

NI 43-101 RESOURCE ESTIMATE FOR THE WHISTLER PROJECT



South Central Alaska Centred at 6,872,000 N and 520,000 E (NAD 83)

Submitted to:

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Effective Date: 24 March 2016 Amended and Re-stated: May 30, 2016

Submitted by:

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DATE & SIGNATURE PAGES

Herewith, our report entitled "NI 43-101 Resource Estimate for the Whistler Project" with an effective date of 24 March, 2016, and amended and re-stated May 30, 2016.

"Signed and Sealed"

Signature of Gary H. Giroux M.A. Sc., P.Geo. Dated: 30th May, 2016

Giroux Consultants Ltd.



CERTIFICATE & DATE – Gary H. Giroux

I, Gary H. Giroux, M.A. Sc., P.Eng., do hereby certify that:

- 1) I am a consulting geological engineer with an office at 982 Broadview Drive, North Vancouver, British Columbia, V7H 2G1.
- 2) I am a graduate of the University of British Columbia in 1970 with a B.A. Sc. and in 1984 with a M.A. Sc., both in Geological Engineering.
- 3) I am a member in good standing of the Association of Professional Engineers and Geoscientists of the Province of British Columbia (Reg. # 8814).
- 4) I have practiced my profession continuously since 1970. I have had 40 years' experience estimating mineral resources. I have previously completed resource estimations on a number of porphyry copper-gold deposits both in B.C. and around the world, many similar to that found on the property (the "Whistler, Raintree West and Island Mountain deposits") that is the subject of the Technical Report (as defined below).
- 5) I am responsible for the technical report titled "NI 43-101 Resource Estimate for Whistler Project, Alaska" (the "Technical Report"), dated and made effective as of March 24, 2016 and amended and re-stated May 30, 2016, prepared for Brazil Resources Inc. (the "Issuer").
- 6) Prior to being retained by the Issuer to prepare the Technical Report, I have not had prior involvement with the property that is the subject of the Technical Report.
- 7) I have read the definition of "qualified person" set out in National Instrument 43-101 Standards of Disclosure for Mineral Projects, ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101), and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- 8) I completed a site visit of the property on April 21, 2016.
- 9) I am independent of the Issuer applying all of the tests in section 1.5 of NI 43-101.
- 10) I am not aware of any material fact or material change with respect to the subject matter of the Technical Report this is not reflected in the Technical Report, the omission to disclose, which makes the Technical Report misleading.
- 11) I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
- 12) I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites assessable by the public.

Dated this 30th day of May, 2016.

(signed) Gary H. Giroux Gary H. Giroux, M.A. Sc., P. Eng. [Sealed]



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1.0 Summary

The Whistler Project is a gold-copper exploration project located in the Yentna Mining District of Alaska, approximately 150km northwest of Anchorage. Giroux Consultants Ltd. ("GCL") was commissioned by Brazil Resources Inc. ("BRI") to complete maiden resource estimates for the Raintree West and Island Mountain gold-copper deposits located at the Whistler Project and this NI 43-101 technical report (the "Report"). The project also hosts the Whistler gold-copper deposit, for which a resource estimate completed by Moose Mountain Technical Services ("MMTS") for BRI was documented in a NI 43-101 technical report with an effective date of August 15, 2015 and summarized herein.

The Whistler Project comprises 304 State of Alaska mining claims covering an aggregate area of approximately 172km². The center of the property is located at 152.566° longitude west and 61.983° latitude north. The project is located in the drainage of the Skwentna River. Elevation varies from about 400m above sea level in the valley floors to over 5,000m in the highest peaks resulting in quite a spectacular landscape. A base camp and gravel airstrip for wheel-based aircraft is established adjacent to the Skwentna River. The fifty-person camp is equipped with diesel generators, a satellite communication link, tent structures on wooden floors and several wood-frame buildings. Although chiefly used for summer field programs, the camp is winterized.

Rights to the Whistler Project were acquired by BRI, through its wholly-owned subsidiary, BRI Alaska Corporation ("BRIA"), in August 2015 pursuant to an Asset Purchase Agreement (the "Asset Purchase") with Kiska Metals Corporation ("Kiska") in exchange for the issuance of 3,500,000 common shares in the capital of BRI as disclosed by news releases on July 21 and August 6, 2015. The project is subject to three underlying agreements, which were assigned to BRI under the transaction.

The first underlying agreement is a Royalty Purchase Agreement between Kiska, Geoinformatics Alaska Exploration Inc. ("Geoinformatics") and MF2, LLC ("MF2"), dated December 16, 2014. This agreement grants MF2 a 2.75 percent net smelter royalty ("NSR") over all 304 claims, and extending outside the current claims over an Area of Interest defined by the maximum historical extent of claims held on the project. BRIA can purchase 0.75 percent of the NSR royalty for a payment of US\$5,000,000 to MF2.

The second underlying agreement is an earlier agreement between Cominco American Incorporated and Mr. Kent Turner dated October 1, 1999. This agreement concerns a 2.0 percent net profit interest to Teck Resources, recently purchased by Sandstorm Gold Ltd., in connection with an Area of Interest specified by standard township sub-division as indicated in Figure 4-2.

The third underlying agreement is a Purchase and Sale agreement among Kent Turner, Kiska Metals Corporation and Geoinformatics Alaska Exploration Inc., dated December 16, 2014 that terminated the "Turner Agreement" (an agreement that grants Kennecott Exploration ("Kennecott") and its successors a 30-year lease on twenty-five unpatented State of Alaska Claims) and transferred to Kiska and Geoinformatics, and their successors, an undivided 100 percent of the legal and beneficial interest in, under, to, and respecting the Turner Property free and clear of all encumbrances arising by, through or under Turner other than the Cominco American net profit interest.



Mineral exploration in the Whistler area was initiated by Cominco Alaska Inc. in 1986, and continued through 1989. During this period, the Whistler and the Island Mountain gold-copper porphyry occurrences were discovered and partially tested by drilling. In 1990, Cominco's interest waned and all cores from the Whistler region were donated to the State of Alaska. The property was allowed to lapse. In 1999, Kent Turner staked twenty-five State of Alaska mining claims at Whistler and leased the property to Kennecott. From 2004 through 2006 Kennecott conducted extensive exploration of Whistler region, including geological mapping, soil, rock and stream sediments sampling, ground induced polarization, the evaluation of the Whistler gold-copper occurrence with fifteen core boreholes (7,948m) and reconnaissance core drilling at other targets in the Whistler region (4,184m). Over that period Kennecott invested over USD\$6.3 million in exploration.

From 2007 through 2008, Geoinformatics drilled twelve holes for 5,784 metres on the Whistler Deposit and six holes for 1,841 metres on other exploration targets in the Whistler area. Drilling by Geoinformatics on the Whistler Deposit was done to infill the deposit to sections spaced at seventy-five metres and to test for the north and south extensions of the deposit. Exploration drilling by Geoinformatics in the Whistler area targeted geophysical anomalies in the Raintree and Rainmaker areas, using the same basic porphyry exploration model as Kennecott.

Kiska was formed in 2009 by the merger of Geoinformatics Exploration Inc. and Rimfire Minerals Corporation in order to advance exploration on the Whistler Project. The rights to the property were acquired by Geoinformatics from Kennecott in 2007 subject to exploration expenditures totalling a minimum of USD\$5.0 million over two years, two underlying agreements, and certain back-in rights retained by Kennecott to acquire up to sixty percent of the project. In September 2010, Kennecott's back-in right was extinguished after the completion and review of a geophysical and drilling program (the "Trigger Program") whose technical direction was guided by Kiska and Kennecott. From that time forward, Kiska continued to explore the project and completed a total of 48,447 metres of drilling, several large geophysical surveys, and an updated Whistler Deposit resource estimate, for a total expenditure of USD\$29.4M. Kiska's primary objective was to explore the entire project area and test porphyry targets other than the Whistler Deposit, including Raintree West and the Island Mountain Breccia Zone (hereafter referred to as the Island Mountain Deposit).

Alaskan geology consists of a collage of various terrains that were accreted to the western margin of North America as a result of complex plate interactions through most of the Phanerozoic. The southernmost Pacific margin is underlain by the Chugach–Prince William composite terrain, a Mesozoic-Cenozoic accretionary prism developed seaward from the Wrangellia composite terrain. It comprises arc batholiths and associated volcanic rocks of Jurassic, Cretaceous, and early Tertiary age.

The Alaska Range represents a long-lived continental arc characterized by multiple magmatic events ranging in age from about 70 million years ("Ma") to 30Ma and associated with a wide range of base and precious metals hydrothermal sulphide bearing mineralization. The geology of Whistler Project is characterized by a thick succession of Cretaceous to early Tertiary (ca. 97 to 65Ma) volcano-sedimentary rocks intruded by a diverse suite of plutonic rocks of Jurassic to mid-Tertiary age.

Two main intrusive suites are important in the Whistler Project area.



- 1) The Whistler Igneous Suite comprises alkali-calcic basalt-andesite, diorite and monzonite intrusive rocks approximately 76Ma with restricted extrusive equivalent. These intrusions are commonly associated with gold-copper porphyry-style mineralization (Whistler Deposit).
- 2) The Composite Suite intrusions vary in composition from peridotite to granite and their ages span from 67 to about 64Ma. Gold-copper veinlets and pegmatitic occurrences are characteristics of the Composite plutons (e.g. the Mt. Estelle prospect, the Muddy Creek prospect).

The Whistler Project was acquired by BRI for its potential to host magmatic hydrothermal gold and copper mineralization. Magmatic hydrothermal deposits represent a wide clan of mineral deposits formed by the circulation of hydrothermal fluids into fractured rocks and associated with the intrusion of magma into the crust. Exploration work completed by Kennecott, Geoinformatics, and Kiska has discovered several gold-copper sulphide occurrences exhibiting characteristics indicative of magmatic hydrothermal processes and suggesting that the project area is generally highly prospective for porphyry gold-copper deposits.

Kennecott, Geoinformatics and Kiska used industry best practices to collect, handle and assay soil, rock and core samples collected during the period 2004-2011. The procedures are documented in detailed manuals describing all aspects of the exploration data collection and management. All assay samples were prepared by the Alaska Assay Laboratory, in Fairbanks, Alaska and assayed at either the Alaska Assay Laboratory (2004) or the accredited ALS-Chemex laboratory in Vancouver, British Columbia. Samples were assayed for gold by conventional fire assay and a suite of elements including the usual metals by aqua regia digestion and inductively coupled plasma atomic emission spectroscopy. The operators used industry best practices quality control measures during its exploration at Whistler.

Gary Giroux of GCL visited the Whistler Project on April 21, 2016. The purpose of the site visit was to examine the property and the areas of drilling, to review drill core and geological models that pertain to Raintree West, Island Mountain and the Whistler deposits, and to review the sample preparation, handling and analysis procedures conducted by previous operators.

GCL conducted a series of routine verifications to ensure the reliability of the electronic data provided by BRI, and believes the electronic data is reliable. GCL visually examined assaying quality control data produced by Kiska and believes these data are reliable for resource estimation.

This technical report documents the first ever resource estimates for the Raintree West and Island Mountain deposits and is largely based on drilling by Kiska between 2009 and 2011. In addition, this document includes a resource estimate for the Whistler gold-copper deposit which was completed by MMTS in the name of BRI (effective date of August 15, 2015), which is based largely on the historic resource estimate completed by MMTS for Kiska as documented in the NI 43-101 technical report with an effective date of March 17, 2011; no new sampling or drilling has been completed on the Whistler Deposit since March 17, 2011. The first resource estimate on the project (Whistler Deposit) was completed by SRK with an effective date of December 31, 2007.

The Raintree West deposit is one of several porphyry centers identified on the Whistler Project. The deposit is located 1500 metres east of the Whistler Deposit and is concealed by 5 to 15 metres of glacio-



fluvial sediments. The deposit has been drilled over a strike length of 500 metres and to a depth of 700 metres; the deposit is up to 400 metres in width. The deposit is open along strike to the north and south, and at depth. Gold-copper mineralization is associated with quartz + magnetite stockwork zones hosted in potassic altered diorite porphyry intrusive rocks. The diorite porphyry host rocks, the mineralization style and the alteration associated with gold-copper mineralization are similar to the Whistler Deposit.

No metallurgical testing has been carried out on rocks from the Raintree West deposit, however given the similarities in geological setting, host rock, mineralization and alteration between Raintree West and the Whistler Deposit, it has been assumed that metallurgical processes and metal recoveries determined for the Whistler Deposit are a reasonable approximation for the Raintree West Deposit at this time. From the metallurgical testwork results and subsequent analysis reported in MMTS (2015), the Whistler Deposit is metallurgically very amenable to a conventional flotation route to produce saleable high quality copper concentrates with gold credits, despite the low head grade, and that the levels of recovery and upgrade for both copper and gold are relatively insensitive to feed grade. Metal recoveries reported for the Whistler Deposit resource estimate, and used here for Raintree West, include 85% for copper, 75% for gold and 75% for silver.

The Raintree West deposit was modelled on a series of east-west cross-sections and a grade shell (0.1 g/t AuEq) representing the mineralization was constructed to constrain the resource estimate. Fourteen diamond drill holes totaling 7,078 metres were used to define the model. Given the limited geological information available due to the current density of drilling at Raintree West and its classification as a porphyry deposit type, the grade shell model was deemed a reasonable constraint on mineralization until further drilling enables the construction of a detailed geological model. Erratic high grade outliers for gold, silver and copper were capped within the mineralized and waste solids. Composites 5 metres in length were formed within each of the domains that honoured the domain boundaries.

Variography was used to model the grade continuity and to determine the search ellipse orientations and dimensions for interpolation. Ordinary kriging was used to estimate gold, silver and copper into blocks measuring 10 x 10 x 10 metres in dimension. A total of 39 samples within the mineralized solid had specific gravity measurements, which were used to convert volumes to tonnes. The blocks were classified as Inferred based on the limited amount of drilling. For the near surface mineralization (above 250 m elevation), a 0.30 g/t gold equivalent cut-off grade was chosen as a possible open pit cut-off based on studies completed at the nearby Whistler Deposit. For the deeper mineralization (below 100 m elevation), a 0.60 g/t gold equivalent cut-off grade was chosen as a possible block cave cut-off based on the New Afton mine in British Columbia, that is currently in production and using a similar mining method. Validation of the model was completed by comparison of the block model and drill hole grades by visual inspections in section and plan across the deposit.



Table 1	-1
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Raintree West NI 43-101 inferred resource estimate above 250 metre elevation.

Cut-off	Cut-off Tonnes		Grade				Contained Metal			
AuEq (g/t)	(Mt)	Au (g/t)	Ag (g/t)	Cu (%)	AuEq (g/t)	Au (Moz)	Ag (Moz)	Cu (Mlbs)	AuEq (Moz)	
0.25	38,620,000	0.36	5.09	0.05	0.50	0.452	6.320	42.58	0.625	
0.30	31,680,000	0.40	5.39	0.06	0.55	0.409	5.490	41.91	0.563	
0.35	26,980,000	0.43	5.66	0.07	0.59	0.376	4.910	41.64	0.514	
0.40	22,940,000	0.46	5.93	0.07	0.63	0.341	4.374	35.41	0.465	
0.45	18,920,000	0.50	6.21	0.07	0.68	0.303	3.777	29.20	0.411	
0.50	15,340,000	0.54	6.45	0.08	0.72	0.264	3.181	27.06	0.356	
0.55	12,310,000	0.58	6.67	0.08	0.77	0.228	2.640	21.71	0.305	
0.60	9,800,000	0.62	6.85	0.08	0.82	0.196	2.158	17.29	0.259	
0.65	7,840,000	0.67	7.02	0.09	0.87	0.168	1.769	15.56	0.220	
0.70	6,210,000	0.71	7.17	0.09	0.92	0.142	1.432	12.32	0.184	
0.75	4,780,000	0.77	7.24	0.09	0.98	0.118	1.113	9.49	0.151	
0.80	3,650,000	0.83	7.22	0.09	1.05	0.097	0.847	7.24	0.123	

Table 1-2

Raintree West NI 43-101 inferred resource estimate below 100 metre elevation.

Cut-off		Grade				Contained Metal			
AuEq (g/t)	Tonnes (Mt)	Au (g/t)	Ag (g/t)	Cu (%)	AuEq (g/t)	Au (Moz)	Ag (Moz)	Cu (Mlbs)	AuEq (Moz)
0.50	64,460,000	0.63	3.76	0.09	0.80	1.295	7.792	127.92	1.652
0.55	57,470,000	0.65	3.77	0.10	0.83	1.208	6.966	126.72	1.534
0.60	51,760,000	0.68	3.74	0.10	0.86	1.130	6.224	114.13	1.428
0.65	46,360,000	0.70	3.71	0.10	0.89	1.048	5.530	102.22	1.321
0.70	40,780,000	0.73	3.70	0.11	0.91	0.954	4.851	98.91	1.198
0.75	35,290,000	0.75	3.72	0.11	0.94	0.855	4.221	85.60	1.071
0.80	29,750,000	0.78	3.76	0.11	0.98	0.746	3.596	72.16	0.933

Table 1-1 and Table 1-2 Notes:

- 1. Gold-equivalent grade assumes metal prices of US\$1,250/oz gold, US\$16.50/oz silver and US\$2.10/lb copper and recoveries of 75% for gold, 85% for copper and 75% for silver.
- 2. A 0.30 g/t gold equivalent cut-off has been highlighted for material above 250 metre elevation based on the nearby Whistler Deposit while a 0.60 g/t gold equivalent cut-off has been highlighted for material below the 100 metre elevation as a possible block cave cut-off based on New Afton Mines in southern British Columbia.
- 3. Totals may not represent the sum of the parts due to rounding.
- 4. The Mineral Resources have been prepared by Giroux Consulting Ltd. in conformity with "CIM Definition Standards for Mineral Resources and Mineral Reserves 2014".

The Island Mountain Deposit occurs 23 km southwest of the Whistler Deposit. The deposit outcrops on the southwest slope of Island Mountain and has been drilled over a strike length of 300 metres and to a depth of 450 metres; the deposit is up to 400 metres in width. The deposit is open to depth and to the north where surface mapping, geochemistry and geophysics have identified coincident hydrothermal breccia, multi-element geochemical and magnetic anomalies for an additional 400 metres to the north.



Gold-copper mineralization is hosted by intrusive and hydrothermal breccia associated with strong sodic-calcic alteration, and gold-only mineralization is hosted by diorite porphyry with vein and disseminated pyrrhotite.

Metallurgical processing of samples from Island Mountain show excellent recovery rates (80%) and saleable Cu concentrate grades using conventional processing techniques. The Lower Zone (disseminated Pyrrhotite) composite sample achieved nearly 90% Au recovery through a combination of selective flotation and cyanidation of tailings. The upper composite sample (Actinolite-Magnetite breccia) achieved 75% Au recovery; further modification and optimization can be expected to greatly improve those results. Processing infrastructure contemplated at Whistler, including conventional milling and flotation followed by cyanide leaching of tailings, matches what would be required at Island Mountain based on this early testwork.

The Island Mountain deposit was first modelled on a series of cross-sections, followed by longitudinal sections and plans for both lithology and alteration/mineralization and, from this, a geologic solids model was produced to constrain the resource estimate. A total of 8 mineralized geologic domains were modelled. Thirty-four diamond drill holes totaling 12,668 metres were used to define the model.

Erratic high grade outliers for gold, silver and copper were capped within each of the geologic domains. Composites 5 metres in length were formed within each of the domains that honoured the domain boundaries. Variography was used to model the grade continuity and to determine the search ellipse orientations and dimensions for interpolation. Ordinary kriging was used to estimate gold, silver and copper into blocks measuring $10 \times 10 \times 10$ metres in dimension. A total of 218 samples had specific gravity measurements, which were subdivided into domains to convert volumes to tonnes.

The blocks were classified as Indicated or Inferred based on grade continuity as measured by semivariograms. A 0.30 g/t gold equivalent cut-off grade was chosen as a possible open pit cut-off based on studies completed at the nearby Whistler Deposit. Validation of the model was completed by comparison of the block model and drill hole grades by visual inspections in section and plan across the deposit.

Cut-off AuEq [*] (g/t)		Grade > Cut-off				Contained Metal				
	Tonnes > Cut-off (tonnes)	Au Ag (g/t) (g/t)		Cu (%)	AuEq (g/t)	Au Million	Ag Million	Cu Million	AuEq Million	
		(6/ 4)	(8/4)	(/0)	18/ 4/	OZS	OZS	lbs	OZS	
0.25	42,500,000	0.42	1.02	0.05	0.47	0.570	1.394	46.86	0.646	
0.30	31,080,000	0.49	1.10	0.06	0.55	0.485	1.099	41.12	0.547	
0.35	23,410,000	0.55	1.20	0.06	0.62	0.415	0.903	30.97	0.467	
0.40	18,200,000	0.62	1.32	0.07	0.69	0.360	0.772	28.09	0.405	
0.45	14,660,000	0.67	1.43	0.08	0.76	0.317	0.674	25.86	0.356	
0.50	12,120,000	0.73	1.55	0.08	0.82	0.283	0.604	21.38	0.318	
0.55	10,260,000	0.77	1.65	0.09	0.87	0.255	0.544	20.36	0.287	
0.60	8,780,000	0.82	1.74	0.09	0.92	0.230	0.491	17.42	0.259	

Table 1-3 Island Mountain NI 43-101 indicated resource estimate at various cut-off grades.



0.65	7,600,000	0.86	1.80	0.10	0.96	0.210	0.440	16.76	0.236
0.70	6,480,000	0.91	1.83	0.10	1.02	0.189	0.381	14.29	0.211
0.75	5,580,000	0.95	1.85	0.10	1.06	0.171	0.332	12.30	0.191
0.80	4,740,000	1.00	1.87	0.10	1.11	0.153	0.285	10.45	0.170

Table 1-4 Island Mountain NI 43-101 inferred resource estimate at various cut-off grades.

Cut-off		Grade > Cut-off				Contained Metal				
AuEq [*] (g/t)	Tonnes > Cut-off (tonnes)	Au (g/t)	Ag (g/t)	Cu (%)	AuEq (g/t)	Au Million ozs	Ag Million ozs	Cu Million Ibs	AuEq Million ozs	
0.25	104,030,000	0.42	0.96	0.05	0.47	1.408	3.211	114.69	1.582	
0.30	82,020,000	0.47	1.02	0.05	0.53	1.237	2.690	90.43	1.390	
0.35	63,560,000	0.52	1.10	0.06	0.59	1.069	2.248	84.09	1.197	
0.40	48,840,000	0.58	1.20	0.06	0.65	0.912	1.884	64.62	1.021	
0.45	39,000,000	0.63	1.31	0.07	0.71	0.792	1.643	60.20	0.886	
0.50	31,970,000	0.68	1.40	0.07	0.76	0.697	1.439	49.35	0.780	
0.55	27,440,000	0.71	1.46	0.08	0.80	0.630	1.288	48.40	0.704	
0.60	23,180,000	0.75	1.52	0.08	0.84	0.560	1.133	40.89	0.625	
0.65	19,770,000	0.79	1.56	0.08	0.88	0.500	0.992	34.87	0.557	
0.70	16,830,000	0.82	1.61	0.08	0.91	0.443	0.871	29.69	0.493	
0.75	13,730,000	0.86	1.68	0.09	0.95	0.378	0.742	27.25	0.421	
0.80	10,550,000	0.91	1.78	0.09	1.01	0.307	0.604	20.94	0.342	

Table 1-3 and Table 1-4 Notes:

- 1. ¹Gold-equivalent grade assumes metal prices of US\$1,250/oz gold, US\$16.50/oz silver and US\$2.10/lb copper and recoveries of 90% for gold (cyanide), 80% for copper (flotation) and 25% silver (recovery in copper concentrate).
- 2. A 0.30 g/t gold equivalent has been highlighted as a possible open pit cut-off based on studies completed at the nearby Whistler Deposit.
- 3. Totals may not represent the sum of the parts due to rounding.
- 4. The Mineral Resources have been prepared by Giroux Consulting Ltd. in conformity with "CIM Definition Standards for Mineral Resources and Mineral Reserves 2014".

The following summary of the Whistler Deposit is from MMTS (2015), a NI 43-101 technical report titled "NI 43-101 Resource Estimate for the Whistler Project" with an effective date of 15 August, 2015, authored by Robert J. Morris, Susan C. Bird and Alan Riles. The Whistler Deposit is a structurally controlled porphyry deposit with Au, Cu and Ag as the primary economic metals. There are at least three intrusive phases recognized at the Whistler Deposit, the earliest, Main Stage Porphyry (MSP), being that of principal mineralization. A major northwest trending fault (the Divide Fault) is used to segregate the mineralization into two domains prior to grade interpolation. There is some evidence that lateral offsets of as much as 100m may have occurred along this fault.

Statistical analyses (cumulative probability plots, histograms, classic statistical values) of the assay data are used to confirm the domain selection, to decide if capping is necessary, and to determine the extent of non-mineralized zones within the diorite solid. Assay data was composited into 5m intervals, honoring the domain boundaries, with composite statistics also compiled for comparisons. The composites are then used to create relative variograms for Au, Cu, and Ag grades using the MSDA



module of the MineSight[®] software, thus establishing rotation and search parameters for the block model interpolation.

Validation of the model is completed by comparison of the block values with de-clustered composite values, with values interpolated by inverse distance, by the use of swath plots, as well by a visual inspection in section and plan across the project area.

Specific gravity values are based on 21 measurements by ALS Chemex to give an average density of 2.72 for ore, and 2.60 for waste.

The resource has been interpolated and classified based on variogram modeling using the search parameters as defined below.

Search Parameter	Pass 1	Pass 2
Resource Classification	Indicated	Inferred
Search distance	½ Range	Range
Minimum # comps	4	3
Maximum # comps	9	9
Maximum # Comps/Hole	3	2
Max # Comps / Split Quadrant	6	7

Table 1-5Summary of Search Parameters for Interpolation and Classification of the Resource

Classification is based on the variogram parameters, and restrictions on the number of composites and drillholes used in each pass of the interpolation, as indicated in Table 1-5. The definition of Indicated and Inferred used to classify the resource is in accordance with that of the CIM Definition Standards (CIM, 2014).

The pit delineated resource is given in Table 1-6, for a range of NSR cut-offs with the base case cut-off of \$7.50/tonne highlighted. Process recoveries, as well as mining, processing and off site costs have been applied in order to determine that the pit resource has a reasonable prospect of economic extraction. The \$7.50/tonne cut-off (an Au Equivalent grade of approximately 0.3 gpt at the base case prices) yields an Indicated resource of 79.2 Mtonnes at 0.51 gpt gold, 0.17% copper and 1.97 gpt silver (2.25 Moz Au Eqv.) and an Inferred resource of 145.8 Mtonnes at 0.40 gpt gold, 0.15% copper and 1.75 gpt silver (3.35 Moz Au Eqv). The mining, processing and off site costs used here are estimates and may not represent actual costs.

There are no known significant environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other factors that could materially affect the resource estimate.



	NSR ²	Tonnos	In	situ Grad	Total Modelled Metal				
Class	Cut-off	Tonnes	NSR	Au	Cu	Ag	Gold	Silver	Copper
	(\$/tonne)	(Mt)	(\$/tonne)	(gpt)	(%)	(gpt)	(Moz)	(Moz)	(Mlbs)
	7.50	79.2	21.95	0.51	0.17	1.97	1.28	5.03	302
	10.00	69.8	23.77	0.56	0.18	2.06	1.24	4.61	282
	12.50	60.7	25.64	0.61	0.19	2.13	1.19	4.15	259
Indicated	15.00	51.7	27.72	0.67	0.20	2.19	1.12	3.63	232
indicated	17.50	43.3	29.95	0.74	0.21	2.26	1.03	3.14	203
	20.00	35.6	32.36	0.82	0.22	2.35	0.94	2.68	176
	22.50	29.6	34.65	0.89	0.23	2.40	0.85	2.28	152
	25.00	24.0	37.22	0.98	0.24	2.49	0.75	1.91	129
	7.50	145.8	17.78	0.40	0.15	1.75	1.85	8.21	467
	10.00	123.1	19.56	0.45	0.16	1.83	1.76	7.23	423
	12.50	100.1	21.48	0.50	0.17	1.91	1.61	6.13	365
Inferred	15.00	79.0	23.55	0.57	0.18	1.98	1.43	5.00	306
interred	17.50	59.0	26.03	0.64	0.19	2.10	1.21	3.98	243
	20.00	43.1	28.74	0.73	0.20	2.25	1.01	3.11	188
	22.50	31.6	31.50	0.82	0.21	2.35	0.83	2.38	146
	25.00	23.0	34.41	0.91	0.22	2.47	0.67	1.82	112

 Table 1-6
 Summary of Pit Delineated Resource¹, Whistler Deposit

1. Reported within a conceptual pit shell (45 degree pit slope angle) and based on a cut-off grade of \$7.5/t adjusted for metallurgical recovery and offsite costs.

2. NSPs used to define the resource are based on 75 percent recovery for gold and silver; 85 percent recovery for copper; USD\$990 per ounce gold, USD\$15.40 per ounce silver and USD\$2.91 per pound of copper and an exchange rate of 0.92 \$US/\$CDN.

Exploration potential exists adjacent to the base case pit resource in the north, west and south directions as well as at depth. This is illustrated in Figure 1-1 which shows the base case open pit and all modelled blocks above a Au Eqv. grade of 0.5 gpt.



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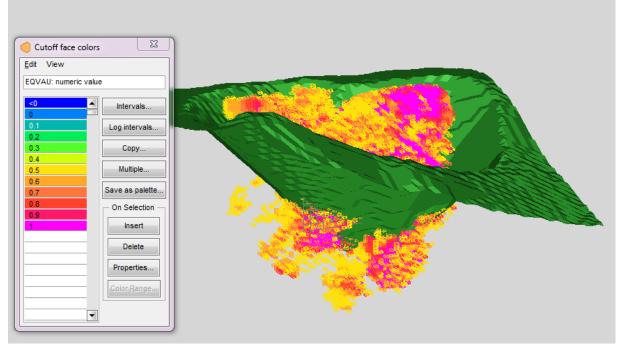


Figure 1-1 3D View looking N25E– Modelled Blocks within and Adjacent to Base Case Pit above a 0.5 gpt Au Eqv. Cut-off (MMTS, 2015).

Exploration drilling, property-wide airborne magnetic surveys and extensive Induced Polarization ground surveys have identified multiple porphyry prospects that warrant initial or further drill testing (Rainmaker, Raintree North, Round Mountain, Puntilla, Snow Ridge, Dagwood, Howell Zone, Super Conductor). The Muddy Creek area, underlain by the 65Ma Composite Suite of intrusions, is geologically younger that the Whistler area, and represents a prospective area for Intrusion-Related gold mineralization.

Recommendations for further work on the Whistler Project area include:

- Further step-out and infill drilling at Raintree West and Island Mountain to upgrade the resource classification and to potentially add new resources.
- Construction of a geological model and mineral domains at Raintree West.
- Preliminary metallurgical testwork for Raintree West.
- Additional geological modelling and mineral domain definition at the Whistler Deposit in order to further determine potential lithological and structural controls on mineralization, with potential updates to the resource estimate.
- The collection of additional specific gravity measurements from existing drillholes at all deposits to augment the database.
- Additional in-fill drilling at the Whistler Deposit to upgrade the classification of Inferred to Indicated with 50m drillhole spacing.
- Top-of-bedrock grid drilling in the Whistler area to define new targets.
- A new and full review of all exploration data, with an outlook to review and rank all targets for further exploration drilling.



2.0 Introduction

Brazil Resources Inc. ("BRI") is a public mineral exploration company who holds the rights to the Whistler gold-copper property located 150 km northwest of Anchorage, Alaska.

This document reports on maiden resource estimations for the Raintree West and the Island Mountain deposits located on the Whistler property. The property is also host to the Whistler Deposit, for which a resource estimate described in MMTS (2015) remains unchanged.

Giroux Consultants Ltd. ("GCL") was retained by BRI to produce maiden resource estimations on the Whistler Project for the Raintree West and Island Mountain deposits and to complete this technical report. The effective date for this estimate is March 24, 2016, the day the data was received.

Gary Giroux, M.A. Sc., P.Eng., is the qualified person responsible for the Resource Estimate. Mr. Giroux is a qualified person by virtue of education, experience and membership in a professional association. He is independent of the company applying all of the tests in Section 1.5 of National Instrument 43-101.

The previous owner of the property, Kiska Metals Corporation (Kiska) completed three years of exploration on the property (2009 through 2011) which includes 181 diamond drillholes, a large 2D and 3D IP survey in the Whistler area, an airborne EM survey at Island Mountain, as well as surface mapping and sampling. Previous exploration on the property, by Kennecott and Geoinformatics, includes geological mapping, stream sediment sampling, soil sampling, airborne magnetic surveys and drilling.

Mr. Giroux conducted a site visit of the property on April 21, 2016. During the site visit, sufficient opportunity was available to examine drill sites and drill cores, conduct a general overview of the property, and the condition of existing project infrastructure. Based on his experience, qualifications, and review of the site and resulting data, the author, Mr. Giroux, is of the opinion that the exploration has been conducted in a professional manner and the quality of data and information produced from the efforts meet or exceed acceptable industry standards. All of the exploration work has been directed or supervised by individuals who are geologists. No new sampling or drilling has been completed on the Whistler Deposit since the last historic resource estimate was completed, which is documented in a Technical Report by MMTS with an effective date of August 15, 2015 (MMTS, 2015).

While actively involved in the preparation of the report, GCL had no direct involvement in the collection of the data and information or any role in the execution or direction of the work programs conducted for the project on the property or elsewhere. Much of the data has undergone thorough scrutiny by project staff as well as certain data verification procedures by GCL (included in Section 12).

Sources of information are listed in the references, Section 27.

3.0 Reliance on Other Experts

The author of this Report is the Qualified Person ("QP") for the entire Report as indicated in the "Certificate of Qualified Person" within this Report. The information relied upon for this Report has therefore been stated by the QP to conform to NI 43-101.



The QP has not independently reviewed the parts of this Report relating to the legal aspects of the ownership of the mineral claims, rights granted by the Government of Alaska and environmental and political issues, which have been prepared or arranged by BRI. While the contents of those parts have been generally reviewed for reasonableness by the QP of this report, the information and reports on which they are based have not been fully audited by the QP.



4.0 **Property Description and Location**

The Whistler Project is located in the Alaska Range approximately 150km northwest of Anchorage. The centre of the property is located at 152.57 degrees longitude west and 61.98 degrees latitude north.

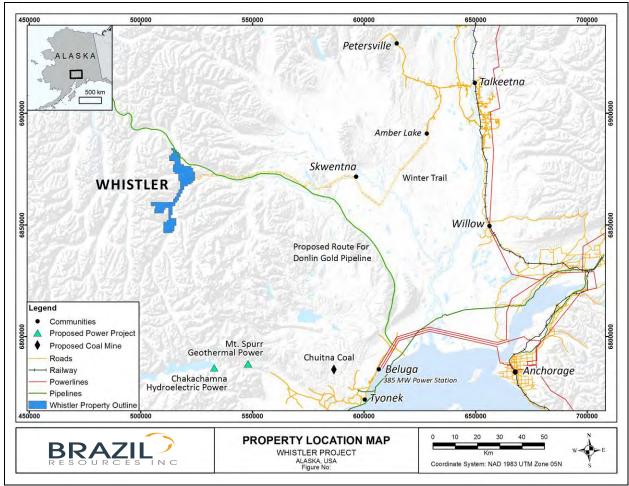


Figure 4-1 Location of the Whistler Project (2016). Modified from Roberts, 2011a.

The Whistler Project comprises 304 State of Alaska mining claims covering an aggregate area of approximately 172 km² in the Yentna Mining District of Alaska. All of the claims are owned by BRIA. The property boundaries have not been legally surveyed.

An all season camp facility exists near the confluence of Portage Creek and the Skwentna River, approximately 15 km southeast of the Rainy Pass Hunting Lodge. The camp is serviced with a 1000 m gravel airstrip for wheel-based aircrafts. The camp is equipped with diesel generators, a satellite communication link, tent structures on wooden floors and several wood-framed buildings.

BRIA's rights to the Whistler Project were acquired in connection with an Asset Purchase Agreement on August 5, 2015, whereby Kiska Metals Corporation transferred to BRIA 100 percent interest in the



Whistler Project in exchange for the issuance of 3,500,000 common shares in the capital of BRI as disclosed by news release on August 6, 2015.

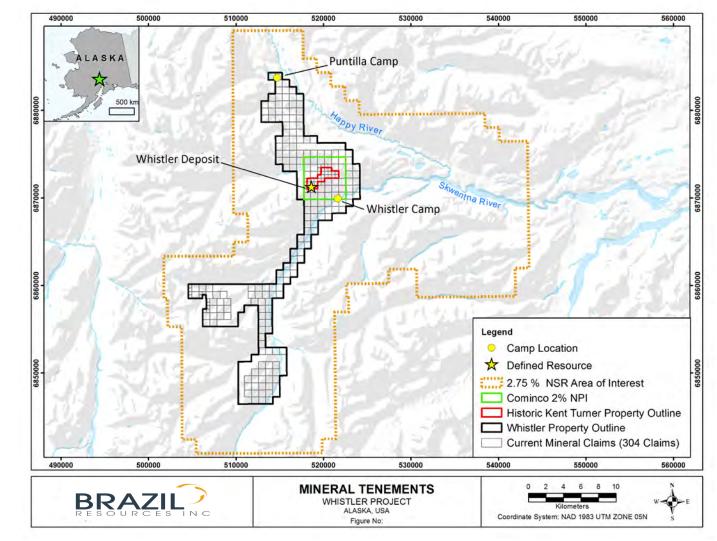
The first underlying agreement is a Royalty Purchase Agreement between Kiska Metals Corporation, Geoinformatics Alaska Exploration Inc. and MF2, LLC, dated December 16, 2014. This agreement grants MF2 a 2.75 percent NSR royalty over all 304 claims, and extending outside the current claims over an Area of Interest defined by the maximum historical extent of claims held on the project as indicated on Figure 4-1. BRIA can purchase 0.75 percent of the NSR royalty for a payment of US\$5,000,000 to MF2.

The second underlying agreement is an earlier agreement between Cominco American Incorporated and Mr. Kent Turner dated October 1, 1999. This agreement concerns a 2.0 percent net profit interest to Teck Resources, recently purchased by Sandstorm Gold, in connection with an Area of Interest specified by standard township sub-division as indicated in Figure 4-2.

The third underlying agreement is a Purchase and Sale agreement between Kent Turner, Kiska Metals Corporation and Geoinformatics Alaska Exploration Inc., dated December 16, 2014 that terminates the "Turner Agreement" (an agreement that grants Kennecott and its successors a 30-year lease on twenty-five unpatented State of Alaska Claims; see Figure 4-2) and transfers to Kiska and Geoinformatics, and their successors, an undivided 100 percent of the legal and beneficial interest in, under, to, and respecting the Turner Property free and clear of all Encumbrances arising by, through or under Turner other than the Cominco American net profit interest.

A full Claims List can be found in Appendix A at the end of this report. Annual claim rental payments of USD \$4.25 per acre and annual exploration expenditures ("Labor") USD \$2.50 per acre are required to keep the claims in good standing, and must be submitted to the Alaska Department of Natural Resources by November 30th of every year. Excess Labor from previous years may be carried forward and currently there are no Labor requirements until September 2018. BRIA currently holds permits with the State of Alaska that allow for the presence of an exploration camp and the work proposed in this report, primarily exploration diamond drilling, to proceed. These include a Miscellaneous Land Use Permit for Hardrock Exploration and Reclamation, a Temporary Water Use Permit, and a Fish Habitat Permit. These permits are good until December 31st, 2020, and are renewable on multi-year basis. BRIA has no other surface rights to the property. Legal access to the property is currently provided by a permitted gravel airstrip large enough to support fixed-wing aircraft to deliver staff and supplies.









5.0 Accessibility, Climate, Local Resources, Infrastructure and Physiography

The Whistler Project is located in the Alaska Range approximately 150 km northwest of Anchorage and 76 km west of the township of Skwentna (Figure 4-1). Access to the project area is by fixed wing aircraft to a gravel airstrip located adjacent to the Whistler exploration camp. In the winter of 2011, Kiska had constructed a temporary winter trail to the Whistler Project that was then used for the inbound transportation of fuel, earth moving equipment, and bulk items for the camp and exploration programs.

The project area is between regions of maritime and continental climate and is characterized by severe winters and hot, dry summers. The maritime climatic influence provides for dry, mild and temperate summers. Fog and low clouds are common in mid-summer and fall especially around higher elevation areas. Average summer temperatures range between 5° and 20° C, whereas winter temperatures range from -15° to -5° C. Occasionally, arctic cold fronts will propagate across the Alaska Range from the interior, causing cold dry air to seep into the watershed. These infrequent stationary high pressure systems can lead to clear days with temperatures dropping to a low of -35° C during the winter. Strong winds persist during the winter months. Annual precipitation ranges from 500 to 900 mm. Winter snow accumulation usually begins in October and by mid to late May the snow has melted sufficiently to allow for fieldwork.

The Whistler Project is supported by a fifty person, all season camp located on the banks of the Skwentna River approximately 2.7km from the Whistler Deposit and 22 km from the Island Mountain prospect. The camp is connected to the Whistler Deposit by a 6 km access road.

The camp is served by a 38 kilowatt generator, water well, septic system, showers and flush toilets, and a modern kitchen. A smaller 16 kilowatt backup and low peak need generator is also installed in the well/generator house. The camp has 37 sleeper tents, 3 wood frame cabins, a cook tent, a recreational tent, First Aid Tent, a wood frame well/generator house and a wood frame men's and women's shower/restroom building.









Core processing facilities consist of one insulated core cutting tent that houses two core saws. The core logging facilities consist of two 7 m by 14 m structures. One is an insulated tent and the other is a well-insulated, well lit, wood-frame building. All core cutting and logging facilities have decks that are designed for ease of handling large volumes of core with skid steer fork lifts. All areas around camp have graveled travel ways that connect camp facilities with runway facilities.

There is a wood-frame shop building that is for general camp maintenance and all rolling stock. The shop and core cutting facilities are supplied electricity by a separate generator building. A 20 kilowatt generator supplies power during peak months when both saws are running. A 16 kilowatt generator is available for lower peak needs and back-up.

Heavy equipment and ground transport machines at the Whistler Project include one Cat D6 bulldozer; one Cat 226B track skid-steer; one Bobcat skid-steer; one Volvo A-30 haul truck; ten snowmobiles; five ranger-style ATVs; and three 4-wheeler "Quad" ATVs.

A sports field sized area has been cleared and graveled for core storage. Adjacent areas can be cleared for more storage as the project grows. There are also two wooden-deck helicopter pads with a small building for helicopter support.



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Figure 5-2 Layout of the Whiskey Bravo Camp and Facilities (2016). Modified from Roberts, 2011a.

A 1000 m compacted gravel runway provides a nearly year round landing surface. The runway is capable of landing DC-3 class aircraft and smaller. A 113,400 litre fuel storage facility is located at the north east end of the runway. All tanks are stored in separate lined containments. They are designed to contain at least 1.5 times the volume of the largest tank in the containment. All pumping is done through aircraft approved filter systems. Two buildings are located just off the runway for drilling company shop/warehouses and there is ample room for lay down areas for parts and materials storage.



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Figure 5-3 Layout of the Runway relative to Camp (2016). Modified from Roberts, 2011a.

Communications is provided by a wireless satellite system. There is also a cell phone repeater at the satellite communications station located on Whistler Ridge. It provides fair-quality cell phone service in camp.

The nearest public infrastructure for the Whistler Project is the town of Petersville, located approximately 100 km west of Whistler; Petersville is connected to Anchorage by an all-weather road and highway. The project is also located approximately 150 km north of the Beluga coalfield project and the Tyonek gas power station on the Cook Inlet coast.

The project is located in the drainage of the Skwentna River that forms a large network of interconnected low-elevation U-shaped valleys cutting through the rugged terrain of the southern Alaska Range. Elevation varies from about 400 m above sea level in the valley floors to over 5,000 m in the highest peaks resulting in a quite spectacular landscape. The Alaska Range is a continuation of the Pacific Coast Mountains extending in an arc across the northern Pacific. Mount McKinley, North America's highest peak at 6,194 m, is located approximately 130 km northeast of the project area.



The vegetation in the Whistler region is quite variable. The valley floors and lower slopes are usually characterized by dense vegetation giving way above about 750 m elevation to dense bushy shrubs rendering ground access difficult. At higher elevations, vegetation is absent and active glaciers with terminal and lateral moraines are present. The timber line is located at elevations varying between 800m to 1,100 m. Bedrock exposures within the project area are scarce except at elevations above 1,000 m and along incised drainage.

The Whistler Project mineral claims provide the area that is sufficient for the development of a potential open pit project, including tailings storage, waste disposal, potential processing plant sites and water sources. A source of power has yet to be determined and mining personnel would likely have to be housed in a camp.



6.0 History

During the late 1960s, regional mapping and geochemical sampling by the United States Geological Survey ("USGS") identified several base and precious metal occurrences over a very large area in the southern Alaska Range including southern portions of the Whistler project area.

Following the results of that work, limited exploration was conducted in the area during the 1960s and 1980s. Falconbridge (or their operator St. Eugene) was involved in exploring the nearby Stoney Vein in the late 1960s. A local prospector, Arne Murto (deceased), was active in the Long Lake Hills area from at least 1964 and AMAX staked at least four claims over the Lower Discovery showing at Mount Estelle (circa 1982).

Mineral exploration in the Whistler area was initiated by Cominco Alaska in 1986 and continued through 1989. During this period, the Whistler and the Island Mountain gold-copper porphyry occurrences were discovered and partially tested by drilling. In 1990, Cominco's interest waned and all cores from the Whistler region were donated to the State of Alaska. The property was allowed to lapse.

In 1999, Kent Turner staked twenty-five State of Alaska mining claims at Whistler and leased the property to Kennecott. From 2004 through 2006 Kennecott conducted extensive exploration of the Whistler region, including geological mapping, soil, rock and stream sediments sampling, ground induced polarization and they conducted an evaluation of the Whistler gold-copper occurrence with fifteen core boreholes (7,948 m) and reconnaissance core drilling at other targets in the Whistler region (4,184 m). Over that period, Kennecott invested over USD\$6.3 million in exploration.

In June 2007, Geoinformatics Exploration Inc. ("Geoinformatics") announced the conditional acquisition of the Whistler Project as part of a strategic alliance with Kennecott Exploration Company ("Kennecott"). Between July and October 2007, Geoinformatics drilled seven core boreholes (3,321 m) to infill the deposit to sections spaced at seventy-five metres and to test for the north and south extensions of the deposit.

In August 2009, Geoinformatics acquired Rimfire Minerals Corporation and changed its name to Kiska Metals Corporation ("Kiska"). In 2009 and 2010, Kiska completed three phases of exploration on the property to fulfill the terms of the Standardization of Back-In Rights ("SOBIR") Agreement between Kennecott Exploration Company and Kiska Metals Corporation.

In total, Kiska completed 224 line-km of 3D induced polarization ("IP") geophysics, 40 line-km of 2D IP geophysics, 327 line-km of cut-line, geological mapping on the 3D IP grid, detailed mapping of significant Au-Cu prospects, collection of 109 rock samples and 61 soil samples, 8,660 m of diamond drilling from 23 drillholes (all greater than 200 metres in total length), petrographic analysis of mineralization at Island Mountain, a preliminary review of metallurgy at the Whistler Resource, and metallurgical testing of mineralization from the Discovery Breccia at Island Mountain. This program was executed by Kiska geologists, independent geologists and multiple contractors, under the supervision of Kiska personnel. All aspects of the exploration program were designed and monitored by a Technical Committee comprised of two Kennecott employees and two Kiska employees. In August of 2010, Kiska delivered a Technical Report (Roberts, 2010) to Kennecott summarizing the results of the completed Trigger



Program. In September of 2010, Kennecott informed Kiska that it would not exercise its back-in right on the project and hence retained a 2% Net Smelter Royalty on the property.

