and extends into Alaska and British Columbia. The YTT underlies part of the Tintina gold belt and hosts multiple gold deposits, including the Sonora Gulch gold deposit, the Casino copper-gold-molybdenum porphyry, the Boulevard gold prospect, and the Golden Saddle gold deposit (Bennett et al., 2010; Allan et al., 2013). The YTT also hosts volcanogenic massive sulphide (VMS) and Mississippi Valley-type (MVT) deposits.

The YTT is composed of a basal metasiliclastic sequence overlain by three subsequent volcanic arcs. The oldest component of the Yukon-Tanana terrane is the pre-Late Devonian Snowcap assemblage, which consists of metasediments including psammitic schist, quartzite, and carbonaceous schist in addition to local amphibolite, greenstone, and ultramafic rocks (Piercey and Colpron, 2009). The Snowcap assemblage was deposited on the ancient Laurentian margin in a passive marine setting (Piercey and Colpron, 2009). The beginning of eastward subduction of the paleo-Pacific plate led to the formation of a magmatic arc at approximately 365 Ma (Colpron et al., 2006). Rapid westward slab rollback caused significant extension, which initiated the formation of the Slide Mountain Ocean back-arc basin by approximately 360 Ma (Colpron et al., 2007). Arc volcanism during the Wolverine-Finlayson magmatic cycle (365-342 Ma) deposited submarine mafic and felsic volcanic rocks of the widespread Finlayson assemblage onto the Snowcap assemblage (Colpron et al., 2006).

A reversal of subduction polarity during the Late Permian resulted in the western margin of Slide Mountain Ocean subducting beneath the evolving YTT (Erdmer et al., 1998). This subduction initiated a magmatic arc which was active from 269-253 Ma and formed the Klondike arc assemblage, the youngest member of the outboard Yukon-Tanana terrane (Allan et al., 2013; Colpron et al., 2006). Closure of the Slide Mountain Ocean by the Latest Permian led to the obduction of the YTT onto the Laurentian margin, causing a collisional event responsible for lower amphibolite facies metamorphism in the Coffee project area (Beranek and Mortensen, 2011). In addition, collision resulted in the development of a low-angle transpositional foliation recognized throughout the Yukon-Tanana terrane (S2 of Berman et al., 2007).

East-dipping subduction along the now docked YTT caused intra-arc shortening and contractional deformation. In the Klondike and the area of the Coffee project, thrust fault-bounded panels of Slide Mountain assemblage greenstone and serpentinized ultramafic occur within the tectonic stratigraphy of the YTT (Buitenhuis, 2014; MacKenzie et al., 2008). These thrust-emplaced slices are generally less than 100 m in thickness, dip to the southwest, and persist for tens of kilometres in some areas (MacKenzie and Craw, 2010 and 2012). The emplacement of these slices is contemporaneous with northeast-vergent, open to tight folding dated between 195 and 187 Ma (Berman et al., 2007).

Beginning in the early to mid-Cretaceous, localized rapid uplift and exhumation occurred throughout the YTT in Yukon and Alaska, including within the Dawson Range (McCausland et al., 2006; Dusel-Bacon et al., 2002; Gabrielese and Yorath, 1991). Extension and unroofing of the Dawson Range was accompanied by the emplacement of the Coffee Creek granite and Dawson Range batholith (~110-90 Ma; McKenzie et al., 2013; Wainwright et al., 2011; Colpron et al., 2006; Mortensen, 1992). This localized extension and exhumation is recorded by an apparent age-resetting event observed in white mica in western Yukon Tanana at roughly 90 Ma (Douglas et al., 2002), in rhenium-osmium dates in molybdenite (92.4 Ma), and U-Pb dates in monazite (92.5 Ma) from plutons in east-central Alaskan YTT (Selby et al., 2002). At the Coffee property, this extension resulted in the activation of the Coffee Creek fault system, a set of dextral strike-slip faults and associated north-to-northeast brittle faults interpreted as splays off of the regional Big Creek fault to the south east (Sánchez et al., 2013; Johnston, 1999).

9.0 PROPERTY GEOLOGY

The Coffee project area is underlain by a package of metamorphosed Paleozoic rocks of the YTT that was intruded by a large granitic body in the Late Cretaceous. The Paleozoic rock package consists of a mafic schistose to gneissic panel which overlies the Sulphur Creek orthogneiss. Both packages form the southwestern limb of a northwest-trending antiformal fold with limbs dipping shallowly to the northeast and southwest.

Within the schistose and gneissic mafic rock package, a thick panel of biotite (+ feldspar + quartz + muscovite ± carbonate) schist with rare lenses of amphibolite overlies a panel of amphibolite and metagabbro with arc-derived geochemical signatures. Within the schistose panel, slices of 20 m thick serpentinized ultramafic are in tectonic contact with the surrounding rocks. This rock sequence overlies the augen orthogneiss. These rocks are in contact to the southwest with the 98.2 ± 1.3 Ma Coffee Creek granite. Both the Paleozoic metamorphic rocks and Cretaceous granite are cut by intermediate to felsic dykes (dacite and andesite).

Due to the rare outcrop exposure on the property (< 5%), the geological map has been compiled from a combination of geological traverses, bedrock mapping, borehole data, soil geochemistry, and geophysics (magnetic and radiometric) (Figure 9.1).

The magnesium number from soil samples (Mg# = Mg/Mg+Fe) was used to discern mafic from felsic units with the granite being the most felsic, followed by the felsic gneiss. The mafic schist unit was further subdivided into felsic-intermediate schist, biotite schist, amphibolite, and ultramafic rocks for mapping purposes.

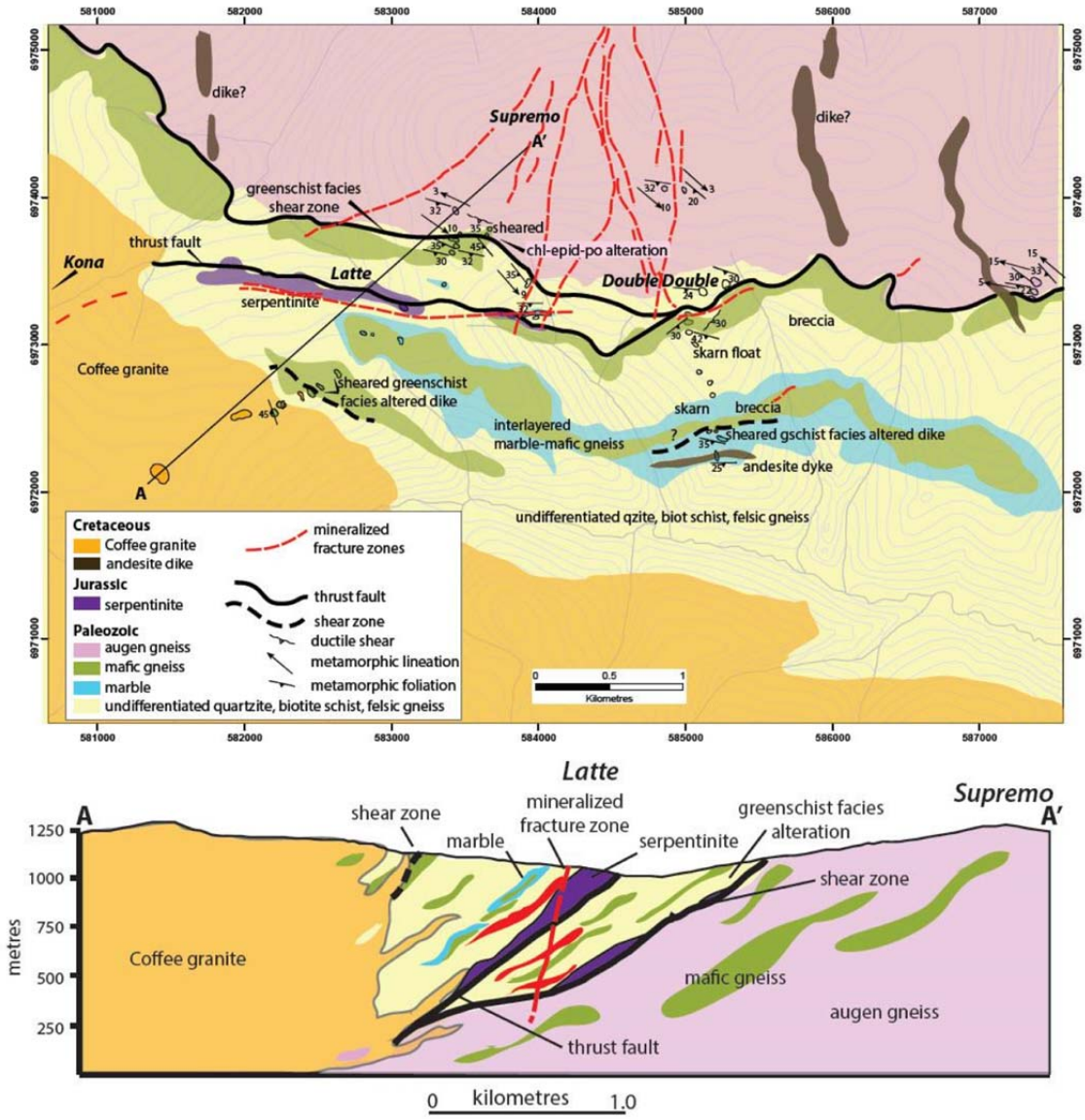


Figure 9.1: Geologic map of the Coffee property, with cross section.

9.1 Lithologies

9.1.1 Felsic Gneiss

Felsic gneiss comprises variable quartz, feldspar augen, biotite and muscovite (Figure 9.2). The felsic gneiss is intercalated with volumetrically minor biotite-feldspar (± quartz ± muscovite ± amphibole) schist. Typical drill core intervals of biotite-feldspar schist within the dominant augen gneiss package vary in thickness from 0.3 to 10 m. They represent approximately 30% of the rock volume. Felsic gneiss hosts gold mineralization in the Supremo area.

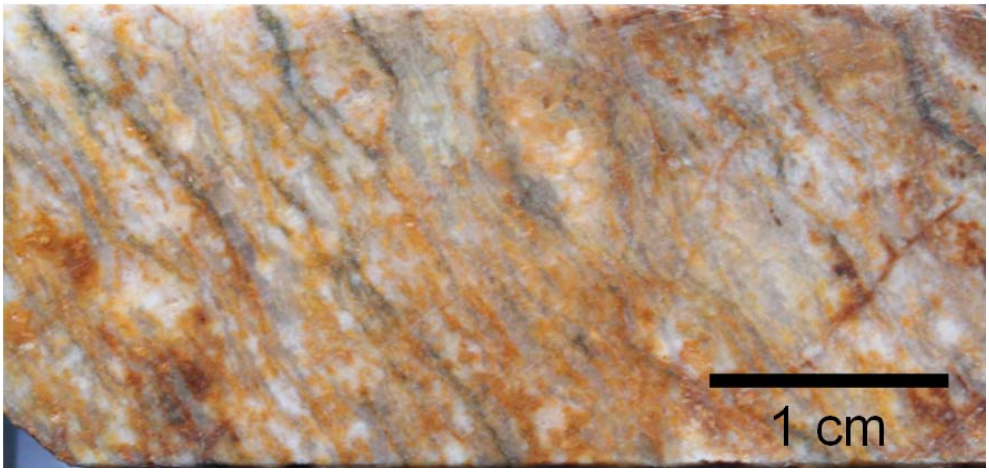


Figure 9.2: Quartzo-feldspathic Augen Bearing Gneiss from Supremo Area, Borehole CFD0002 at 144m

9.1.2 Biotite Schist

Biotite (± feldspar ± quartz ± muscovite ± carbonate) schist exhibits variable mineralogy and schistose to mylonitic textures (Figure 9.3). The rocks are variably retrogressed depending on their location relative to areas of metamorphic strain or mineralized intervals.

The schistose texture is defined by interconnected biotite laths up to 1.5 mm in size which wrap around relict and replaced feldspar porphyroblasts. The feldspars vary in size but are generally < 2 mm, and laths of phengitic muscovite occur in close association with biotite. Retrogression of the biotite schist produced chlorite replacement of biotite and exsolution of ilmenite within individual biotite laths. Feldspars are replaced by illite/sericite, carbonate, quartz, and epidote or zoisite.

The biotite schists are locally intercalated with marble bands that range from 0.3 m to over 5.0 m in width. The marble bands increase in volumetric importance toward the top of the sequence, and typically occur in localized groupings where band frequency increases to multiple thin (10 – 30 cm) bands per metre.

Carbonate stringers occur throughout the biotite schist package and feldspars are for the most part entirely replaced by carbonate, sericite, and quartz. The biotite schist is the primary host for gold mineralization at Latte and Double Double.

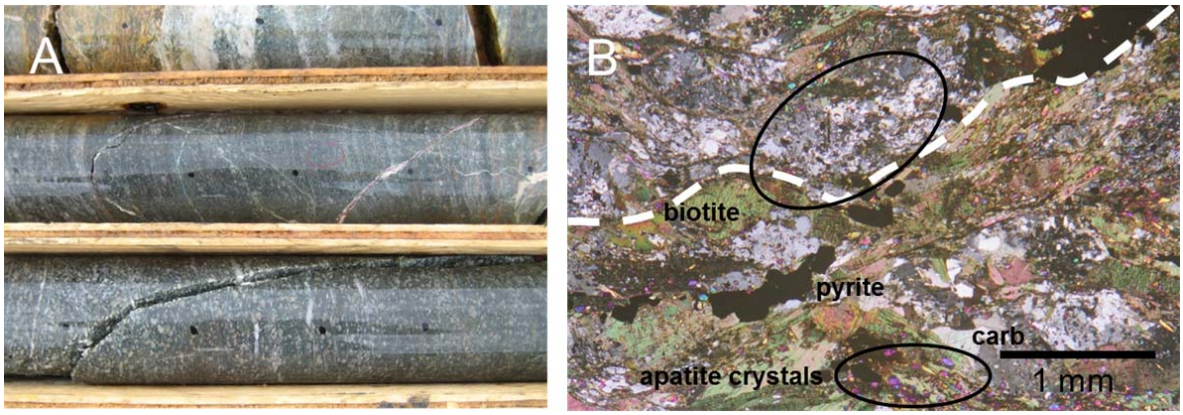


Figure 9.3: Biotite Schist in Drill Core and Thin Section

A. Biotite Schist in core from Latte. Borehole CFD0012 at 147 m

B. Polished thin section of (A) showing pyrite along the rock fabric and replacement of feldspar by quartz, sericite and carbonate (cross polarized light). White dashed line indicates rock fabric. Circled area in top centre of image highlights quartz-sericite alteration after plagioclase.

9.1.3 Muscovite Schist

Muscovite schist is mainly composed of quartz, muscovite, sericite/illite, and relict feldspar with a schistose texture which can locally grade to mylonitic. The schistose texture is defined by muscovite up to 2 mm in size which wraps around feldspar porphyroblasts replaced by sericite/illite and quartz, although up to 10 % biotite may be present (Figure 9.4). Minor cubic brassy pyrite is present as a foliation-concordant feature as seen in the biotite schist. Rare fine-grained ilmenite (< 0.1mm) is present along mica foliation, and the minor biotite present is readily replaced by chlorite.

The muscovite schist unit may have schistose or mylonitic texture locally. In contrast to biotite schist, it is rarely laterally traceable across drill sections, suggesting it is the product of a different, less mafic protolith which was sporadically deposited in the pre-metamorphic environment. It occurs at Latte and Double Double within the schistose and gneissic panels.



Figure 9.4: Felsic Schist in Drill Core and Thin Section

A. Felsic schist in drill core. Borehole CFD0013 at 161 m
B. Polished thin section of (A) showing biotite and pyrite in a ground mass (gm) of quartz and sericite (plane polarized light).

9.1.4 Biotite Amphibolite

Thin intervals of amphibolite are present in the upper stratigraphy of the mafic schistose and gneissic package, comprising < 20% of the sequence. Massive amphibolite forms dark green-black units within the biotite schist but has not been observed in close association with muscovite schist. Amphibolite intervals generally contain 80-90% hornblende, 10-20% biotite, and rare plagioclase and quartz. Weak to moderate foliation is defined by alignment of amphibole (Figure 9.5).

Amphibole is fine-grained (< 0.5 mm) while biotite laths are generally larger in size (1 mm). Greenschist-facies retrogression is manifested by coarse epidote after amphibole and weak to moderate chlorite replacement of biotite. Rare leucoxene is observed as an alteration product after very minor ilmenite.

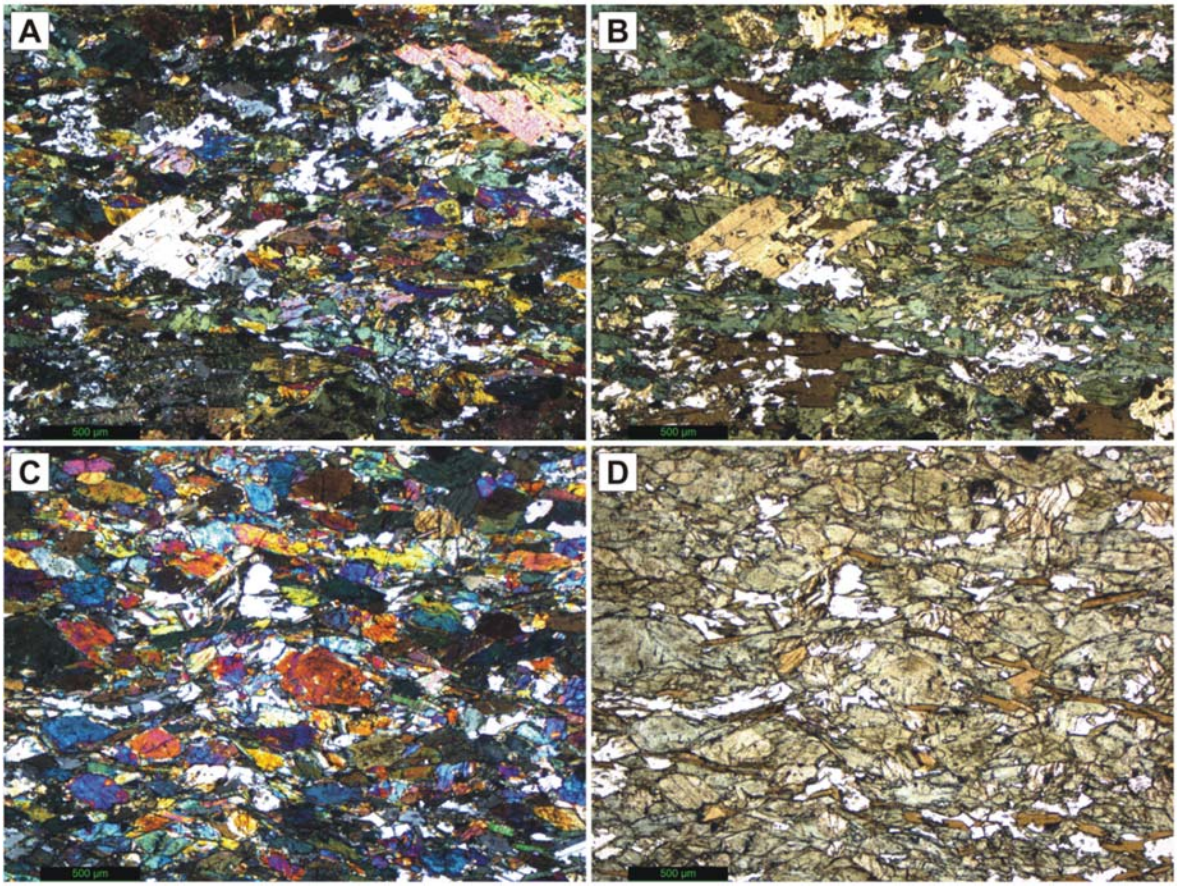


Figure 9.5: Thin Section Images of Biotite Amphibolite and Massive Amphibolite

A. Coarse brown biotite laths and fine-grained green hornblende define foliation through the sample. CFD0082 at 170.6 m, XPL

B. Same image as (A), PPL

C. Fine-grained hornblende comprising >95% of the sample is intermixed with fine laths of biotite. Sample is interlayered with coarse metagabbro. CFD0114 at 296 m, XPL.

D. Same as (C), PPL.

9.1.5 Amphibolite

Amphibolite within the deeper, mafic footwall of the schistose and gneissic package is composed of fine-grained hornblende with varying (≤15%) biotite content. While visually similar to biotite amphibolite found within the upper portions of the schistose panel, biotite content is marginally lower and the rocks are more Mg-rich. Biotite laths within the amphibolite are up to 0.25 mm in size, and minor quartz and fine-grained feldspar is present throughout the rock. In areas of strong retrogression, up to 30% of the biotite is replaced by chlorite, while up to 60% of amphibole is replaced by epidote.

9.2 Interleaved Metagabbro and Amphibolite

Metagabbro intervals are composed of coarse grained hornblende forming as radiating laths or coarse (3-4 mm) subhedral crystals. These units are variably foliated, with weak to nearly mylonitic fabrics (Figure 9.6). The metagabbros are very Mg-rich, and are interleaved on the metre scale with a geochemically identical amphibolite different to the two previously described.

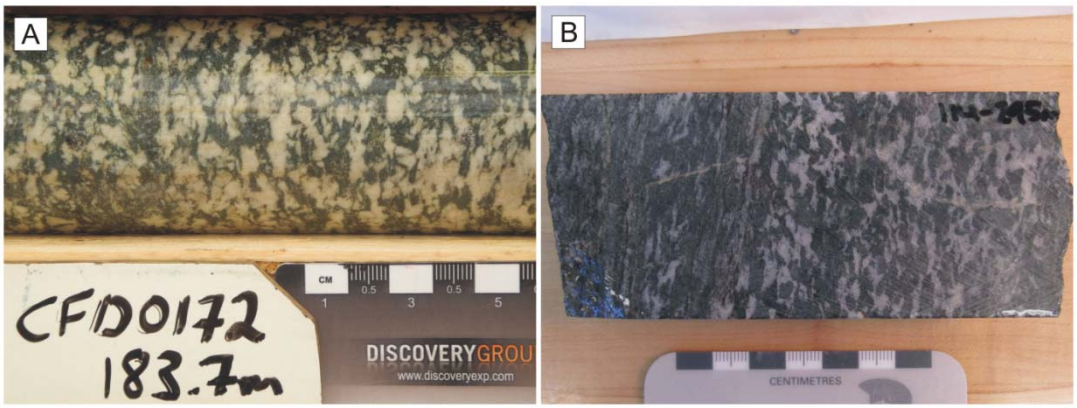


Figure 9.6: Drill Core Samples of Metagabbro

A. Unfoliated metagabbro from CFD0172 at 183.7 m
B. Variably foliated metagabbro with stronger foliation on left of sample, and coarse domain on right. CFD0114 at 295 m.

Where the unit displays metagabbroic textures, strong greenschist facies retrogression has completely replaced feldspar and amphibole crystals are retrogressively zoned from magnesiohornblende core compositions to actinolitic compositions at grain margins (Figure 9.7). Where the unit is composed of fine-grained, massive amphibolite, similar zonation is observed, although on a lesser scale. The massive amphibolite is composed of >95% magnesiohornblende to actinolite, with very minor biotite (Figure 9.7 C, D). Trace element geochemical analysis of both units demonstrates that both rocks are from the same source.

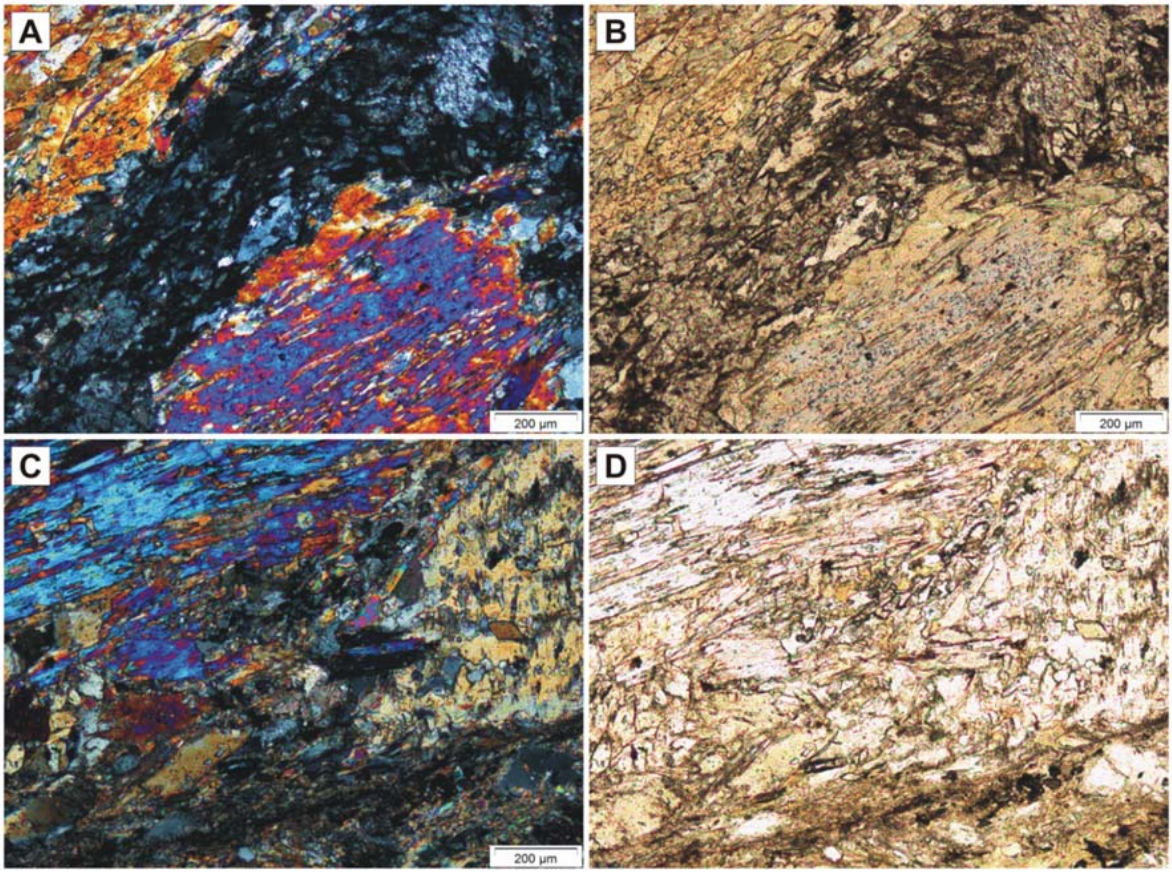


Figure 9.7: Thin Section Images of Metagabbro

A. Coarse hornblende crystals with moderate retrogression to actinolite surrounded by chlorite-carbonate. CFD0114 at 295 m, XPL.
B. Same as (A), PPL.
C. Shredded amphibole crystal with coarse actinolite. CFD0010 at 180 m, XPL.
D. Same as (C), PPL.

9.2.1 Ultramafics

Ultramafic rocks are found at the Coffee project as both thin, 1-2 m, highly-deformed talc schists, and as an approximately 20 m thick panel within the Snowcap assemblage schistose rocks at the Latte zone. The thin and highly strained ultramafics are found throughout the schistose-gneissic panel at Coffee and are altered to talc, magnesite, and serpentine. They commonly contain high-chromium magnetite, and sulphides including pyrite and pyrrhotite (Figure 9.8, Figure 9.9).

The 20 m thick panel of ultramafic is found within the west-central region of the Latte zone. This panel is strongly serpentinized and contains coarse high-chromium magnetite, Mg-chlorite, talc, and serpentine (Figure 9.10). The unit is interpreted as a slice of Slide Mountain assemblage serpentinite which was tectonically emplaced during low-angle Jurassic thrust faulting. No mineralization is observed within this unit, although significant mineralization is

intersected at the exterior margins of the panel. It is currently thought that the ultramafic panel may act as an aquitard to mineralizing fluid at Coffee.

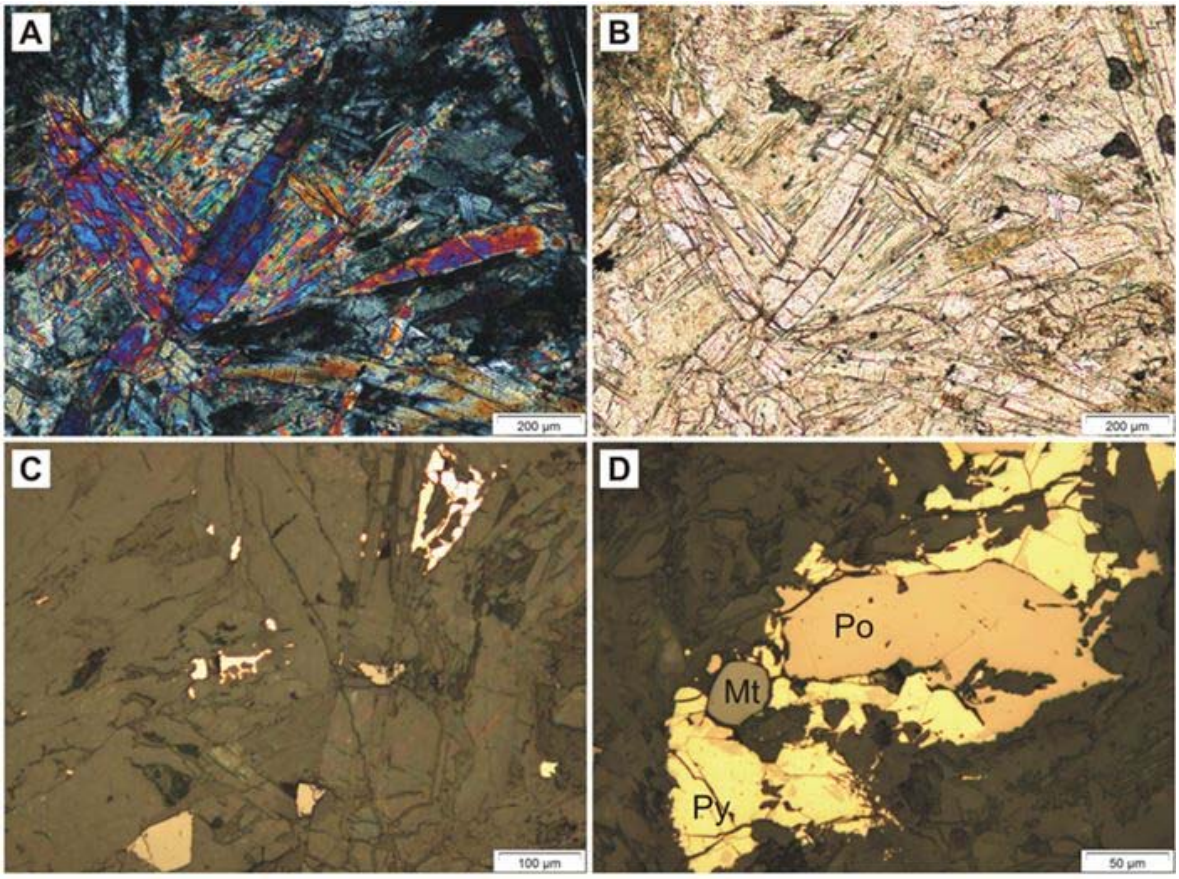


Figure 9.8: Thin Section Images of Ultramafic Slivers from CFD0035 at 253 m

A. Laths of actinolite in close association with talc and chlorite, XPL
B. Same as (A), PPL
C. Reflected light image of fine sulphides within the ultramafics: visible pyrite and pyrrhotite, RL
D. Zoom of intergrown pyrite and pyrrhotite with accessory magnetite, RL.

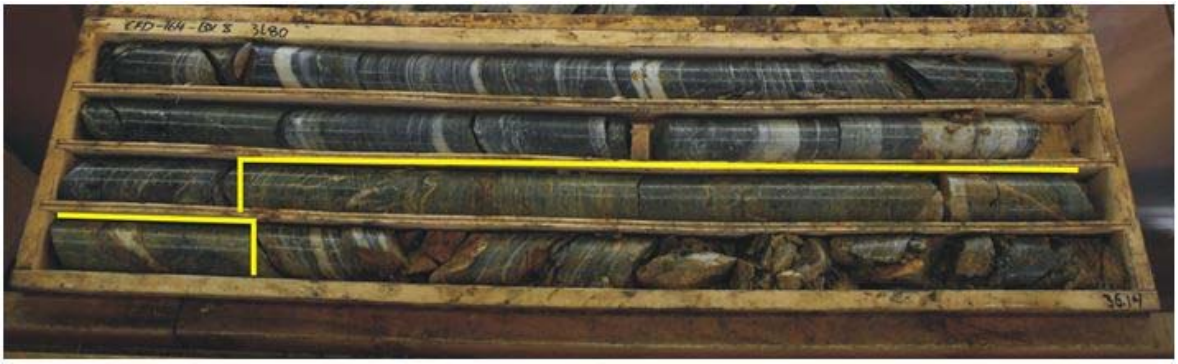


Figure 9.9: Core Box Photo of a Thin Ultramafic Sliver in CFD0164 from 31.8 - 36.14 m

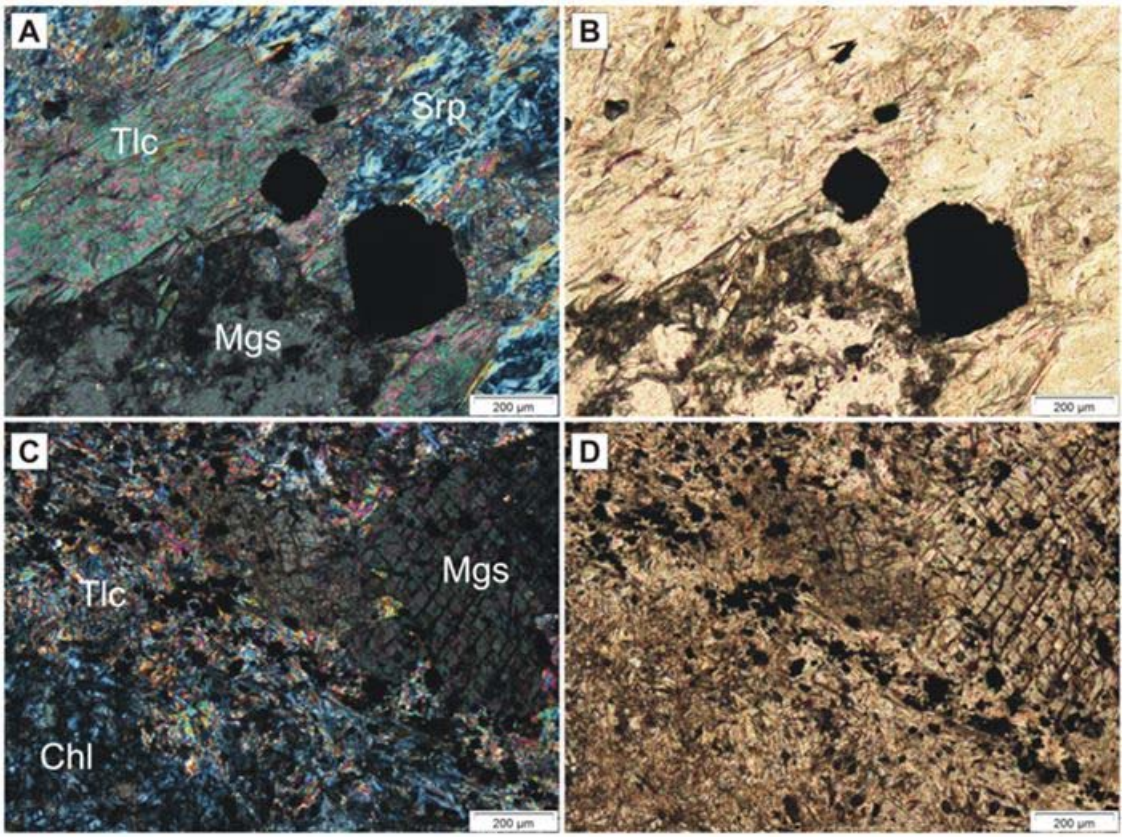


Figure 9.10 Thin Section Images of Serpentinized Ultramafics

A. Coarse crystals of magnesite rimmed by talc within a serpentine matrix. CFD0082 at 135 m, XPL

B. Same as (A), PPL

C. Coarse magnesite crystals with fine sulphide, talc, and chlorite in the groundmass. CFD0113 at 120.4 m, XPL

D. Same as (C), PPL.

9.2.2 Granite

Equigranular granite underlies the southern third of the Coffee project area. This rock consists of coarse plagioclase, potassium feldspar, quartz, biotite, and hornblende (Figure 9.11). The contact between the schistose and gneissic rock panel and the granite itself occurs along the

northern margin of the granite on the Coffee Creek fault in the deposit area. Only minor hornfelsing of the schistose and gneissic panel has been observed.

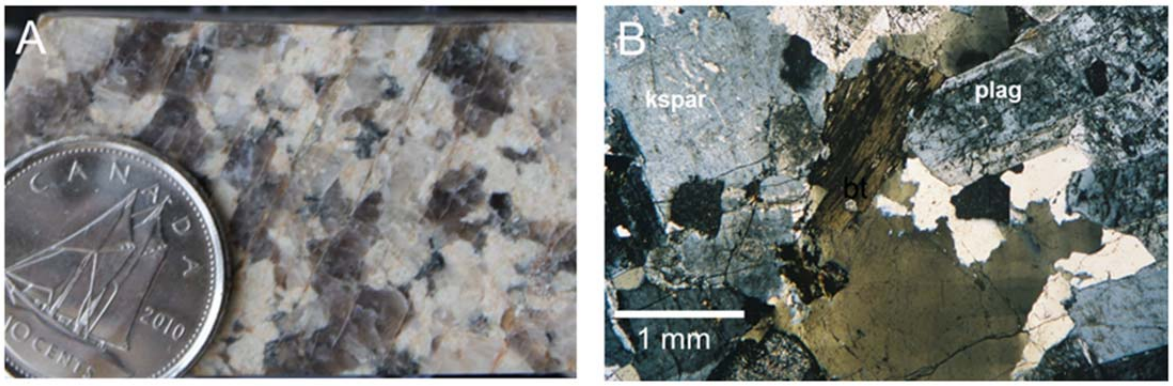


Figure 9.11: Coffee Creek Granite in Drill Core and Thin Section

A. Fresh granite exhibiting a weak foliation. Borehole CFD0053 at 128 m
B. Polished thin section of (A), showing biotite, plagioclase, potassium feldspar, and quartz, XPL.

Limited geochemical study of the granite indicates that it is sourced from the same parent melt as a suite of dacitic dykes at Coffee. The granite itself is geochemically constrained as a ferroan, calc-alkalic or alkali-calcic, peraluminous A-type granite.

9.2.3 Dykes

Dykes of both andesitic and dacitic compositions are found at all gold prospects at Coffee. Andesite dykes are typically aphanitic with feldspar phenocrysts generally 0.3 – 1 mm in size (Figure 9.12). Local and rare andesite porphyries are intersected with euhedral feldspar phenocrysts up to 3 mm in width which are easily visible in hand sample. Preserved feldspar crystals occasionally exhibit polysynthetic twinning. The groundmass of the dykes is extremely fine-grained and contains fine feldspar crystals and a large clay component, dominated by kaolinite.

Dacite dykes are almost exclusively aphanitic. Feldspar phenocrysts are rarely visible in hand sample, occasionally reaching 1mm in size (Figure 9.12). The dykes are a light grey colour and are usually bleached white by pervasive clay alteration, sometimes obscuring primary igneous textures. Oxidized dacite dykes are easily distinguished by a liesegang-banded oxidation pattern.

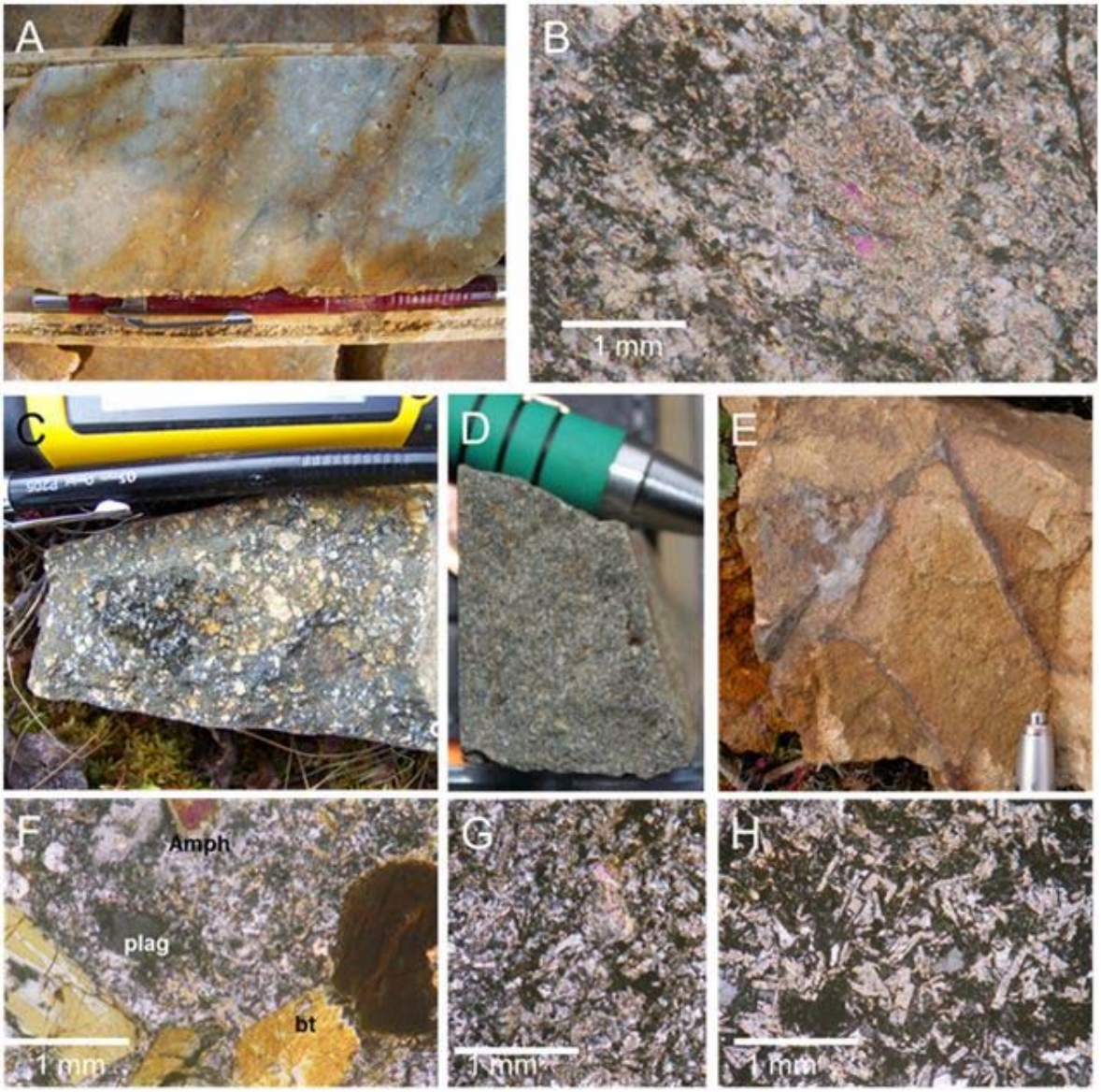


Figure 9.12: Dykes in Grab Samples, Drill Core, and Thin Section

A. Dacite dyke in drill core. CFD0006 at 68.8 m
B. Polished thin section of dacite showing fine-grained quartz and sericite. CFD0009 at 27 m, PPL
C. Feldspar (andesite) porphyry. Collected from a trench in the Supremo area
D. Diorite grab sample. Collected at 584325mE, 6974769mN
E. Fluid altered diorite. Collected at 584218mE, 6974489mN
F. Polished shin section of (C), PPL
G. Polished thin section of (D), and likely a fine-grained equivalent of (C), PPL
H. Polished thin section of (E), and likely a fluid altered equivalent of (C), PPL.

9.3 Structure

9.3.1 Structural Geology

Rocks at the Coffee Project were deformed by a series of three YTT-wide tectonic events (**Error! Reference source not found.**). Gold mineralization at Coffee was deposited during the latest Cretaceous event.

Table 9-1: Tectonic Events at Coffee

Event	Age	Structures	Mineralization
Extension	Cretaceous	Brittle Fractures Dextral normal faults	Main Coffee gold mineralization
YTT-Laurentia Collision	Jurassic	East-west shears and thrust faults Slices of ultramafic rocks	Quartz veining, sericite alteration
Klondike Orogeny	Pre-late-Permian	Metamorphic gneissosity and schistosity	

(Berman et al., 2007; Buitenhuis, 2014; Mackenzie and Craw, 2013)

9.3.2 Metamorphic Foliation

Gneissose and schistose metasedimentary rocks at Coffee contain a shallowly-to-moderately southwest dipping penetrative cleavage (S_2 foliation of Berman et al. (2007)). The foliation becomes steeper-dipping to the south. Structural data collected from oriented drill core show the following average orientations:

- Supremo: 20-40° to the south-southwest (190-230°)
- Latte: 35-55° to the south-southwest (180-210°)
- Double Double: 35-65 degrees to the south-southwest (170-200°)

9.3.3 Jurassic Shearing

As the YTT-Laurentia collision continued and the Slide Mountain Ocean was completely closed, the rocks in the Coffee area developed roughly east-west brittle-ductile shears and younger rocks were thrust north over older rocks. This deformation corresponds to the D_3 deformation of Berman et al, 2007. This deformation is best seen in the more mafic rocks of the southern schistose panel where intervals of mylonitic rocks are traceable between multiple sections. The 20 m thick lens of ultramafic rock north of Latte was emplaced during this thrusting.

9.3.4 Brittle Fracturing and Faulting

Following post-collision uplift and erosion in the YTT (Berman et al., 2007) steep-to-vertical brittle fractures and normal faulting affected all lithologies at Coffee. These brittle structures are the hosts to gold mineralization at Coffee. This deformation corresponds to the D_5 deformation of Berman et al. (2007). The faults and fractures are splays of the regional Big Creek fault to the southeast of the property. The faults may have locally followed pre-existing Jurassic shear zones. The faults both deflect along the northern edge of the Coffee Creek granite and cut the granite and so are syn-to-post granite emplacement (±98 Ma). Dacite and andesite dykes follow these brittle fractures.

Gold-mineralized structures comprise strike-extensive planar zones with a range of deformation intensity from crackle breccia/stockwork fracture systems through to polyphase high-energy matrix-supported breccias with intensely altered and reworked clasts. Individual mineralized structures exhibit localized flexures, anastomosing patterns and pinch and swell geometries over scales of tens to hundreds of metres. However, both in cross section and along strike, gold mineralization, elevated arsenic and antimony, alteration, oxidation, deformation intensity and the presence of sub parallel pre-mineralization dykes display continuity.

Felsic (dacitic) to intermediate (andesitic) dykes crosscut all other lithologies and generally strike in either a northerly direction (northwest to northeast striking in the Supremo, Double Double, and eastern Latte zones) or an easterly direction (east to southwest striking in the Western Latte and Kona zones). The dykes commonly occur within the mineralized structural deformation zones. The dykes are commonly deformed and carry gold mineralization, especially along their margins, clearly indicating they pre-date mineralization. These observations suggest that the dykes exploited (intruded along) older pre-existing structures and in turn were deformed by subsequent reactivations of those structures during later deformation events. Furthermore, the dykes may have provided additional rheological contrast which focused strain, fluid flow, and sulphide and gold mineralization.

Structural measurements of vein orientations and deformation fabrics from oriented drill core provide hard data on the structural geometries, but are often not available in the mineralized zones due the incoherent nature of fractured and often clay-altered core. Where measured, key structural orientations from within mineralized zones, including dominant fracture orientation, internal fracture or shear fabric, breccia margin, vein or dyke margin orientation are used to interpret mineralization geometry.

The planar gold mineralized zones at Coffee exhibit a number of strike orientations, dominated by east-west, north-south, and east-northeast–west-southwest strike directions. Where not yet drilled, mineralized structures can be traced by: 1) the orientation of linear gold-in-soil anomalism (surface expression of ‘day-lighting’ bedrock structures), 2) the orientation of linear magnetic lows, and rarely by 3) linear topographic structures including erosion-resistive (T3) and erosion-recessive (Latte and Double Double).

The Latte zone comprises an east-west trending steeply to moderately south-dipping (65° in the west to 85°in the east) shear zone characterized by brittle deformation that overprints older ductile strain fabrics, consistent with a multiply-reactivated shear zone environment. The Latte

structure can be traced over 8 km to the east and west of the Latte gold zone, and appears to mark the southern boundary of gold mineralization in the Latte-Supremo-Double Double area (although exploration south of the Latte structure has not been exhaustive).

The Latte North zone comprises a northeast-striking shear zone dipping about 60° to the southeast. It appears to be a splay from the Latte zone.

The Supremo zone comprises a corridor of steeply dipping (70 to 90°) north-south trending structures, the “T structures”, which crosscut the augen gneiss host rock. T3 is the dominant structure in this orientation. Step out drilling completed in 2013 indicates that T2, T3 and T4 all curve to the west as they approach Latte from the north and merge with the Latte zone to the south. T5 appears to merge with the Double Double Zone to the south. The T7 structure has not been connected to other zones via drilling but soil geochemistry and geophysics suggests that it connects with the Double Double Zone to the south.

The Double Double zone is hosted within a steeply north-dipping (80 to 90°) east-northeast–west-northwest trending structure located 600 metres along strike from the eastern margin of the Latte Zone. The Double Double structure is characterized by brittle deformation of the host metasedimentary/ metavolcanic stratigraphy, without the pre-existing ductile fabric seen in the Latte Zone.

The Sumatra zone consists of two structures: a southwest-striking main structure dipping about 75° northwest and a northern, east-striking structure dipping about 60° south. The northern structure merges into the main structure. The northeast end of Sumatra appears to curve north and merge into the Supremo T2 zone.

Granite-hosted gold prospects located west-southwest of Supremo (Kona, Espresso, and Americano) are hosted both along strike to the west of the Latte structure, and in related splays and cross-structures. These zones exhibit similar steeply-dipping planar structures with overlying linear gold-in-soil anomalies. Unlike Supremo, Latte, and Double Double, these western zones are hosted within the Coffee Creek Granite. These zones may represent an array of faults connected by linking structures; further work is needed to better define these structures.

10.0 ALTERATION AND MINERALIZATION

10.1 Mineralization

Exploration drilling completed from 2010-2014 has led to the discovery of significant gold mineralization in over 19 separate areas of the Coffee project: Supremo T1, Supremo T2, Supremo T3, Supremo T4, Supremo T5, Supremo T7, Latte, Latte North, Sumatra, Arabica, Latte Extension, Double Double, Americano West, Americano, Espresso, Kona, Macchiato, Cappuccino, and Sugar (Table 10-1).

Table 10-1: Main Mineralized Zones Investigated by Drilling on the Coffee Project Area

Zone	Host Rocks	Summary Description
Supremo	Augen Gneiss	Narrow gold-bearing brittle structures with gold commonly hosted in matrix-supported breccia and dacite dykes. Gold associated with quartz-sericite-pyrite alteration.
Latte	Biotite-feldspar Schist, Augen Gneiss	Gold is hosted in zones of brecciation and strong fracturing as well as areas with pervasive sericite alteration and strongly disseminated sulphides. Some high-grade zones associated with quartz vein breccias. Dolomite-illite/sericite-arsenian pyrite sulphidizes biotite laths. Potential remobilization of gold to other structures.
Double Double	Augen Gneiss	Narrow gold-bearing brittle structures hosted in matrix-supported breccia including dacite porphyry fragment breccia. Anastomosing quartz vein networks and microbreccia associated with high-grade. Local strong disseminated sulphide mineralization.
Kona	Granite	Broad zones of fracture-controlled and disseminated pyrite associated with dacite dykes. Gold hosted in quartz-sericite altered granite. Iron oxides after disseminated pyrite, pyrite veinlets, stockworks and sooty-pyrite rich shear zones.
Americano, Americano West and Espresso	Granite	Zones of fracture-controlled and disseminated pyrite. Gold hosted in quartz-sericite altered granite similar to Kona. Stibnite noted at Americano West.
Macchiato and Cappuccino	Augen Gneiss	Strong oxidation, silica flooding, abundant limonite and brecciation noted at Macchiato.
Sugar	Granodiorite	Sooty pyrite with arsenopyrite, pyrrhotite and/or stibnite in subvertical quartz-carbonate veins with silica-sericite alteration as halos. Gold hosted in granodiorites to quartz monzodiorites.
Sumatra	Biotite-feldspar Schist, Augen Gneiss	Gold hosted within two structures dipping in opposite orientations which intersect in the eastern portion of the zone. Strong oxidation after both disseminated, foliation controlled mineralization as well as common polyphase brecciation.
Arabica	Augen Gneiss	Strong oxidation, silicification within moderately-to-steeply east dipping structural corridors. Mineralization characterized by strong limonite-hematite.

10.1.1 Supremo

The Supremo Zone is hosted in the northern augen gneiss package and consists of a number of discrete north-to-northeast trending, steeply-dipping structures (T1 to T8), and spaced 50 to 100 m apart, based on linear gold-in-soil anomalies and extensive drilling.

Core drilling from 2010–2013 and reverse circulation drilling from 2011–2013 focused on significant high-grade gold mineralization identified in the north-northeast–trending steeply east-dipping T-structures associated with breccias and dykes. From east to west the main drill-tested T-structures are: T1- T2 (1,100 m strike length, open north and south), T3 (2,250 m strike length, open to the north, merges with Latte to the south), T4 (1,650 m strike length, merges with T3 to the north and Latte to the south), T5 (1,850 m strike length, open to the north, merges with Double Double to the south), and T7 (900 m strike length, open north and south).

The T-structure gold corridors are 5 to 30 m wide and mineralized intervals are associated with intense clay and sericite alteration in addition to abundant (typically oxidized) pyrite.

The gold mineralization at Supremo is generally characterized by two distinct styles: brecciated mineralization, and biotite replacement mineralization. The highest grades are associated with polyphase hydrothermal breccias (Figure 10.1 A).This style of gold mineralization generally yields grades between 5 and 60 g of gold per tonne (g/t gold).

Breccia textures range from mature matrix-dominant phases with rounded fragments to wall rock crackle breccias, and matrix compositions range from incompetent limonite-clay material to strongly silicified material. Angular to subrounded clasts range from 0.5 to 3 cm in diameter and consist predominantly of highly silicified fragments and subordinate altered wall rock and dacite porphyry fragments. Brecciated clasts occur locally, indicating multiple phases of brecciation.

The lower grade gold mineralization is associated with pervasive hydrothermal alteration of non-brecciated gneissic host rock replacing biotite with pyrite and yields grades ranging between 2 and 10 g/t gold (Figure 10.1 B). The hydrothermal alteration is characterized by an overall removal of potassium and aluminum with the addition of sulphide and silica.

Andesite and dacite dykes appear to have utilized the same structures as mineralizing fluids, but they are themselves altered and locally auriferous (Figure 10.1 C). In other cases, altered dykes with elevated arsenic and antimony are barren. Some dyke margins appear to focus brecciation, potentially due to rheological contrast. The relationship between dykes and the auriferous hydrothermal system remains poorly constrained.

Preliminary portable infrared mineral analyser (PIMA), ASD TerraSpec portable infrared mineral spectroscope, and electron microprobe work indicate that illite and iron-carbonate compose part of the alteration mineral assemblage associated with gold at Supremo. Micron-scale gold is strongly associated with pyrite and free gold grains are found within the oxidized rims and cracks within pyrite grains, in addition to various growth bands within the pyrite grains (Figure 10.1 D).

The microscopy and microprobe work also reveal micron-sized crystals of barite associated with gold and trace amounts of iron-barium arsenate, an iron-calcium-silver-phosphorus mineral phase, monazite and zircon in alteration zones.

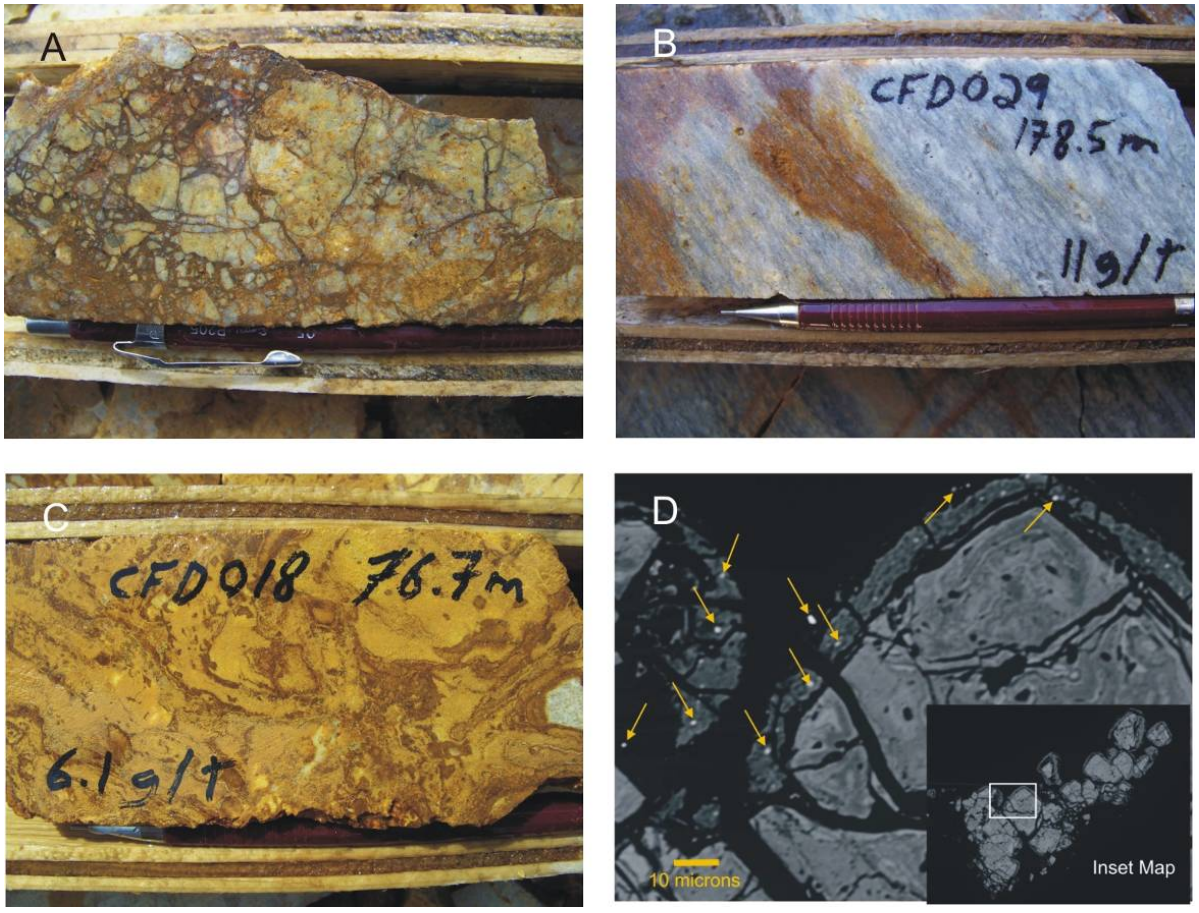


Figure 10.1: Gold Mineralization Textures at Supremo

A. Mineralized crackle breccia. Borehole CFD0001, from 19.6 to 20.0 m with 14.35 g/t gold

B. Pervasively altered, auriferous augen gneiss. Note the “pitted” appearance of feldspar augen. Borehole CFD0029, from 178 to 179 m with 11.0 g/t gold

C. Mineralized, clay altered dacite dyke. Borehole CFD0018, from 76 to 77 m with 6.1 g/t gold

D. Backscatter image of pyrite grain in Supremo breccia showing the extremely fine-grained nature of gold (denoted by arrows) and its association with pyrite. Linear trains of gold grains suggest gold was likely precipitated with pyrite and captured within the pyrite structure and later released during oxidation of the pyrite rim. Borehole CFD0001, from 24 to 25 m with 31.9 g/t gold.

10.1.2 Latte

Drilling across an east-west trend of gold-in-soil anomalies at Latte has intersected gold mineralization beginning at surface (Figure 10.2). This linear trend overlies the Latte and Latte North structures. Latte consists of a stacked set of moderately-to-steeply south-southwest dipping, east-southeast striking brittle-ductile structures, while Latte North splays off from the main Latte structure, dipping moderately to steeply to the southeast and striking to the northeast. No shear fabric or observable high strain is visible in association with the steep and mineralized Latte structures. All structures remain open at depth, and step-back drilling during the 2011 season intersected mineralization at depths of up to 450 metres-below-surface.



Figure 10.2: Expression of the Latte Structure at Surface Looking East (Section 583250mE)

The western portion of the Latte zone is dominated by broad regions of disseminated mineralization found throughout a wide panel of biotite schist. The western structures strike ~\ approximately 100˚ and contain five or more mineralized shoots which merge and separate along section. To the east these structures separate, with a splay striking approximately 85˚ which dips near vertically to the south. The structures continue to the east and eventually merge into the complex Connector zone, where the Supremo north-south structures and the east-west Latte and Double Double structures converge. Total traceable length of the mineralized Latte structure is in excess of 2,100 m.

Latte North displays identical mineralization textures as Latte Main; however the structures strike at approximately 45˚ and dip approximately 60˚ to the southeast. Latte North currently splays away from the main Latte corridor for a strike length of 275 m.

Mineralization at Latte consists of multiple distinct styles of mineralization beginning with disseminated gold-bearing arsenian pyrite, overprinted by later brecciation and late fluid ingress (Figure 10.3). Mica-rich rocks are the main host for gold, with a three phase mineral reaction resulting in gold precipitation. Gold-bearing mineralizing fluid rich in CO_2-As-Sb and S reacts strongly with Fe-bearing biotite within the biotite schist at Latte. A sulphidation reaction proceeds, where Fe within the biotite is leached to form fine-grained arsenian pyrite, illite, and dolomite which pseudomorphously replace the parent biotite lath (Figure 10.3: Reaction 1). Titanium within the parent biotite is removed and incorporated in the hydrothermal illite, as well as hydrothermal rutile. A third white mica phase grows out of solution as fine laths which rim some mineralization-phase white mica.

Reaction 1: Simplified Mica Sulphidation Reaction



In high-grade intervals, this reaction runs to completion with no biotite preserved. Areas which did not experience the same levels of fluid flow retain relict biotite laths.

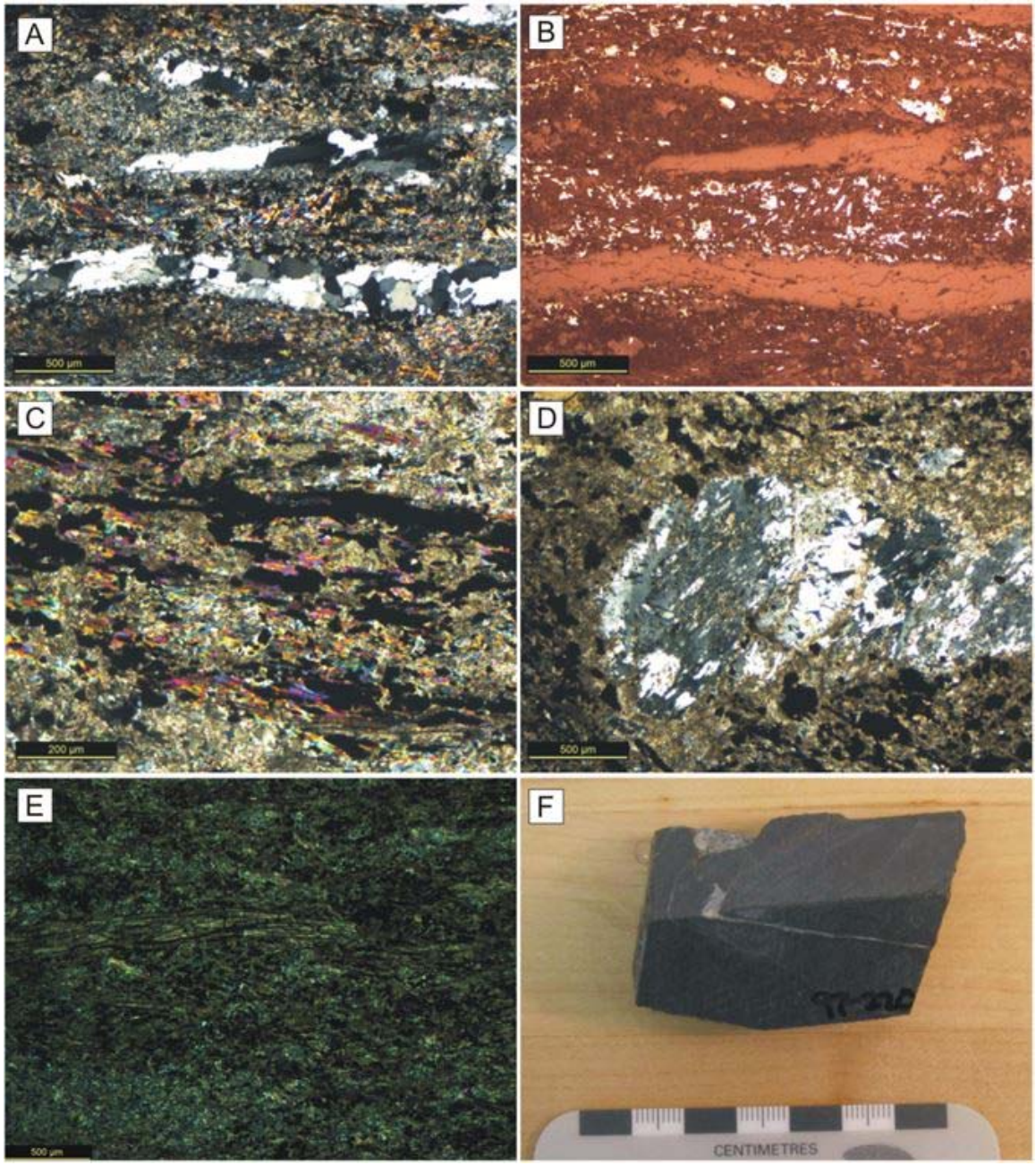


Figure 10.3: Disseminated Mineralization within the Latte Zone

A. Finely disseminated arsenian pyrite along relict micaceous foliation. CFD0164 at 464 m, XPL
B. Same as A, RL
C. Detail of sulphidized mica with fine arsenian pyrite along relict foliation planes. CFD0164 at 469 m, XPL
D. Relatively fresh feldspar porphyroblast surrounded by sulphidized mica and dolomite. CFD0164 at 469 m, XPL
E. Strong disseminations of fine-grained arsenian pyrite. CFD0097 at 220 m, XPL
F. Hand sample image of E.

Brecciated intervals are common at Latte, with fine sulphide and clay minerals forming the matrix to angular-to-subrounded clasts of wall rock. These “sulphide-matrix” breccias are generally immature and usually appear as concentrations of very fine “sooty” arsenian pyrite with a steel grey colouration (Figure 10.4). Sulphide content within the matrix of these breccias can be ≥ 20%. These brecciated intervals are best preserved at depth, where oxidative meteoric fluids have not completely altered the matrix to clay and oxidized the contained sulphides. Thin quartz-carbonate veinlets which precipitated extremely fine gold-bearing arsenian pyrite along their margins are interpreted to be of the same phase as the sulphide-matrix breccias. There is potential for significant remobilization of gold from disseminated intervals due to continued and intense fluid-rock interaction.



Figure 10.4: Core photographs of Latte Zone Pyritic Faults and Sulphide-matrix Breccia

A. Pyritic fault in CFD0169 at 237.8 m
B. Sulphide-matrix breccia from CFD0010 at 122.2 m.

Late breccias are also common, with angular-to-subrounded clasts of mineralized wall rock set in a matrix of rock flour and silica (Figure 10.5). These breccias exhibit both tectonic and fluid textures and can be greatly comminuted, and locally polyphase. No additional mineralization is observed within these breccias.

Mineralization at Latte is hosted exclusively by schistose rocks or breccias. Within the lower mafic footwall at Latte, amphibole-rich rocks are dominant. Mineralized intervals within this panel are usually restricted to narrow, generally high-grade intersections which represent thin slivers of biotite schist hosted within amphibolite. Amphibole-dominant host rocks do not react with the mineralizing fluid, impeding wall rock sulphidation. The interconnectivity of biotite laths within the schistose rocks promotes reactive fluid flow: laths act as a channel for the sulphidizing fluid, which pervades throughout the schistose host and reacts with the biotite.

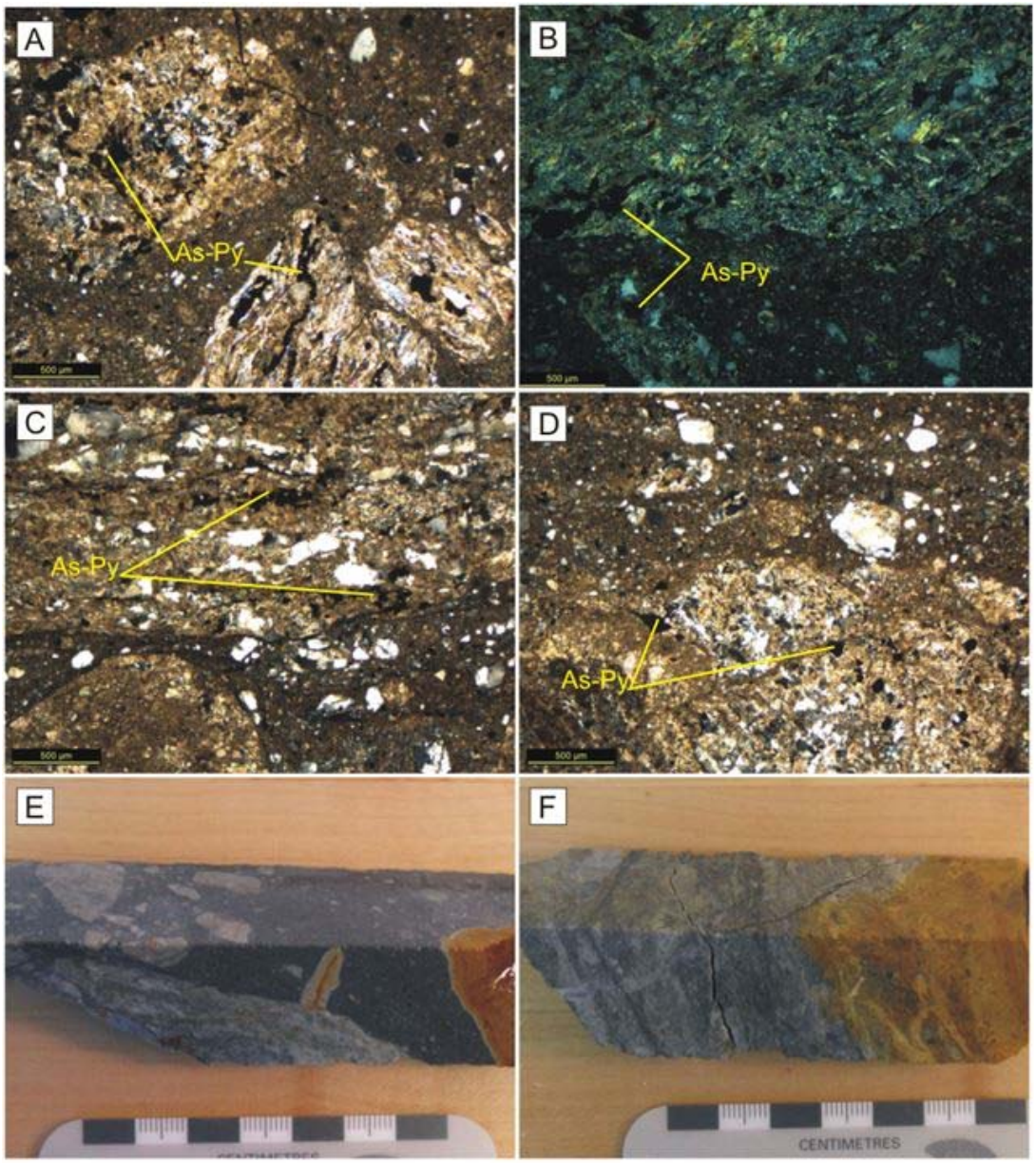


Figure 10.5: Late Brecciation of Mineralized Intervals at the Latte Zone

A. Clasts of mineralized wall rock hosted by a super-fine rock flour/silica matrix. CFD0114 at 162 m, XPL
B. Same as A, XPL
C. Breccia corridor with super-fine rock flour/silica matrix and mineralized clasts of wall rock. CFD0097 at 30 m, XPL
D. Same as C, XPL
E. Hand sample of A, B
F. Hand Sample of C, D.

10.1.3 Double Double

The Double Double Zone trends east-northeast with a known strike length of 600 m, dips steeply to the north and consists of a number of discrete high-grade strands of mineralization up to several metres wide. Host rocks are augen-bearing gneissic rocks with interleaved biotite-feldspar-quartz (± muscovite ± amphibole) schist. The gold mineralization at Double Double appears to be structurally controlled and associated with a north-easterly trending splay off the main Latte structure.

Gold-rich intervals at Double Double are characterized by relict schistose to mylonitic textures overprinted by mottled silica and sericite alteration in addition to limonite-filled micro fracture networks and oxidized pyrite cubes. Breccia domains locally exceed 50% by volume within gold zones, characterized by silicified fragments as well as strongly altered wall rock and porphyry dyke clasts (Figure 10.6 A).

Some of these fragments exhibit rounding and imbrication in addition to textures consistent with re-fragmentation of earlier breccia events (i.e., polyphase breccia). Networks of anastomosing chalcedonic silica veins with local microbreccia domains within the veins have been noted in the high-grade intervals (Figure 10.6 B).

Similar to the Supremo Zone, gold at Double Double is micron-scale (Figure 10.6 C), and illite has been detected by infrared spectroscopy within the mineralized intervals. Other alteration minerals observed at Double Double include sericite, epidote, leucoxene, hematite, and carbonate.

10.1.4 Kona

Drilling in the Kona Zone was designed to investigate gold-in-soil anomalies and encountered a different style of mineralization hosted in granitic rocks. The gold mineralization is hosted in near-vertical brittle structural zones directly underlying gold-in-soil anomalies.

The Kona Zone is hosted in equigranular granite and consists of east-northeast trending, steeply south-dipping stacked structures. The gold structures are associated with narrow, less than 5 m wide, sparsely feldspar phenocrystic to aphanitic andesite to dacite dykes.

Alteration typically consists of sericite, clay and limonite, with illite being detected during reconnaissance PIMA work at Kona. Sulphide is dominated by sooty pyrite, which typically replaces ferromagnesian minerals (Figure 10.7 A), and also occurs as veins/veinlets or fracture fill, and in sulphide-matrix fault breccias (Figure 10.7 B).

Minor realgar and orpiment have both been observed in reverse circulation cuttings from Kona during the 2011 drill program.

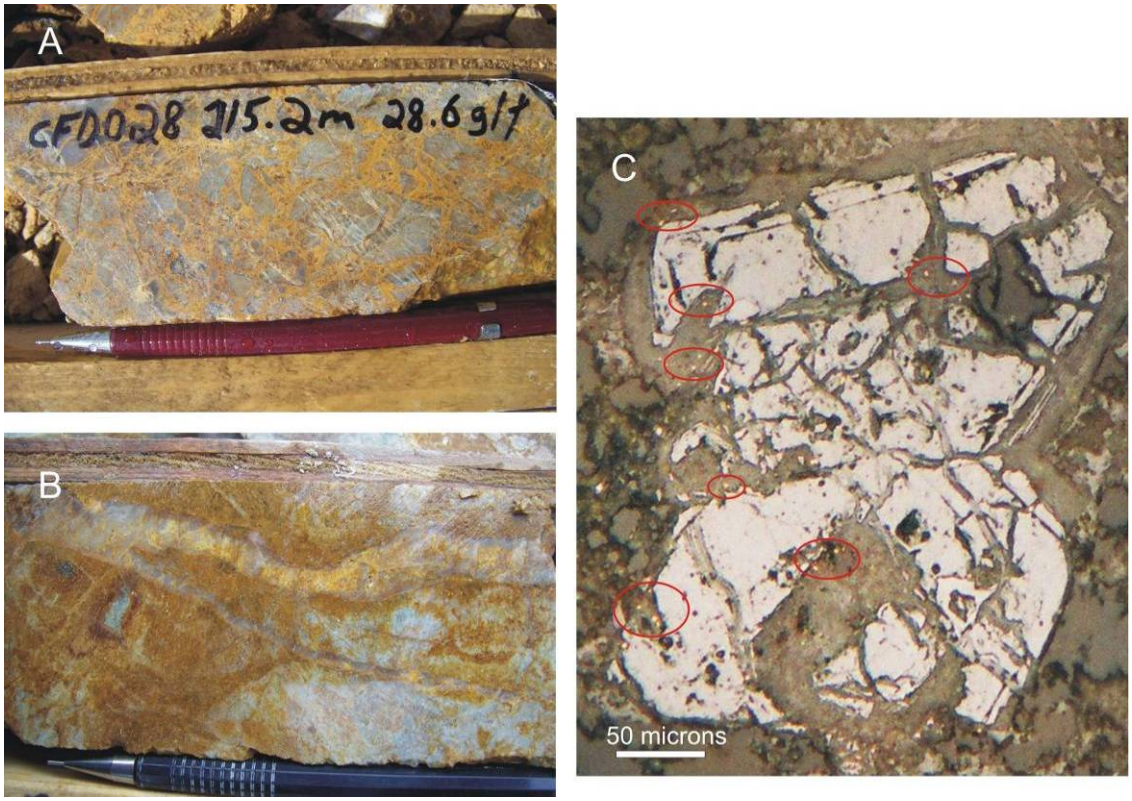


Figure 10.6: Gold Mineralization Textures at Double Double

A. Cement supported silicified-clast breccia. Borehole CFD0028, from 215 to 216 m with 28.6 g/t gold

B. Silica vein network cutting intensely silicified host rocks. Borehole CFD0090, from 105 to 106 m with 120.25 g/t gold

C. Micron-scale gold (circled in red) associated with fractures within pyrite and pyrite grain rims. Borehole CFD0027, from 156 to 157 m with 14.75 g/t gold.

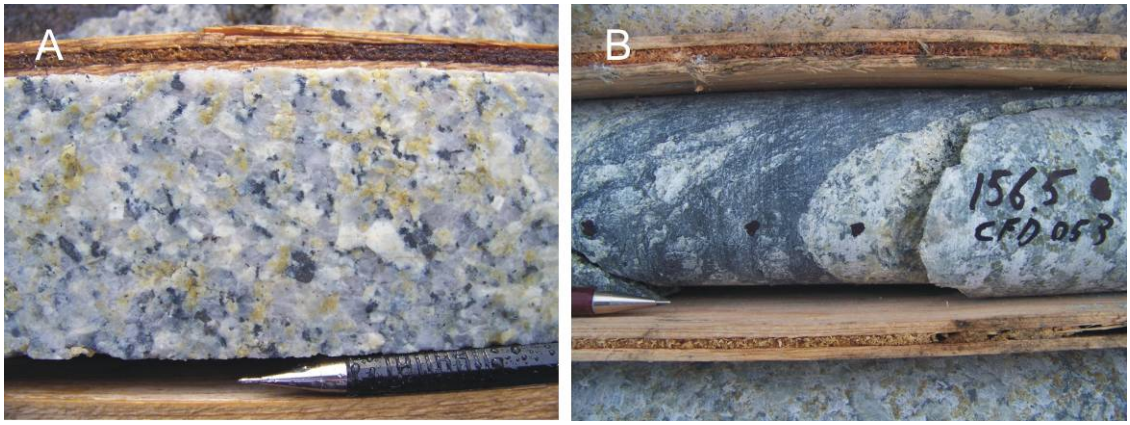


Figure 10.7: Gold Mineralization Textures at Kona

A. Quartz-sericite altered granite; with sulphide mineralization (steel grey mineral) replacement of amphibole and biotite. Borehole CFD0053, from 172 to 173 m with 9.54 g/t gold
B. Sulphide-matrix fault breccia cutting granite. Borehole CFD0053, from 156 to 157 m with 0.94 g/t gold.

10.1.5 Americano, Americano West and Espresso

The Americano area is underlain by granite and comprises two parallel northeast trending linear gold-in-soil trends totalling more than 4 km in length. These two trends become linked to the east by a north by northeast trending gold-in-soil anomaly informally known as the Americano “link” structure.

Widely-spaced boreholes were drilled at Americano in 2010–2011 in order to test for the presence of steeply-dipping gold-bearing brittle structures analogous to the nearby Kona gold zone. The Espresso zone is located between Kona and Americano, associated with a large gold-in-soil anomaly. This area was tested with limited drilling in 2010.

Gold zones drilled at Americano and Espresso are hosted in sulphidic and clay-altered brittle fault zones crosscutting granite, similar to the Kona zone. Limited reconnaissance drill testing beneath gold-in-soil anomalies at Americano West in 2011, to the southwest of the Americano “link” structure, yielded several narrow gold intervals. The Americano West area is underlain by equigranular granite and the gold-bearing intervals are characterized by silica-sericite-clay alteration and fine-grained pyrite replacing mafic minerals. Minor pyrite stringers, sulphide-matrix fault breccia, and clots/dissemination and veins of stibnite were also noted at Americano West.

10.1.6 Macchiato and Cappuccino

The Macchiato and Cappuccino zones, located north and northeast of the Supremo Zone, respectively, are hosted by the augen gneiss host rock package. Significant gold intervals intersected at Macchiato and minor gold encountered at Cappuccino during preliminary diamond drilling in 2011 are characterized by strong oxidation and silica flooding associated with pervasive limonite and hematite. Crackle breccias with silica-limonite or clay cement were observed in addition to silica-limonite vein and veinlet networks cutting strongly altered host wall rock. The steeply-dipping gold zone appears to trend northeast. The mineralization style encountered at Macchiato is very similar to that observed in the Supremo Zone.

10.1.7 Sugar

The Sugar area is located in the southeastern area of the Coffee project, 22 km southeast of Supremo and 12.5 km south-southeast of the Coffee project camp. Drilling tested the five largest soil anomalies greater than 100 parts of gold per billion over an area roughly 3.5 by 1.5 km.

The geology of the Sugar area is comprised of intermediate intrusions of various affinities. The most prevalent unit is a multi-phase, equigranular, medium grained granodiorite to quartz monzodiorite. This unit is intruded by two porphyritic units: a hornblende-phyric medium-grained granodiorite, and a plagioclase-hornblende porphyry. These units are in turn locally intruded by aphanitic mafic dykes. Additional volumetrically minor units include small diorite and tonalitic dykes and rafts of metasedimentary rocks. The host granodiorites abut the biotite schist package to the north of the Sugar area; although preliminary evidence suggest a fault contact (observed in SGD0010), the nature of the contact remains unresolved.

Mineralization at Sugar is comprised of sooty pyrite ± arsenopyrite ± pyrrhotite ± stibnite in quartz-carbonate veins, silica sericite minor chlorite and clay salvages on the contacts of some of the veins. Further infrared spectroscopy work has since determined the clays are predominantly kaolinite and illite. These veins or vein sets are subvertical and east-west oriented.

10.1.8 Sumatra

The Sumatra zone is located to the north of the Latte zone along the contact between the augen gneiss and biotite-feldspar schist. Mineralization occurs within two separate structures which underlie a broad ENE-trending soil anomaly. The first structure dips steeply (near-vertical) to the northwest, gradually reclining to an approximate dip of 60° through the middle portion of the corridor, and finally steepens in the eastern portion of the structure. The second structure strikes approximately E-W and dips roughly 70° to the south. These structures intersect at 583350mE, forming an hourglass-like structure.

Mineralization consists of strong disseminations of arsenian pyrite along relict schistose fabric in addition to clay-altered and heavily oxidized breccias. Multiple phases of brecciation are preserved in some intervals. Some mineralized intervals preserve schistose fabric, while others are heavily altered to the point of fabric destruction.