From this point forward, Kiska continued to drill and explore the Whistler Project for the duration of the 2010 and 2011 field seasons. The majority of this work included shallow grid drilling (25 m to 50 m top of bedrock drilling) in the Whistler Area (also referred to as the Whistler Corridor), conventional stepout drilling from prospects in the Whistler Area, step-out drilling at the Island Mountain Breccia Zone, an airborne EM survey of the Island Mountain area, reconnaissance drilling at Muddy Creek, and minor infill drilling at the Whistler Deposit, followed by the publication of an updated NI43-101 resource estimate (MMTS, 2011).



Figure 6-1

Whistler, Discovery Outcrop



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Figure 6-2 Whistler, Discovery Drillhole, WH-01



7.0 Geological Setting and Mineralization

7.1 Geological Setting

The Whistler Project is situated within the Wrangellia Composite Terrane ("WCT"), one of three composite terranes accreted to the Alaskan portion of the North America Cordilleran margin in the Mesozoic and Cenozoic. This margin records a complex history of terrane accretion, basin formation, basin exhumation, subduction, and multiple pulses of magmatism.

In south-central Alaska, the WCT is comprised of three significant tectono-magmatic assemblages (Figure 7-1): 1) the Paleozoic-Triassic basement rocks upon which the Early to Late Jurassic Talkeetna island arc was built, including volumetrically significant plutonic rocks; 2) the Kahiltna assemblage, consisting of Jura-Cretaceous flysch sediments that formed in basins initiated by the convergence of Wrangellia with the former continental craton; and 3) voluminous Upper Cretaceous and Paleocene-Oligocene igneous rocks, dominantly plutons, that stitch the Wrangellia composite terrane with the inboard autochthonous terranes. The latter two assemblages dominate the regional geology of the Whistler area.

The Kahiltna assemblage occurs as a broad 100 km by >300 km belt extending across the Alaska Range. This assemblage is comprised of mostly marine sediments with fossils indicating deposition from the Late Jurassic to Early Cretaceous.



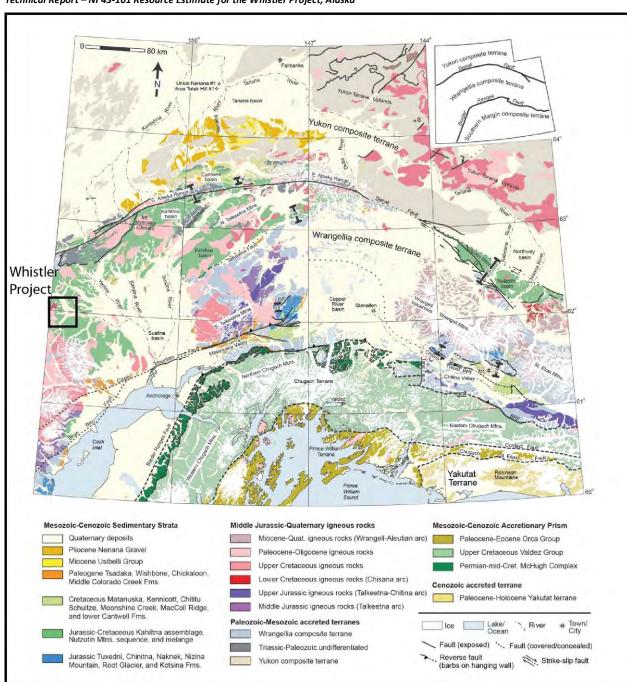




Figure 7-1

Regional Geological Map of South-central Alaska (from Trop and Ridgeway, 2007)

The black inset box shows the location of Whistler area and map extent in Figure 7-1.



Uplift and shortening of the Kahiltna basin was followed by the construction of a continental-margin arc as defined by an extensive belt of 80-60 Ma plutons extending from the Alaska Range south-eastwards into the Coast Range of Canada. In the Alaska Range, these arc rocks are dominated by plutons interpreted to be the deeper roots of subvolcanic and volcanic centres; however extrusive sections are locally preserved.

There are four intrusive suites associated with this epoch of magmatism that are recognized in the Whistler region, including (from oldest to youngest): 1) the Whistler Intrusive Suite or "WIS" (host to the Whistler Deposit); 2) the Summit Lake Suite; 3) the Composite Suite; and 4) the Crystal Creek Suite (Figure 7-1).

The Whistler Intrusive Suite consists of intermediate to mafic extrusive and intrusive rocks, including diorite porphyries. These diorite porphyries are host to, and genetically associated with, gold-copper porphyry mineralization on the Whistler Project area. This is the only suite where comagmatic extrusive rocks and shallow subvolcanic intrusive rocks are recognized in the region. On a district scale the intrusions generally occur as sills and less commonly as dikes and small stocks. New U-Pb age dating of zircons from the mineralized diorite porphyry in the Whistler Deposit, and other mineralized porphyries on the Whistler Project, indicate igneous ages of 76.36 Ma ± 0.3 Ma (Hames, 2014). One of the least-altered diorite porphyry intrusions located on the Whistler Ridge has a hornblende Ar-Ar age date of 75.5 ± 0.3 Ma (Young, 2005).

The Summit Lake intrusions are regionally represented by 74 to 61 Ma calc-alkaline granodiorite to diorite, becoming more monzonitic and of alkali-calcic affinity in the Whistler area. East and northeast from Whistler, these intrusions are associated with local gold prospects and have been called the Kichatna plutons and more locally, the "Old Man Diorite".

The Composite Plutons include the Emerald, Mount Estelle, Stoney, and Kohlsaat plutons, and are locally associated with gold mineralization. The Composite Plutons are seen to be somewhat concentrically zoned magmatic series, with an early border phase of alkaline mafic to ultramafic rock, inwards towards less alkaline monzonites to granites. The common age range is 67 to 64 Ma.

The Crystal Creek sequence, located south of Whistler, is mainly calc-alkaline granite or rhyolite and ranges in age from 61 to 56 Ma. More mafic rocks, including the 61Ma Porcupine Butte andesite and Bear Cub (diorite) pluton, may represent higher level/border phases to the Crystal Creek sequence.

Continental arc magmatism in the Latest Cretaceous is responsible for some of the most significant gold and copper-gold deposits in Alaska. These include the Pebble gold-copper porphyry deposit (89 Ma; Schrader et al., 2001), the Donlin Creek gold deposit (70 Ma, Szumigala et al, 2000), the Fort Knox gold deposit (95 – 89 Ma, Mortenson et al., 1995), and the Livengood gold deposit (Late Cretaceous).





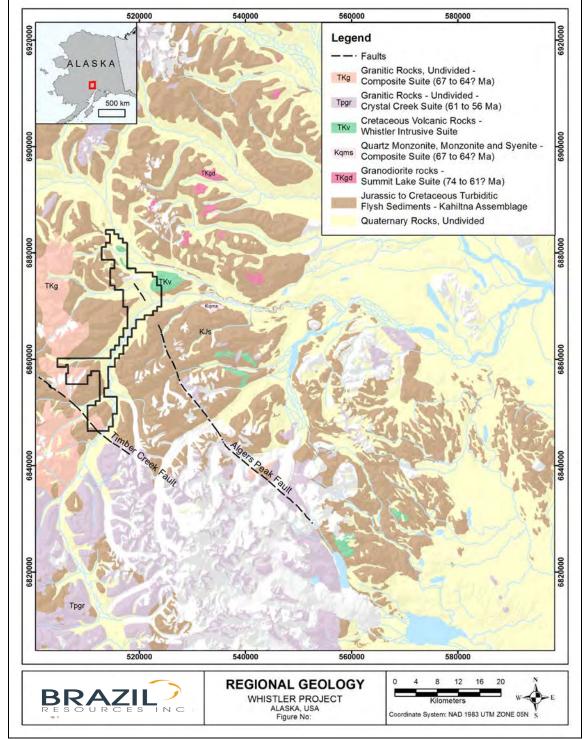


Figure 7-2

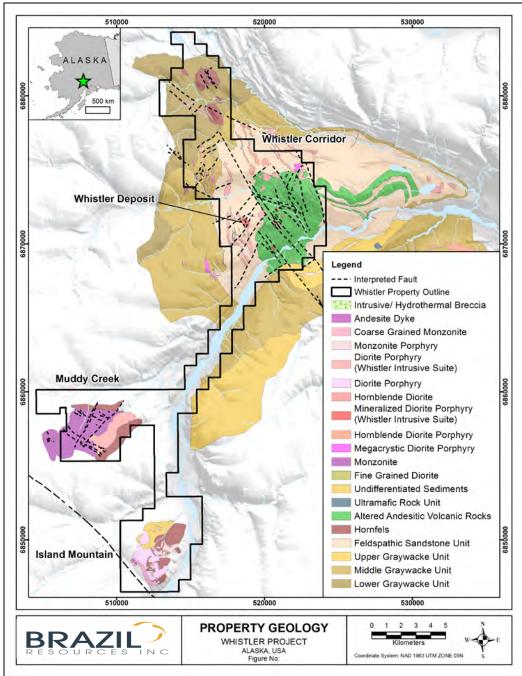
Regional Geology of the Whistler Project (from Wilson et al., 2009)



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7.2 Property Geology

The property geology of the Whistler area is well documented and described in detail by Young (2005) and Franklin (2007). The property can be subdivided into three main areas based on distinctive intrusive rocks and their association with gold-copper and gold-only mineralization: 1) The Whistler Corridor; 2) Island Mountain; and 3) Muddy Creek (Figure 7-3).





Geological Map of the Whistler Corridor (2016). Modified from Roberts, 2011a.



7.2.1 Whistler Corridor

The bulk of the Whistler property is underlain by flysch sediments of the Kahiltna assemblage, while the Whistler Corridor is dominated by a largely fault bounded block of andesitic volcanic rocks, interpreted to represent a local volcanic-dominated basin (Figure 7-4). The sedimentary and volcanic rocks are host to a variety of dioritic to monzonitic dykes, sills and stocks of the WIS. Much of the low-lying areas in this region are covered by 5 to 15 metres of glacial till, and hence much of the geological map is based on drilling and interpretation of geophysical data.

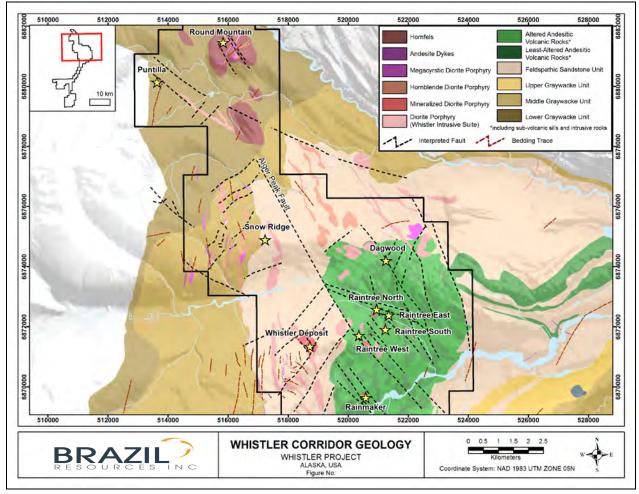


Figure 7-4 Whistler Project Geology (2016). Modified from Roberts, 2011a.

The Whistler Deposit is hosted by a multi-phase diorite porphyry intrusive complex of the WIS nested within sediments of the flysch package, whereas prospects in the Whistler Area (Raintree, Rainmaker) are hosted by similar diorite porphyry intrusive centres within the volcanic basin. Age dating of mineralized and barren diorite porphyry units on the Whistler ridge indicates that magmatism occurred at approximately 75 to 76 Ma (Young, 2005; Hames, 2011). The mineralogy and composition of the intrusive rocks and the andesitic volcanic rocks are quite similar, suggesting that they are broadly comagmatic (Young, 2005). Inversion modeling of the airborne geophysical data suggests that there is a



large 5 kilometre diameter batholith possibly situated 1 kilometre below the surface and that some of the diorite porphyry intrusive centres are cupolas at the apices of the batholith.

The detailed geology of the volcanic stratigraphy remains uncertain, largely due to glacial cover and the extensive amount of texturally destructive, hydrothermal alteration. Volcanic rocks are comprised of coherent andesites and volcanic breccias that define a variety of depositional facies. Based on the occurrence of common argillaceous interflow sediments Young (2005) inferred a sub-aqueous marine setting for the bulk of the volcanic rocks. In the eastern Long Lake Hills area, volcanic flows are interbedded with Feldspathic Sandstones, and Young (2005) interpreted this to represent the onset of volcanism in a shallower marine setting. In addition to these extrusive rocks, a large volume of the volcanic rocks are interpreted to be comprised of porphyritic, subvolcanic units, as either large sills or stocks. These subvolcanic units can be difficult to differentiate from coherent volcanic rocks, particularly porphyritic flows, and in areas of intense texturally-destructive phyllic alteration. The stratigraphy of the volcanic rocks are currently unresolved. The current geological map only differentiates "least-altered" from "altered" volcanic rocks based on the extrapolation of airborne magnetic data from the grid and scout drilling. All of the volcanic and subvolcanic rocks encountered in drilling are magnetic when they are least-altered, and magnetism is generally destroyed by sulphidation during phyllic alteration.

In addition to least-altered volcanic rocks, magnetic high anomalies also occur in association with northwest-elongated linear to oval-shaped diorite dykes and stocks hosted by flysch sediments and in association with zones of near-surface secondary magnetite alteration and veining, such as the Whistler Deposit, and the Rainmaker and Raintree North prospects.

The bulk of the flysch sediments on the Whistler Project area have north to northeast striking and steeply dipping bedding orientations due to compressional deformation that resulted in chevron-style folding. These folds are north-east striking, and fold limbs are typically moderate to steep or overturned (Young, 2005). A dioritic sill exposed on the Whistler Ridge is likewise folded, suggesting that a component of dioritic magmatism pre-dated regional deformation.

Several northeast-trending faults have been interpreted based on topographic linear features and the truncation and offset of magnetic features. These are considered to be the earliest structure features on the property since they are truncated by north-northwest-oriented faults with left-lateral offset, such as the Alger Peak Fault.

7.2.2 Island Mountain

The Island Mountain area is comprised of a suite of nested intrusions, ranging compositionally from hornblende diorite to hornblende-biotite monzonite, emplaced within flysch sediments of the Kahiltna assemblage (Figure 7-5). Texturally, these intrusions range from equigranular to strongly porphyritic, suggesting a relatively high level of emplacement typical of the porphyry environment. Unlike the Whistler area, no coeval volcanic rocks are recognized. Based on limited whole-rock geochemistry (Young, 2005) the Monzonite at Island Mountain plots within the silica-saturated alkalic field of Lang et al. (1995) and is the intrusive equivalent of trachy-andesite on a total alkali versus silica diagram. This suite of intrusions is mapped as part of the circa 67 to 64 Ma Composite Suite of intrusions, similar to the Muddy Creek area, however recent age dating suggests some complexity with dates ranging from 77



Ma down to 64 Ma (Gross, 2014). Compared to Muddy Creek, the intrusive rocks at Island Mountain are generally more mafic (diorite and monzonites as opposed to quartz monzonite and granites at Muddy Creek), are magnetite-bearing rather than ilmenite-bearing, are commonly more porphyritic rather than coarse equigranular, lack the strong, pervasive gold-arsenic association, and lack the evenly distributed northwest-oriented sheeted fracture set that typifies mineralized structures at Muddy Creek. For these reasons, it is likely that igneous rocks at Island Mountain represent a unique intrusive suite separate from the Composite Suite.

This unique intrusive centre is broadly situated at the intersection between the regionally significant northwest-striking Timber Creek Fault, which can be traced for 10's of kilometres, and the Skwentna River valley, postulated as a possible fault zone (Young, 2005). The bulk of the nested intrusions occur on the southeast side of Island Mountain and this is where sediments in the contact metamorphic aureole of these intrusions are hornfelsed. The hornfels, especially on the southwest corner of Island Mountain, occur as irregular rafts and possibly roof pendants that appear to form a slope-parallel skin of country rock that demarks the roof zone of this intrusive complex. Sediments consist of dark mudstone, shale, thin- to medium-bedded siltstone and dark grey sandstone and minor dirty calcareous sedimentary beds and a few local thin pebble conglomerate units. These units predominate on the northwest portion of Island Mountain.





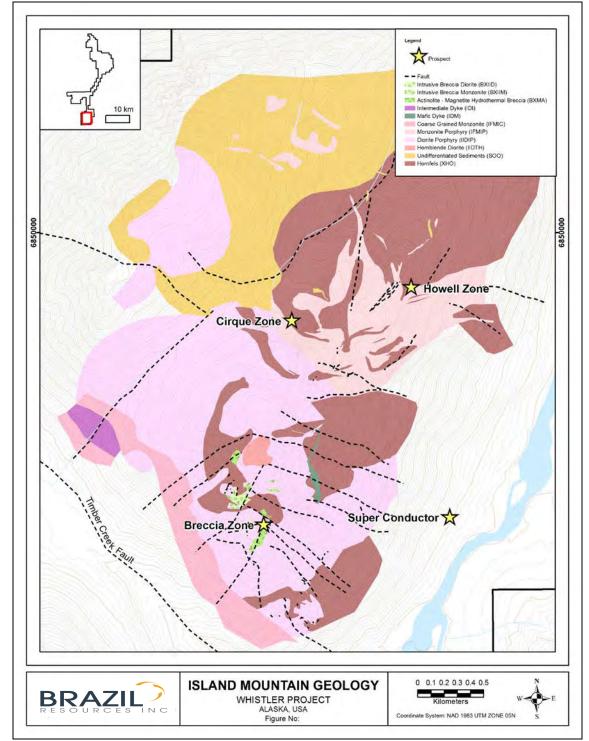


Figure 7-5 Property Geology of the Island Mountain Area (2016). Modified from Roberts, 2011b.



The earliest recognized intrusive phase is the Island Mountain Diorite Porphyry. This unit has been observed to be cut by all other igneous units and is the host to gold-copper porphyry mineralization associated with intrusive and hydrothermal breccias at the Island Mountain Deposit (previously referred to as the "Breccia Zone").

The next most volumetrically significant intrusive phase is a Monzonite Porphyry (IFMIP) that occurs in the northeast corner of Island Mountain, and which is generally the host of gold-copper porphyry-style mineralization at the Cirque and the Howell zones. Unlike the Diorite Porphyry, this unit contains magnetite phenocrysts and is thus well delineated by airborne magnetic survey data.

In the Breccia Zone, Diorite- and Monzonite-cemented intrusive breccias occur as sub-vertical, 100-150 metre diameter, sub-circular to irregularly shaped pipes that grade into actinolite-magnetite-cemented hydrothermal breccias with pyrrhotite-pyrite-chalcopyrite mineralization, which together define magmatic-hydrothermal conduits that host the bulk of gold-copper porphyry mineralization in this area. Not all the Intrusive Breccia bodies are altered or mineralized, suggesting that either some of these breccias post-date the main phase of mineralization, or that some pre-mineral intrusive breccias were not affected by hydrothermal fluid. Together, these intrusive and hydrothermal breccias have been the focus of the majority of the exploration drilling at Island Mountain since 2009. A series of these breccias extend discontinuously for 700 metres from the "Breccia Zone" on a north-northwest trend along the south-western slope of Island Mountain. The Breccia Zone also contains narrow, pencil-like bodies of Coarse Porphyritic Hornblende Diorite that are syn-to-post gold-copper mineralization.

This corridor of breccias is flanked by strong pervasive albite alteration with local zones of vein and disseminated pyrrhotite that constitutes significant Au-only mineralization within and flanking the Breccia Zone. Similar intrusive and hydrothermal breccias with peripheral sodic alteration and pyrrhotite mineralization occur in areas of gold and copper soil anomalies at the Howell Zone, suggesting the occurrence of multiple magmatic-hydrothermal centres. The Howell Zone remains untested by drilling.

The last volumetrically significant phase of magmatism is represented by a coarse grained equigranular monzonite that occurs as a northwest-striking dyke or sill exposed near the base of slope on the south-western side of Island Mountain. This unit lies adjacent and strikes parallel to the regional Timber Creek Fault, suggesting a possible regional control on the emplacement of this unit. Likewise, all of the above-mentioned units are cut by narrow, post-mineral, fine-grained mafic to intermediate dykes that generally strike to the northwest and dip steeply.

7.2.3 Muddy Creek

Muddy Creek is located in rugged terrain along the western edge of the Whistler Project and is comprised of several steep, north-east facing U-shaped glacial valleys separated by razor-back ridges with small remnant glaciers at the heads of each valley. This prospect is largely underlain by a monzonitic intrusive complex, part of the Composite Suite (or Estelle Suite) of intrusions that were emplaced within sediments of the Kahiltna Assemblage in the late Cretaceous (Figure 7-6). An argon-argon analysis of igneous biotite from a granodiorite on the western margin of the intrusive complex returned an age date of $67.4 \text{ Ma} \pm 0.4 \text{ Ma}$ (Solie et al., 1991a). A steep, east-west trending contact between the intrusive complex and hornfels sediments is well-exposed in the ridgelines in the northern



portion of the prospect and is comprised of a conspicuous and extensive red-brown colour anomaly. Hornfels also comprises the eastern-contact of the intrusive complex.

The bulk of the geological mapping at Island Mountain was completed by Kennecott and the following descriptions are from Young (2005). The core of the intrusive complex is monzonitic, grading outwards to progressively more mafic and older intrusive phases (Crowe et al., 1991), with pendants of ultramafic rocks at the margins (Millholland, 1998). The pluton intrudes very steeply north-dipping sedimentary rocks of the middle Graywacke Sandstone subunit and Tabular Sandstone unit. Local matrix-supported pebble conglomerate and spherical concretions along Muddy Creek support a correlation with the Tabular Sandstone unit.

The majority of the Mount Estelle pluton consists of biotite-monzonite, with an increasing proportion of augite phenocrysts towards the margins. Monzonite is medium- to coarse-grained and idiomorphic granular and occurs at the central and southern portions of the mapped area at Muddy Creek. Mafics, principally biotite books (to 5 mm) and subordinate to absent stubby dark augite generally constitute 15 to 35% of the monzonite. Twinned 3 mm to 1 cm orthoclase phenocrysts are a fundamental component. Groundmass consists of a medium-grained equigranular mixture of feldspar and quartz. Rounded xenoliths are rare, but widespread, and consist of biotitized sediments and more strongly mafic (biotite and augite)-rich intrusive rock of earlier intrusive phases. Intrusion breccia's with rounded clasts are a very local feature as are sinuous to linear aplitic dikes.





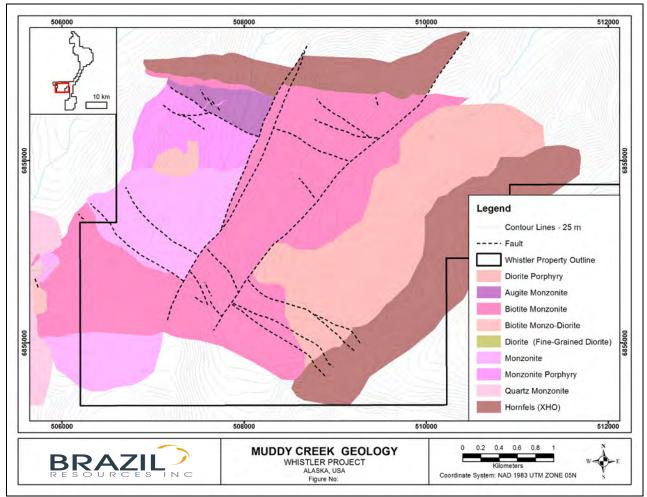


Figure 7-6 Geological Map of Muddy Creek (2016). Modified from Roberts, 2011c.

7.3 Mineralization

Exploration on the Whistler Project by Kennecott, Geoinformatics and Kiska has identified three primary exploration targets for porphyry-style gold-copper mineralization. These include the Whistler Deposit, Raintree West, and the Island Mountain Breccia Zone (the "Island Mountain Deposit") (Figure 7-7). The Whistler and Island Mountain areas also host multiple secondary porphyry-like prospects defined by drilling, anomalous soil samples, alteration, veining, surface rock samples, induced polarization chargeability/resistivity anomalies, airborne magnetic anomalies and airborne electromagnetic anomalies. These include the Raintree North, Rainmaker, Round Mountain, Puntilla, Snow Ridge, Dagwood, Super Conductor, Howell Zone and Cirque Zones. The Muddy Creek area represents an additional exploration target with the potential to host a low-grade, bulk tonnage, Intrusion-Related Gold mineralization.

BRI is currently conducting a technical review of the secondary porphyry-like targets to ascertain their exploration potential and prioritize these targets for future exploration programs.





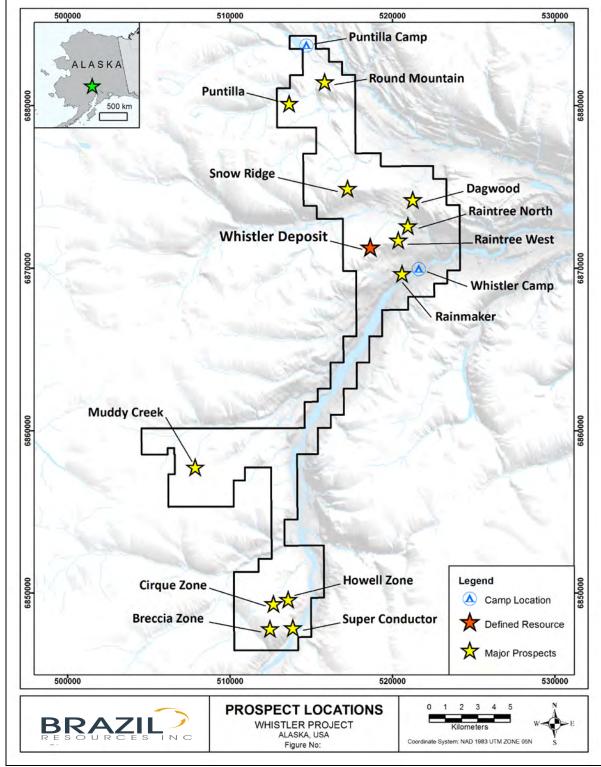


Figure 7-7 Prospect Areas (2016).



7.3.1 Whistler Area and Whistler Deposit Mineralization Overview

The Whistler Deposit and prospects in the Whistler Area (Raintree West, Raintree North and Rainmaker) display a common pattern of alteration, vein paragenesis, and mineralization styles that suggest these spatially separate porphyry centres share a common genetic association. These features are hosted by, and genetically linked to, pulses of diorite porphyry intrusive bodies that are nested in pipe-like centres. Geophysical inversion models of the airborne magnetic data suggest that these pipes may be cupolas that occur above a common batholith. That these porphyry centres are genetically associated is corroborated by common alteration assemblages, vein types, mineralization styles and paragenetic relationships. At the Whistler Deposit, the earliest Diorite Porphyry phase (Main Stage Whistler Diorite Porphyry) is associated with the main stage of gold-copper mineralization, whereas subsequent phases are less mineralized, and thus are either weak metal contributors or diluting bodies.

The earliest recognized alteration event recognized at the Whistler Deposit and the porphyry prospects in the Whistler Area, referred to as "Magnetite" alteration, occurs as patchy magnetite alteration of mafic minerals (dominantly hornblende and possibly pyroxenes) and narrow, irregular magnetite veinlets ("M-veins"). Magnetite in this event is occasionally intergrown with trace chalcopyrite. This stage may include the partial replacement of feldspars by secondary K-feldspar, particularly in the selvages to M-veins, and hence may be part of the earliest, weakest stage of Potassic alteration (see below). This stage is recognized in both the Main Stage and Intermineral Stage Diorite Porphyry generally in the core zone of mineralization at the Whistler Deposit. In addition, it has been observed to occur within andesitic volcanic and volcaniclastic rocks within 50 m of similarly altered diorite intrusions in the Whistler Area, however not within the Feldspathic Sandstones that host the Whistler Deposit.



M vns KsP-mG alt

Figure 7-8 Photo of irregular M-veins in dark magnetite alteration of mafics (upper) and pervasive pink-black blotchy k-feldspar and magnetite alteration (lower) with wormy quartz + magnetite + chalcopyrite A-veins (Whistler Deposit)

The subsequent stage of alteration is "Potassic" alteration, defined by the occurrence of pinkish Kfeldspar replacing plagioclase and matrix, which generally occurs as halos to, or pervasively in zones of, A-style and B-style quartz veins. Potassic alteration also includes the replacement of mafic phases by fine-grained secondary "shreddy" biotite, however this is generally difficult to observe due to overprinting Chlorite-Sericite alteration (see below). Strong Potassic alteration (pink rock) is generally accompanied by strong patchy magnetite alteration, and overall this leads to strong textural destruction such that the rock is mottled pink-black without an obvious porphyritic texture. Potassic alteration is associated with the bulk of gold-copper mineralization, which occurs as chalcopyrite and rare bornite in A- and B-style quartz veins and as fine-grained disseminations in adjacent wall rock. At the Whistler Deposit, gold occurs predominantly as electrum associated with chalcopyrite. There exists a spectrum of A- and B-style quartz veins. A-veins are millimetre wide, sugary quartz ± magnetite with wormy margins. These are generally observed to cut M-veins, however occasional M-veins have been seen to transition into A-like quartz veins. B-veins are generally comprised of slightly coarser, equigranular quartz with centre-line septa of chalcopyrite, and have straight sides. Intense zones of B-style veining form strong stockwork zones are associated with high-grade zones (>1 gpt Au, >0.5% Cu). Potassic alteration and quartz veining may include minor pyrite, yet these zones have relatively low total sulphide content (<1-2%).



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Figure 7-9 Photo of a classic B-style quartz vein with a chalcopyrite-filled centre-line cutting an irregular, wormy A-style quartz vein (Whistler Deposit, WH 08-08, ~123.0m)

In general, core zones of Potassic alteration and Au-Cu mineralization are partially to completely overprinted by "Chlorite-Sericite" alteration, This "green rock" alteration is ubiquitous and the most macroscopically obvious alteration in zones of Au-Cu mineralization, even though it is a later event. Here, bright green chlorite replaces secondary biotite and any primary mafic phases remaining, and waxy green sericite replaces feldspars. Pyrite is part of this assemblage, partly replacing mafics and magnetite. Calcite or carbonate may be part of this assemblage, as well as trace epidote. Kennecott referred to this alteration assemblage as "Intermediate Argillic", which is also equivalent to SCC alteration in the porphyry literature (see Sillitoe, 2010). Kiska interprets Chlorite-Sericite alteration to be transitional to "Phyllic" alteration, overprinting (telescoping) and immediately peripheral to core zones of mineralization. This pervasive style of alteration is not obviously associated with any veining event, however there is a continuum of glassy quartz veins with pyrite>>chalcopyrite + molybdenite that appears to only occur in zones of Chlorite-Sericite and Phyllic alteration.



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Figure 7-10 Photo or chlorite-sericite (+calcite) alteration overprinting potassic – magnetite alteration in a zone of quartz vein stockwork, subsequently cut by later Dpy veinlets with sericitic and iron-carbonate halos (Whistler Deposit)

Potassic and Chlorite-Sericite alteration is variably overprinted by "Phyllic" alteration. The Phyllic assemblage consists of sericite + pyrite + quartz. Moderate to strong Phyllic alteration is typically bleached grey-tan, where mafic minerals are completely to strongly replaced by sericite and pyrite, magnetite is replaced by pyrite, and feldspars are replaced by sericite (and clays). Phyllic alteration commonly occurs in halos to pyritic stringers ("Dpy") and quartz + pyrite veins ("D-veins"). In areas with intense D-style veining, phyllic halos coalesce to give pervasive Phyllic alteration. Strong to intense Phyllic alteration is texturally destructive, which often leads to difficulty in distinguishing intrusive from volcanic rocks. It is also suspected that intense Phyllic alteration is grade-destructive. At the Whistler Deposit and other prospects Phyllic alteration forms an outer and upper, commonly gradational halo to Chlorite-Sericite alteration, and is also preferentially developed in structural zones, including faults and hydrothermal breccias. Hydrothermal breccias commonly occur along the boundaries of different units (sediment/diorite; volcanic/diorite; diorite/diorite) and are comprised of variably milled wallrock fragments cemented by quartz-sericite-pyrite ("pyritic rock flour breccias"). These breccias occasionally contain tourmaline.

In the Whistler Area, strong Phyllic alteration and high pyrite content (10-15%) is common peripheral to individual porphyry centres extending for hundreds of metres into surrounding volcanic rocks. This has led to significant demagnetization of the volcanic stratigraphy such that the magnetic signature in the Area is a function of alteration (dominantly Phyllic) rather than primary rock types. In contrast, the Phyllic halo at the Whistler Deposit only extends 50 m into the surrounding Feldspathic Sandstone. In addition to pyrite, porphyry centres in the Area are also large sulphur anomalies, in the form of sulphates. Anhydrite appears to span several alteration and vein types: anhydrite occurs within B-type quartz-chalcopyrite veins and within cross-cutting D-veins and Dbm veins (see below). Fine-grained anhydrite, of an uncertain alteration affiliation, also replaces feldspars at the microscopic scale. Gypsum locally replaces vein anhydrite and also occurs as very narrow and abundant hairline veinlets in zones of strong to intense and pyritic phyllic alteration.



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Figure 7-11 D-style pyrite veins with well-developed phyllic halos (Whistler Deposit), that cut and off-set B-style quartz veins (lower sample). Also note the local occurrence of hematite at the intersection of both vein types (magnetite>hematite?)

At the Whistler Deposit and other prospects in the Whistler Area, the latest stage of precious and base metal mineralization is associated with quartz-carbonate (dolomite and calcite)-sphalerite-galena ± chalcopyrite veins ("Dbm" or "D-base metal veins"). These veins have been observed to cut Potassic and Chlorite Sericite alteration (including Au-Cu mineralization and A- and B-vein stockwork), Dpy and D veins, and sericite-quartz-pyrite cemented hydrothermal breccias. In the Whistler Area, these veins are commonly most abundant in the outer, intense phyllic halo within volcanic rocks within 100-200m of the diorite intrusive centres. The veins can range from narrow veins (0.5-1 cm wide) up to 2-5 metre wide (generally as vein breccias). Veins minerals, including sulphides, are medium to very coarse-grained (Figure 7-12), have local colliform banding, and vein quartz is occasionally chalcedonic. Based on their cross-cutting relationships, textures, mineralogy and spatial relationship to porphyry centres, these veins are interpreted to have formed syn-to post-Phyllic stage alteration. That these veins typically cut phyllic-stage hydrothermal breccias and have open-space fill colliform banding, suggests that these veins formed in a much different hydrologic/structural regime (hydrostatic, possible incursion of meteoric waters) relative to Magnetite through to Phyllic events. Relative to the Whistler Deposit, these veins are much more abundant in the host rocks to porphyry centres in the volcanichosted prospects in the Whistler Area, particularly Raintree West. This observation, in addition to the epithermal-like textures of these veins, supports the notion that porphyry centres in the Area may have formed at shallower stratigraphic levels compared to the Whistler Deposit.



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Figure 7-12 Photo of quartz-carbonate vein from Raintree West (WH11-030) showing welldeveloped colliform banding and coarse-grained sphalerite and galena

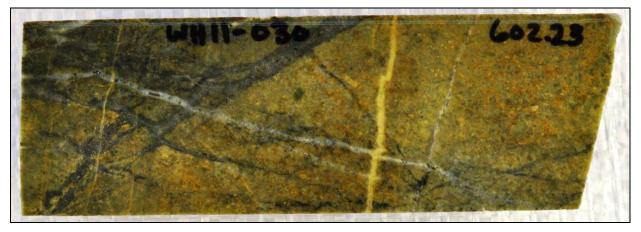


Figure 7-13 Common vein paragenesis in all porphyry occurrences in Whistler Area: dark grey quartz vein stockwork with chalcopyrite (A- and B-style), cut by quartz-calcite-carbonate-sphalerite-galena veinlet (Dbm veins, top left down to bottom right), cut by narrow Fe-carbonate veinlets with Fe-carbonate alteration halos (Raintree West example)

The most significant style of post-mineral alteration is Fe-carbonate alteration. This occurs as pervasive alteration of feldspars in structural zones and as selvages to ankerite veins. Primary igneous magnetite and secondary magnetite is commonly altered to hematite in these zones. Ankerite veins, typically as brittle tension gashes, cross-cut all vein styles, including the Dbm veins. The degree and extent of this style of alteration is typically not obvious until the core has weathered for a year or more, and is therefore not well-documented in the core logs.



7.3.2 Mineralization: Whistler Deposit

Gold and copper mineralization at the Whistler Deposit is hosted by a Late Cretaceous, multi-phase diorite porphyry intrusive complex that intrudes the Feldspathic Sandstone unit of the Kahiltna assemblage (Figure 7-14). The Feldspathic Sandstone is comprised of sandstone with minor interbeds of mudstone, siltstone and conglomerate. Sedimentary bedding in the vicinity of the deposit primarily strikes to the northeast and dips steeply to the northwest.

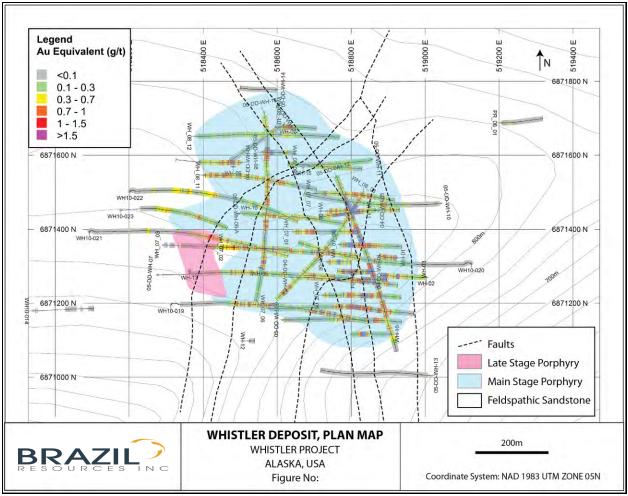


Figure 7-14 Geological Map of the Whistler Deposit (2016). Modified from AMC, 2012.

The diorite porphyry intrusive complex is ovoid-shaped and vertically plunging (Figure 7-16). The long axis of the ovoid is 700 metres long and oriented in a northwest-southeast direction. The short axis of the ovoid is 500 metres wide and oriented in a northeast-southwest direction. Deep drilling indicates that the intrusive complex is open below a depth of 800 metres from surface.

As described in the historical resource report MMTS 2011, the intrusive complex is composed of at least three diorite porphyry phases that are compositionally and texturally similar: they are comprised of 60-

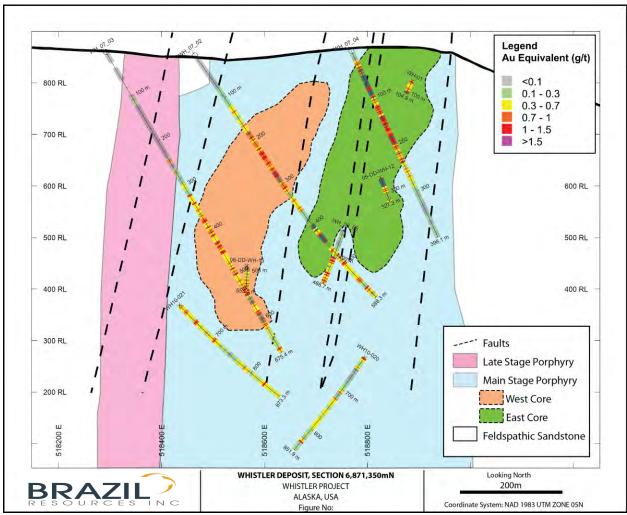


80%, euhedral to subhedral blocks of plagioclase feldspar phenocrysts (0.2-3.0 mm diameter), 5-20% hornblende laths (0.2-3.0 mm) that are usually altered to sericite, chlorite, pyrite, or a combination of these, and a fine grained, granular groundmass of feldspar and minor quartz, that is usually altered to silica, chlorite, sericite, clay or potassium feldspar. In places within the deposit, three intrusive phases are recognized on the basis of cross-cutting relationships with mineralization and alteration. The oldest intrusive phase, the "main stage diorite porphyry", carries the earliest recognized veining and alteration associated with gold-copper mineralization (see below); the second phase, the "inter-mineral diorite porphyry" is recognized where it clearly cuts main stage diorite porphyry mineralization (i.e. intrusive contact cutting mineralized veins), and is itself veined and mineralized. The third and youngest phase, the "late stage diorite porphyry" is barren except for local mineralized xenoliths of main or inter-mineral porphyry.

Due to the compositional and textural similarity of the main stage and inter-mineral stage porphyries and hence the difficulty in consistently identifying these stages in areas that lack clear cross-cutting relationships with mineralization or alteration, Kiska geologists modeled these phases as a single mineralized porphyry unit. For consistency these phases are therefore referred to as the "Main Stage Porphyry". Further re-logging of drill core and future in-fill drilling may be able to clearly and consistently differentiate these phases.

The Main Stage Porphyry ("MSP") comprises the bulk of the volume of the intrusive complex and is cut by the Late Stage Porphyry. This latter phase clearly post-dates mineralization and truncates grade. It occurs as narrow, sub-vertical dykes and pencil-like bodies, generally 2 to 10 metres wide but up to 150 metres wide on the north and western edges of the MSP. This phase generally has strong pervasive phyllic alteration, and occasionally xenoliths or rafts of the MSP, which locally contribute grade.





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Figure 7-15 Geological Cross-section (6,871,350mN) of the Whistler Deposit (2016). Modified from AMC, 2012.



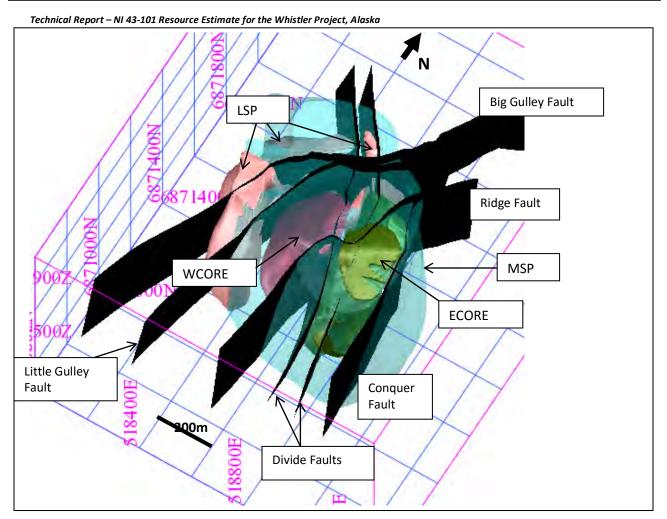


Figure 7-16 Oblique view of geological domains and faults at the Whistler Deposit (the host Feldspathic Sandstone is not shown) (2016). Modified from AMC, 2012.

Gold and copper mineralization in the Main Stage Porphyry is comprised of 1-3% chalcopyrite and trace bornite as grains within magnetite and quartz veins (see below) and as disseminations in the host porphyry generally within the halos to these veins. Petrography indicates that gold occurs predominantly as electrum associated with chalcopyrite (Petersen, 2004). This mineralogy and style of mineralization is typical of diorite-hosted gold-copper porphyry deposits (Sillitoe, 2010).

Recent, preliminary modeling has identified two zones within the MSP which should be incorporated with further resource modeling. These zones of gold-copper mineralization occur in two areas within the Main Stage Porphyry: the East Core ("ECORE") and West Core ("WCORE") domains (Figure 7-16). These domains are interpreted as discrete, near-vertical, ovoid-shaped fluid flow conduits (interconnected vein networks) that delivered and trapped the bulk of the metals in the MSP. The ECORE is defined by coincident 0.40 gpt gold and 0.20% Cu grade contours and extends approximately 500 metres in the north-south dimension, 250 metres in the east-west dimension and is 600 metres deep (from surface). The WCORE is defined by a 0.30 gpt gold grade shell with lower and irregular Cu grades relative to the ECORE. This domain is approximately 400 metres long in the north-south



direction, 200 metres wide in the east-west orientation and is 450 metres deep in a vertical dimension starting from 75 metres below surface.

These domains have the highest gold-copper grades relative to the remainder of the MSP domain, yet the boundaries of the ECORE and WCORE domains with the MSP are geologically gradational. Outside of the ECORE and WCORE domains, the MSP lacks any volumetrically significant zones of potassic and magnetite alteration, or significant volumes of mineralized quartz veining. However, wide-spaced drilling in the northern portion of the deposit has encountered gold-copper mineralization association with magnetite and quartz veining, suggesting that further drilling may define other zones of mineralization similar to the ECORE and WCORE.

Both the ECORE and WCORE domains contain inner zones of strong potassic and magnetite alteration (see below), which are dominantly overprinted by pervasive chlorite-sericite alteration and local phyllic alteration. These domains are also defined by the consistent occurrence and highest concentration of M-veins and mineralized quartz veins (A- and B-veins). In these domains, mineralized quartz veins generally range in volume from 1 to 5%. Local high grade mineralization within these domains occurs in zones of high density quartz vein stockwork (locally >20% quartz vein volume) and quartz + magnetite + chalcopyrite cemented hydrothermal breccias. Minor 1 cm to 10 cm wide quartz-carbonate (ankerite and calcite)-barite-sphalerite-galena ± chalcopyrite veins (Dbm veins) cross-cut mineralized and unmineralized portions of the Main Stage Porphyry and are interpreted as intermediate sulphidation epithermal veins that have telescoped on the porphyry system. These sparse veins contain minor Au, Ag, Pb, Zn, and Cu, yet do not contribute significantly to the economic resource.

The structure of the intrusive complex is not well constrained with the widely spaced drilling. However, five faults that cross-cut the deposit are currently modeled (Figure 7-16): Big Gulley Fault, Little Gulley Fault, Divide Fault, Conquer Fault and Ridge Fault. All of these faults have been modelled based on topographic features, fault textures in drill core intercepts, breaks in the airborne magnetic data (50 metre line-spacing) and breaks in the drill core magnetic susceptibility readings. These faults are generally between 0.5 and 5 metres wide, and display a variety of textures in drill core, included silica and/or carbonate cemented fault breccias, shear textures, clay gouge, brittle fractures and/or a combination of these features. Fault structures in the deposit are commonly associated with narrow zones of strong to intense sericite, clay, pyrite and carbonate alteration. This generally results in the conversion of magnetite to either pyrite and/or hematite, and therefore leads to demagnetization.

The Big and Little Gulley Faults strike to the northeast and dip steeply to the northwest. The strike of these faults is based on a prominent set of northeast-trending gulley's that traverse the northern portion of the deposit, whereas the dip of the faults is based on drill core intercepts.

The Ridge Fault is a steeply northwest dipping (80° dip), curvi-planar fault that strikes sub-parallel to the Gulley Fault and is coincident with a significant northwest-dipping break-in-slope near the apex of the Whistler Ridge. The irregular strike of the fault is modelled based on a best fit between faults in drill core and an axis of demagnetization along this fault from the magnetic susceptibility data. Based on the staircase geometry of topography downwards across the Gulley and Ridge faults to the northwest, Kiska geologists interpret these faults as possible normal faults with upper plate blocks downs to the northwest. These faults do not appear to truncate Au-Cu grade, and hence they have not been



modelled as hard boundaries. The actual sense of motion and amount of potential offset across this fault zone is unknown.