10.1.9 Arabica

Arabica is located to the east of the Supremo T-structures and is hosted within the augen gneiss panel. Mineralized structures run N-S and dip steeply (approximately 70°) to the east, with a current defined strike length of approximately 800 m. Mineralization is hosted within felsic gneiss and local, thin intervals of biotite schist. RC drilling during the 2013 field season identified strong limonite-hematite oxidation in addition to silicification within the mineralized intercepts.

10.2 Coffee Weathering Profiles

The mineralized structures at the Coffee Project have undergone extensive preferential weathering and oxidation of iron-bearing minerals as a result of meteoric fluids percolating from surface downwards through the permeable structural corridors. Conversely unfractured and unaltered country rock is typically fresh (unoxidized) from surface. As a result of this preferential weathering, oxidation is channelized along the structural corridors.

Intense oxidation is commonly observed at depths of more than 200 m below surface. The majority of the Supremo and Double Double deposits are strongly oxidized; however, at Latte oxidation is less pervasive, extending to about 125 m below surface in some areas. As a result, transitional facies material forms a larger proportion of the Latte deposit than in Supremo and Double Double.

Oxidation state of both mineralization and country rock has important implications for mineral resource evaluation, the quality of the rock mass and metallurgical processing. Thus systematic classification and re-logging of oxidation facies was undertaken in 2012 in order to ensure consistency and accuracy of drilling information. Re-logging utilized the existing logs, core photographs, and archived reverse circulation chips.

10.3 Cyanide Solubility Analyses

In 2013, a comprehensive sampling program was implemented in order to systematically quantify the cyanide solubility of gold on a sample-by-sample basis. In order to quantify the degree of oxidation within mineralized rocks at Coffee, a cyanide shake test was employed to measure the amount of cyanide soluble gold within a sample. The ratio of cyanide soluble (AuCN) to total gold (from fire assay) provides information regarding the degree of oxidation and, in general, an indication of the potential cyanide gold leach characteristics of the rocks.

Cyanide shake tests have been conducted on a series of pulp rejects retained from previous drilling campaigns. In many of these older drill holes, AuCN results are available for only select samples. In new drill holes, cyanide shake testing is performed on a sample-by-sample basis, providing a resolution of 1 m in diamond drill core and of 1.5 m in reverse circulation chips. The effective lower detection limit for cyanide shake tests is 0.3 g/t Au, making it only possible to determine the percent recoverability of mineralized samples. This limitation results in tightly constrained recoverability estimates within the mineralized portion of structures.

10.4 Oxide Categorization

Four oxide types or domains have been interpreted for the Coffee deposit as described below. The oxide zone is relatively consistent and supported but a large proportion of the data. The degree of oxidation is often highly variable in the two (upper and lower) transition zones as reflected by the oxidation percentage ranges listed below.

- Oxide zone: intense to pervasive oxidation (>90% oxidation)
- Upper Transition zone: moderate to intense oxidation (50-90% oxidation)
- Lower Transition zone: weak to moderately oxidized (10-50% oxidation)
- Sulphide zone: fresh to weakly oxidized rocks (<10% oxidation).

10.5 Three Dimensional Modelling of Oxidation Surfaces

The ratios of AuCN/total Au have been interpolated in the block model and are utilized in combination with qualitative (visual) estimates of the intensity of oxidation, to provide information regarding the depth and intensity of oxidation in the structural domains. The location and extent of the four oxide domains, described above, are interpreted in cross-section and linked together into a series of 3D domains. These domains are then used to define zones of similar oxidation properties.

10.6 Three Dimensional Modelling of Structure and Gold Mineralization

Interpreted gold mineralized structures and structural corridors were digitized using Micromine. Polygons outlining the mineralized trends were digitized on cross section, and then connected along strike between sections to create solid wireframe models. Two models were created based on different parameters as outlined below. The wireframe models were utilized during resource estimation as discussed in Section 16.3.

10.7 Structural Domain Wireframes

Broad structural domain wireframes were constructed on the basis of geological criteria: lithology, alteration, and arsenic and gold abundance. Rock codes indicative of structural deformation include fracture zones, breccia, hydrothermal alteration products, and the presence of intermediate-felsic dykes. The structural domains were interpreted on a section-by-section basis using Micromine.

The domains were extended beyond drilling information along strike by half of the drill spacing. For example, at Latte where spacing is typically 100 m, the wireframes were extended 50 m both east and west beyond the extent of drilling. Domains were extended vertically to a distance of half of the vertical separation of boreholes on section.

10.8 Gold Mineralization Wireframes

After modelling the structural domains, gold mineralization wireframes were created within the structural domain wireframes. Gold wireframes were modelled using a threshold of 0.3 g/t gold, and polylines were snapped to the drilling assay data.

In all gold zones except for Latte, the gold mineralization is continuous within the zone, resulting in negligible internal dilution included within the gold wireframes. However, for the Latte gold wireframe that is characterized by thicker zones of mineralization, 1 to 5 m of internal dilution (less than 0.5 grams per tonne gold) was allowed.

As for the structural domain wireframes, gold mineralization wireframes were extended halfway the drilling spacing beyond drilling information. Gold mineralization wireframes were not used for direct construction of the block model, but were used to help guide the 3D planes used to describe the overall trend of the gold mineralization. These planes were then used in turn to help orient search directions to relate samples during grade interpolation of the block model.

11.0 DEPOSIT TYPES

The Coffee project lies within an east-southeast–west-northwest trending tectono-magmatic domain that consists of a series of Cretaceous-age granitoid intrusions (Dawson Batholith and Coffee Creek Granite) as well as Yukon-Tanana terrane metamorphic rocks. This domain extends almost 200 km between Freegold Mountain to the southeast and Coffee to the northwest, and is sub-parallel to the larger Tintina gold belt in which it lies. The domain is host to a number of significant mineral deposits including porphyry systems (e.g., Casino and Nucleus), epithermal (e.g., Mt. Nansen), and orogenic gold systems (e.g., Golden Saddle, Boulevard, and Longline).

The gold mineralization found to date on the Coffee project is hydrothermal in origin and both structurally and lithologically controlled. Structures which cut schistose host rocks promote formation of disseminated Au-bearing arsenian pyrite through mica sulphidation, with associated strong dolomite-illite-clay alteration. Hydrothermal breccias host mineralization in arsenian pyrite with associated silica-sericite-clay alteration. Quartz veining is rare, although pre-mineralization quartz veins of probable Jurassic age are locally associated with zones of higher grade mineralization. Thin quartz+carbonate+Au-bearing arsenian pyrite veins are observed within the Latte zone. The gold mineralization is characterized by elevated arsenic and antimony. At Supremo, there is a weak positive correlation between gold and silver. At Latte, there is a weak positive correlation between gold-silver and gold-calcium. At Double Double, bismuth and antimony show a weak positive correlation with gold. At Kona, a weak positive correlation between gold and uranium, mercury and barium is observed.

Reduced intrusion-related gold deposits are a common style of gold system within the Tintina gold belt. These systems typically display anomalous Bi, W, and Te in addition to low salinity and CO_2-rich ore fluids, and are located proximal to reduced, alkaline, volatile-rich plutons (Hart and Goldfarb, 2005; Lang and Baker, 2001). Other salient features include low-grade auriferous sheeted vein systems within the pluton cupolas, and general low sulphide abundance within ore. Coffee does not appear to be a reduced intrusion-related gold deposit due to the lack of Bi, W, and Te anomalies, the lack of a pluton associated within mineralization, and generally high sulphide abundance.

At each of the deposits at Coffee, fine-grained arsenian pyrite is the dominant host for micron-scale gold mineralization. The Coffee system displays significant arsenic-antimony geochemical anomalies with local realgar and orpiment; however, the lack of mercury or thallium anomalies as well as the absence of carbonate host rocks in the Coffee tectonic stratigraphy eliminates the possibility of Coffee being a Carlin-type gold system (Emsbo et al., 2006).

Mineralization at the Supremo and Latte zones is accompanied by a weak gold-silver correlation; however any other significant gold-base metal associations are absent. This generally rules out epithermal gold systems although Coffee does exhibit some features such as chalcedonic quartz and open space fracture-fill in some mineralized intervals.

Similarities to epithermal mineralization are also exhibited in the gold-to-silver ratios observed at Coffee. These ratios range from 1:5 in the Latte Zone to 1:13 in the Supremo Zone, all with the notable absence of base metals. These ranges are consistent with those exhibited by both low sulphidation (base metal poor, 10:1 to 1:10 gold:silver; Sillitoe, 1993) and high sulphidation (1:2 to 1:10 gold:silver; White and Hedenquist, 1995) epithermal systems. High sulphide abundance is commonly observed on the Coffee project, most notably at the Latte zone. High sulphidation

deposits are known to commonly be genetically related to and occur above porphyry copper or copper-gold systems (Arribas, 1995; Arribas et al., 1995; Sillitoe, 1973). The nearest known copper-gold porphyry system is Casino, located 30 kilometres from Coffee. However, due to the significant textural and metal association differences between the Coffee gold mineralization and typical epithermal mineralization, no association between Coffee and porphyry mineralization is implied and no geochemical correlation to assert this relationship has been identified.

Recent work in the Dawson Range has demonstrated that both the Boulevard prospect and the Golden Saddle deposit are orogenic gold systems (Allan et al., 2013; Bailey, 2013; and McKenzie et al., 2013). The Golden Saddle deposit is located approximately 40 km to the north of the Coffee property and contains a resource of 1.4 Moz Au (Weiershäuser et al., 2010). The deposit is hosted within metamorphic rocks of the Yukon-Tanana terrane similar to the Coffee project, with mineralization focused at the intersection of a north-striking thrust fault and east-trending Jurassic sinistral transpressional faults (Bailey, 2013). Alteration which accompanies gold-bearing pyrite mineralization consists of a quartz-carbonate-illite assemblage. Trace elemental associations include Au-Ag-Pb-S-Te. Mineralization was constrained by 187Re/187Os ages of 163-155 Ma for molybdenite which occurs in gold-bearing veins. This age is consistent with Jurassic regional uplift and exhumation, and is suggested to be representative of a post-peak orogenic gold event (Bailey, 2013).

The Boulevard prospect is located approximately 10 km to the southwest of the Coffee project. It consists of a sheeted vein system of gold-rich quartz-sulphide-carbonate veins and fault breccia hosted within mafic schist (McKenzie et al., 2013). Mineralization is constrained to 95.0 ± 0.4 Ma by 40Ar/39Ar cooling ages for hydrothermal sericite directly linked to gold mineralization. The deposit is modelled as a mid-Cretaceous orogenic gold system related to rapid exhumation of the Dawson Range following the intrusion of the Dawson Range batholith and Coffee Creek granite (McKenzie et al., 2013). Adjacent to Boulevard and just south of Coffee, the Toni Tiger molybdenum showing hosts quartz-molybdenite veins dated to 96-95 Ma. Fluid inclusion study of both Boulevard and Toni Tiger suggests that the two prospects are genetically related and formed from H_2O-CO_2-NaCl orogenic fluids of low salinity, between 279 and 310˚C and > 1kbar (McKenzie et al.,2013). Boulevard itself exhibits a distinctly mesothermal-orogenic signature due to the presence of sheeted quartz veins, adjacent molybdenite mineralization, and Au-As-Sb-(Pb-Zn-Cu) metal associations.

To the northwest of the Coffee project, the 93-92 Ma Longline deposit in the Moosehorn Range is structurally controlled and hosts high-grade (~30 g/t) gold mineralization within sheeted quartz veins (Joyce, 2002). The mineralization is controlled by shallowly east-northeast dipping, north-northwest striking brittle reverse fault structures which cut the Dawson Range batholith. Alteration associated with mineralization includes muscovite, sericite, Fe-carbonate, pyrite, arsenopyrite, clay, quartz, and tourmaline (Joyce, 2002). Gold-bearing quartz veins precipitated from a H2O-CO_2-CFl_4-NaCl + N_2 fluid of moderate salinity between temperatures of 260 and 300˚C, at a pressure of approximately 1.3-1.9 kbar and a depth of 5-7 km (Joyce, 2002).

Detailed study of the Latte gold zone suggests that Coffee is an epizonal, early-brittle stage orogenic gold deposit (Buitenhuis, 2014; Buitenhuis et al., 2014; Allan et al., 2013). The fluid responsible for mineralization at Latte is likely the cool (220-250˚C), shallow extension of the mineralizing fluid responsible for gold mineralization at Boulevard and molybdenite mineralization at Toni Tiger. A CO_2-rich fluid flowed through the region, powered by the anomalous geothermal

gradient caused by the rapid unroofing of the Dawson Range in the mid-Cretaceous. This fluid formed sheeted quartz veins within the mesozonal domain represented by Boulevard and Toni Tiger, where the base metal and silica content of the fluid was depleted during vein formation. The fluid, now mostly depleted in base metals, travelled upwards in the system into the epizonal domain of the Coffee project, where it was controlled by the structural framework of the Coffee project fault system and reacted with favorable host rocks. The fluid travelled along brittle structures and deposited gold-rich arsenian pyrite within schistose rocks through sulphidation, and in high-energy pulses, formed gold-rich hydrothermal breccias (Buitenhuis, 2014). The timing of gold mineralization at Coffee is post-emplacement of the Coffee Creek granite, and is most likely, based on field, geochemical, and petrographic observations, to be syn-to-post mineralization at Boulevard (approximately 95 Ma) in age. The possibility exists, however, that Coffee could be related to a younger, unidentified mineralizing event. Geochronological confirmation is pending.

12.0 CURRENT WORK

12.1 2014 Drilling

During 2014, 353 boreholes (52,760 m) were drilled: 147 core boreholes (26,893 m) and 206 reverse circulation boreholes (25,867 m) (Figure 12.1). Work consisted of exploration drilling from May 25, 2014 to September 29, 2014, followed by drilling associated with the on-going Coffee Feasibility Study which ran from July 26, 2014 to November 24, 2014 (Table 12-1).

Table 12-1: Summary of 2014 Drilling on the Coffee property

Hole Type	Diamond Holes	Diamond Metres	RC Holes	RC Metres
Infill	86	17224	150	19594
Metallurgy	8	1374	-	-
Hydrogeological	17	2926	-	-
Geotechnical	7	241	-	-
Condemnation	-	-	50	5147
Total Feasibility:	***118***	***21764***	***200***	***24741***
Exploration	29	5129	6	1126
All 2014 Drilling:	***147***	***26893***	***206***	***25867***

Exploration drilling was focused on the Supremo, Latte, Macchiato, Kona North, French Press, and Cappuccino zones. In total, 29 diamond core holes (5,129m) and 6 reverse circulation drill holes (1,126m) were completed for exploration purposes.

After the beginning of the feasibility study, drilling activity increased to include hydrogeological, metallurgical, geotechnical, condemnation, and infill drilling at the Supremo, Latte, Double Double, and Kona zones, as well as at a proposed Heap Leach pad location. A total of 118 diamond core holes (21,764m) and 200 reverse circulation drill holes (24,741m) were completed during the 2014 feasibility program. Salient assay results from the 2014 drill program can be found in Table 12-2.

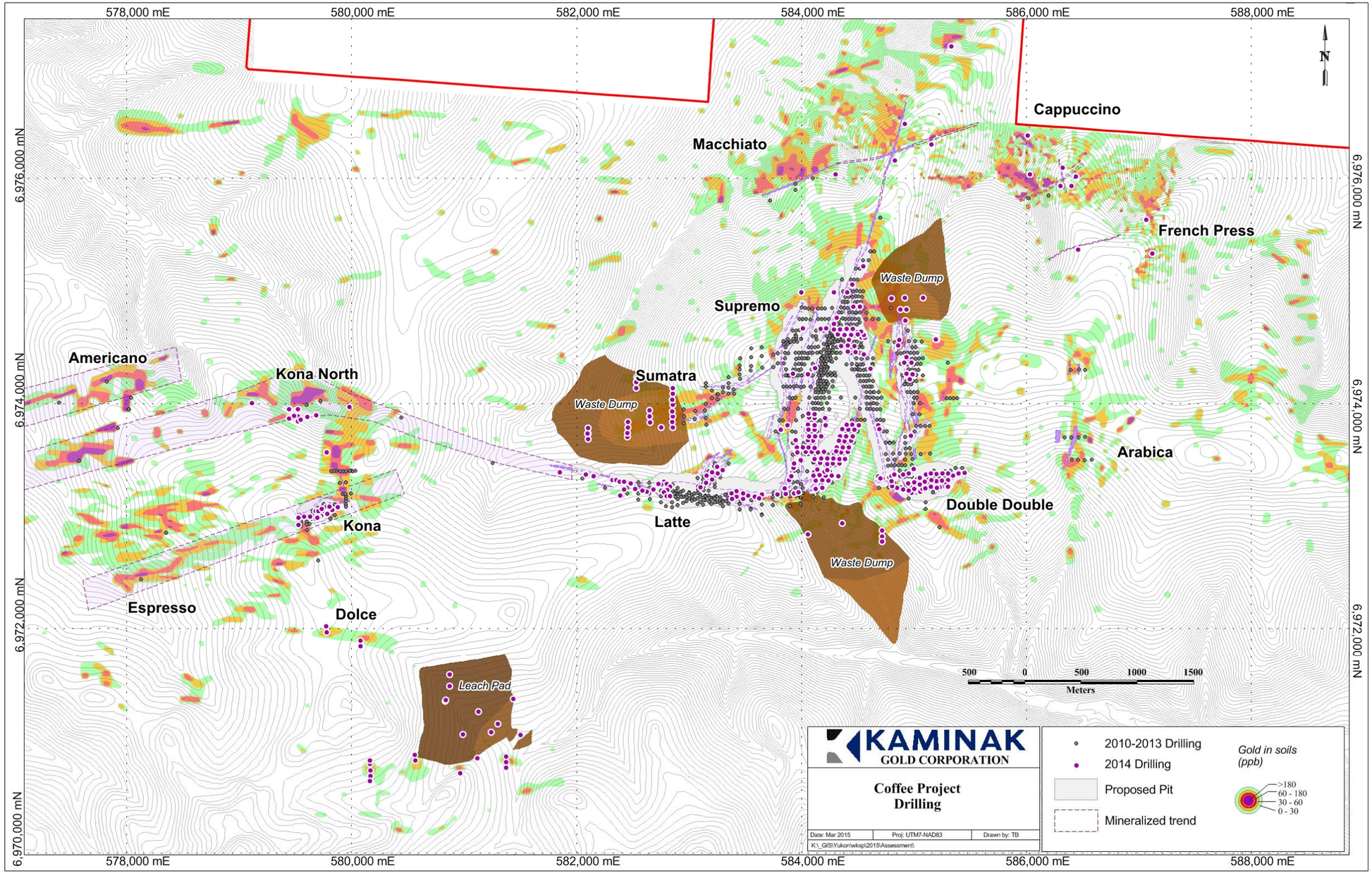


Figure 12.1: Overview plan map of drilling on the Coffee Property. Proposed locations of the Leach Pad and Waste Dump also indicated.

Table 12-2: Salient assay results from 2014 drilling

Prospect	HoleID (RC)	From (m)	To (m)	Au gpt /meters	Type	Prospect	HoleID (Core)	From (m)	To (m)	Au gpt /meters	Type
West Dump	CFR0598			NSV	Cond	Supremo T3	CFD0353	43	45	2.56/2	Exp
West Dump	CFR0599			NSV	Cond	Supremo T3	CFD0354	6	10	3.57/4	Exp
West Dump	CFR0600	65.53	67.06	0.87/1.53	Cond	Supremo T3	CFD0354	65	69	4.1/4	Exp
West Dump	CFR0601			NSV	Cond	Macchiato	CFD0355	67	78	1.48/11	Exp
West Dump	CFR0602			NSV	Cond	Macchiato	CFD0356	81	95	1.95/14	Exp
West Dump	CFR0603			NSV	Cond	Macchiato	CFD0356	128	137	2.21/9	Exp
West Dump	CFR0604	39.62	41.15	0.89/1.53	Cond	Macchiato	CFD0357			NSV	Exp
West Dump	CFR0605	64.01	67.06	6.8/3.05	Cond	Supremo T3	CFD0358	72	75	0.68/3	Exp
West Dump	CFR0606	59.44	65.53	0.6/6.09	Cond	Supremo T3	CFD0359	114	116	4.82/2	Exp
West Dump	CFR0607			NSV	Cond	Supremo T3	CFD0360	32	34	1.34/2	Exp
West Dump	CFR0608			NSV	Cond	Macchiato	CFD0361	113	114	1.18/1	Exp
West Dump	CFR0609			NSV	Cond	Cappuccino	CFD0362	46	50	2.66/4	Exp
West Dump	CFR0610			NSV	Cond	Cappuccino	CFD0362	68	73	6.63/5	Exp
West Dump	CFR0611	53.34	56.39	2.52/3.05	Cond	Cappuccino	CFD0363	99	101	5.47/2	Exp
West Dump	CFR0612			NSV	Cond	French Press	CFD0364	127	128	3.85/1	Exp
West Dump	CFR0613			NSV	Cond	Cappuccino	CFD0365	147	152	3.98/5	Exp
West Dump	CFR0614			NSV	Cond	French Press	CFD0366	94	99	0.81/5	Exp
West Dump	CFR0615			NSV	Cond	French Press	CFD0367			NSV	Exp
West Dump	CFR0616	96.01	97.54	2.95/1.53	Cond	French Press	CFD0368			NSV	Exp
West Dump	CFR0617			NSV	Cond	Cappuccino	CFD0369	36	39	2.34/3	Exp
West Dump	CFR0618			NSV	Cond	Cappuccino	CFD0370	114	124	1.52/10	Exp
Latte	CFR0619			NSV	Infill	Cappuccino	CFD0371			NSV	Exp
Latte	CFR0620	41.15	44.2	1.47/3.05	Infill	Supremo T7	CFD0372	83	88	3.4/5	Exp
West Dump	CFR0621			NSV	Cond	Cappuccino	CFD0373			NSV	Exp
West Dump	CFR0622	32	33.53	1.32/1.53	Cond	Latte	CFD0374	56	58	2.33/2	Exp
Latte	CFR0623	38.1	41.15	1.46/3.05	Infill	Kona North	CFD0375	36	40	0.86/4	Exp
Latte	CFR0624	25.91	30.48	1.91/4.57	Infill	Kona North	CFD0376	14	42	3.55/28	Exp
Heap Leach	CFR0625	13.72	18.29	1.73/4.57	Cond	Kona North	CFD0376	53	62	2.66/9	Exp
Latte	CFR0626			NSV	Infill	Kona North	CFD0376	65	77	0.89/12	Exp
Latte	CFR0627	105.16	112.78	1.75/7.62	Infill	Kona North	CFD0377			NSV	Exp
Heap Leach	CFR0628			NSV	Cond	Kona North	CFD0378	20	21	2.69/1	Exp
Latte	CFR0629	25.91	28.96	1.35/3.05	Infill	Kona North	CFD0379	38	46	4.05/8	Exp
Heap Leach	CFR0630			NSV	Cond	Kona North	CFD0379	51	59	3.79/8	Exp
Latte	CFR0631	12.19	35.05	1.62/22.86	Infill	Kona North	CFD0379	71	74	4.19/3	Exp
Heap Leach	CFR0632			NSV	Cond	Kona North	CFD0379	79	83	5.78/4	Exp
Latte	CFR0633	32	33.53	2.39/1.53	Infill	Kona	CFD0380	116	124	1.56/8	Met
Heap Leach	CFR0634			NSV	Cond	Kona	CFD0381	53	55	1.29/2	Infill
Latte	CFR0635			NSV	Infill	Kona	CFD0382	98	101	9.23/3	Infill
Heap Leach	CFR0636			NSV	Cond	Kona	CFD0382	151	156	2.26/5	Infill
Latte	CFR0637	13.72	15.24	1.13/1.52	Infill	Kona	CFD0383	75	88	3.95/13	Infill
Heap Leach	CFR0638			NSV	Cond	Latte North	CFD0384	47	49	1.98/2	Infill
Latte	CFR0639	44.2	47.24	2.02/3.04	Infill	Kona	CFD0385	83	87	3.63/4	Infill
Latte	CFR0640	105.16	108.2	4.57/3.04	Infill	Latte North	CFD0386			NSV	Infill
Heap Leach	CFR0641	88.39	97.54	1.49/9.15	Cond	Double Double	CFD0387	154	155	12.3/1	Infill
Heap Leach	CFR0642			NSV	Cond	Double Double	CFD0387	167	178	2.7/11	Infill
Latte	CFR0643			NSV	Infill	Latte North	CFD0388	104	107	24.06/3	Infill
Latte	CFR0644			NSV	Infill	Kona	CFD0389	48	51	3.18/3	Infill
Heap Leach	CFR0645			NSV	Cond	Latte	CFD0390	15	32	1.61/17	Infill
Heap Leach	CFR0646	35.05	36.58	3.38/1.53	Cond	Kona	CFD0391	25	35	3.09/10	Infill
Latte	CFR0647	74.68	80.77	6.47/6.09	Infill	Latte	CFD0392	93	95	19.15/2	Infill
Latte	CFR0647	117.35	134.11	4.85/16.76	Infill	Latte	CFD0392	107	109	9.1/2	Infill
Regional	CFR0648			NSV	Cond	Double Double	CFD0393	176	181	37.6/5	Infill
Latte	CFR0649	86.87	97.54	2.16/10.67	Infill	Kona	CFD0394	14	21	2.55/7	Infill
Latte	CFR0649	111.25	123.44	2.09/12.19	Infill	Supremo T1-2	CFD0395	33	35	1.96/2	Infill
Latte	CFR0649	132.59	143.26	4.45/10.67	Infill	Kona	CFD0396	34	37	1.93/3	Infill
Latte	CFR0649	167.64	175.26	1.32/7.62	Infill	Supremo T1-2	CFD0397			NSV	Infill
Regional	CFR0650			NSV	Cond	Double Double	CFD0398			NSV	Infill
Latte	CFR0651	80.77	86.87	2.39/6.1	Infill	Kona	CFD0399			NSV	Infill
Latte	CFR0651	96.01	118.87	3.99/22.86	Infill	Kona	CFD0400	151	155	3.03/4	Met
Latte	CFR0651	176.78	185.93	6.29/9.15	Infill	Kona	CFD0400	161	164	4.88/3	Met
Regional	CFR0652	76.2	89.92	3.24/13.72	Cond	Double Double	CFD0401	157	159	8.36/2	Infill
Regional	CFR0653			NSV	Cond	Supremo T1-2	CFD0402			NSV	Hydro
Kona North	CFR0654	97.54	106.68	6.99/9.14	Exp	Kona	CFD0403	3	6	5.1/3	Met
Kona North	CFR0655	176.78	184.4	0.92/7.62	Exp	Kona	CFD0403	10	49	5.03/39	Met
Kona North	CFR0656	28.96	33.53	2.94/4.57	Exp	Kona	CFD0403	67	77	2.29/10	Met
Kona North	CFR0656	105.16	118.87	1.1/13.71	Exp	Kona	CFD0403	124	160	2.67/36	Met

Kona North	CFR0657	64.01	92.96	3.12/28.95	Exp
Latte	CFR0658			NSV	Infill
Latte	CFR0659	48.77	68.58	3.63/19.81	Infill
Kona North	CFR0660	153.92	158.5	1.08/4.58	Exp
Kona North	CFR0661	62.48	73.15	1.28/10.67	Exp
Latte	CFR0662			NSV	Infill
Kona	CFR0663			NSV	Infill
Latte	CFR0664	80.77	85.34	1.88/4.57	Infill
Kona	CFR0665	105.16	108.2	1.32/3.04	Infill
Kona	CFR0666	112.78	118.87	1.13/6.09	Infill
Latte	CFR0667	77.72	83.82	1.14/6.1	Infill
Supremo T7	CFR0668	144.78	147.83	2.86/3.05	Cond
Latte	CFR0669	54.86	79.25	1.31/24.39	Infill
Supremo T7	CFR0670	28.96	30.48	2.09/1.52	Cond
South Dump	CFR0671			NSV	Cond
Supremo T7	CFR0672	97.54	111.25	1.08/13.71	Cond
South Dump	CFR0673	25.91	27.43	1.16/1.52	Cond
South Dump	CFR0674			NSV	Cond
South Dump	CFR0675			NSV	Cond
Supremo T7	CFR0676	16.76	18.29	1.23/1.53	Cond
Latte North	CFR0677	65.53	68.58	3.92/3.05	Infill
South Dump	CFR0678			NSV	Cond
Heap Leach	CFR0679			NSV	Cond
Latte North	CFR0680	80.77	86.87	3.56/6.1	Infill
North Dump	CFR0681			NSV	Cond
Latte North	CFR0682	33.53	39.62	3.32/6.09	Infill
Latte North	CFR0683	68.58	74.68	9.58/6.1	Infill
Heap Leach	CFR0684			NSV	Cond
Double Double	CFR0685	48.77	54.86	2.3/6.09	Infill
Latte North	CFR0686			NSV	Infill
Double Double	CFR0687	47.24	48.77	2.81/1.53	Infill
Latte	CFR0688	1.53	9.14	5.26/7.61	Infill
Latte	CFR0688	47.24	54.86	3.16/7.62	Infill
Double Double	CFR0689	39.62	41.15	9.06/1.53	Infill
Double Double	CFR0689	57.91	65.53	2.6/7.62	Infill
Latte	CFR0690	82.3	83.82	8.85/1.52	Infill
Double Double	CFR0691	57.91	59.44	2.23/1.53	Infill
Double Double	CFR0692	47.24	50.29	10.73/3.05	Infill
Latte	CFR0693	38.1	45.72	4.88/7.62	Infill
Double Double	CFR0694	39.62	41.15	1.15/1.53	Infill
Latte	CFR0695	0	27.43	1.01/27.43	Infill
Double Double	CFR0696	79.25	82.3	3.08/3.05	Infill
Latte	CFR0697	56.39	74.68	0.98/18.29	Infill
Latte	CFR0697	82.3	103.63	0.99/21.33	Infill
Latte	CFR0697	111.25	124.97	3.74/13.72	Infill
Double Double	CFR0698			NSV	Infill
Double Double	CFR0699	42.67	48.77	5.86/6.1	Infill
Double Double	CFR0700			NSV	Infill
Double Double	CFR0701			NSV	Infill
Double Double	CFR0702			NSV	Infill
Double Double	CFR0703	100.58	102.11	1.31/1.53	Infill
Double Double	CFR0704	0	3.05	5.03/3.05	Infill
Double Double	CFR0704	12.19	13.72	12.7/1.53	Infill
Double Double	CFR0705	9.14	12.19	1.03/3.05	Infill
Double Double	CFR0706			NSV	Infill
Double Double	CFR0707	53.34	54.86	4.24/1.52	Infill
Double Double	CFR0708	102.11	103.63	1.01/1.52	Infill
Double Double	CFR0709	45.72	60.96	1.99/15.24	Infill
Double Double	CFR0710	30.48	42.67	4.08/12.19	Infill
Double Double	CFR0710	97.54	105.16	2.88/7.62	Infill
Double Double	CFR0711	56.39	57.91	4.98/1.52	Infill
Double Double	CFR0712	76.2	80.77	1.93/4.57	Infill
Double Double	CFR0713	9.14	42.67	5.07/33.53	Infill
Double Double	CFR0714	102.11	112.78	1.42/10.67	Infill
Double Double	CFR0715			NSV	Infill
Double Double	CFR0716	121.92	129.54	1.93/7.62	Infill
Double Double	CFR0717	140.21	141.73	6.2/1.52	Infill
Double Double	CFR0718	47.24	48.77	1.19/1.53	Infill
Double Double	CFR0719	97.54	100.58	5.95/3.04	Infill
Double Double	CFR0720	121.92	126.49	3.86/4.57	Infill
Double Double	CFR0721			NSV	Infill
Double Double	CFR0722	105.16	111.25	2.1/6.09	Infill
Double Double	CFR0723	21.34	24.38	6.43/3.04	Infill
Kona	CFD0403	164	169	2.51/5	Met
Supremo T7	CFD0404	16	24	3.08/8	Infill
Supremo T7	CFD0404	52	60	1.98/8	Infill
Double Double	CFD0405	170	176	3.32/6	Infill
Supremo T7	CFD0406	18	25	2.44/7	Infill
Latte	CFD0407	86	122	3/36	Met
Supremo T1-2	CFD0408			NSV	Hydro
Double Double	CFD0409	6	12	4.4/6	Met
Double Double	CFD0409	130	137	3.78/7	Met
Supremo T7	CFD0410			NSV	Infill
Latte	CFD0411	29	61	2.15/32	Met
Latte	CFD0411	113	117	4.87/4	Met
Latte	CFD0411	130	157	3.63/27	Met
Supremo T7	CFD0412	101	107	3.94/6	Infill
Supremo T7	CFD0412	218	224	3.46/6	Infill
Double Double	CFD0413	26	29	58.47/3	Met
Double Double	CFD0413	110	111	11.05/1	Met
Double Double	CFD0413	118	131	2.34/13	Met
Double Double	CFD0413	136	149	9.43/13	Met
Double Double	CFD0413	210	220	2.27/10	Met
Supremo T1-2	CFD0414			NSV	Hydro
Supremo T7	CFD0415	23	24	3.13/1	Infill
Double Double	CFD0416	30	32	7.58/2	Met
Double Double	CFD0416	38	47	32.84/9	Met
Double Double	CFD0416	62	68	2.07/6	Met
Supremo T7	CFD0417	31	46	1.06/15	Infill
Supremo T7	CFD0417	53	72	1.49/19	Infill
Supremo T3	CFD0418	110	114	3.36/4	Hydro
Supremo T1-2	CFD0419			NSV	Hydro
Supremo T7	CFD0420	61	62	2.96/1	Infill
Supremo T5-7	CFD0421	14	16	1.28/2	Infill
Supremo T7	CFD0422	5	10	1.11/5	Infill
Supremo T5	CFD0423	69	74	4.37/5	Infill
Supremo T7	CFD0424	34	38	1.18/4	Infill
Supremo T4-5	CFD0425	209	213	2.56/4	Infill
Supremo T5	CFD0426	71	77	10.25/6	Infill
Supremo T4-5	CFD0427	176	178	4.33/2	Infill
Supremo T3	CFD0428			NSV	Hydro
Supremo T4-5	CFD0429	184	188	3.13/4	Infill
Supremo T4-5	CFD0429	195	218	1.38/23	Infill
Supremo T1-2	CFD0430			NSV	Hydro
Supremo T4-5	CFD0431	223	224	2.33/1	Infill
Latte	CFD0432	83	85	1.56/2	Hydro
Supremo T4-5	CFD0433	168	181	2.4/13	Infill
Supremo T1-2	CFD0434			NSV	Hydro
Kona North	CFD0435	118	134	4.85/16	Exp
Kona North	CFD0435	163	185	2.9/22	Exp
Supremo T4-5	CFD0436	40	46	4.31/6	Infill
Supremo T3	CFD0437	111	118	4.89/7	Infill
Supremo T3	CFD0438	203	210	2.58/7	Infill
Supremo T3	CFD0439	107	108	5.24/1	Hydro
Kona North	CFD0440	125	128	4.95/3	Exp
Kona North	CFD0440	134	147	1.04/13	Exp
Supremo T3	CFD0441	21	27	2.02/6	Infill
Supremo T3	CFD0441	42	53	9.22/11	Infill
Supremo T3	CFD0441	191	203	3.78/12	Infill
Latte	CFD0442			NSV	Hydro
Supremo T3	CFD0443	128	136	1.37/8	Infill
Supremo T3	CFD0443	225	234	2.45/9	Infill
Supremo T3	CFD0443	264	269	9.23/5	Infill
Kona	CFD0444			NSV	Hydro
Supremo T4-5	CFD0445	130	131	6.78/1	Infill
Heap Leach	CFD0446			NSV	Geotech
Supremo T3	CFD0447	129	137	1.56/8	Infill
Supremo T3	CFD0447	213	226	5.99/13	Infill
Supremo T3	CFD0447	248	276	1.49/28	Infill
Heap Leach	CFD0448			NSV	Geotech
Heap Leach	CFD0449			NSV	Geotech
Supremo T1-2	CFD0450	120	123	2.68/3	Infill
Heap Leach	CFD0451			NSV	Geotech
Supremo T3	CFD0452	35	41	2.65/6	Infill
Supremo T3	CFD0452	57	61	3.69/4	Infill
Supremo T7	CFD0453			NSV	Hydro

Double Double	CFR0724	68.58	73.15	1.8/4.57	Infill
Double Double	CFR0725			NSV	Infill
Double Double	CFR0726	73.15	82.3	8.72/9.15	Infill
Supremo T5	CFR0727			NSV	Infill
Double Double	CFR0728	126.49	128.02	2.07/1.53	Infill
Supremo T5	CFR0729	1.52	22.86	2.03/21.34	Infill
Supremo T5	CFR0729	117.35	123.44	4.29/6.09	Infill
Double Double	CFR0730			NSV	Infill
Double Double	CFR0731	39.62	45.72	32.78/6.1	Infill
Double Double	CFR0732			NSV	Infill
Supremo T5	CFR0733	71.63	76.2	2.97/4.57	Infill
Double Double	CFR0734			NSV	Infill
Double Double	CFR0735	117.35	121.92	1.17/4.57	Infill
Latte	CFR0736	12.19	21.34	2.29/9.15	Infill
Supremo T4	CFR0737	18.29	21.34	1.65/3.05	Infill
Supremo T4	CFR0738			NSV	Infill
Latte	CFR0739	126.49	129.54	1.94/3.05	Infill
Supremo T4	CFR0740	24.38	38.1	3.49/13.72	Infill
Latte	CFR0741	59.44	65.53	0.96/6.09	Infill
Supremo T4	CFR0742			NSV	Infill
Supremo T4	CFR0743			NSV	Infill
Supremo T4	CFR0744	108.2	114.3	2.38/6.1	Infill
Supremo T4	CFR0744	158.5	166.12	2.58/7.62	Infill
Latte	CFR0745	48.77	53.34	2.58/4.57	Infill
Supremo T4	CFR0746			NSV	Infill
Supremo T4	CFR0747	79.25	88.39	1.72/9.14	Infill
Latte	CFR0748	38.1	53.34	1.06/15.24	Infill
Latte	CFR0748	77.72	86.87	1.16/9.15	Infill
Supremo T4	CFR0749			NSV	Infill
Supremo T4	CFR0750			NSV	Infill
Supremo T4	CFR0751	39.62	42.67	5.93/3.05	Infill
Supremo T1-2	CFR0752	94.49	111.25	1.03/16.76	Infill
Supremo T4	CFR0753	163.07	166.12	7.04/3.05	Infill
Supremo T4	CFR0754	42.67	45.72	5.13/3.05	Infill
Supremo T1-2	CFR0755	47.24	62.48	1.22/15.24	Infill
Supremo T1-2	CFR0756	18.29	21.34	1.72/3.05	Infill
Supremo T4	CFR0757	62.48	64.01	5.97/1.53	Infill
Supremo T1-2	CFR0758	9.14	10.67	1.92/1.53	Infill
Supremo T4	CFR0759	64.01	70.1	2.45/6.09	Infill
Supremo T4	CFR0759	91.44	96.01	4.18/4.57	Infill
Supremo T4	CFR0759	115.82	143.26	0.94/27.44	Infill
Supremo T4	CFR0760	73.15	76.2	4.88/3.05	Infill
Supremo T1-2	CFR0761	3.05	4.57	1.09/1.52	Infill
Supremo T4	CFR0762	7.62	35.05	2.44/27.43	Infill
Supremo T3	CFR0763	39.62	41.15	2.01/1.53	Infill
Supremo T4	CFR0764	80.77	89.92	1.27/9.15	Infill
Supremo T3	CFR0765	124.97	128.02	6.46/3.05	Infill
Supremo T4	CFR0766	42.67	53.34	1.46/10.67	Infill
Supremo T4	CFR0766	60.96	65.53	2.71/4.57	Infill
Supremo T4	CFR0767	21.34	42.67	2.59/21.33	Infill
Supremo T1-2	CFR0768			NSV	Infill
Supremo T4	CFR0769	9.14	12.19	0.89/3.05	Infill
Supremo T4	CFR0770	112.78	114.3	1.5/1.52	Infill
Supremo T3	CFR0771	102.11	115.82	2.85/13.71	Infill
Supremo T4	CFR0772			NSV	Infill
Supremo T4	CFR0773	41.15	59.44	2.52/18.29	Infill
Supremo T3	CFR0774	143.26	153.92	1.72/10.66	Infill
Supremo T3	CFR0775	27.43	38.1	1.56/10.67	Infill
Supremo T3	CFR0775	54.86	59.44	3.71/4.58	Infill
Supremo T4	CFR0776	6.1	7.62	2.05/1.52	Infill
Supremo T3	CFR0777	129.54	135.64	9.08/6.1	Infill
Supremo T3	CFR0778	67.06	73.15	2.03/6.09	Infill
Supremo T4	CFR0779	30.48	48.77	1.34/18.29	Infill
Supremo T3	CFR0780	126.49	129.54	1.29/3.05	Infill
Supremo T3	CFR0781	6.1	12.19	2.69/6.09	Infill
Supremo T3	CFR0781	51.82	62.48	7.92/10.66	Infill
Supremo T4	CFR0782	99.06	103.63	1.28/4.57	Infill
Supremo T3	CFR0783	106.68	109.73	2.99/3.05	Infill
Supremo T4	CFR0784			NSV	Infill
Supremo T3	CFR0785	18.29	25.91	6.21/7.62	Infill
Supremo T3	CFR0786	41.15	42.67	2.12/1.52	Infill
Supremo T4	CFR0787	181.36	184.4	2.67/3.04	Infill
Supremo T3	CFR0788	39.62	44.2	10.06/4.58	Infill
Heap Leach	CFD0454			NSV	Geotech
Kona	CFD0455			NSV	Hydro
Supremo T3	CFD0456	59	64	4.24/5	Infill
Heap Leach	CFD0457			NSV	Geotech
Supremo T1-2	CFD0458			NSV	Infill
Heap Leach	CFD0459			NSV	Geotech
Supremo T1-2	CFD0460	162	164	1.99/2	Infill
Supremo T4	CFD0461	51	57	2.07/6	Infill
Supremo T4	CFD0461	63	66	6.25/3	Infill
Supremo T4	CFD0461	183	187	3.3/4	Infill
Heap Leach	CFD0462			NSV	Hydro
Supremo T7	CFD0463			NSV	Hydro
Supremo T1-2	CFD0464	101	108	2.28/7	Infill
Supremo T1-2	CFD0464	131	145	1.74/14	Infill
Supremo T4	CFD0465	130	158	2.35/28	Infill
Heap Leach	CFD0466			/	Hydro
Supremo T1-2	CFD0467	19	20	3.24/1	Infill
Supremo T4	CFD0468	169	177	1.53/8	Infill
Supremo T3	CFD0469	250	265	1.8/15	Infill
Supremo T1-2	CFD0470	132	133	36.2/1	Infill
Supremo T1-2	CFD0470	151	160	1.9/9	Infill
Supremo T1-2	CFD0470	166	171	4.2/5	Infill
Supremo T3	CFD0471	145	146	15/1	Infill
Supremo T4	CFD0472	117	126	3.44/9	Infill
Supremo T4	CFD0472	131	136	2.88/5	Infill
Supremo T3	CFD0473	182	185	13.99/3	Infill
Supremo T1-2	CFD0474	163	166	1.09/3	Infill
Supremo T3	CFD0475	31	39	3.9/8	Infill
Supremo T3	CFD0475	235	241	4.06/6	Infill
Supremo T3	CFD0475	246	255	4.12/9	Infill
Supremo T3	CFD0476	196	211	6.41/15	Infill
Supremo T3	CFD0477			NSV	Infill
Supremo T4	CFD0478	186	195	3.28/9	Infill
Supremo T5	CFD0479	23	34	1.21/11	Infill
Supremo T5	CFD0479	53	58	2.15/5	Infill
Supremo T4-5	CFD0480	49	64	1.63/15	Infill
Supremo T4-5	CFD0480	176	183	3.56/7	Infill
Supremo T1-2	CFD0481			NSV	Infill
Supremo T4	CFD0482	54	60	8.89/6	Infill
Supremo T4	CFD0482	82	84	7.76/2	Infill
Supremo T4	CFD0482	139	143	4.54/4	Infill
Supremo T1-2	CFD0483			NSV	Infill
Supremo T5	CFD0484	63	75	6.78/12	Infill
Supremo T5	CFD0484	165	189	2.43/24	Infill
Supremo T5	CFD0484	197	214	1.55/17	Infill
Supremo T4	CFD0485	165	167	4.53/2	Infill
Supremo T4	CFD0486	158	169	1.22/11	Infill
Supremo T4	CFD0486	190	195	3.72/5	Infill
Supremo T4	CFD0486	208	210	5.1/2	Infill
Supremo T3	CFD0487	63	68	2.76/5	Infill
Supremo T3	CFD0487	176	187	4.54/11	Infill
Supremo T3	CFD0487	242	246	8.94/4	Infill
Supremo T4	CFD0488	215	217	4.53/2	Infill
Supremo T4	CFD0489	101	116	2.54/15	Infill
Supremo T4	CFD0490	33	36	10.6/3	Infill
Supremo T4	CFD0490	42	46	3.57/4	Infill
Supremo T4	CFD0490	121	135	1.48/14	Infill
Supremo T4	CFD0490	144	164	2.39/20	Infill
Supremo T3	CFD0491			NSV	Infill
Supremo T4-5	CFD0492	88	101	0.92/13	Infill
Supremo T4	CFD0493	67	70	2.81/3	Infill
Supremo T4	CFD0494	32	44	6.88/12	Infill
Supremo T4	CFD0495	164	174	2.48/10	Infill
Supremo T4	CFD0495	195	203	4.49/8	Infill
Supremo T4	CFD0496	50	57	1.45/7	Infill
Supremo T4	CFD0497	86	99	3.93/13	Infill
Supremo T4	CFD0498	201	208	1.71/7	Infill
Supremo T4	CFD0498	230	232	8.89/2	Infill
Supremo T4	CFD0498	240	251	2.28/11	Infill
Supremo T4	CFD0499	92	99	1.85/7	Infill

Supremo T3	CFR0789	54.86	56.39	1.61/1.53	Infill
Supremo T3	CFR0790			NSV	Infill
Supremo T4	CFR0791	111.25	115.82	7.16/4.57	Infill
Supremo T3	CFR0792	124.97	128.02	3.16/3.05	Infill
Supremo T3	CFR0793	108.2	112.78	5.94/4.58	Infill
Supremo T3	CFR0794	41.15	44.2	1.16/3.05	Infill
Supremo T3	CFR0795	41.15	44.2	2.66/3.05	Infill
Supremo T3	CFR0796	21.34	27.43	6.75/6.09	Infill
Supremo T5	CFR0797	33.53	51.82	1.68/18.29	Infill
Supremo T3	CFR0798	0	9.14	0.6/9.14	Infill
Supremo T5	CFR0799	53.34	56.39	1.38/3.05	Infill
Supremo T3	CFR0800	15.24	24.38	12.95/9.14	Infill
Supremo T4-5	CFR0801	56.39	59.44	0.98/3.05	Infill
Supremo T3	CFR0802	27.43	53.34	1.85/25.91	Infill
Supremo T3	CFR0802	79.25	86.87	1.89/7.62	Infill
Supremo T4-5	CFR0803	73.15	82.3	1.72/9.15	Infill
Supremo T4-5	CFR0803	108.2	115.82	1.84/7.62	Infill

12.2 Infill and Exploration Core Drilling

Core drilling took place between May and October 2013 and was contracted to Cyr Drilling International Ltd. of Winnipeg, Manitoba. Three Boyles 37 drill rigs and a Zinex A5 were dragged between drill sites by excavator or bulldozer. A Duralite D-10 drill rig was flown by helicopter to air-access drill collars. Core sizes drilled include NQ2 (50.5 mm), HQ (63.5 mm), and minor PQ (85 mm). The majority of core drilled was NQ2 in diameter. A summary of 2014 infill and exploration core drilling can be found in Table 12-3.

Drill pads were constructed out of timber by a small pad building team (fly drilling), or by an excavator which cleared the surrounding vegetation and constructed a level pad out of local fill (skid drilling). All diamond drill pads were constructed with a sump, ensuring drilling waste including fluid, cuttings, and mud was contained at the pad site. No drill pads were constructed within 30m of a water body.

Borehole locations were planned and marked by Kaminak geologists using a handheld GPS. A compass was used to determine borehole azimuth and inclination. Boreholes were generally drilled at an angle of between 70 and 45° from the horizontal, depending upon the target. Vertical boreholes were drilled for groundwater monitoring wells. Downhole surveys were completed for all infill and exploration boreholes using a Reflex EZ-Shot® electronic single shot (magnetic) device. Downhole deviation of boreholes was measured using these tools at nominal 30 m intervals. Collar locations were surveyed following completion by Challenger Geomatics Ltd. of Whitehorse, YT with a Real Time Kinematic (RTK) GPS using five established control points.

Core retrieved from boreholes was moved from the drilling sites to the base camp by truck or occasionally by helicopter. At the camp, core was examined for consistency, re-assembled, and marked for orientation. RQD was measured by a trained technician. Core pieces were then selected for portable XRF analysis on 1 m intervals in mineralized rocks and on 2 m intervals in non-mineralized zones. Core was then described (logged) and photographed by a geologist and marked for sampling. Finally, SG measurements were recorded for each major lithology and for each potentially mineralized interval. All descriptive information was captured digitally on-site using a Microsoft Access database. Core samples were cut in half lengthwise and half of the core was sent for analyses at ALS Minerals in Whitehorse.

Diamond core recovery data is available for nearly all drill holes on the Coffee property. Global average core recovery is 95%, with 94% of all sample intervals demonstrating recoveries greater

than 80%. Approximately 1% of sample intervals have recoveries less than 50%. There is no apparent relationship between drill core recovery and gold content at Coffee.

Table 12-3: Summary table of 2014 Infill and Exploration Core drilling

Borehole ID	Easting (m)	Northing (m)	Elevation (masl)	Length (m)	Azimuth (deg.)	Dip (deg.)	Prospect	Hole Type
CFD0353	584917	6976499	955	164.0	270	-45	Supremo T3	Exploration
CFD0354	584920	6976499	955	122.0	270	-70	Supremo T3	Exploration
CFD0355	584828	6976177	1001	203.0	315	-45	Macchiato	Exploration
CFD0356	584830	6976176	1002	170.0	318	-70	Macchiato	Exploration
CFD0357	585156	6976319	996	164.0	0	-45	Macchiato	Exploration
CFD0358	585333	6977191	843	77.3	270	-45	Supremo T3	Exploration
CFD0359	585333	6977191	843	161.0	270	-50	Supremo T3	Exploration
CFD0360	585333	6977191	843	161.0	270	-70	Supremo T3	Exploration
CFD0361	584301	6976050	882	179.0	0	-45	Macchiato	Exploration
CFD0362	586300	6975950	1037	301.0	270	-45	Cappuccino	Exploration
CFD0363	586400	6975951	1046	194.0	270	-45	Cappuccino	Exploration
CFD0364	587121	6975345	1083	239.0	270	-45	French Press	Exploration
CFD0365	586010	6976398	809	212.0	180	-45	Cappuccino	Exploration
CFD0366	587063	6975650	1023	200.0	90	-45	French Press	Exploration
CFD0367	586461	6975381	1096	113.0	0	-45	French Press	Exploration
CFD0368	586461	6975380	1096	68.0	0	-70	French Press	Exploration
CFD0369	586322	6976110	1025	110.0	270	-45	Cappuccino	Exploration
CFD0370	586439	6976031	1031	152.0	270	-45	Cappuccino	Exploration
CFD0371	586439	6976031	1031	41.0	268	-50	Cappuccino	Exploration
CFD0372	584923	6974751	1126	179.0	270	-45	Supremo T7	Exploration
CFD0373	586029	6976049	924	200.0	180	-45	Cappuccino	Exploration
CFD0374	581850	6973401	1020	173.0	0	-45	Latte	Exploration
CFD0375	579110	6974019	1111	173.0	0	-45	Kona North	Exploration
CFD0376	579520	6973964	1052	202.0	0	-45	Kona North	Exploration
CFD0377	579775	6973580	1157	212.0	90	-45	Kona North	Exploration
CFD0378	579980	6973981	1119	227.0	0	-45	Kona North	Exploration
CFD0379	579521	6973899	1084	224.0	0	-45	Kona North	Exploration
CFD0381	579577	6973008	1283	85.0	0	-50	Kona	Infill
CFD0382	579677	6972990	1273	200.0	0	-50	Kona	Infill
CFD0383	579728	6973012	1265	203.0	0	-50	Kona	Infill
CFD0384	583300	6973423	1127	134.0	0	-50	Latte North	Infill
CFD0385	579780	6973030	1256	200.4	0	-50	Kona	Infill
CFD0386	583251	6973390	1122	161.0	0	-50	Latte North	Infill
CFD0387	585052	6973353	1112	260.0	180	-50	Double Double	Infill
CFD0388	583202	6973340	1116	182.0	0	-50	Latte North	Infill
CFD0389	579827	6973069	1246	116.0	0	-50	Kona	Infill
CFD0390	583420	6973188	1095	164.0	0	-50	Latte	Infill
CFD0391	579876	6973090	1238	127.0	0	-50	Kona	Infill
CFD0392	583479	6973167	1079	170.0	0	-50	Latte	Infill
CFD0393	585103	6973380	1117	278.0	180	-50	Double Double	Infill
CFD0394	579629	6973009	1277	110.0	0	-50	Kona	Infill
CFD0395	583814	6973780	1139	215.0	270	-50	Supremo T1-2	Infill
CFD0396	579676	6973060	1266	119.0	0	-50	Kona	Infill
CFD0397	583872	6973823	1146	176.0	270	-50	Supremo T1-2	Infill
CFD0398	585152	6973387	1117	164.0	180	-50	Double Double	Infill
CFD0399	579776	6973097	1250	113.0	0	-50	Kona	Infill
CFD0401	585200	6973389	1111	233.0	180	-50	Double Double	Infill
CFD0404	584963	6974229	1253	164.0	270	-50	Supremo T7	Infill
CFD0405	585151	6973392	1117	251.0	180	-50	Double Double	Infill
CFD0406	584931	6974277	1250	167.0	270	-50	Supremo T7	Infill
CFD0410	584988	6974278	1252	19.0	270	-50	Supremo T7	Infill
CFD0412	584988	6974274	1252	245.0	270	-50	Supremo T7	Infill
CFD0415	584912	6974376	1241	164.0	270	-50	Supremo T7	Infill
CFD0417	584977	6974378	1244	143.0	278	-50	Supremo T7	Infill
CFD0420	584934	6974427	1233	197.0	275	-50	Supremo T7	Infill

CFD0421	584970	6973725	1183	200.0	88	-50	Supremo T5-7	Infill
CFD0422	584858	6974529	1199	65.0	270	-50	Supremo T7	Infill
CFD0423	584683	6973820	1187	107.0	270	-50	Supremo T5	Infill
CFD0424	584871	6974580	1185	98.0	273	-51	Supremo T7	Infill
CFD0425	584611	6974325	1244	302.0	273	-51	Supremo T4-5	Infill
CFD0426	584692	6973784	1178	110.0	275	-50	Supremo T5	Infill
CFD0427	584535	6974601	1230	230.0	270	-50	Supremo T4-5	Infill
CFD0429	584611	6974323	1244	233.0	273	-50	Supremo T4-5	Infill
CFD0431	584562	6974599	1224	269.0	270	-50	Supremo T4-5	Infill
CFD0433	584555	6974449	1243	287.0	270	-50	Supremo T4-5	Infill
CFD0435	579523	6973854	1098	278.0	0	-45	Kona North	Exploration
CFD0436	584471	6974526	1248	185.0	270	-50	Supremo T4-5	Infill
CFD0437	584407	6975001	1179	157.0	0	-90	Supremo T3	Infill
CFD0438	584351	6974527	1259	242.0	270	-50	Supremo T3	Infill
CFD0440	579547	6973872	1083	230.0	0	-45	Kona North	Exploration
CFD0441	584461	6974876	1193	239.0	270	-50	Supremo T3	Infill
CFD0443	584518	6974879	1184	302.6	270	-50	Supremo T3	Infill
CFD0445	584556	6974623	1220	272.0	267	-51	Supremo T4-5	Infill
CFD0447	584518	6974874	1184	281.0	271	-50	Supremo T3	Infill
CFD0450	584172	6974678	1258	155.0	274	-50	Supremo T1-2	Infill
CFD0452	584449	6975071	1168	131.0	269	-50	Supremo T3	Infill
CFD0456	584551	6975234	1127	209.0	275	-50	Supremo T3	Infill
CFD0458	584116	6974328	1295	35.0	270	-50	Supremo T1-2	Infill
CFD0460	584119	6974328	1295	254.0	270	-50	Supremo T1-2	Infill
CFD0461	584228	6973477	1053	212.0	270	-50	Supremo T4	Infill
CFD0464	584054	6974275	1287	218.0	270	-50	Supremo T1-2	Infill
CFD0465	584337	6973480	1063	257.0	270	-50	Supremo T4	Infill
CFD0467	583923	6974277	1287	257.0	270	-50	Supremo T1-2	Infill
CFD0468	584409	6973583	1099	236.0	270	-50	Supremo T4	Infill
CFD0469	584442	6974626	1243	305.0	270	-50	Supremo T3	Infill
CFD0470	584012	6974681	1258	254.0	270	-50	Supremo T1-2	Infill
CFD0471	584144	6973580	1074	248.0	270	-50	Supremo T3	Infill
CFD0472	584338	6973521	1076	206.0	270	-50	Supremo T4	Infill
CFD0473	584401	6974676	1243	242.0	270	-50	Supremo T3	Infill
CFD0474	584219	6974681	1257	194.3	270	-50	Supremo T1-2	Infill
CFD0475	584455	6974677	1234	329.0	272	-50	Supremo T3	Infill
CFD0476	584174	6973724	1118	266.0	270	-50	Supremo T3	Infill
CFD0477	584320	6974628	1254	227.0	270	-50	Supremo T3	Infill
CFD0478	584387	6973519	1080	293.0	270	-50	Supremo T4	Infill
CFD0479	584497	6974650	1229	233.0	270	-50	Supremo T5	Infill
CFD0480	584381	6974624	1249	209.4	270	-50	Supremo T4-5	Infill
CFD0481	583958	6973625	1078	104.0	270	-50	Supremo T1-2	Infill
CFD0482	584184	6973333	1006	209.7	270	-50	Supremo T4	Infill
CFD0483	583960	6973579	1056	116.0	270	-50	Supremo T1-2	Infill
CFD0484	584527	6974651	1222	248.0	270	-50	Supremo T5	Infill
CFD0485	584116	6973520	1052	224.0	273	-50	Supremo T4	Infill
CFD0486	584237	6973328	1011	278.0	270	-50	Supremo T4	Infill
CFD0487	584381	6974626	1249	281.0	270	-50	Supremo T3	Infill
CFD0488	584227	6973524	1066	242.0	270	-50	Supremo T4	Infill
CFD0489	584352	6973581	1094	176.0	270	-50	Supremo T4	Infill
CFD0490	584216	6973376	1022	233.0	270	-50	Supremo T4	Infill
CFD0491	584320	6974628	1254	140.0	270	-50	Supremo T3	Infill
CFD0492	584420	6974578	1249	245.0	270	-50	Supremo T4-5	Infill
CFD0493	584420	6973622	1111	213.5	270	-50	Supremo T4	Infill
CFD0494	584216	6973374	1022	50.0	270	-50	Supremo T4	Infill
CFD0495	584270	6973371	1027	293.0	270	-50	Supremo T4	Infill
CFD0496	584381	6973680	1123	146.0	270	-50	Supremo T4	Infill
CFD0497	584439	6973683	1130	212.0	270	-50	Supremo T4	Infill
CFD0498	584327	6973370	1031	287.0	270	-50	Supremo T4	Infill
CFD0499	584454	6973721	1142	215.0	270	-50	Supremo T4	Infill

12.3 Hydrogeological Core Drilling

Seventeen (17) boreholes were drilled in support of the hydrogeological testwork program. The program was designed by Lorax Environmental Services Ltd. of Vancouver, BC. The program is designed to understand the groundwater regime within the Coffee main resource and proposed pit areas by installing monitoring wells. The completed wells monitor hydraulic head and temperature. A total of ten (10) monitoring wells were installed during the 2014 field season. Sixteen holes were drilled at HQ diameter, while two were drilled with PQ (Table 12-4).

Table 12-4: Summary of 2014 Hydrogeological Core Drilling

Borehole ID	Easting (m)	Northing (m)	Elevation (masl)	Length (m)	Azimuth (deg.)	Dip (deg.)	Prospect	Hole Type
CFD0402	583995	6975003	1177	202.0	0	-90	Supremo T1-2	Hydro
CFD0408	583995	6975003	1177	210.0	0	-90	Supremo T1-2	Hydro
CFD0414	583995	6975003	1177	69.0	0	-90	Supremo T1-2	Hydro
CFD0418	584008	6973507	1031	200.0	0	-90	Supremo T3	Hydro
CFD0419	583995	6975003	1177	212.0	0	-90	Supremo T1-2	Hydro
CFD0428	583994	6973508	1030	197.0	0	-90	Supremo T3	Hydro
CFD0430	583995	6975003	1177	110.0	0	-90	Supremo T1-2	Hydro
CFD0432	582401	6973191	1098	200.0	0	-90	Latte	Hydro
CFD0434	583995	6975003	1177	160.0	0	-90	Supremo T1-2	Hydro
CFD0439	584287	6975001	1186	301.0	0	-90	Supremo T3	Hydro
CFD0442	582388	6973197	1095	152.0	0	-90	Latte	Hydro
CFD0444	579708	6972998	1269	221.0	0	-90	Kona	Hydro
CFD0453	585202	6974583	1183	216.0	0	-90	Supremo T7	Hydro
CFD0455	579695	6972999	1270	180.5	0	-90	Kona	Hydro
CFD0462	580832	6971365	1156	125.0	0	-90	Heap Leach	Hydro
CFD0463	585195	6974583	1183	165.0	0	-90	Supremo T7	Hydro
CFD0466	580833	6971374	1155	5.0	0	-90	Heap Leach	Hydro

12.4 Geotechnical Core Drilling

A total of 7 boreholes were drilled under the direction of Knight Piesold Ltd. of Denver, CO. The geotechnical program was designed to test a potential valley-fill heap leach pad location. All boreholes were drilled at HQ diameter (Table 12-5).

Table 12-5: Summary of 2014 Geotechnical Core Drilling

Borehole ID	Easting (m)	Northing (m)	Elevation (masl)	Length (m)	Azimuth (deg.)	Dip (deg.)	Prospect	Hole Type
CFD0446	581301	6971160	1090	30.2	0	-90	Heap Leach	Geotechnical
CFD0448	581124	6971270	1120	30.5	0	-90	Heap Leach	Geotechnical
CFD0449	580989	6971066	1124	30.7	0	-90	Heap Leach	Geotechnical
CFD0451	581438	6971384	1123	50.0	0	-90	Heap Leach	Geotechnical
CFD0454	581115	6970857	1121	50.0	0	-90	Heap Leach	Geotechnical
CFD0457	581499	6971062	1064	20.0	0	-90	Heap Leach	Geotechnical
CFD0459	581239	6971085	1082	30.0	0	-90	Heap Leach	Geotechnical

12.5 Metallurgical Core Drilling

A total of eight boreholes were drilled to collect consistently mineralized drill core for use in metallurgical column testwork. These holes were designed using Leapfrog Geo 3D software from ARANZ Geological in order to accurately drill down through the heart of mineralized structures in order to recover as much mineralized rock as possible. The drill core was oriented and underwent

the same post-drilling process as the infill core boreholes, before being selectively shipped to Kappes Cassiday & Associates in Reno, NV, for metallurgical analysis (Table 12-6).

Table 12-6: Summary of 2014 Metallurgical Core Drilling

Borehole ID	Easting (m)	Northing (m)	Elevation (masl)	Length (m)	Azimuth (deg.)	Dip (deg.)	Prospect	Hole Type
CFD0380	579601	6973011	1280	125.0	180	-87	Kona	Metallurgy
CFD0400	579802	6973096	1246	191.0	180	-79	Kona	Metallurgy
CFD0403	579702	6973055	1262	221.0	180	-86	Kona	Metallurgy
CFD0407	582753	6973294	1069	122.0	180	-59	Latte	Metallurgy
CFD0409	585274	6973305	1084	158.0	0	-79	Double Double	Metallurgy
CFD0411	583650	6973205	1032	177.0	0	-87	Latte	Metallurgy
CFD0413	585076	6973253	1096	230.0	0	-86	Double Double	Metallurgy
CFD0416	584975	6973219	1085	149.5	5	-80	Double Double	Metallurgy

12.6 Reverse Circulation Drilling

RC drilling took place between May and November 2014 and was contracted to Northspan Explorations Ltd. of Kelowna, British Columbia. One skid-mounted and two heli-portable “Super Hornet” drill rigs were dragged by excavator or bulldozer or flown by helicopter between drilling sites. All RC boreholes were 92 mm diameter. A summary of all 2014 RC drilling is found in Table 12-7.

Reverse circulation drilling during the 2014 field season consisted of exploration, infill and condemnation drilling. The infill drilling was completed on the Supremo, Latte, and Double Double prospects, while the condemnation drilling was designed to test potential heap leach and waste dump locations for gold-bearing structures. Exploration drilling was conducted on the Kona North prospect, testing a high grade gold-in-soil anomaly. Borehole locations were planned and marked by Kaminak geologists using a handheld GPS. A compass was used to determine borehole azimuth and inclination. Most boreholes were drilled at an angle of between 45 and 50 degrees from the horizontal. Borehole deviation was monitored using gyroscopic readings at nominal 20-metre spacing using the Icefield Tools Gyro Shot device.

Reverse circulation chips were logged on-site by Kaminak geologists, prior to being transported back to the Coffee project camp by truck. At the camp, the sample bags were analysed by portable XRF prior to being shipped to the analytical laboratory for preparation.

No recovery data is available for reverse circulation drilling; however, personal site inspection indicates that recoveries are very good. While fine dust is lost to the air during drilling, this represents a very small amount of sample material and is not believed to affect sample integrity to a measurable degree. Sample retention bags were observed to show consistent sample size, which is indicative of constant sample recovery throughout the drilling process.

Table 12-7: Summary table of 2014 RC Drilling

Borehole ID	East	North	Elevation	Length	Azimuth	Dip	Prospect	Hole Type
CFR0598	582852	6973800	1056	101	180	-45	West Dump	Condemnation
CFR0599	582852	6973849	1056	101	180	-45	West Dump	Condemnation
CFR0600	582852	6973899	1061	101	180	-45	West Dump	Condemnation
CFR0601	582851	6973946	1066	104	180	-45	West Dump	Condemnation
CFR0602	582857	6974002	1074	105	180	-45	West Dump	Condemnation
CFR0603	582850	6974047	1077	105	180	-45	West Dump	Condemnation
CFR0604	582854	6974100	1081	105	180	-45	West Dump	Condemnation
CFR0605	582854	6974152	1085	105	180	-45	West Dump	Condemnation
CFR0606	582652	6973844	1004	105	180	-45	West Dump	Condemnation
CFR0607	582650	6973900	1014	105	180	-45	West Dump	Condemnation
CFR0608	582648	6973952	1020	105	180	-45	West Dump	Condemnation
CFR0609	582451	6973718	955	94	180	-45	West Dump	Condemnation
CFR0610	582452	6973753	957	82	180	-45	West Dump	Condemnation
CFR0611	582455	6973803	958	102	180	-45	West Dump	Condemnation
CFR0612	582454	6973852	962	105	180	-45	West Dump	Condemnation
CFR0613	582532	6974149	994	105	180	-45	West Dump	Condemnation
CFR0614	582530	6974203	988	105	180	-45	West Dump	Condemnation
CFR0615	582532	6974250	985	82	180	-42	West Dump	Condemnation
CFR0616	582103	6973699	965	104	180	-47	West Dump	Condemnation
CFR0617	582101	6973748	954	21	180	-45	West Dump	Condemnation
CFR0618	582102	6973797	944	104	180	-45	West Dump	Condemnation
CFR0619	582084	6973387	1027	23	0	-50	Latte	Infill
CFR0620	582148	6973366	1037	101	0	-50	Latte	Infill
CFR0621	582095	6973748	955	104	180	-45	West Dump	Condemnation
CFR0622	582751	6973800	1028	101	0	-45	West Dump	Condemnation
CFR0623	582320	6973331	1060	82	0	-50	Latte	Infill
CFR0624	582350	6973335	1062	82	0	-50	Latte	Infill
CFR0625	580162	6970806	1261	82	0	-45	Heap Leach	Condemnation
CFR0626	582382	6973319	1068	82	0	-50	Latte	Infill
CFR0627	582422	6973248	1088	140	0	-50	Latte	Infill
CFR0628	580163	6970749	1252	104	0	-45	Heap Leach	Condemnation
CFR0629	582423	6973321	1070	82	0	-50	Latte	Infill
CFR0630	580165	6970699	1246	94	0	-45	Heap Leach	Condemnation
CFR0631	582481	6973303	1076	76	0	-50	Latte	Infill
CFR0632	580162	6970655	1240	85	0	-45	Heap Leach	Condemnation
CFR0633	582725	6973299	1068	104	0	-50	Latte	Infill
CFR0634	580163	6970835	1265	104	0	-45	Heap Leach	Condemnation
CFR0635	582776	6973320	1060	104	0	-50	Latte	Infill
CFR0636	581374	6970870	1084	104	0	-45	Heap Leach	Condemnation
CFR0637	582800	6973297	1067	104	0	-45	Latte	Infill
CFR0638	581371	6970822	1084	104	0	-45	Heap Leach	Condemnation
CFR0639	582828	6973276	1074	104	0	-50	Latte	Infill
CFR0640	582803	6973243	1084	152	0	-50	Latte	Infill
CFR0641	581370	6970771	1085	101	0	-45	Heap Leach	Condemnation
CFR0642	580561	6970884	1205	102	180	-45	Heap Leach	Condemnation
CFR0643	582082	6973387	1027	50	0	-50	Latte	Infill
CFR0644	582082	6973384	1027	104	0	-61	Latte	Infill
CFR0645	580563	6970835	1202	104	180	-44	Heap Leach	Condemnation
CFR0646	580962	6970723	1160	104	0	-46	Heap Leach	Condemnation
CFR0647	582777	6973226	1090	166	0	-50	Latte	Infill
CFR0648	580076	6971904	1293	75	0	-40	Regional	Condemnation
CFR0649	582802	6973192	1100	177	0	-52	Latte	Infill
CFR0650	580076	6971853	1289	82	0	-44	Regional	Condemnation
CFR0651	582828	6973190	1100	189	0	-50	Latte	Infill
CFR0652	579773	6972035	1323	104	180	-45	Regional	Condemnation
CFR0653	579776	6971981	1321	101	180	-45	Regional	Condemnation
CFR0654	579605	6973896	1053	192	0	-50	Kona North	Exploration

CFR0655	579465	6973883	1101	201	90	-45	Kona North	Exploration
CFR0656	579487	6973905	1089	195	0	-50	Kona North	Exploration
CFR0657	579681	6973910	1030	169	0	-45	Kona North	Exploration
CFR0658	583581	6973184	1053	82	0	-50	Latte	Infill
CFR0659	583623	6973170	1038	104	0	-50	Latte	Infill
CFR0660	579441	6973881	1105	198	0	-45	Kona North	Exploration
CFR0661	579444	6973965	1079	171	0	-50	Kona North	Exploration
CFR0662	582682	6973248	1088	122	0	-50	Latte	Infill
CFR0663	579528	6972997	1289	91	0	-50	Kona	Infill
CFR0664	582624	6973230	1096	122	0	-50	Latte	Infill
CFR0665	579527	6972933	1294	198	0	-50	Kona	Infill
CFR0666	579730	6973079	1257	122	0	-50	Kona	Infill
CFR0667	582582	6973239	1094	122	0	-50	Latte	Infill
CFR0668	584932	6974850	1088	159	270	-45	Supremo T7	Condemnation
CFR0669	582521	6973254	1090	122	0	-50	Latte	Infill
CFR0670	584877	6974849	1083	139	270	-45	Supremo T7	Condemnation
CFR0671	584362	6972951	921	101	0	-50	South Dump	Condemnation
CFR0672	584918	6974952	1057	162	270	-46	Supremo T7	Condemnation
CFR0673	584056	6972853	945	104	0	-50	South Dump	Condemnation
CFR0674	584716	6972883	961	104	0	-51	South Dump	Condemnation
CFR0675	584717	6972830	949	104	0	-50	South Dump	Condemnation
CFR0676	584800	6974950	1077	151	270	-44	Supremo T7	Condemnation
CFR0677	583103	6973270	1103	181	0	-44	Latte North	Infill
CFR0678	584718	6972786	937	104	0	-50	South Dump	Condemnation
CFR0679	580869	6971497	1163	113	180	-45	Heap Leach	Condemnation
CFR0680	583152	6973309	1110	160	0	-44	Latte North	Infill
CFR0681	585082	6974954	1062	137	270	-44	North Dump	Condemnation
CFR0682	583154	6973372	1111	140	0	-45	Latte North	Infill
CFR0683	583203	6973400	1118	162	0	-44	Latte North	Infill
CFR0684	580872	6971600	1186	73	180	-55	Heap Leach	Condemnation
CFR0685	585451	6973397	1067	66	180	-49	Double Double	Infill
CFR0686	583250	6973451	1124	119	0	-49	Latte North	Infill
CFR0687	585451	6973397	1067	104	180	-49	Double Double	Infill
CFR0688	583523	6973196	1068	79	0	-50	Latte	Infill
CFR0689	585346	6973374	1085	101	180	-50	Double Double	Infill
CFR0690	583481	6973214	1083	110	0	-50	Latte	Infill
CFR0691	585397	6973392	1071	99	180	-50	Double Double	Infill
CFR0692	585300	6973332	1085	126	180	-50	Double Double	Infill
CFR0693	583421	6973234	1098	79	0	-49	Latte	Infill
CFR0694	585300	6973334	1085	181	180	-50	Double Double	Infill
CFR0695	583378	6973214	1106	91	0	-48	Latte	Infill
CFR0696	585276	6973293	1080	119	180	-51	Double Double	Infill
CFR0697	583382	6973165	1104	160	0	-50	Latte	Infill
CFR0698	585301	6973272	1072	99	180	-50	Double Double	Infill
CFR0699	585250	6973330	1092	189	180	-52	Double Double	Infill
CFR0700	584753	6973363	1079	122	180	-48	Double Double	Infill
CFR0701	585150	6973272	1094	101	180	-50	Double Double	Infill
CFR0702	585249	6973275	1081	101	180	-50	Double Double	Infill
CFR0703	584776	6973362	1082	107	180	-50	Double Double	Infill
CFR0704	585100	6973260	1096	116	180	-50	Double Double	Infill
CFR0705	584780	6973360	1065	122	180	-50	Double Double	Infill
CFR0706	585227	6973268	1083	110	180	-50	Double Double	Infill
CFR0707	585055	6973232	1093	104	180	-50	Double Double	Infill
CFR0708	585202	6973265	1088	110	180	-50	Double Double	Infill
CFR0709	584723	6973348	1071	110	180	-50	Double Double	Infill
CFR0710	585004	6973253	1093	119	180	-50	Double Double	Infill
CFR0711	585200	6973325	1098	171	180	-50	Double Double	Infill
CFR0712	584701	6973349	1068	102	180	-50	Double Double	Infill
CFR0713	584954	6973238	1085	110	180	-50	Double Double	Infill
CFR0714	585301	6973393	1098	169	180	-50	Double Double	Infill
CFR0715	584800	6973370	1089	134	180	-50	Double Double	Infill
CFR0716	584947	6973305	1096	177	180	-50	Double Double	Infill
CFR0717	585251	6973391	1105	201	180	-50	Double Double	Infill

CFR0718	584827	6973378	1095	110	168	-50	Double Double	Infill
CFR0719	585152	6973334	1105	180	180	-50	Double Double	Infill
CFR0720	584947	6973305	1096	151	180	-50	Double Double	Infill
CFR0721	584880	6973368	1100	146	180	-50	Double Double	Infill
CFR0722	585097	6973318	1106	201	180	-50	Double Double	Infill
CFR0723	584903	6973249	1080	101	180	-50	Double Double	Infill
CFR0724	584822	6973383	1095	148	180	-50	Double Double	Infill
CFR0725	584847	6973264	1075	91	180	-50	Double Double	Infill
CFR0726	585051	6973293	1102	186	180	-50	Double Double	Infill
CFR0727	584802	6973279	1070	143	270	-50	Supremo T5	Infill
CFR0728	584903	6973381	1106	151	180	-50	Double Double	Infill
CFR0729	584799	6973325	1079	123	270	-50	Supremo T5	Infill
CFR0730	585000	6973314	1103	201	180	-50	Double Double	Infill
CFR0731	584968	6973391	1115	169	180	-50	Double Double	Infill
CFR0732	584999	6973432	1125	149	180	-50	Double Double	Infill
CFR0733	584799	6973325	1079	140	270	-50	Supremo T5	Infill
CFR0734	584951	6973392	1113	136	180	-50	Double Double	Infill
CFR0735	584947	6973305	1096	174	180	-50	Double Double	Infill
CFR0736	583783	6973204	1001	140	0	-50	Latte	Infill
CFR0737	584126	6973256	977	69	270	-50	Supremo T4	Infill
CFR0738	584110	6973403	1016	139	270	-50	Supremo T4	Infill
CFR0739	583860	6973208	998	146	0	-50	Latte	Infill
CFR0740	584163	6973404	1023	165	270	-48	Supremo T4	Infill
CFR0741	583935	6973214	993	140	0	-50	Latte	Infill
CFR0742	584126	6973256	977	41	270	-52	Supremo T4	Infill
CFR0743	584183	6973262	987	87	270	-51	Supremo T4	Infill
CFR0744	584202	6973405	1028	172	270	-49	Supremo T4	Infill
CFR0745	583970	6973227	984	73	0	-50	Latte	Infill
CFR0746	584182	6973264	986	88	270	-52	Supremo T4	Infill
CFR0747	584123	6973329	997	101	270	-53	Supremo T4	Infill
CFR0748	583970	6973225	984	111	0	-51	Latte	Infill
CFR0749	584106	6973372	1007	110	270	-49	Supremo T4	Infill
CFR0750	584139	6973427	1027	94	270	-52	Supremo T4	Infill
CFR0751	584160	6973378	1015	76	270	-50	Supremo T4	Infill
CFR0752	583850	6973262	1016	125	270	-50	Supremo T1-2	Infill
CFR0753	584227	6973420	1036	169	270	-51	Supremo T4	Infill
CFR0754	584160	6973378	1015	163	270	-50	Supremo T4	Infill
CFR0755	583889	6973331	1026	110	270	-50	Supremo T1-2	Infill
CFR0756	583910	6973368	1024	101	270	-51	Supremo T1-2	Infill
CFR0757	584166	6973483	1048	122	270	-50	Supremo T4	Infill
CFR0758	583926	6973443	1026	113	270	-50	Supremo T1-2	Infill
CFR0759	584280	6973483	1059	187	270	-48	Supremo T4	Infill
CFR0760	584176	6973525	1061	201	270	-49	Supremo T4	Infill
CFR0761	583931	6973482	1035	140	270	-49	Supremo T1-2	Infill
CFR0762	584314	6973624	1103	101	270	-49	Supremo T4	Infill
CFR0763	584034	6973582	1061	87	270	-51	Supremo T3	Infill
CFR0764	584366	6973623	1106	165	270	-51	Supremo T4	Infill
CFR0765	584091	6973584	1068	169	270	-49	Supremo T3	Infill
CFR0766	584281	6973524	1071	163	270	-50	Supremo T4	Infill
CFR0767	584305	6973590	1092	131	270	-48	Supremo T4	Infill
CFR0768	583949	6973685	1099	87	270	-50	Supremo T1-2	Infill
CFR0769	584330	6973683	1119	101	270	-49	Supremo T4	Infill
CFR0770	584198	6973585	1080	169	270	-52	Supremo T4	Infill
CFR0771	584098	6973685	1101	166	270	-50	Supremo T3	Infill
CFR0772	584340	6973722	1130	101	270	-50	Supremo T4	Infill
CFR0773	584394	6973724	1136	149	270	-49	Supremo T4	Infill
CFR0774	584115	6973621	1083	180	270	-52	Supremo T3	Infill
CFR0775	584055	6973687	1100	111	270	-51	Supremo T3	Infill
CFR0776	584361	6973785	1149	91	270	-48	Supremo T4	Infill
CFR0777	584119	6973722	1114	180	270	-51	Supremo T3	Infill
CFR0778	584059	6973621	1078	130	270	-50	Supremo T3	Infill
CFR0779	584415	6973783	1153	169	270	-50	Supremo T4	Infill
CFR0780	584012	6973623	1077	175	270	-50	Supremo T3	Infill

CFR0781	584064	6973725	1112	101	270	-51	Supremo T3	Infill
CFR0782	584472	6973781	1157	131	270	-49	Supremo T4	Infill
CFR0783	584114	6973783	1132	201	270	-51	Supremo T3	Infill
CFR0784	584402	6973824	1162	131	270	-49	Supremo T4	Infill
CFR0785	584055	6973827	1142	84	270	-49	Supremo T3	Infill
CFR0786	584063	6973783	1127	101	270	-50	Supremo T3	Infill
CFR0787	584451	6973825	1166	189	270	-50	Supremo T4	Infill
CFR0788	584211	6973823	1147	88	270	-51	Supremo T3	Infill
CFR0789	584208	6973883	1165	159	270	-50	Supremo T3	Infill
CFR0790	584117	6973823	1143	201	270	-50	Supremo T3	Infill
CFR0791	584509	6973818	1172	149	270	-45	Supremo T4	Infill
CFR0792	584115	6973886	1163	163	270	-45	Supremo T3	Infill
CFR0793	584114	6973921	1174	149	270	-45	Supremo T3	Infill
CFR0794	584068	6973889	1162	160	270	-50	Supremo T3	Infill
CFR0795	584286	6974675	1254	192	270	-50	Supremo T3	Infill
CFR0796	584060	6973923	1175	159	270	-50	Supremo T3	Infill
CFR0797	584478	6974473	1250	166	270	-50	Supremo T5	Infill
CFR0798	584342	6974675	1249	195	270	-50	Supremo T3	Infill
CFR0799	584411	6974477	1256	125	270	-50	Supremo T5	Infill
CFR0800	584286	6974723	1249	98	270	-50	Supremo T3	Infill
CFR0801	584412	6974528	1254	166	270	-50	Supremo T4-5	Infill
CFR0802	584314	6974777	1240	122	270	-50	Supremo T3	Infill
CFR0803	584500	6974628	1233	201	270	-50	Supremo T4-5	Infill

12.7 Drilling Locations (Zones)

12.7.1 Supremo

A total of 84 core boreholes (16,860 m) and 70 reverse circulation boreholes (9,644 m) were drilled in the Supremo area in 2014 (Total: 26,504 m) (Figure 12.2 Figure 12.3, and Figure 12.4). Of this total, 133 boreholes were drilled as infill holes on the Supremo T1-2, T3, T4, T4-5, T5, and T7 structures. These structures are roughly north-south trending steeply east-dipping structural zones with coincident soil anomalies. The majority of boreholes were drilled to the west an angle of 50 degrees from the horizontal.

To facilitate the installation of monitoring wells, 11 hydrological boreholes were drilled at various locations within the Supremo zone. All hydrological boreholes were drilled vertically, at 90 degrees to the horizontal with core drilling rigs. Six exploratory core boreholes were drilled in the T3 North and T3 Far North zones, and 4 condemnation reverse circulation boreholes were drilled just north of the Supremo T7 area in the proposed location of the northern waste dump.