The Divide Fault (modelled as two strands) and the Conquer Fault are northwest-striking faults that dip steeply to the southwest (70-80° dip). These faults are modelled based on drill core intercepts and prominent breaks in the downhole magnetic susceptibility readings. These faults likely comprise strands within a fault zone. Where these faults intersect the Gulley and Ridge faults, the latter have a kinked geometry suggesting possible right-lateral offset of approximately 25-50 metres.

All of these faults generally show evidence that the latest movement within these faults post-dates mineralization (i.e. clay altered gouge and wallrock overprinting higher temperature alteration assemblages, carbonate-filled tension veins). However, both the ECORE and WCORE occur near the intersection of the Divide and Ridge Faults, suggesting that they may have been active prior to or during mineralization, and hence may have acted as important controls on mineralization.



Figure 7-17 Whistler, WH 08-08, ~122.5 m, Quartz Vein



Figure 7-18 Whistler, WH 08-08, ~123.0 m, A and B Veins



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Figure 7-19 Whistler, WH 08-08, Late Quartz-calcite Vein with Galena and Sphalerite.



Figure 7-20 Whistler, WH 08-08, partially leached gypsum-filled fractures.

7.3.3 Mineralization: Raintree West

The Raintree West prospect occurs 1500 metres to the east of the Whistler Deposit, just off the nose of Whistler Ridge. This prospect occurs below a thin veneer of glacial till (5 to 15 metres) and hence is not exposed at surface. Outside of the Whistler Deposit, Raintree West is currently the most advanced prospect in the Whistler Area on the basis of drill metres, with a total of 8,538 metres since the original discovery hole drilled by Geoinformatics in 2008. The discovery drillhole, RN-08-06, targeted an airborne magnetic high anomaly that is coincident with an IP chargeability high detected on a 2D IP reconnaissance line that crossed the Whistler Area. This hole discovered a significant zone of near surface (below 5 metres of till cover) gold-copper porphyry mineralization (160 metres grading 0.59 gpt gold, 6.02 gpt silver, 0.10% copper).



Mineralization at Raintree West occurs as two main types: 1) early, porphyry-style gold-copper mineralization hosted by diorite porphyry stocks and consisting of quartz and magnetite stockwork veining, with vein and disseminated chalcopyrite associated with potassic alteration, and 2) later cross-cutting silver-gold-lead-zinc mineralization in quartz-carbonate veins (Dbm) that contain pyrite, sphalerite, galena and chalcopyrite, with occasional banded epithermal-like textures. The early gold-copper mineralization is best developed within, and controlled by, early diorite porphyry intrusions (akin to Main Stage Porphyry at the Whistler Deposit), whereas the later silver-gold-lead-zinc veins surround and locally overprint the porphyry mineralization, and are most abundant in the host volcanic rocks in zones of strong to intense phyllic alteration vertically above and adjacent to the diorite porphyries. In places, 25 m to 50 m wide diorite porphyry dykes cut both types of mineralization and are barren (akin to Late Stage Porphyry at the Whistler Deposit).

Current drilling at Raintree West has defined two significant zones of gold-copper porphyry mineralization: 1) a near surface zone on the east side of the Alger Peak fault; and 2) a deep zone on the west side of the fault (Figure 7-21).

The near surface porphyry gold-copper mineralization is coincident with a northwest-elongate airborne magnetic high anomaly that measures 250 metres long and 150 metres wide, which pinches to the northwest and southeast. Drilling has only intersected this mineralization on two 100 metre-spaced east-west sections (6,871,350mN and 6,871,450mN). Gold-copper mineralization occurs from the top of bedrock to a maximum depth of approximately 170 metres, where it is either truncated by post-mineral diorite porphyry intrusions or faulting, and has a true width of approximately 150 metres. Gold-copper mineralization is closed to the north, and potentially open to the south, however grade diminishes and the airborne magnetic high anomaly pinches out just south of the most southerly hole (WH10-025).

The deep zone of porphyry gold-copper mineralization on the west side of the fault has a maximum apparent width and vertical extent of 300 by 300 metres at its widest (6,871,650mN), is open to depth, and occurs at its shallowest at 470 metres below surface. This deep zone of mineralization can be traced along a northwest-trending strike extent for at least 325 metres where it appears fault bound to the northwest and is open to depth to the southeast. The mineralization is essentially blind to the airborne magnetic data and the 3D IP due to the limited depth penetration of these techniques.

Porphyry mineralization at Raintree West is essentially similar to that at the Whistler Deposit with respect to veining and alteration, although Raintree West is mantled by intensely altered volcanic rocks with epithermal-texture quartz-carbonate veins. These veins (Dbm), interpreted to have formed in a shallow environment post-dating the main phase of porphyry gold-copper mineralization, may have developed through hydrothermal/thermal downward collapse onto to earlier formed high temperature porphyry system, contributing base and precious metals to the mantle of volcanic rocks and porphyry mineralization.





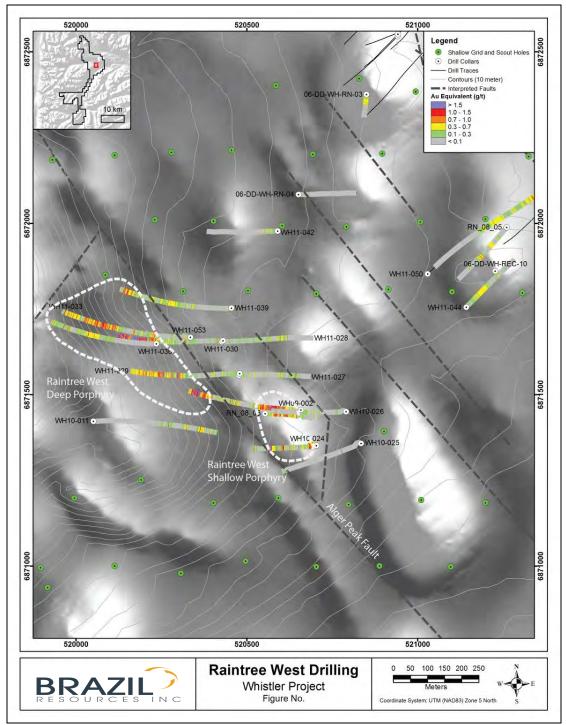
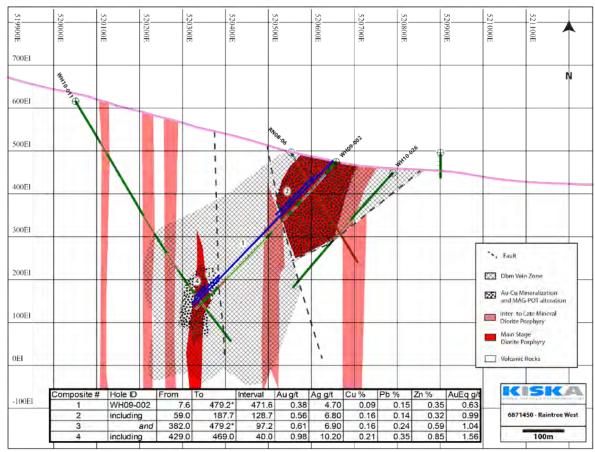


Figure 7-21 Plan Map of the Raintree West Prospect on a Background of greyscale airborne magnetic data, (magnetic high anomalies shown as lighter shades of grey) (2016). Modified from Roberts, 2011a.





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Figure 7-22 Raintree West cross-section 6,871,450mN. Modified from Roberts, 2011a.



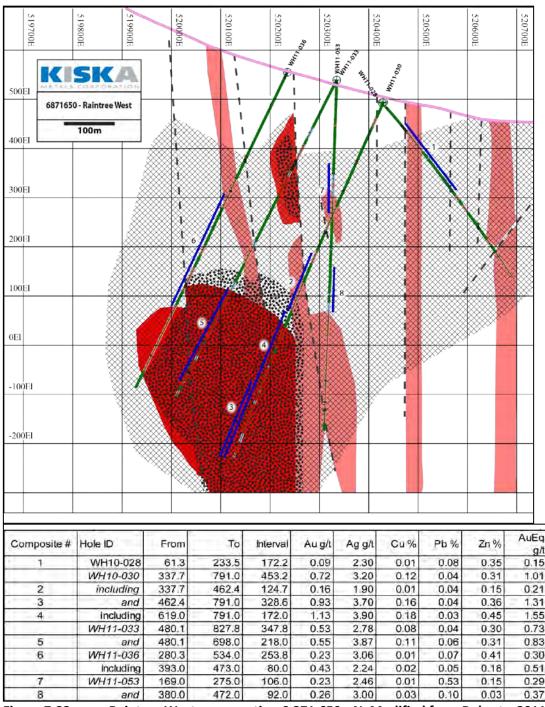




Figure 7-23

Raintree West cross-section 6,871,650mN. Modified from Roberts, 2011a.



7.3.4 Mineralization: Island Mountain

The Island Mountain prospect area is host to several mineralized zones interpreted to represent a cluster of individual porphyry centres within this large intrusive complex. These include the Breccia (the "Island Mountain Deposit"), Cirque and Howell Zones, and other prospects defined by surface geochemistry and geophysical anomalies that require further field assessment. Recent exploration activity and the majority of diamond drilling by Kiska have concentrated on mineralization associated within the Breccia Zone on the southwest slope of Island Mountain. Here, at least three styles of significant gold and copper mineralization are currently recognized: 1) gold-copper mineralization hosted by k-feldspar altered monzonitic intrusive breccia, 2) gold-copper mineralization hosted by intrusive and hydrothermal breccias associated with strong sodic-calcic alteration, and 3) gold-only mineralization associated with vein and disseminated pyrrhotite ("pyrrhotite-gold").

At the Breccia Zone, the first two styles of mineralization occur within a 300 m diameter, sub-circular, sub-vertical breccia pipe, which appears to have been a conduit for inter-mingled intrusive and hydrothermal breccias hosted by the Diorite Porphyry. Gold-copper mineralization hosted by the k-feldspar altered monzonitic intrusive breccia is volumetrically smaller than the subjacent hydrothermal breccias and is interpreted as being the earliest stage of mineralization, since this breccia body is cut by actinolite veinlets. Mineralization is associated with trace to 2% disseminated chalcopyrite in the k-feldspar altered intrusive cement of the breccia.

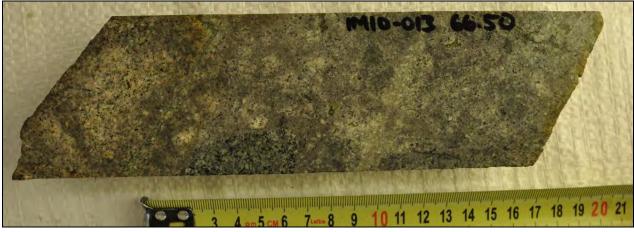


Figure 7-24 Photo of monzonite-matrix intrusive breccia with patchy albite alteration, silicification and disseminated chalcopyrite

The bulk of gold-copper mineralization at the Breccia Zone is hosted by intrusive and hydrothermal breccias with strong sodic-calcic alteration with pyrrhotite as the predominate sulphide and trace to 1% chalcopyrite. Chalcopyrite is most abundant in the matrix of the hydrothermal breccias and is commonly intergrown with pyrrhotite and actinolite ± magnetite. Pyrrhotite, ranging from 1 to 5%, occurs as disseminations within the breccia matrix and as large blebs cementing the matrix. The deportment of gold in the breccia zone is not known. Weaker gold-copper mineralization extends 50-75 metres beyond the breccia zone and is associated with actinolite stockwork veining.



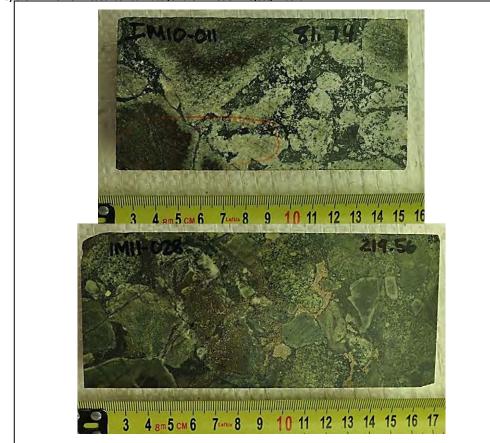


Figure 7-25 Photos of various textures of actinolite-magnetite hydrothermal breccia (BXMA), showing strong albitization in monomict breccia (left), pyrrhotite matrix in polymict breccia (right)

Gold-only mineralization in the Breccia Zone (referred to as "Pyrrhotite-Gold" mineralization) occurs 100-200 metres peripherally to the intrusive-hydrothermal breccia body and occurs in association with vein and disseminated pyrrhotite within the Diorite Porphyry. Pyrrhotite veins occur in irregular, possibly sheeted sets, and are typically 1-10 millimetres wide and have pyrrhotite-rich (up to 15-20%) net-textured vein selvages (i.e. replacing the igneous matrix of the Diorite Porphyry). Petrography and SEM studies indicate that gold occurs as electrum intergrown within and marginal to pyrrhotite grains. The orientation and continuity of these veins is currently undefined.

The relationship between the breccia-hosted gold-copper mineralization and the pyrrhotite-associated gold-only mineralization is not fully understood. The current working hypothesis is that the gold-copper and gold-only mineralization are associated with the same hydrothermal fluid, such that copper was precipitated in the hotter parts of the system within the hydrothermal breccia, and copper-depleted, gold-bearing fluids persisted into cooler, structural zones beyond the breccia and were subsequently precipitated (Rowins, 2011).



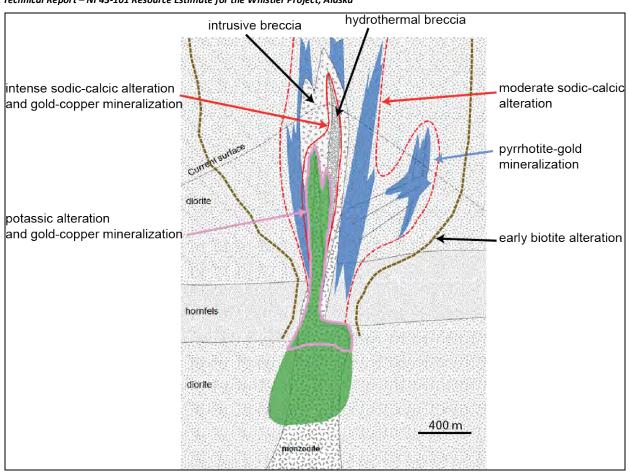


Figure 7-26 Schematic Model of Breccia Zone Alteration and Mineralization. From Roberts, 2011b.



7.3.5 Mineralization: Muddy Creek

Gold mineralization at Muddy Creek is hosted throughout the core of the plutonic complex and is controlled by northwest-striking and steeply southwest-dipping, mm- to locally cm-wide veinlets of sulfides and quartz, manifest as rusty-weathering sub-parallel fracture sets, commonly spaced a metre or more apart (Figure 7-27). These veinlets may contain any combination of chalcopyrite, arsenopyrite, pyrite, stibnite, pyrrhotite and native gold, with minor amounts of galena, sphalerite and molybdenite. Moderate sericitic alteration is typically restricted to cm-wide selvages to these veins, whereas the bulk of the interleaving rock is relatively unaltered and unmineralized. Cone sheets and circular onion skin-type joints that resemble bubbles or mariolites also carry gold mineralization, and elevated gold and copper values are also found in cm-scale pegmatites. Coarse- to very coarse-grained feldspar-quartz pegmatite with chalcopyrite and subordinate molybdenite occur along joint planes and intersections, centered in aplitic dikes and at the cores of circular joint sets or cone sheets. Lastly, massive sulfide veins occur locally along Muddy Creek in hornfelsed sedimentary wall rock. Previous workers report gold in all mineralization types to range from ppm to more than 1 oz/t in select samples (Millholland, 1998).



Figure 7-27 Detail view of Biotite Monzonite Northwest of Muddy Creek, cut by sub-vertical limonite-stained fracture fillings of chalcopyrite-arsenopyrite (~1-3 per metre).



Accessory minerals associated with mineralization in veins include vuggy quartz and K-spar, with greatly subordinate ilmenite, tourmaline, apatite, beryl, and possibly corundum. Unlike most other mineral types of the Whistler region, magnetite is completely absent and the only measurable magnetism in hand samples is imparted by ilmenite and pyrrhotite.

Previous exploration has largely been focused on areas where the vein/fracture density is highest. This includes structural zones near the top of Discovery Creek, Phoenix Creek, Prospect Creek and Muddy Creek that occur along the strike extent of a significant northwest-striking fault zone. Two diamond drillholes drilled by Kiska in 2011 focused on a high density vein/fracture zone at the top of Prospect Creek. Here drilling returned a highlight result of 0.44 gpt gold over 44.2 metres from 297.0 downhole (MC11-002). True widths on mineralization in this area may be approximately 80% of drilled widths, yet the full extent of mineralization down-dip or along strike is unknown due to a lack of drilling.



8.0 Deposit Types

Exploration on the Whistler Project by Kennecott, Geoinformatics and Kiska has identified three primary exploration targets for porphyry-style gold-copper deposits. These include the Whistler Deposit, Raintree West, and the Island Mountain Breccia Zone. These deposits and their exploration criteria, conform to the porphyry deposit model as described in Sillitoe (2010). All of the porphyry prospects in the Whistler Area share similar styles of alteration, mineralization, veining and cross-cutting relationships that are generally typical of porphyry systems associated with relatively oxidized magma series (A- and B-type quartz vein stockwork, chalcopyrite-pyrite ore assemblage, presence of sulphates, core of potassic alteration with well-developed peripheral phyllic alteration zones). The Whistler area also hosts multiple secondary porphyry-like prospects defined by drilling, anomalous soil samples, alteration, veining, surface rock samples, Induced Polarization chargeability/resistivity anomalies and airborne magnetic anomalies. These include the Raintree North, Rainmaker, Dagwood, Round Mountain, Puntilla, Canyon Creek, and Snow Ridge prospects.

In contrast, Island Mountain has significantly different alteration, veining and sulphide assemblages associated with mineralization, principally the occurrence of pyrrhotite and to a lesser extent arsenopyrite associated with Au-Cu mineralization, Au-Cu association with strong sodic-calcic alteration, lack of significant sulphates, very minor hydrothermal quartz and weak to insignificant phyllic alteration. For these reasons, the porphyry system at Island Mountain may belong to the "reduced" subclass of porphyry copper-gold deposits (see Rowins, 2000).

The Muddy Creek area represents an additional exploration target with the potential to host a bulk tonnage, Intrusion-Related Gold deposit. Explorations by Millrock Resources Inc. on claims directly adjacent to the Muddy Creek area, which are geologically analogous, have returned encouraging preliminary results. Like Island Mountain, the Muddy Creek mineralization is distinct from the Whistler Porphyry systems and shares more similarity with Intrusion Related Gold (IRG) systems characteristic of the Tintina Gold Belt. The intrusive complex at Muddy Creek is predominantly monzonitic grading to more mafic marginal phases, yet is generally more felsic in composition relative to the diorites of the Whistler Area. Mineralization is restricted to sheeted vein zones with narrow millimetre scale veinlets and pegmatitic veinlets of quartz, feldspar, tourmaline and sulphides that include arsenopyrite, minor chalcopyrite and pyrite-pyrrhotite. Gold mineralization is largely confined to the minute veinlets whereas the intervening intrusive rocks are largely unaltered and unmineralized.

GCL considers the deposit type and model for Whistler, Raintree West and Island Mountain to be appropriate for a porphyry gold-copper deposit.



9.0 Exploration

A summary of all exploration work conducted by various operators from 1986 to present is summarized in Table 9-1. Cominco Alaska Inc. is attributed with the discovery of the Whistler Deposit in 1986. The only exploration activity documented by Cominco for which Kiska has records are 8.4 line-kilometres of 2D Induced Polarization geophysics over the Whistler Deposit and sixteen diamond drillholes (1,677 metres) in the Whistler Deposit.

					C ''	0.11
Operator	Field Seasons	Mapping	Geophysics	Rocks	Soils	Silts
Cominco	1986-1989	n/a	 8.4 line-km of 2D IP over the Whistler deposit 	n/a	n/a	n/a
Kennecott	2003-2006	Property-wide mapping	 39.4 line-km of 2D IP Property-wide AM (400m line spacing) Snow Ridge AM (79 line km at 200m line spacing) Whistler Area AM (1,365 line km at 50m line spacing) 	1312	2446	103
Geoinformatics	2007-2008	Prospect-scale mapping	 8.8 line km of 2D IP (Whistler area) 	20	195	nil
Kiska	2009-2011	Prospect-scale mapping	 40 line-km of 2D IP (Whistler area, Muddy Creek, Island Mountain) 224 line-km of 3D IP (Whistler area) Island Mountain EM (635 line km at 100m line spacing) 	315	1425	46

Table 9-1 Summary of Exploration on the Whistler Project

AM = Airborne Magnetic survey EM = Airborne Electro-Magnetic survey IP = Induced Polarization survey

9.1 Geological Mapping

The bulk of the detailed geological mapping and interpretation on the property was undertaken by Kennecott and summarized in a report by Young (2006). This work laid the foundation for the geological interpretation of porphyry-style mineralization in the Whistler area (including the Whistler Deposit and the Raintree - Rainmaker prospects), the Breccia Zone at Island Mountain, and Intrusion-Related Au mineralization in the Muddy Creek area.

9.2 Airborne Geophysics

An airborne helicopter geophysical survey was commissioned from Fugro Airborne Surveys ("Fugro") by Kennecott during 2003. This survey covered the entire property with a high sensitivity cesium magnetometer and a 256-channel spectrometer.



Additional airborne magnetic data were acquired by Kennecott in 2004 over two smaller areas using a helicopter equipped by a Rio Tinto bird operated by Fugro and a Kennecott geophysicist. One area over the Snow Ridge target was investigated at 200 metres line spacing (79 line kilometres). The other grid was flown over the Whistler Deposit and surrounding area using fifty-metre line spacing (1,365 line kilometres).

Results from these airborne surveys were used by Kennecott to interpret geological contacts, fault structures and potential mineralization in the Whistler, Island Mountain and Muddy Creek areas. In particular, the airborne magnetic data showed that the Whistler Deposit displays a strong 900 m by 700 m positive magnetic anomaly attributed to the magnetic Whistler Diorite intrusive complex (host to the Whistler Deposit) in addition to a contribution from secondary magnetite alteration and veining associated with Au-Cu mineralization. This observation formed that basis for exploration targeting in the Whistler area, particularly those areas covered by a thin veneer of glacial sediments, such as the Raintree and Rainmaker prospects. These surveys, in addition to 2D Induced Polarization ground geophysical surveys targeted over airborne magnetic anomalies, were instrumental in the "blind" discovery of the Rainmaker and Raintree prospects by Kennecott in 2005 and 2006, respectively.

Kiska commissioned a helicopter-borne AeroTEM survey over the Island Mountain area by Aeroquest Airborne in June 2011. The principal geophysical sensor was an AeroTEM III time domain electromagnetic system, employed in conjunction with a caesium vapour magnetometer. Navigation was provided by a real-time differential GPS navigation system, plus a radar altimeter and a video recorder mounted in the nose of the helicopter.

The survey was flown on east-west flight lines with a spacing of 100 metres. Control lines were flown north-south, perpendicular to the survey lines, with a spacing of 1000 metres. The nominal terrain clearance of the EM bird was 30 metres. The magnetometer sensor was mounted in a smaller bird connected to the tow rope 33 metres above the EM bird and 20 metres below the helicopter. Nominal survey speed was 75km/hr., resulting in a geophysical reading about every 1.5 to 2.5 metres along the flight path. The total survey coverage, including tie lines, was 635km. Mira Geoscience was subsequently engaged to produce a 3D inversion of the data. The survey was designed to target potential zones of disseminated and net-textured pyrrhotite mineralization similar to the pyrrhotite-associated gold-only zone of mineralization on the flanks of the Breccia Zone. The survey did detect a large 1.5km long by 1.0km wide conductivity low anomaly on the southeast side of the Island Mountain area, referred to as the Super Conductor target. This anomaly was subsequently tested by three drillholes that did suggest that the conductivity anomaly may be associated with disseminated pyrrhotite mineralization with elevated gold values, yet further drilling is required to be conclusive and fully test the target.

9.3 Ground Geophysics

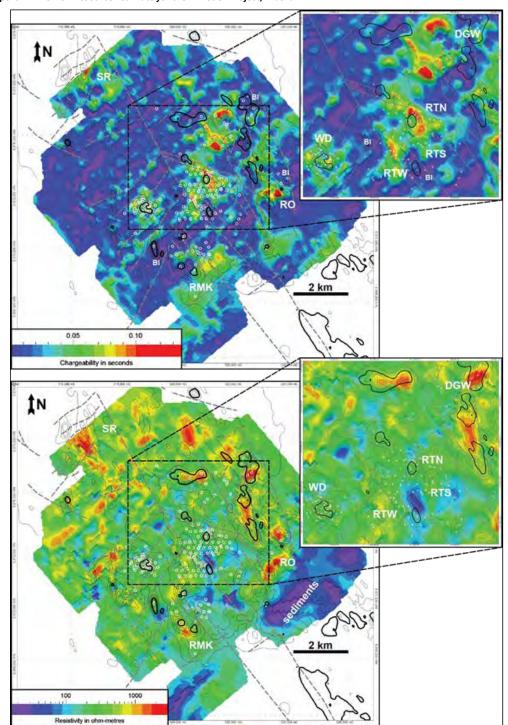
Cominco acquired 8.4 line-km of 2D Induced Polarization geophysics from six east-west oriented lines centred over the Whistler Deposit discovery outcrops. Anomalous results from these lines were used to target the deposit area with subsequent drilling. From 2004 to 2006, Kennecott completed 39.4 line-kilometres of 2D IP geophysics in the Whistler area. Within this survey, two IP lines were run over the Whistler Deposit magnetic anomaly and showed that mineralization is coincident with a strong



chargeability anomaly. Subsequent lines targeted magnetic anomalies at the Round Mountain, Canyon Creek, Canyon Ridge, Canyon Mouth, Long Lake Hills, Raintree and Rainmaker prospects. In 2007-2008, Geoinformatics completed 8.8 line km of 2D IP from six separate reconnaissance lines in the Whistler area targeting airborne magnetic highs. Anomalous results from this survey in the Raintree area led to the Raintree West discovery.

In 2009, Kiska undertook a significant 2D and 3D IP survey over most of the prospective areas in the Whistler, Island Mountain and Muddy Creek areas. Kiska commissioned Aurora Geoscience to complete 224 line-kilometres of a 3D Induced Polarization geophysical survey. This was executed on two grids (Round Mountain; Whistler Area) which were comprised of grid lines ranging from 4 to 9 km long with a line-spacing of 400 metres. From November to December, 2009, the raw data was delivered to Mira Geoscience for detail data quality control and error analysis prior to the construction of a 3D inversion model. This survey reaffirmed that the Whistler Deposit is coincident with a discrete 3D chargeability anomaly and showed that much of the Whistler area contains broad areas of anomalous chargeability (Figure 9-1). In conjunction with the airborne magnetic data, these zones of anomalous chargeability formed the basis for exploration drilling in the Whistler Area in 2010.





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Figure 9-1 Depth slices (100m) of the chargeability (top) and resistivity (bottom) inversion model of the 3D IP data in the Whistler Area (with contours of the 400m line-spacing AMAG RTP). WD, Whistler Deposit; RTW, Raintree West; RTN, Raintree North; RTS, Raintree South, DGW, Dagwood; RMK, Rainmaker. From Roberts, 2011a.



In 2009 Kiska commissioned SJ Geophysics to complete 40 line-km of a 2D Induced Polarization geophysical survey. Survey lines were generally semi-straight reconnaissance-type lines over areas of interest at Alger Peak, Island Mountain and Muddy Creek. The geophysical survey was acquired with a pole – dipole 2DIP technique with 100m dipoles.

9.4 Soil and Rock Sampling

From 2004 to 2006 Kennecott collected 1,300 rock samples, close to 2,500 soil samples and 103 stream sediments samples in the Whistler, Island Mountain and Muddy Creek areas. Within this program, a soil grid over the Whistler Deposit returned anomalous Au-Cu results coincident with the magnetic high. Other reconnaissance soil lines in the Whistler area with anomalous Au-Cu results helped to define areas of interest at the Round Mountain, Canyon Creek, Canyon Ridge, Canyon Mouth, and Long Lake Hills prospects. In addition, soil reconnaissance lines at Island Mountain led to the Discovery of the Breccia Zone and broad zones of anomalous Au at Muddy Creek. In 2009 and 2010, Kiska collected 1417 soil samples and 293 rocks samples, which largely confirmed areas of interest in the Whistler, Island Mountain, and Muddy Creek areas previously defined by Kennecott.

Rock samples consist of approximately one kilogram of rock collected over a small area surrounding each sampling site using a rock hammer. The sampling location is located using a hand held GPS unit and marked in the field with a metallic tag. Descriptive information about the geology of the sample is recorded and aggregated into the project database.

Soil samples are collected from the surface soils (generally the B-horizon) by extracting approximately one kilogram of soil into a plastic bag usually with a hand auger. Each sampling site is located using a GPS unit. Descriptive information such sampling depth and physical attributes are recorded and aggregated into the project database. Typically field duplicates are collected at a rate of one every twenty samples.

Soil samples were collected along traverses as part of multi-kilometre reconnaissance programs, generally at 100 metre spacing. In two areas (Whistler Deposit and Snow Ridge), samples were collected at a more regular 100 metre grid spacing.



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Figure 9-2

From the Whistler Area looking North to the Snow Ridge Area



Figure 9-3

From the Whistler Area looking South to the Rainmaker Area





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View of the Island Mountain Area (Three drill sites are shown)



Figure 9-5Another View of the Island Mountain Area(A drill is seen in centre of the photo.)



9.5 Additional Modelled Potential – Whistler Area

A Technical Report made effective on 15 August, 2015 (MMTS, 2015) reported additional modelled potential for the Whistler Resource area. The details of this potential is repeated verbatim from this report below.

Currently there is additional potential of between 50 Mt to 90 Mt of mineralization grading between 0.47 to 0.59 g/t Au Eq as summarized in Table 9-2 that was interpolated in the Whistler Resource block model but remains outside of the reported pit constrained resource. This mineralization is largely located below the pit constrained resource and is considered a significant exploration target that could potentially increase the Whistler Resource with additional infill drilling. Existing drilling in this area is wide spaced and infill drilling could identify higher grade mineralization and increase the overall average grade of this material.

Table 5 E	Sammary	Summary of Exploration on the Unistic Project									
Tonnes		In situ	grades	Potential Metal							
Tonnes	Au	Cu	Ag	Au Eqv. 1	Gold	Silver	Copper				
(Mt)	(gpt)	(%)	(gpt)	(gpt)	(Moz)	(Moz)	(Mlbs)				
50-90	0.23 - 0.31	0.10 - 0.13	1.30 - 1.34	0.47 - 0.59	0.50 - 0.66	2.1 - 3.7	143 - 198				

Table 9-2Summary of Exploration on the Whistler Project

1. Gold equivalent grades are in situ using the same prices as for the NSP calculation but reporting at 100% recoveries.

The above-quoted figures are reported as an exploration target, based on reasonable assumptions made from compiled data. These figures should not be construed to be included in an estimated resource (Inferred, Indicated or Measured) under standards of NI 43-101. The potential quantities and grades reported above are conceptual in nature and there has been insufficient work to date to include these with the NI 43-101 compliant resource. Furthermore, it is uncertain if additional exploration will result in this material being added to the existing resource.



10.0 Drilling

A total of 70,198 metres of diamond drilling in 250 holes has been completed on the Whistler Project by Cominco, Kennecott, Geoinformatics, and Kiska from 1986 to the end of 2011 (Table 10-1). Of these drillholes 19,870 metres in 48 holes have been drilled in the Whistler Deposit area, 33,532 metres in 157 holes have been drilled on exploration targets beyond the Whistler Deposit in the Whistler area, 15,841 metres in 42 holes have been drilled in the Island Mountain area, and 955 metres in 3 holes have been drilled in the Muddy Creek area.

Operator	Drill Target Area	No. Drillholes	Metres
Cominco - (1986-1989)	Whistler Deposit	16	1,677
Total Cominco		16	1,677
Kennecott - (2003-2006)	Whistler Deposit	15	7,953
	Whistler Area	18	4,227
	Island Mountain	2	269
Total Kennecott		35	12,449
Geoinformatics - (2007-2008)	Whistler Deposit	12	5,784
	Whistler Area	6	1,841
Total Geoinformatics		18	7,625
Kiska - (2009-2011)	Whistler Deposit	5	4,456
	Whistler Area	133	27,464
	Island Mountain	40	15,572
	Muddy Creek	3	955
Total Kiska		181	48,447
Total Whistler Deposit		48	19,870
Total Whistler Area		157	33,532
Total Island Mountain		42	15,841
Total Muddy Creek		3	955
Total All Operators		250	70,198

 Table 10-1
 Summary of Diamond Drilling on the Whistler Project

10.1 Drilling by Cominco Alaska Inc.

There are partial records documenting sixteen shallow core boreholes (1,677 metres) drilled on the Whistler gold-copper deposit in 1988 and 1989. The records contain descriptions of the core, with drilling logs with assay results. The position of several holes was re-surveyed by Kennecott using either a hand held GPS or with a Trimble ProXr receiver providing real-time sub-metre accuracy. Three holes could not be located. Apparently the core from the Cominco holes was donated to the State of Alaska in 1990 and is probably stored at a core library in Eagle River, Alaska.

10.2 Drilling by Kennecott

Between 2004 and 2006, Kennecott drilled a total of thirty-five core holes (12,449 metres) on the Whistler Project. Fifteen of those core holes (7,953 metres) were drilled on the Whistler Deposit. The Kennecott core is stored in part at the base camp and in part in a secured warehouse in Sterling, Alaska. The drilling was conducted by NANA-Dynatec and subsequently NANAMajor drilling from Salt Lake City, Utah, using up to three drill rigs supported by helicopter. HQ-diameter core was recovered in 2004 and subsequently NQ in 2005 and 2006.



Kennecott personnel used extensive documented procedures during drilling. The collar position of each borehole was laid out with a hand GPS unit. Azimuth and inclination determined with a compass. Each collar was subsequently surveyed using a Trimble ProXr receiver providing real-time sub-metre accuracy. The casing was pulled after drilling. Downhole deviation was monitored using Flex It Multi-shot readings at twenty foot (six metre) intervals. Magnetic susceptibility and gravity data were also recorded. Drilling, logging and sampling were conducted under the direct supervision of a suitably qualified geologist. Core retrieved from drilling was oriented using EzMark or an ACE device. Core recovery, geotechnical point load test, and rock quality determination were collected before the geologist recorded elaborate information about lithology, mineralogy, alteration, vein density, and structure. Magnetic susceptibility was also measured on core at regular intervals. All descriptive data were recorded digitally and subsequently populated an acQuire database.

A total of twenty boreholes (4,746 metres) were drilled by Kennecott to investigate other exploration targets. Targets selected for drilling were typically chosen based on a combination of geology, geochemical and geophysical criteria interpreted to be indicative of magmatic hydrothermal processes. The drilling strategy involved testing selected targets with vertical or angled drillholes to validate the geological model. One or more boreholes were drilled, depending on results, in an attempt to vector towards the potassic core of a magmatic hydrothermal system known to be associated with better copper and gold sulphide mineralization in this area.

10.3 Drilling by Geoinformatics

From 2007 through 2008, Geoinformatics drilled twelve holes for 5,784 metres on the Whistler Deposit and six holes for 1,841 metres on other exploration targets in the Whistler area. Geoinformatics used the same drilling contractor and drilling procedures as Kennecott (note that oriented-core was not obtained by Geoinformatics).

Exploration drilling by Geoinformatics in the Whistler area targeted geophysical anomalies in the Raintree and Rainmaker areas, using the same basic porphyry exploration model as Kennecott.

10.4 Drilling by Kiska

During the 2009-2011 Kiska drilling campaigns, diamond drilling was performed by Quest America Drilling and Falcon Drilling Ltd. following industry-standard diamond drilling procedures. The drilling was supervised by geological staff from Kiska. Drilling was performed by helicopter-portable diamond drill rigs using HQ (6.35 cm) and NQ (4.76 cm) diameters tools. Drillholes were collared with HQ diameter tools and reduced to NQ diameter tools when the rig reached the depth capacity of the HQ equipment. Collar locations were captured with hand-held GPS devices by Kiska staff. Downhole surveys for all holes were conducted by the drill contractor every 60 metres down-hole using a Relflex EZ Shot down-hole camera.

All drillholes were logged by Kiska geologists within the core logging facility at the Whistler exploration camp. Geologists logged lithology type, alteration type and intensity, vein types, percentage vein volume and vein orientations (to core axis), structures (to core axis), and the percentage of sulphides and oxides. Logging data was entered on paper logging forms (2009) and directly onto laptop computers using LogChief software (2010-2011). Magnetic susceptibility readings were also recorded



for every metre of core using a hand-held device. Detailed geotechnical logging was also performed and includes core recovery and rock quality designation ("RQD").

During the 2009-2011 Kiska drilling campaign a total of 181 diamond drillholes were completed for a total of 48,447 metres. Table 10-1 shows the distribution of these drillholes relative to prospect areas on the Whistler Project. Appendix B lists the location, azimuth, dip and TD for all holes on the Whistler Project. There are no drilling, sampling or recovery factors that materially impact the accuracy or reliability of the drill results described below.

10.5 Whistler Deposit

A total of five holes for 4,456 metres were drilled on the Whistler Deposit by Kiska in 2010. These holes were targeted to in-fill gaps from the previous drill campaigns and to test the edges and depth of the intrusive complex that hosts the deposit. Results from these holes are included in the updated resource estimate.

10.6 Raintree West Deposit

The Raintree West prospect is located 1800 metres to the east of the Whistler Deposit, just off the nose of Whistler Ridge. Outside of the Whistler Deposit, Raintree West is currently the most advanced prospect in the Whistler Area on the basis of drill metres, with a total of 8,538 metres since the original discovery hole drilled by Geoinformatics in 2008. The discovery drillhole, RN-08-06, targeted an airborne magnetic high anomaly that is coincident with an IP chargeability high anomaly detected on a 2D IP reconnaissance line that crossed the Whistler Area. This hole discovered a significant zone of near surface (below 5 m to 15 m of till cover) gold-copper porphyry mineralization (160 metres grading 0.59 gpt gold, 6.02 gpt silver, 0.10% copper). Kiska expanded on this discovery in 2009 with a scissor hole drilled on the same section as RN-08-06 (WH09-02). This scissor hole was successful at duplicating the gold-copper mineralization zone in RN-08-06, and discovered a second, deeper zone of porphyry mineralization on the west side of the Alger Peak fault zone. In 2010, Kiska followed up on the shallow zone with an additional four drillholes, and in 2011 further tested the shallow zone and the deep zone with a total of eight holes for a total of 5,997 metres. The majority of drillholes at Raintree West were drilled on east-west sections with section spacing of 100 m. Results from these holes are included in the new resource estimate.

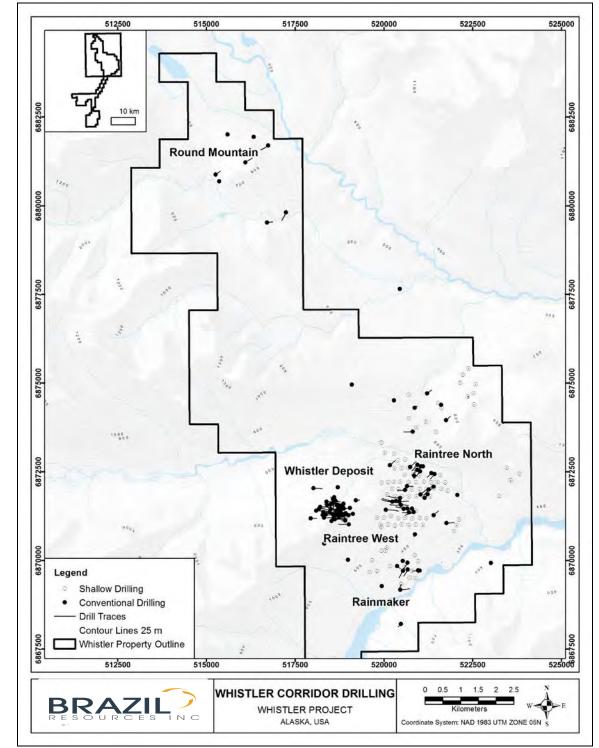
10.7 Whistler Area Exploration Drilling

A total of 133 exploration holes for 27,464 metres of drilling in the Whistler area were completed by Kiska in 2009-2011. A majority of these holes were drilled in the "Whistler Area", an area that includes much of the broad valley floor to the north, east and south of the Whistler Ridge, that includes the Raintree and Rainmaker prospect areas (Figure 10-1). Targeting for this drilling program was developed by a technical team comprised of Kiska and Kennecott geologists in 2009-2010 and Kiska geologists in 2011 based on blind geophysical targets heavily weighted by the results of the 2009 3D IP survey (chargeability and resistivity anomalies), airborne magnetic anomalies, anomaly size, and proximity to areas of known mineralization or anomalous surface geochemistry. A majority of these holes were drilled in the Whistler Area and intersected andesitic volcanic rocks with moderate to strong sericite-



clay-pyrite alteration and occasional sphalerite- and galena-bearing quartz-carbonate veins with banded and colliform epithermal-like textures. The alteration and veining from these wide-spaced drillholes (on average >500 metres apart) indicate that broad areas in the Whistler Area define the upper, cooler margins of a large porphyry-related hydrothermal system or a cluster of smaller, coalescing porphyryrelated hydrothermal systems. Within this broad area, drilling returned Whistler-like, porphyry-style Au-Cu mineralization with significant intercepts at the Raintree West, Raintree North, and the Rainmaker prospects, and anomalous alteration and geochemistry at the Dagwood prospect.





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Figure 10-1

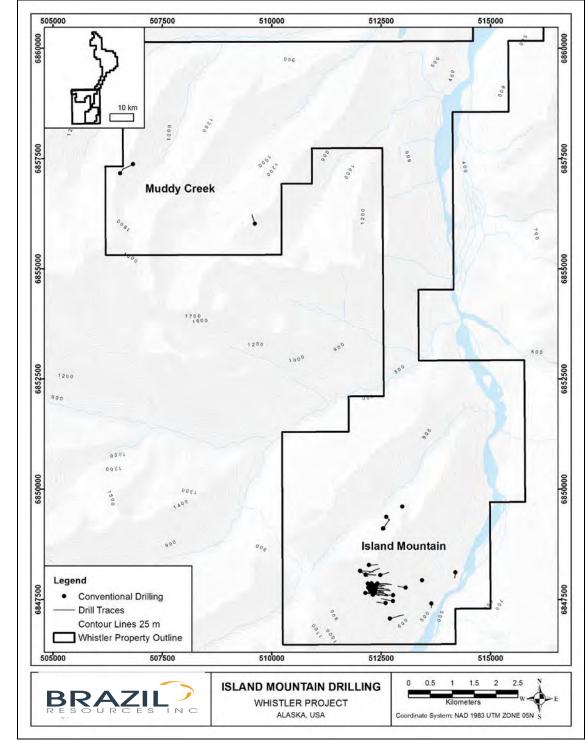
Whistler Area Drilling (2016).



10.8 Island Mountain Exploration Drilling

The majority of the drilling completed by Kiska at the Island Mountain prospect between 2009 and 2011 targeted the Breccia Zone (35 out of 42 holes) and the remainder targeted zones of either anomalous surface rock geochemistry and alteration (Cirque Zone) or geophysical anomalies (Super Conductor). Significant results were only returned from the Breccia Zone and are summarized below. The alteration patterns and geochemical pathfinder elements from the other areas are currently being reviewed and may be used to target addition drilling in the future.





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Figure 10-2

Island Mountain and Muddy Creek Drilling (2016).



10.9 Island Mountain Deposit (Breccia Zone) Drilling

At the Island Mountain Deposit, drilling included in the resource estimate is comprised of 34 drill holes for 12,688 metres of drilling. The majority of these holes were completed on seven east-west cross-sections spaced 50 metres apart in a 300 square metre area from 6847600N to 6847900N (Figure 10-3). Interpretation of the lithologies, alteration and mineralization of the breccia-related mineralization indicates that the magmatic-hydrothermal breccia complex defines an irregular pipe-shaped body approximately 300 m by 300 m in plan and extending from the surface down 500 metres, where mineralization is open to depth. This breccia complex is sub-vertical and appears to trend in a northwest-southeast orientation, similar to the strike of the faults in the area. Results from these holes are included in the new resource estimate.





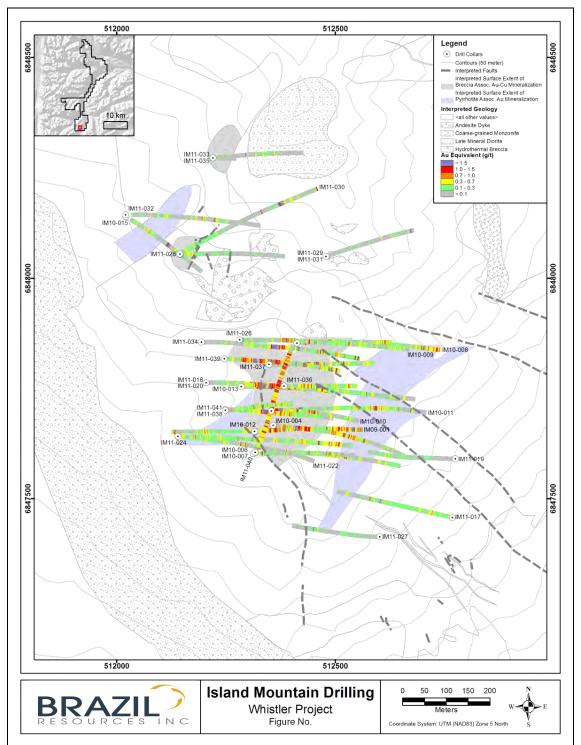


Figure 10-3 Plan Map of Drillholes and Mineralization Style at the Breccia Zone (2016). Modified from Roberts, 2011b.



Surface mapping, soil geochemistry and drilling has defined other distinct breccia bodies with zones of alteration, surface anomalism and significant mineralization up to 700 metres to the north - northwest of this breccia complex. Significant zones of mineralization are shown in Table 10-2.

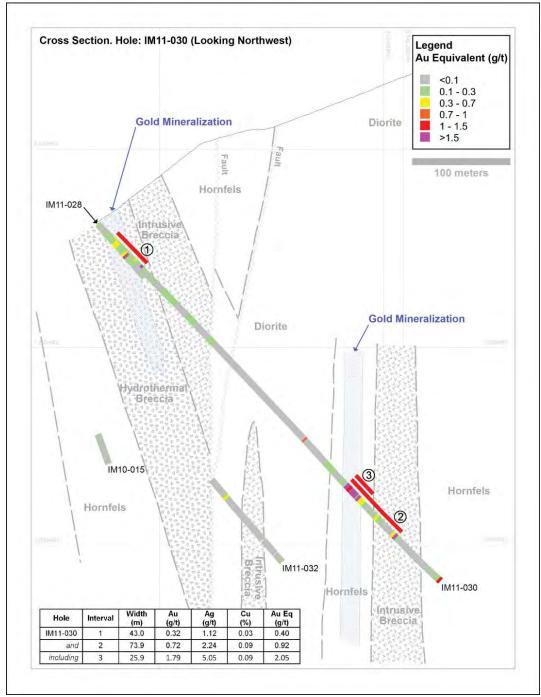
	From	То	Interval	Au	Ag	Cu
Hole	(m)	(m)	(m)	(g/t)	(g/t)	(%)
IM10-015	74.3	111.0	36.7	0.27	0.37	0.01
and	166.8	212.9	46.1	1.19	0.53	0.01
Including	168.5	182.2	13.7	3.69	0.56	0.01
and	274.0	276.0	2.0	10.5	2.30	0.04
IM11-030	20.0	63.0	43.0	0.32	1.12	0.03
and	364.1	438.0	73.9	0.72	2.24	0.09
including	364.1	390.0	25.9	1.79	5.05	0.09
IM11-032	104.0	137.0	33.0	0.21	0.62	0.02
and	246.0	300.0	54.0	0.29	0.28	0.01
IM11-033	2.8	58.0	55.2	0.41	1.54	0.03
including	2.8	42.0	39.2	0.56	1.18	0.02
IM11-035	3.0	44.0	41.0	0.44	2.19	0.03

Table 10-2Examples of significant drill results north of the Island Mountain Deposit.