12.7.2 Latte & Latte North

A total of 10 core boreholes (1,635 m) and 39 reverse circulation boreholes (4,488 m) were drilled at the Latte and Latte North zones during the 2014 season (Total: 6,123 m)(Figure 12.5, Figure 12.6). Of the total, 44 boreholes were drilled as infill holes to further refine the Latte resource, all of which were drilled to the north at an angle of between 45 and 60 degrees from the horizontal. In addition to the infill drilling, 2 core boreholes were drilled for metallurgical sampling purposes, 2 core boreholes were drilled to install a monitoring well in support of the hydrogeological program, and a single exploration core borehole was drilled at the far west of the Latte structural trend.

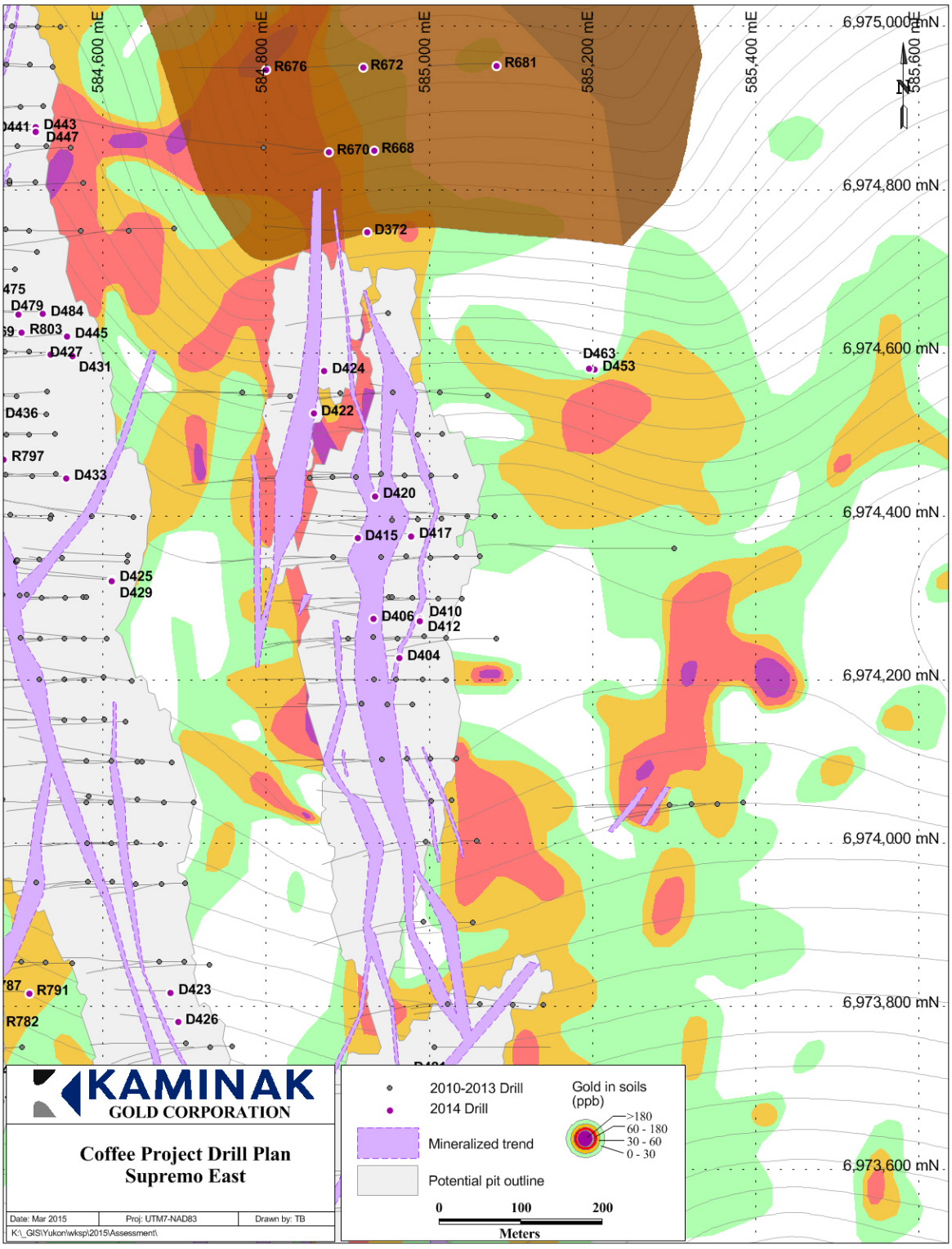


Figure 12.2: Plan map of drilling in the eastern region of the Supremo Zone.

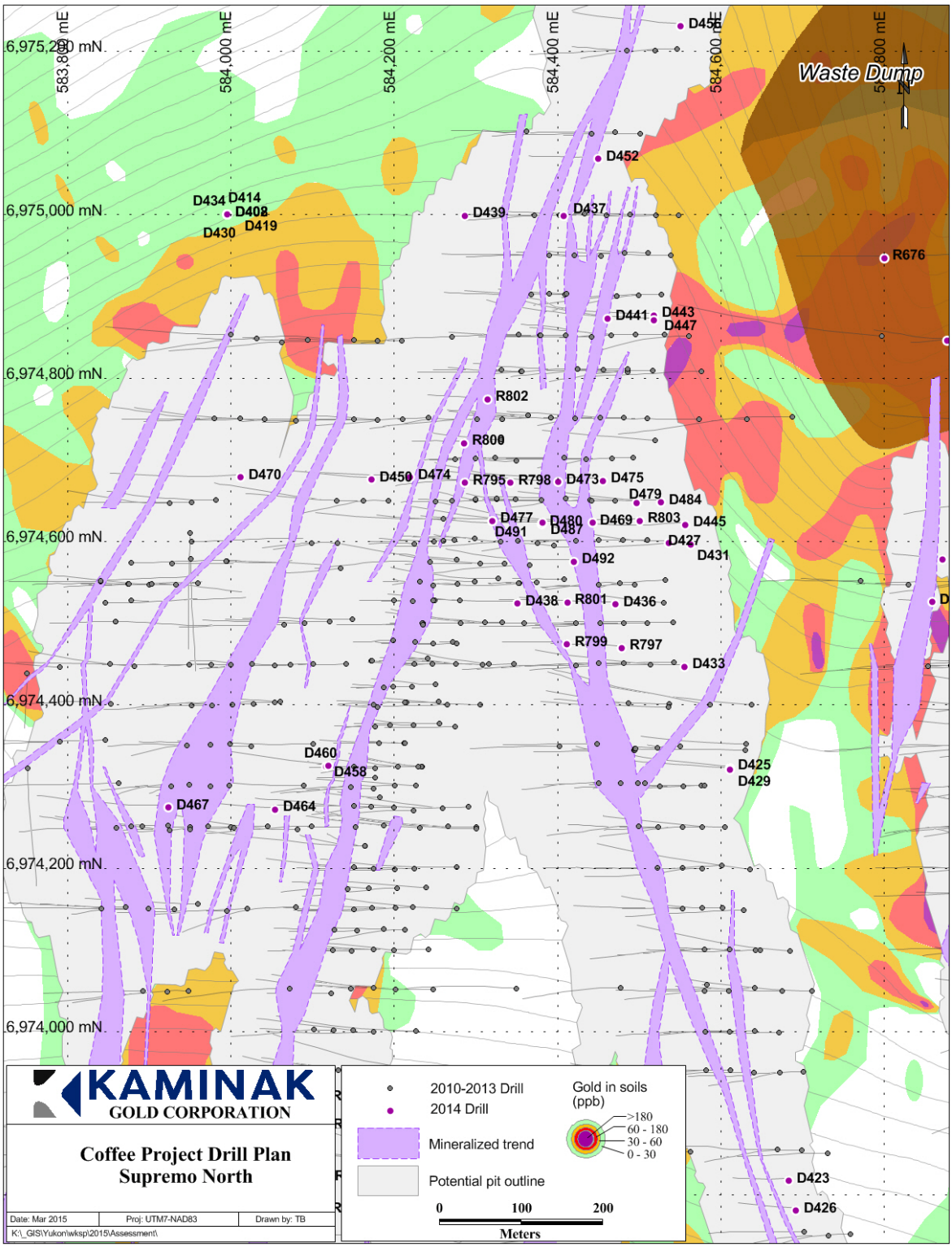


Figure 12.3: Plan map of drilling in the northern region of the Supremo Zone.

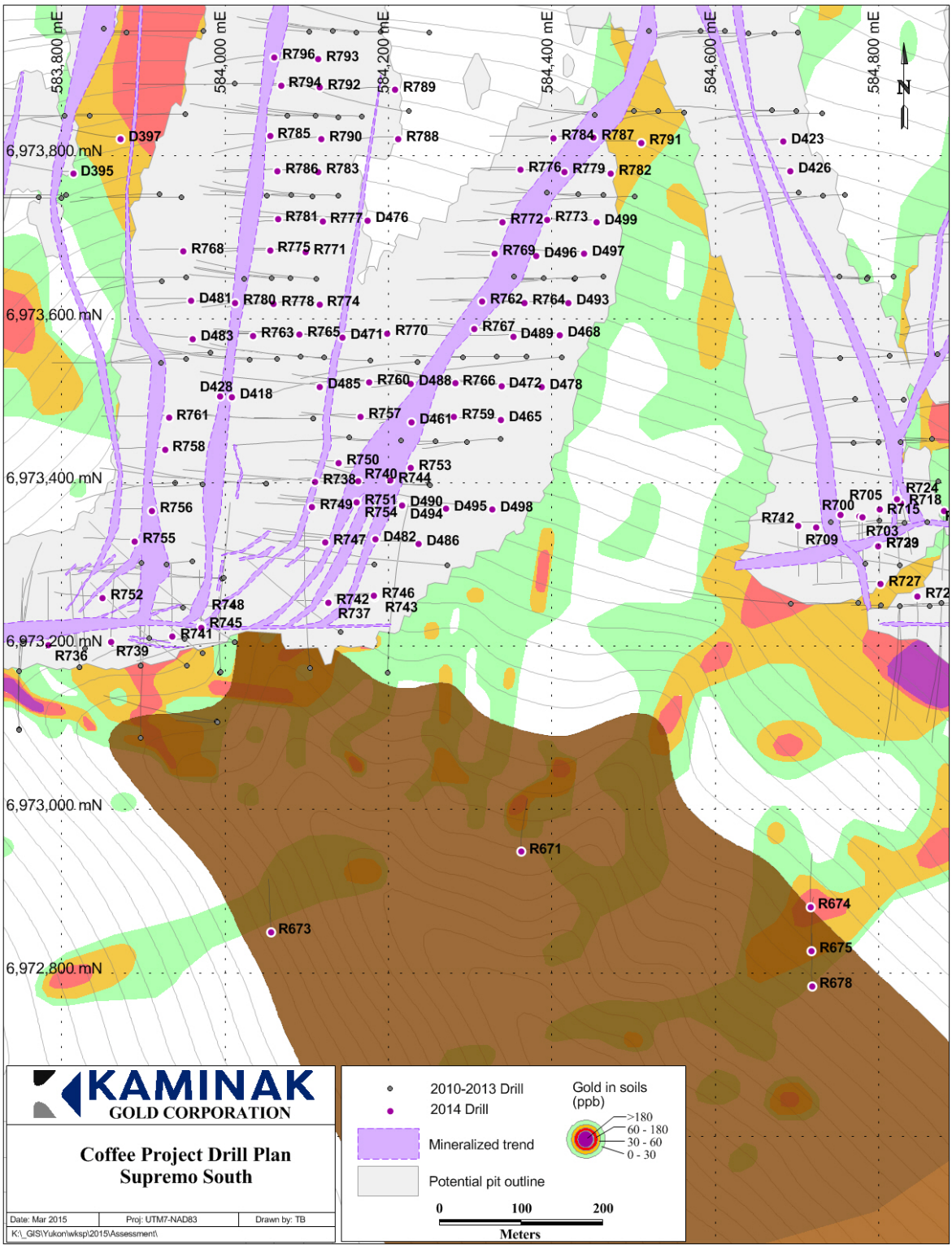


Figure 12.4: Plan map of drilling in the southern region of the Supremo Zone, with planned South Waste Dump superimposed.

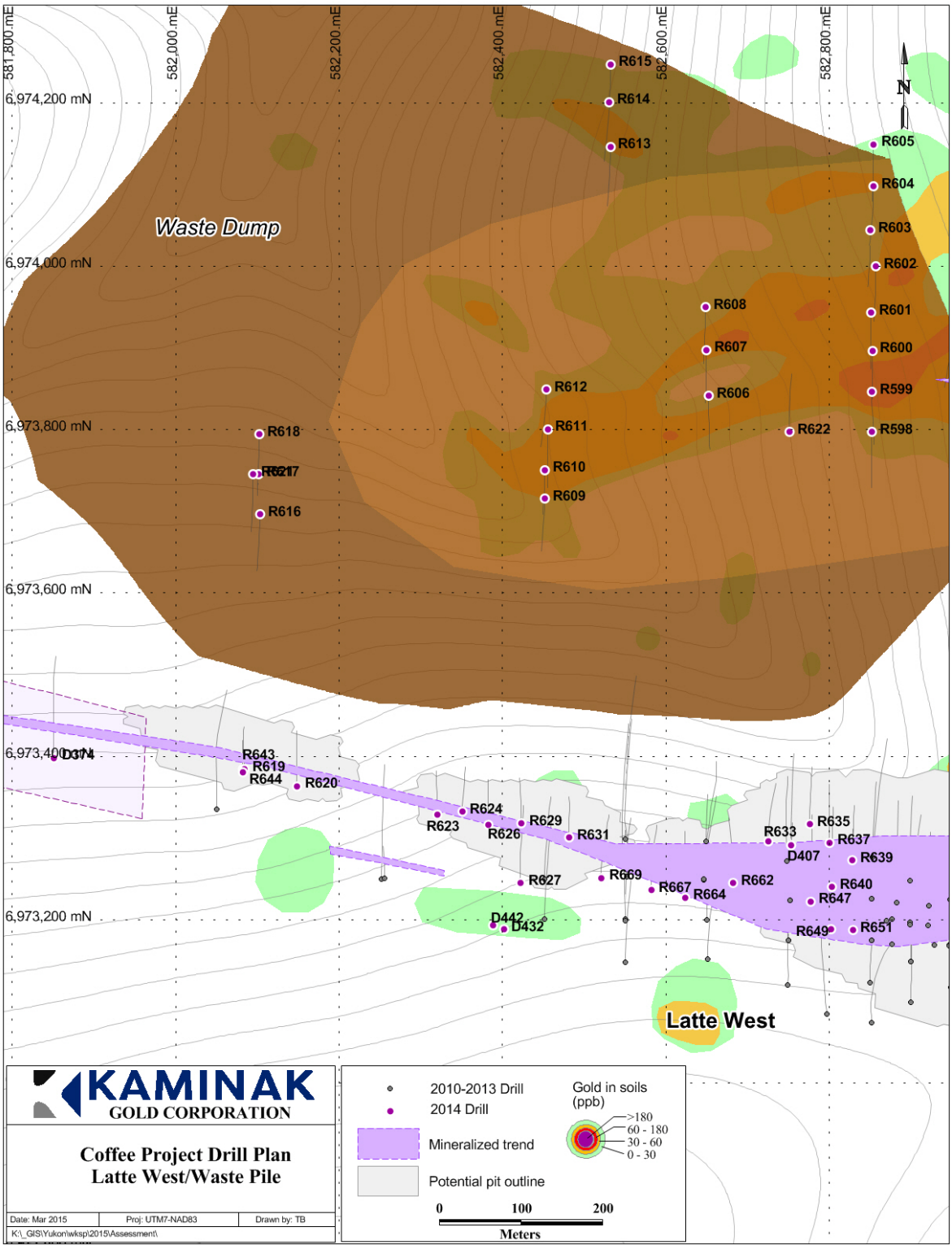


Figure 12.5: Plan map of drilling in the western region of the Latte Zone.

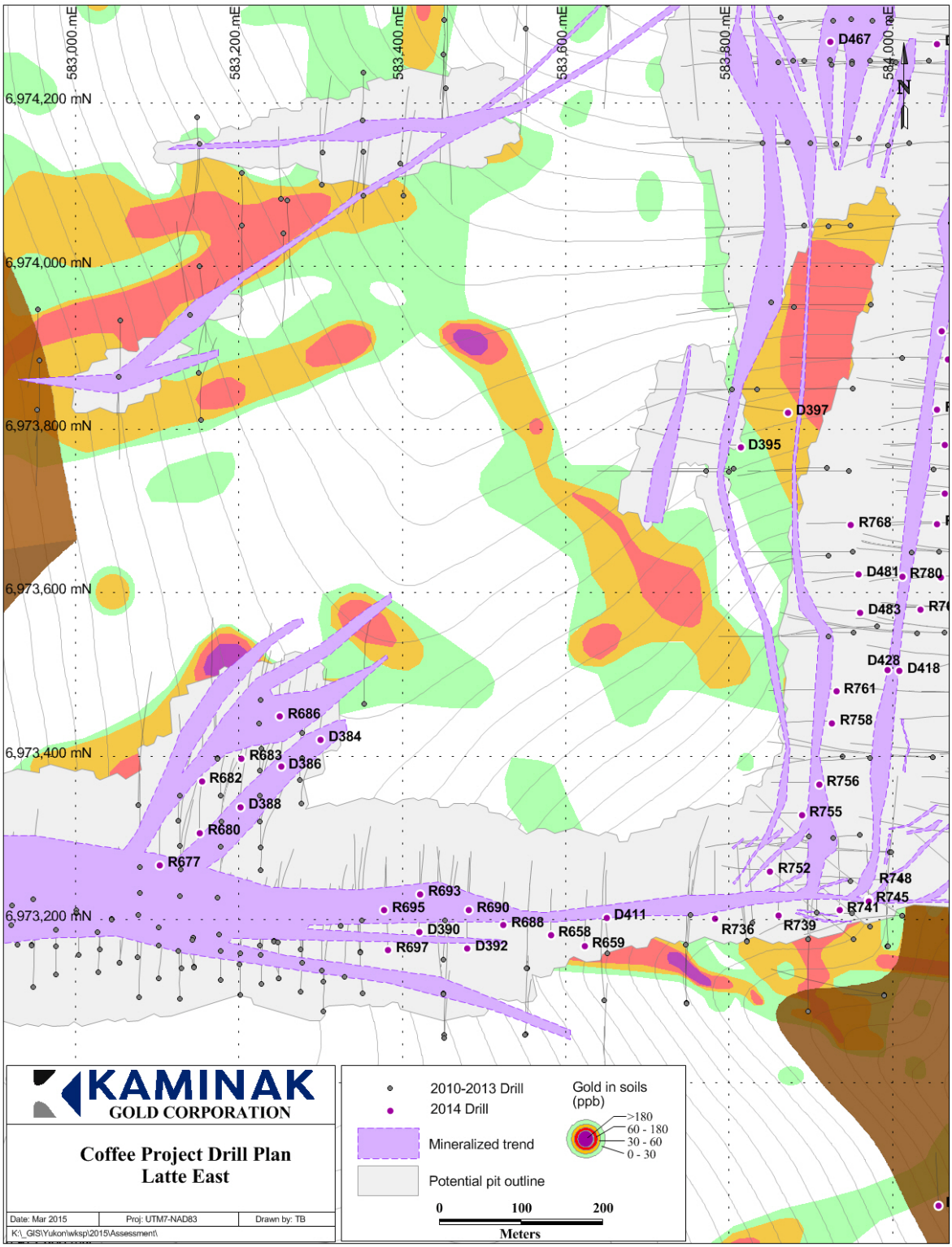


Figure 12.6: Plan map of drilling in the eastern region of the Latte Zone and Connector Zone.

12.7.3 Double Double

A total of 8 core boreholes (1,724 m) and 42 reverse circulation boreholes (5,660 m) were drilled at the Double Double zone in 2014 (Total: 7,384 m) (Figure 12.7). Of the total, 47 boreholes were drilled as infill holes to further refine the Double Double resource, all of which were drilled to the south at an angle of 50 degrees from the horizontal. A further 3 core boreholes were drilled to collect metallurgical sample by drilling down the mineralized structures.

12.7.4 Kona

A total of 14 core boreholes (2,212 m) and 3 reverse circulation boreholes (411 m) were drilled at the Kona zone in 2014 (Total: 2,623 m) (Figure 12.8). Of the total, 12 boreholes were infill holes, while 3 were drilled to collect metallurgical sample by drilling down the mineralized structures. The remaining 2 boreholes were drilled to install a pair of monitoring wells in support of the hydrogeological program. All infill drilling was conducted by drilling 50 degrees off of the horizontal to the north.

12.7.5 Kona North

A total of 7 core boreholes (1,546 m) and 6 reverse circulation boreholes (1,126 m) were drilled at the Kona North prospect, all for exploration purposes (Total: 2,672 m)(Figure 12.8). Most exploration holes at Kona North were drilled to the north at 45 degrees off of the horizontal, although two were drilled to the east.

12.7.6 Cappuccino and French Press

A total of 7 exploration core boreholes (1,210 m) were drilled at the Cappuccino prospect to the northwest of the main Coffee resource area. Boreholes were drilled to the west or south, at angles of either 45 or 50 degrees off of the horizontal plane. A total of 4 core boreholes (620 m) were drilled at the French Press prospect, located to the east of Cappuccino.

12.7.7 Macchiato

A total of 4 exploration core boreholes (716 m) were drilled at the Macchiato prospect and near its connection with the Supremo T3 structure. Two of the boreholes were drilled to the north at 45 degrees off of the horizontal plane. The remaining two boreholes were drilled to the northwest (~320 degrees) off of the same drill pad, at 45 and 70 degrees from the horizontal.

12.7.8 Proposed Heap Leach Facility

A total of 26 boreholes (2,005 m) were drilled at a potential location for the heap leach facility located to the southeast of the Kona zone. Seventeen reverse circulation boreholes (1,634 m) were drilled as part of a condemnation program, targeting anomalous gold-in-soil results in the vicinity of the proposed heap leach pad. Seven short (30-50 m) geotechnical core boreholes were drilled (241 m), in addition to 2 core boreholes to install monitoring wells in support of the hydrogeological program (130 m).

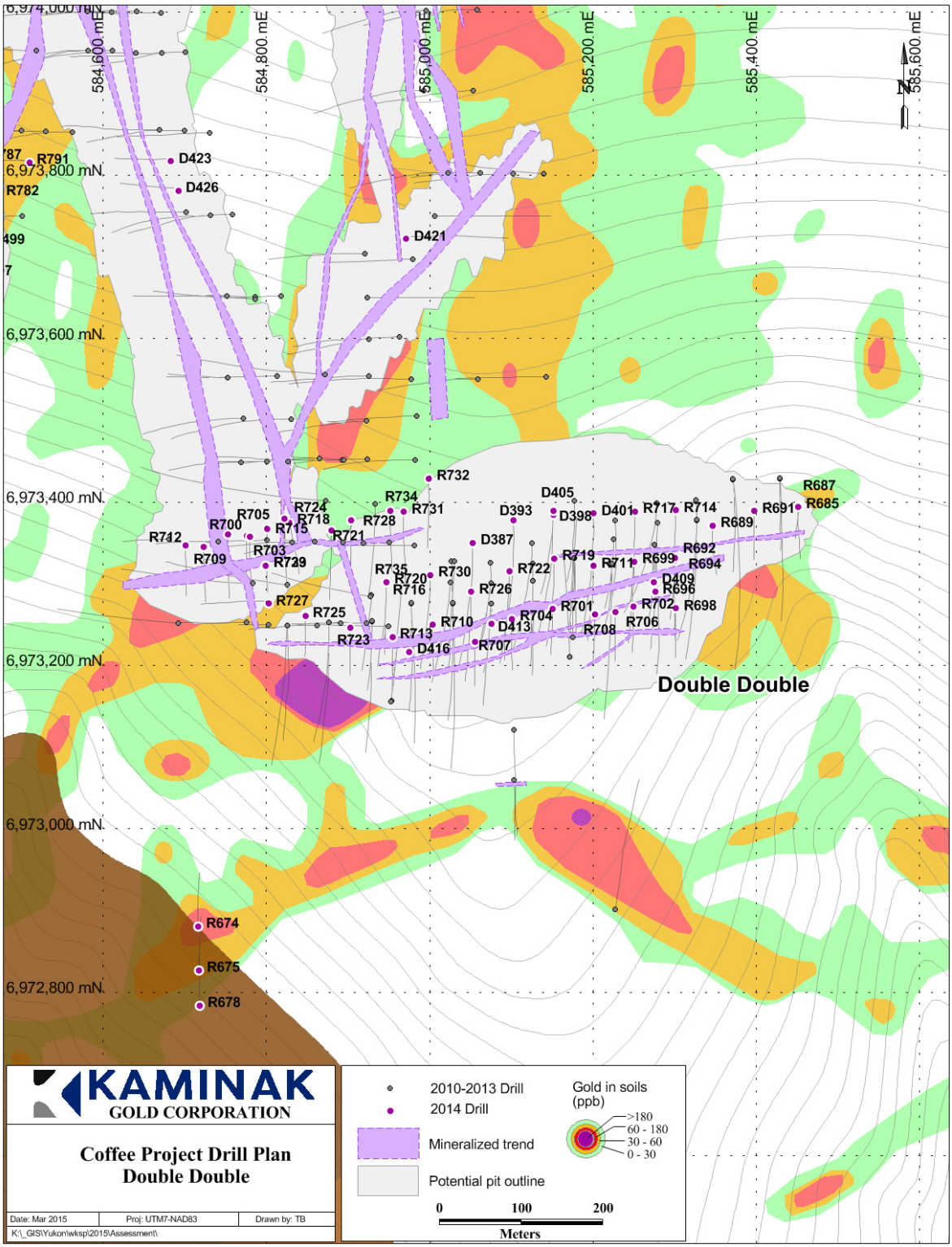


Figure 12.7: Plan map of drilling in the Double Double Zone.

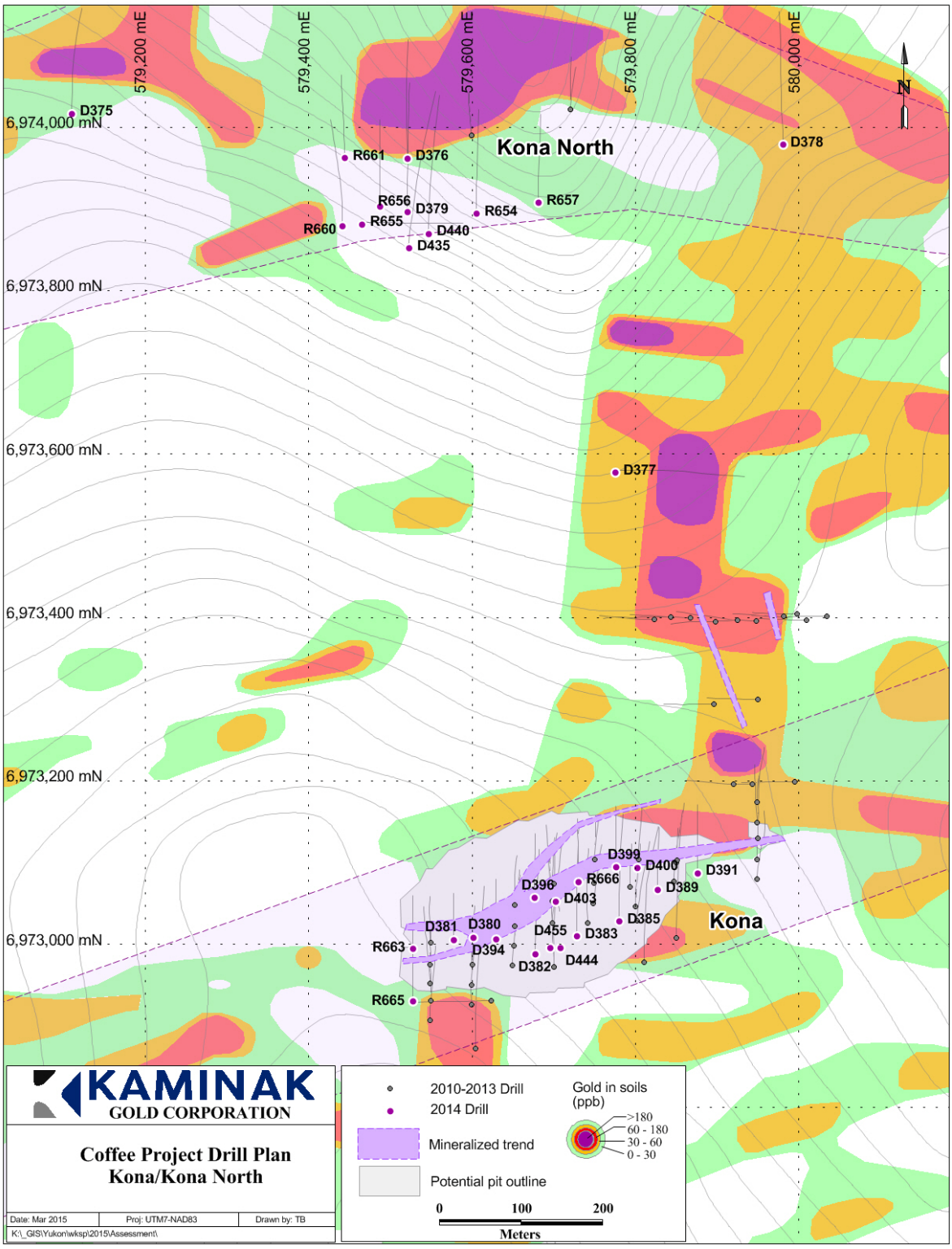


Figure 12.8: Plan map of drilling at the Kona and Kona North Zones.

12.7.9 Waste Dumps

A total of 23 reverse circulation boreholes (2,251 m) were drilled for condemnation purposes at the proposed location of the western waste dump, located just to the west of the Sumatra zone. All were drilled at 45 degrees off of the horizontal, and all but one were drilled to the south. A total of 5 reverse circulation boreholes (515 m) were drilled for condemnation purposes in the proposed location of the south waste dump, located just south of the Connector zone. All 5 holes were drilled to the north at 50 degrees off of the horizontal plane.

12.7.10 Soil Sampling

An additional 2,976 soil samples were collected in 2014 to infill previous wide-spaced soil grids collected in years previous. Samples were taken to increase soil resolution for exploration purposes in the Espresso, Macchiato, Cappuccino, and French Press prospects (Figure 12.9, Figure 12.10). Samples taken at Espresso were offset from previous years' sampling in the north-south direction by 25 m, while those taken at Cappuccino, Macchiato, T3 North and French Press were taken at a tighter 25 x 25 m sampling grid. Additional soil samples were collected from a potential heap leach pad location to the southeast of the Espresso prospect, and at the potential site of the southern waste dump, located immediately south of the Connector zone. These samples were collected as first pass condemnation samples.

This program increased the resolution of the gold-in-soil sampling, allowing for better interpretation of structural trends and more accurate placement of exploratory trenches and bore holes in the Espresso, Macchiato, T3 North, Cappuccino, and French Press prospects. Condemnation sampling highlighted anomalous gold-in-soil within areas of potential future infrastructure and provided information vital to the planning of condemnation bore holes.

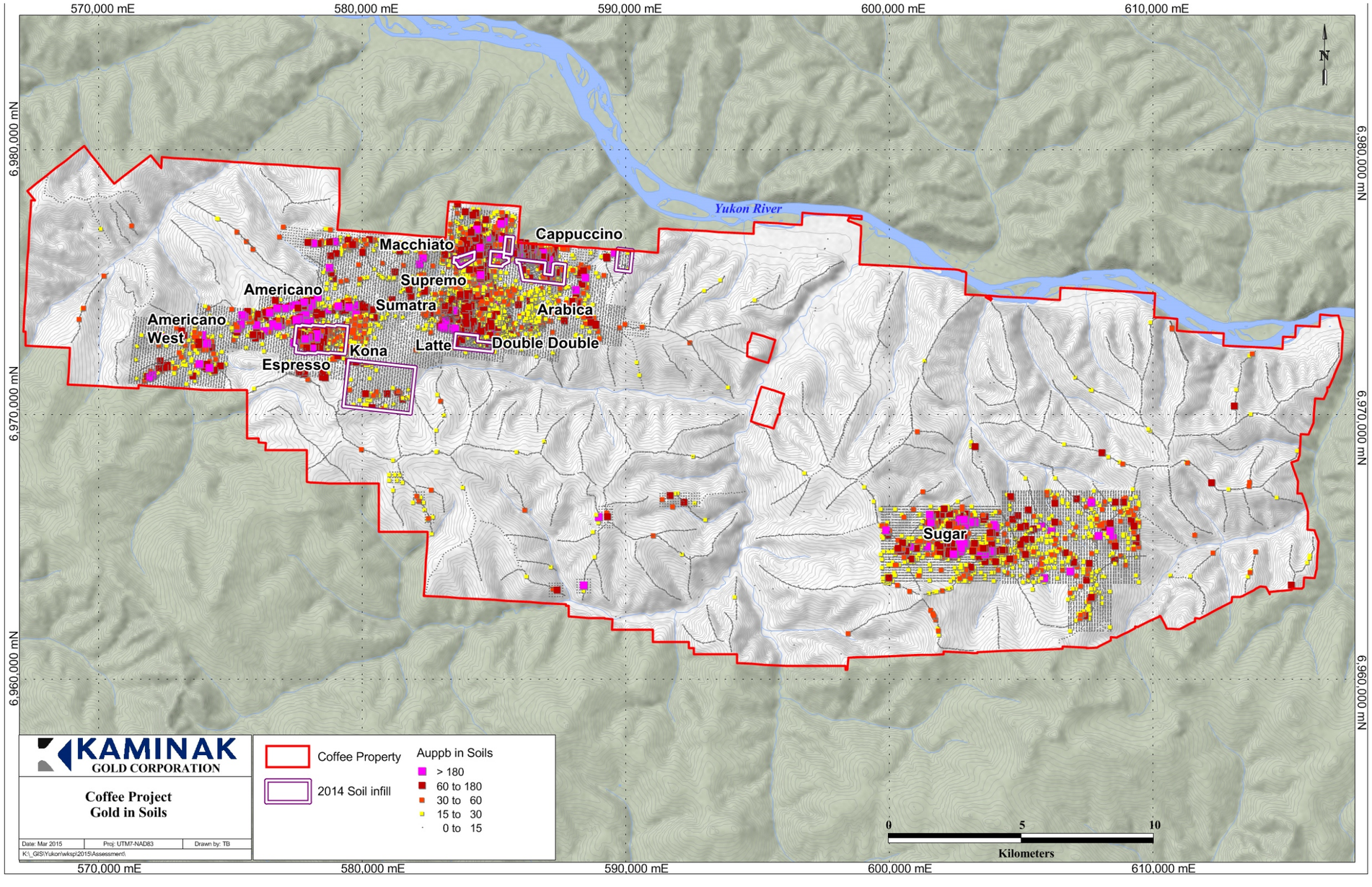


Figure 12.9: Overview plan map of soil sampling at the Coffee property, with 2014 infill soil locations indicated.

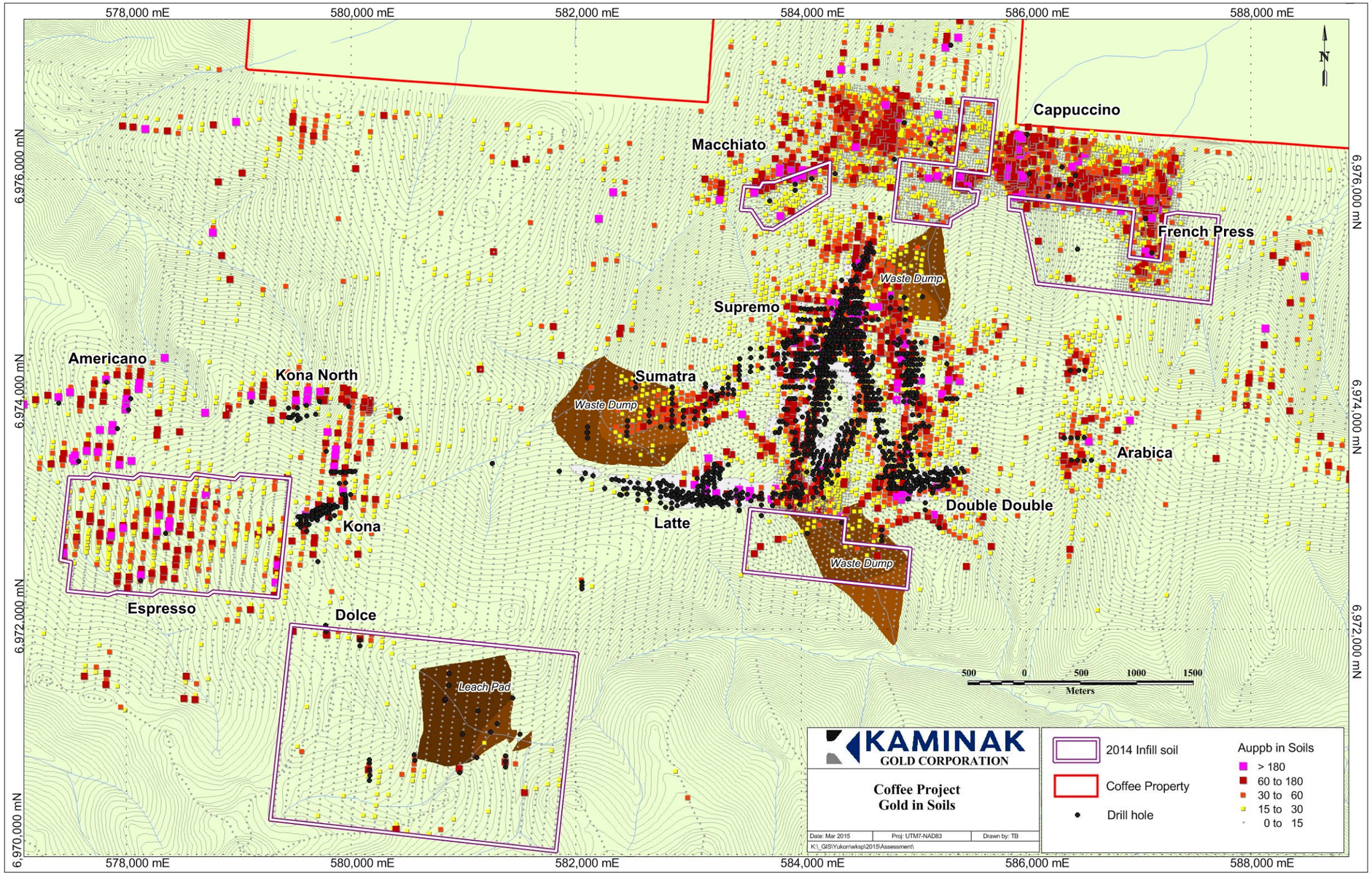


Figure 12.10: Detailed plan map of 2014 infill soil sampling locations at the Coffee property.

12.7.11 Rock Chip Sampling (Trenching)

A total of 63 discrete trenches were excavated by heavy equipment in 2014, with 6 dug for metallurgical sampling (344m) and 57 for exploration purposes (5,781m) (Figure 12.11). The 6 metallurgical trenches currently remain open while the metallurgical program is on-going, in the event additional sample is needed. Exploration trenches were excavated at the Americano, Cappuccino, Decaf, Double Double, Espresso, French Press, Kona North, Macchiato, Supremo T3 North, and Supremo T8-T9 zones to expose mineralized structures at surface, which could then be mapped to predict structural orientation (Table 12-8).

Table 12-8: List of Exploration and Metallurgical trenches excavated in 2014

Prospect	Trench_ID	UTME_Start	UTMN_Start	UTME_End	UTMN_End	Best Grade g/t Au over meters
Americano	AM14-01	577852	6973690	577747	6973690	NSV
Americano	AM14-02	577981	6973863	577860	6973862	NSV
Americano	AM14-03	577843	6974176	577845	6974256	1.21/5
Americano	AM14-04	578029	6973486	578041	6973562	NSV
Arabica	AR14-01	586927	6973898	586928	6973822	NSV
Arabica	AR14-02	586555	6973902	586560	6973821	1.75/2
Arabica	AR14-02	586555	6973902	586560	6973821	3.59/4
Arabica	AR14-02A	586554	6973917	586555	6973899	2.78/2
Arabica	AR14-02B	586563	6973821	586563	6973804	NSV
Arabica	AR14-03	586569	6973681	586567	6973534	NSV
Arabica	AR14-04	586271	6973742	586273	6973641	NSV
Arabica	AR14-05	586584	6973859	586530	6973862	0.92/2
Arabica	AR14-05	586584	6973859	586530	6973862	0.95/4
Arabica	AR14-05A	586553	6973858	586537	6973859	0.81/4
Cappuccino	CAP14-01	586342	6975921	586184	6975961	1.35/4
Cappuccino	CAP14-01	586342	6975921	586184	6975961	7.85/8
Cappuccino	CAP14-01	586342	6975921	586184	6975961	2.29/28
Cappuccino	CAP14-01B	586340	6975921	586374	6975909	1.01/2
Cappuccino	CAP14-01B	586340	6975921	586374	6975909	1.93/2
Cappuccino	CAP14-01C	586263	6975951	586253	6975953	1.15/9.9
Cappuccino	CAP14-02B	586442	6976064	586438	6976060	NSV
Cappuccino	CAP14-03B	586406	6976122	586421	6976103	4.63/1
Cappuccino	CAP14-04B	586519	6976233	586545	6976219	NSV
Cappuccino	CAP14-05B	586304	6976111	586295	6976106	2.01/3
Cappuccino	CAP14-06B	586326	6975969	586319	6975971	1.72/2
Cappuccino	CAP14-07	586442	6975869	586303	6975806	0.46/15
Cappuccino	CAP14-08	586563	6975932	586618	6976046	NSV
Cappuccino	CAP14-08B	586596	6976009	586593	6976005	NSV
Cappuccino	CAP14-09	586283	6975850	586279	6976015	1.2/2
Cappuccino	CAP14-09	586283	6975850	586279	6976015	2.38/14
Cappuccino	CAP14-10	586341	6975979	586340	6976109	0.91/2
Cappuccino	CAP14-10	586341	6975979	586340	6976109	4.52/4
Cappuccino	CAP14-11	586396	6975938	586471	6975758	1.83/2
Cappuccino	CAP14-11	586396	6975938	586471	6975758	1.16/10
Cappuccino	CAP14-11B	586426	6975861	586468	6975750	1.77/2
Cappuccino	CAP14-11B	586426	6975861	586468	6975750	0.99/6
Cappuccino	CAP14-11B	586426	6975861	586468	6975750	1.59/5
Cappuccino	CAP14-11B	586426	6975861	586468	6975750	0.85/10
Cappuccino	CAP14-12	586257	6976079	586331	6976079	3.07/4
Cappuccino	CAP14-13	586525	6975889	586602	6975812	0.92/5
Cappucino	CAP14-03	586446	6976076	586411	6976123	1.19/4
Cappucino	CAP14-04	586482	6976247	586551	6976212	2.96/2
Cappucino	CAP14-04	586482	6976247	586551	6976212	0.8/8
Cappucino	CAP14-05	586335	6976136	586281	6976101	2.87/14
Cappucino	CAP14-06	586426	6975947	586263	6975988	0.86/4
Cappucino	CAP14-06	586426	6975947	586263	6975988	2.04/2
Cappucino	CAP14-06	586426	6975947	586263	6975988	0.82/6
Cappucino	CAP14-06	586426	6975947	586263	6975988	0.67/10
Cappucino East	CAP14-02	586414	6976031	586462	6976082	5.22/2

DD-T8 Lnk	SP14-03	585238	6973435	585297	6973434	6.74/3
Decaf	DC14-01	583647	6973765	583559	6973656	0.89/8
Decaf	DC14-02	583508	6973939	583460	6973875	04 Jan
Double Double	DD14-01	585779	6973488	585775	6973413	3.12/2
Double Double	DD14-02	585102	6973105	585104	6973019	1.67/4
Double Double	DD14-02	585102	6973105	585104	6973019	0.95/8
Espresso	ES14-01	578413	6973051	578360	6973041	NSV
French Press	FP14-01	587024	6975348	587123	6975357	1.49/2
French Press	FP14-01	587024	6975348	587123	6975357	0.68/10
French Press	FP14-01	587024	6975348	587123	6975357	0.6/14
French Press	FP14-01B	587027	6975354	587042	6975354	NSV
French Press	FP14-02	587145	6975517	587056	6975501	NSV
French Press	FP14-03	587161	6975652	587097	6975648	2.42/4
French Press	FP14-04	586648	6975401	586613	6975463	3.08/2
French Press	FP14-04	586648	6975401	586613	6975463	2.36/10
French Press	FP14-05	586658	6975401	586639	6975455	NSV
French Press	FP14-06	586632	6975393	586613	6975435	NSV
French Press	FP14-07	586469	6975405	586458	6975423	3.06/2
French Press	FP14-07B	586456	6975410	586465	6975413	1.08/1.6
French Press	FP14-08	586483	6975415	586480	6975428	4.72/8
Kona North	KO14-01	579947	6973558	579786	6973550	NSV
Kona North	KO14-02	579964	6973236	580088	6973263	NSV
Kona North	KO14-03	579999	6973467	579953	6973519	NSV
Kona North	KO14-04	579043	6973849	578986	6974061	NSV
Kona North	KO14-05	578405	6973882	578398	6973932	NSV
Latte	Latte-583150E	583150	6973196	583150	6973290	2.97/18
Latte	Latte-583150E	583150	6973196	583150	6973290	7.95/14
Latte	Latte-583350E	583353	6973134	583348	6973257	1.08/4
Latte	Latte-583350E	583353	6973134	583348	6973257	1.58/36
Latte	Latte-583350E	583353	6973134	583348	6973257	1.43/46
Macchiato	MAC14-01	585177	6976303	585127	6976423	1.15/4
Macchiato	MAC14-02	585190	6976368	585180	6976391	NSV
Macchiato	MAC14-03	585267	6976327	585223	6976435	1.2/2
Macchiato	MAC14-03b	585223	6976435	585223	6976435	NSV
Macchiato	MAC14-04	585000	6976520	584836	6976534	2.03/2
Macchiato	MAC14-07	584805	6976181	584728	6976324	NSV
Macchiato	MAC14-08	584761	6976041	584663	6976088	NSV
Supremiato	MAC14-05	584975	6976209	584748	6976389	2.44/8
Supremo	SP14-04	584818	6974009	584885	6974007	2.14/2
Supremo T3	T3-6973750N	584013	6973750	584037	6973750	3.29/4
Supremo T3	T3-6974750N	584264	6974750	584290	6974750	2.95/12
T1-T2	T1-T2-6974350N	583921	6974348	583973	6974350	1.92/6
T1-T2	T1-T2-6974350N	583921	6974348	583973	6974350	4.33/16
T3	MAC14-06	584833	6975915	584732	6975904	0.79/5
T4-5	T4-6974000N	584560	6974000	584587	6974000	3.71/12
T8-9	SP14-01	585488	6974193	585273	6974189	7.41/5
T9	SP14-02	585790	6974579	585710	6974669	NSV

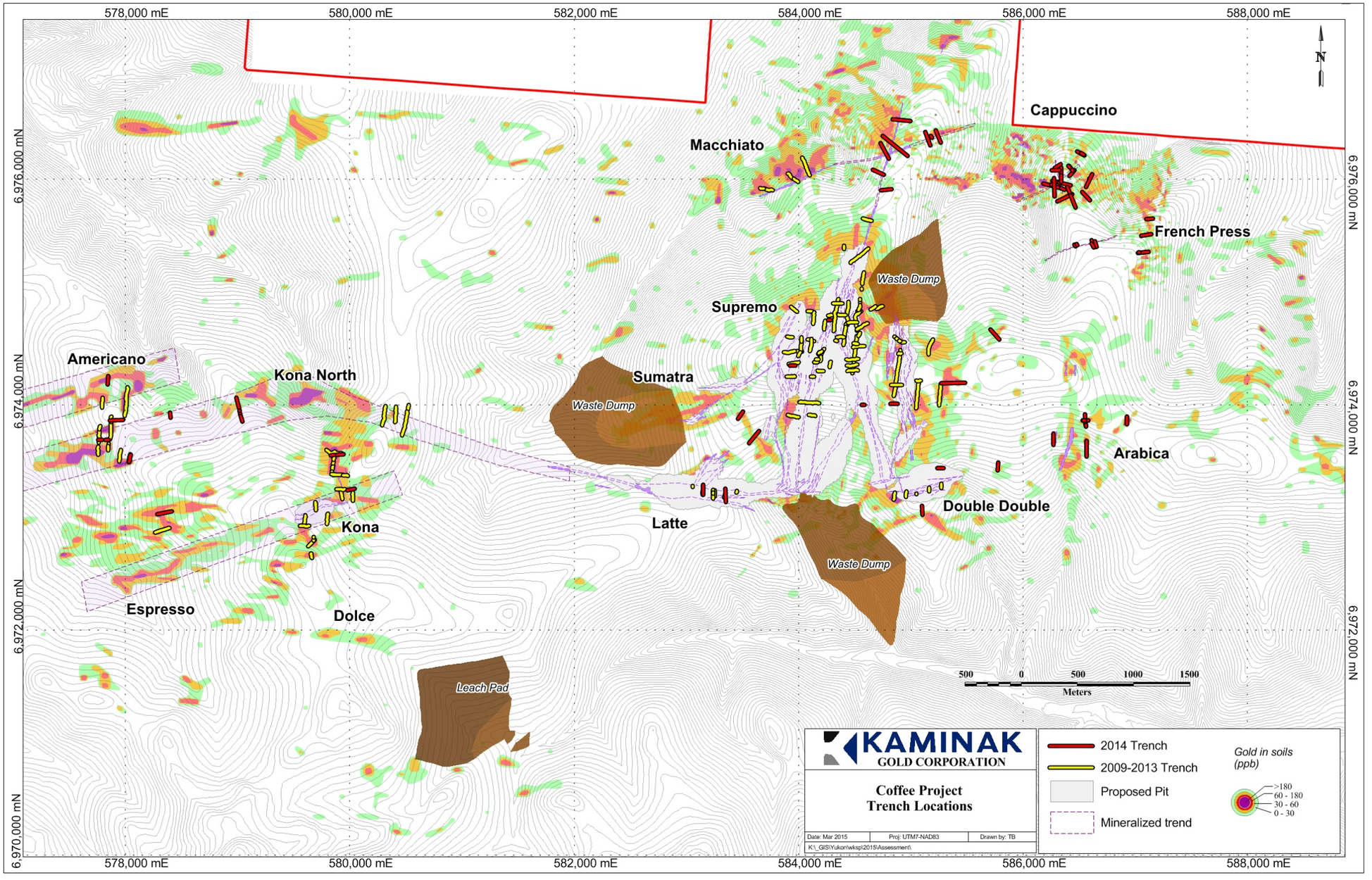


Figure 12.11: Plan map of both exploration and metallurgical trenches excavated at the Coffee property. 2014 trenching indicated in red.

13.0 SAMPLING METHOD AND APPROACH

13.1 Drill Core Sampling

The drilling approach was to target the structural trends with fences of one or more core boreholes drilled perpendicular to the strike of the interpreted structures on variably spaced sections. Most sections received two to five boreholes per structure, designed to sample the targeted structures at different depths (typically to maximum depths of 200 m below surface). This strategy was used to provide maximum geologic information about each target. The approach was adjusted during drilling to allow for the testing of extensions of interesting geology, or assay results on adjacent sections. Rather than “fan” a series of holes from one set-up, Kaminak typically drills each hole from a unique set-up, resulting in a series of sub-parallel holes that often intersect at close to right angles with the target horizon. The resulting intersections generally represent “true” thickness through the zone.

Drill core was transported daily by truck or helicopter to the logging facility at the Coffee project camp. Core was reviewed for consistency and each metre marked clearly for reference. Core recovery and rock quality designation (RQD) were measured and recorded, and the core oriented when possible. XRF analyses were performed at nominal 1 m intervals, as close to the metre mark as possible. Core was then logged by a geologist, recording lithology, alteration, structure, and mineralogy, directly into a data shed using a laptop computer. Core photographs were then taken prior to sampling. Core samples were taken from half core sawed lengthwise with a diamond saw. Half core samples were bagged and prepared for dispatch to ALS Minerals. The remaining half was returned to the core boxes. Commercial blank and control (standard reference) samples were inserted at a rate of one every 10 samples, alternating between a blank and a reference material sample. Following sampling, core boxes were labelled with metal tags and stored on cross-stacked pallets at the Coffee project camp for future reference and testing. Sample books provided by ALS Minerals were used to record borehole number, location, sampling interval, and date of sampling. All sample books are organized and archived at the Kaminak Vancouver office for future reference.

13.2 Reverse Circulation Chip Sampling

Reverse circulation drilling was completed on the Coffee project beginning in 2010 and continuing to present. The drilling approach was similar to that employed for diamond core drilling. The drill holes were designed to target structural trends with structural pierce points designed to have a nominal vertical spacing of 25 m, and with individual fences spaced between 12.5 and 50 m apart, depending upon the level of geological confidence of the structural trend.

The reverse circulation drill works by driving compressed air through a pneumatic hammer attached to a semi-permeable bit, which acts like a jack-hammer. Chips and rock dust generated by the hammer are forced through openings in the face of the bit and up into the sample return tube inside the rod string. The 5-foot rods are attached to an air and sample hose that continues into a cyclone module. The sample is separated from the air in the cyclone and drops out of the bottom into a 5gallon pail. Each sample comprises one 5-foot run, with the borehole and rods being blown out (cleaned) between each run. The total volume of cutting is split through a 1:7 riffle splitter, into a sample typically measuring 2 kg in size, and the larger volume of reject material that is retained at the drill site in a series of individual retention bags. Sample chips are sieved from a

spear sample of the retention bag and logged by the geologist on-site directly into a field laptop, which is in turn backed up digitally each night. Sample bags collected for analysis are transported daily by truck or helicopter to the processing facility at the Coffee project camp. Each sample is then analysed on the XRF instrument before being shipped to ALS Minerals for analysis.

13.3 Soil Sampling

Soil sampling was employed for both exploration and condemnation purposes in 2014. The purpose of the soil sampling was to map the distribution of gold and associated metals in the soils with the hypothesis that gold (and other metals) in soil bears direct relationship with gold mineralization in bedrock that outcrops poorly over the project area.

Soil sampling was carried out by Ground Truth Exploration from Dawson City, Yukon. Soil samples were collected over a grid pattern of northerly directed lines spaced by 100 m with sampling stations spaced by 50 m. A series of detailed soil samples were collected from the Macchiato and Cappuccino areas in order to provide greater resolution to sub-surface mineralized structures.

Samples were collected using a hand auger to various depths depending on the soil profile. The organic A horizon material was discarded, and augering continued until the C horizon rock chips were encountered, checking for false bottoms on the A horizon profile. Soil samples were collected over intervals varying from 60 to 70 cm, with maximum depth not exceeding the 1.25 m length of the auger. Samples were placed directly in pre-marked bags. A field duplicate sample was collected at a rate of one every 25 samples. Sample number, location, depth, and geological parameters were recorded directly into a handheld computer with a GPS reading of sample location, also stored separately as a backup. The sample location was marked with flagging tape and a metal tag on a nearby tree.

Samples were submitted by the contractor to Acme Analytical Laboratories in Vancouver, BC. The sample information was downloaded from the handheld computers into spreadsheets, and subsequently integrated into Kaminak's Coffee project database.

13.4 Rock Chip Sampling

In 2009 to 2012 trenches, rock samples were taken in trenches over 5 m horizontal intervals. Samples were collected by chipping sub cropping rock with a rock hammer on the wall or base of the trench over the desired interval taking care to collect a representative sample of the interval. Inherently, this selective sampling approach can introduce sampling bias, but the purpose of this sampling was to link gold-in-soil anomalous areas to outcropping or sub cropping bedrock and to define worthy drilling targets. In such circumstances, a positive sampling bias is generally desirable.

For 2013 and 2014 trenching, heavy equipment was used to excavate trenches to the bedrock interface, where they were then ripped down into bedrock up to 0.5 m below the bedrock surface. Trenches were marked following preliminary excavation with metre marks, and the trench was subsequently re-entered to rip clean bedrock material on 2 m intervals which was then placed on the side of the trench for later metallurgical sampling.

The location of the centre of each sample was recorded using a handheld GPS unit. Other descriptive attributes and geological information about the sample were recorded into logging software on a daily basis and incorporated into the project database.

14.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

14.1 Historical Sampling

Soil samples collected by Mr. Shawn Ryan in 2007 were analysed by Acme Analytical Laboratories (Acme) in Vancouver, BC. The management system of the Acme laboratory is accredited ISO 9001:2008 by BSI America Inc. Acme implements a quality system compliant with the International Standards Organization (ISO) 9001 Model for Quality Assurance and ISO/IEC 17025 General Requirements for the Competence of Testing and Calibration Laboratories. Acme also participates in the CANMET and Geostats round robin proficiency tests.

Soil samples were prepared using a conventional preparation procedure and analysed for a suite of 36 elements using aqua regia digestion followed by inductively coupled plasma-atomic emission spectrometry (ICP-AES) on 15-gram subsamples (method code 1DX2).

There is no historical litho-geochemical (rock) sample data for the Coffee Project.

14.2 Sampling by Kaminak

Kaminak used two primary laboratories for assaying samples collected during the 2009 through 2014 programs.

Soil samples collected in 2009 through 2014 were submitted to the accredited Acme laboratory. The samples were prepared and assayed using the same methodology used to assay samples submitted by Mr. Ryan in 2007. Soil samples were prepared using standard preparation procedures and analysed for a suite of 36 elements using aqua regia digestion followed by ICP-AES on 15-gram subsamples (method code 1DX2).

All drill core, reverse circulation, trench, and grab samples collected in 2010 through 2014 were submitted to ALS Minerals for preparation and assaying. The management system of the ALS Group of laboratories is accredited ISO 9001:2000 by QMI Management Systems Registration. Samples were crushed and pulverised by the Whitehorse preparation facility and shipped to ALS North Vancouver for assaying. The North Vancouver laboratory is accredited ISO/IEC 17025:2005 by the Standards Council of Canada for certain testing procedures, including those used to assay samples submitted by Kaminak. ALS Minerals laboratories also participate in international proficiency tests such as those managed by CANMET and Geostats Pty Ltd.

All samples were individually sealed in polyore bags on-site and shipped by commercial fixed wing charter aircraft (operated by Alkan Air Ltd. and Great River Air Ltd.) to Whitehorse or Dawson City, then moved via road transport by expeditor or Kaminak personnel directly to ALS Minerals' preparation facility in Whitehorse. Samples were conveyed within rice sacks sealed by uniquely numbered security tags to minimize voluntary or inadvertent tampering. Security tags were tracked through the transport until receipt by ALS Minerals. No rice sacks were reported tampered with between 2010 and 2014.

Rock and core samples were prepared for assaying at the ALS Minerals preparation facility using a conventional preparation procedure (dry at 60° Celsius, crushed and sieved to 70° passing 10 mesh ASTM, pulverised to 85% passing 75 micron or better). Prepared samples were then transferred to ALS Minerals laboratory in North Vancouver where they were assayed for gold using a conventional fire assay procedure (ICP-AES) on 30-gram subsamples (50-gram samples were

used in 2010). In 2010 and 2011 all samples were also submitted for a suite of 35 elements using an aqua regia digestion and ICP-AES finish on 5-gram subsamples. In 2012, samples from only select boreholes (54 boreholes in total) were submitted for the 35-element analysis. In 2013, 87 boreholes were submitted for the 35-element analysis. In 2014, 50 boreholes were submitted for the 35-element analysis.

Beginning in 2013, samples grading greater than 0.3 g/t gold were submitted for cyanide leach analysis. For this analysis, a 30-gram subsample is weighed into a closed 100 mL plastic vessel. 60 mL of sodium cyanide solution (0.25% NaCN, 0.05% NaOH) is then added and the sample is shaken until homogenized. Following homogenization, the solution is rolled for an hour before an aliquot is taken and centrifuged. Finally, the sample is analysed by atomic absorption spectrometry. 8,016 samples from all drilling programs (2010 through 2013 inclusive) were analysed by cyanide leach analysis during 2013. 5,192 samples from the 2014 drill program were analysed by cyanide leach analysis.

Samples grading in excess of 10 g/t gold were re-assayed from a second 30-gram split (50-gram split in 2010) using a fire assay procedure and a gravimetric finish. In 2012 and 2013, samples grading in excess of 20 g/t gold were submitted for screened fire assay from a 1,000 gram coarse reject split. The screened fire assay was passed through a 100-micron mesh, with the oversize fraction (roughly four weight percent on Kaminak samples in 2012) undergoing gravimetric analysis following fusion, whereas the undersize fraction was split into two 50-gram samples and finished using atomic absorption. The average between the two minus fractions was then combined together with the plus fraction to give the total weighted average gold.

In 2010, samples assaying more than 100 g/t silver (two samples) were re-assayed using either an “ore grade” digestion followed by ICP-AES or by conventional fire assay with gravimetric finish on 50-gram charges. Two samples from 2011 reported more than 100 g/t silver, but were not re-assayed. No samples from 2012 or 2013 drilling returned greater than 100 g/t silver.

Approximately one in 100 master pulps from core and reverse circulation samples submitted to ALS Minerals from 2010 to 2014 were submitted annually at the conclusion of each exploration season to Acme Labs for umpire check assaying.

All zones drilled in a given year were represented in the check assay samples, and although samples covered a wide range of assay results (from detection limit to greater than 20 g/t gold), preference was given to individual samples that ran greater than 0.3 g/t gold in order to provide an accurate test of lab performance and avoid running a large number of near-detection samples. Kaminak did not use an umpire laboratory to verify the assay results for soil samples delivered by Acme in 2009 through 2014.

In 2010, two composite core samples were submitted to the Inspectorate Exploration & Mining Services Ltd (Inspectorate) in Burnaby, British Columbia for preliminary metallurgical testing. In 2011, Kaminak submitted one additional composite core sample for follow-up heap leach column testing to the Inspectorate laboratory. The Inspectorate laboratory is part of the Veritas Bureau Group, which provides a wide range of testing services to the mineral industry. The Inspectorate laboratories are accredited to relevant national and international standards including ISO 17025. In 2012, Kaminak submitted additional core samples for further metallurgical testing by the Inspectorate laboratory.

In 2013, seven metallurgical composite samples were assembled from drill core and submitted to Kappes, Cassiday & Associates (KCA) in Reno, Nevada. Each composite was utilized for head analyses; head screen analyses with assays by size fraction, bottle roll leach test work, agglomeration test work, and column leach test work. In addition, some material from one composite was used for comminution and flotation test work, all at KCA. KCA has completed extensive metallurgical test work for northern projects including Kinross' Fort Knox project in Alaska and Victoria Gold's Eagle project in the Yukon.

In 2014, ten metallurgical composite samples were assembled from drill core and submitted to KCA. In addition, eight metallurgical composite samples were assembled from surficial trench samples. Each composite was utilized for head analyses; head screen analyses with assays by size fraction, bottle roll leach test work, agglomeration test work, and column leach test work.

14.3 Specific Gravity Data

Specific gravity measurements were made using the water immersion method. In 2011, measurements were made at nominal 10 m intervals in non-mineralized rock and at nominal 5 m intervals in structural zones or apparent gold mineralized rock. From 2012 to 2014, measurements were selected at a rate of one sample per mineralized zone, and one sample per major lithology in non-mineralized rock. In areas of multiple mineralized zones separated by non-mineralized intervals less than 10 m wide, specific gravity was measured for the mineralized zones only.

Samples were weighed dry in air, coated with paraffin wax and weighed immersed in water. A standard was measured roughly every ten samples in order to measure instrumental drift. Results were recorded directly into a Microsoft Excel spreadsheet.

Specific gravity measurements less than 2.40 or greater than 3.50 were re-weighed by technicians to ensure accuracy. Independent specific gravity testing was also conducted on a randomly selected batch of 35 samples in 2011, 30 samples in 2012, and 26 samples in 2013 by ALS Minerals in North Vancouver, BC in order to verify the accuracy of the on-site methodology. ALS Minerals results are in close agreement with field measurements, and, therefore, indicate good reproducibility.

Field specific gravity measurements indicate a mean of 2.60 from 6,217 samples representing all deposit areas. The standard deviation of the sample population is 0.166.

14.4 Quality Assurance and Quality Control Programs

Quality control measures are typically set in place to ensure the reliability and trustworthiness of the exploration data. These measures include written field procedures and independent verifications of aspects such as drilling, surveying, sampling and assaying, data management, and database integrity. Appropriate documentation of quality control measures and regular analysis of quality control data are important as a safeguard for project data and form the basis for the quality assurance program implemented during exploration.

Analytical control measures typically involve internal and external laboratory control measures implemented to monitor the precision and accuracy of the sampling, preparation, and assaying processes. They are also important to prevent sample mix-up and monitor the voluntary or inadvertent contamination of samples. Assaying protocols typically involve regular duplicate and replicate assays and insertion of quality control samples. Check assaying is typically performed as

an additional reliability test of assaying results. This typically involves re-assaying a set number of sample rejects and pulps at a secondary umpire laboratory.

The exploration work conducted by Kaminak was carried out using a quality assurance and quality control program meeting industry best practices for early stage exploration properties. Standardized procedures are used in all aspects of the exploration data acquisition and management including mapping, surveying, drilling, sampling, sample security, assaying, and database management.

During 2009, Kaminak did not implement specific analytical quality control measures to monitor the assay results delivered by Acme. The 2009 exploration program involved primarily soil sampling and trenching. Kaminak relied on the laboratory internal analytical quality control measures to monitor the reliability of assay results delivered by Acme.

With the beginning of core drilling in 2010, Kaminak began implementing external analytical quality control measures, in addition to choosing an ISO accredited primary laboratory. The analytical quality control measures involved the use of control samples (certified reference material, blanks, field duplicates) and independent check assaying at an umpire laboratory.

Certified reference materials were sourced from CDN Resource Laboratories Ltd. (CDN) of Langley, BC. In 2014, Kaminak used seven standards, with certified assay values ranging from 0.694 to 9.31 g/t gold and one blank with a certified assay value of less than 0.01 g/t gold (Table 14-1). For 2011 to 2014 drill core samples, reverse circulation chip samples, and trench samples, blanks and certified reference materials were alternated and inserted at a rate of one every ten samples. For 2010 rock samples, certified reference materials were inserted approximately at a rate of one every 30 samples.

Field and laboratory duplicates were also inserted within the samples submitted for assaying. Field duplicate samples were collected by splitting the remaining half core in half and assigning a separate sample number out of sequence from the original samples. Reverse circulation field duplicates were collected by running the retention bag of the original sample through the riffle splitter, splitting a second sample from the original sample directly at the drill site. Laboratory duplicates are repeat assays on pulverized samples originally assayed by ALS Minerals.

Table 14-1: Specifications of the Certified Control Samples Used by Kaminak in 2014

Reference Material	Gold (g/t)	Standard Deviation (g/t)	Number of Samples
CDN-BL-10	<0.01	-	2,139
CDN-GS-P7K	0.694	0.066	276
CDN-GS-P7H	0.799	0.050	149
CDN-GS-1L	1.16	0.100	425
CDN-GS-3L	3.18	0.22	428
CDN-GS-6D	6.09	0.58	442
CDN-GS-9A	9.31	0.69	424

15.0 DATA VERIFICATION

15.1 Verification by Kaminak

The exploration work carried out on the Coffee project was conducted by Kaminak personnel and qualified subcontractors. Kaminak implemented a series of routine verifications to ensure the collection of reliable exploration data. All work was conducted by appropriately qualified personnel under the supervision of qualified geologists. In the opinion of the Qualified Persons, the field exploration procedures used at Coffee generally meet industry practices.

The quality assurance and quality control program implemented by Kaminak is comprehensive and supervised by adequately qualified personnel. Exploration data were recorded digitally to minimize data entry errors. Core logging, surveying, and sampling were monitored by qualified geologists and verified routinely for consistency. Electronic data were captured and managed using an internally-managed Microsoft Access database, and backed up daily. Data from 2010 were managed by Maxwell Geoservices Inc. (“Maxwell”), and later in that season were managed by Kaminak personnel using Maxwell data management applications. In early 2011, the 2010 data were migrated to the internally-managed and internally-designed Microsoft Access database.

Assay results were delivered by the primary laboratory electronically to Kaminak and were examined for consistency and completeness. Kaminak personnel reviewed assay results for analytical quality control samples using bias charts to monitor reliability and detect potential assaying problems. Batches under review for potential failures were recorded in a quality control spreadsheet, investigated and corrective measures were taken when required.

The failure threshold for control samples was set at two times the standard deviation, based on recommended values provided by CDN Resource Laboratories Ltd. Quality control samples exceeding that threshold were investigated. Batches of barren samples containing a quality control failure were not re-assayed. Batches of samples containing more than one quality control failures were re-assayed completely. In batches containing one control sample failure, samples surrounding the failed control sample were re-assayed. After review, Kaminak requested either partial or complete batches of samples be re-assayed by ALS Minerals (Table 15-1). Re-assayed batches passed the quality control failure thresholds and were accepted. The assay database was updated, accordingly.

Table 15-1: Count of Batch Re-runs by Year

Year	Number of Sample Batches Partially or Wholly Re-assayed
2010	44
2011	28
2012	31
2013	19
2014	21

16.0 MINERAL PROCESSING AND METALLURGICAL TESTING

In 2014 Kaminak continued working with Kappes, Cassiday, and Associates (KCA) on comprehensive metallurgical testing on core and bulk samples from the Coffee deposit. KCA has issued two (2) reports to date which present the results of their testing in detail. Much of the information presented below is summarized from the KCA reports. Samples locations for 2014 metallurgical work are shown in Figure 16.1 and Figure 16.2.

16.1 Core Borehole Composite Metallurgical Testing 2014 by Kappes, Cassiday and Associates

16.1.1 Summary of Metallurgical Test Work

Beginning in August, 2014, the laboratory facility of Kappes, Cassiday & Associates (KCA) in Reno, Nevada received sample material from the Coffee Project of Kaminak Gold Corporation. A total of ten core composites were generated, with 2 columns assembled from each composite (p80, 50 mm and p80, 12.5 mm) for a total of 20 columns. Each composite underwent head analyses, head screen analyses with assays by size fraction, direct pulverized bottle roll leach tests, and column leach test work.

All preparation, assaying and metallurgical studies were performed utilizing accepted industry standard procedures.

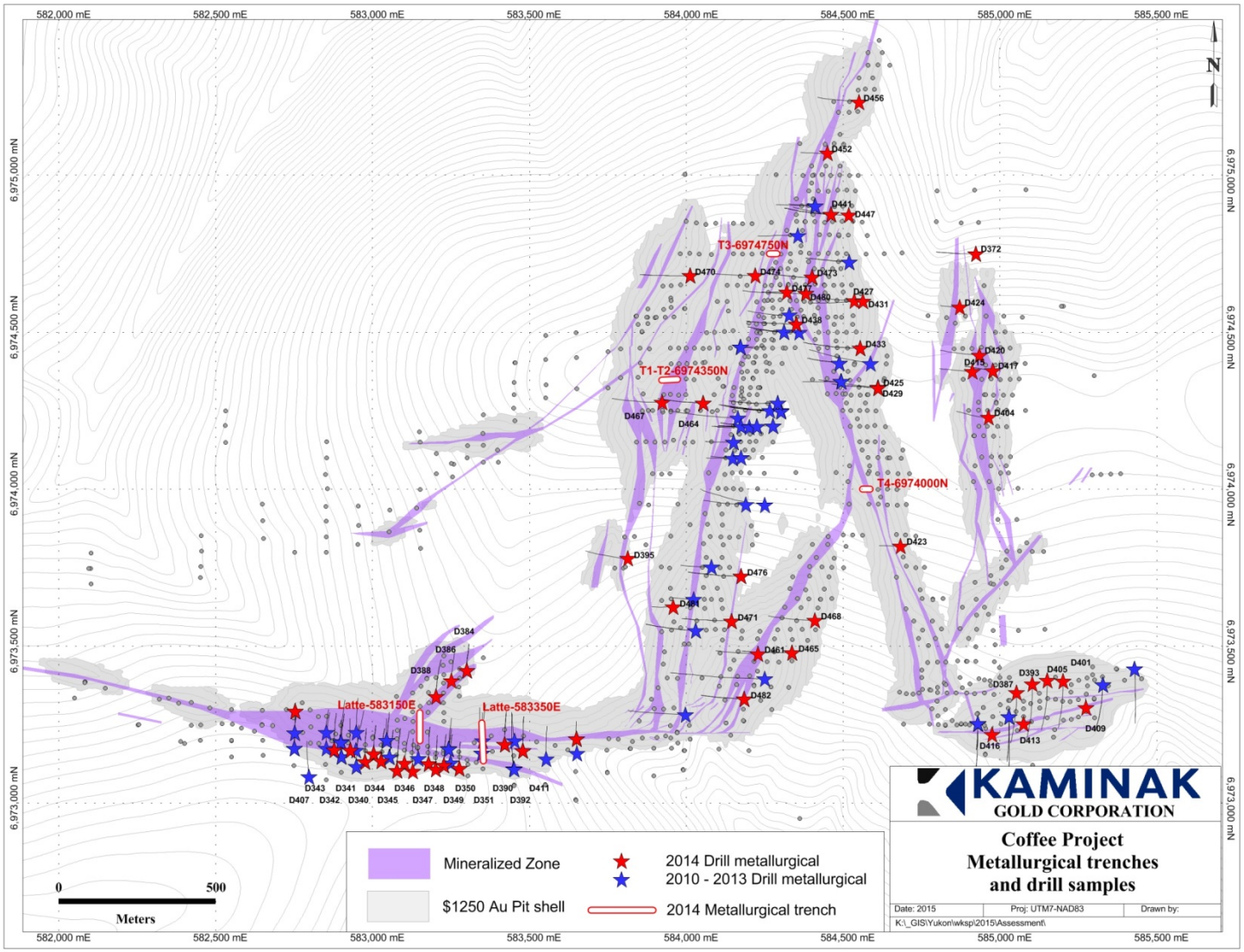


Figure 16.1: Plan map of metallurgical trenches and drill holes used for composites in the main resource area.

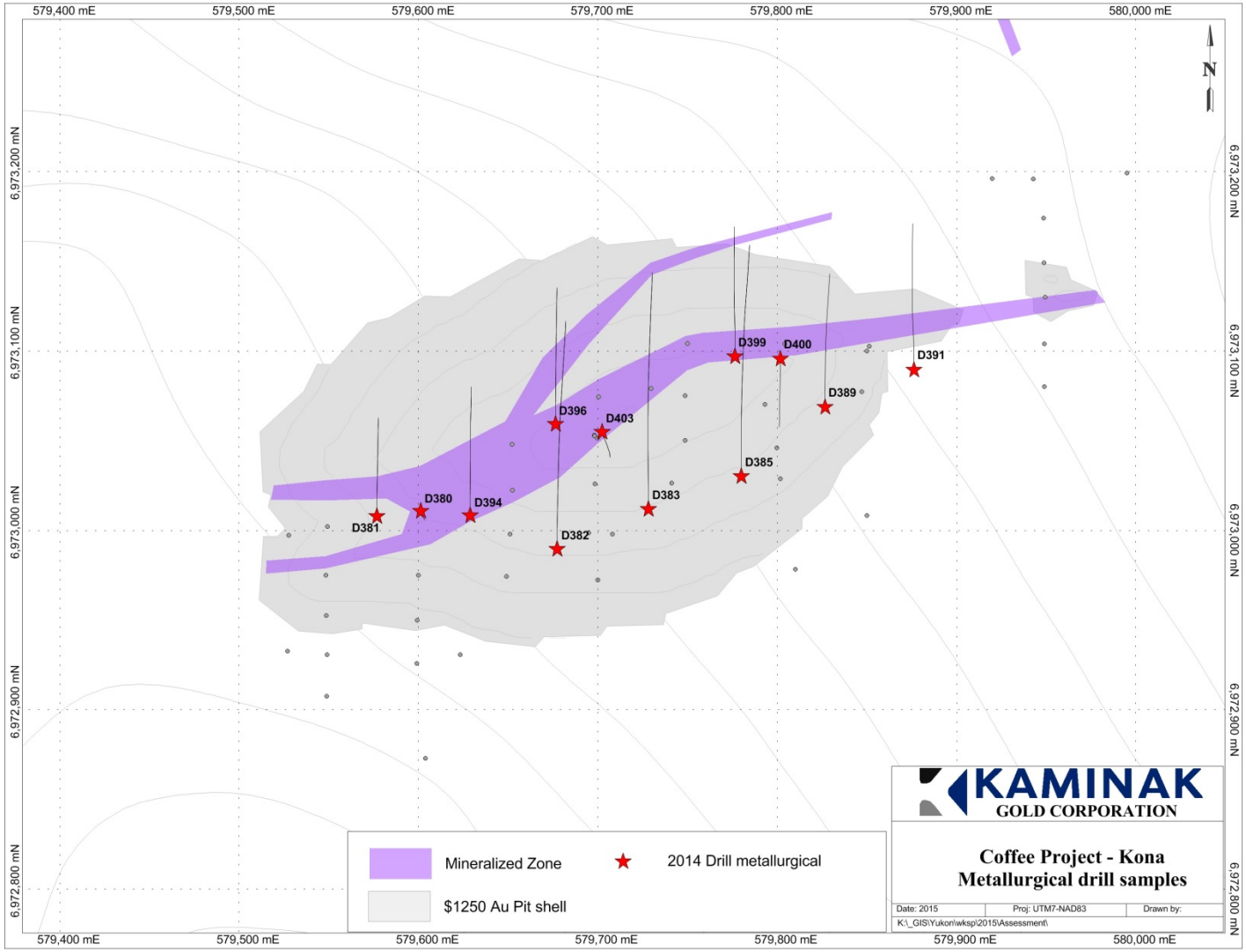


Figure 16.2: Plan map of drill holes used for metallurgical test work from the Kona Zone.

16.1.2 Sample Receipt and Preparation

A summary of the samples utilized for each core composite is presented in Table 16-1.

Table 16-1: Summary of Received Core Composite Samples

KCA Sample No.	Sample Description	Number of Individual Samples within Composite	Number of Holes Sampled	Received Weight, kg
72135	Latte Oxide West	119	7	260.1
72136	Latte Oxide East	118	10	282.9
72137	Latte 80% CN Soluble	109	14	251.4
72138	Latte 60% CN Soluble	99	15	236.2
72144	Supremo Oxide T1, T2, T3	167	13	416.8
72145	Supremo Oxide T4, T5, T7	164	12	411.8
72146	Supremo 80% CN Soluble	111	23	271.8
72139	Kona Oxide	129	12	278.0
72140	Kona 80% CN Soluble	112	10	262.6
72141	Double Double Oxide	52	7	251.4
Total:	**10**	**1180**	**123**	**2923**

The samples are believed to adequately represent the major known mineralization areas currently defined.

16.1.3 Head Analyses

Portions of the head material from each composite were ring and puck pulverized and analyzed for gold by standard fire assay methods. Head material was also assayed semi-quantitatively for an additional series of elements and for whole rock constituents. In addition to these semi-quantitative analyses, the head material was assayed by quantitative methods for carbon, sulphur and mercury. A cyanide shake test was also conducted on a portion of the pulverized head material.

In addition to the analyses on pulverized head material, portions of material from select crush sizes were utilized for head screen analyses with assays by size fraction.

At the time of writing, results are currently pending.

16.1.4 Bottle Roll Leach Test Work

Bottle roll leach testing was conducted on a portion of material from each composite. For each test, a 1,000 g portion of head material was milled in a laboratory rod mill to a target size of 80% passing 0.075 mm. The milled slurry was then utilized for a 96 hour bottle roll leach test conducted and maintained at a target concentration of 1.0 g sodium cyanide per litre of solution.

At the time of writing, results for the bottle roll leach test work are pending.

16.1.5 Column Leach Test Work

A total of twenty column leach tests are underway, utilizing material crushed to a target size of 80% passing 50 or 12.5 mm. During testing, the material is leached for greater than 45 days with a sodium cyanide solution. Two columns are created from each composite sample, with ten column tests conducted in an enclosed refrigeration unit at a target temperature of 4°C (p80, 12.5 mm), and the remaining ten (half) conducted at ambient temperature (approximately 20°C; p80, 50 mm).

16.2 Bulk Sample Metallurgical Testing 2014 by Kappes, Cassiday, and Associates

16.2.1 Sample Composite Selection for the Bulk Sample Metallurgical Test Program

Six surface trenches were excavated from the Supremo and Latte zones to support the 2014 bulk sample metallurgical test program (Table 16-2). Trenches were excavated to bedrock and sampling was completed on 2m intervals. Approximately 1,500 kg of material was collected from each trench, with emphasis on mineralized rock. During collection, a representative sample was collected from each bulk interval and sent for conventional gold fire assay. Composite samples were then assembled from the bulk sample to achieve a pre-determined head grade. Final composites ranged from between 700 and 1,400 kg and were sent to KCA where they were homogenized. Splits were then taken for the testing program.

Table 16-2: List of 2014 metallurgical trenches.

KCA Sample No.	Sample Description	Number of Individual Samples within Composite	Received Weight, kg
72101	Latte - 583150mE Trench	29	1380
72102	Latte - 583350mE Trench	49	1303
72103	Supremo T4 - 6974000mN Trench	11	762
72130	Supremo T1-T2 - 6974350mN Trench	18	821
72131	Supremo T3 - 6973750mN Trench	7	718
72132	Supremo T3- 6974750mN Trench	12	731

16.2.2 Summary of Metallurgical Test Work

In October 2014, the laboratory facility of KCA in Reno, Nevada received sample material which comprised material from the 2m sample intervals collected from the six surface trenches. For each sample group, the bulk interval material was combined into a composite sample. Each composite sample was assigned a unique sample number and prepared and utilized for head analyses, head screen analyses with assays by size fraction, bottle roll leach test work, and column leach test work. From the six composite trench samples delivered to KCA, a total of 14 columns were constructed for the column leach test work (Table 16-3). All preparation, assaying and metallurgical studies were performed utilizing accepted industry standard procedures.

Table 16-3: Summary table of columns constructed from the 2014 metallurgical trenches.

Sample I.D.	#	KCA Sample No.	KCA Test No. Column, p80 150mm	Column, p80 50mm	Column, p80 12.5mm
Bulk and Surface Samples					
Latte - 583150mE Trench (6")	1	72101	72108	72114	72117
Latte - 583350mE Trench (6")	2	72102	72111	72120	72123
Latte Mine Block (1")	3	72133	---	---	73001
Supremo T4 - 6974000mN Trench (6")	4	72103	---	---	---
Supremo T1 - T2 - 6974350mN Trench (6")	5	72130	---	---	---
Supremo #1	8 (4/5)	72142	73007	73010	73013
Supremo T3 - 6973750mN Trench (6")	6	72131	---	---	---
Supremo T3- 6974750mN Trench (6")	7	72132	---	---	---
Supremo #2	9 (6/7)	72143	73016	73019	73022
Supremo Mine Block (1")	10	72134	---	---	73004

16.2.3 Head Analyses

For each sample, portions of the head material were ring and puck pulverized and analyzed for gold and silver by standard fire assay and wet chemistry methods. Head material was also assayed semi-quantitatively for an additional series of elements and for whole rock constituents. In addition to these semi-quantitative analyses, the head material was assayed by quantitative methods for carbon, sulphur and mercury. A cyanide shake test was also conducted on a portion of the pulverized head material.

In addition to the analyses on pulverized head material, portions of material from select crush sizes were utilized for head screen analyses with assays by size fraction. As of the time of writing, results are pending.

16.2.4 Bottle Roll Leach Test Work

Bottle roll leach testing was conducted on a portion of material from each composite. For each test, a 1,000 g portion of head material was milled in a laboratory rod mill to a target size of 80% passing 0.075 mm. The milled slurry was then utilized for a 96 hour bottle roll leach test conducted and maintained at a target concentration of 1.0 g sodium cyanide per litre of solution.