True widths of mineralization from these holes is currently poorly constrained due to limited geological information.

These zones of mineralization are generally associated with disseminated to breccia-fill pyrrhotite-pyrite ±chalcopyrite±arsenopyrite mineralization within albite—actinolite and/or chlorite altered hydrothermal and intrusive breccias that occur along or near steeply-dipping panels of hornfels hosted by diorite porphyry (see example in Figure 10-4). They are interpreted to indicate good potential for further mineralization along strike and to depth.





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Cross section of IM11-030 looking northwest. Modified from Roberts, 2011b.



Further exploration drilling should continue to test the breccia complex, aiming to expand the Breccia Zone by stepping immediately north of the resource area drilling. This drilling should aim to link the mineralized zones summarized above with the main breccia complex.

10.10 Muddy Creek Drilling

Three holes for a total of 955 metres were drilled at the Muddy Creek prospect in 2011 (Figure 10-5). The first two holes were designed to test targets highlighted by strong gold anomalies in both soils and rock samples within biotite monzonite. These holes were successful in intersecting gold mineralization. The final hole drilled to test anomalous rock geochemistry at the Bonanza Zone where twelve selective rock samples of outcrop and locally derived float samples averaged 9.0 gpt gold over a 340 metre distance along slope, but failed to reach target depth due to drilling difficulties.

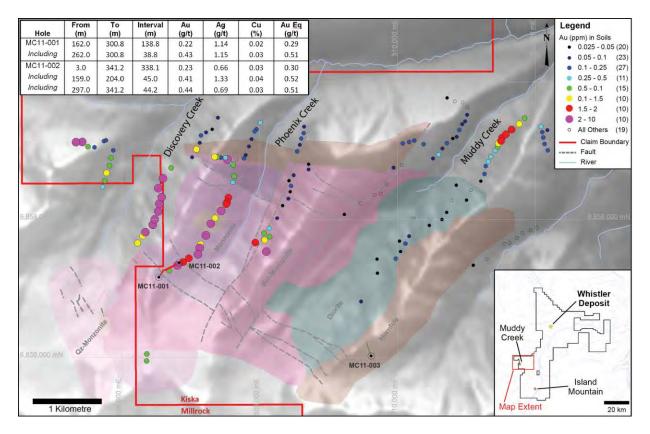


Figure 10-5 Plan Map of 2011 Muddy Creek Drilling with Geology and Au Soil Geochemistry. From Roberts, 2011c.

Holes MC11-001 and -002 were situated at the southwestern edge of a gold-in-soil geochemical anomaly that returned 1.3 km line of soils running >1.4 ppm Au at Arseno Knob. The holes were designed to drill across a zone of northwest-striking faults thought to control mineralization targeting the down dip portion of a vein zone up to 1.2 m thick quartz-arsenopyrite-chaclopyrite veins at surface and steep northwest striking sheeted vein arrays. MC11-001 and -002 were collared 360 metres apart and drilled toward each other at -65 and -50 degree dip, respectively.



The dominate lithology in both MC11-001 and MC11-002 is a fine-medium grained, equigranular biotite monzonite. The monzonite is generally fine-medium grained and composed of subhedral plagioclase and potassium feldspar, euhedral biotite and anhedral interstitial quartz. This unit is intersected at or near surface and is host to the mineralized sheet vein sets seen at Muddy Creek.

Host rocks are generally fresh aside from weak patchy chlorite and ankerite, rare potassic alteration as k-feldspar and albite occurring as vein halos. Thin, mm-wide mineralized veins occur as sheeted arrays with spacing at the metre scale at an average of 35 (MC11-001) and 50 degrees (MC11-002) to core axis and up to 5 mm wide, suggesting an almost vertical set of veins. Veins are composed of quartz \pm carbonate and chlorite sometimes with vugs of euhedral quartz crystals later infilled by carbonate. Arsenopyrite, chalcopyrite and occasional pyrrhotite occur as patchy vein fill. Arsenopyrite mineralization is stronger in wider veins, while chalcopyrite is dominant in hairline, chlorite-rich veins. Later planar carbonate veins cross-cut these veins and consist of dolomite, some calcite, and occasional ankerite, sometimes with strongly chlorite \pm sericite altered, texturally destroyed mm-wide haloes.

The northeast directed hole, MC11-001 returned 38.8 metres averaging 0.51 gpt Au Eq. within a broader interval of 138.8 metres averaging 0.29 gpt Au Eq. True widths are approximately 40% of the reported intervals given the near-vertical dip of the veins. The southwest directed hole, MC11-002, returned intervals of 45.0 metres averaging 0.52 gpt Au Eq. and 44.2 metres average 0.51 gpt Au Eq. within a broad 338.1 metre interval averaging 0.30 gpt Au Eq. (true widths are approximately 75% of reported intervals). Mineralization remains open laterally and at depth since both holes were terminated in mineralization.

Hole	From (m)	To (m)	Interval (m)	Au (gpt)	Ag (gpt)	Cu (%)	Au Eq. (gpt)
MC11-001	162.0	300.8	138.8	0.22	1.14	0.02	0.29
Including	262.0	300.8	38.8	0.43	1.15	0.03	0.51
MC11-002	3.0	341.2	338.1	0.23	0.66	0.03	0.30
Including	159.0	204.0	45.0	0.41	1.33	0.04	0.52
Including	297.0	341.2	44.2	0.44	0.69	0.03	0.51

Table 10-3Summary of MC11-001 and 002 Drillhole Results





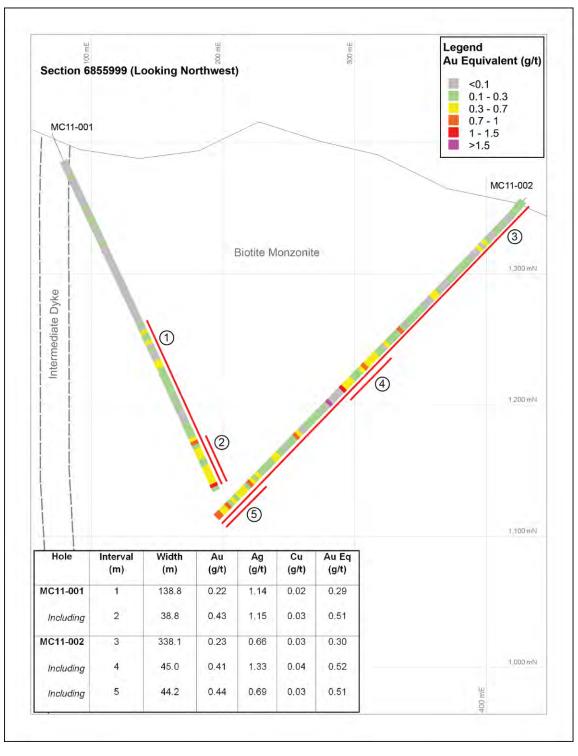


Figure 10-6 Muddy Creek Cross-section 6,857,118mN, MC11-001 and MC11-002. From Roberts, 2011c.



MC11-001 and -002 returned encouraging results as a first attempt at testing the Muddy Creek prospect. 2011 drilling tested only a small portion of the western edge of this five kilometre wide diorite-monzonite intrusive complex that is host to a continuous zone of sheeted Au-bearing veins. Results from MC11-001 and MC11-002, although low grade, suggest that mineralized veins sampled at surface have significant vertical continuity, and that there remains potential for higher grades at depth and laterally. There remain numerous surface geochemical and geophysical targets at Muddy Creek that have excellent potential to host significant Au mineralization and none have yet to be drill tested.



11.0 Sample Preparation, Analyses, and Security

Sample preparation, analyses, and security protocols for exploration programs on the Whistler project, including drilling at the Whistler, Raintree West and Island Mountain Deposits, were initially developed by Kennecott and subsequently adopted by Geoinformatics and Kiska. The following section is adapted from SRK 2008, "Mineral Resource Estimation Whistler Copper-Gold Project, Alaska Range, Alaska".

The core for the Cominco drilling was not available for data verification. However, it represents 8% of the total drilling at the Whistler Deposit primarily within 100m of surface and comparisons of assayed grades with subsequent drilling did not indicate any material bias.

The sample preparation and analytical procedures used by Cominco Alaska Inc. are not known. Core samples were assayed for gold, silver and copper and occasionally for a suite of eight other metals (arsenic, cobalt, iron, manganese, molybdenum, nickel, strontium and zinc) at an undetermined laboratory. It is not known if quality control samples were inserted into the sampling stream.

Kennecott sampling was conducted using documented procedures describing all aspects of the field sampling and sample description process, handling of samples, and preparation for dispatch to the assay laboratory.

Kennecott used a documented chain of custody procedure to monitor and track all sample shipments departing the base camp until the final delivery of the pulp to the assaying laboratory. The procedures include the use of security seals on containers used to ship samples, detailed work and shipping orders. Each transfer point is recorded on the chain of custody form until the final delivery of the pulp to the assay laboratory.

All soil, rock chips, core, and stream sediments samples were organized into batches of samples of a same type and prepared for submission to Alaska Assay Laboratories Inc. in Fairbanks, Alaska for preparation using standard preparation procedures (preparation and assay procedures for core samples is described below). This laboratory is part of the Alfred H. Knight group an established international independent weighing, sampling and analysis service company.

Kennecott used two primary laboratories for assaying samples prepared by Alaska Assay Laboratories Inc. The samples collected during 2004 were assayed by Alaska Assay Laboratories Inc. in Fairbanks, Alaska. All pulverized samples collected in 2005 and 2006 were submitted to ALS-Chemex Laboratory in Vancouver, British Columbia for assaying. The ALS Chemex Vancouver laboratory is accredited to ISO 17025 by the Standards Council of Canada for a number of specific test procedures, including fire assay for gold with atomic absorption and gravimetric finish, multi-element inductively coupled plasma optical emission spectroscopy and atomic absorption assays for silver, copper, lead and zinc. ALS-Chemex laboratories also participate in a number of international proficiency tests, such as those managed by CANMET and Geostats.

Kennecott used two secondary laboratories for check assaying. ALS-Chemex re-assayed 191 pulp samples from the 2004 sampling programs. Acme Analytical Laboratories Ltd. of Vancouver, British



Columbia ("Acme") was used as a secondary laboratory in 2005 and 2006. Acme is an ISO 17025 accredited laboratory.

Core samples were prepared for assaying using industry standard procedures. Five hundred grams of coarsely crushed core samples were pulverized to ninety percent passing a -200 mesh screen. Two-hundred and fifty grams of rock samples were pulverized to eighty-five percent passing a -150 mesh screen. Pulverized core and rock samples collected in 2004 were assayed by Alaska Assay Laboratories in Fairbanks for gold using a fire assay procedure and atomic absorption finish (method code FA30) on thirty grams charges and for a suite of nine metals using an aqua regia digestion and inductively coupled plasma scan (method code ICP-2A). Core and rock samples collected after 2004 were assayed by ALS-Chemex for gold by fire assay and atomic absorption finish (Au-AA23) on thirty gram sub-samples and for a suite of thirty-four elements (including copper and silver) by aqua regia digestion and ICP-AES (method code ME-ICP41) on 0.5 gram sub-samples. Elements exceeding concentration limits of ICP-AES were re-assayed by single element aqua regia digestion and atomic absorption spectrometry (method code element-AA46).

For the drilling samples, Kennecott used comprehensive quality control samples with all samples submitted for assaying. Each batch of twenty core samples submitted for assaying contained one sample blank, one of three project specific standards, a field duplicate and a coarse crushed duplicate. They were inserted blind to the assay laboratory except for the coarsely crushed sample duplicates that were inserted by the preparation laboratory.

All samples collected by Geoinformatics were submitted to Alaska Assay Laboratories for preparation. Pulps were submitted to ALS-Chemex by the preparation laboratory for assaying. Geoinformatics used the sample preparation and assaying protocols and quality control measures developed by Kennecott. Gold was assayed by fire assay and atomic absorption finish (AuAA23) on thirty gram sub-samples and for a suite of thirty-four elements (including copper and silver) by aqua regia digestion and ICP-AES (method code ME-ICP41) on 0.5 gram sub-samples. Elements exceeding concentration limits of ICP-AES were re-assayed by single element aqua regia digestion and atomic absorption spectrometry (method code element-AA46).

In 2009, Kiska employed Alaska Assay in Fairbanks for drill core assay, but switched to ALS Chemex for the 2010 and 2011 drilling. The drill core preparation methods and analytical methods for all three seasons are listed below.

2009 Drilling (Alaska Assay):

- Prep: dried, crushed to 70% -10 mesh, 250 gram split pulverized to 90% -150 mesh, and blended for assay.
- FA-30: 30g fire-assay with AAS finish
- ICP-3A: three acid digestion following by ICP-AES (30-element)

2010 and 2011 Drilling (ALS Chemex):

• CRU-31: fine crushing – 70% <2mm



- PUL-31: pulverize split to 85% <75 um
- AU-AA23: Au 30g FA-AA finish
- ME-ICP61: 33 element four acid ICP-AES
- ME-OG62: Ore Grade Elements Four acid ICP-AES
- CU-OG62: Ore Grade Cu Four acid variable

Quality control measures are typically set in place to ensure the reliability and trustworthiness of exploration data. This includes 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. 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 to monitor the reliability of assaying results throughout the sampling and assaying process. 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 Kennecott was carried out using a quality assurance and quality control program exceeding industry best practices as documented in a data management manual describing all aspects of the exploration data acquisition and management including mapping, surveying, drilling, sampling, sample security, assaying and database management.

For drilling, Kennecott implemented comprehensive external analytical quality control measures. Control samples were inserted in all batches of twenty core samples submitted for preparation and assaying at a rate of one blank, one project specific standard, one field duplicate, one coarsely crushed duplicate and one pulp replicate. The pulp duplicates were organized in batches of twenty-five to fifty samples and submitted by Alaska Assay Laboratories to the Acme Assay Laboratories for check assaying and screen tests. Kennecott also relied on the internal control measures implemented by the primary laboratory.

Two sample blanks were used by Kennecott. A barren andesite rock (OPPBLK-1) collected on outcrop (522,399 metres east and 6874,144 metres north; Nad27, zone 5) and a barren porphyritic andesite (WP-BLK-1) intersected in borehole 04-DD-WP-01. A blank sample (1-3 kilograms in weight) was usually inserted after a "mineralized" core sample at a rate of one in twenty samples.

For the Whistler Project, Kennecott fabricated three project specific standards (WPCO1, WP-MG1 and WP-HG1; Table 11-1) from coarse rejects from two boreholes drilled at Whistler (WP04-04-17 and WH04-01-17). Coarse rejects from core samples were aggregated to create three composite samples yielding low, medium and high copper and gold values. Each composite sample was prepared by Alaska



Assay Laboratory to yield homogenized pulverized samples. Five separate sub-samples of each standard were then submitted to five commercial laboratories for assaying. Each standard sample was assayed twice at each laboratory yielding fifty assay results that were analyzed to determine the tolerance intervals reported in the table below for each standard. Kiska utilized off-the-shelf Certified Reference Material from Ore Research & Exploration (Table 11-2).

Table 11-1	Assaying	Specifications	for	the	Project	Specific	Reference	Material	Used	on t	he
Whistler Project											

		Gold	l (ppb)		Copper (ppm)			
Standard	Mean	Stdv	+2 Stdv	-2 Stdv	Mean	Stdv	+2 Stdv	-2 Stdv
WP-C01	480.7	26.1	533.0	428.5	2,801.6	56.9	2,915.5	2,687.7
WP – MG1	1,714.8	122.5	1,959.8	1,469.8	2,593.8	51.9	2,697.0	2,490.6
WP – HG1	4,693.3	190.0	5,073.2	4,313.4	6,160.0	132.6	6,425.3	5,894.7

Table 11-2	Assaying	Specifications	for	the	Project	Specific	Reference	Material	Used	on t	he
Whistler Project	by Kiska										

Standard Name	Gold Recommended Value ppm	1 Stdv ppm	Copper Recommended Value ppm	1 Stdv ppm
OREAS-50c	0.836	0.028	7420	160
OREAS-52c	0.346	0.017	3440	90
OREAS-52Pb	0.307	0.017	3338	77
OREAS-53Pb	0.623	0.021	5460	130
OREAS-54Pa	2.90	0.11	15500	200

The quality control program developed by Kennecott was mature and overseen by appropriately qualified geologists. Geoinformatics and Kiska implemented the Kennecott procedures.

In the opinion of GCL, the exploration data collected by Kennecott, Geoinformatics and Kiska on the Whistler Project utilized adequate quality control procedures that generally meet or exceed industry best practices for a drilling stage exploration property.



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Figure 11-1 Samples at Airstrip Ready for Shipping

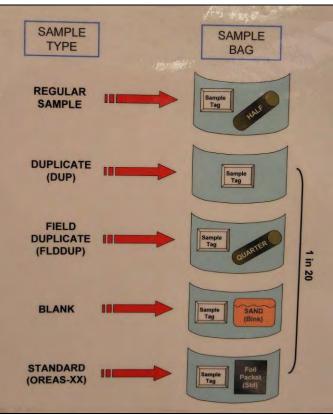
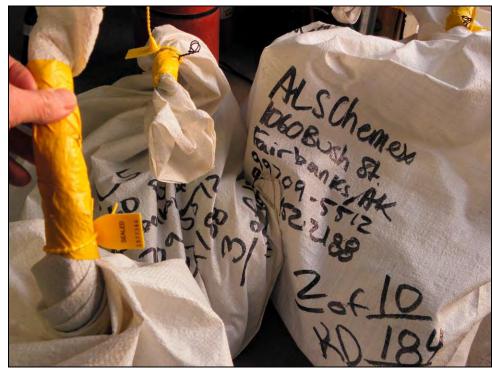


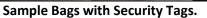
Figure 11-2 Sampling Protocol

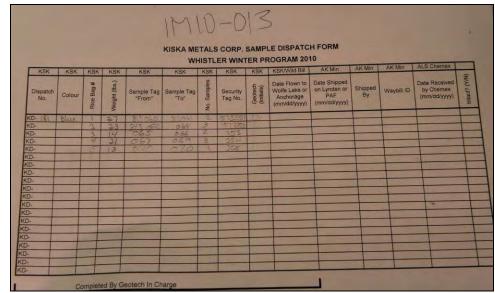




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Sample Dispatch Form.



12.0 Data Verification

12.1 Data Verification – Raintree West and Island Mountain

GCL has completed numerous verification steps, including:

• Site visit on the 21st of April 2016, where representative drill core was observed and the core logging, sampling, and database management procedures were reviewed.

Kiska implemented a QA/QC program which included blanks, duplicates, field duplicates, and standards. Table 12-1shows the number and type of QA/QC samples from the 2010 and 2011 drilling program.

	Original	Blank	Duplicate	Field	Standard	Total
				Duplicate		QAQC
Raintree West	2819	143	149	144	150	586
% of Original		5%	5%	5%	5%	21%
Island Mountain	5076	308	303	295	296	1202
% of Original		6%	6%	6%	6%	24%

 Table 12-1
 Summary of QA/QC sample population, Raintree West and Island Mountain

Results from the blank sampling program at Raintree West are shown in Figure 12-1 to Figure 12-3. For gold, the results generally show very low gold content, with highs of 0.055 ppm and 0.028 ppm and 0.027 ppm. For silver, the results show very low silver content, with on high of 1.4 ppm. For copper, a high values of 105 ppm and 37 ppm were obtained.

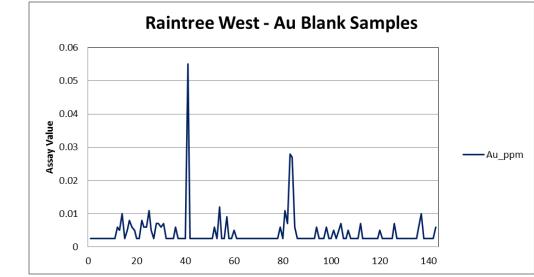


Figure 12-1 Raintree West Blank Samples, Gold.



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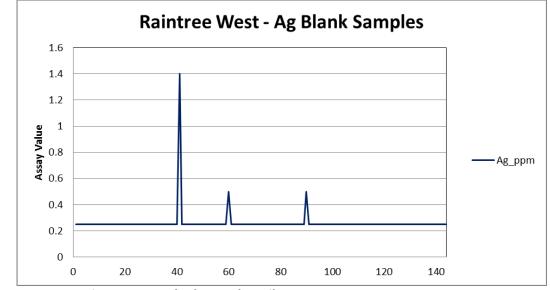


Figure 12-2 Raintree West Blank Samples, Silver.

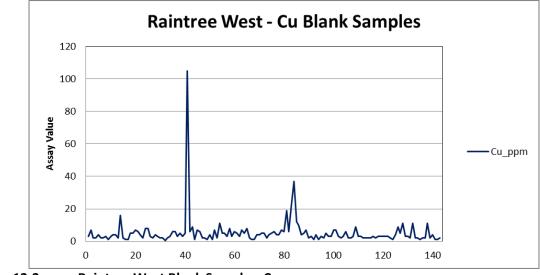


Figure 12-3 Raintree West Blank Samples, Copper.

Table 12-2 summarizes the field duplicate results for Raintree West. The F-test is a comparison of variances and the results indicate that the variances for all three elements appear to represent the same population. The Student's T-test is a comparison of means, and again, for all three elements the results indicate that the means appear to represent the same population.



12-2 Summary of Field Duplicate Samples – Raintree West										
Parameter	Au (ppb)	Au (ppb)	Ag (ppm)	Ag (ppm)	Cu (ppm)	Cu (ppm)				
	Orig.	Dup.	Orig.	Dup.	Orig.	Dup.				
Population	144	144	145	145	144	144				
Minimum	0.01	0.01	0.25	0.25	12	14				
Maximum	2.58	3.48	49.50	50.40	6380	4390				
Mean	0.22	0.22	2.76	2.83	318	295				
Standard Deviation	0.39	0.43	5.44	5.72	709	562				
CV	1.80	1.94	1.97	2.02	2.23	1.90				
F-test	0.83		0.91		1.59					
Student's T-test	0.93		0.91		0.77					

 Table 12-2
 Summary of Field Duplicate Samples – Raintree West

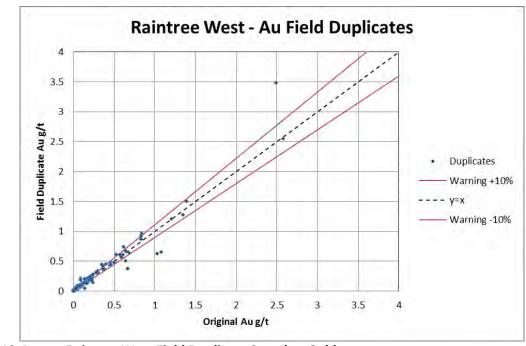


Figure 12-4

Raintree West Field Duplicate Samples, Gold



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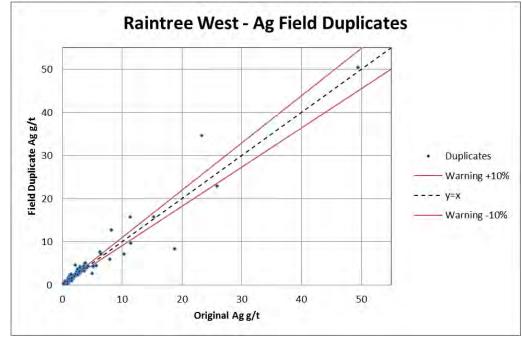


Figure 12-5 Raintree West Field Duplicate Samples, Silver.

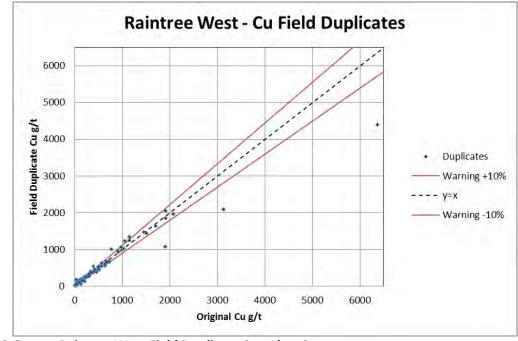


Figure 12-6 Raintree West Field Duplicate Samples, Copper.

The standard sampling program at Raintree West involved inserting a standard into the sample stream every 20 samples. Standard OREAS-50c has an accepted gold content of 836 ppb with a standard deviation of 28 ppb, and an accepted copper content of 7,420 ppm with a standard deviation of 160



ppm, and was used 67 times. As shown in Figure 12-7 and Figure 12-8, Au was reported low once, while Cu was reported high eight times.

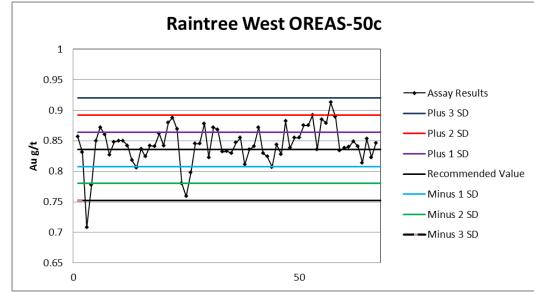
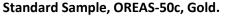


Figure 12-7



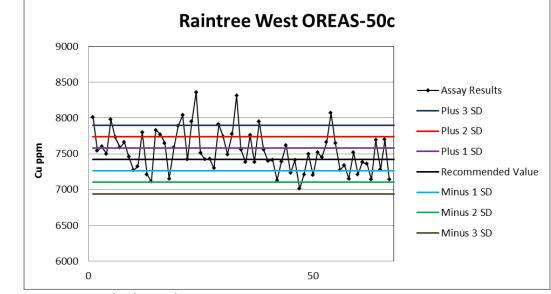


Figure 12-8

Standard Sample, OREAS-50c, Copper.

Standard OREAS-52c has an accepted gold content of 346 ppb with a standard deviation of 17 ppb, and an accepted copper content of 344 ppm with a standard deviation of 90 ppm, and was used 49 times. As shown in Figure 12-9 and Figure 12-10, Au reported at or within 2 σ for all instances, while Cu was reported high four times.



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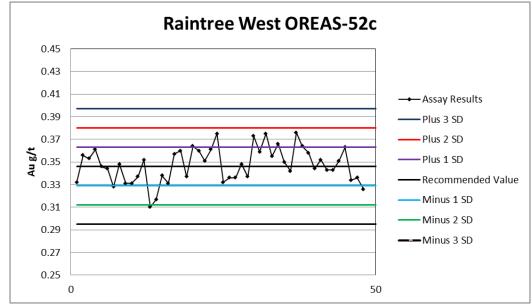


Figure 12-9 Standard Sample, OREAS-52c, Gold.

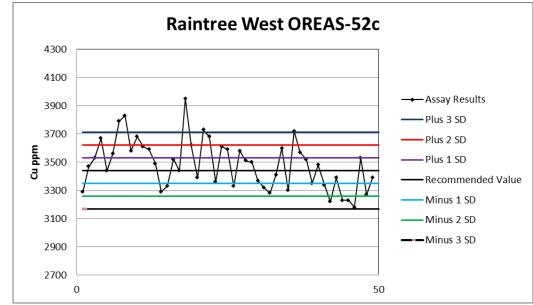


Figure 12-10 Standard Sample, OREAS-52c, Copper.

Standard OREAS-54Pa has an accepted gold content of 2.9 ppm with a standard deviation of 0.102 ppm, and an accepted copper content of 15,500 ppm with a standard deviation of 200 ppm, and was used 20 times. As shown in Figure 12-11 and Figure 12-12, Au was reported with 3 σ for all instances, while Cu was reported low 5 times. Due to the low average copper grade and high failure rate of this higher grade



standard for copper, BRI should consider running check-assays on this standard and sample intervals with high copper grades.

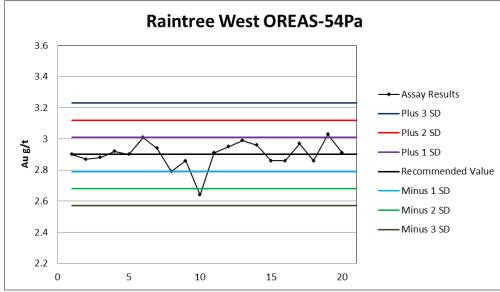


Figure 12-11 Standard Sample, OREAS-54Pa, Gold.

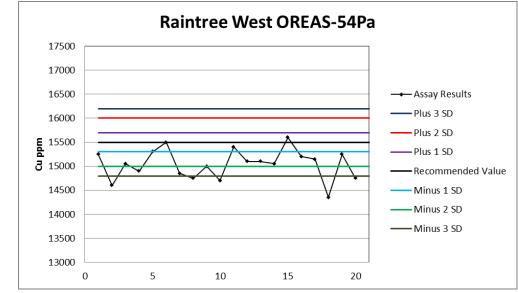


Figure 12-12 Standard Sample, OREAS-54Pa, Copper.

Results from the blank sampling program at Island Mountain are shown in Figure 12-13 to Figure 12-15. For gold, the results generally show very low gold content, with highs of 0.064 ppm and 0.107 ppm. For silver, the results are generally low, with one high value of 1.9 ppm. For copper, a high value of 228 ppm was obtained.



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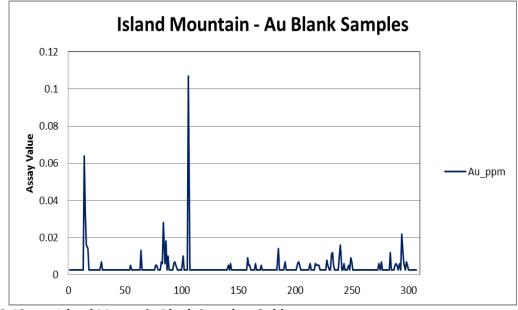


Figure 12-13 Island Mountain Blank Samples, Gold.

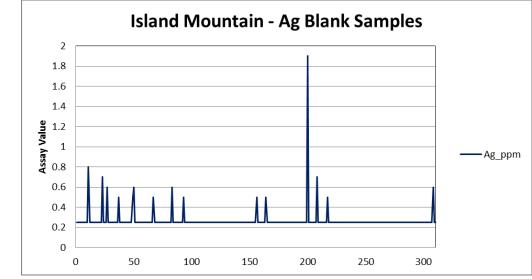


Figure 12-14 Island Mountain Blank Samples, Silver.



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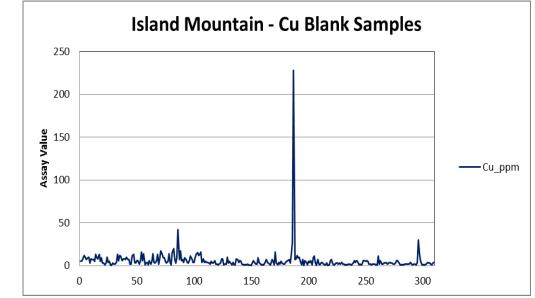


Figure 12-15 Island Mountain Blank Samples, Copper.

Table 12-3 summarizes the field duplicate results for Island Mountain. The F-test is a comparison of variances and the results indicate that the variances for all three elements appear to represent the same population. The Student's T-test is a comparison of means, and again, for all three elements the results indicate that the means appear to represent the same population.

12-5 Summary of field Duplicate Samples Island Wountain								
Parameter	Au (ppb)	Au (ppb)	Ag (ppm)	Ag (ppm)	Cu (ppm)	Cu (ppm)		
	Orig.	Dup.	Orig.	Dup.	Orig.	Dup.		
Population	295	295	296	296	295	295		
Minimum	0.01	0.01	0.25	0.25	11	9		
Maximum	4.46	4.79	10.10	10.30	5010	4940		
Mean	0.27	0.29	0.89	0.90	432	422		
Standard Deviation	0.52	0.60	1.15	1.20	604	574		
CV	1.96	2.08	1.29	1.34	1.40	1.36		
F-test	0.75		0.91		1.11			
Student's T-test	0.62		0.96		0.84			

 Table 12-3
 Summary of Field Duplicate Samples – Island Mountain



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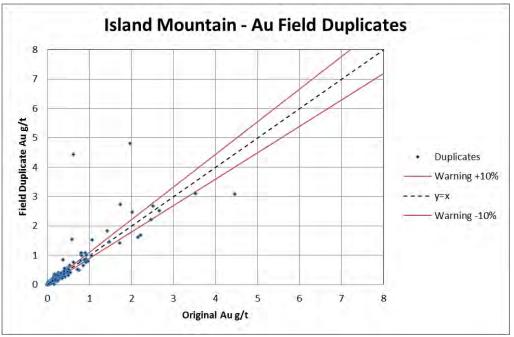


Figure 12-16 Island Mountain Field Duplicate Samples, Gold.

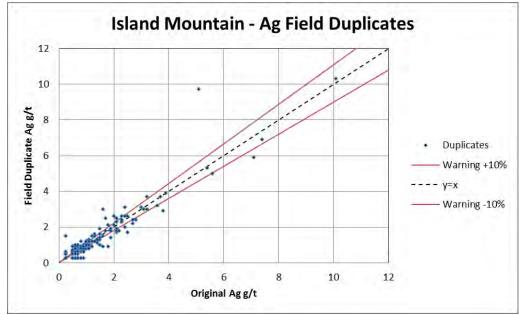


Figure 12-17 Island Mountain Field Duplicate Samples, Silver.



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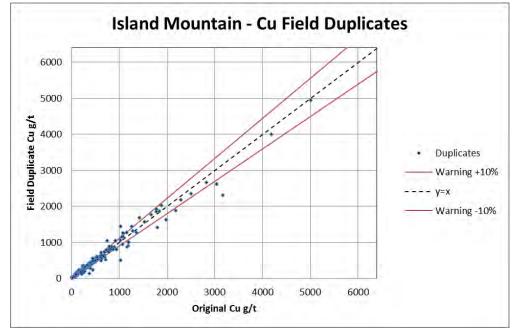


Figure 12-18 Island Mountain Field Duplicate Samples, Copper.

The standard sampling program involves inserting a standard into the sample stream every 20 samples. Standard OREAS-50c has an accepted gold content of 836ppb with a standard deviation of 28 ppb, and an accepted copper content of 7,420 ppm with a standard deviation of 160 ppm, and was used 105 times. As shown in Figure 12-19 and Figure 12-20, both Au was reported high three times and low twice, while Cu was reported high three times and low three times.

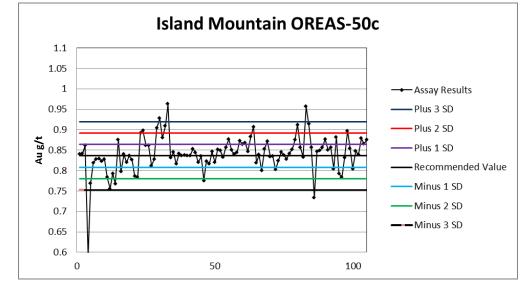


Figure 12-19 Standard Sample, OREAS-50c, Gold.



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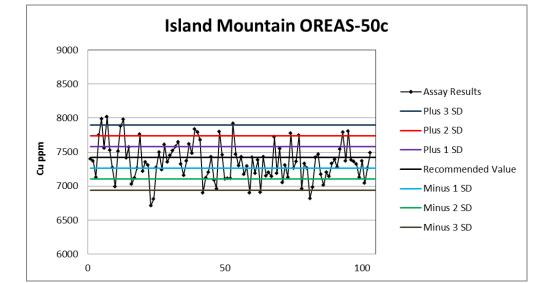


Figure 12-20 Standard Sample, OREAS-50c, Copper.

Standard OREAS-52c has an accepted gold content of 346 ppb with a standard deviation of 17 ppb, and an accepted copper content of 344 ppm with a standard deviation of 90 ppm, and was used 124 times. As shown in Figure 12-21 and Figure 12-22, Au reported within 3 σ for all instances, while Cu was reported high five times and low twice.

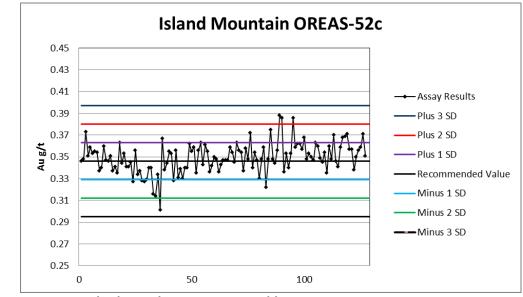


Figure 12-21 Standard Sample, OREAS-52c, Gold.



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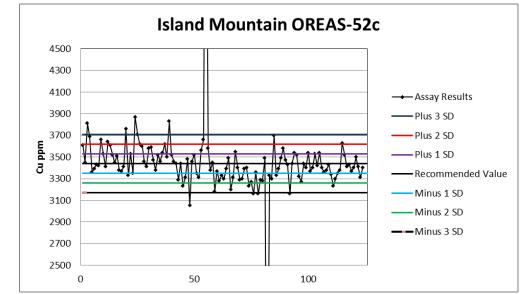


Figure 12-22 Standard Sample, OREAS-52c, Copper.

Standard OREAS-52Pb has an accepted gold content of 307 ppb with a standard deviation of 17 ppb, and an accepted copper content of 3,338 ppm with a standard deviation of 77 ppm, and was used 12 times. As shown in Figure 12-23 and Figure 12-24, Au reported within 3 σ for all instances, while Cu was reported high twice.

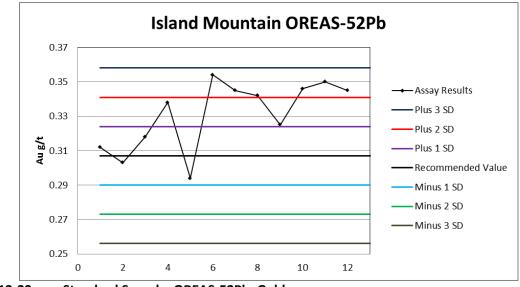


Figure 12-23 Standard Sample, OREAS-52Pb, Gold.



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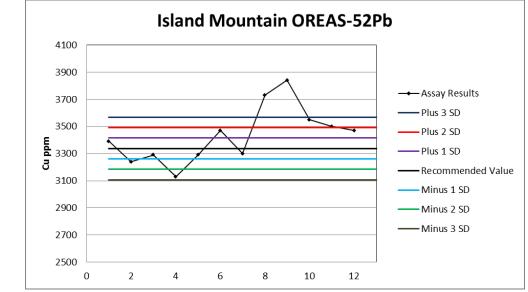


Figure 12-24 Standard Sample, OREAS-52Pb, Copper.

Standard OREAS-53Pb has an accepted gold content of 623 ppb with a standard deviation of 21 ppb, and an accepted copper content of 5,460 ppm with a standard deviation of 135 ppm, and was used 18 times. As shown in Figure 12-25 and Figure 12-26, Au was reported low twice, while Cu was reported within 3 σ for all instances.

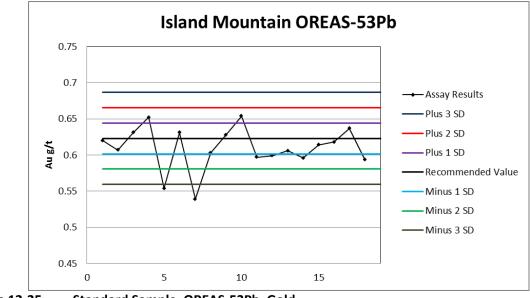


Figure 12-25 Standard Sample, OREAS-53Pb, Gold.



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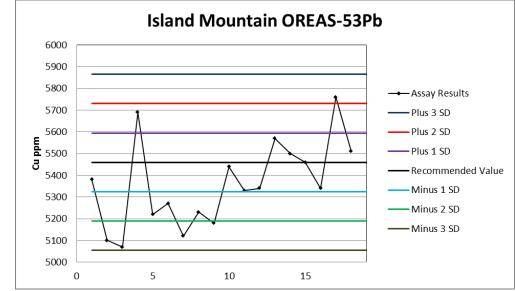


Figure 12-26 Standard Sample, OREAS-53Pb, Copper.

Standard OREAS-54Pa has an accepted gold content of 2.9 ppm with a standard deviation of 0.102 ppm, and an accepted copper content of 15,500 ppm with a standard deviation of 200 ppm, and was used 28 times. As shown in Figure 12-27 and Figure 12-28, Au was reported with 2 σ for all instances, while Cu was reported low 8 times. Due to the low average copper grade and high failure rate of this higher grade standard for copper, BRI should consider running check-assays on this standard and sample intervals with high copper grades.

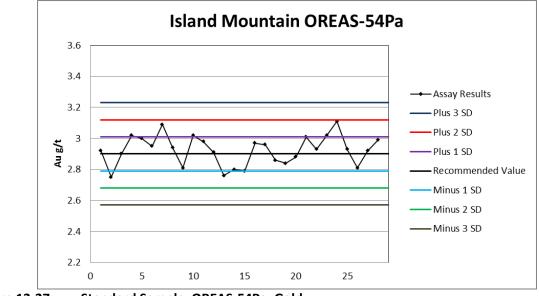


Figure 12-27 Standard Sample, OREAS-54Pa, Gold.



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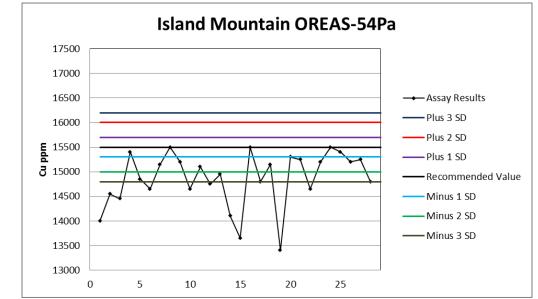


Figure 12-28 Standard Sample, OREAS-54Pa, Copper.

In the opinion of GCL, the quality control procedures used at Raintree West and Island Mountain generally meet or exceed industry best practices for a drilling stage exploration property and are adequate for a resource estimation.

12.2 Data Verification – Whistler Deposit

Data verification for the Whistler Deposit was conducted by MMTS (MMTS, 2015) and is repeated verbatim below. In the opinion of GCL, the quality control procedures used at the Whistler Deposit generally meet or exceed industry best practices and are adequate for a resource estimation.

MMTS has completed numerous verification steps, including:

- Site visit on the 13 and 14 of September 2010, where the following jobs were observed, drilling, core logging, sampling, and database management. Old drillhole collars were located by GPS, and drill core was examined.
- Comparing original assay results against the database, a total of 1,258 entries for Au, Cu, and Ag.
- Completing checks on the QA/QC program.

Kiska implemented a QA/QC program which included blanks, duplicates, field duplicates, and standards. The core for the Cominco drilling was not available for data verification. However, it represents 8% of the total drilling primarily within 100m of surface and comparisons of assayed grades with subsequent drilling did not indicate any material bias.

Table 12-4 shows the number and type of QA/QC samples from the 2010 drilling program.



79.7 5.1 5.2 5.1 4.9

100

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201	2010 QA/QC Sampling Program								
	Sample Type	No. Samples	Percent of Totals						
	Original	1171	79						
	Standards	74	ľ						
	Blanks	77	Ľ						
	Duplicates	75							
	Field Dups	72	2						
	Total	1469	1						

Table 12-42010 QA/QC Sampling Program

Results from the blank sampling program are shown in Figure 12-29 to Figure 12-37. For gold, the results generally show very low gold content, with highs of 16ppb in 2007, 400 ppb in 2008 (one sample), and 325 ppb in 2010 (two samples). For silver, there is a high of 1ppm in 2007, 5.5 ppm in 2008, and 1.8 ppm in 2010. For copper, high values include 160 ppm in 2007, 1,800 ppm in 2008, and 3,250 ppm in 2010.

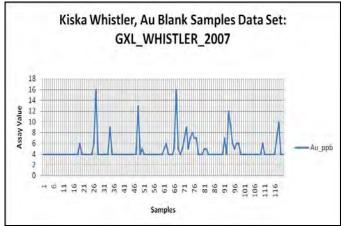


Figure 12-29

2007 Blank Samples, Gold.

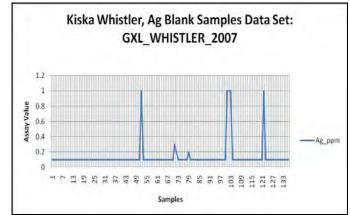


Figure 12-30

2007, Silver Blank Samples.



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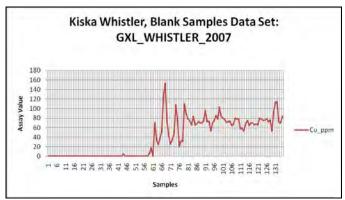


Figure 12-31 2007 Blank Samples, Copper.

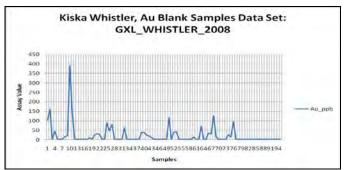


Figure 12-32 2008 Blank Samples, Gold.

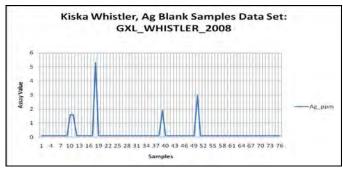


Figure 12-33 2008 Blank Samples, Silver.



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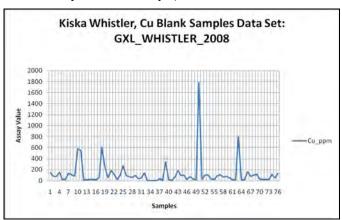


Figure 12-34 2008 Blank Samples, Copper.

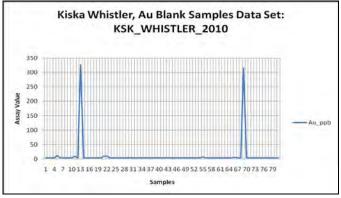


Figure 12-35 2010 Blank Samples, Gold.

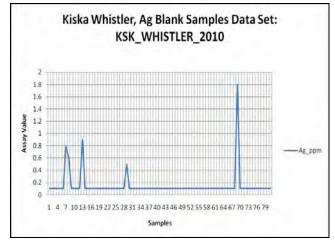


Figure 12-36 2010 Blank Samples, Silver.



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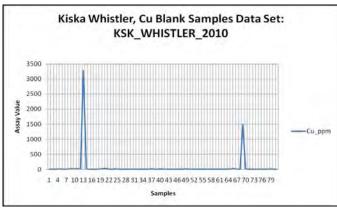


Figure 12-37 2010 Blank Samples, Copper.

Field duplicate samples represent core samples that have been quartered. Table 12-5 summarizes the field duplicate results. The F-test is a comparison of variances and the results indicate that the variances for all three elements appear to represent the same population. The Student's T-test is a comparison of means, and again, for all three elements the results indicate that the means appear to represent the same population.

Parameter	Au (ppb) Orig.	Au (ppb) Dup.	Ag (ppm) Orig.	Ag (ppm) Dup.	Cu (ppm) Orig.	Cu (ppm) Dup.
Population	245	241	247	239	237	237
Minimum	4	0	0	0	4	4
Maximum	2180	3310	13	11	5670	10000
Mean	190.51	196.51	1.30	1.14	1042.08	1057.45
Standard Deviation	293.19	338.81	1.71	1.44	1081.82	1214.95
CV	1.539	1.724	1.320	1.261	1.038	1.149
F-test	0.749		1.414		0.793	
Student's T-test	0.21		1.08		0.15	

Table 12-5Summary of Duplicate Samples



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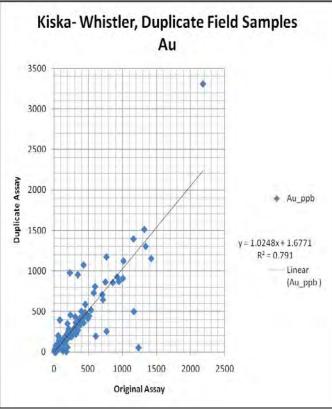


Figure 12-38 Duplicate Samples, Gold.