At the time of writing, results for the bottle roll leach test work are pending.

17.0 PRELIMINARY ECONOMIC ASSESSMENT

A Preliminary Economic Assessment (PEA) was completed for Kaminak on the Coffee Project by JDS Energy and Mining Inc., with a final report released on July 8, 2014. The following excerpt has been taken directly from the PEA as it was written by the authors: Mike Makarenko, P.Eng., JDS Energy and Mining Inc.; Dino Pilotto, P.Eng., JDS Energy and Mining Inc.; Scot Klingmann, P.Eng., JDS Energy and Mining Inc.; Gord Doerksen, P.Eng., JDS Energy and Mining Inc.; Mike Levy, P.E., SRK Consulting (U.S.) Inc.; Robert Sim, P.Geo, Sim Geological Inc.; and Fred Lightner, P.E., Kaminak Gold Corp. This excerpt provides an overview of the PEA's conclusions which have defined the work to be conducted by Kaminak during the 2015 season in order to produce a Feasibility Study on the Coffee Project. The geological overview and property history have been omitted in order to avoid redundancies within this document. Please refer to the full PEA for elaboration on the topics detailed below in the digital supporting documents.

17.1 Introduction

JDS Energy & Mining Inc. (JDS) was commissioned by Kaminak Gold Corporation (Kaminak) to carry out a preliminary economic assessment (PEA) of the Coffee Project (Coffee project or Coffee) which is a resource development gold exploration project owned by Kaminak Gold Corp. (Kaminak) and located in the White Gold district of west-central Yukon, approximately 130 km south of Dawson City. The project encloses several gold occurrences within an exploration concession covering an area of more than 600 square kilometres.

Four previous technical reports were prepared for the Coffee project pursuant to Canadian Securities Administrators' National Instrument 43-101 and Form 43-101F1 (collectively, "NI 43-101") and documenting exploration work completed by Kaminak on the Coffee project in 2010, 2011, 2012 and 2013. All technical reports were filed on SEDAR.

This technical report summarizes the results of the Preliminary Economic Assessment (PEA) study and was prepared following the guidelines of the Canadian Securities Administrators' National Instrument 43-101 and Form 43-101F1.

17.2 Mineral Processing and Metallurgical Testing

In 2011 and 2012, Inspectorate Exploration & Mining Services Ltd. ("Inspectorate") of Richmond, BC conducted preliminary cyanide leaching tests including bottle roll, carbon in leach and carbon in pulp, and column leach test work.

In 2013, Kaminak engaged Kappes, Cassiday, and Associates (KCA) to undertake comprehensive metallurgical testing on both core and bulk samples from the Coffee deposit.

Core Composite Testing

A total of seven core composites were generated and were identified as Supremo Oxide, Supremo, Upper Transition, Supremo Lower Transition, Latte Oxide, Latte Upper Transition, Latte Lower Transition, and Latte Sulphide. Head analyses for gold for these samples varied from 1.23 g/t to 2.47 g/t.

Portions of material from the Latte Sulphide composite were used to conduct preliminary flotation tests which indicated that between 58% and 72% of the gold was concentrated into a rougher concentrate of 9.8% to 10.5% of the sample weight.

The Latte Sulphide composite was submitted for comminution testing and the results of the comminution test work were a Rod Mill Work Index of 12.73 kWh/tonne and a Ball Mill Work Index of 15.06 kWh/tonne.

Bottle roll leach testing was conducted on a portion of material from each composite and a summary of the gold extractions from the bottle roll leach test work is presented in Table 17-1.

Table 17-1: Summary of Bottle Roll Leach Test Work - Core Composites

Description	Head Average Au (g/t)	Calculated Head Au (g/t)	Extracted Au (%)	Consumption NaCN (kg/t)	Addition $Ca(OH)_2$ (kg/t)
Supremo, Oxide	1.461	1.436	94	1.29	1.50
Supremo, Upper Transition	1.227	1.447	78	2.12	1.00
Supremo, Lower Transition	1.569	1.639	53	1.45	1.00
Latte, Oxide	1.488	1.570	92	1.27	1.50
Latte, Upper Transition	1.479	1.369	51	1.15	1.50
Latte, Lower Transition	1.656	1.462	38	1.57	1.50
Latte, Sulphide	2.469	2.460	13	1.35	1.50

Preliminary agglomeration test work was conducted on portions of crushed material from each composite except the Latte Sulphide composite. All agglomeration tests passed the criteria put forth by KCA. It was determined from this test work that the column leaching would be undertaken without the use of agglomeration.

A total of ten column leach tests were conducted utilizing material crushed to a target size of 80% passing 25 or 12.5 mm. During testing, the material was leached for 40 or 42 days with a sodium cyanide solution. Tests were conducted in an enclosed refrigeration unit at a target temperature of 4°C. A single test was conducted at ambient temperature (approximately 22°C).

A summary of the column leach test work is presented in Table 17-2.

Table 17-2: Summary of Column Leach Test Work – Core Composites

Description	Target p80 Size (mm)	Target Temp. (°C)	Calculated Head Au (g/t)	Extracted Au (g/t)	Extracted Au (%)	Consumption NaCN (kg/t)	Addition Hydrated Lime (kg/t)
Supremo, Oxide	25	4	1.573	1.455	92	0.17	1.51
Supremo, Oxide	12.5	4	1.435	1.343	94	0.28	1.5
Supremo, Oxide	12.5	22	1.547	1.471	95	0.52	1.57
Supremo, Upper Transition	12.5	4	1.488	1.081	73	0.31	1
Supremo, Lower Transition	12.5	4	1.674	0.797	48	0.38	1
Latte, Oxide	25	4	1.622	1.462	90	0.19	1.51
Latte, Oxide	12.5	4	1.54	1.382	90	0.27	1.51
Latte, Upper Transition	12.5	4	1.535	0.717	47	0.46	2.01
Latte, Lower Transition	12.5	4	1.416	0.411	29	0.64	1.51
Latte, Sulphide	12.5	4	2.365	0.126	5	0.46	1.51

For the Supremo Oxide material, three column leach tests were conducted to compare the extraction values of material leached at two particle sizes (80% passing 25 and 12.5 mm) and leach temperatures (4°C and 22°C). A comparison of gold extractions from the 25 and 12.5 mm leached material showed an increase from 92 to 94%, with respect to particle size reduction. A similar comparison of the material leached at 4°C and 22°C, showed a gold extraction increase from 94 to 95%. For the Latte Oxide material, two column leach tests were conducted to compare the extraction values of material leached at two different particle sizes (80% passing 25 and 12.5 mm). A comparison of gold extractions from the 25 and 12.5 mm leached material did not show any obvious gold extraction increase with respect to particle size reduction. Gold extraction percentages were at 90% for both particle sizes.

Categorization of oxidation has in the past been undertaken via visual estimation of the proportion of Oxide and Sulphide. Presently, the Transitional is simply divided into an ‘Upper’ and ‘Lower’ zone based on ≥50% oxidized material and ≤50% oxidized material, respectively. Although the visual estimate of the amount of oxidation for the upper and lower transitional material at both Supremo and Latte were targeted to be similar, the actual sulphide content of the Latte samples was found to be much higher. The poorer recoveries from the Latte Transitional material are felt to be a result of a visual underestimation of sulphide in those samples.

In order to better evaluate the amenability and variability of Transitional material to metallurgical cyanide leach recovery, over 8,000 samples representing 70% of all samples above a fire assay value of 0.3 g/t Au within mineralized intercepts drilled from the initial drilling year of 2010 up to and including 2013, have been subjected to a cyanide soluble assay. The difference between the cyanide soluble assay and the original fire assay may be utilized to provide an indication of the gold within the sample that is amenable to cyanide leach. By extension, it also indicates the

amount of oxidation of the sample. The cyanide soluble proxy gold recovery is the percentage of the fire assay value actually reporting to the leach solution.

There is a strong correlation of the cyanide soluble recovery and the actual column leach test recovery which indicates that cyanide soluble recovery is a reliable method to map the metallurgical recovery throughout the Oxide, Transitional and Sulphide zones of the Coffee Deposit.

Bulk Sample Testing

The bulk Supremo Oxide sample was collected from a surface trench across the T3 mineralized structure at 6974250mN. The bulk Latte Oxide sample was collected from a surface trench across the Latte mineralized structure at 583250mE.

Each bulk composite sample was assigned a KCA sample ID and was subsequently utilized for head analyses; head screen analyses with assays by size fraction, bottle roll leach test work, agglomeration test work and column leach test work.

Head analyses for the Latte Oxide varied from 1.61 g/t to 1.5 g/t and the Supremo Oxide varied from 4.08 g/t to 4.37 g/t.

Bottle roll leach testing was conducted on a portion of material from each composite. A summary of the gold extractions from the bottle roll leach test work is presented in Table 17-3.

Table 17-3: Summary of Bottle Roll Leach Test Work – Bulk Samples

KCA Sample No.	Description	Calculated Head Au (g/t)	Extracted Au (%)	Consumption NaCN (kg/t)	Addition $Ca(OH)_2$ (kg/t)
69580	Latte Oxide	1.474	94	0.06	2.5
69581	Supremo Oxide	3.586	96	1.62	2.5

Preliminary agglomeration test work was conducted on portions of crushed material from each sample. All agglomeration tests passed the criteria put forth by KCA.

A total of four column leach tests were conducted utilizing composite sample material crushed to target sizes of 100% passing 175 or 31.5 mm. The column tests utilizing material crushed to 100% passing 175 mm were conducted at ambient temperature (22°C). The column tests utilizing material crushed to 100% passing 31.5 mm were conducted in a walk-in freezer maintained at a target temperature of 4°C. A summary of the column leach test extractions for gold are presented in Table 17-4.

Table 17-4: Summary of Column Leach Tests – Bulk Samples

KCA Sample No.	Description	Crush Size p100 (mm)	Calculated Head Au (g/t)	Extracted Au (%)	Days of Leach	Consumption NaCN (kg/t)	Addition $Ca(OH)_2$ (kg/t)
69580	Latte Oxide	175	1.28	88	100	0.56	1.01
69580	Latte Oxide	31.5	1.122	92	100	1.08	1.00
69581	Supremo Oxide	175	4.313	85	152	0.91	1.52
69581	Supremo Oxide	31.5	3.438	92	100	0.93	1.51

For the column leach test work, gold extractions ranged from 85% to 92%.

For each sample, a comparison of the column leach test results showed a higher gold extraction percentage for the column leach test conducted utilizing material leached at a finer crush size.

From the head screen versus tail screen analyses, comparisons of the approximate gold extractions from similar size fractions showed minor variations. The small variations indicate that there are no obvious differences in leaching kinetics between tests conducted at 4°C versus those conducted at ambient temperature (22°C).

17.3 Mineral Resource Estimate

The mineral resource estimates for the Coffee project were updated during the period from December 2013 through the end of January 2014 using a geostatistical block modelling approach constrained by gold mineralization wireframes. The model considers information from 961 core and reverse circulation boreholes drilled by Kaminak from 2010 to 2013 (185,000 m). Four individual block models were constructed using MineSight® (v8.20) with limits determined based on the local

UTM coordinated system (Nad83 datum, zone 7). Block size was set at 5 by 5 by 2 m at Kona and Double Double and 10 by 5 by 3 m at Latte and Supremo, with block long axes aligned parallel to the strike of the gold mineralization.

The boundaries of the gold mineralization were interpreted by Kaminak from drilling data on vertical sections spaced at 25 to 50 m intervals. These were linked into a series of 3D domains that form the basis in controlling the distribution of gold mineralization in the resource models. Borehole assay data were composited at 1 m lengths for geostatistical analysis and grade estimation. Potential outlier samples were examined using probability plots and a combination of capping and volume restriction was applied to these high-grade composites to restrict their influence during estimation. A gold grade was estimated for each model block using ordinary kriging and estimation parameters derived from variography.

The extent and intensity of oxidation has been interpreted using a combination of qualitative data collected during drill core and chip logging plus the solubility characteristics derived from a suite of samples tested for cyanide gold solubility. Four oxide types or domains have been interpreted which, in general, represent decreasing intensity of oxidation with depth below surface.

Although an extensive bulk density database has been generated for the Coffee project, the lack of density measurements in reverse circulation (RC) drill holes does not provide sufficient data coverage in some areas to allow for direct interpolation of densities in the resource models. A general relationship is evident between density and the intensity of oxidation and, as an alternative, average density values have been used to calculate resource tonnages within each of the four oxide type domains.

After validation through a combination of visual inspection and statistical evaluations, the block models were classified on the basis of confidence in the geological continuity and distance from informing data. Block model quantities and grade estimates were classified according to the CIM Definition Standards on Mineral Resources and Mineral Reserves (November 2010). Blocks in the Indicated category form relatively continuous zones of mineralization delineated by three or more drill holes on a nominal 25 m pattern. In the main part of the Latte zone, gold mineralization is thicker and more consistent in nature and, as a result, resources in this area can be included in the Indicated category based on drilling on 35 m spacing. Resources are included in the Inferred category if they occur within a maximum distance of 50 m from a drill hole and exhibit a reasonable degree of geologic continuity.

The Coffee gold deposits form relatively continuous, sub-vertical zones of gold mineralization extending from the surface to a depth of several hundred metres. The deposits are amenable to open pit (OP) or underground extraction (or a combination of both). The “reasonable prospects for economic extraction” were tested using floating cone pit shells based on reasonable technical and economic assumptions (for example, site operating costs of C$20 per tonne mined, a pit slope of 45° and gold prices ranging from $1,300/oz to $1,700/oz. These initial evaluations assume 100% mining and metallurgical recoveries). These pit optimization evaluations are used solely for the purpose of testing the “reasonable prospects for economic extraction,” and do not represent an attempt to estimate mineral reserves. There are no mineral reserves at the Coffee project. The optimization results are used to assist with the preparation of a Mineral Resource Statement and to select appropriate reporting assumptions.

Analyses of the floating cones show that the majority of the Oxide and Transitional gold mineralization could potentially be amenable to open pit extraction methods as these shells extend to depths of over 200 m below surface in many areas. Studies show that 80% of the oxide and transitional mineral resource is located within 150 m of surface and 94% of these resources are within a maximum depth of 200 m below surface.

Although these studies suggest that some mineralized areas may not be economically viable, this represents a relatively small proportion of the resource. Mineralization at Coffee showing reasonable prospects for economic viability has been included in the estimation of mineral resources.

The Mineral Resource Statement for the Coffee project is presented in Table 17-5. The Mineral Resource Statement is reported at two cut-off grades. Oxide and Transition Mineral Resources are reported at a cut-off grade of 0.5 g/t gold while Sulphide Mineral Resources are reported at a cut-off grade of 1.0 g/t gold reflecting the generally greater depths and differing metallurgical characteristics of this material. The updated mineral resource estimate consists of an Indicated Resource of 14 million tonnes (Mt) grading 1.56 g/t Au for 719,000 oz Au, and an Inferred Resource of 79 Mt at 1.36 g/t Au for 3,455,000 ounces of gold.

There are no known factors related to environmental, permitting, legal, title, taxation, socio-economic, marketing, or political issues which could materially affect the mineral resource.

Table 17-5: Estimate of Mineral Resources for the Coffee Project*

Area	Oxide			Upper Transition			Lower Transition			Oxide + Transition			Sulphide		
	Quantity	Grade	Metal	Quantity	Grade	Metal	Quantity	Grade	Metal	Quantity	Grade	Metal	Quantity	Grade	Metal
	(ktonnes)	Au (g/t)	Au (koz)	(ktonnes)	Au (g/t)	Au (koz)	(ktonnes)	Au (g/t)	Au (koz)	(ktonnes)	Au (g/t)	Au (koz)	(ktonnes)	Au (g/t)	Au (koz)
Indicated															
Supremo	2,967	2.13	203	847	1.62	44	183	1.78	11	3,997	2.01	258	0	0	0
Latte	5,588	1.54	277	2,773	1.22	109	1,958	1.16	73	10,319	1.38	459	42	1.52	2
Combined	**8,555**	**1.75**	**480**	**3,619**	**1.32**	**153**	**2,141**	**1.21**	**83**	**14,316**	**1.56**	**717**	**42**	**1.52**	**2**
Inferred															
Supremo	42,003	1.21	1,636	9,001	1.3	377	2,579	1.41	117	53,583	1.24	2,129	564	1.47	27
Latte	5,673	1.23	224	3,518	1.46	166	3,878	1.43	179	13,070	1.35	569	4,529	1.95	284
Dbl. Dbl.	1,772	2.99	170	1,974	1.81	115	206	1.49	10	3,951	2.32	295	189	2.21	13
Kona	989	1.48	47	1,473	1.2	57	0	0	0	2,462	1.32	104	244	1.57	12
Combined	**50,437**	**1.28**	**2,078**	**15,967**	**1.39**	**714**	**6,662**	**1.43**	**306**	**73,066**	**1.32**	**3,098**	**5,525**	**1.89**	**336**

*Oxide and Transition mineral resources reported at a cut-off grade of 0.5 g/t gold. Sulphide mineral resources reported at a cut-off grade of 1.0 g/t gold. Cut-off grades based on a gold price of US$1,300 per ounce, site operation costs of US$20.00 per tonne mined and assume 100 percent mining and metallurgical recovery. All figures are rounded to reflect the relative accuracy of the estimates. Mineral resources are not mineral reserves and do not have a demonstrated economic viability.

17.4 Mineral Reserve Estimate

Indicated and Inferred resources were used in the life-of-mine (LOM) plan and Inferred material represents 80% of the material planned for processing. Mineral resources are not mineral reserves and have not demonstrated economic viability. There is no certainty that all or any part of the mineral resources would be converted into mineral reserves. Mineral reserves can only be estimated as a result of an economic evaluation as part of a preliminary feasibility study (PFS) or a feasibility study (FS) of a mineral project. Accordingly, at the present level of development, there are no mineral reserves at the Coffee project.

17.5 Mining

The Coffee deposit is amenable to development as an open pit mine. Mining of the deposit is planned to produce a total of 53.4 Mt of heap leach feed and 212.4 Mt of waste (4.0:1 overall strip ratio) over a 12-year mine production life (includes two years of pre-production). The current LOM plan focuses on achieving consistent heap leach production rates, and mining of higher grade material early in the production schedule, as well as balancing grade and strip ratios.

The projected mining method, potential production profile and plan, and mine plan are conceptual in nature and additional technical studies will need to be completed in order to fully assess their viability. There is no certainty that a potential mine will be realized or that a production decision will be made. A mine production decision that is made without a FS carries additional potential risks, which include, but are not limited to, the inclusion of Inferred mineral resources. Inferred resources are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves. Mine design and mining schedules, metallurgical flow sheets, and process plant designs may require additional detailed work and economic analysis, and internal studies to ensure satisfactory operational conditions and decisions regarding future targeted production.

17.5.1 Open Pit Mine Plan and Phasing

Figure 1-1 illustrates the proposed overall site layout for the Coffee project, including the OP, waste rock facilities, heap leach facilities, and proposed plant site locations.

The mine design process for the deposit commenced with the development of OP optimization input parameters. These parameters included estimates of metal price, mining dilution, process recovery, off-site refining costs, geotechnical constraints (slope angles) and royalties (see Table 17-6).

Table 17-6: Mine Planning Optimization Input Parameters

Parameter	Unit	Value
Revenue, Smelting & Refining		
Gold price	US$/oz Au	1,250
Exchange Rate	US$:C$	0.95
Payable metal	%	100
TC/RC/Transport	C$/oz Au	7.50
Royalty @ 1% (assumed after capital buyout of $2M before Pre-production)	C$/oz Au	12.50
Net gold value per ounce	C$/oz	1,296
Net gold value per gram	C$/g	41.66
OPEX Estimates		
OP Waste Mining Cost	C$/t mined	2.25
OP MHL Feed Mining Cost	C$/t mined	2.25
Processing Cost for oxide in all deposits	C$/t milled	7.00
Processing Cost for transition in Supremo, DD & Kona	C$/t milled	7.25
Processing Cost for transition in Latte	C$/t milled	7.50
G&A	C$/t milled	4.00
Total OPEX (ex. Mining) –for oxide in all deposits	C$/t milled	11.00
Total OPEX (ex. Mining) – for transition in Supremo, DD & Kona	C$/t milled	11.25
Total OPEX (ex. Mining) – for transition in Latte	C$/t milled	11.50
Recovery and Dilution		
Gold Recovery		
Leach Recovery in oxide for Supremo, DD & Kona	%	90
Leach Recovery in oxide for Latte	%	87
Leach Recovery in upper transition for Supremo, DD & Kona	%	70
Leach Recovery in upper transition for Latte	%	44
Leach Recovery in lower transition for Supremo & DD	%	45
Leach Recovery in lower transition for Latte	%	26
External Mining Dilution	%	5
Mining Recovery	%	98
Other		
Overall Pit Slope Angles = interramp slopes flattened for ramp allowance		
Supremo	degrees	45
Latte	degrees	40 - 44
Double Double	degrees	37
Kona	degrees	40
Leach Production Rate (250 operating days per year x 20,000 tpd)	Mtpa	5.0

CAE NPV Scheduler (NPVS) software, along with the mineral inventory block models produced by SIM Geological Inc., were used to determine the optimal mining shells with the assumed overall slope angles presented above. Preliminary phases for the Supremo, Latte, Double Double and Kona deposits were selected and preliminary mine planning and scheduling was then conducted on these selected optimal shells. The PEA life of mine (LOM) proposed mineable resources for the deposit are presented in Table 17-7 (for both Oxide and Upper Transition material).

Both Indicated and Inferred resources were used in the LOM plan of which Inferred resources represent 80% of the material planned to be processed. Mineral resources that are not mineral reserves have not demonstrated economic viability. There is no certainty that all or any part of the mineral resources would be converted into mineral reserves.

Table 17-7: Proposed Mining Plan

Description	Unit	Value
Mine production life	yr	12
Heap Leach diluted feed	Mt	53.4
Diluted gold grade (head grade)	g/t	1.23
Contained gold	koz	2,111
Waste	Mt	212.4
Total material	**Mt**	**265.8**
Strip ratio	t:t	4

17.5.2 Mine Schedule

The various pit shells for the Coffee deposit were divided into phases (or pushbacks) for the mine plan development in order to provide flexibility in the schedule, maximize grade, reduce pre-stripping requirements in the early years, and maintain the heap leach at full production capacity. The Coffee deposits are most economical when the OP phases are mined concurrently. The OP mining is envisioned to be undertaken by Kaminak, the project owner.

The heap leach throughput was planned at a net yearly production of approximately 5.0 Mt. Pre-production stripping and heap leach pad construction was planned to occur in Years -2 and -1, with the commencement of leach processing occurring late in Year -1. Table 17-8 shows a summary of LOM total material movement by year for both the mine and the heap leach facility.

Table 17-8: LOM Production Schedule

				Year												
Area	**Description**	**Units**	**TOTAL**	**-2**	**-1**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
Supremo	Oxide HL Feed	ktonnes	**39,000**	-	-	-	763	5,000	5,000	5,000	5,000	5,000	5,000	5,000	4,000	-
	Oxide Mined Gold Grade	g/t	**1.13**	-	-	-	0.69	0.82	1.32	1.18	1.08	1.00	1.06	1.30	1.37	-
	Transition HL Feed	ktonnes	**1,000**	-	-	-	-	42	19	-	32	332	96	95	574	-
	Transition Mined Gold Grade	g/t	**1.64**	-	-	-	-	1.01	1.25	-	1.34	1.04	2.61	3.44	1.60	-
	Total HL Feed	ktonnes	**40,000**	-	-	-	763	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	-
	Total Mined Gold Grade	g/t	**1.14**	-	-	-	0.69	0.82	1.32	1.18	1.08	1.00	1.09	1.34	1.40	-
	Waste Mined	ktonnes	**171,000**	-	-	-	5,000	19,000	25,000	22,000	22,000	20,000	20,000	21,000	17,000	-
	Strip Ratio (t:t)	t:t	**4.24**	-	-	-	6.71	3.88	5.00	4.40	4.36	3.90	4.02	4.27	3.68	-
Latte	Oxide HL Feed	ktonnes	**11,000**	852	2,000	5,000	3,000	-	-	-	-	-	-	-	-	-
	Oxide Mined Gold Grade	g/t	**1.28**	1.09	1.13	1.42	1.23	-	-	-	-	-	-	-	-	-
	Transition HL Feed	ktonnes	**725**	-	17	259	450	-	-	-	-	-	-	-	-	-
	Transition Mined Gold Grade	g/t	**1.83**	-	1.24	1.72	1.92	-	-	-	-	-	-	-	-	-
	Total HL Feed	ktonnes	**11,000**	852	2,400	5,000	3,000	-	-	-	-	-	-	-	-	-
	Total Mined Gold Grade	g/t	**1.32**	1.09	1.13	1.44	1.33	-	-	-	-	-	-	-	-	-
	Waste Mined	ktonnes	**24,000**	4,000	7,000	9,000	5,000	-	-	-	-	-	-	-	-	-
	Strip Ratio (t:t)	t:t	**2.16**	4.40	3.03	1.74	1.53	-	-	-	-	-	-	-	-	-
Double Double	Oxide HL Feed	ktonnes	**1,000**	-	-	11	1,200	-	-	-	-	-	-	-	-	-
	Oxide Mined Gold Grade	g/t	**3.32**	-	-	5.05	3.30	-	-	-	-	-	-	-	-	-
	Transition HL Feed	ktonnes	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-
	Transition Mined Gold Grade	g/t	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total HL Feed	ktonnes	**1,000**	-	-	11	1,200	-	-	-	-	-	-	-	-	-
	Total Mined Gold Grade	g/t	**3.32**	-	-	5.05	3.30	-	-	-	-	-	-	-	-	-
	Waste Mined	ktonnes	**14,000**	-	-	2,000	11,000	-	-	-	-	-	-	-	-	-
	Strip Ratio (t:t)	t:t	**11.27**	-	-	211.67	9.49	-	-	-	-	-	-	-	-	-
Kona	Oxide HL Feed	ktonnes	**730**	-	-	-	-	-	-	-	-	-	-	-	730	-
	Oxide Mined Gold Grade	g/t	**1.22**	-	-	-	-	-	-	-	-	-	-	-	1.22	-
	Transition HL Feed	ktonnes	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-
	Transition Mined Gold Grade	g/t	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total HL Feed	ktonnes	**730**	-	-	-	-	-	-	-	-	-	-	-	730	-
	Total Mined Gold Grade	g/t	**1.22**	-	-	-	-	-	-	-	-	-	-	-	1.22	-
	Waste Mined	ktonnes	**3,700**	-	-	-	-	-	-	-	-	-	-	-	4,000	-
	Strip Ratio (t:t)	t:t	**5.07**	-	-	-	-	-	-	-	-	-	-	-	5.07	-
Total Mine	Oxide HL Feed	ktonnes	**52,000**	852	2,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	-
	Oxide Mined Gold Grade	g/t	**1.21**	1.09	1.13	1.43	1.69	0.82	1.32	1.18	1.08	1.00	1.06	1.30	1.34	-
	Transition HL Feed	ktonnes	**2,000**	-	17	259	450	42	19	-	32	332	96	95	574	-
	Transition Mined Gold Grade	g/t	**1.71**	-	1.24	1.72	1.92	1.01	1.25	-	1.34	1.04	2.61	3.44	1.60	-
	Total HL Feed	ktonnes	**53,000**	852	2,400	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	-
	Total Mined Gold Grade	g/t	**1.23**	1.09	1.13	1.44	1.71	0.82	1.32	1.18	1.08	1.00	1.09	1.34	1.37	-
	Waste Mined	ktonnes	**212,000**	4,000	7,000	11,000	21,000	19,000	25,000	22,000	22,000	19,000	20,000	21,000	20,000	-
	Strip Ratio (t:t)	t:t	**3.97**	4.40	3.03	2.19	4.24	3.88	5.00	4.40	4.36	3.90	4.02	4.27	3.87	-
	Total Material Mined	ktonnes	**266,000**	5,000	10.000	16,000	26,000	24,000	30,000	27,000	27,000	24,000	25,000	26,000	26,000	-

17.6 Waste Management

Waste rock from the open pits at the Coffee project is planned to be deposited in various engineered waste dumps adjacent to the proposed open pits. In addition, the pre-stripping waste material from Year -2 of the LOM schedule will be used to develop the heap leach embankment requirements.

17.7 Recovery Methods

The process flowsheet includes a three-stage crushing plant followed by a heap leach operation. Gold is extracted by an Adsorption-Desorption-Recovery (ADR) carbon plant. The process flowsheet is based on an HL processing rate of 5.0 million dry tonnes per year. The process plant will be located near the HLF to minimize the pumping and pipeline requirements for pregnant and barren solutions.

Run-of-mine mineralized material is trucked from the mine and normally dumped directly into primary jaw crusher. A small stockpile of ROM HL feed will be available to allow mining operations to continue if the primary jaw crusher is not operating. Two additional stages of crushing, secondary and tertiary in closed-circuit, are used to reduce the product size to nominal 80% passing 12.5 mm.

The design particle crush size is minus 16 mm (80% passing 12.5 mm), however, mineralized material types found to leach adequately at coarser sizes could bypass the tertiary crushing circuit. Based on experience gained during actual operations, the crush size for each material type may be modified as conditions permit.

A crushed HL feed stockpile will hold approximately 1,500,000 tonnes and will use grasshopper-type portable conveyors and a self-propelled radial stacker equipped with a stinger conveyor to build the stockpile. The stockpile is required because the design criteria only allows the heap leach facility (HLF) to be loaded for 250 days per year, hereby avoiding heap loading during the coldest period of the year.

Final crushed mineralized material is reclaimed by a front-end loader and portable conveyors and fed onto a series of grasshopper-type portable conveyors for heap construction.

The HLF contains the following facilities:

- Valley fill heap leach pad complete with liner system
- In-heap solution pond for storage of pregnant solution
- Pregnant solution recovery wells and vertical turbine pumps for collection and transport of pregnant leach solution
- Piping systems for the collection and distribution of both barren and pregnant solution
- Heating of a portion of barren solution to maintain thermal balance

The liner system of the in-heap solution storage area will have a double liner of linear low-density polyethylene (LLDPE), separated by a synthetic geonet mesh over a compacted sub-base of local

material. The liner system of the HLF not used for solution storage will be a single LLDPE liner over an engineered compacted sub-base from local material.

Barren leach solution will be applied to the HL by a drip emitter irrigation system. The pregnant solution will flow to the in-heap solution pond and will then be transferred to the ADR recovery plant using wells and vertical turbine pumps.

A system of diversion ditches collects the drainage runoff from uphill catchment areas around the HLF. An emergency storm water pond located below the HLF is available in case of an extreme storm event. If this occurs, the excess solution will be routed to the storm water pond and later used to supplement the supply make-up water.

The pregnant solution will be pumped to the carbon adsorption circuit. The carbon adsorption circuit consists of a series of five cascading carbon columns. The barren solution that will discharge from the final carbon column drains to barren solution tanks. Cyanide solution, liquid caustic and antiscalent are added to the barren solution as needed. Barren solution is then pumped back to the leach pad. The loaded carbon from the first carbon column is advanced to the desorption circuit. The loaded carbon will be acid washed and sent to the carbon strip vessel.

The pregnant solution that flows out of the top of the strip vessel will flow to an electrowinning cell. At the conclusion of the strip cycle, the stripped carbon will be thermally regenerated in the carbon reactivation kiln to maintain its activity.

Gold will be plated onto knitted-mesh steel wool cathodes in the electrowinning cell. The gold-bearing sludge and steel wool will be retorted to remove any mercury. The retort residue will be mixed with fluxes and then smelted to produce gold doré and slag. The doré will be transported to a refiner for further purification. Slag is processed to remove prills for re-melting in the furnace.

Several considerations to adequately mitigate the Yukon climate have been included in the general design criteria:

- All conveyors will be fitted with covers
- A valley fill heap configuration with an in-heap solution pond and temperature monitoring for pregnant leach solution
- Burying the drip emitter lines
- Ability to heat a portion of the barren solution
- Heat tracing of and insulation of the barren solution tank and pipelines
- Dedicated stand-by generators for backup power supply to pregnant and barren solution pumps
- All crushing and process buildings will be pre-engineered steel structures with insulated steel roofs and walls.

All power for the project will be supplied by diesel generators. Estimated power required for the process plant is 3.9 megawatts (MW). Water will be supplied from wells developed near the plant facilities and will be adequate to supply all process, camp and mine facilities.

An assay and metallurgical laboratory facility is equipped to perform sample preparation and assays, by atomic absorption, fire assay, and cyanide (CN) soluble analyses. A metallurgical test work area for process optimization is also included.

The estimates for ultimate gold recovery for various mineralized material types were based on the results of laboratory column leach tests conducted by KCA. For reference purposes the distribution of mined material the final mine plan is presented in Table 17-9.

Table 17-9: Distribution of Material Types in Final Mine Plan

Material Type	Tonnage Mined	Distribution (%)
Supremo Oxide	39,100,000	73
Supremo Upper Transition	1,200,000	2
Latte Oxide	10,500,000	20
Latte Upper Transition	700,000	1
Double Double Oxide	1,200,000	2
Kona Oxide	700,000	1
Total	**53,400,000**	**100.0**

A summary of the ultimate recoveries and reagent consumptions used for each area is shown in Table 17-10. The recoveries are based on actual test results reduced by 3%.

Table 17-10: Ultimate Gold Recovery and Reagent Consumption Used in the Production Model for Each Area

Sample	Ultimate Au Recovery (%)	Reagent Consumptions	
		NaCN (kg/t)	CaO (kg/t)
Supremo Oxide	90	0.20	1.50
Supremo Upper Transition	70	0.20	1.50
Latte Oxide	88	0.20	1.50
Latte Upper Transition	44	0.20	1.50
Double Double Oxide	90	0.20	1.50
Kona Oxide	90	0.20	1.50

Actual laboratory data of gold recovery and leach time was used to generate the leach profiles. The leach time actually experienced in the laboratory was doubled to generate the leach profiles for both the Supremo and Latte mine areas presented below in Figure 17.1 and Figure 17.2.

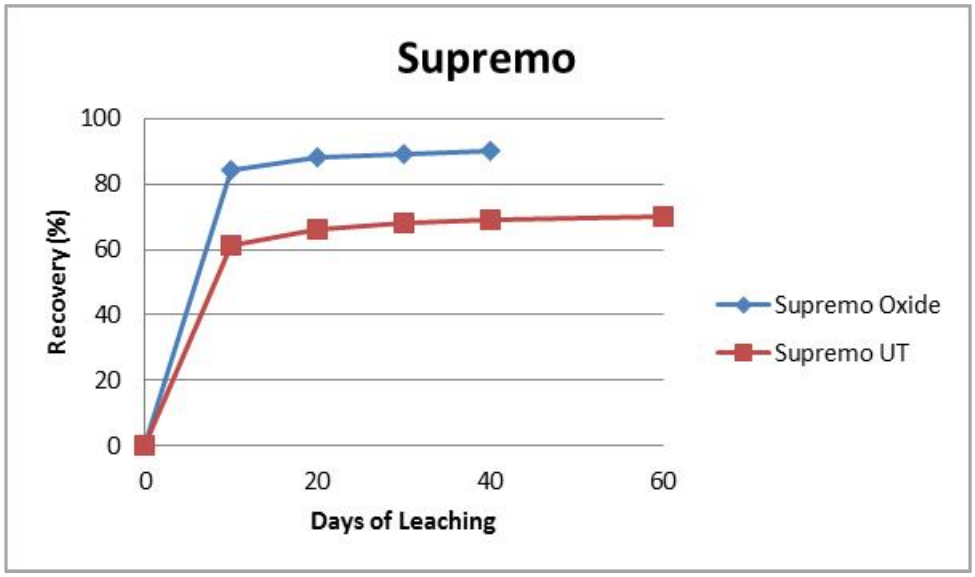


Figure 17.1: Supremo Leaching Profiles

As an example in Figure 17.1 above a leach time of 40 days indicates an ultimate 90% recovery for Supremo Oxide. The actual laboratory leach time to achieve this 90% recovery was only 20 days. A safety factor of 100% has been added to the laboratory leach time.

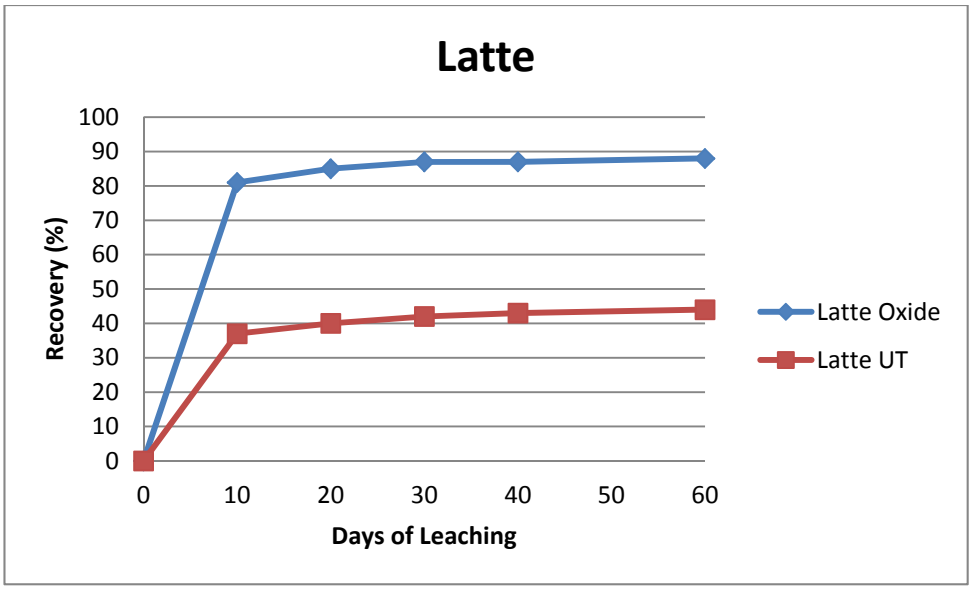


Figure 17.2: Latte Leaching Profiles

All Coffee project mine areas reached ultimate extraction in 60 days or less. This rapid leach cycle will help to reduce the inventory of ultimate recoverable gold contained in the heap leach pad during normal operations, but an inventory of recoverable gold will be present. The inventory of recoverable gold in the process circuit will mainly be attributed to the unleached material placed on the leach pad as cover for the drip emitter system, estimated be about 550,000 t of HL feed and contain 22,000 oz of gold.

Although the leach cycle should minimize the amount of gold from partially leached material an allowance of 5,000 oz has been made. Gold inventories contained in process solutions and on carbon are estimated to contain 3,000 oz. A process inventory of 30,000 oz of gold is expected and will build over a three year period at 10,000 oz per year and will be recovered at the end of the mine life.

Based on the final mine plan, a gold production model was developed. The gold production model considers the different mining areas and their ultimate gold extractions for each area. Since the HLF will not be loaded for 100 days per year, a stockpile of crushed ore will be required. Usually the stockpile will be full at the start of leaching in the spring. Since the heap loading equipment has a higher capacity than the crushing circuit, the stockpile will be depleted by the time heap loading operations are curtailed in the latter part of the year. The stockpile will then be filled over the winter months.

A mixture of HL feed material at varying recoveries and grades will be contained in the stockpile. The stockpile inventory is calculated by keeping a running total of tonnage and recoverable ounces of gold. As the stockpile is reclaimed these tonnes and recoverable ounces are then loaded onto the HLF.

Table 17-11 presents the annual gold production. In Year -1, the calculated gold production of 63,000 oz will be reduced by 10,000 oz of process inventory. Of the produced 53,000 oz, only 50%

or 26,000 oz are credited as sold. The remaining 27,000 ounces are carried over to Year 1 production to allow for plant start-up.

Table 17-11: Annual Gold Production

	Year	-2	-1	1	2	3	4	5	6	7	8	9	10	11	TOTAL
Total Mined and Crushed To Crushed HL feed Stockpile	Oxide HL Feed	852,000	2,383,000	4,741,000	4,538,000	4,958,000	4,981,000	5,001,000	4,969,000	4,660,000	4,878,000	4,906,000	4,668,000	-	**51,534,000**
	Oxide Grade	1.09	1.13	1.43	1.69	0.82	1.32	1.18	1.08	1.00	1.06	1.30	1.34	-	**1.21**
	Oxide Oz	30,000	86,000	218,000	247,000	130,000	211,000	189,000	173,000	149,000	166,000	205,000	202,000	-	**2,006,000**
	Oxide Recovered Oz	26,000	76,000	192,000	220,000	117,000	190,000	170,000	155,000	134,000	150,000	185,000	181,000	-	**1,797,000**
	Transition HL Feed	-	17,000	259,000	450,000	42,000	19,000	-	32,000	332,000	96,000	95,000	574,000	-	**1,914,000**
	Transition Grade	-	1.24	1.72	1.92	1.01	1.25	-	1.34	1.04	2.61	3.44	1.60	-	**1.71**
	Transition Oz	-	664	14,000	28,000	1,371	774	-	1,000	11,000	8,000	10,000	30,000	-	**105,000**
	Transition Recovered Oz	-	292	6,300	12,000	960	542	-	951	8,000	6,000	7,000	21,000	-	**63,00**
	Total Tonnes	852,000	2,400,000	4,999,000	4,987,000	5,587,000	5,587,000	5,001,000	5,001,000	4,992,000	4,973,000	5,000,000	5,242,000	-	**53,448,000**
	Total Grade	1.09	1.13	1.44	1.71	0.82	1.32	1.18	1.08	1.00	1.09	1.34	1.37	-	**1.23**
	Total Recovered Oz	26,000	76,000	198,000	232,000	118,000	191,000	170,000	156,000	142,000	155,000	192,000	202,000	-	**1,859,000**
Beginning Stockpile Inventory	Total Tonnes	852,000	3,252,000	6,251,000	5,587,000	5,587,000	5,600,000	5,588,000	5,589,000	5,581,000	5,554,000	5,554,000	5,797,000	797,000	**-**
	Total Recovered Oz	26,000	103,000	237,000	255,000	145,000	206,000	192,000	177,000	161,000	172,000	209,000	223,000	31,000	**-**
From Crusher Stockpile to Heap Leach	Total Tonnes	-	2,000,000	5,651,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	797,000	**53,448,000**
	Total Recovered Oz	-	63,000	215,000	228,000	130,000	184,000	172,000	158,000	144,000	155,000	188,000	192,000	31,000	**1,859,000**
Closing Stockpile Inventory	Total Tonnes	852,000	1,252,000	600,000	587,000	587,000	587,000	588,000	589,000	581,000	554,000	554,000	797,000	-	**7,276,000**
	Total Recoverable Oz	26,000	39,000	23,000	27,000	15,000	22,000	20,000	19,000	17,000	17,000	21,000	31,000	-	**250,000**
Gold Production	Gold in Heap Inventory		10,000	10,000	10,000	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	(30,000)	
	Recovered Oz	-	53,000	205,000	218,000	130,000	184,000	172,000	158,000	144,000	155,000	188,000	192,000	61,000	**1,859,000**
Plant Start Up Allowances	Ounces		27,000	(27,000)											
Gold Sales	Ounces		**27,000**	**231,000**	**218,000**	**130,000**	**184,000**	**172,000**	**158,000**	**143,853**	**155,000**	**188,000**	**192,000**	**61,000**	**1,859,000**

17.8 Project Infrastructure

The project envisions the construction of the followings key infrastructure items:

- Approximately 250 km all-season access road from Carmacks to the project site
- Approximately 7 km of new on-site access roads for light vehicles to by-pass the active mining areas
- New airstrip
- Primary, secondary and tertiary crushing systems
- 1.5 M t crushed HL feed stockpile
- Carbon adsorption plant and gold refinery
- Truck shop, warehouse and camp
- Fresh water supply developed from groundwater
- Bulk explosives storage and magazines
- Power plant and bulk fuel storage
- Potable, fire and sewage water systems

17.9 Environment Assessment and Permitting

The Project will be subject to an environmental assessment (EA) under the Yukon Environmental and Socio-economic Assessment Act (YESAA), administered by the Yukon Environmental and Socio-economic Assessment Board (YESAB). The Project will require an Executive Committee screening.