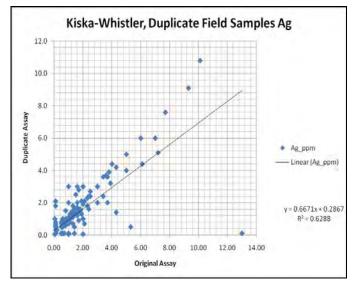


Figure 12-39 Duplicate Samples, Silver.



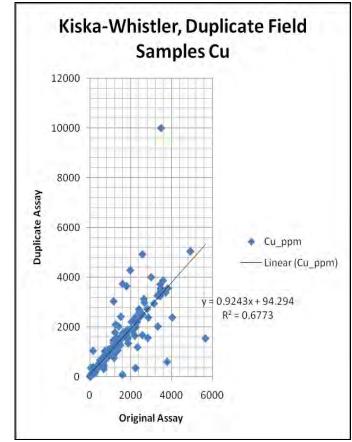


Figure 12-40 Duplicate Samples, Copper.

The standard sampling program involves inserting a standard into the sample stream every 20 samples. Standard OREAS-54Pa has an accepted gold content of 2.9 ppm with a standard deviation of 0.102 ppm, and an accepted copper content of 15,500 ppm with a standard deviation of 242.536 ppm, and was used seventeen times. As shown in Figure 12-41 and Figure 12-42, Au was reported low once, while Cu was reported high once.

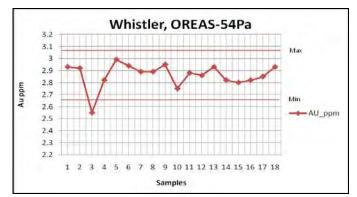


Figure 12-41 Standard Sample, OREAS-54Pa, Gold.



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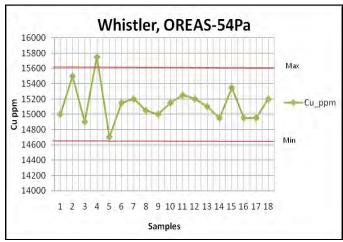


Figure 12-42 Standard Sample, OREAS-54Pa, Copper.

Standard OREAS-53Pb has an accepted gold content of 0.623 ppm with a standard deviation of 0.102 ppm, and an accepted copper content of 5,460 ppm with a standard deviation of 845.818 ppm, and was used twelve times. As shown in Figure 12-43 and Figure 12-44, both Au and Cu were reported high once and low once.

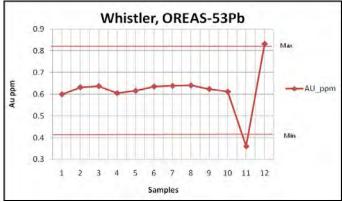


Figure 12-43 Standard Sample, OREAS-53Pb, Gold.

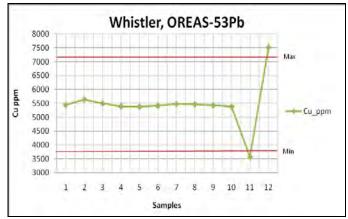


Figure 12-44 Standard Sample, OREAS-53Pb, Copper.



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Standard OREAS-52c has an accepted gold content of 346 ppb with a standard deviation of 17 ppb, and an accepted copper content of 0.344% with a standard deviation of 0.009%, and was used thirty-six times. As shown in Figure 12-45 and Figure 12-46, both Au were reported high once, while Cu was reported low once.

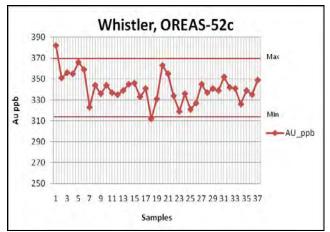


Figure 12-45 Standard Sample, OREAS-52c, Gold.

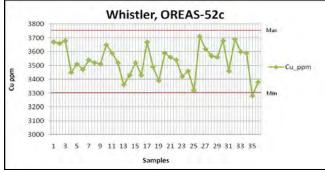


Figure 12-46 Standard Sample, OREAS-52c, Copper.



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Figure 12-47 Whistler, Drillhole WH_07_06.



Figure 12-48 Whistler, Drilling hole WH_10_23.





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Figure 12-49 Whistler, Core Storage Area near Camp.

BRI has not completed any sampling or drilling on the Whistler Project since acquiring it on August 5, 2015. No further drilling has been completed on the Whistler Deposit specifically since 2010; therefore there has been no material change to the deposit since the stated site visit.



13.0 Mineral Processing and Metallurgical Testing

Metallurgical testing for the Whistler and Island Mountain Deposits has previously been reported by MMTS (2015) and is repeated verbatim below. No metallurgical testing has been carried out on rocks from the Raintree West deposit, however given the similarities in geological setting, host rock, mineralization and alteration between Raintree West and the Whistler Deposit, it has been assumed that metallurgical processes and metal recoveries determined for the Whistler Deposit are a reasonable approximation for the Raintree West Deposit at this time.

Metallurgical testing has been carried out in three phases starting with the 2004/05 preliminary testing in Salt Lake City under the general supervision of Kennecott and culminating in the two phases under Kiska Metals and conducted at G&T Laboratories in Kamloops during 2010-2012. These three phases are described separately below.

13.1 Summary of Preliminary Metallurgical Testing, Whistler Deposit (Phase One)

Preliminary metallurgical test-work was carried out at Dawson Metallurgical Laboratories Inc. (DML) in Salt Lake City, Utah from September 2004 until early 2005 with a final report being issued in March of 2005 by George Nadasdy. Portions of that report are excerpted here to define the materials tested and the general approach to the testing. The work was carried out under the direction of Rio Tinto Technical Services representing Kennecott.

Three different sample composites were tested. The samples were differentiated by sample history and particle size and also by lead/zinc content. The three designations were **Original Composite**, **New Core Sample** and **Low Lead-Zinc Composite**.

13.1.1 Sample Preparation

A total of approximately 180, coarse assay reject interval samples were received at DML on September 13, 2004 from Kennecott Exploration. All of the individual samples from the entire drillhole WH-04-05-21 (from 2.32 to 328.56 metres) were received. Kennecott selected a mineralized interval (from 117.6 to 200.2 metres) from this drillhole for testing.

The original composite was produced by including every other individual assay reject sample from the 117.6 to 200.2 metre mineralized interval. The original composite represented a total of 42.2 metres of material and weighed 88.7 kg. The composite was air dried and stage crushed to minus 10 mesh in preparation for testing. The minus 10 mesh composite was mixed in a "V" cone blender and split into batches. A 50 kg test sample was rotary table split into 2.0 kg test charges. A 37.6 kg reserve sample was also made. All samples were kept in the DML freezers to reduce sample oxidation.

Initial testwork on the original composite produced low rougher concentrate copper grades due to sulfide activation (pyrite, galena and sphalerite floating along with the chalcopyrite). On November 10, 2004, a second Whistler mineralized sample was received for testing. This second sample was the remaining ½ of Kennecott's cut core from the same drillhole (WH-04-05-21) and represented material from 140.6 to 155.3 metres. Some of the higher grade lead-zinc core was removed by Kennecott



geologists and not included in this second sample. This core sample was designated by as the "new core sample". The new core sample weighed 20 kg; it was stage crushed to minus 10 mesh mixed in a "V" cone blender and then rotary table split into 2 kg test charges.

A third Whistler mineralized sample was prepared at DML at the end of November for continued testwork and was designated by as the low lead-zinc composite. The low lead-zinc composite was made from the remaining individual coarse assay reject samples not used in the original composite (from 117.6 to 200.2 metres). At the direction of Kennecott, selected high grade lead-zinc samples were omitted from this low lead-zinc composite. The low lead-zinc composite weighed 71 kilograms and was prepared in a similar fashion to the original composite.

13.2 Testing

Three (3) separate mineralized samples from the gold-copper bearing Whistler Project in Alaska were tested from September 2004 through March 2005. Preliminary metallurgical testwork included gravity concentration or flotation to recover the copper and gold. The three (3) mineralized samples were designated as: the original composite, the new core sample and the low lead-zinc composite, as previously described.

Testwork conducted on the three (3) Whistler mineralized samples included the following:

- Original Composite: DML comparative (ball mill) grind work index test; a gravity centrifugal concentration and amalgamation test; a head assay screen at a (RM) P80=140 μm grind; rougher kinetic-reagent scoping tests; rougher kinetic-pH tests (pH 9.3, 10.0 and 10.8); three (3) stage cleaning tests at different primary and regrind sizes and cleaner tests at pH 9.3 or 11.0.
- New Core Sample: a gravity concentration and amalgamation test; a rougher kinetic grind series P80=162, 111, 80 and 66 microns and a three (3) stage cleaner test at a P80=80µm primary grind, a P80=48
 ☑ regrind size and a cleaner pH of 9.3.
- 3. Low Lead-Zinc Composite: a rougher kinetic test at a P80=80 μ m grind; three (3) stage cleaning tests at a P80=80 μ m primary grind and P80=37 μ m regrind and a cleaner pH of 9.3 or 11.0. A cleaner test was also conducted with SO₂ added to the first cleaner. A final cleaner test was conducted to generate a third cleaner concentrate for a suite of assays for smelter evaluation.

13.2.1 Results from Preliminary Testing

The initial work on the Original Sample resulted in lower than expected rougher and cleaner grades and high levels of lead and zinc reporting to the cleaner concentrate. This was attributed to both the high lead and zinc in the feed and the fact that the composite was created from assay rejects that had potentially aged at a relatively fine crush between core preparation and metallurgical testing.

The high lead and zinc values in the Original Sample were essentially concentrated in two of the twentyfive intervals used to make up the composite. For the two subsequent composites the high lead-zinc intervals were left out of the mix. In addition, the second sample to be tested (New Core Sample) was produced from ½ section core that provided less opportunity for the deleterious effects of ageing when stored under ambient atmospheric conditions at finer sizes.



In general, it was found in the early work that gravity recovered gold was in the finer size ranges with an average gold grain size of minus 400 mesh (37 microns) so this avenue was not pursued in later testwork on the assumption that liberated gold would be recovered through flotation.

In addition, it was also found that a primary grind of ~80% passing 80 microns was required for best recovery of both copper and gold.

Below is the excerpted table from the Dawson report indicating cleaning test results for the three composites. The 3rd Cleaner copper grade increased from 16% to 21% to 23% for the Original, Low Pb-Zn and New Core samples respectively. Copper recoveries were 80% to 84% with gold ranging from 60% to 65%.

	P – 2825: Kennecott – Whistler Project											
			Three S	Stage Clea	ning Test	: – pH 9.3	in Rough	er and Cl	eaner			
			Calc.	Head	Final	Trail	No.3	3 Cleaner	Concent	rate	Percent Re	covery
Test No.	Sample	Grind Prim/RG P80=µ	% Cu	ppm AU	% Cu	ppm AU	Wqt.%	% Cu	ppm Au	% Insol.	Cu	Au
14	Orig. Comp.	140/53	0.642	2.36	0.128	0.749	3.80	12.4	39.4	7.1	73.5	63.5
23	Orig. Comp.	80/34	0.635	2.56	0.087	0.842	3.20	16.4	51.9	7.2	82.6	64.8
21	New Core	80/48	0.804	3.21	0.087	0.983	2.99	22.5	64.4	4.9	83.5	60.0
30	Low Pb- Zn	80/37	0.531	2.54	0.077	0.942	2.04	20.8	74.1	5.5	79.9	59.4
Cytec 3	477 in grind a	at 0.015 lb/ton	and NalPX	in scaveng	er at 0.004	lb/ton. N	o additiona	l collector	added to e	either regri	nd or cleaners.	

Table 13-1 Three Stage Cleaning Tests

The poor performance on the original composite material was attributed to the high lead and zinc content and the effects of sample size and ageing. The New Core material responded best and the results with the Low Pb-Zn were close but not up to the level of the New Core material. Thus there was a significant improvement with the exclusion of the high Pb-Zn intervals and a further improvement with the "fresh" half core. Crushed assay rejects are generally problematic for testwork with samples containing copper, lead and zinc minerals.

As per the table above, regrind sizes ranged from 34 to 53 microns. This leaves some potential for finer regrinding to improve cleaner separations if necessary in the future. In addition, there is further potential for copper cleaner enhancement with a higher pH regime in that part of the circuit as long as it does not have a significant negative effect on gold recoveries.

The DML report further indicates that in an analysis of cleaner test products the gold values tend to track closely with the deportment of the copper as opposed to following the iron.



13.2.2 Preliminary Conclusions

In any future work care must be taken to ensure the material to be tested is as fresh as possible and has been stored in such a manner as to minimize the potential for surface oxidation. The resource data must be analyzed to assess the presence, level and distribution of lead and zinc throughout the deposit and appropriate samples selected for metallurgical testing so that they reflect the nature of the resource and the likely plant feed. Care must also be taken to ensure that the copper and gold grades of the feed for any further testwork reflect the expected levels in the resource.

For first pass metallurgical testing reasonable copper and gold recoveries were achieved at less than optimum concentrate copper grades. Care and attention to sample preparation and handling (as mentioned above) along with more in depth testing should allow for improvements in both recoveries and grades. Further reagent screening should be carried out both to enhance recoveries and selectivity and to attempt to allow for processing at a coarser primary grind.

Combined cleaner and scavenger tails accounted for the loss of 29% to 35% of the contained gold and 10% to 14% of the copper. These preliminary cleaning tests all involved open circuit cleaning. In the normal course of more detailed flowsheet development (reagent and regrind optimization plus closure of the cleaning circuit) one could potentially expect to be able to improve copper recoveries to ~85% into a concentrate with a copper grade in the range of 25% to 27%. A combination of the flotation improvements and the application of additional gold recovery techniques in the cleaner circuit might potentially improve gold recovery to the 75% range.

In addition, as mentioned above, future test-work should be carried out on material with feed grades reflecting the likely grade that would be mined and sent to the plant. Lower feed grades tend to somewhat reduce metal recoveries.

13.3 Summary of Preliminary Metallurgical Testing, Island Mountain Deposit (August 21, 2010) (Phase 2)

13.3.1 Introduction

Two holes (IM09-001 and IM09-002) were drilled at Island Mountain in 2009. These holes produced interesting gold and copper values and also what appeared to be "interesting" associations between the contained gold, copper, pyrrhotite and magnetite. It was decided to carryout preliminary metallurgical testwork on the available sample material in order to assess the mineralogical associations and the potential for effective treatment of the rock to recover gold and copper. Core logging indicated an apparent difference between the upper and lower mineralized intervals of the drillhole. The upper mineralized interval had higher copper, but lower gold values, and the lower mineralized interval tended to contain more pyrrhotite. The lower region also represented the greater tonnage potential.

13.3.2 Sample Selection

The drill data had been assessed in terms of a gold equivalent whereby copper and silver values were added to the gold value based on assumed recoveries of 75% for Au and Ag and 80% for Cu. Assumed prices were \$550, \$8, \$1.50 respectively for the three metals. A simple gold equivalent cut-off of 0.30gpt (\$5.30/tonne at \$550/Oz) was taken. Based on this cut-off, 72 out of 81 two metre intervals



were selected from the upper 162 metres of IM09-001 to form an Upper Composite. Similarly 75 out of 111 two metre intervals were selected to form a Lower Composite from the lower 222 metres of the hole. From hole IM09-002, only 20 of 99 two-metre intervals surpassed the selected cut-off. As higher grade intervals were distributed erratically throughout the length of the hole none of this material was used for the metallurgical work.

Quarter core was available for composite preparation and it was shipped to G&T Metallurgical in Kamloops BC for composite assembly and the metallurgical testing.

13.3.3 Feed Grade

The following table provides the analyses of the elements of interest in the two composites.

	Cu	Pb	Zn	Fe	S	Ag	Au	С
Upper Comp Head - 1	0.15	0.06	0.02	8.50	2.36	3.20	0.49	0.10
Upper Comp Head - 2	0.15	0.06	0.02	8.30	2.08	3.70	0.44	0.09
Average	0.15	0.06	0.02	8.40	2.22	3.45	0.46	0.09
Lower Comp Head - 1	0.050	0.06	0.01	5.70	2.77	2.30	0.80	0.17
Lower Comp Head - 2	0.048	0.06	0.01	5.90	2.82	1.60	0.90	0.19
Average	0.049	0.06	0.01	5.80	2.80	1.95	0.85	0.18
	%	%	%	%	%	gpt	gpt	%

Table 13-2Summary of Analysis of Composites from IM09-001 and IM09-002

The copper values in the Upper Composite are on the lower side of normal feed grades whereas the copper values in the Lower Composite are well below where one would generally expect to make saleable copper concentrate grades with any significant recovery. The gold however, particularly in the Lower Composite, contributes a significant value to the feed.

13.3.4 Test Program

Various processing options were applied to the sample material in order to assess both the association between the gold and the other minerals and to assess the potential for economic recovery of the copper and gold.

The preferred and simplest option would be to produce a saleable copper concentrate containing the bulk of the copper and also the bulk of the gold. Another possible route would be to leach the gold from the whole ore with cyanide. The leaching approach could possibly produce good gold recovery but would not recover copper values and would likely involve significant cyanide consumption due to the copper content of the feed. Hybrid approaches would involve the selective flotation of a saleable copper concentrate with some of the gold and leaching of some or all of the flotation tailings to recover un-floated gold values.

As well as recovery considerations, a significant concern in cyanide leaching arises from the consumption of cyanide by other metals and minerals in the feed material. Of particular interest are copper and pyrrhotite. Depending on the form and activity of the copper and iron minerals significant quantities of cyanide can be tied up as copper and iron cyanides.



The current test program included bulk flotation of copper and gold, selective flotation of copper, cyanidation of the feed material and cyanidation of the combined tailings from selective open circuit cleaning tests performed on each of the composites. Due to the expectation that the Lower Composite likely represented the greater portion of "minable" material testwork addressed this sample with confirmatory work then being applied to the Upper Composite.

13.3.5 Metallurgical Results

Bulk Flotation

Various grinds plus some pH modification were applied to the bulk rougher flotation of both composites. In general the best copper recoveries were achieved with flotation at a grind of ~80% passing 100 microns and a pH of 10. Gold recoveries were not as sensitive to the changes.

		Copper			Gold	
Material	Feed	Conc	Rec	Feed	Conc	Rec
	% Cu	% Cu	%	gpt	gpt	%
Upper Composite Rougher	0.15	0.90	79.66	0.50	2.82	74.41
Lower Composite Rougher	0.05	0.41	89.15	0.96	7.12	80.41
Lower Composite Rougher	0.05	0.31	87.94	0.94	5.41	81.02
Lower Composite Cleaner	0.05	1.40	76.02	0.94	39.40	70.73

Table 13-3Bulk Flotation Results

Copper recoveries were reasonable considering the low head grades – particularly in the case of the Lower Composite. However, given the value of gold in the feed, gold recoveries were considered to be too low. In addition, a saleable copper concentrate would require a 15 to 20 fold increase in the copper grade which would further reduce the recovery of both metals.

The low gold recoveries also indicate that there is gold associated with some other mineral that is not floating in the non-selective bulk circuit.

Selective Flotation

Reagent changes were made to try and float a cleaner copper concentrate using open circuit cleaning.

Material	Feed	Conc	Rec.	Rougher	Feed	Conc	Rec.	Rougher	
	% Cu	% Cu	Cu - %	Rec.	Au gpt	Au gpt	Au - %	Rec.	
Upper	0.14	22.5	63.4	77.3	0.50	51.3	42.7	61.5	
Lower	0.05	23.3	70.6	84.1	0.99	294	44.0	45.6	

Table 13-4 Selective Cleaner Flotation

The selective flotation produced similar but somewhat lower copper rougher recoveries than those achieved in the bulk flotation circuit. There is a potential to improve these with further optimization. The copper loss between roughing and cleaning was similar to that experienced in the bulk circuit. Both



these aspects can be addressed by further reagent and operating condition adjustments. Further testwork with closed circuit cleaning will significantly reduce the cleaning circuit losses. Gold recovery was much lower during roughing and was significantly reduced during cleaning for the Upper Composite. This confirms the earlier suggestion that there is a significant portion of the gold that is associated with some mineral or minerals other than the copper bearing ones.

13.3.6 Whole Ore Leach

The whole ore leach approach worked well – particularly for the Lower Composite.

Table 13-5 Whole Ore Cyanidation

	Feed (gpt)	Residue (gpt)	Recovery (%)	Cyanide Strength (kgpt)	Cyanide Consumption (kgpt)
Upper Composite	0.54	0.06	89.06	2.00	1.82
Lower Composite	0.82	0.08	90.22	0.50	0.46

For both composites ~90% of the gold was extracted in 48 hours. Higher solution strength was required for the Upper Composite and this resulted in significantly higher cyanide consumption.

13.3.7 Leaching of Selective Flotation Tails

Based on the results of the whole ore leach and the selective cleaner flotation, the flotation tailings for both composites were leached in cyanide for 48 hours at solution strength of 0.50 kgpt.

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		Feed	Residue	Recovery	Cyanide Cyanide Strength Consumption		Flotation + Cyanidation
		(gpt)	(gpt)	(%)	(kgpt)	(kgpt)	Recovery (%)
	Linner Composito		0.08	. ,	0.50		
	Upper Composite	0.18	0.08	56.52	0.50	0.40	75.08
	Lower Composite	0.51	0.09	81.44	0.50	0.38	89.60

Table 13-6 **Cvanidation of Selective Flotation Tailings**

Leaching results were particularly good for the Lower Composite at 81% and the overall recovery by flotation and cyanidation was almost 90%. Similar to the results of the whole ore leach, the leaching conditions for the Upper Composite can likely be optimized to improve the extent and rate of leaching for the flotation tailings from the Upper material.

13.3.8 Overall Recoveries

Potentially 90% of the gold in the Lower Composite can be recovered either by direct cyanidation or by flotation followed by cyanidation of the flotation tailings. Similarly almost 90% of the gold can be leached from the Upper Composite and further work should improve the overall gold recovery from this material by the combined flotation-leach approach.

More in depth work should be performed to improve flotation grades and recoveries. In addition, once an optimized flotation approach has been established the opportunities to produce a high grade copper concentrate followed by the production of a low grade gold concentrate for subsequent leaching should



be investigated. This could substantially reduce the capital and environmental ramifications of whole ore or full tailings leaching.

13.3.9 Conclusions

The preliminary testing Indicated that the Island Mountain material tested is amenable to copper recovery by flotation and that the gold is relatively free milling. This is particularly true of the greater portion of the material represented by the Lower Composite. The results indicate that in the range of 90% of the gold in the Lower Composite can be recovered by either whole ore leaching or a combination of flotation and leaching of the tailings. With further development work, copper flotation recoveries will likely rise to the 80% range for the Lower Composite.

Similarly, gold recovery in the range of 90% can be achieved by whole ore leaching of the Upper Composite. Further flotation work on the Upper Composite will improve both copper and gold recoveries to concentrate.

For both materials it was concluded that further metallurgical development and assessment work would still be required to develop the best flowsheet with respect to capital and operating costs, metal recoveries and overall economics.

13.4 Summary of Whistler Deposit Testwork (2012) (Phase 3)

The final round of work was also carried out at G&T Metallurgical Laboratories, now part of ALS Metallurgy, there being continuity of personnel and experience with the Island Mountain testwork previously reported.

The work commenced in August 2012 and was completed by year end and the results presented in its report KM3499 of January 2013.

13.4.1 Metallurgical Samples

Initial work was conducted on core from the 2008 drilling campaign, on sample 08-08 which had been kept in carefully controlled conditions and was believed to be still fresh. Arrangements had been made to obtain a sample from a similar hole planned for the summer 2012 drilling campaign as a "calibration" check to validate its freshness, especially in view of the aging effects reported in the Kennecott testwork. Unfortunately the cancellation of the 2012 campaign negated this process; however, as is evident from the results presented below, there is no reason to suspect any impact of oxidation on flotation response.

What was a greater concern with respect to this sample was that, following the update to the geological model reported in AMC's letter report of November 2012, it might have been insufficiently representative of the bulk of the mineralization being predominantly in the central quartz-breccia zone, representing only 20% of the tonnage, although 30% of the metal content.

Accordingly a second sample, 10-19 from the 2010 drilling campaign, more representative of the Main Stage Porphyry, although right on the margin of the proposed ultimate pit, was selected for additional tests and in fact became the basis for setting the predicted metallurgical parameters.



Both samples had been divided into high grade, medium grade and low grade samples in accordance with gold grades, with most of the work carried on the medium grade samples, being closer to Resource grades.

Sample grades are tabulated in the following table.

Sample	%Cu	%Fe	%S	Au gpt	%C				
08-08 MG (master)	0.12	5.8	3.6	0.53	0.76				
08-08 HG	0.50	4.9	1.8	1.78	0.67				
08-08 LG	0.08	4.1	2.7	0.34	1.30				
10-19 MG	0.22	2.6	1.9	0.51	1.09				
10-19 HG	0.17	3.3	1.1	0.96	1.42				
10-19 LG	0.22	3.4	1.7	0.38	1.24				

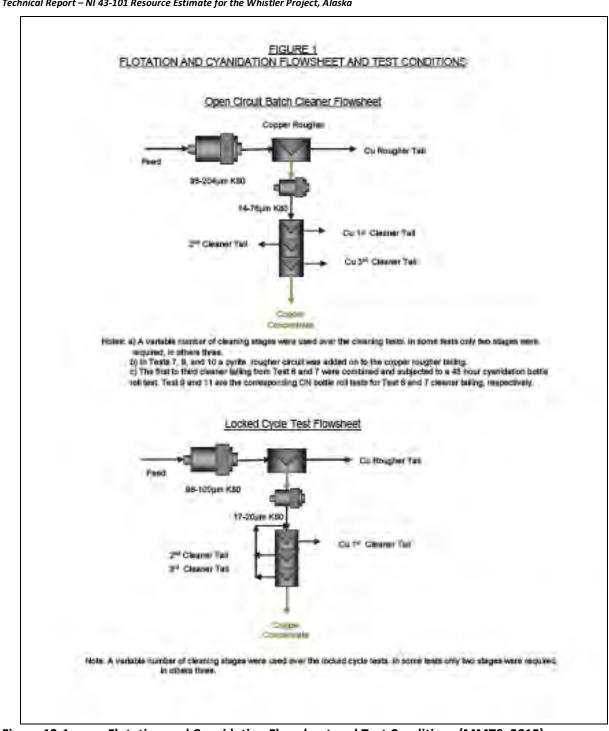
Table 13-7 Sample Head Grades

No mineralogical work was carried out. However normative mineralogy calculations show that Sample 08-08 generally has almost twice the pyrite content of Sample 10-19. Sample 08-08 was similar to Island Mountain in this respect.

The testwork program focused mainly on conventional copper flotation; however it soon became evident that improving gold recovery was key so, similar to the direction taken with Island Mountain, the program included work on cyanidation of cleaner tails and also investigation of enhancing gold recovery with pyrite concentrate production.

The flotation and cyanidation testwork flowsheets are shown in Figure 13-1 (abstracted from the ALS KM3499 report).





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Figure 13-1 Flotation and Cyanidation Flowsheet and Test Conditions (MMTS, 2015).

13.4.2 Results

The results of the metallurgical testwork for a conventional comminution/flotation flowsheet are summarized below.



13.4.2.1 Comminution

A single standard Bond ball mill work index test was carried out on 10-19MG composite towards the end of the program, and at a closing size of 106μm.

The Bond ball mill work index (BWI) was found to be 19.9 kWh/t (compared to the Island Mountain value assumed for the initial flowsheet design of 18.5 kWh/t). This result puts Whistler in the very hard range of ball mill hardness.

No SAG mill testing (e.g.) JK Drop weight or SMC tests were included in the program, nor indeed any Bond rod mill work index tests. The QP has used some industry benchmarks and approximations in setting appropriate SAG mill design criteria (see Section 17.2.3) and recommends that these additional comminution tests be a high priority for the next stage of testwork.

13.4.2.2 Flotation

Key parameters in the copper flotation tests were:

- Primary grind target was generally 100 μm (some later tests, following the receipt of the BWI result, were done in the 150-200 μm range).
- Regrind target was generally 20 μm (test 1 at 76 μm was a procedural error).
- Cytec 3418A, a specialist copper/precious metal flotation reagent, was used as the primary copper sulphide mineral collector.
- pH in the rougher and cleaner circuits was generally maintained at 10 and 11 respectively, using hydrated lime.

The key results are tabulated and graphed in Figure 13-2 (abstracted from the ALS metallurgy KM3499 report).

In summary the main findings were as follows:

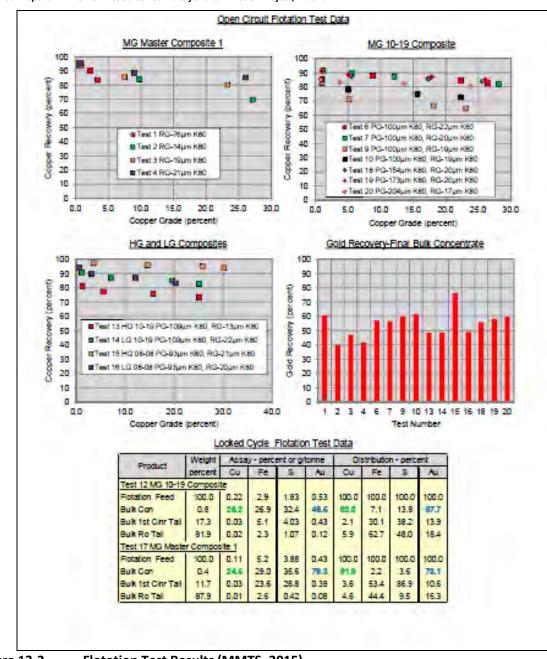
- Open-circuit batch flotation testing achieved fairly consistently 80-85% copper recovery to a 25% Cu concentrate grade; however gold recovery was lower (40-50%) due to lower rougher recoveries and also low cleaner recoveries with significant deportment of gold to cleaner tailings streams.
- From the flotation results, the gold associations were inferred as follows:
 - 60% with chalcopyrite
 - 20% with pyrite (± chalcopyrite)
 - 20% with gangue minerals



The QP strongly recommends that mineralogical studies be a high priority for the next phase of testwork.

- Some attempts were made at recovering gold to a pyrite concentrate for subsequent treatment (a possible alternative to cyanidation of cleaner tails), but overall recovery fell and later work focused on the locked cycle tests as a means of recovering gold reporting in recirculating streams that were not accounted for in simple batch tests.
- Locked cycle tests on both the 08-08 and 10-19 samples proved to be the key to unlocking gold value with substantial improvements to gold recovery from the recycle of intermediate streams (short of pilot-plant testing, locked cycle tests are the best way of replicating a full scale flotation plant). Averaging the results from both and rounding numbers appropriately yielded the following:
 - 92% copper recovery to a 25% Cu concentrate grade
 - 70% gold recovery
- On receipt of the higher than expected BWI results with a significant impact on both capex and opex, some final open circuit batch flotation tests were conducted at coarser primary grinds (154 μm, 173 μm and 204 μm) but retaining the same 20 μm regrind size. The results were analyzed in grade-recovery terms and are presented in graphical form in Figure 13-3 and Figure 13-4. Copper grade-recovery performance was retained up to 173 μ but showed a significant deterioration at the coarsest grind, whereas gold recovery seemed largely insensitive to primary grind size. Although further work, including definitive locked cycle testing, is required to validate this, the QP believes it is reasonable to assume a primary grind size of 175μm (in round figures) as an option for capex/opex sensitivities.
- Some very preliminary variability tests (four in total) were carried out on the low grade and high grade samples for each main composite. The results showed a high degree of variability in the 70-90% range for copper recovery and 20-30% Cu in final concentrates. Gold recovery was generally constant at around 50% although the 08-08 high grade sample did show a significantly higher recovery of 76%. The QP does not attach much importance to this limited number of results, their having no spatial relationship to the deposit, and would recommend that future variability work be based on spatial and mineralogical/textural parameters rather than grade.





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Flotation Test Results (MMTS, 2015).



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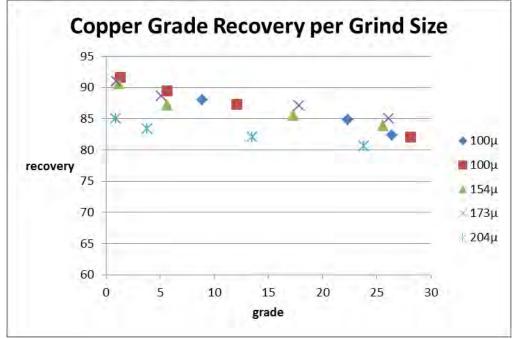
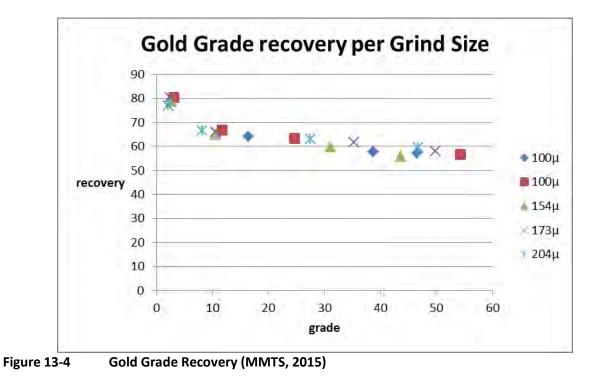


Figure 13-3 Copper Grade Recovery (MMTS, 2015).





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13.5 Cyanidation

The batch flotation tests had indicated a substantial amount of the gold was reporting to cleaner tails and, pending the results of the locked cycle tests, some cyanidation tests were carried out on combined cleaner tails from tests 6 and 7 on 10-19 samples where 23% of the gold was accounted for in the cleaner tails.

Forty-eight hour gold extractions were 77% to solution, thus overall gold recovery would improve from 57% to approximately 74%. However although cyanide consumption was moderate for a sulphidic stream, the absolute gold grades in cyanidation feed were still low and the marginal return versus costs at current gold and cyanide prices exactly that, marginal. Also the use of cyanide requires a different level of onsite management and therefore is more complicated in terms of its cost benefit.

Given the excellent locked cycle test results already reported, and with overall gold recoveries by flotation being only in the region of 70%, it was decided not to pursue further cyanidation testwork.

13.6 Concentrate Specifications

The final bulk concentrates from cycles II-V of the locked cycle tests 12 (10-19 MG) and 17 (08-08 MG) were analyzed for potentially deleterious elements and the results are shown in Table 13-8.

Concentrates from both samples are remarkably clean and would indicate that the specifications would fall well within typical smelter limits for penalty elements, with no penalty payable.

Normative mineralogy calculations, assuming a simple chalcopyrite:pyrite sulphide blend, suggest the pyrite concentrate from the 08-08 sample to be almost twice that of 10-19, i.e. similar to what was observed in the head samples.



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Table 13-8	
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Minor Element Data				
Element	Symbol	Units	Test 12 (10-19)	Test 17 (08-08)
Aluminium	Al	%	0.92	0.68
Antimony	Sb	%	0.02	0.17
Arsenic	As	gpt	135	344
Bismuth	Bi	gpt	<1	<1
Cadmium	Cd	gpt	30	20
Calcium	Ca	%	0.44	0.31
Carbon	С	%	0.33	0.39
Cobalt	Со	gpt	46	36
Copper	Cu	%	26.1	24.9
Fluorine	F	gpt	133	123
Iron	Fe	%	26.7	29.3
Lead	Pb	%	0.18	0.19
Magnesium	Mg	%	0.17	0.09
Manganese	Mn	%	0.014	0.014
Mercury	Hg	gpt	1	4
Molybdenum	Мо	%	0.006	0.010
Nickel	Ni	gpt	74	94
Phosphorus	Р	gpt	118	143
Selenium	Se	gpt	86	30
Silicon	Si	%	2.73	2.33
Sulphur	S	%	32.2	35.1
Silver	Ag	gpt	108	134
Zinc	Zn	%	0.46	0.32

13.7 Conclusions

From the metallurgical testwork results and subsequent analysis it appears that the Whistler Deposit is metallurgically very amenable to a conventional flotation route to produce saleable high quality copper concentrates with gold credits, despite the low head grade, and that the levels of recovery and upgrade for both copper and gold are relatively insensitive to feed grade. There are no processing factors or deleterious elements that could have significant effect of potential economic extraction.

Expected grade-recovery parameters are 92% copper recovery to a 25% Cu concentrate and 70% gold recovery.

Although some late testwork on ore hardness revealed the ore to be harder than expected with a Bond Work Index of 19.9 kWh/t, some batch flotation work also showed that the primary grind size could be increased from 100 μ m to 175 μ m, subject to confirmation with further locked cycle tests, with net savings in comminution power.



14.0 Mineral Resource Estimates

At the request of Garnet Dawson, CEO of Brazil Resources Inc., Giroux Consultants Ltd. was retained to produce maiden resource estimations on the Whistler Project for the Island Mountain and Raintree West Deposits located approximately 150 km northwest of Anchorage, Alaska. While a resource estimate has been completed on the Whistler Deposit by Moose Mountain Technical Services (MMTS, 2015), with an effective date of August 15, 2015, there have been no resource estimations done on the Island Mountain or Raintree West Deposits. The effective date for this estimate is March 24, 2016, the day the data was received.

Gary Giroux is the qualified person responsible for the resource estimates contained herein. Mr. Giroux is a qualified person by virtue of education, experience and membership in a professional association. He is independent of the company applying all of the tests in Section 1.5 of National Instrument 43-101. Mr. Giroux has visited the Property on April 21, 2016.

The mineral resource estimates discussed below for Raintree West and Island Mountain are maiden estimates for both deposits. The Whistler Deposit resource estimate is unchanged from that described in MMTS (2015).

14.1 Raintree West

14.1.1 Geologic Solid

A rough greater than 0.1 g/t Au Equivalent grade shell was used to constrain the mineralization at Raintree West. A total of 14 drill holes (shown in Appendix D) totalling 7,078 m were used to define this solid.

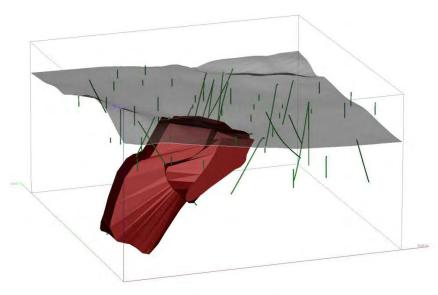


Figure 14-1 Isometric View looking NE showing mineralized solid in red, drill hole traces and surface topography in grey.



14.1.2 Data Analysis

Drill holes in the Raintree West zone were compared to the mineralized solid and tagged if inside or outside. Raw assay statistics are tabulated below for the mineralized portion (inside the solid) and the waste portion (outside the solid).

	able 14-1 Assay statistics for Au, Ag and Cu at Namilee West							
Domain	Variable	Number of	er of Mean Standard Minimum		Maximum	Coefficient of		
		Assays	Grade	Deviation	Value	Value	Variation	
	Au (g/t)		0.32	0.67	0.003	14.15	2.14	
Mineralized	Ag (g/t)	2,312	4.16	15.18	0.25	430.00	3.65	
	Cu (%)		0.05	0.07	0.001	0.79	1.53	
	Au (g/t)		0.03	0.09	0.003	1.61	2.79	
Waste	Ag (g/t)	507	0.97	1.08	0.25	11.60	1.12	
	Cu (%)		0.01	0.01	0.001	0.10	1.48	

Table 14-1Assay statistics for Au, Ag and Cu at Raintree West

The grade distributions for each variable were examined in both the mineralized solid and within waste to determine if capping was required. Within the mineralized solid a total of 5 gold assays were capped at 6 g/t Au, 4 silver assays were capped at 110 g/t Ag and 3 copper assays were capped at 0.6 % Cu. Within waste 9 gold assays were capped at 0.21 g/t Au, 2 silver assays were capped at 6.0 g/t Ag and 2 copper assays were capped at 0.62 % Cu. The results from capping are shown below with small reductions in mean grade but significant reductions in the coefficient of variation.

	-2 Capped Assay statistics for Au, Ag and Cu at Nantifee West							
Domain	Variable	Variable Number of		Standard Minimum		Maximum	Coefficient of	
		Assays	Grade	Deviation	Value	Value	Variation	
	Au (g/t)		0.28	0.50	0.002	6.00	1.75	
Mineralized	Ag (g/t)	1,928	3.58	8.34	0.25	110.00	2.32	
	Cu (%)		0.04	0.06	0.001	0.60	1.67	
	Au (g/t)		0.03	0.04	0.003	0.21	1.55	
Waste	Ag (g/t)	507	0.96	0.98	0.25	6.00	1.03	
	Cu (%)		0.01	0.01	0.001	0.06	1.38	

 Table 14-2
 Capped Assay statistics for Au, Ag and Cu at Raintree West

14.1.3 Composites

Assay lengths ranged from a low of 0.26 m to a high of 4.6 m within the mineralized solid with a mean of 2.52 m. To help smooth grades and be a multiple of a possible bench height a composite length of 5.0 m was selected. Composites were formed down drill holes starting and ending at the solid boundaries. If a composite length at a boundary was less than 2.5 m it was combined with an adjacent sample. In this manner composites formed a uniform support of 5 ± 2.5 m.



Та	able 14-3	Composite statistics for Au, Ag and Cu at Raintree West								
	Domain	Variable	Number of	Mean	Standard	Standard Minimum		Coefficient of		
			Assays	Grade	Deviation	Value	Value	Variation		
		Au (g/t)		0.27	0.38	0.003	5.41	1.42		
	Mineralized	Ag (g/t)	1,137	3.33	5.37	0.25	74.11	1.61		
		Cu (%)		0.04	0.06	0.001	0.42	1.47		
		Au (g/t)		0.02	0.04	0.003	0.20	1.53		
	Waste	Ag (g/t)	264	0.90	0.83	0.25	5.36	0.92		
		Cu (%)		0.01	0.01	0.001	0.06	1.41		

ble 14-3	Composite statistics for Au, Ag and Cu at Raintree West	

14.1.4 Variography

Pairwise relative semivariograms were produced for each variable in the four principal horizontal directions: Az 90, Az 0, Az 45 and Az 135 and the only direction with sufficient data to model was Az 90. Semivariograms were then produced for the vertical plane and a model was obtained.

For each variable isotropy was assumed in the horizontal plane as there was insufficient data in directions other than Az 90 to disprove this. The semivariogram parameters for each variable are tabulated below. Models for gold are shown in Appendix E.

Domain	Variable	Az / Dip	C ₀	C ₁	C ₂	Short	Long
						Range (m)	Range (m)
		90 / 0				60.0	100.0
	Au	0/0	0.15	0.17	0.38	60.0	100.0
		0/-90				15.0	56.0
	Ag	90 / 0	0.10	0.05	0.38	20.0	80.0
Mineralized Solids		0/0				20.0	80.0
		0 / -90				10.0	80.0
		90 / 0				40.0	90.0
	Cu	0/0	0.10	0.08	0.27	40.0	90.0
		0 / -90				20.0	32.0

Table 14-4 Semivariogram parameters for Raintree West

14.1.5 Bulk Density

For the Raintree West deposit a total of 39 samples from diamond drill hole WH11-30, were tested for specific gravity using the Archimedes method. All samples were within the mineralized zone. Samples were weighed in air (Wa) and weighed in water (Ww) with the specific gravity being equal to Wa / (Wa-Ww).

The	results	are	tabulated	below	in
	resures	are	tabalatea	001011	



Technical Report – NI 43-101 Resource Estimate for the Whistler Project, Alaska Table 14-5 sorted by domain.



Table 14-5	Specific gravity Determinations from Raintree West
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Domain	Number	Min. SG	Max. SG	Average SG
Mineralized Solid	39	2.68	2.90	2.80

The average specific gravity within the mineralized zone of 2.80 was used to convert volume to tonnage.

14.1.6 Block Model

Lower Left Corner

A block model with blocks $10 \times 10 \times 10$ m in dimension was superimposed over the mineralized domain. For each block the percentage below surface topography and the percentage within the mineralized solid were recorded. The block model origin is shown below.

519900 East	Column size = 10 m	88 Columns
6871300 North	Row size = 10 m	53 Rows
Top of Model		
690 Elevation	Level size = 10 m	99 Levels
No Rotation		

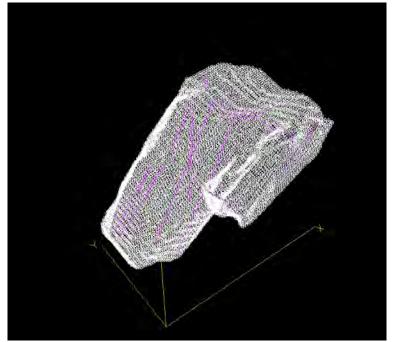


Figure 14-2 Isometric view of block model looking NE showing Mineralized Composites.

14.1.7 Grade Interpolation

Grades for gold, silver and copper at Raintree West were interpolated into blocks using Ordinary Kriging. The kriging exercise was completed in a series of 4 passes using search parameters tied to the



semivariograms. Pass 1 required a minimum of 4 composites with a maximum of 3 from any single drill hole to be found within a search ellipsoid with dimensions equal to ¼ of the semivariogram range. For blocks not estimated in pass 1 a second pass was completed with search ellipsoid dimensions equal to ½ the semivariogram range. A third pass using the full variogram range and a fourth pass using twice the variogram range completed the interpolation. In all passes the maximum number of composites used was set to 12. The search parameters used for gold are tabulated below.

Domain	Pass	Az / Dip	Dist. (m)	Az / Dip	Dist. (m)	Az / Dip	Dist. (m)
	1	90 / 0	25.0	0/0	25.0	0/-90	14.0
Minoralized Colid	2	90 / 0	50.0	0/0	50.0	0/-90	28.0
Mineralized Solid	3	90 / 0	100.0	0/0	100.0	0/-90	56.0
	4	90 / 0	200.0	0/0	200.0	0/-90	112.0

Table 14-6Kriging Parameters for gold in Raintree West Mineralized Domain

14.2 Island Mountain

14.2.1 Geologic Model

The Island Mountain prospect covers a 5 by 6 km area that is characterized by a unique topographic dome-like shape that is divided in two halves by a prominent northeast-southwest oriented valley. It is this unique shape, which separates this area from other peaks and ridges in the region and from which it derives its name. The highest peak occurs on the southeast side of Island Mountain at an elevation of 1,620 metres, which is 1,100 metres above the Skwentna River Valley.

The Island Mountain deposit has been subdivided and modelled by Kiska geologists based on 9 different lithologies. The lithologies are described below.

XHO - Hornfels - comprised of hornfelsed fine-grained sandstones, siltstones and shales that are the host rocks to the intrusive complex at Island Mountain.

IIDIP – Diorite Porphyry – a white and green to green-grey unit with crowded, weakly porphyritic texture

BXIIM - Intrusion Breccia – Monzonite – a grey-pink monomict intrusion breccia with a monzonitic cement. The fragments are generally angular and made up of lighter grey intrusive rock (Diorite Porphyry)

BXM - magmatic-hydrothermal breccia with matrix varying between altered igneous cement (generally dioritic), rock flour with hydrothermal cement and local hydrothermal infill.

BXMA - magmatic-hydrothermal breccia actinolite-cemented equivalent to the BXM unit where the matrix is clearly comprised of variably-mille rock flour cemented by actinolite-albite-sulphides rather than a similar altered igneous cement.