Baseline environmental studies were initiated in 2010. In 2014, a comprehensive baseline program is underway.

17.9.1 Social Considerations

The Project is located within the traditional territory of the Tr'ondëk Hwëch'in First Nation. A portion of the claim block is located within the overlap area with Selkirk First Nation. The proposed road alignment is located within the traditional territories of Little Salmon Carmacks First Nation, Selkirk First Nation and Tr'ondëk Hwëch'in First Nation. The Project and proposed road alignment are located within White River First Nation's asserted traditional territory.

Kaminak have an Exploration Communication and Cooperation Agreement with Tr'ondëk Hwëch'in. Kaminak is developing a community and Aboriginal engagement program for 2014.

17.10 Capital Costs

The capital cost estimate (CAPEX) is based on a combination of experience, reference projects, budgetary quotes and factors as appropriate with a preliminary study.

The CAPEX estimate includes the costs required to develop, sustain, and close the operation for the planned 11-year mine life, which includes a 2 year construction period. Closure and reclamation takes place in Years 11-15.

The CAPEX estimate is shown in Table 17-12. The sustaining capital is carried over operating years 1 through 11, and closure costs are projected over Years 11 to 15.

Table 17-12: LOM Capital Costs

Capital Cost	Pre-Production (C$M)	Sustaining/ Closure (C$M)	Total (C$M)
Capitalized Mining	50.3	0.0	50.3
Pre-Production Operating Costs	16.7	0.0	16.7
Site	57.1	4.8	61.9
Mining Equipment	46.3	64.5	110.8
Leach Facility	56.1	17.2	73.3
Camp	10.3	0.0	10.3
Indirects	37.0	0.0	37.0
Closure	0.0	40.0	40.0
Subtotal	**273.8**	**126.5**	**400.3**
Contingency	31.0	19.0	50.0
Total Capital Costs	**304.8**	**145.5**	**450.3**

17.11 Operating Costs

The operating cost estimate (OPEX) is based on a combination of experience, reference projects, budgetary quotes and factors as appropriate with a preliminary study.

The operating cost estimate in this study includes the costs to mine, handle and transport HL feed to the mill, mill and process the material to doré and the associated on-site general and administrative expenses (G&A). These items total the mine operating costs. The total life-of-mine costs are summarized in Table 17-13.

Table 17-13: LOM Operating Costs (excluding costs capitalized in pre-production)

Operating Cost	$/tonne HL	LOM C$M
Mining & Rehandle ($2.29/t mined)	11.86	610.0
Processing	6.67	343.2
G&A	4.00	205.8
Total Operating Costs	**22.53**	**1,159.0**

17.12 Economic Analysis

An economic model was developed to estimate annual cash flows and sensitivities of the project. All costs, metal prices and economic results are reported in Canadian dollars (CDN, C$ or $) unless stated otherwise.

Pre-tax estimates of project values were prepared for comparative purposes, while after-tax estimates were developed to approximate the true investment value. It must be noted, however, that tax estimates involve many complex variables that can only be accurately calculated during operations and, as such, the after-tax results are only approximations.

The reader is cautioned that the gold price and exchange rate used in this study are only estimates based on recent historical performance and there is absolutely no guarantee that they will be realized if the Project is taken into production. The gold price is based on many complex factors and there are no reliable long-term predictive tools.

Other economic factors considered include the following:

- Discount rate of 5% (sensitivities using other discount rates have been calculated for each scenario)
- Closure Cost of $46.0M which includes a 15% contingency
- Nominal 2014 dollars
- Revenues, costs, taxes are calculated for each period in which they occur rather than actual outgoing/incoming payment
- Results are presented on 100% ownership and do not include management fees or financing costs
- Exclusion of all pre-development and sunk costs (i.e. exploration and resource definition costs, engineering fieldwork and studies costs, environmental baseline studies costs, etc.)
- Costs from operations incurred in the pre-production period have been capitalized and assumed to cover the working capital necessary

The results of the economic analysis are shown in Table 17-14.

Sensitivities to metal prices, head grade, OPEX and CAPEX were conducted by adjusting each variable up and down 15% independently of each other. As with most metal mining projects, the project is most sensitive to metal price and head grade. The project is slightly more sensitive to OPEX than CAPEX. The base case sensitivities are shown in Table 17-15.

Table 17-14: Economic Results

Parameter	Unit	Value
Au Price	US $/oz	1,250
Exchange Rate	US:CDN	0.95
Production		
Mine Life	Yrs	11.1
Au Produced	LOM k oz	1,859
	Avg k oz/yr	167
LOM NSR (after royalties)	$M	2,405.3
Operating Costs	LOM $M	1,246.3
	$/t milled	22.53
Capital Costs		
Pre-Production	$M	273.8
Sustaining & Closure	$M	126.5
Subtotal	$M	400.3
Contingency 15%	$M	50.0
Total Capital Costs	**$M**	**450.3**
Operating Cash Flow	$M	1,246.3
	$M/yr	112.8
Cash Cost	$/oz	645.43
Economic Results		
After-Tax Free Cash Flow	$M	515.2
	Avg $M/yr	46.6
Discount Rate	%	5
Pre-Tax $NPV_{5\%}$	**$M**	**522.4**
Pre-Tax IRR	**%**	**32.8**
Pre-Tax Payback	**Yrs**	**1.8**
After-Tax $NPV_{5\%}$	**$M**	**330.4**
After-Tax IRR	**%**	**26.2**
After-Tax Payback	**Yrs**	**2.0**

Table 17-15: Economic Sensitivities

After-Tax $NPV_{5\%}$ ($M)			
Variable	**-15%**	**100%**	**+15%**
Metal Prices	158.9	330.4	497.8
Head Grade	158.4	330.4	498.1
Operating Costs	410.2	330.4	249.6
Capital Costs	391.1	330.4	269.8

17.13 Conclusions

It is the conclusion of the QPs that the PEA summarized in this technical report contains adequate detail and information to support the positive economic outcome shown for the project. Standard industry practices, equipment and design methods were used in the PEA.

The Coffee Project contains a substantial oxide resource that can be mined by open pit methods and recovered with heap leach processing.

Based on the assumptions used for this preliminary evaluation, the project is economic and should proceed to the pre-feasibility or feasibility stage.

There is also a likelihood of improving the project economics by identifying additional mineral resources within the development area that may justify increased open pit production or extend the mine life.

The most significant potential risks associated with the Project are uncontrolled dilution, operating and capital cost escalation, permitting and environmental compliance, unforeseen schedule delays, changes in regulatory requirements, ability to raise financing and metal price. These risks are common to most mining projects, many of which can be mitigated with adequate engineering, planning and pro-active management.

To date, the QPs are not aware of any fatal flaws for the Project.

17.14 Recommendations

It is recommended that the project proceed to the feasibility study stage in line with Kaminak's desire to advance the project. It is also recommended that environmental and permitting continue as needed to support Kaminak's project development plans.

It is estimated that a feasibility study and supporting field work would cost approximately $25.5 million. A breakdown of the key components of the next study phase is as follows in Table 17-16.

Table 17-16 Cost Estimate to Advance Project to Feasibility Stage

Component	Estimated Cost (M$)	Comment
Infill drilling	14.0	Conversion of inferred resources to indicated within and immediately adjacent to the pit shells. Drilling will include holes for combined resource, geotech and hydrogeology purposes plus additional 4 geotechnical holes
Metallurgical testing	0.5	Variability test work and crush size trade off study
Condemnation drilling	3.0	Drilling under waste dumps, HLF & infrastructure to ensure no sterilization of resources
Geochemistry	0.5	ABA accounting tests and humidity cell testing to determine acid generating potential of all rock units and mitigation plans
Geotechnical/ Hydrology/Hydrogeology	1.0	Mine and surface facilities geotechnical investigations (logging, test pitting, sampling, lab tests, etc.)
Engineering	3.5	FS-level mine, infrastructure & process design, cost estimation, scheduling & economic analysis
Environment	3.0	Baseline investigations including, water quality, fisheries, wildlife, weather, traditional land use & archaeology
Total	**25.5**	Excludes corporate overheads and future permitting activities

18.0 STATEMENT OF EXPENDITURES

Table 18-1: Table of Expenditures for the Coffee Gold Project during 2014.

Statement of Expenditures		Amount	Group	Group	Group	Group
Project	Account Name	All Groups	HW07441	HW07442	HW07443	HW07444
FT-Exploration - NY	Drilling	$3,290	$2,115	$509	$431	$235
FT-Exploration - Y	Drilling	$8,536	$5,487	$1,321	$1,118	$610
NFT-Access Road - Y	Helicopter	$411	$264	$64	$54	$29
NFT-Baseline (Env)	Drilling	$4,734	$3,043	$733	$620	$338
NFT-Baseline (Env)	Helicopter	$10,897	$7,006	$1,687	$1,427	$778
NFT-Baseline (Env)	Environment	$2,824	$1,815	$437	$370	$202
NFT-Baseline (Env)	Aquatic Biology	$27,021	$17,370	$4,182	$3,538	$1,930
NFT-Baseline (Env) - Y	Geotechnical	$337	$217	$52	$44	$24
NFT-Baseline (Env) - Y	Fixed Wing	$1,432	$920	$222	$187	$102
NFT-Baseline (Env) - Y	Helicopter	$411	$264	$64	$54	$29
NFT-Baseline (Env) - Y	Environment	$446	$287	$69	$58	$32
NFT-Condemnation	Drilling	$12,221	$7,857	$1,891	$1,600	$873
NFT-Condemnation	Helicopter	$10,443	$6,714	$1,616	$1,368	$746
NFT-Condemnation	Airfares - Field Staff	$459	$295	$71	$60	$33
NFT-Condemnation	Survey Eqiup	$3,015	$1,938	$467	$395	$215
NFT-Condemnation	Field Consumables	$141	$91	$22	$18	$10
NFT-Condemnation - Y	Geotechnical	$625	$402	$97	$82	$45
NFT-Condemnation - Y	Whitehorse	$833	$535	$129	$109	$59
NFT-Condemnation - Y	Dawson	$2,243	$1,442	$347	$294	$160
NFT-Condemnation - Y	Drilling	$1,692	$1,088	$262	$222	$121
NFT-Condemnation - Y	Fixed Wing	$60,528	$38,911	$9,367	$7,926	$4,323
NFT-Condemnation - Y	Helicopter	$411	$264	$64	$54	$29
NFT-Condemnation - Y	RC Drilling - Consumables, Labour	$1,808	$1,162	$280	$237	$129
NFT-Condemnation - Y	Road (Smalls, Kluane Transport)	$970	$624	$150	$127	$69
NFT-Condemnation - Y	Fuel - Gas	$3,360	$2,160	$520	$440	$240
NFT-Condemnation - Y	Survey Eqiup	$8,266	$5,314	$1,279	$1,082	$590
NFT-Condemnation - Y	Camp Equipment	$203	$130	$31	$27	$14
NFT-Condemnation - Y	ATV	$44	$28	$7	$6	$3
NFT-Exploration - Y	Geotechnical	$385	$247	$60	$50	$27
NFT-Exploration - Y	Helicopter	$411	$264	$64	$54	$29
NFT-Exploration - Y	DC Drilling - Mob/Demob	$5,894	$3,789	$912	$772	$421
NFT-Exploration - Y	DC Drilling - Consumables, Labour	$4,608	$2,962	$713	$603	$329
NFT-Exploration - Y	Survey Eqiup	$3,015	$1,938	$467	$395	$215
NFT-Exploration - Y	Field Consumables	$141	$91	$22	$18	$10
NFT-FN & Community	Fixed Wing	$4,910	$3,156	$760	$643	$351
NFT-Geotechnical - NY	Drilling	$1,065	$684	$165	$139	$76
NFT-Geotechnical - NY	DC Drilling - Mob/Demob	$1,965	$1,263	$304	$257	$140
NFT-Geotechnical - NY	DC Drilling - Consumables, Labour	$1,536	$987	$238	$201	$110
NFT-Geotechnical - Y	Geotechnical	$144	$93	$22	$19	$10
NFT-Geotechnical - Y	Drilling	$442	$284	$68	$58	$32
NFT-Geotechnical - Y	Fixed Wing	$1,033	$664	$160	$135	$74
NFT-Geotechnical - Y	Helicopter	$411	$264	$64	$54	$29
NFT-Infill Drilling - NY	Geologists - Contract	$10,353	$6,656	$1,602	$1,356	$740
NFT-Infill Drilling - NY	Drilling	$124,575	$80,084	$19,279	$16,313	$8,898
NFT-Infill Drilling - NY	Helicopter	$24,065	$15,470	$3,724	$3,151	$1,719
NFT-Infill Drilling - NY	Drilling	$436,680	$280,723	$67,581	$57,184	$31,191
NFT-Infill Drilling - NY	DC Drilling - Mob/Demob	$22,224	$14,287	$3,439	$2,910	$1,587
NFT-Infill Drilling - NY	DC Drilling - Metreage and Related	$60,222	$38,714	$9,320	$7,886	$4,302
NFT-Infill Drilling - NY	DC Drilling - Consumables, Labour	$22,491	$14,458	$3,481	$2,945	$1,606
NFT-Infill Drilling - NY	Airfares - Field Staff	$5,051	$3,247	$782	$661	$361
NFT-Infill Drilling - NY	Travel - Meals	$26	$17	$4	$3	$2
NFT-Infill Drilling - NY	Travel - Other Expenses (taxi,tip)	$193	$124	$30	$25	$14
NFT-Infill Drilling - NY	Survey Eqiup	$6,549	$4,210	$1,014	$858	$468
NFT-Infill Drilling - NY	Field Consumables	$282	$181	$44	$37	$20
NFT-Infill Drilling - NY	Maintenance & Repairs Equipment	$155	$100	$24	$20	$11
NFT-Infill Drilling - Y	Geotechnical	$3,320	$2,134	$514	$435	$237
NFT-Infill Drilling - Y	Whitehorse	$2,731	$1,756	$423	$358	$195
NFT-Infill Drilling - Y	Dawson	$4,095	$2,633	$634	$536	$293
NFT-Infill Drilling - Y	Consultants/Contractors	$9,744	$6,264	$1,508	$1,276	$696
NFT-Infill Drilling - Y	Earthmoving	$36,286	$23,327	$5,616	$4,752	$2,592
NFT-Infill Drilling - Y	Drilling	$52,451	$33,718	$8,117	$6,869	$3,746

NFT-Infill Drilling - Y	Fixed Wing	$108,701	$69,879	$16,823	$14,235	$7,764
NFT-Infill Drilling - Y	Helicopter	$411	$264	$64	$54	$29
NFT-Infill Drilling - Y	DC Drilling - Consumables, Labour	$32,357	$20,801	$5,008	$4,237	$2,311
NFT-Infill Drilling - Y	RC Drilling - Consumables, Labour	$4,219	$2,712	$653	$552	$301
NFT-Infill Drilling - Y	Road (Smalls, Kluane Transport)	$2,749	$1,767	$425	$360	$196
NFT-Infill Drilling - Y	Food - Camp	$16,799	$10,799	$2,600	$2,200	$1,200
NFT-Infill Drilling - Y	Fuel - Other (reg gas, propane)	$2,574	$1,655	$398	$337	$184
NFT-Infill Drilling - Y	Fuel - Gas	$3,360	$2,160	$520	$440	$240
NFT-Infill Drilling - Y	Travel - Meals	$206	$132	$32	$27	$15
NFT-Infill Drilling - Y	Survey Eqiup	$19,286	$12,398	$2,985	$2,526	$1,378
NFT-Infill Drilling - Y	Camp Equipment	$448	$288	$69	$59	$32
NFT-Infill Drilling - Y	Office Equipment & Supplies	$110	$71	$17	$14	$8
NFT-Infill Drilling - Y	Field Equipment - Geo and Field Use	$319	$205	$49	$42	$23
NFT-Infill Drilling - Y	Field Consumables	$510	$328	$79	$67	$36
NFT-Infill Drilling - Y	Vehicles & Heavy Equipment	$348	$224	$54	$46	$25
NFT-Infill Drilling - Y	ATV	$44	$28	$7	$6	$3
NFT-Infill Drilling - Y	Maintenance & Repairs Equipment	$43	$27	$7	$6	$3
NFT-Metallurgical - NY	Metallurgical	$26,135	$16,801	$4,045	$3,423	$1,867
NFT-Metallurgical - NY	Survey Eqiup	$3,015	$1,938	$467	$395	$215
NFT-Mine Engineering	Helicopter	$411	$264	$64	$54	$29
NFT-Resourc/Reserves	Helicopter	$411	$264	$64	$54	$29
Coffee	Geologists - Staff	$1,364,956	$877,472	$211,243	$178,744	$97,497
Coffee	Licenses & Fees	$38,422	$24,700	$5,946	$5,031	$2,744
Coffee FT	Geologists - Contract	$6,783	$4,361	$1,050	$888	$485
Coffee FT	Geologists - Consultants	$22,446	$14,430	$3,474	$2,939	$1,603
Coffee FT	Scoping Study / PEA	$102,925	$66,166	$15,929	$13,478	$7,352
Coffee FT	Expediting	$1,292	$830	$200	$169	$92
Coffee FT	Whitehorse	$13,849	$8,903	$2,143	$1,814	$989
Coffee FT	Dawson	$27,254	$17,520	$4,218	$3,569	$1,947
Coffee FT	Geophysical Surveys - Airborne	$22,176	$14,256	$3,432	$2,904	$1,584
Coffee FT	Surveyors	$10,411	$6,693	$1,611	$1,363	$744
Coffee FT	Geochem Contractors	$41,927	$26,953	$6,489	$5,490	$2,995
Coffee FT	Earthmoving	$406,146	$261,094	$62,856	$53,186	$29,010
Coffee FT	Dozer/Grazer - Schmidt	$77,523	$49,836	$11,998	$10,152	$5,537
Coffee FT	Assaying	$49,716	$31,961	$7,694	$6,510	$3,551
Coffee FT	Drilling	$430,389	$276,679	$66,608	$56,360	$30,742
Coffee FT	Fixed Wing	$661,527	$425,268	$102,379	$86,629	$47,252
Coffee FT	Helicopter	$1,297,523	$834,122	$200,807	$169,914	$92,680
Coffee FT	Helicopter - Environmental	$38,892	$25,002	$6,019	$5,093	$2,778
Coffee FT	Drilling	$637,712	$409,958	$98,693	$83,510	$45,551
Coffee FT	DC Drilling - Mob/Demob	$141,247	$90,802	$21,860	$18,497	$10,089
Coffee FT	DC Drilling - Metreage and Related	$1,695,390	$1,089,894	$262,382	$222,015	$121,099
Coffee FT	DC Drilling - Consumables, Labour	$849,238	$545,939	$131,430	$111,210	$60,660
Coffee FT	RC Drilling - Mob/Demob	$17,864	$11,484	$2,765	$2,339	$1,276
Coffee FT	RC Drilling - Metreage and Related	$248,877	$159,992	$38,517	$32,591	$17,777
Coffee FT	RC Drilling - Consumables, Labour	$139,848	$89,902	$21,643	$18,313	$9,989
Coffee FT	Freight	$1,718	$1,104	$266	$225	$123
Coffee FT	Barging (Stuart Schmidt)	$45,360	$29,160	$7,020	$5,940	$3,240
Coffee FT	Food - Camp	$219,492	$141,102	$33,969	$28,743	$15,678
Coffee FT	Diesel - Drill	$308,276	$198,177	$47,709	$40,369	$22,020
Coffee FT	Fuel (Jet) - Helicopter	$226,228	$145,432	$35,011	$29,625	$16,159
Coffee FT	Fuel - Other (reg gas, propane)	$885	$569	$137	$116	$63
Coffee FT	Fuel - Gas	$2,987	$1,920	$462	$391	$213
Coffee FT	Travel Costs	$260	$167	$40	$34	$19
Coffee FT	Accom-Field Staff (travel layovers)	$46	$30	$7	$6	$3
Coffee FT	Airfares - Field Staff	$55,788	$35,864	$8,634	$7,306	$3,985
Coffee FT	Camp	$336	$216	$52	$44	$24
Coffee FT	Communications Equipment	$7,427	$4,775	$1,149	$973	$531
Coffee FT	Survey Eqiup	$36,294	$23,332	$5,617	$4,753	$2,592
Coffee FT	ATV hire from Kluane	$210	$135	$33	$28	$15
Coffee FT	Camp Equipment	$8,299	$5,335	$1,284	$1,087	$593
Coffee FT	Office Equipment & Supplies	$1,510	$971	$234	$198	$108
Coffee FT	Enviro Gear	$348	$223	$54	$46	$25
Coffee FT	Camp Construction	$850	$547	$132	$111	$61
Coffee FT	Field Equipment - Geo and Field Use	$5,853	$3,762	$906	$766	$418
Coffee FT	Core Equipment	$27,376	$17,599	$4,237	$3,585	$1,955
Coffee FT	Field Consumables	$6,993	$4,496	$1,082	$916	$500
Coffee FT	Safety Equipment & Consumables	$1,201	$772	$186	$157	$86

Coffee FT	Communications Equipment	$29,096	$18,705	$4,503	$3,810	$2,078
Coffee FT	Software	$13,635	$8,765	$2,110	$1,786	$974
Coffee FT	Vehicles & Heavy Equipment	$1,988	$1,278	$308	$260	$142
Coffee FT	ATV	$1,270	$817	$197	$166	$91
Coffee FT	Maintenance & Repairs Equipment	$4,771	$3,067	$738	$625	$341
Coffee FT	Security	$84	$54	$13	$11	$6
Coffee FT	White River FN Annual contributions	$58,800	$37,800	$9,100	$7,700	$4,200
Coffee NFT	Geologists - Contract	$6,069	$3,902	$939	$795	$434
Coffee NFT	Geologists - Consultants	$25,122	$16,150	$3,888	$3,290	$1,794
Coffee NFT	Training	$986	$634	$153	$129	$70
Coffee NFT	Scoping Study / PEA	$65,422	$42,057	$10,125	$8,567	$4,673
Coffee NFT	Metallurgical	$5,649	$3,631	$874	$740	$403
Coffee NFT	Access Road	$36,868	$23,701	$5,706	$4,828	$2,633
Coffee NFT	Geotechnical	$71,887	$46,213	$11,125	$9,414	$5,135
Coffee NFT	Equipment Rental	$8,080	$5,194	$1,250	$1,058	$577
Coffee NFT	Geochem Contractors	$752	$484	$116	$99	$54
Coffee NFT	Assaying	$395	$254	$61	$52	$28
Coffee NFT	Metallurgical	$248	$159	$38	$32	$18
Coffee NFT	Fixed Wing	$23,792	$15,295	$3,682	$3,116	$1,699
Coffee NFT	Helicopter	$259,675	$166,934	$40,188	$34,005	$18,548
Coffee NFT	Drilling	$162,059	$104,181	$25,081	$21,222	$11,576
Coffee NFT	DC Drilling - Consumables, Labour	$19,115	$12,288	$2,958	$2,503	$1,365
Coffee NFT	Freight	$2,509	$1,613	$388	$329	$179
Coffee NFT	Road (Smalls, Kluane Transport)	$57,915	$37,231	$8,963	$7,584	$4,137
Coffee NFT	Barging (Stuart Schmidt)	$82,257	$52,880	$12,730	$10,772	$5,876
Coffee NFT	Other Transport	$462	$297	$72	$61	$33
Coffee NFT	Food - Camp	$4	$3	$1	$1	$0
Coffee NFT	Fuel tank	$2,890	$1,858	$447	$378	$206
Coffee NFT	Travel Costs	$3,009	$1,934	$466	$394	$215
Coffee NFT	Accom-Field Staff (travel layovers)	$729	$469	$113	$95	$52
Coffee NFT	Accom-Other (Mgrs/Board, etc)	$3,709	$2,385	$574	$486	$265
Coffee NFT	Alrfares - Other Staff (Mgrs/Board)	$11,934	$7,672	$1,847	$1,563	$852
Coffee NFT	Travel - Meals	$7,671	$4,931	$1,187	$1,004	$548
Coffee NFT	Travel - Other Expenses (taxi,tip)	$133	$85	$21	$17	$9
Coffee NFT	Survey Eqiup	$2,330	$1,498	$361	$305	$166
Coffee NFT	Property Rent	$1,092	$702	$169	$143	$78
Coffee NFT	Camp Equipment	$18,068	$11,615	$2,796	$2,366	$1,291
Coffee NFT	Office Equipment & Supplies	$1,520	$977	$235	$199	$109
Coffee NFT	Enviro Gear	$118	$76	$18	$15	$8
Coffee NFT	Camp Construction	$10,933	$7,028	$1,692	$1,432	$781
Coffee NFT	Core Equipment	$302	$194	$47	$40	$22
Coffee NFT	Safety Equipment & Consumables	$16,204	$10,417	$2,508	$2,122	$1,157
Coffee NFT	Hardware	$328	$211	$51	$43	$23
Coffee NFT	Software	$13,243	$8,513	$2,049	$1,734	$946
Coffee NFT	Vehicles & Heavy Equipment	$306	$197	$47	$40	$22
Coffee NFT	ATV	$644	$414	$100	$84	$46
Coffee NFT	Maintenance & Repairs Equipment	$7	$5	$1	$1	$1
Coffee NFT	Meetiings & Conferences	$288	$185	$45	$38	$21
Coffee NFT	Security	$4,192	$2,695	$649	$549	$299
Coffee NFT	Licenses & Fees	$6,416	$4,124	$993	$840	$458
Coffee NFT	Assessment Fees	$958	$616	$148	$125	$68
Coffee NFT	Property Payments and Related Costs	$153	$98	$24	$20	$11
Coffee NFT	Community Relations/PublicRelations	$1,343	$863	$208	$176	$96
Coffee NFT	Community/Socioeconomic Studies	$42,627	$27,403	$6,597	$5,582	$3,045
Coffee NFT	Environment	$235,044	$151,100	$36,376	$30,780	$16,789
Coffee NFT	Hydrology & Hydrogeology	$448,594	$288,382	$69,425	$58,744	$32,042
Coffee NFT	Environmental Chemistry (MLARD)	$69,706	$44,811	$10,788	$9,128	$4,979
Coffee NFT	Weather/Climate	$4,468	$2,873	$692	$585	$319
Coffee NFT	Aquatic Biology	$57,517	$36,975	$8,901	$7,532	$4,108
Coffee NFT	Terrestrial Biology/Soils & Terrain	$152,290	$97,901	$23,569	$19,943	$10,878
Coffee NFT	White River FN Annual contributions	$58,800	$37,800	$9,100	$7,700	$4,200
Coffee NFT	TO Compensation Payments	$31,145	$20,022	$4,820	$4,079	$2,225
Coffee NFT	FN Negotiation - Legal Counsel	$12,020	$7,727	$1,860	$1,574	$859
Total		**$12,707,871**	**$8,169,345**	**$1,966,694**	**$1,664,126**	**$907,705**

19.0 REFERENCES

Allan, M.M., Mortensen, J.K., Hart, C.J.R., Bailey, L.A., Sánchez, M.G., Ciolkiewicz, W., McKenzie, G.G., Creaser, R.A., 2013. Magmatic and metallogenic framework of west-central Yukon and eastern Alaska. In: Tectonics, Terranes, Metallogeny and Discovery in the northern circum-Pacific region, M. S, T. Bissig, B. Rusk, and J. Thompson (eds.), Society of Economic Geologists Special Publication, 17. P. 111-168.

Arribas, A. Jr., 1995. Characterization of high sulphidation epithermal deposits and their relation to magmatic fluid. In: Short Course Handbook 23, Mineralogical Association of Canada, p. 419-454.

Arribas, A. Jr., Hedenquist, J.W., Itaya, T., Okada, T., Concepcion, R.A., and Garcia, J. S. Jr. 1995. Contemporaneous formation of adjacent porphyry and epithermal Cu-Au deposits over 300 ka in northern Luzon, Philippines. Geology, Vol. 23, p. 337–340.

Bailey, L.A., 2013. Late Jurassic Fault-Hosted Gold Mineralization of the Golden Saddle Deposit, White Gold District, Yukon Territory. M.Sc. Thesis, Department of Earth and Ocean Sciences, The University of British Columbia, Vancouver, BC.

Bennett, V., Schulze, C., Ouellette, D. and Pollries, B., 2010. Deconstructing complex Au-Ag-Cu mineralization, Sonora Gulch project, Dawson Range: A Late Cretaceous evolution to the epithermal environment. In: Yukon Exploration and Geology 2009, K.E. MacFarlane, L.H. Weston and L.R. Blackburn (eds.), Yukon Geological Survey, p. 23-45.

Beranek, L.P., and Mortensen, J.K., 2011. The timing and provenance record of the Late Permian Klondike orogeny in northwestern Canada and arc-continent collision along western North America. Tectonics, Vol. 30, p. 1-23.

Berman, R.G., Ryan, J.J., Gordey, S.P., and Villeneuve, M., 2007. Permian to Cretaceous polymetamorphic evolution of the Stewart River region, Yukon-Tanana terrane, Yukon, Canada: P-T evolution linked with in situ SHRIMP monazite geochronology. Journal of Metamorphic Geology, Vol. 25, p. 803-827.

Buitenhuis, E.N., 2014. The Latte Gold Zone, Kaminak's Coffee Gold Project, Yukon, Canada: Geology, Geochemistry, and Metallogeny. M.Sc. Thesis, Department of Earth Science, The University of Western Ontario, London, ON.

Buitenhuis, E., Boyce, L, and Finnigan, C., 2014. Advances in the mineralization styles and petrogenesis of the Coffee gold deposit, Yukon. In: Yukon Exploration and Geology 2014, K.E. MacFarlane, M.G. Nordling and P.J. Sack (eds.), Yukon Geological Survey, p. 29-43.

CIM Standing Committee on Reserve Definitions, 2010. CIM Definition Standards – For Mineral Resources and Mineral Reserves. Retrieved from http://web.cim.org/UserFiles/File/CIM_DEFINITON_STANDARDS_Nov_2010.pdf. 10p.

Colpron, M., Nelson, J.L. and Murphy, D.C., 2006. A tectonostratigraphic framework for the pericratonic terranes of the northern Cordillera. In: Paleozoic Evolution and Metallogeny of Pericratonic Terranes at the Ancient Pacific Margin of North America, M. Colpron and J.L. Nelson (eds.), Geological Association of Canada, Special Paper 45, p. 1-23.

Colpron, M., Nelson, J., and Murphy, D.C., 2007. Northern Cordilleran terranes and their interactions through time. GSA Today, Vol. 17, p. 4.

Douglas, T.A., Layer, P.W., Newberry, R.J., and Keskinen M.J., 2002. Geochronologic and termobarometric constraints on the metamorphic history of the Fairbanks Mining District, western Yukon-Tanana terrane, Alaska. Canadian Journal of Earth Sciences, Vol. 39, p. 1107-1126.

Dusel-Bacon, C., Lanphere, M.A., Sharp, W.D., Layer, P.W., and Hansen, V.L., 2002. Mesozoic thermal history and timing of structural events for the Yukon-Tanana Upland, east-central Alaska: 40Ar/39Ar data from metamorphic and plutonic rocks. Canadian Journal of Earth Sciences, Vol. 39, p. 1013-1051.

Emsbo, P., Groves, D.I., Hofstra, A.H., and Bierlein, F.P., 2006. The giant Carlin gold province: a protracted interplay of orogenic, basinal, and hydrothermal processes above a lithospheric boundary. Mineralium Deposita, Vol. 41, p. 517-525.

Erdmer, P., Ghent, E.D., Archibald, D.A., and Stout, M.Z., 1998. Paleozoic and Mesozoic high-pressure metamorphism at the margin of ancestral North America in central Yukon. Geological Society of America Bulletin, Vol. 110, p. 615-629.

Gabrielse H. and Yorath, C.J., 1991. Tectonic synthesis, Chapter 18. In: Gabrielse H, Yorath CJ (eds.) Geology of the Cordilleran Orogen in Canada; Geology of Canada, v. 4, p. 677–705.

Hart, C., and Goldfarb, R. 2005. Distinguishing intrusion-related from orogenic gold systems. In: New Zealand Minerals Conference Proceedings. p. 125-133.

Jaworski, B.J., and Meyer, B., 2000. Geological and geochemical report on the Coffee Creek Intrusion-related gold project. Yukon Assessment Report 094064, 44p.

Jaworski, B.J., and Vanwermeskerken, M., 2001. Geological and Geochemical report on the Coffee Creek Intrusion-related gold target. Yukon Assessment Report 094207, 53p.

Jilson, G., 2000. Geochemical and Geological Report on the Dan, Man and Indy Claims. Yukon Assessment Report 0954174, 173 p.

Johnston, S.T., 1999. Large-scale coast-parallel displacements in the Cordillera: a granitic resolution to a paleomagnetic dilemma. Journal of Structural Geology, Vol. 21, p. 1103-1108.

Joyce, N.L., 2002. Geological setting, nature, and structural evolution of intrusion-hosted Au-bearing quartz veins at the Longline occurrence, Moosehorn Range area, west-central Yukon Territory. M.Sc. Thesis, Department of Earth and Ocean Sciences, The University of British Columbia, Vancouver, BC.

Lang, J.R. and Baker, T., 2001. Intusion-related gold systems: the present level of understanding. Mineralium Deposita, Vol. 36, p. 477-489.

MacKenzie, D.J. and Craw, D., 2010. Structural controls on hydrothermal gold mineralization in the White River area, Yukon. In: Yukon Exploration and Geology 2009, K.E. MacFarlane, L.H. Weston and L.R. Blackburn (eds.), Yukon Geological Survey, p. 253-263.

MacKenzie, D.J. and Craw, D., 2012. Contrasting structural settings of mafic and ultramafic rocks in the Yukon-Tanana terrane. In: Yukon Exploration and Geology 2011, K.E. MacFarlane and P.J. Sack (eds.), Yukon Geological Survey, p. 115-127

MacKenzie, D.J., Craw, D. and Mortensen, J., 2008. Structural controls on orogenic gold mineralization in the Klondike goldfield, Canada. Mineralium Deposita, vol. 43, p. 435-448.

McCausland, P.J.A., Symons, D.T.A., Hart, C.J.R., and Blackburn, W.H., 2006. Assembly of the northern Cordillera: New paleomagnetic evidence for coherent, moderate Jurassic to Eocene motion of the Intermontane belt and Yukon-Tanana terranes. In: Paleogeography of the North American Cordillera: Evidence For and Against Large-Scale Displacements, J.W. Haggart, R.J. Enkin, and J.W.H. Monger (eds.), Geological Association of Canada, Special Paper 46, p. 147-170.

McKenzie, G.G., Allan, M.M., Mortensen, J.K., Hart, C.J., Sánchez, M., and Creaser, R.A., 2013. Mid-Cretaceous orogenic gold and molybdenite mineralization in the Independence Creek area, Dawson Range, parts of NTS 115J/13 and 14. In: Yukon Exploration and Geology 2012. K.E. MacFarlane, M.G. Nordling, and P.J. Sack (eds). Yukon Geological Survey, p. 79-97.

Mortensen J.K., 1992. Pre-mid-Mesozoic tectonic evolution of the Yukon-Tanana Terrane, Yukon and Alaska, Tectonics, vol. 11, p.836–853.

Piercey, S.J. and Colpron, M., 2009. Composition and provenance of the Snowcap assemblage, basement to the Yukon-Tanana terrane, northern Cordillera: Implications for Cordilleran crustal growth. Geosphere, Vol. 5, p. 439-464.

Ryan, S., 2007. Geochemical Report, YMIP 06-056, Bridget Area and Coffee Creek Area. 46 p.

Ryan, S., 2008. Geochemical Report, YMIP 07-048, Coffee Creek Area. 43 p.

Selby, D., Creaser, R.A., Hart, C.J.R., Rombach, C.S., Thompson, J.F.H., Smith, M.T., Bakke, A.A., and Goldfarb, R.J., 2002. Absolute timing of sulphide and gold mineralization: A comparison of Re-Os molybdenite and Ar-Ar mic methods from the Tintina Gold Belt, Alaska. Geology, Vol. 30, p. 791-794.

Sillitoe, R.H., 1973. The tops and bottoms of porphyry copper deposits. Economic Geology, Vol. 68, p. 799-815.

Sillitoe, R. H., 1993. Epithermal models: genetic types, geometric controls and shallow features. In: Mineral Deposit Modeling, R.V. Kirkham, W.D. Sinclair, R.I. Thorpe and J.M. Duke (eds.), Geological Association of Canada, Special Paper 40, p. 403-417.

Wainwright, A.J., Simmons, A.T., Finnigan, C.S., Smith, T.R., and Carpenter, R.L., 2011. Geology of new gold discoveries in the Coffee Creek area, White Gold District, west-central Yukon. In: Yukon Exploration and Geology 2010. K.E. MacFarlane, L.H. Weston and C. Relf (eds.), Yukon Geological Survey, p. 233-247.

White, N.C., and Hedenquist, J.W. 1995. Epithermal gold deposits: Styles, characteristics, and exploration. Society of Economic Geologists Newsletter, Vol. 23(1), p. 9-13.

APPENDIX A

Statements of Qualifications

STATEMENT OF QUALIFICATIONS

Eric Buitenhuis, Kaminak Gold Corp.

I, Eric Buitenhuis, do hereby certify that:

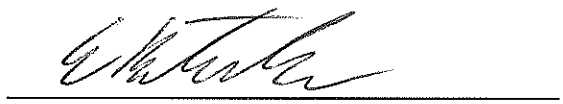
1. I am a project geologist of:

Kaminak Gold Corp.
Suite 1020 – 800 West Pender St.
Vancouver, British Columbia, Canada V6C 2V6

2. I graduated from the University of Western Ontario with an Honours Bachelor of Science in Geology in 2011.
3. I obtained an M.Sc. in Geology from the University of Western Ontario in 2014.
4. I am a Geoscientist In Training (G.I.T.) of the Association of Professional Geoscientists of Ontario, Membership Number 7184, and plan on applying for Professional Registration in the near future.
5. I have worked in the exploration industry continuously since 2011 and have been involved in mineral exploration on the Coffee Gold Project in Yukon, Canada.
6. I have visited the Coffee property on a regular basis during the 2014 program.
7. I compiled this report and portions therein.

Dated this 27th day of March, 2014.

"original signed and sealed"



Eric Buitenhuis, G.I.T.

STATEMENT OF QUALIFICATIONS

Tim Smith, Kaminak Gold Corp.

I, Tim Smith, do hereby certify that:

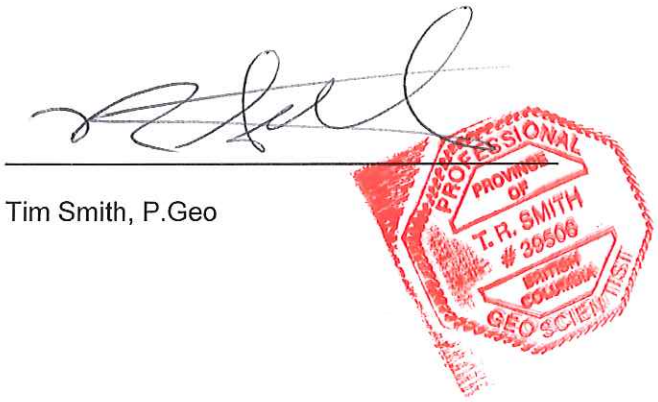
1. I am a practicing Professional Geologist of:

Kaminak Gold Corp.
Suite 1020 – 800 West Pender St.
Vancouver, British Columbia, Canada V6C 2V6

2. I graduated from the University of Canterbury with a Bachelor of Science in Geology in 1991.
3. I obtained a M.Sc. in Geology from the University of Canterbury in 1994.
4. I am a member, in good standing, of the Association of Professional Engineers and Geoscientists of British Columbia, License Number 39506.
5. I have worked in the exploration industry continuously since 1994 and have been involved in the exploration and mining of gold in various geological settings in Canada and Australia.
6. I have visited the Coffee property on a regular basis during the 2014 program.
7. I supervised all work completed on the Coffee property in 2014, including compilation of this report.

Dated this 27th day of March, 2014.

"original signed and sealed"



Tim Smith, P.Geo