BXIID - Intrusion Breccia – Diorite – This unit is green –grey to dark green polymict or monomict intrusive-matrix breccia with sub-rounded fragments of hornfels or other intrusives in a diorite matrix of similar composition as IIDIP. Fragments are commonly albitized (ALB) with white-grey rims, sometimes biotite-altered (BIO) or preferentially mineralized by pyrrhotite and/or chalcopyrite. This unit is interpreted as a barren intrusion breccia, which either post-dates BXM/BXMA or for spatial reasons was not mineralized. This unit is suspected as post-mineral based on local abrupt termination of grade and inclusion of strongly altered host fragments (albitized).

APO - Actinolite-Pyrrhotite Crackle Breccia - This domain in the geological model is almost equivalent to BXMAc in that it is comprised of IIDP with stockwork-like actinolite-pyrrhotite veins (>2%) that form an approximately 100-150 m wide shell that is well developed on the west side of the Breccia Zone, and which grades into BXMAc towards the core of the system. These veins contain actinolite + pyrrhotite \pm quartz \pm biotite \pm magnetite \pm chalcopyrite \pm pyrite, and commonly have strongly albite-altered selvages. These veins are the outer expression of the BXM-BXMA breccias associated with the main stage of sodic-calcic alteration and are the source of low-grade Au-Cu mineralization peripheral to the core of the Breccia Zone.

IIDIH - Hornblende Porphyry - This unit is a fine to medium-grained diorite, green-grey with 12 to 20% rounded, tabular black 4-10 mm hornblende megacrysts and 20 to 30% 1-3 mm plagioclase subhedral laths in a variably fine-grained groundmass of feldspar and often-chloritized (CHL) amphibole. This unit contains up to 3% fine-grained magnetite disseminated throughout groundmass. Hornblende is often partially altered to biotite (BIO) and feldspars are often albitized.

IFMIC - Coarse-Grained Monzonite Porphyry - This unit is a coarse-grained monzonite, grey and black with idiomorphic equigranular texture. It consists of 10 to 20% grey-clear Carlsbad-twinned feldspars up to 20mm long which may be microcline, 45 to 50% 3-10 mm zoned white plagioclase laths, 25 to 35% 2-6 mm white orthoclase and 10 to 15 % mafic minerals consisting mainly of 3 to 6 mm black books of biotite and minor hornblende and magnetite. This rock is unaltered but weathers easily due to large grain size, and is mapped only on the southwest side of Island Mountain along the Timber Creek fault. It is not seen in diamond drill core. The coarse-grained monzonite is a late, post mineralization phase and is associated with a strong magnetic high.

The deposit was first modelled on a series of cross-sections, followed by longitudinal sections and plans for both lithology and alteration/mineralization. The results were then digitized and tied together into wire-framed 3D solids using Surpac v6.3.



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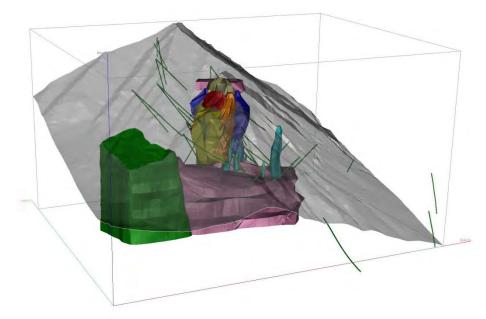


Figure 14-3 Isometric view looking NE showing mineralized solids, topography and drill hole traces.

Note. Solids estimated are XHO- pink, BXIID – dark blue, BXIIM – red, BXM – moss green, BXMA – orange, APO – yellow, IIDIH – light blue. IIDIP overprints all domains. Dark green is IFMIC which was not intersected with drilling and not estimated.

14.2.2 Data Analysis

Assays from drill holes were back tagged by passing the drill holes through these modelled solids. Of the 42 drill holes in the Island Mountain Project area a total of 34 totalling 12,668 m were in the volume modelled. Appendix C lists all the drill holes with the ones used in the estimate highlighted. Table 14-7 shows simple statistics for Au, Ag and Cu for each modelled domain.

Domain	Variable	Variable Number of		Standard	Minimum	Maximum	Coefficient of
		Assays	Grade	Deviation	Value	Value	Variation
	Au (g/t)		0.12	0.34	0.002	4.30	2.81
ХНО	Ag (g/t)	444	0.74	7.40	0.25	156.00	10.02
	Cu (%)		0.02	0.02	0.001	0.20	1.30
	Au (g/t)		0.24	0.74	0.002	19.40	3.14
IIDIP	Ag (g/t)	2,052	0.65	0.94	0.25	18.60	1.44
	Cu (%)		0.03	0.03	0.001	0.49	1.05
	Au (g/t)		0.87	0.81	0.002	4.45	0.94
BXIIM	Ag (g/t)	151	3.48	2.96	0.25	16.90	0.85
	Cu (%)		0.21	0.16	0.002	0.99	0.78

Table 14-7Assay Statistics sorted by Domain at Island Mountain



	-						
	Au (g/t)		0.66	1.24	0.002	13.60	1.89
BXM	Ag (g/t)	298	12.76	204.4	0.25	3530.00	16.03
	Cu (%)		0.05	0.09	0.001	0.85	1.75
	Au (g/t)		0.52	0.68	0.005	8.00	1.29
BXMA	Ag (g/t)	502	2.47	7.30	0.25	155.00	2.95
	Cu (%)		0.11	0.13	0.001	1.45	1.18
	Au (g/t)		0.22	0.66	0.002	9.82	3.04
BXIID	Ag (g/t)	267	0.88	1.00	0.25	8.40	1.14
	Cu (%)		0.04	0.05	0.001	0.39	1.14
	Au (g/t)		0.25	0.50	0.002	6.51	1.98
APO	Ag (g/t)	362	1.61	1.46	0.25	10.10	0.91
	Cu (%)		0.08	0.08	0.001	0.68	0.98
	Au (g/t)		0.11	0.16	0.008	1.20	1.43
IIDIH	Ag (g/t)	92	0.39	0.29	0.25	1.50	0.76
	Cu (%)		0.02	0.03	0.001	0.14	1.16
	Au (g/t)		0.13	0.72	0.003	14.80	5.37
WASTE	Ag (g/t)	908	0.61	0.83	0.25	14.70	1.36
	Cu (%)		0.02	0.02	0.001	0.36	1.09

To compare the grade distributions for each variable lognormal cumulative probability plots were produced for each of gold, silver and copper comparing the various geologic domains. These are shown as Figure 14-4 to Figure 14-6.

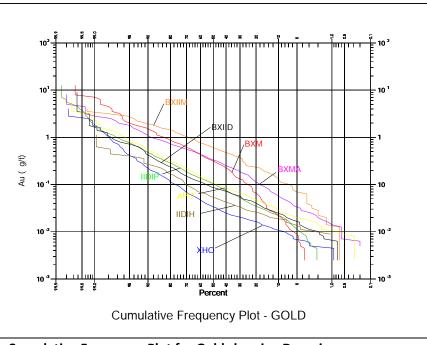
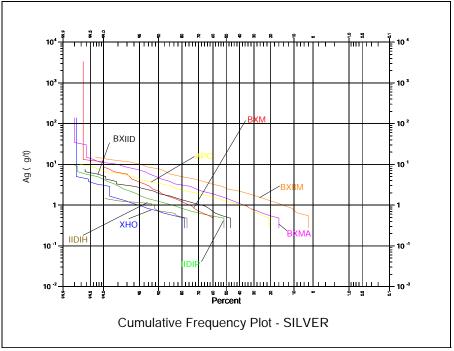


Figure 14-4

Cumulative Frequency Plot for Gold showing Domains.

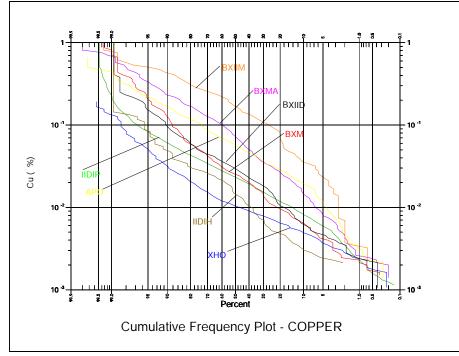


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Cumulative Frequency Plot for Silver showing Domains.





Cumulative Frequency Plot for Copper showing Domains.



For modelling and estimation the domains BXM, BXMA and BXIIM had similar gold grades and distributions and were combined with soft boundaries. The remaining 5 domains were treated separately with hard boundaries.

The grade distributions for Au, Ag and Cu were examined for each domain using lognormal cumulative frequency plots. Where erratic high values were present cap levels were set and are shown below in Table 14-8.

Domain	Variable	Cap Level	Number of
		•	Assays Capped
	Au (g/t)	2.7 g/t	1
ХНО	Ag (g/t)	5.0 g/t	1
	Cu (%)		0
	Au (g/t)	7.0 g/t	3
IIDIP	Ag (g/t)	12.0 g/t	2
	Cu (%)	0.36 %	2
	Au (g/t)	3.6 g/t	1
BXIIM	Ag (g/t)	14.0 g/t	1
	Cu (%)	0.60 %	2
	Au (g/t)	8.0 g/t	1
BXM	Ag (g/t)	14.0 g/t	1
	Cu (%)	0.41 %	2
	Au (g/t)	5.0 g/t	1
BXMA	Ag (g/t)	14.0 g/t	3
	Cu (%)	0.82 %	1
	Au (g/t)	2.0 g/t	2
BXIID	Ag (g/t)	6.0 g/t	2
	Cu (%)	0.24 %	1
	Au (g/t)	4.0 g/t	1
APO	Ag (g/t)		0
	Cu (%)	0.52 %	1
	Au (g/t)	0.6 g/t	1
IIDIH	Ag (g/t)		0
	Cu (%)		0
	Au (g/t)	2.0 g/t	12
WASTE	Ag (g/t)	4.0 g/t	6
	Cu (%)	0.10%	9

Table 14-8Capping Levels and Number Capped at Island Mountain.

The result of capping a relatively few assays was a slight reduction in average grade but significant reductions in a lot of coefficients of variation to the point all are below 3.0 and most are below 2.0.



le 14-9	e 14-9 Capped Assay Statistics sorted by Domain at Island Mountain									
Domain	Variable	Number of	Mean	Standard	Minimum	Maximum	Coefficient of			
		Assays	Grade	Deviation	Value	Value	Variation			
	Au (g/t)		0.12	0.30	0.002	2.70	2.57			
ХНО	Ag (g/t)	444	0.40	0.46	0.25	5.00	1.17			
	Cu (%)		0.02	0.02	0.001	0.20	1.30			
	Au (g/t)		0.22	0.48	0.002	7.00	2.17			
IIDIP	Ag (g/t)	2,052	0.64	0.85	0.25	12.00	1.31			
	Cu (%)		0.03	0.03	0.001	0.36	1.02			
	Au (g/t)		0.86	0.79	0.002	3.60	0.92			
BXIIM	Ag (g/t)	151	3.46	2.88	0.25	14.00	0.83			
	Cu (%)		0.20	0.15	0.002	0.60	0.72			
	Au (g/t)		0.64	1.07	0.002	8.00	1.68			
BXM	Ag (g/t)	298	0.96	1.72	0.25	14.00	1.80			
	Cu (%)		0.05	0.07	0.001	0.41	1.49			
	Au (g/t)		0.52	0.62	0.005	5.00	1.20			
BXMA	Ag (g/t)	502	2.15	2.28	0.25	14.00	1.06			
	Cu (%)		0.11	0.12	0.001	0.82	1.10			
	Au (g/t)		0.18	0.28	0.002	2.00	1.52			
BXIID	Ag (g/t)	267	0.87	0.94	0.25	6.00	1.08			
	Cu (%)		0.04	0.04	0.001	0.24	1.08			
	Au (g/t)		0.25	0.43	0.002	4.00	1.74			
APO	Ag (g/t)	362	1.61	1.46	0.25	10.10	0.91			
	Cu (%)		0.08	0.08	0.001	0.52	0.95			
	Au (g/t)		0.11	0.13	0.008	0.60	1.18			
IIDIH	Ag (g/t)	92	0.39	0.29	0.25	1.50	0.76			
	Cu (%)		0.02	0.03	0.001	0.14	1.16			
	Au (g/t)		0.09	0.28	0.002	2.00	2.97			
WASTE	Ag (g/t)	908	0.58	0.53	0.25	4.00	0.91			
	Cu (%)		0.02	0.02	0.001	0.10	0.89			

14.2.3 Composites

Assay lengths ranged from a low of 0.37 m to a high of 6.0 m within the mineralized domains as shown in Figure 14-7. To help smooth grades and be a multiple of a possible bench height a composite length of 5.0 m was selected. Composites were formed down drill holes starting and ending at the domain boundaries. If a composite length at a domain boundary was less than 2.5 m it was combined with an adjacent sample. In this manner composites formed a uniform support of 5 ± 2.5 m.



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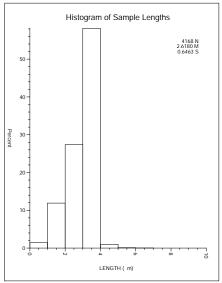


Figure 14-7 Histogram of sample lengths.

The composite statistics are tabulated below.

able 14-10	5 m composite statistics sorted by Domain at Island Mountain								
Domain	Variable	Number of	Mean	Standard	Minimum	Maximum	Coefficient of		
		Composites	Grade	Deviation	Value	Value	Variation		
	Au (g/t)		0.12	0.21	0.004	1.61	1.86		
ХНО	Ag (g/t)	238	0.39	0.34	0.25	2.65	0.88		
	Cu (%)		0.02	0.02	0.003	0.13	1.03		
	Au (g/t)		0.20	0.34	0.002	3.34	1.65		
IIDIP	Ag (g/t)	1,073	0.64	0.74	0.25	10.30	1.15		
	Cu (%)		0.03	0.03	0.001	0.35	0.89		
	Au (g/t)		0.82	0.65	0.065	3.11	0.80		
BXIIM	Ag (g/t)	79	3.40	2.25	0.53	10.75	0.66		
	Cu (%)		0.19	0.11	0.02	0.49	0.59		
	Au (g/t)		0.65	0.82	0.002	4.34	1.27		
BXM	Ag (g/t)	165	0.93	1.47	0.25	10.40	1.58		
	Cu (%)		0.05	0.06	0.001	0.35	1.32		
	Au (g/t)		0.52	0.52	0.016	4.18	0.99		
BXMA	Ag (g/t)	260	2.11	1.83	0.25	10.12	0.87		
	Cu (%)		0.11	0.10	0.002	0.72	0.95		
	Au (g/t)		0.17	0.21	0.014	1.27	1.23		
BXIID	Ag (g/t)	137	0.83	0.75	0.25	3.52	0.90		
	Cu (%)		0.04	0.04	0.002	0.23	0.96		
	Au (g/t)		0.24	0.34	0.016	2.58	1.43		
APO	Ag (g/t)	198	1.58	1.19	0.25	9.70	0.76		
	Cu (%)		0.08	0.06	0.002	0.45	0.81		

 Table 14-10
 5 m Composite Statistics sorted by Domain at Island Mountain



	Au (g/t)		0.11	0.10	0.01	0.43	0.96
IIDIH	Ag (g/t)	54	0.39	0.28	0.25	1.31	0.71
	Cu (%)		0.02	0.02	0.002	0.11	0.97
	Au (g/t)		0.09	0.22	0.002	1.87	2.60
WASTE	Ag (g/t)	509	0.59	0.48	0.25	4.00	0.81
	Cu (%)		0.02	0.02	0.002	0.10	0.81

Pearson coefficient correlations between Au, Ag and Cu were calculated for each of the 9 domains and are shown below.

14-11	Pearson Cor	Pearson Correlation Coefficients in 5 m Composite sorted by Doma										
	Domain	Number of	Au:Ag	Au:Cu	Ag:Cu	i i						
		Composites	Correlation	Correlation	Correlation	I						
	ХНО	238	0.2719	0.2239	0.5840	I						
	IIDIP	1073	0.2608	0.3752	0.5975	I						
	BXIIM	79	0.4863	0.6341	0.7931	I						
	BXM	165	0.1236	0.1951	0.7744	I						
	BXMA	260	0.4116	0.4948	0.8387	I						
	BXIID	137	0.1418	0.3734	0.5582	I						
	APO	198	0.5191	0.6162	0.8045	I						
	IIDIH	54	0.3410	0.1010	0.2932	I						
	WASTE	509	0.2868	0.1289	0.5117	I						

Table

14.2.4 Variography

For each variable in each domain, pairwise relative semivariograms were used, to model grade continuity. Due to the lack of data in some domains meaningful models could not always be obtained. As a result domains were combined based on the grade distributions for the three variables. The diorite porphyry domain (IIDIP) was modelled independently. Three of the breccia units (BXIIM, BXM and BXMA) were combined and modelled together. The waste unit was modelled separately. The remaining domains had insufficient data to model so for estimation purposes domain XHO and IIDIH used the diorite porphyry model while domains BXIID and APO used the breccia model.

Semivariograms were first produced in the four horizontal directions corresponding to azimuths 90, 0, 45 and 135 degrees. From these results the longest continuity for gold in the breccia units was found along azimuth 135. A similar exercise was completed for variables in domain IIDIP where the direction of longest continuity was along azimuth 25°.

The modelling exercise was completed for Ag and Cu in same manner as for gold. The semivariogram parameters are tabulated below and the models for gold are shown in Appendix E.



Domain	Variable	Az / Dip	C ₀	C ₁	C ₂	Short	Long
						Range (m)	Range (m)
		135 / 0				20.0	100.0
	Au	45 / 0	0.16	0.20	0.22	30.0	50.0
		0 / -90				50.0	100.0
Breccias		135 / 0				30.0	100.0
(BXIIM, BXM,	Ag	45 / 0	0.20	0.10	0.12	30.0	50.0
BXMA)		0 / -90				40.0	100.0
		135 / 0				20.0	100.0
	Cu	45 / 0	0.15	0.10	0.30	30.0	50.0
		0 / -90				30.0	80.0
	Au	25 / 0	0.15	0.30	0.35	60.0	230.0
		Au 285 / 0				70.0	150.0
		0 / -90				60.0	250.0
Diarita Darphyry		25 / 0				30.0	80.0
Diorite Porphyry (IIDIP)	Ag	285 / 0	0.15	0.10	0.16	20.0	40.0
		0 / -90				50.0	100.0
		25 / 0				40.0	100.0
	Cu	285 / 0	0.10	0.10	0.20	30.0	50.0
		0 / -90				50.0	90.0
	Au	Omni Directional	0.20	0.24	0.10	25.0	50.0
Waste	Ag	Omni Directional	0.05	0.06	0.18	15.0	80.0
	Cu	Omni Directional	0.10	0.05	0.11	12.0	80.0

Table 14-12 Semivariogram parameters for Island Mountain

14.2.5 Bulk Density

For the Island Mountain deposit a total of 218 samples from 4 diamond drill holes (IM10-004, IM10-009, IM10-13 and IM11-020) were tested for specific gravity using the Archimedes method. Samples were weighed in air (Wa) and weighed in water (Ww) with the specific gravity being equal to Wa / (Wa-Ww). The results are tabulated below in Table 14-13 sorted by domain.

Table 14-13 Specific gravity Determinations from Island N

Domain	Number	Min. SG	Max. SG	Average SG
ХНО	15	2.70	3.08	2.80
IIDIP	93	2.51	3.33	2.76
BXIIM	12	2.58	2.89	2.69
BXM	23	2.43	3.02	2.76
BXMA	28	2.63	3.42	2.91
APO	29	2.65	3.10	2.76
BXIID	16	2.63	3.72	2.92



Domain IIDIH and Waste were assigned a specific gravity of 2.76 as no samples from these lithologies were measured. A weighted average specific gravity was calculated for blocks containing more than one domain.

14.2.6 Block Model

A block model with blocks 10 x 10 x 10 m in dimension was superimposed over the geologic domains. For each block the percentage below surface topography and the percentage within each of the geologic solids was recorded. The model was edited to insure the total percentages in the various geologic solids equalled the percent below surface topography. The block model origin is shown below.

Lower Left Corner		
511715 East	Column size = 10 m	143 Columns
6847330 North	Row size = 10 m	75 Rows
Top of Model		
1470 Elevation	Level size = 10 m	98 Levels
No Rotation		

14.2.7 Grade Interpolation

Grades for gold, silver and copper were interpolated into blocks using Ordinary Kriging. The kriging exercise was completed in a series of 4 passes using search parameters tied to the semivariograms. Pass 1 required a minimum of 4 composites with a maximum of 3 from any single drill hole to be found within a search ellipsoid with dimensions equal to ¼ of the semivariogram range. For blocks not estimated in pass 1 a second pass was completed with search ellipsoid dimensions equal to ½ the semivariogram range. A third pass using the full variogram range was then completed. Finally for blocks containing multiple domains that had an estimated grade for one domain but not for the others a fourth pass was completed to insure all domains were estimated. In all passes the maximum number of composites used was set to 12.

For the three breccia units (BXM, BXMA and BXIIM) blocks were estimated for Au, Ag and Cu if they contained any percentage of these breccia units using soft boundaries. The estimate used the semivariogram models developed for breccias.

For blocks containing any percentage of Actinolite-Pyrrhotite Crackle Breccia (APO) only the APO composites were used. The estimate used the semivariogram models developed for breccias.

For blocks containing any percentage of Intrusion Breccia – Diorite (BXIID) grades were kriged using only IIDIH composites and the semivariogram model for diorite porphyry.

For blocks containing any percentage of Hornblende Porphyry (IIDIH) grades were kriged using only BXIID composites and the semivariogram model for diorite porphyry.

Blocks containing some percentage of Hornfels (XHO) were estimated using only XHO composites and the semivariogram model for diorite porphyry.



Blocks containing some percentage of Diorite Porphyry (IIDIP) were estimated using only IIDIP composites and the semivariogram model for diorite porphyry.

Finally any estimated blocks along the edges of the deposit that contained some percentage of external waste were estimated using waste composites from outside all the modelled solids and the isotropic semivariogram models for waste.

For blocks containing more than one domain a weighted average grade was calculated for each variable based on the percentages of each domain present in the block.

The kriging parameters used in each pass are shown for gold in Table 14-14.

Domain	Pass	Az / Dip	Dist.	Az / Dip	Dist.	Az / Dip	Dist.
			(m)		(m)		(m)
Proceins	1	135 / 0	25.0	45 / 0	12.5	0 / -90	25.0
Breccias	2	135 / 0	50.0	45 / 0	25.0	0 / -90	50.0
(BXIIM, BXM, BXMA & APO)	3	135 / 0	100.0	45 / 0	50.0	0 / -90	100.0
	1	25/0	57.5	295 / 0	37.5	0 / -90	62.5
IIDIP, XHO, IIDIH, BXIID	2	25/0	115.0	295 / 0	75.0	0 / -90	125.0
	3	25/0	230.0	295 / 0	150.0	0 / -90	250.0
	1	Omni Dir	Omni Directional				
Waste	2	Omni Dir	ectional		25.0		
	3	Omni Dir	ectional		50.0		

 Table 14-14
 Kriging Parameters for gold in all domains at Island Mountain



14.3 Classification: Raintree West and Island Mountain

Based on the study herein reported, delineated mineralisation, at the Island Mountain and Raintree West Deposits, is classified as a resource according to the following definitions from National Instrument 43-101 and from CIM (2014):

"In this Instrument, the terms "Mineral Resource", "Inferred Mineral Resource", "Indicated Mineral Resource" and "Measured Mineral Resource" have the meanings ascribed to those terms by the Canadian Institute of Mining, Metallurgy and Petroleum, as the CIM Definition Standards (May 2014) on Mineral Resources and Mineral Reserves adopted by CIM Council, as those definitions may be amended."

The terms Measured, Indicated and Inferred are defined by CIM (2014) as follows:

"A Mineral Resource is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling."

"The term Mineral Resource covers mineralisation and natural material of intrinsic economic interest which has been identified and estimated through exploration and sampling and within which Mineral Reserves may subsequently be defined by the consideration and application of Modifying Factors. The phrase 'reasonable prospects for economic extraction' implies a judgement by the Qualified Person in respect of the technical and economic factors likely to influence the prospect of economic extraction. The Qualified Person should consider and clearly state the basis for determining that the material has reasonable prospects for eventual economic extraction. Assumptions should include estimates of cut-off grade and geological continuity at the selected cut-off, metallurgical recovery, smelter payments, commodity price or product value, mining and processing method and mining, processing and general and administrative costs. The Qualified Person should state if the assessment is based on any direct evidence and testing. Interpretation of the word 'eventual' in this context may vary depending on the commodity or mineral involved. For example, for some coal, iron, potash deposits and other bulk minerals or commodities, it may be reasonable to envisage 'eventual economic extraction' as covering time periods in excess of 50 years. However, for many gold deposits, application of the concept would normally be restricted to perhaps 10 to 15 years, and frequently to much shorter periods of time."

Inferred Mineral Resource

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



"An 'Inferred Mineral Resource' is based on limited information and sampling gathered through appropriate sampling techniques from locations such as outcrops, trenches, pits, workings and drill holes. Inferred Mineral Resources must not be included in the economic analysis, production schedules, or estimated mine life in publicly disclosed Pre-Feasibility or Feasibility Studies, or in the Life of Mine plans and cash flow models of developed mines. Inferred Mineral Resources can only be used in economic studies as provided under NI 43-101."

"There may be circumstances, where appropriate sampling, testing, and other measurements are sufficient to demonstrate data integrity, geological and grade/quality continuity of a Measured or Indicated Mineral Resource, however, quality assurance and quality control, or other information may not meet all industry norms for the disclosure of an Indicated or Measured Mineral Resource. Under these circumstances, it may be reasonable for the Qualified Person to report an Inferred Mineral Resource if the Qualified Person has taken steps to verify the information meets the requirements of an Inferred Mineral Resource."

Indicated Mineral Resource

"An 'Indicated Mineral Resource' is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation. An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve." "Mineralisation may be classified as an Indicated Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such as to allow confident interpretation of the geological framework and to reasonably assume the continuity of mineralisation. The Qualified Person must recognise the importance of the Indicated Mineral Resource category to the advancement of the feasibility of the project. An Indicated Mineral Resource estimate is of sufficient quality to support a Preliminary Feasibility Study which can serve as the basis for major development decisions."

Measured Mineral Resource

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

"Mineralisation or other natural material of economic interest may be classified as a Measured Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such that the tonnage and grade or quality of the mineralisation can be estimated to within close limits and that variation from the estimate would not significantly affect potential economic viability of the deposit.



This category requires a high level of confidence in, and understanding of, the geology and controls of the mineral deposit."

Modifying Factors

"Modifying Factors are considerations used to convert Mineral Resources to Mineral Reserves. These include, but are not restricted to, mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors."

For Island Mountain, the geologic continuity was established from surface mapping and drill hole logging. Three dimensional geologic solids were constructed to constrain the resource estimate. At Raintree West the deposit was covered with overburden and a grade shell was used to constrain the estimate.

Grade continuity as determined by semivariograms was used to orient and dimension the search ellipsoids during estimation at both deposits.

For the Island Mountain Deposit blocks estimated in Pass 1 or Pass 2 using up to ½ the semivariogram range for each domain were classified as Indicated. All other blocks were classified as Inferred. Only estimated blocks above the 900 elevation level were reported.

For Raintree West the density of drilling, at this time, did not allow for any blocks to be classified higher than Inferred.

Due to the estimation of three variables a gold equivalent (AuEq) value was determined for both deposits. Gold equivalent was determined for Island Mountain as follows:

Assume for Island Mountain	
Gold price of US\$1250/oz	Gold Recovery by cyanide of 90%
Copper price of US\$2.10	Copper Recovery by floatation of 80%
Silver price of US\$16.50/oz	Silver Recovery of 25% in copper concentrate

AuEq = (Au g/t * 1250 * .90 / 31.1035) + (Cu % * 2.10 * .80 * 22.0462) + (Ag g/t * 16.50 * 0.25 / 31.1035)(1250 * .90 / 31.1035)

For Raintree West the recoveries were taken from metallurgical studies at the nearby Whistler Deposit. Assume for Raintree West

Gold price of US\$1250/oz Copper price of US\$2.10 Silver price of US\$16.50/oz

Gold Recovery of 75% Copper Recovery of 85% Silver Recovery of 75%

AuEq = (Au g/t * 1250 * .75 / 31.1035) + (Cu % * 2.10 * .85 * 22.0462) + (Ag g/t * 16.50 * 0.75 / 31.1035)(1250 * .75 / 31.1035)

There have been no economic studies done on either deposit so an economic cut-off at this time is unknown. In the author's judgement and experience the resource stated has reasonable prospects of



economic extraction. Based on the study completed on the nearby Whistler Deposit where a conceptual pit was produced (MMTS, 2015) a cut-off of 0.3 g/t AuEq has been highlighted as a possible cut-off for an open pit at Island Mountain.

Cut-off		Grade > Cut-off Contained Metal							
AuEq [*] (g/t)	uEq* Ionnes > Cut-off Au Ag Cu AuEq (tonnes) (g/t) (g/t) (%) (g/t)	Au Million ozs	Ag Million ozs	Cu Million Ibs	AuEq Million ozs				
0.25	42,500,000	0.42	1.02	0.05	0.47	0.570	1.394	46.86	0.646
0.30	31,080,000	0.49	1.10	0.06	0.55	0.485	1.099	41.12	0.547
0.35	23,410,000	0.55	1.20	0.06	0.62	0.415	0.903	30.97	0.467
0.40	18,200,000	0.62	1.32	0.07	0.69	0.360	0.772	28.09	0.405
0.45	14,660,000	0.67	1.43	0.08	0.76	0.317	0.674	25.86	0.356
0.50	12,120,000	0.73	1.55	0.08	0.82	0.283	0.604	21.38	0.318
0.55	10,260,000	0.77	1.65	0.09	0.87	0.255	0.544	20.36	0.287
0.60	8,780,000	0.82	1.74	0.09	0.92	0.230	0.491	17.42	0.259
0.65	7,600,000	0.86	1.80	0.10	0.96	0.210	0.440	16.76	0.236
0.70	6,480,000	0.91	1.83	0.10	1.02	0.189	0.381	14.29	0.211
0.75	5,580,000	0.95	1.85	0.10	1.06	0.171	0.332	12.30	0.191
0.80	4,740,000	1.00	1.87	0.10	1.11	0.153	0.285	10.45	0.170

Table 14-15Island Mountain Indicated Resource

Table 14-16 Island Mountain Inferred Resource

Cut off		Grade	e > Cut-	off		Contained Metal			
Cut-off AuEq [*] (g/t)	Tonnes > Cut-off (tonnes)	Au (g/t)	Ag (g/t)	Cu (%)	AuEq (g/t)	Au Million ozs	Ag Million ozs	Cu Million Ibs	AuEq Million ozs
0.25	104,030,000	0.42	0.96	0.05	0.47	1.408	3.211	114.69	1.582
0.30	82,020,000	0.47	1.02	0.05	0.53	1.237	2.690	90.43	1.390
0.35	63,560,000	0.52	1.10	0.06	0.59	1.069	2.248	84.09	1.197
0.40	48,840,000	0.58	1.20	0.06	0.65	0.912	1.884	64.62	1.021
0.45	39,000,000	0.63	1.31	0.07	0.71	0.792	1.643	60.20	0.886
0.50	31,970,000	0.68	1.40	0.07	0.76	0.697	1.439	49.35	0.780
0.55	27,440,000	0.71	1.46	0.08	0.80	0.630	1.288	48.40	0.704
0.60	23,180,000	0.75	1.52	0.08	0.84	0.560	1.133	40.89	0.625
0.65	19,770,000	0.79	1.56	0.08	0.88	0.500	0.992	34.87	0.557
0.70	16,830,000	0.82	1.61	0.08	0.91	0.443	0.871	29.69	0.493
0.75	13,730,000	0.86	1.68	0.09	0.95	0.378	0.742	27.25	0.421
0.80	10,550,000	0.91	1.78	0.09	1.01	0.307	0.604	20.94	0.342

^{*}Gold Equivalent grades assume metal prices of US\$1250 /oz Au, US\$16.50/oz Ag and \$2.10/lb Cu and recoveries of 90% for gold (cyanide), 80% for Cu (by floatation) and 25% Ag (recovery in Copper



Concentrate). A 0.30 g/t Au Equivalent cut-off has been highlighted as a possible open pit cut-off based on studies completed at the nearby Whistler Deposit.

For Raintree West the significant mineralization occurs near surface in the south east and at depth. The near surface material (above 250 m elevation) could be possibly minable by open pit using a 0.3 g/t AuEq cut-off similar to Whistler and Island Mountain. The mineralization at depth (below 100 m elevation) might be minable by block cave. An analogous deposit might be New Afton in Kamloops where resources are reported at a 0.4 % CuEq for a block cave operation. (http://www.newgold.com/investors/reserves-and-resources/default.aspx). Considering the differences in infrastructure a AuEq cut-off of 0.6 g/t might be reasonable for the deep mineralization at Raintree West.

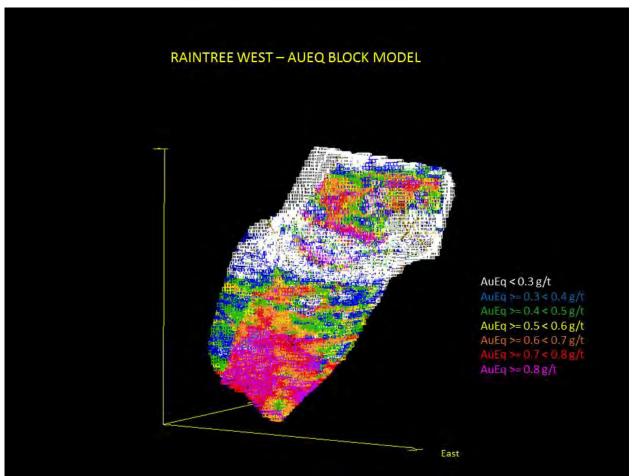


Figure 14-8 Isometric view of Raintree West showing near surface and deep mineralization.



Cut off		Grade	e > Cut-	off		Contained Metal			
Cut-off AuEq [*] (g/t)	Tonnes > Cut-off (tonnes)	Au (g/t)	Ag (g/t)	Cu (%)	AuEq (g/t)	Au Million ozs	Ag Million ozs	Cu Million Ibs	AuEq Million ozs
0.25	38,620,000	0.36	5.09	0.05	0.50	0.452	6.320	42.58	0.625
0.30	31,680,000	0.40	5.39	0.06	0.55	0.409	5.490	41.91	0.563
0.35	26,980,000	0.43	5.66	0.07	0.59	0.376	4.910	41.64	0.514
0.40	22,940,000	0.46	5.93	0.07	0.63	0.341	4.374	35.41	0.465
0.45	18,920,000	0.50	6.21	0.07	0.68	0.303	3.777	29.20	0.411
0.50	15,340,000	0.54	6.45	0.08	0.72	0.264	3.181	27.06	0.356
0.55	12,310,000	0.58	6.67	0.08	0.77	0.228	2.640	21.71	0.305
0.60	9,800,000	0.62	6.85	0.08	0.82	0.196	2.158	17.29	0.259
0.65	7,840,000	0.67	7.02	0.09	0.87	0.168	1.769	15.56	0.220
0.70	6,210,000	0.71	7.17	0.09	0.92	0.142	1.432	12.32	0.184
0.75	4,780,000	0.77	7.24	0.09	0.98	0.118	1.113	9.49	0.151
0.80	3,650,000	0.83	7.22	0.09	1.05	0.097	0.847	7.24	0.123

Table 14-17 Raintree West Inferred Resource above 250 m elevation

 Table 14-18
 Raintree West Inferred Resource below 100 m elevation

Cut-off		Grade	Grade > Cut-off			Contained Metal			
AuEq [*] (g/t)	Tonnes > Cut-off (tonnes)	Au (g/t)	Ag (g/t)	Cu (%)	AuEq (g/t)	Au Million	Ag Million	Cu Million	AuEq Million
(6/ 4)		16/ 4	(8/ 7)	(/0)	(6/ 4)	OZS	OZS	lbs	OZS
0.50	64,460,000	0.63	3.76	0.09	0.80	1.295	7.792	127.92	1.652
0.55	57,470,000	0.65	3.77	0.10	0.83	1.208	6.966	126.72	1.534
0.60	51,760,000	0.68	3.74	0.10	0.86	1.130	6.224	114.13	1.428
0.65	46,360,000	0.70	3.71	0.10	0.89	1.048	5.530	102.22	1.321
0.70	40,780,000	0.73	3.70	0.11	0.91	0.954	4.851	98.91	1.198
0.75	35,290,000	0.75	3.72	0.11	0.94	0.855	4.221	85.60	1.071
0.80	29,750,000	0.78	3.76	0.11	0.98	0.746	3.596	72.16	0.933

^{*}Gold Equivalent grades assume metal prices of US\$1250 /oz Au, US\$16.50/oz Ag and \$2.10/lb Cu and recoveries from Whistler Deposit of 75% for gold, 85% for Cu and 75% Ag. A 0.30 g/t Au Equivalent cutoff has been highlighted for material above a 250 m elevation while a 0.60 g/t Au Equivalent cut-off has been highlighted for material below the 100 m elevation as a possible block cave cut-off based on New Afton Mines.



14.3.1 Block Model Verification

A check on the block model results has been completed by comparing the average composite grade for each domain with the average kriged grades for that domain (see Table 14-19 and Table 14-20). For both deposits the results are reasonable with no bias indicated.

Domain	Variable	Number of	Mean	Number of	Mean
Domain	variable	Assays	Grade Composites	Blocks	Grade Blocks
	Au (g/t)		0.12		0.10
ХНО	Ag (g/t)	238	0.39	97,804	0.36
	Cu (%)		0.02		0.02
	Au (g/t)		0.20		0.21
IIDIP	Ag (g/t)	1,073	0.64	206,655	0.66
	Cu (%)		0.03		0.03
BRECCIA	Au (g/t)		0.61		0.57
(BXIIM, BXM,	Ag (g/t)	504	1.93	15,933	1.61
and BXMA)	Cu (%)		0.10		0.08
	Au (g/t)		0.17		0.19
BXIID	Ag (g/t)	137	0.83	5,759	0.91
	Cu (%)		0.04		0.04
	Au (g/t)		0.24		0.33
APO	Ag (g/t)	198	1.58	6,798	1.70
	Cu (%)		0.08		0.08
	Au (g/t)		0.11		0.16
IIDIH	Ag (g/t)	54	0.39	5,237	0.45
	Cu (%)		0.02		0.02

 Table 14-19
 Comparison of Composite Mean Grades to Block Mean Grades at Island Mt.

Table 14-20 Comparison of Composite Mean Grades to Block Mean Grades at Raintree
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Domain	Variable	Number of Assays	Mean Grade Composites	Number of Blocks	Mean Grade Blocks
Mineralized	Au (g/t)		0.25		0.27
Solid	Ag (g/t)	993	3.14	105,779	3.09
30110	Cu (%)		0.03		0.04

A second check of the block model was made using cross sections and visually comparing block grades with drill hole composite grades. Again the results were reasonable with no bias indicated. The cross sections for both Island Mountain and Raintree West are shown in Appendix F and G respectively.

There are no known significant environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other factors that could materially affect the resource estimates for Island Mountain or Raintree West.



14.4 Whistler Deposit

The Mineral Resource estimate for the Whistler Deposit was initially prepared by Susan C. Bird, P.Eng. of MMTS (see MMTS, 2015). This estimate is identical to historic estimate previously prepared for Kiska in March, 2011 which is an update from the 2008 resource estimate based on 2010 drilling and updated geology. GCL has reviewed the Whistler Deposit resource estimate and is of the opinion that the data, methods and results are appropriate for the deposit and that the results from MMTS (2015), as described verbatim below, are current. The resource model is built using MineSight[®], an industry standard in geologic modeling and mine planning software. The three dimensional block model has block dimensions of 20 m x 20 m x 10 m to cover the extent of the mineralized zone, as well as all pit limits tested. A three dimensional solid based on geology of the porphyry deposit is used to constrain the limits of mineralization in the block model. Gold, copper, and silver grades are interpolated into each block based on ordinary kriging. The resource is then classified as Indicated or Inferred based on CIM Definition Standards (CIM, 2014).

The Whistler Deposit is a structurally controlled porphyry deposit with Au, Cu and Ag as the primary economic metals. There have been three major intrusive episodes, which define the mineralization at Whistler. The earliest, Main Stage Porphyry (MSP), being that of principal mineralization. A major northwest trending fault (the Divide Fault) is used to segregate the mineralization into two domains prior to grade interpolation. There is some evidence that lateral offsets of as much as 100 m may have occurred along this fault.

Statistical analysis (cumulative probability plots, histograms, classic statistical values) of the assay data is used to confirm the domain selection, to decide if capping is necessary, and to determine the extent of non-mineralized zones within the diorite solid. Assay data is then composited into 5 m intervals, honoring the domain boundaries, with composite statistics also compiled for comparison with assay and block model data. The composites are used to create variograms for Au, Cu, and Ag, in order to help define rotation and search parameters for the block model interpolation.

Validation of the model is completed by comparison of the block values with de-clustered composite values, with values interpolated by inverse distance, by the use of swath plots, tonnage grade curves, and by visual inspections in section and plan across the property.

Specific gravity values are based on 21 measurements by ALS Chemex to give an average density of 2.72 for ore, and 2.60 for waste.

14.4.1 Assay Data – Whistler Deposit

Drillhole data includes all 48 holes drilled at the Whistler Deposit. A 3D solid of the diorite intrusion has been created based on the logged geology. The geology has also been used to define the Divide Fault as a major fault and domain boundary within the deposit.



Figure 14-9 is a plan view of the drilling, showing the mineralized rock types as Indicated by the assay data, and the domain solids.

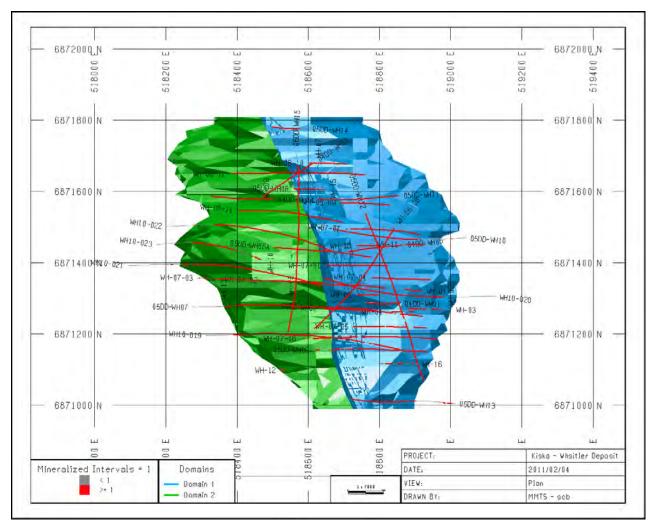


Figure 14-9 Plan view of the Mineralized Assay Intervals and Domains of the Diorite Solid (MMTS, 2015).



A three dimensional view looking north of the domains and the Divide Fault as modeled is illustrated in Figure 14-10, with the surface contours also plotted.

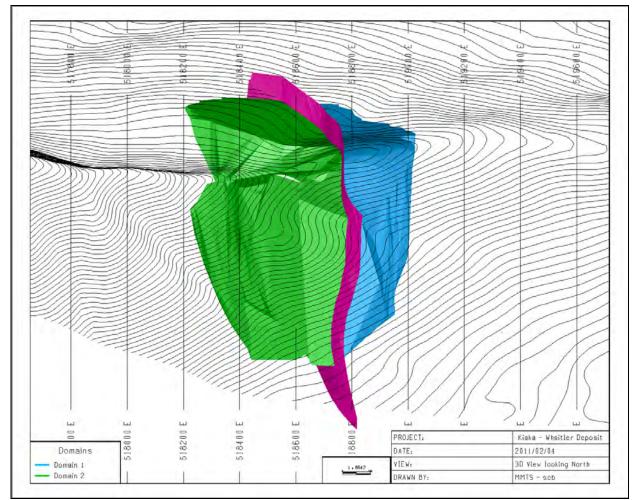


Figure 14-10 Divide Fault and Domains Modeled from Drillhole Geology (MMTS, 2015).



Within the mineralized diorite body, non-mineralized intervals indicated by assay data have been determined to be of insignificant length and occurrence. This is evident from Figure 14-9 which indicates the scarcity and discontinuity of any non-mineralized intervals. Statistics of the assays for the mineralized and non-mineralized zones within the diorite (summarized in Table 14-21) also indicate the relative lack of non-mineralized intervals with only 532 in total, representing only 5% of the data.

	A	u	C	u	A	g	Assay I	nterval
Parameter	Mineralized	Un- Mineralized	Mineralized	Un- Mineralized	Mineralized	Un- Mineralized	Mineralized	Un- Mineralized
Num. Samples	9952	513	9951	513	9937	513	9982	532
Missing Samples	30	19	31	19	45	19	0	0
Mean	0.3401	0.133	0.1286	0.0607	1.7653	1.3471	1.6001	1.6844
Min	0.001	0.001	0	0	0.001	0.001	0.01	0.01
Max	10.667	5.18	3.09	0.607	186	39	6.1	9.9
SD	0.5816	0.3833	0.1475	0.0772	5.1967	2.3218	0.8246	1.1771
Variance	0.3382	0.1469	0.0217	0.006	27.0053	5.3906	0.68	1.3855
CV	1.7098	2.8817	1.1463	1.2716	2.9438	1.7235	0.5154	0.6988
Weighted mean	0.3128	0.106	0.122	0.0551	1.6177	1.2	1.6001	1.6844
Weighted SD	0.549	0.2872	0.1367	0.0656	4.2387	1.8863	0.8246	1.1771
Weighted variance	0.3014	0.0825	0.0187	0.0043	17.9669	3.5582	0.68	1.3855
Weighted CV	1.7552	2.7099	1.1206	1.1915	2.6202	1.5719	0.5154	0.6988

Table 14-21 Summary Statistics of Assay Data, Mineralized and Non-Mineralized Intervals

Cumulative probability plots (CPP) are used to define the two domains as separate populations for block model interpolation. Figure 14-11 and Figure 14-12 show the CPP plots for Au and Cu respectively, by domain. The assay statistics of each domain are summarized in the Table 14-22. These indicate that the domains have separate populations, with Domain 1 (east of the Divide fault) having higher mean grades of both Au and Cu. Because these plots indicate a near linear trend even at higher grades, no capping of the assays data prior to compositing is deemed necessary.



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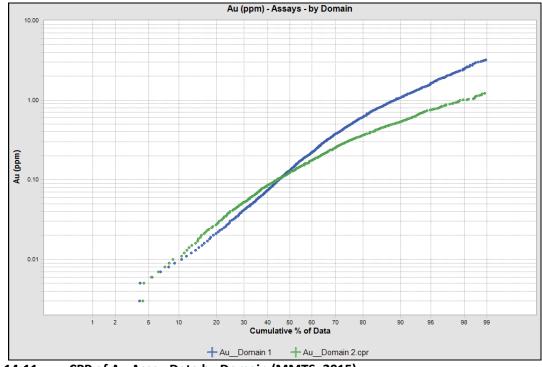


Figure 14-11 CPP of Au Assay Data by Domain (MMTS, 2015).

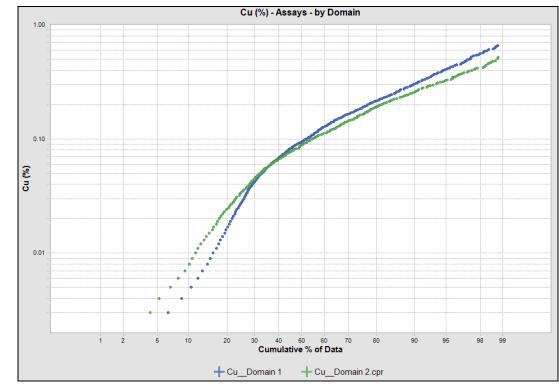


Figure 14-12 CPP of Cu Assay Data by Domain (MMTS, 2015).



Ag

Domain 2

4051 38

1.6581

0.001

6.2116

38.5837

3.7462

1.477

4.691

3.176

22.0059

186

main 1

0

1.305

0.1159

0.0134

1.0117

0.1075

0.1075

0.0115

0.9999

6414

0.001

151.8

4.2337

17.924

2.3526

1.684

3.719

13.8312

2.2084

30 1.7996

Table 14-22 Su	mmary Statistic	cs of Assay D	ata by Domain			
	Au	Au Cu				
Parameter	Domain 1	Domain 2	Domain 1	Domain 2	Dor	
Num. Samples	6424	4056	6424	4055		
Num. Missing Samples	20	33	20	34		
Mean	0.3988	0.2214	0.1323	0.1145		

0.001

0.288

0.083

1.301

0.2023

0.2646

1.3077

0.07

4.53

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Table 14-22 S	Summary Statistics o	f Assay Data b	y Domain
---------------	----------------------	----------------	----------

0.001

10.667

0.6893

0.4751

1.7283

0.3751

0.6641

0.441

1.7702

14.4.2 Compositing

Min

Max

Variance

Weighted mean

Weighted variance

Weighted SD

Weighted CV

SD

CV

Compositing of Au, Ag and Cu grades have been done as 5 m fixed length composites. Small intervals less than 2 m are merged with the up hole composite if the composite length is less than 5 m. Domain boundaries are honored during compositing. Table 14-23 summarizes the statistics of the composite data.

0

3.09

0.1611

0.0259

1.2179

0.1268

0.1511

0.0228

1.1914

		Au Cu Ag		Cu		g
Parameter	Domain 1	Domain 2	Domain 1	Domain 2	Domain 1	Domain 2
Num. Samples	1958	1423	1958	1423	1957	1422
Num. Missing Samples	1	10	1	10	2	11
Mean	0.3723	0.2014	0.1259	0.107	1.6612	1.466
Min	0.001	0.001	0	0	0.001	0.001
Max	8.185	2.063	1.475	1.052	62.059	70.476
SD	0.5908	0.2326	0.1311	0.0952	2.4373	3.0201
Variance	0.3491	0.0541	0.0172	0.0091	5.9404	9.1209
CV	1.5871	1.1548	1.0412	0.8892	1.4672	2.0601
Weighted mean	0.3737	0.2017	0.1262	0.1072	1.6603	1.467
Weighted SD	0.5916	0.2324	0.1312	0.0953	2.4381	3.0334
Weighted variance	0.35	0.054	0.0172	0.0091	5.9442	9.2016
Weighted CV	1.5833	1.1523	1.0394	0.8883	1.4685	2.0678

Table 14-23 Summary Statistics of Composite Data by Domain

Correlation of Au with Cu grades is investigated with scatter plots of the composite data, as shown in Figure 14-13 and Figure 14-14. These scatter plots indicate some broad correlation of Au and Cu grades, more defined for Domain 1. Also of note, is the reduced slope for Domain 2, indicating lower Au grades. There are also significant spatial differences in the Cu-Au ratio which will be discussed in the block model results section.



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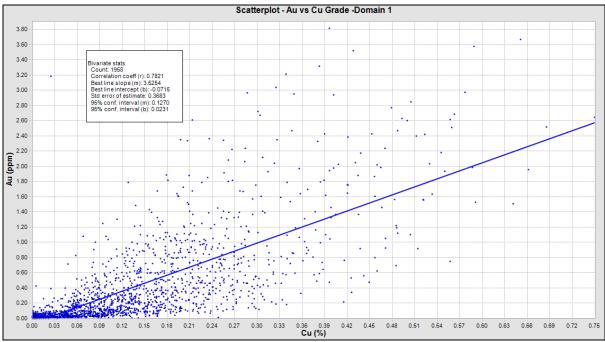


Figure 14-13 Scatter-plot of Au vs. Cu Grades – Domain 1 (MMTS, 2015).

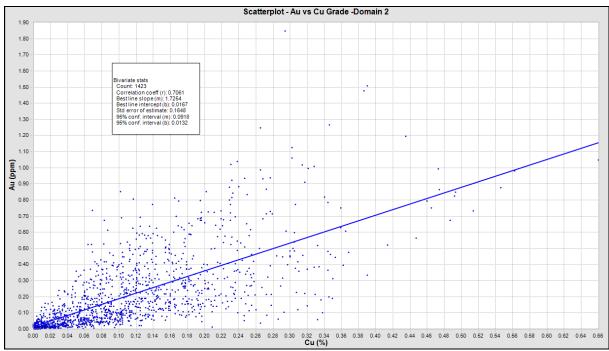


Figure 14-14 Scatter-plot of Au vs. Cu Grades – Domain 2 (MMTS, 2015).



14.4.3 Variography

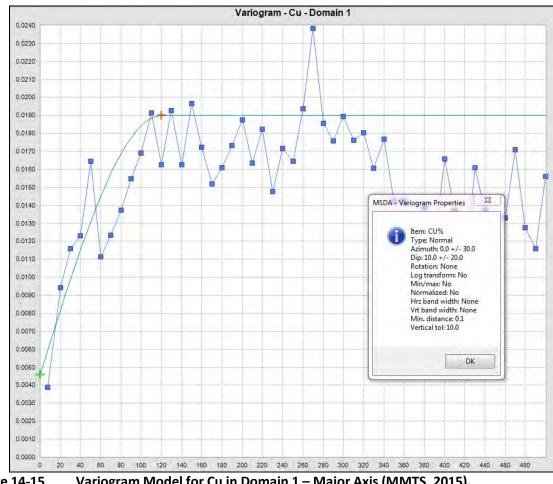
Variograms are completed for each domain at 30 degree azimuth intervals and 10 degree plunges over the entire directional sphere. The composite data set for Domain 2 is not large enough to produce reliable variograms. Therefore, the parameters found for Domain 1 are used throughout the deposit. A summary of the spherical variogram parameters is given in Table 14-24. The Au and Cu grades are defined with a single spherical variogram model, with the Ag defined by two nested spherical structures.

Parameter	۸	C 11	Ag			
Parameter	Au	Cu	Structure 1	Structure 2		
Nugget	0	0.0046	0	0		
Sill	0.3801	0.0144	2.9821	6.0998		
Range – Major	140	120	40	320		
Range – Minor	120	120	155	155		
Range – Vertical	80	110	50	190		
Azimuth – Major Axis	180	180	30	30		
Plunge – Major Axis	-70	-80	-70	-70		
Dip - East	-50	-40	-10	-10		

Table 14-24Variogram Parameters

An example of the Variogram Model for Cu in Domain 1 in the major axis direction is illustrated in the Figure below.





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Variogram Model for Cu in Domain 1 – Major Axis (MMTS, 2015). Figure 14-15

14.4.4 Block Model Interpolation and Resource Classification

The block model limits and block size are as given in Table 14-25.

Direction	Minimum	Maximum	Block Dimension	# of Blocks
Easting	517,200	519,860	20	133
Northing	6,870,000	6,873,000	20	150
Elevation	-50	1,280	10	133

Interpolation of Au, Cu and Ag values is done by ordinary kriging in two passes based on the variogram parameters. Interpolation was restricted by the Diorite Solid, with composites and block codes matching within each domain. Search parameters are summarized in the table below.



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Table 14-26 Search Parameters

Search Parameter	Pass 1	Pass 2	
Resource Classification	Indicated	Inferred	
Search distance	½ Range	Range	
Minimum # comps	4	3	
Maximum # comps	9	9	
Maximum # Comps/Hole	3	2	
Max # Comps / Split Quadrant	6	7	

Classification is based on the variogram parameters, and restrictions on the number of composites and drillholes used in each pass of the interpolation, as Indicated in Table 14-26. The definition of Indicated and Inferred used to classify the resource is in accordance with that of the CIM Definition Standards (CIM, 2014).

14.4.5 Block Model Validation

14.4.5.1 Comparison of Mean Grades

Interpolation is also done by Inverse Distance Squared ("ID2") weighting using the same search parameters to compare to the kriged values. Table 14-27 gives a summary of the mean grades for declustered composites (NN interpolation), kriged and IDW, indicating no global bias.

Table 14-27	Comparison of De-clustered Composite, Kriged, and ID2 Mean Grade Values
-------------	---

Interpolation	Au	Cu	Ag
Nearest Neighbour	0.3697	0.1359	1.7537
IDW	0.3754	0.1374	1.7212
ок	0.3673	0.1359	1.6796
Difference - IDW	1.5%	1.1%	-1.9%
Difference - OK	-2.2%	-1.1%	-2.5%

14.4.5.2 Volume-Variance Correction

Cut-off grade plots (tonnage-grade curves) are constructed for each metal to check the validity of the change of support in the grade estimations. The Nearest Neighbour grade estimates are first corrected by the affine method using the block variance. The corrected NN values for Au and Cu are plotted and compared to both the kriged values and the inverse distance squared values (Figure 14-16 and Figure 14-17). The distributions shows good correlation, and thus the change of support are valid.



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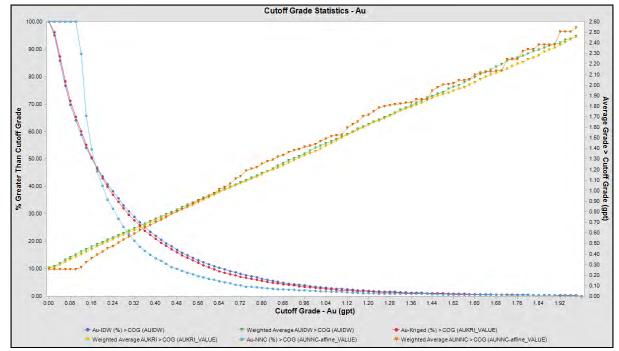


Figure 14-16 Tonnage-Grade Curves for Au – Comparison of Interpolation Methods (MMTS, 2015).



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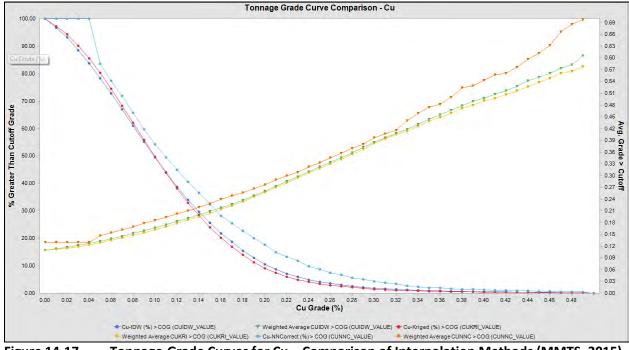


Figure 14-17 Tonnage-Grade Curves for Cu – Comparison of Interpolation Methods (MMTS, 2015).

14.4.5.3 Swath Plots

Swath plots through the diorite body are created in N-S, E-W and vertical directions for the three main metals to compare the kriged grades to those interpolated by the Nearest Neighbour method. These are illustrated in Figure 14-18 through Figure 14-20. The swath plots indicate no global bias in the kriged values, and good correlation in the main body of the data.



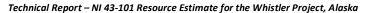




Figure 14-18

Swath Plots of Au Grade (MMTS, 2015).





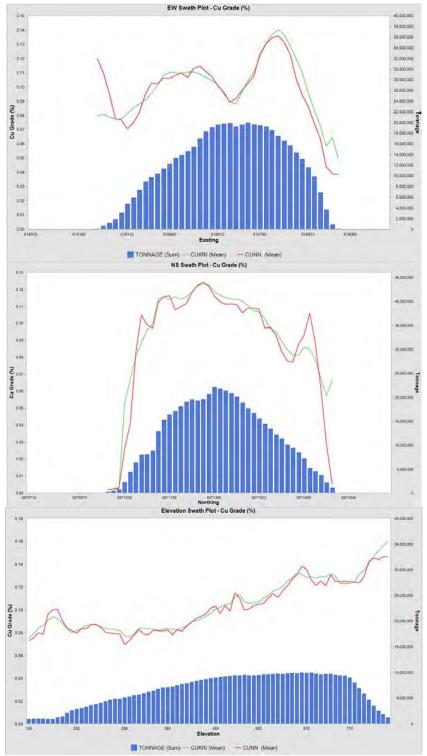


Figure 14-19

Swath Plots of Cu Grade (MMTS, 2015).



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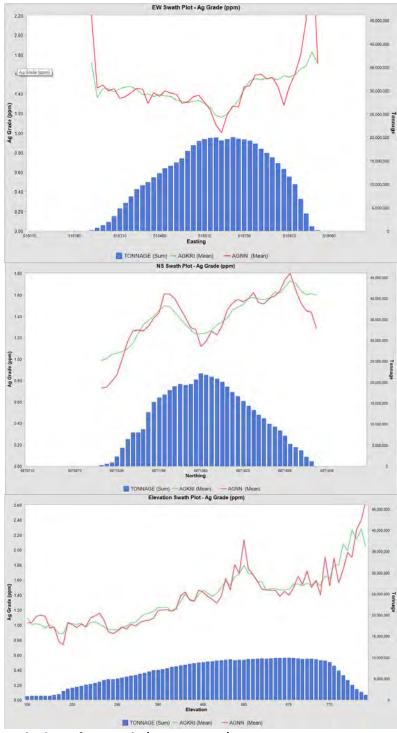


Figure 14-20

Swath Plots of Ag Grade (MMTS, 2015).



14.4.5.4 Visual Validation

A series of E-W, N-S sections (every 20m) and plans (every 10m) have been used to inspect the ordinary kriging block model grades with the original assay data. Figure 14-21 and Figure 14-22 give examples of this comparison for the E-W section at 6871290N, for Au and Cu grades respectively. Figure 14-23 and Figure 14-24 illustrate the grade comparisons at the 690m elevation. Plots throughout the model confirmed that the block model grades corresponded very well with the assayed grades.

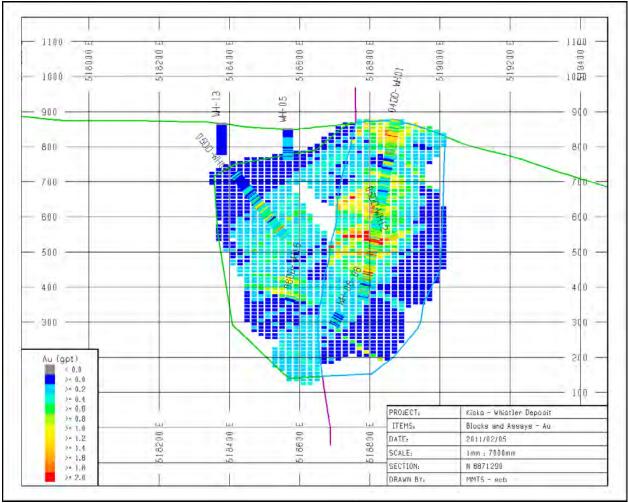
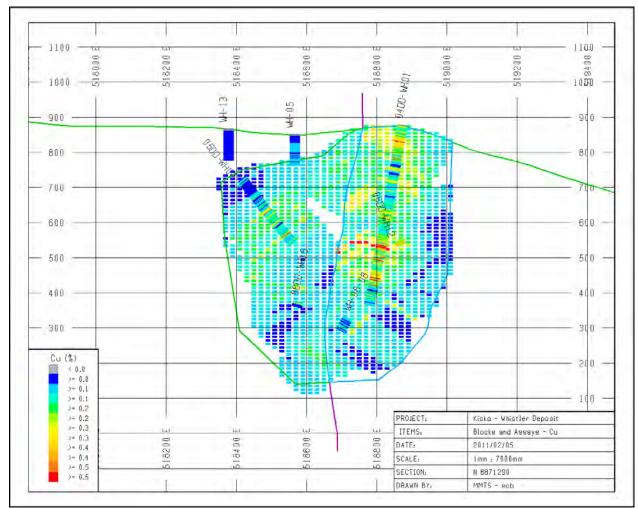


Figure 14-21

E-W Section Comparing Au Grades for Block Model and Assay Data (MMTS, 2015).

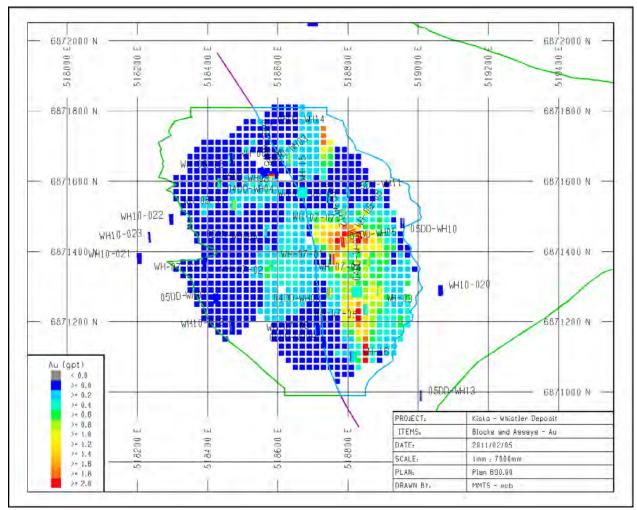




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Figure 14-22 E-W Section Comparing Cu Grades for Block Model and Assay Data (MMTS, 2015).

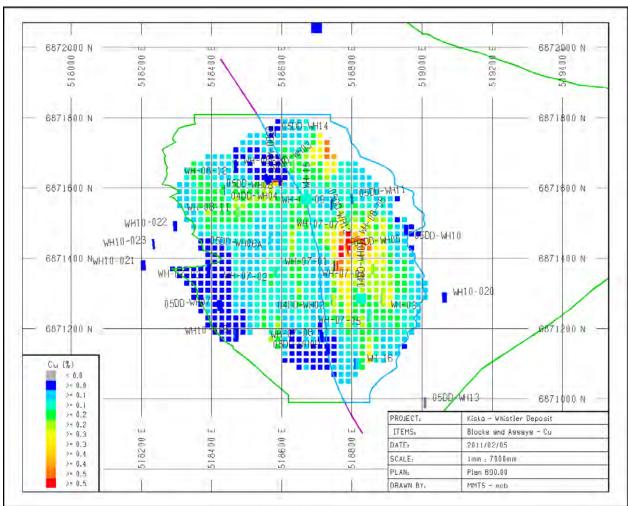




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Figure 14-23 Plan Comparing Au Grades for Block Model and Assay Data (MMTS, 2015).



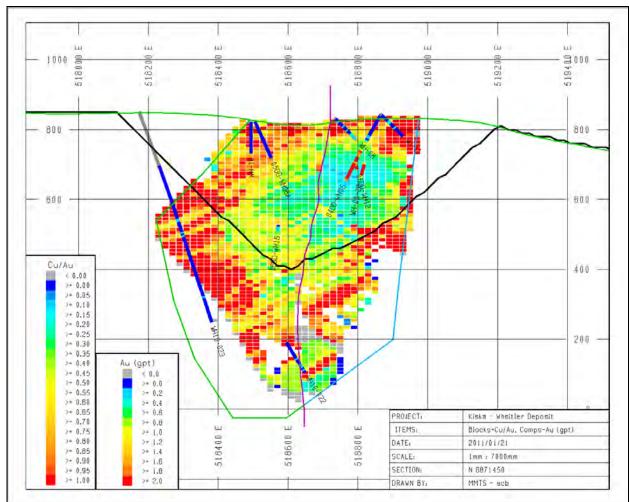


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Figure 14-24 Plan Comparing Cu Grades for Block Model and Assay Data (MMTS, 2015).

Visual inspection of the Cu/Au ratio indicated spatial variation. Although the scatter plots of these two grades showed some correlation (Figure 14-23 and Figure 14-24), section and plan plots reveal that the ratio changes throughout the deposit. Figure 14-25 and Figure 14-26 illustrate this spatial variability for a section and plan view. The ratio generally increases at the periphery of the deposit, and to the north. This is due primarily to higher Au grades in the center and the southern portion of the deposit.

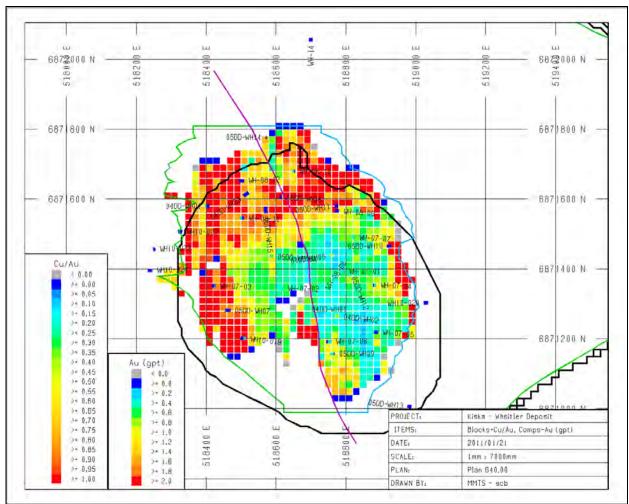




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Figure 14-25 E-W Section of the Cu/Au Ratio Indicating Spatial Variability (MMTS, 2015).





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Figure 14-26 Plan of the Cu/Au Ratio Indicating Spatial Variability (MMTS, 2015).



14.5 Pit Delineated Resource: Whistler Deposit

As defined by NI 43-101, the confining pit defines a boundary for continuous mineralization with suitable grades and with a reasonable expectation that an engineered plan will produce an economic plan. The required assumptions to produce a Lerchs-Grossman (LG) pit shell using MineSight[®], are summarized in the following section.

Process recoveries are based on preliminary metallurgical studies. The recoveries used to determine the Net Smelter return are given in Table 14-28, with economic inputs summarized in Table 14-29.

Table 14-28 Process Recoveries

Metal	Recovery (%)
Au	75
Cu	85
Ag	75

Table 14-29 Economic Inputs

Parameter	November 2010 Values
Au Price (USD)	990 \$/oz
Cu Price (USD)	2.91 \$/lb
Ag Price (USD)	15.40 \$/oz
Mining Costs	1.50 \$/tonne ROM
Milling + G&A	7.50 \$/tonne ore
G & A	0.50 \$/tonne ore
Mining Recovery	100%
Dilution	0%
Exchange Rate	0.92 \$US/\$CDN
NSP – Au (CDN)	32.072 \$/g
NSP – Cu (CDN)	2.824 \$/lb
NSP – Ag (CDN)	0.446 \$/g

*Indicated and Inferred resources are used for pit optimization.

*Pit slope angle is considered constant at 45 degrees for all cases.

The pit delineated resource is given in Table 14-30, for a range of NSR cut-offs with the base case cut-off of \$7.50/tonne highlighted. Process recoveries, as well as mining, processing and off site costs have been applied in order to determine that the pit resource has a reasonable prospect of economic extraction. The \$7.50/tonne cut-off (an Au Equivalent grade of approximately 0.3 gpt at the base case prices) yields an Indicated resource of 79.2 Mtonnes at 0.51 gpt gold, 0.17% copper and 1.97 gpt silver (2.25 Moz Au Eqv.) and an Inferred resource of 145.8 Mtonnes at 0.40 gpt gold, 0.15% copper and 1.75 gpt silver (3.35 Moz Au Eqv). The mining, processing and off site costs used here are estimates and may not represent actual costs.

There are no known significant environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other factors that could materially affect the resource estimate.

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Table	Table 14-30Summary of Pit Delineated Resource1, Whistler Deposit										
		NSR ²	Tonnes	In situ Grades					Total Modelled Metal		
	Class	Cut-off	Tonnes	NSR	Au	Cu	Ag	Gold	Silver	Copper	
		(\$/tonne)	(Mt)	(\$/tonne)	(gpt)	(%)	(gpt)	(Moz)	(Moz)	(Mlbs)	
		7.50	79.2	21.95	0.51	0.17	1.97	1.28	5.03	302	
		10.00	69.8	23.77	0.56	0.18	2.06	1.24	4.61	282	
		12.50	60.7	25.64	0.61	0.19	2.13	1.19	4.15	259	
	load is a tool	15.00	51.7	27.72	0.67	0.20	2.19	1.12	3.63	232	
	Indicated	17.50	43.3	29.95	0.74	0.21	2.26	1.03	3.14	203	
		20.00	35.6	32.36	0.82	0.22	2.35	0.94	2.68	176	
		22.50	29.6	34.65	0.89	0.23	2.40	0.85	2.28	152	
		25.00	24.0	37.22	0.98	0.24	2.49	0.75	1.91	129	
		7.50	145.8	17.78	0.40	0.15	1.75	1.85	8.21	467	
		10.00	123.1	19.56	0.45	0.16	1.83	1.76	7.23	423	
		12.50	100.1	21.48	0.50	0.17	1.91	1.61	6.13	365	
	Inferred	15.00	79.0	23.55	0.57	0.18	1.98	1.43	5.00	306	
		17.50	59.0	26.03	0.64	0.19	2.10	1.21	3.98	243	
		20.00	43.1	28.74	0.73	0.20	2.25	1.01	3.11	188	
		22.50	31.6	31.50	0.82	0.21	2.35	0.83	2.38	146	
		25.00	23.0	34.41	0.91	0.22	2.47	0.67	1.82	112	

1. Reported within a conceptual pit shell (45 degree pit slope angle) and based on a cut-off grade of \$7.5/t adjusted for metallurgical recovery and offsite costs.

2. NSPs used to define the resource are based on 75 percent recovery for gold and silver; 85 percent recovery for copper; USD\$990 per ounce gold, USD\$15.40 per ounce silver and USD\$2.91 per pound of copper and an exchange rate of 0.92 \$US/\$CDN.

Exploration potential exists adjacent to the base case pit resource in the north, west and south directions as well as at depth. This is illustrated in Figure 14-27 which shows the base case open pit and all modelled blocks above a Au Eqv. grade of 0.5 gpt.



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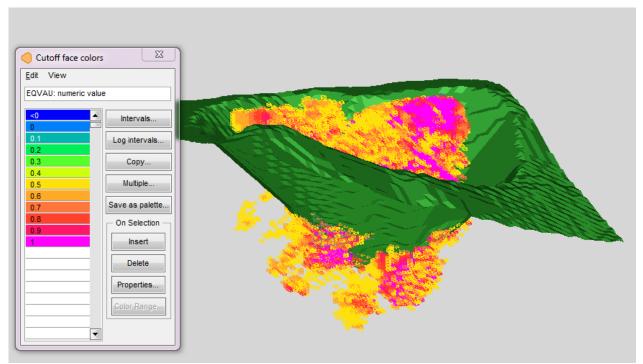


Figure 14-27 3D View looking N25E– Modelled Blocks within and Adjacent to Base Case Pit above a 0.5 gpt Au Eqv. Cut-off (MMTS, 2015)



15.0 Mineral Reserve Estimates

There are no reserve estimates at this time.



16.0 Mining Method

Open pit mining is being considered for the project, though no details have been developed at this time.



17.0 Recovery Methods

17.1 Process Design Parameters

Based on the outcomes of the metallurgical testwork summarized in Section 13, the relevant metallurgical parameters and design criteria for the processing flowsheet and plant equipment are shown in Table 17-1, for a plant throughput of 11 Mtpa.

The important parameters related to comminution power are summarized in Table 17-2, where the effects of the potentially coarser grind size are evident.

Parameter	C	Driginal Design	Revision based on BWI		
		Notes		Notes	
General:-					
Operating days p.a.	360				
Availabilities:					
crusher	70%				
grinding/flotation	95%				
Grinding:-					
Abrasion Index	0.2	assumed (AMC)			
SAG parameters:-					
A*b (JK)	N/A				
Mia (SMC)	N/A				
RWI	22.2	assumed 20% > BWI	23.9		
Feed size F80 mm	140				
Product Size P80 μ	1000				
Ball mill parameters:-					
BWI	18.5	Island Mountain	19.9	KM 3499	
Mib (SMC)	N/A			calc from raw Bond dat	
Feed size F80 µ	1000				
Product Size P80 μ	100		175		
Regrind parameters:-					
Feed size F80 µ	80	80% of ball mill product	140		
Product Size P80 μ	20				
Flotation:-					
mass pull to roughers wt%	15.0				
Grade - Recovery performance					
final conc grade % Cu	25.0				
overall recovery - copper	92%				
overall recovery - gold	70%				
% solids:-					
roughers	33				
cleaners	15				
Residence times (lab) mins:-					
roughers	10				
cleaners	5				
scale up factor	3 x				
Tailings Thickener:-					
% solids in underflow	60				

 Table 17-1
 Metallurgical Parameters and Design Criteria

Table 17-2Comminution Power

		Original			Revised	
	SAG	Ball	Regrind	SAG	Ball	Regrind
kW	12682	19973	4237	13643	13816	5271
HP	17000	26774	5679	18288	18520	7065



The main impact of the revised BWI parameters and considering a coarser grind is on ball mill power, 6 MW less, with a small increase in both SAG and regrind power amounting to 2 MW.

The other significant impact from a design point of view is that, whereas formerly the ball mill size was beyond what is currently possible with one mill therefore requiring two with additional circuit complexity, the revised parameters put the ball mill sizing comfortably within what is currently available as a single mill.

17.2 Proposed Process Flowsheet and Process Description

17.2.1 Overall Flowsheet

The testwork results have shown that the Whistler ore is metallurgically very amenable, despite low head grades, and that saleable, high quality copper concentrates with acceptable recoveries of both copper and gold can be achieved with a conventional flowsheet comprising single stage crushing, a SAG, ball mill and pebble crushing (SABC) grinding circuit followed by rougher flotation, regrinding of rougher concentrate and finally two stages of cleaning.

The levels of recovery and upgrade for both copper and gold are relatively insensitive to feed grade, which is a very positive result of significance for a project like Whistler, where low head grades are often perceived as an obstacle to successful extraction.

17.2.2 Crushing

Detailed crushing circuit design has not been carried out, this not being critical to the crucial element of power consumption, and being in any case a very standard part of the flowsheet. However based on industry comparable, it is reasonable to assume that, for the throughput envisaged of 11Mtpa, an 89" x 60" gyratory crusher with associated ancillary feeders and conveyors would be appropriate. This size selection recognizes the hardness of the Whistler ore (no crushing index data but assuming that the high BWI figure is an indicator of general hardness for comminution purposes).

17.2.3 Primary Grinding

The original grinding circuit design was based on the Island Mountain BWI data and a primary grind size of 100µm. The power requirements were determined by simple Bond formulae, assuming a Rod Mill Work Index RWI (for SAG sizing) of 20% greater than the BWI (a common industry assumption for a hard competent ore), and allowing a SAG "inefficiency factor" of 1.25 (again a common industry assumption). A 20% allowance was made for losses and design margin.

The QP considers that this approach to be adequate and appropriately conservative for early studies, although SAG-specific test data like JK drop weight tests or SMC tests would have been preferred and are essential for more definitive design at the next phase of study, as already mentioned.

The grinding power requirements have been tabulated in Table 17-2.



The original design consisted of the following:

- SAG mill of 17,000 HP
- two ball mills of 13,500 HP each

With the Whistler-specific BWI test data and assuming a 175 μ m primary grind size was to be validated by further locked cycle testing, the revised design would consist of the simpler configuration:

- SAG mill of 18,000 HP
- one ball mill of 18500 HP

17.2.4 Flotation

The flotation mass balance was based on the parameters tabulated in Table 17-1, together with upgrade ratios for the rougher and cleaner concentrates that matched with testwork results, in order to derive volumetric flow rates through the various stages of flotation and appropriate flotation cell volumes that observed industry standard convention for the minimum number of cells to avoid short-circuiting in a bank (typically five).

Accordingly it is envisage that the flotation circuit will consist of the following:

- Rougher bank of 8 x 300 m³ cells
- First cleaner bank of 8 x 40 m³ cells
- Second cleaner bank of 6 x 10 m³

Regrind circuit design still requires optimization. The testwork was based on 20 μ m and no attempts have been made at this stage to investigate opportunities for coarsening the regrind size whilst maintaining separation performance in the cleaner circuit.

A regrind size of 20 µm probably requires vertical stirred mills to achieve this fine grind size; however only a slight coarsening to 30µm would bring this back into the range of conventional tumbling mills.

It has been assumed that some optimization is possible and that conventional tumbling mills (lower capital cost but higher power consumption) would be suitable. On this basis the regrind circuit will consist of the following:

• One regrind mill of 5700 HP for the original design (revised design would require a slightly larger mill of 7000 HP, reflecting the coarser regrind feed size).

17.2.5 Concentrate Dewatering

Given the fine size of the concentrate following the necessary regrinding, it has been assumed that a pressure filter (Larox or similar) would be required to achieve acceptable transportable moisture limits. The filter would be preceded by a conventional concentrate thickener.



18.0 Project Infrastructure

Preliminary infrastructure is discussed in Section 5, while detailed infrastructure has not been determined at this time.



19.0 Market Studies and Contracts

No concentrate market studies have been done at this time; however the concentrates produced would be considered clean and no difficulties are anticipated in concentrate marketing.



20.0 Environmental Studies, Permitting and Social or Community Impact

Environmental studies and social or community impacts have not been undertaken in detail at this time.



21.0 Capital and Operating Costs

Capital and Operating costs have not been developed in detail at this time.



22.0 Economic Analysis

Economic analysis has not been completed at this time.



23.0 Adjacent Properties

There are no adjacent properties considered relevant to this technical report.



24.0 Other Relevant Data and Information

GCL does not believe that there is any additional relevant data and information for the Whistler, Raintree West and Island Mountain deposits.



25.0 Interpretation and Conclusions

GCL has reviewed and audited the exploration data available for the Whistler Project. This review suggests that the exploration data accumulated by Cominco Alaska, Kennecott, Geoinformatics, and Kiska is generally reliable for the purpose of resource estimation.

Following geostatistical analysis and variography, GCL constructed an initial mineral resource block model for the Raintree West and Island Mountain gold-copper deposits constraining grade interpolation using a grade shell model at Raintree West and geological domains at Island Mountain.

Mineral resources for the Raintree West and Island Mountain gold-copper deposits have been estimated in conformity with generally accepted CIM "Estimation of Mineral Resource and Mineral Reserves Best Practices" Guidelines. These new mineral resources are in addition to a previous mineral resource estimate that exists for the Whistler Deposit. There is insufficient information at this early stage of study to assess the extent to which the mineral resources will be affected by environmental, permitting, legal, title, taxation, socioeconomic, marketing or other relevant factors.

In the opinion of GCL, the block model resource estimate and resource classification reported herein are a reasonable representation of the global gold, copper and silver mineral resources found in the Whistler, Raintree West and Island Mountain deposits. Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the mineral resource will be converted into mineral reserve.



26.0 Recommendations

For the Raintree West Deposit, the following recommendations are made:

- Infill and step-out drilling to the north and south of the deposit. This drilling should be done to potentially upgrade the classification of the current resource estimate and to potentially increase the resource. Specifically shallow holes (200 to 250 m) dipping east on sections 6871350 N and 6871400 N and 6871500 N should be drilled to increase the confidence in near surface mineralization.
- 2) In concert with the new drilling, the previous drill core should be relogged and a robust geological model/domains should be constructed for future resource estimates.
- 3) Further specific gravity measurements should be collected from current and future drill holes.
- 4) Metallurgical testing should be conducted on Raintree West samples.

For the Island Mountain Deposit, the following recommendations are made:

 Infill and step-out drilling to the north and south of the deposit. This drilling should be done to potentially upgrade the classification of the current resource estimate and to potentially increase the resource. Drilling should aim to link the mineralized breccias drilled north of the resource area, with the main breccia complex. Deep drilling under the breccia complex is also warranted to potentially locate the causative, and potentially mineralized, intrusive driving the brecciation.

At the Whistler Deposit, the following recommendations from MMTS (2015) include:

2) A better understanding of the current known faults could be an opportunity for increasing the resource at Whistler. Particularly in the south of the deposit (south of N6971200). There is a paucity of drillhole data on both sides of the Divide fault in this area, resulting in blocks left uninterpolated within the diorite solid. Furthermore, there is little evidence for the fault location. Previous interpretation (Kennecott, 2007) did not include the Divide fault extending south of approximately 6871280N. Figure 26-1 and Figure 26-2 are plan and section views of the model and composite Au grades. These plots indicate the area west of the interpreted Divide Fault with no drilling and Au grades not interpolated into the blocks, but within the LG pit resource (shown in black). Drillhole WH-10-19 returned economic grades. Targeting this area would both allow blocks to be interpolated in this area and better define the fault location.



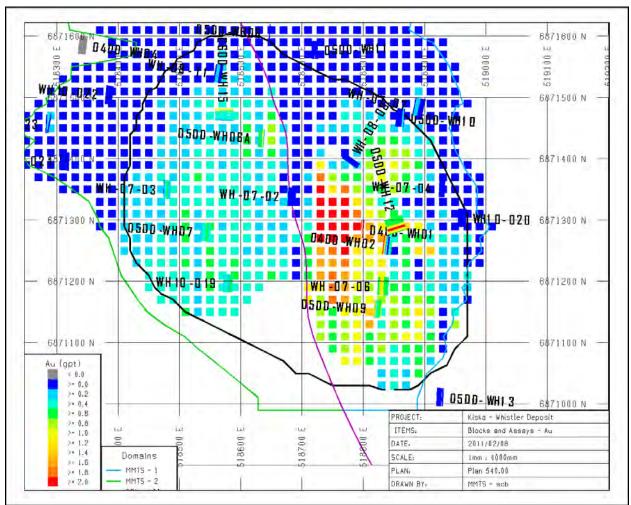
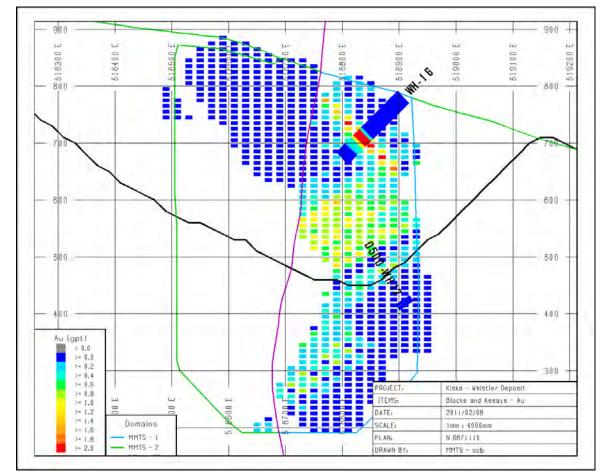




Figure 26-1

Plan of Au Grade and Drilling at 540m Elevation (MMTS, 2015).



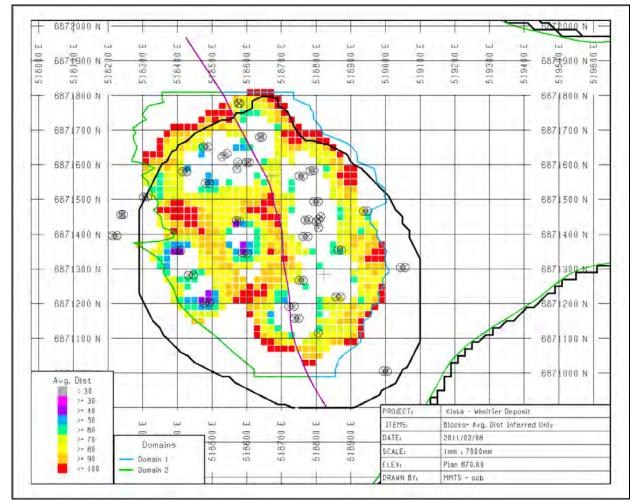


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Figure 26-2 Section of Au Grade and Drilling at 6871110N (MMTS, 2015).

- 3) Revision of the geologic model to provide a better understanding of how the three later stages of intrusion relate to the mineralization. This would involve re-logging of core with the current knowledge of the assay values. Through re-interpretation in section and plan it is the expected outcome that 3D solids of each intrusive phase could be constructed.
- 4) Similarly, 3D solids of alteration and structural domains should be created from the reinterpretation.
- 5) Additional specific gravity measurements should be obtained from existing drillholes to augment the current database.
- 6) The use of classical statistics (cumulative probability plots, histograms, box-plots, and contact analyses) should be used to define the final controlling factors to mineralization as being due to lithology, alteration, structure, or a combination of these.
- 7) Creation of a new block model in which the updated geologic domains are used in conjunction with indicator kriging to reduce smoothing of the mineralized and non-mineralized zones within the deposit would increase the accuracy of the model.
- 8) Additional in-fill drilling to upgrade the classification of Inferred to Indicated would require drillhole spacing of 50 m, as Indicated by Figure 26-3. However, this is recommended subsequent to the additional drilling outlined for the remaining deposits as discussed below.





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Figure 26-3 Plan of Average Distance to Composite for Inferred Blocks (MMTS, 2015).

Based on the interpretations and conclusions regarding the exploration potential on the property, an exploration program comprised of three phases is warranted (Table 26-2).

Phase 1 would consist of a full desktop review of all the geological, geochemical, geophysical and drilling data, concurrent with the review of drill core, in order to optimize strategic targeting in Phase 2. The specific design of Phase 2 is contingent on the results of Phase 1.

A possible Phase 2 might consist of a "top-of-bedrock" grid drilling program in the Whistler area and further surface mapping, sampling and compilation work to rank and prioritize other exploration targets on the project area (Muddy Creek, Snow Ridge, Puntilla, Round Mountain, Howell Zone, Super Conductor), with the aim to test one or more of these targets with deeper drilling (1,500 metres).

The grid drilling program would penetrate the glacial cover and drill approximately 25 metres into bedrock to obtain geological and geochemical data. This data, in conjunction with the existing airborne



magnetic data and 3D IP data, would considerably enhance exploration targeting. Drilling on 200 metre centres from fifty holes (1,250 metres) would cover the most prospective areas in the Whistler area.

In addition, the Phase 2 program should consist of follow-up drilling in the Whistler area to target anomalies generated by the grid drilling program and to expand drilling at Raintree West (2,500 metres). Any significant mineralized intercepts from this phase of step-out drilling should be sent for metallurgical testing with particular focus on the impact of the relatively high lead-zinc concentrations.

Currently there is additional potential of between 50 Mt to 90 Mt of mineralization grading between 0.47 to 0.59 g/t Au Eq as summarized in Table 26-1 that was interpolated in the Whistler Resource block model but remains outside of the reported pit constrained resource. This mineralization is largely located below the pit constrained resource and is considered a significant exploration target that could potentially increase the Whistler Resource with additional infill drilling. Existing drilling in this area is wide spaced and infill drilling could identify higher grade mineralization and increase the overall average grade of this material.

Tonnos	In situ grades Potential N					tential Meta	l		
Tonnes	Au	Cu	Ag	Au Eqv. 1	Gold	Silver	Copper		
(Mt)	(gpt)	(%)	(gpt)	(gpt)	(Moz)	(Moz)	(Mlbs)		
50-90	0.23 - 0.31	0.10 - 0.13	1.30 - 1.34	0.47 - 0.59	0.50 - 0.66	2.1 - 3.7	143 - 198		

Table 26-1 Summary of Exploration on the Whistler Project

1. Gold equivalent grades are in situ using the same prices as for the NSP calculation but reporting at 100% recoveries.

The above-quoted figures are reported as an exploration target, based on reasonable assumptions made from compiled data. These figures should not be construed to be included in a calculated resource (Inferred, Indicated or Measured) under standards of NI 43-101. The potential quantities and grades reported above are conceptual in nature and there has been insufficient work to date to include these with the NI 43-101 compliant resource. Furthermore, it is uncertain if additional exploration will result in this material being added to the existing resource.

The Phase 2 drilling should also consist of 2,500 metres of diamond drilling to in-fill and expand mineralization at the Breccia Zone at Island Mountain. Mineralization is open to south and north, and undrilled breccia bodies occur for 700 metres to the north of the Breccia Zone.

Concurrently with Phase 1 and 2, and after the results of this drilling, further geological and resource modelling and metallurgical studies (Phase 3), should be carried out as indicated above at the Whistler Deposit, and with new drilling results at Island Mountain and Raintree West. Phase 3 would be contingent on positive results from Phase 2.



Metallurgical recommendations include:

- Mineralogical studies to better understand the gold associations
- Comminution testing specifically to address SAG mill power requirements and design
- Variability testing
- Confirmatory locked cycle flotation testing at the coarser primary grind size

Table 26-2 below shows the proposed exploration budget.

Work Program	Units		Rate	Sub-total CDN \$
Phase 1: Desktop Exploration Targeting and Ove	erview Study			
Wages – Geologists and Database support				\$150,000
	Sub-total Phase 1			\$150,000
Phase 2: Drilling Program				
Grid Drilling	1250	m	\$375	\$468,750
Wages - Mappers and Samplers				\$100,000
Rock and Soil Assays	500	samples	\$50	\$25,000
New target drilling - Whistler Area	1500	m	\$375	\$562,500
Raintree West Drilling*	2500	m	\$375	\$937,500
Raintree Metallurgical Sampling				\$50,000
Island Mountain Breccia Zone Drilling*	2500	m	\$475	\$1,187,500
Planning and Supervision Wages				\$300,000
	Sub-total Phase 2			\$3,631,250
Phase 3: Resource Modeling (Whistler Deposit,	Island Mountain, Raintree V	Vest) and M	etallurgical St	udies
Wages and Technical Support				\$150,000
Metallurgical Studies				\$50,000
Update to Mineral Resource Model				\$50,000
	Sub-total			\$250,000
				BRI Support Costs
Database Support (field season)				\$120,000
Data Interpretation (post field season)				\$120,000
	Sub-total Support			\$240,000
Sub-total				\$4,271,250
Contingency			10%	\$427,125
Administration				\$200,000
TOTAL				\$4,898,375

Table 26-2Proposed Exploration Budget

*all-in cost includes assays, helicopter-support, camp costs based on Kiska 2010 drilling costs



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ADL Serial Number	Claim Name	Claim Owner	Reference M-T-R-S	Acres
633446	PORT 2151	BRI Alaska Corporation	2S022N018W30	40
633447	PORT 2152	BRI Alaska Corporation	2S022N018W30	40
633448	PORT 2153	BRI Alaska Corporation	2S022N018W30	40
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APPENDIX A: CLAIMS LIST



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ADL Serial Number	Claim Name	Claim Owner	Reference M-T-R-S	Acres	
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645699	IM 2	BRI Alaska Corporation	2S019N019W06	160	
645700	IM 3	BRI Alaska Corporation	2S019N019W05	160	
645701	IM 4	BRI Alaska Corporation	2S019N019W05	160	
645702	IM 5	BRI Alaska Corporation	2S019N019W04	160	
645703	IM 10	BRI Alaska Corporation	2S019N019W06	16	
645704	IM 11	BRI Alaska Corporation	2S019N019W06	16	
645705	IM 12	BRI Alaska Corporation	2S019N019W05	16	
645706	IM 13	BRI Alaska Corporation	2\$019N019W05	16	
645707	IM 14	BRI Alaska Corporation	2S019N019W04	16	
645708	IM 15	BRI Alaska Corporation	2S019N019W04	16	
645709	IM 19	BRI Alaska Corporation	2S020N019W31	16	
645710	IM 20	BRI Alaska Corporation	2S020N019W31	16	
645711	IM 20	BRI Alaska Corporation	2S020N019W32	16	
645712	IM 22	BRI Alaska Corporation	2S020N019W32	16	
645713	IM 23	BRI Alaska Corporation	2S020N019W32	16	
645714	IM 24	BRI Alaska Corporation	2S020N019W33	16	
645715	IM 28	BRI Alaska Corporation	25020N019W35	16	
645716	IM 28	BRI Alaska Corporation	25020N019W31	10	
645717	IM 30	BRI Alaska Corporation	25020N019W31	16	
645718	IM 30	BRI Alaska Corporation	25020N019W32	10	
645719	IM 32	BRI Alaska Corporation	25020N019W32 2S020N019W33	10	
645720	IM 32	•		10	
645720	IM 34	BRI Alaska Corporation	2S020N019W33	16	
		BRI Alaska Corporation	2S020N019W34		
645723	IM 37	BRI Alaska Corporation	2S020N019W29	16	
645724	IM 38	BRI Alaska Corporation	2S020N019W29	16	
645725	IM 39	BRI Alaska Corporation	2S020N019W28	16	
645726	IM 40	BRI Alaska Corporation	2S020N019W28	16	
645727	IM 41	BRI Alaska Corporation	2S020N019W27	16	
645729	IM 44	BRI Alaska Corporation	2S020N019W29	16	
645730	IM 45	BRI Alaska Corporation	2S020N019W29	16	
645731	IM 46	BRI Alaska Corporation	2S020N019W28	16	
645732	IM 47	BRI Alaska Corporation	2S020N019W28	16	
645733	IM 48	BRI Alaska Corporation	2S020N019W27	16	
645736	IM 52	BRI Alaska Corporation	2\$020N019W20	16	
645737	IM 53	BRI Alaska Corporation	2S020N019W22	16	
645740	IM 57	BRI Alaska Corporation	2S020N019W20	16	
646059	IM 6	BRI Alaska Corporation	2S020N019W30	16	
646060	IM 7	BRI Alaska Corporation	2S020N019W30	16	
646074	IM 61	BRI Alaska Corporation	2S019N019W07	16	
646075	IM 62	BRI Alaska Corporation	2S019N019W07	16	
646076	IM 63	BRI Alaska Corporation	2S019N019W08	16	
646077	IM 64	BRI Alaska Corporation	2S019N019W08	16	
646078	IM 65	BRI Alaska Corporation	2S019N019W09	16	
646325	WHISPER 428	BRI Alaska Corporation	2S022N018W31	16	



ADL Serial Number	Claim Name	Claim Owner	Reference M-T-R-S	Acres	
646327	WHISPER 430	BRI Alaska Corporation	2S021N018W06	16	
646328	WHISPER 431	BRI Alaska Corporation	2S021N018W06	16	
646330	WHISPER 433	BRI Alaska Corporation	2S021N018W06	16	
646331	WHISPER 434	BRI Alaska Corporation	2S021N018W06	16	
646338	WHISPER 441	BRI Alaska Corporation	2S021N018W07	16	
646339	WHISPER 442	BRI Alaska Corporation	2S021N018W07	16	
646343	WHISPER 446	BRI Alaska Corporation	2S021N019W12	16	
646344	WHISPER 447	BRI Alaska Corporation	2S021N018W07	16	
646350	WHISPER 453	BRI Alaska Corporation	2S021N019W13	16	
646351	WHISPER 454	BRI Alaska Corporation	2S021N018W18	16	
646355	WHISPER 458	BRI Alaska Corporation	2S021N019W13	16	
646356	WHISPER 459	BRI Alaska Corporation	2S021N019W13	16	
646764	IM 71	BRI Alaska Corporation	25021N019W06	16	
646765	IM 72	BRI Alaska Corporation	2S020N019W05	16	
646766	IM 72	BRI Alaska Corporation	25020N019W05	16	
646767	IM 74	BRI Alaska Corporation	25020N019W04	16	
646774	IM 81	•	25020N019W04 2S020N019W05	10	
646775		BRI Alaska Corporation	25020N019W03 2S020N019W04		
	IM 82	BRI Alaska Corporation		16	
646783	IM 90	BRI Alaska Corporation	25020N019W08	16	
646784	IM 91	BRI Alaska Corporation	2S020N019W09	16	
646792	IM 99	BRI Alaska Corporation	2S020N019W08	16	
646793	IM 100	BRI Alaska Corporation	2S020N019W09	16	
646801	IM 108	BRI Alaska Corporation	2S020N019W17	16	
646802	IM 109	BRI Alaska Corporation	2S020N019W16	16	
646810	IM 117	BRI Alaska Corporation	2S020N019W17	16	
646819	IM 126	BRI Alaska Corporation	2S020N019W21	16	
646820	IM 127	BRI Alaska Corporation	2S020N019W21	16	
646824	WHISPER 464	BRI Alaska Corporation	2S023N019W27	16	
646825	WHISPER 465	BRI Alaska Corporation	2S023N019W27	16	
646826	WHISPER 466	BRI Alaska Corporation	2S023N019W34	16	
646839	WHISPER 479	BRI Alaska Corporation	2S023N019W22	16	
646840	WHISPER 480	BRI Alaska Corporation	2S023N019W27	16	
646841	WHISPER 481	BRI Alaska Corporation	2S023N019W27	16	
646842	WHISPER 482	BRI Alaska Corporation	2S023N019W34	16	
646855	WHISPER 495	BRI Alaska Corporation	2S022N019W02	16	
646856	WHISPER 496	BRI Alaska Corporation	2S022N019W11	16	
646857	WHISPER 497	BRI Alaska Corporation	2S022N019W11	16	
646858	WHISPER 498	BRI Alaska Corporation	2S022N019W14	16	
646864	WHISPER 504	BRI Alaska Corporation	2S022N019W02	16	
646865	WHISPER 505	BRI Alaska Corporation	2S022N019W02	16	
646866	WHISPER 506	BRI Alaska Corporation	2S022N019W11	16	
646867	WHISPER 507	BRI Alaska Corporation	2S022N019W11	16	
646868	WHISPER 508	BRI Alaska Corporation	2S022N019W14	16	
646869	WHISPER 509	BRI Alaska Corporation	2S022N019W14	16	
646927	WHISPER 567	BRI Alaska Corporation	250221N019W14	16	
646928	WHISPER 568	BRI Alaska Corporation	2S021N019W24	16	
646934	WHISPER 508	BRI Alaska Corporation	25021N019W24 2S021N019W23	16	
		•			
646935 646942	WHISPER 575 WHISPER 582	BRI Alaska Corporation BRI Alaska Corporation	2S021N019W24	16	



ADL Serial Number	Claim Name	Claim Owner	Reference M-T-R-S	Acres	
646943	WHISPER 583	BRI Alaska Corporation	2S021N019W26	160	
646944	WHISPER 584	BRI Alaska Corporation	2S021N019W25	160	
646952	WHISPER 592	BRI Alaska Corporation	2S021N019W26	160	
646953	WHISPER 593	BRI Alaska Corporation	2S021N019W26	16	
646958	WHISPER 598	BRI Alaska Corporation	2S021N019W33	160	
646959	WHISPER 599	BRI Alaska Corporation	2S021N019W33	16	
646960	WHISPER 600	BRI Alaska Corporation	2S021N019W34	16	
646961	WHISPER 601	BRI Alaska Corporation	2S021N019W34	16	
646962	WHISPER 602	BRI Alaska Corporation	2S021N019W35	16	
646968	WHISPER 608	BRI Alaska Corporation	2S021N019W33	16	
646969	WHISPER 609	BRI Alaska Corporation	2S021N019W33	16	
646970	WHISPER 610	BRI Alaska Corporation	2S021N019W34	16	
646971	WHISPER 611	BRI Alaska Corporation	2S021N019W34	16	
646972	WHISPER 612	BRI Alaska Corporation	2S021N019W35	16	
650959	MUD 1	BRI Alaska Corporation	2S021N019W32	16	
650960	MUD 2	BRI Alaska Corporation	2S021N019W32	16	
650961	MUD 3	BRI Alaska Corporation	2S021N019W31	16	
650962	MUD 4	BRI Alaska Corporation	2S021N019W31	16	
650963	MUD 5	BRI Alaska Corporation	2S021N020W36	16	
650964	MUD 6	BRI Alaska Corporation	2S021N020W36	16	
650965	MUD 7	BRI Alaska Corporation	2S021N020W35	16	
650966	MUD 8	BRI Alaska Corporation	25021N020W35	16	
650967	MUD 9	BRI Alaska Corporation	25021N020W35	4	
650968	MUD 10	BRI Alaska Corporation	25021N020W34 2S021N020W34	4	
		·			
650969	MUD 11	BRI Alaska Corporation	2S021N020W34	4	
650970	MUD 12	BRI Alaska Corporation	2S021N020W34	4	
650971	MUD 13	BRI Alaska Corporation	2S021N020W35	16	
650972	MUD 14	BRI Alaska Corporation	2S021N020W35	4	
650973	MUD 15	BRI Alaska Corporation	2S021N020W35	4	
650974	MUD 16	BRI Alaska Corporation	2S021N020W35	4	
650975	MUD 17	BRI Alaska Corporation	2S021N020W36	16	
650976	MUD 18	BRI Alaska Corporation	2S021N020W36	16	
650977	MUD 19	BRI Alaska Corporation	2S021N019W31	16	
650978	MUD 20	BRI Alaska Corporation	2S021N019W31	16	
650979	MUD 21	BRI Alaska Corporation	2S021N019W32	16	
650980	MUD 22	BRI Alaska Corporation	2S021N019W32	16	
650981	MUD 23	BRI Alaska Corporation	2S020N019W06	16	
650982	MUD 24	BRI Alaska Corporation	2S020N020W01	16	
650983	MUD 25	BRI Alaska Corporation	2S020N020W01	16	
650984	MUD 26	BRI Alaska Corporation	2S020N020W02	16	
650985	MUD 27	BRI Alaska Corporation	2S020N020W02	16	
650986	MUD 28	BRI Alaska Corporation	2S020N020W03	4	
650987	MUD 29	BRI Alaska Corporation	2S020N020W03	4	
650988	MUD 30	BRI Alaska Corporation	2S020N020W03	4	
650989	MUD 31	BRI Alaska Corporation	2S020N020W03	4	
650990	MUD 32	BRI Alaska Corporation	2S020N020W02	16	
650991	MUD 33	BRI Alaska Corporation	2S020N020W02	16	
650992	MUD 34	BRI Alaska Corporation	2S020N020W01	16	
650993	MUD 35	BRI Alaska Corporation	2S020N020W01	16	



ADL Serial Number	Claim Name	Claim Owner	Reference M-T-R-S	Acres
650994	MUD 36	BRI Alaska Corporation	2S020N019W06	160
650995	MUD 37	BRI Alaska Corporation	2S020N020W11	160
650996	MUD 38	BRI Alaska Corporation	2S020N020W11	160
650997	MUD 39	BRI Alaska Corporation	2S020N020W10	160
650998	MUD 40	BRI Alaska Corporation	2S020N020W03	40
650999	MUD 41	BRI Alaska Corporation	2S020N020W10	160
651000	MUD 42	BRI Alaska Corporation	2S020N020W11	160
651001	MUD 43	BRI Alaska Corporation	2S020N020W11	160
656421	MUD 44	BRI Alaska Corporation	2S020N020W12	160
656422	MUD 45	BRI Alaska Corporation	2S020N020W12	160
656423	MUD 46	BRI Alaska Corporation	25020N020W12	160
656424	MUD 47	BRI Alaska Corporation	25020N020W12	160
667695	BT049	BRI Alaska Corporation	2S019N019W04	160



APPENDIX B: DRILL COLLARS, WHISTLER PROJECT Easting Northing Elevation Azimuth Dip Hole ID **Total Depth** (m) (m) (m) (Degree) (Degree) WH 07 01 518642 6871393 839 90 -55 308.15 WH 07 02 518465 6871351 853 90 -55 588.28 WH_07_03 518292 6871357 92 675.44 860 -60 WH_07_04 518769 6871358 862 92 -65 398.07 WH 07 05 518724 6871221 885 90 -58 365.15 WH_07_06 518578 6871185 879 90 -56 611.12 WH 07 07 518702 6871497 809 90 -56 374.39 HF 08 01 504200 6885265 435 220 -50 212.50 PR 08 01 519206 6871687 736 90 -60 244.08 520580 RM_08_01 6869800 379 200 -55 551.83 520483 6869328 210.21 RM 08 02 343 200 -60 RN_08_05 6871988 220 -50 521260 427 321.49 RN_08_06 520553 6871444 497 90 -60 300.50 WH_08_08 518834 6871499 -65 728.04 825 212 WH 08 09 518687 6871570 785 90 -60 273.78 WH_08_10 518595 6871676 792 90 -70 343.90 WH 08 11 518402 6871546 824 90 -60 542.07 WH_08_12 518380 -55 574.69 6871651 816 90 04-DD-WH-01 270 518858 6871285 883 -80 523.93 04-DD-WH-02 90 -60 518639 6871270 873 532.76 04-DD-WH-03 518619 6871683 788 236 -50 270.34 04-DD-WH-04 518504 6871580 807 270 -59 341.24 04-DD-WH-05 518867 6871451 844 270 328.56 -60 04-DD-WP-01 519941 402 270 -80 310.27 6869265 05-DD-CC-01 516708 6879522 632 79 -59 311.00 518505 05-DD-WH-06-A 6871443 825 87 -65 627.28 05-DD-WH-07 518277 6871276 879 94 -49 793.93 798 -70 05-DD-WH-08 518558 6871608 88 264.82 05-DD-WH-09 885 91 -59 518615 6871155 605.33 05-DD-WH-10 519044 6871470 836 264 -60 669.04 05-DD-WH-11 518856 6871589 796 265 -60 495.91 -45 05-DD-WH-12 518761 6871542 799 163 643.79 05-DD-WH-13 519013 692 -60 605.64 6871005 270 05-DD-WH-14 518600 545.29 6871777 779 270 -80 05-DD-WH-REC-01 516334 6881934 560 -90 149.04 0 05-DD-WH-REC-02 0 -90 515363 6880687 663 43.89 05-DD-WH-REC-03 520446 6877651 466 0 -90 203.60 05-DD-WH-REC-04 520281 6874506 593 0 -90 206.34 05-DD-WH-REC-05 519092 6874951 740 0 -90 200.55 05-DD-WH-REC-06 -90 522066 6871836 396 0 212.75 05-DD-WH-REC-07 518988 6870007 551 0 -90 157.88 05-DD-WH-REC-08 520534 6869699 371 0 -90 206.65 06-DD-WH-15 518565 6871715 790 171 -45 705.30 06-DD-WH-CC-02 517240 6879811 207 -50 331.32 546 06-DD-WH-REC-09 515593 6882005 601 0 -90 270.98 06-DD-WH-REC-10 521227 6871860 451 0 -90 180.44 06-DD-WH-REC-11 512542 6849103 1403 0 -90 132.62 6849601 06-DD-WH-REC-12 512985 1215 0 -90 136.24

Effective Date: March 24, 2016



Hole ID	Easting (m)	Northing (m)	Elevation (m)	Azimuth (Degree)	Dip (Degree)	Total Depth
06-DD-WH-RM-01	516737	6881692	576	236	-50	331.32
06-DD-WH-RN-01	520372	6869830	416	127	-50	175.87
06-DD-WH-RN-02	520868	6870725	397	205	-79	380.09
06-DD-WH-RN-03	520850	6872376	460	180	-80	296.41
06-DD-WH-RN-04	520651	6872084	479	90	-50	258.47
WH-01	518924	6871322	872	270	-60	104.88
WH-02	519003	6871270	810	0	-90	89.94
WH-03	519003	6871270	810	270	-45	172.56
WH-04	518821	6871263	890	90	-45	106.71
WH-05	518553	6871296	856	0	-90	92.07
WH-06	518735	6871311	871	90	-45	91.46
WH-07	518630	6871680	786	0	-90	94.21
WH-08	518735	6871449	833	90	-45	93.29
WH-09	518481	6871568	811	0	-90	93.90
WH-10	518495	6871441	825	0	-90	91.46
WH-11	518865	6871452	844	90	-45	91.77
WH-12	518524	6871098	902	90	-80	92.07
WH-13	518363	6871285	869	0	-90	92.07
WH-14	518700	6872057	710	0	-90	93.90
WH-15	518670	6871568	784	0	-90	124.09
WH-16	518908	6871116	781	270	-45	152.44
IM09-001	512318	6847653	1228	89	-50	386.90
IM09-001	512616	6849369	1319	133	-60	214.26
WH09-001	518320	6870465	845	0	-90	228.14
WH09-002	520658	6871455	475	270	-50	479.16
WH09-003	520030	6868197	396	230	-60	209.84
IM10-003	512699	6847059	763	72	-50	513.82
IM10-003	512358	6847666	1239	96	-55	541.02
IM10-004	512558	6849105	1383	31	-59	442.77
IM10-005	512312	6847602	1196	90	-45	446.53
IM10-000	512312	6847602	1196	90	-60	468.50
IM10-007	512413	6847853	1332	89	-45	408.50
IM10-009	512413	6847853	1332	89	-43	438.01
IM10-009	512354	6847699	1332	89	-45	510.54
IM10-010	512354	6847699	1258	89	-43	448.10
			1238			
IM10-012 IM10-013	512315 512285	6847653 6847754	1229	270 90	-59 -45	359.97 507.80
			1217	120	-43	321.87
IM10-015 WH10-004	512021 520166	6848139 6872679	498	45	-50	321.87
WH10-004 WH10-005	521212	6872679	498 562	50	-55	341.91
WH10-005	521212	6871266	404	45	-60	383.44
WH10-008 WH10-007	520865	6871266	554	45	-60	261.51
WH10-007 WH10-008		6872452	414	225	-70	413.92
	521332					
WH10-009	521747	6873944	355	47	-61	359.36
WH10-010	520456	6869165	327	90	-55	431.90
WH10-011	520051	6871422	616	90	-60	668.73
WH10-012	523010	6869920	420	0	-90	201.17
WH10-013	518011	6872029	749	90	-55	441.05



Hole ID	Easting (m)	Northing (m)	Elevation (m)	Azimuth (Degree)	Dip (Degree)	Total Dept
WH10-015	516094	6881218	823	55	-50	364.85
WH10-016	515255	6880874	659	52	-49	288.95
WH10-017	521761	6871042	412	85	-52	364.54
WH10-018	520810	6873625	518	265	-51	398.41
WH10-019	518313	6871195	894	88	-52	892.45
WH10-020	519125	6871305	791	268	-55	851.92
WH10-021	518092	6871392	860	88	-59	873.25
WH10-022	518202	6871501	844	86	-58	910.33
WH10-023	518177	6871451	852	86	-70	928.51
WH10-024	520703	6871351	471	263	-49	307.24
WH10-025	520834	6871357	445	249	-51	428.85
WH10-026	520790	6871450	449	268	-48	355.40
IM11-016	513061	6847764	942	280	-45	257.86
IM11-017	512768	6847457	981	283	-45	358.75
IM11-018	512205	6847763	1161	90	-45	588.10
IM11-019	512775	6847590	1037	270	-45	287.12
IM11-020	512205	6847763	1161	90	-62	480.37
IM11-021	513649	6847401	553	180	-65	220.07
IM11-022	512140	6847641	1130	90	-60	652.18
IM11-023	514196	6848106	518	180	-65	285.14
IM11-024	512140	6847641	1130	270	-45	489.81
IM11-025	513437	6847928	758	270	-60	96.62
IM11-026	512281	6847860	1230	90	-50	570.50
IM11-027	512602	6847413	1020	270	-45	286.51
IM11-028	512145	6848054	1324	90	-45	334.67
IM11-029	512479	6848049	1406	70	-50	331.32
IM11-030	512145	6848055	1325	55	-45	500.94
IM11-031	512479	6848049	1406	70	-89	294.74
IM11-032	512020	6848143	1280	90	-45	434.19
IM11-033	512220	6848273	1425	90	-45	295.05
IM11-034	512194	6847855	1223	90	-46	502.62
IM11-035	512220	6848273	1425	90	-75	206.35
IM11-035	512220	6847755	1423	90	-46	236.83
IM11-037	512385	6847804	1278	90	-45	351.13
IM11-037	512348	6847702	1274	90	-45	367.89
IM11-038	512249	6847817	1193	90	-45	387.71
IM11-039	512246	6847605	1191	25	-45	405.08
IM11-040	512317	6847700	1197	90	-43	315.47
MC11-041	506538	6857159	1194	30	-65	315.47
MC11-001 MC11-002	506538	6857368	1407	243	-65	303.89
MC11-002 MC11-003			1358	340	-50	341.19
RG11-003	509615 519897	6856016 6870995	526	0	-44 -90	75.29
				0	-90	49.99
RG11-027	520113	6871000	513			
RG11-028	520307	6870978	479	0	-90	57.00
RG11-029	520496	6871014	481	0	-90	57.00
RG11-030	520703	6870997	508	0	-90	29.57
RG11-031	520888	6871000	354	0	-90	117.50
RG11-032	521096	6870997	414	0	-90	136.25



Hole ID	Easting (m)	Northing (m)	Elevation (m)	Azimuth (Degree)	Dip (Degree)	Total Dept
RG11-048	519995	6871198	589	0	-90	90.52
RG11-049	520191	6871251	559	0	-90	36.88
RG11-050	520402	6871184	517	0	-90	50.90
RG11-051	520592	6871198	531	0	-90	60.05
RG11-052	520797	6871179	464	0	-90	63.09
RG11-053	521010	6871192	421	0	-90	91.14
RG11-054	521198	6871184	413	0	-90	46.33
RG11-073	520901	6871393	496	0	-90	59.43
RG11-111	520086	6871849	561	0	-90	224.64
RG11-112	520313	6871801	502	0	-90	194.16
RG11-113	520503	6871803	477	0	-90	96.62
RG11-114	520703	6871794	471	0	-90	50.90
RG11-115	520914	6871807	453	0	-90	45.05
RG11-116A	521100	6871800	448	0	-90	35.66
RG11-117	521306	6871797	450	0	-90	26.52
RG11-133	520231	6872010	518	0	-90	123.44
RG11-134	520402	6872006	504	0	-90	39.93
RG11-135	520603	6871993	495	0	-90	25.30
RG11-136	520791	6871990	469	0	-90	64.92
RG11-137	521007	6872004	450	0	-90	30.33
RG11-138	521198	6872012	431	0	-90	26.52
RG11-139	521407	6872032	488	0	-90	32.31
RG11-140	521612	6872018	394	0	-90	97.23
RG11-141	521793	6871961	393	0	-90	78.33
RG11-152	519931	6872185	564	0	-90	69.19
RG11-153	520113	6872198	531	0	-90	75.29
RG11-154	520279	6872207	457	0	-90	47.85
RG11-155	520455	6872213	492	0	-90	88.39
RG11-156	520693	6872201	485	0	-90	47.24
RG11-157	520896	6872203	456	0	-90	26.21
RG11-158	521116	6872211	443	0	-90	44.35
RG11-159	521324	6872195	435	0	-90	30.33
RG11-160	521498	6872203	412	0	-90	47.85
RG11-161	521723	6872194	400	0	-90	90.53
RG11-177	520585	6872402	486	0	-90	47.85
RG11-178B	520828	6872422	469	0	-90	102.72
RG11-179	520994	6872384	446	0	-90	105.46
RG11-182	521592	6872402	417	0	-90	72.24
RG11-196	520296	6872592	498	0	-90	57.00
RG11-197	520488	6872594	487	0	-90	33.22
RG11-198	520685	6872606	473	0	-90	48.31
RG11-199	520896	6872601	458	0	-90	60.05
RG11-218	520397	6872815	500	0	-90	55.78
RG11-219	520591	6872845	499	0	-90	60.66
RM11-023	520716	6869511	335	0	-90	45.57
RM11-024	520880	6869495	337	0	-90	60.50
RM11-031	520790	6869699	337	0	-90	135.94
RM11-032	520963	6869709	356	0	-90	45.42
C-BLD11-004	522143	6875004	564	0	-90	69.19



Hole ID	Easting (m)	Northing (m)	Elevation (m)	Azimuth (Degree)	Dip (Degree)	Total Depth
SC-BLD11-005	522215	6875229	545	0	-90	84.43
SC-BLD11-007	522385	6875408	536	0	-90	47.85
SC-BLT11-006	522579	6874964	561	0	-90	44.81
SC-BLT11-008	522513	6874709	705	0	-90	50.90
SC-BLT11-009	522536	6874400	758	0	-90	111.86
SC-BLT11-033	522355	6874616	746	0	-90	192.33
SC-DGW11-019	521524	6874436	543	0	-90	45.11
SC-DGW11-020	521464	6873619	540	0	-90	57.00
SC-DGW11-021	521621	6874290	608	0	-90	60.04
SC-DGW11-029	521177	6873903	569	0	-90	75.29
SC-DGW11-030	520919	6873752	534	0	-90	101.64
SC-DGW11-031	520700	6873999	513	0	-90	66.14
SC-HTF11-022	519926	6870268	479	0	-90	99.67
SC-HTF11-023	520040	6870269	433	0	-90	81.38
SC-HTF11-024	520076	6870353	462	0	-90	50.90
SC-HTF11-028	519917	6870937	517	0	-90	61.42
SC-NPT11-032	520696	6874666	591	0	-90	53.95
SC-OMB11-035	536094	6866923	502	0	-90	208.48
SC-PTS11-016	520021	6873024	542	0	-90	50.90
SC-PTS11-017	520286	6873000	512	0	-90	83.21
SC-PTS11-018	519926	6873315	535	0	-90	53.95
SC-RBO11-034	523237	6871815	425	0	-90	63.10
SC-RED11-013	522108	6871144	393	0	-90	44.04
SC-RED11-014	522041	6870988	402	0	-90	70.10
SC-RED11-015	521969	6870820	377	0	-90	63.09
SC-RMK11-001	520960	6869971	357	0	-90	56.99
SC-RMK11-002	520867	6870142	392	0	-90	113.84
SC-RMK11-003	520176	6869831	434	0	-90	81.38
SC-SLD11-010	523815	6872436	645	0	-90	63.09
SC-SLD11-011	523565	6872257	556	0	-90	42.37
SC-SLD11-012	523455	6872604	691	0	-90	50.90
SC-WPR11-025	519664	6870000	482	0	-90	90.53
SC-WPR11-026	519800	6869691	450	0	-90	114.91
SC-WPR11-027	519595	6869659	488	0	-90	78.33
WH11-027	520477	6871556	498	86	-51	346.56
WH11-028	520427	6871654	493	90	-50	447.14
WH11-029	520479	6871561	495	270	-65	836.68
WH11-030	520430	6871657	494	270	-65	790.96
WH11-031	521425	6872427	439	225	-50	297.49
WH11-032	520941	6872546	455	225	-50	352.04
WH11-033	520335	6871667	539	270	-65	827.84
WH11-034	520942	6872552	461	225	-69	433.43
WH11-035	521020	6872503	446	225	-50	434.65
WH11-036	520235	6871648	555	270	-65	714.45
WH11-037	521039	6872644	474	225	-70	538.28
WH11-038	521101	6872643	486	225	-50	437.08
WH11-039	520455	6871752	490	270	-65	785.17
WH11-040	520944	6872691	462	225	-50	391.97
WH11-041	520737	6872623	474	45	-50	355.40



Hole ID	Easting (m)	Northing (m)	Elevation (m)	Azimuth (Degree)	Dip (Degree)	Total Depth
WH11-042	520590	6871977	484	270	-65	535.53
WH11-043	521006	6869705	347	270	-55	338.02
WH11-044	521142	6871755	441	45	-50	312.72
WH11-045	520959	6869714	360	180	-80	380.39
WH11-046	521396	6872076	406	225	-65	495.91
WH11-047	520670	6869739	373	210	-55	361.49
WH11-048	521396	6872076	406	225	-90	410.87
WH11-049	520663	6869928	400	210	-55	465.43
WH11-050	521029	6871852	444	45	-50	563.27
WH11-051	520531	6869981	422	0	-90	424.59
WH11-052	521611	6874377	581	0	-90	399.29
WH11-053	520335	6871667	539	0	-90	712.62



APPENDIX C DRILL COLLARS, ISLAND MOUNTAIN PROJECT AREA

Holes used in Resource Estimate are highlighted

HOLE	EASTING	NORTHING	ELEVATION	HLENGTH	PROJECT
06-DD-WH-REC-11	512318.00	6847653.00	1228.40	386.90	ISLAND MOUNTAIN
06-DD-WH-REC-12	512358.00	6847666.00	1238.90	541.02	ISLAND MOUNTAIN
IM09-001	512312.00	6847602.00	1195.80	446.53	ISLAND MOUNTAIN
IM09-002	512312.00	6847602.00	1195.80	468.50	ISLAND MOUNTAIN
IM10-003	512413.00	6847853.00	1331.90	438.61	ISLAND MOUNTAIN
IM10-004	512413.00	6847853.00	1331.90	434.65	ISLAND MOUNTAIN
IM10-005	512354.00	6847699.00	1258.10	510.54	ISLAND MOUNTAIN
IM10-006	512354.00	6847699.00	1258.10	448.10	ISLAND MOUNTAIN
IM10-007	512315.00	6847653.00	1228.50	359.97	ISLAND MOUNTAIN
IM10-008	512285.00	6847754.00	1217.10	507.80	ISLAND MOUNTAIN
IM10-009	512021.00	6848139.00	1280.90	321.87	ISLAND MOUNTAIN
IM10-010	513061.00	6847764.00	942.00	257.86	ISLAND MOUNTAIN
IM10-011	512768.00	6847457.00	981.00	358.75	ISLAND MOUNTAIN
IM10-012	512205.00	6847763.00	1160.80	588.10	ISLAND MOUNTAIN
IM10-013	512775.00	6847590.00	1037.00	287.12	ISLAND MOUNTAIN
IM10-015	512205.00	6847763.00	1160.80	480.37	ISLAND MOUNTAIN
IM11-016	512140.00	6847641.00	1129.80	652.18	ISLAND MOUNTAIN
IM11-017	514196.00	6848106.00	518.00	285.14	ISLAND MOUNTAIN
IM11-018	512140.00	6847641.00	1129.80	489.81	ISLAND MOUNTAIN
IM11-019	513437.00	6847928.00	758.00	96.62	ISLAND MOUNTAIN
IM11-020	512281.00	6847860.00	1229.60	570.50	ISLAND MOUNTAIN
IM11-021	512602.00	6847413.00	1020.00	286.51	ISLAND MOUNTAIN
IM11-022	512145.00	6848054.00	1324.40	334.67	ISLAND MOUNTAIN
IM11-023	512479.00	6848049.00	1405.70	331.32	ISLAND MOUNTAIN
IM11-024	512145.00	6848055.00	1324.50	500.94	ISLAND MOUNTAIN
IM11-025	512479.00	6848049.00	1405.70	294.74	ISLAND MOUNTAIN
IM11-026	512220.00	6848273.00	1424.90	295.05	ISLAND MOUNTAIN
IM11-027	512194.00	6847855.00	1223.40	502.62	ISLAND MOUNTAIN
IM11-028	512383.00	6847755.00	1277.80	236.83	ISLAND MOUNTAIN
IM11-029	512348.00	6847804.00	1273.70	351.13	ISLAND MOUNTAIN
IM11-030	512249.00	6847702.00	1193.00	367.89	ISLAND MOUNTAIN
IM11-031	512246.00	6847817.00	1191.40	387.71	ISLAND MOUNTAIN
IM11-032	512317.00	6847605.00	1196.50	405.08	ISLAND MOUNTAIN
IM11-033	512249.00	6847700.00	1193.60	315.47	ISLAND MOUNTAIN
IM11-034	512542.40	6849103.30	1402.99	132.62	ISLAND MOUNTAIN
IM11-035	512984.50	6849600.50	1215.00	136.24	ISLAND MOUNTAIN



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IM11-036	512616.00	6849369.00	1319.00	214.26	ISLAND MOUNTAIN
IM11-037	512699.00	6847059.00	763.00	513.82	ISLAND MOUNTAIN
IM11-038	512551.00	6849105.00	1383.00	442.77	ISLAND MOUNTAIN
IM11-039	513649.00	6847401.00	553.00	220.07	ISLAND MOUNTAIN
IM11-040	512020.00	6848143.00	1279.90	434.19	ISLAND MOUNTAIN
IM11-041	512220.00	6848273.00	1424.90	206.35	ISLAND MOUNTAIN

APPENDIX D DRILL COLLARS, RAINTREE WEST PROJECT AREA

Holes used in Resource Estimate are highlighted

HOLE	EASTING	NORTHING	ELEVATION	HLENGTH	PROJECT
RG11-112	520313.00	6871801.00	502.00	194.16	RAINTREE W
RG11-113	520503.00	6871803.00	477.00	96.62	RAINTREE W
RN_08_06	520553.00	6871444.00	497.00	300.50	RAINTREE W
WH09-002	520658.00	6871455.00	475.00	479.16	RAINTREE W
WH10-011	520051.00	6871422.00	616.00	668.73	RAINTREE W
WH10-024	520703.00	6871351.00	471.22	307.24	RAINTREE W
WH10-026	520790.00	6871450.00	449.00	355.40	RAINTREE W
WH11-027	520477.00	6871556.00	498.00	346.56	RAINTREE W
WH11-028	520427.00	6871654.00	493.00	447.14	RAINTREE W
WH11-029	520479.00	6871561.00	495.00	836.68	RAINTREE W
WH11-030	520430.00	6871657.00	494.00	790.96	RAINTREE W
WH11-033	520335.00	6871667.00	539.00	827.84	RAINTREE W
WH11-036	520235.00	6871648.00	555.00	714.45	RAINTREE W
WH11-053	520335.00	6871667.00	539.00	712.62	RAINTREE W

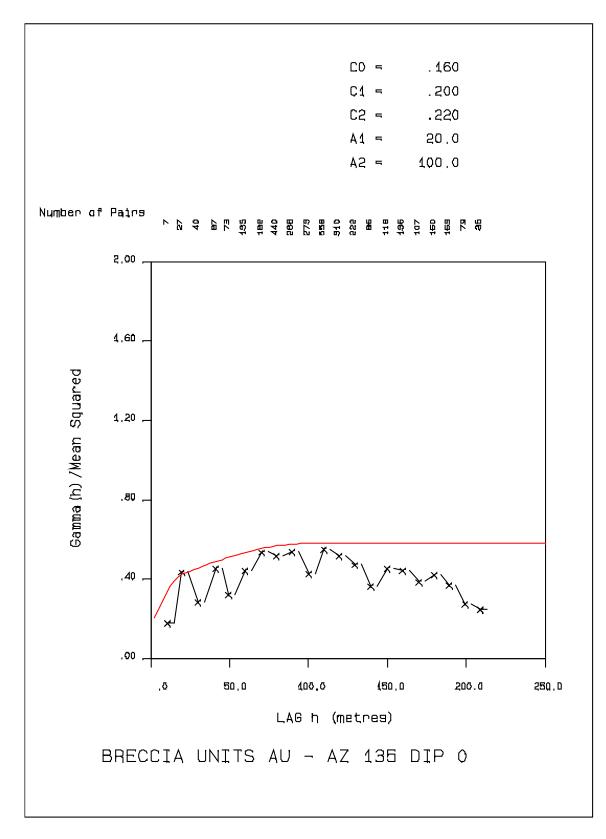


APPENDIX E: VARIOGRAPHY FOR GOLD

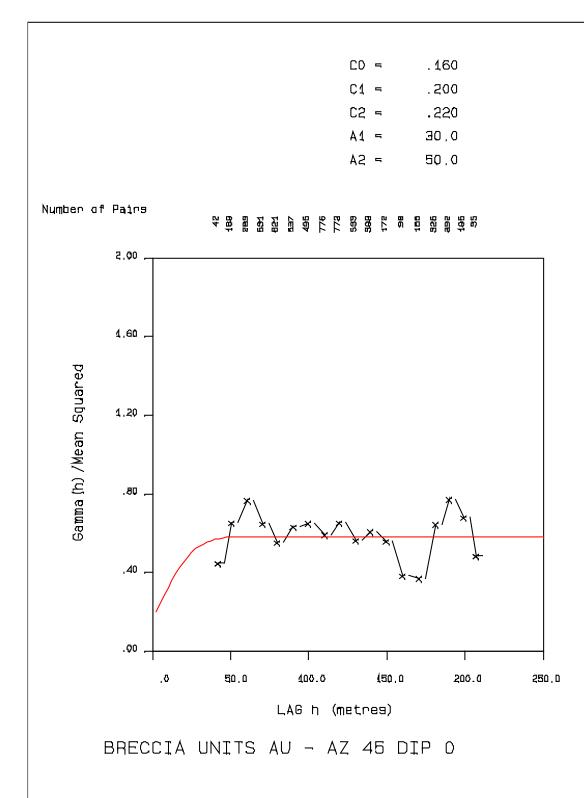
Island Mountain – models for gold in combined breccia units Island Mountain – models for gold in diorite porphyry unit Island Mountain – models for gold in waste Raintree West – models for gold in mineralized solid





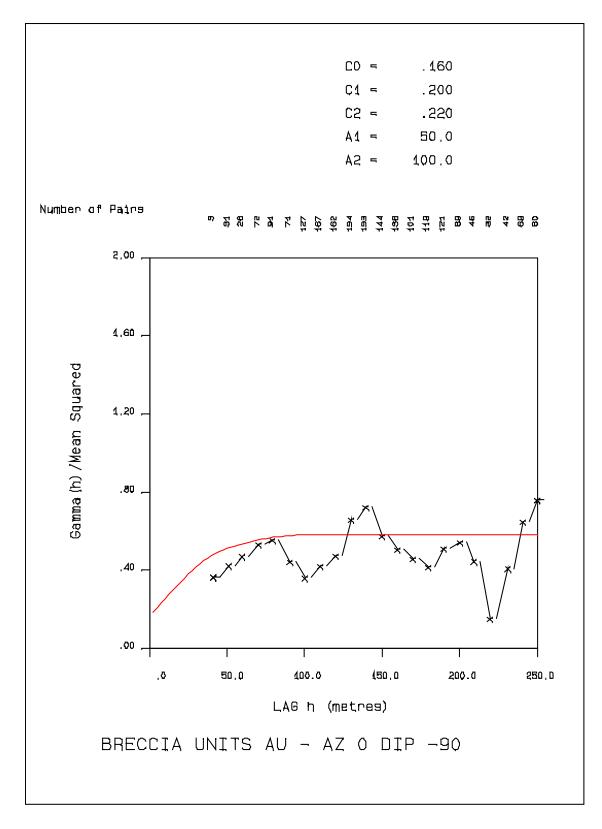






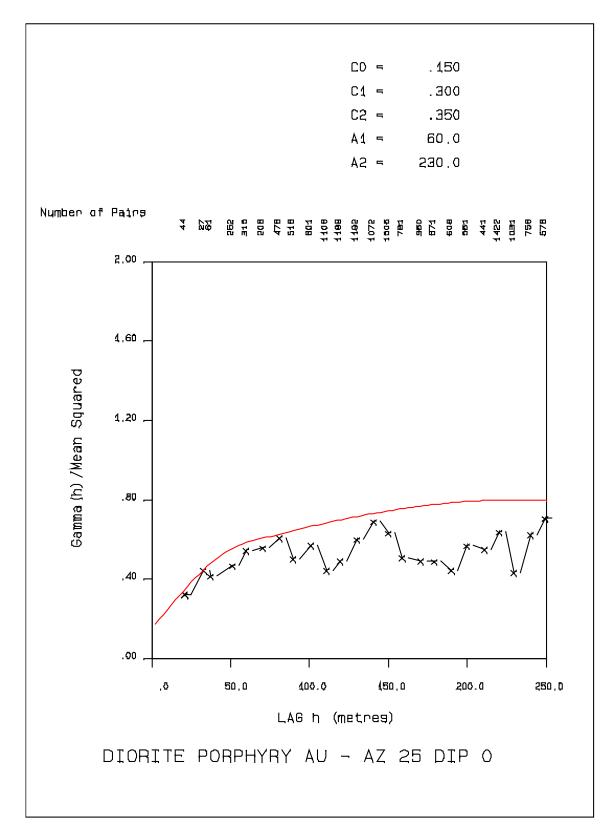






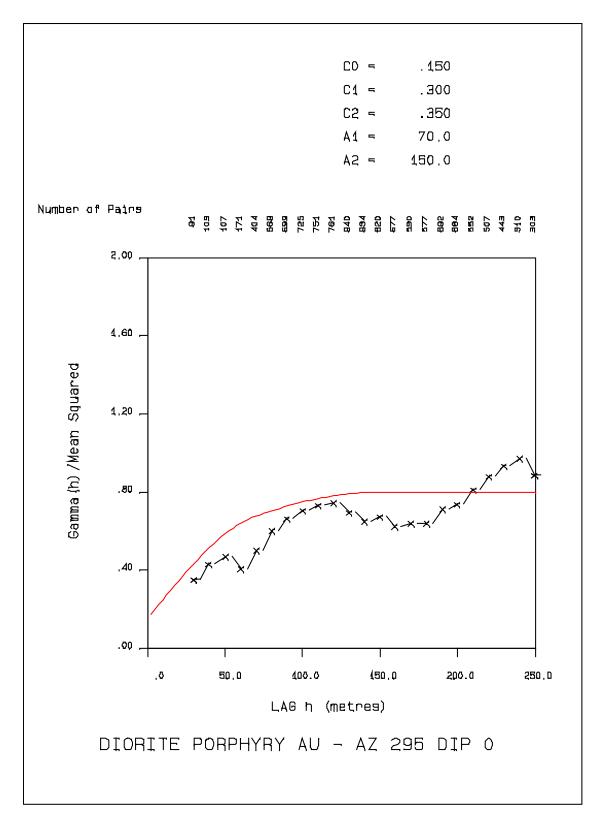






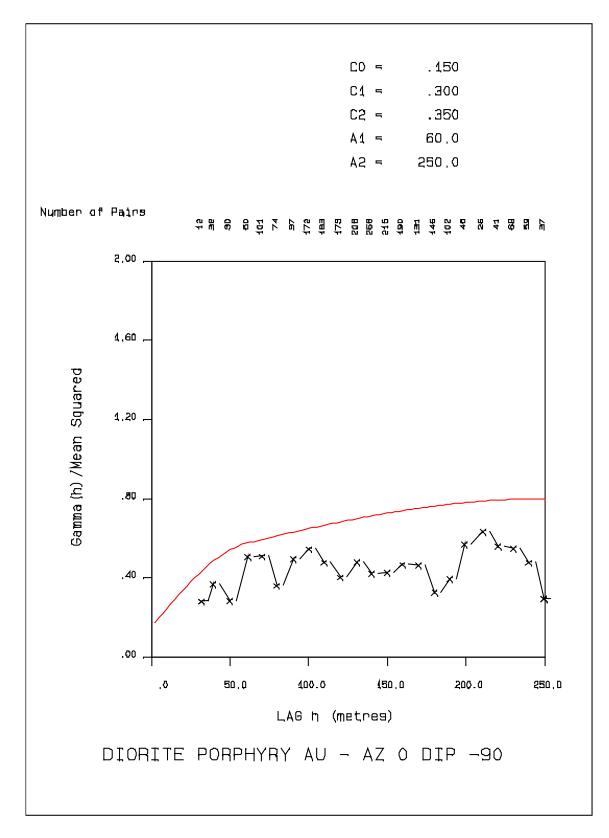




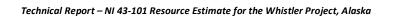


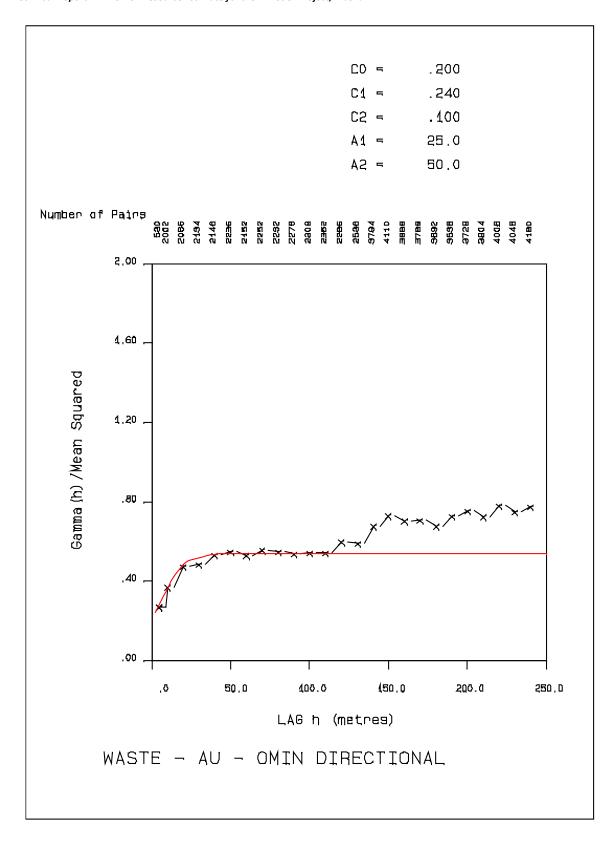






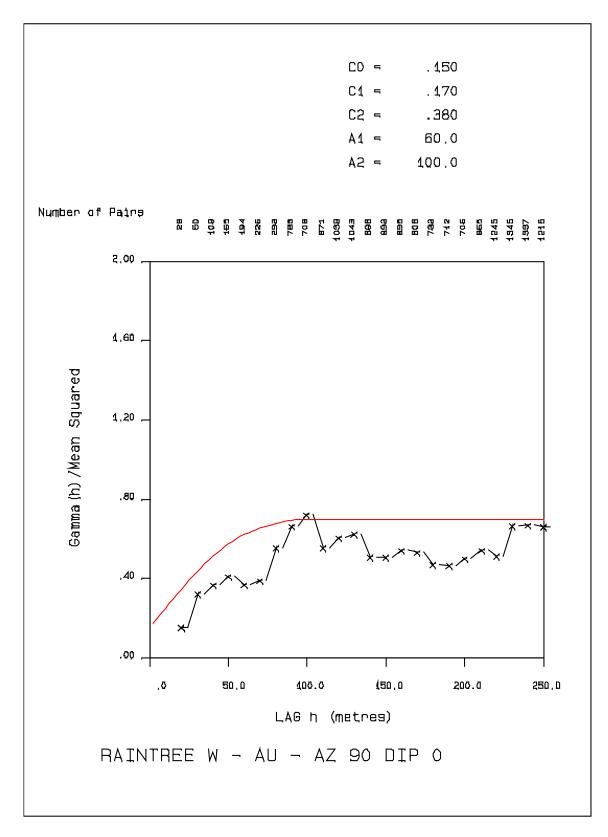






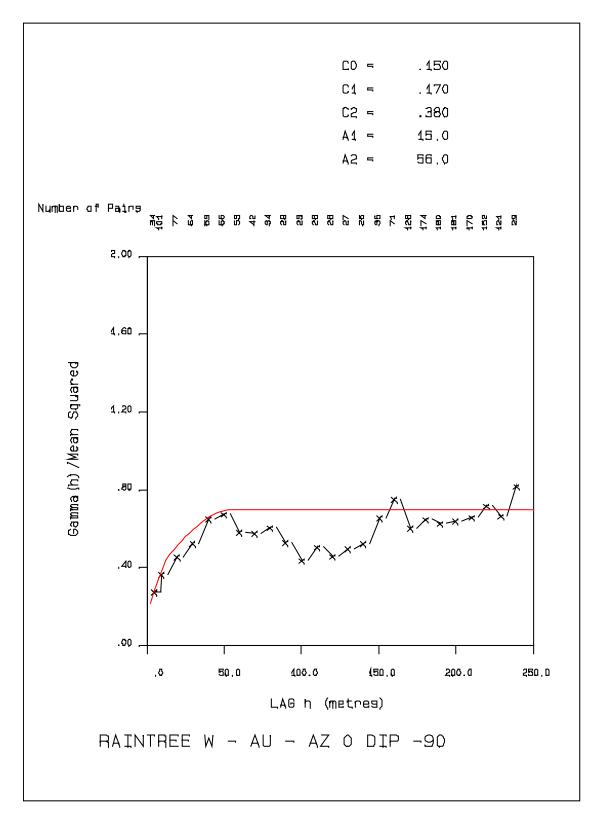










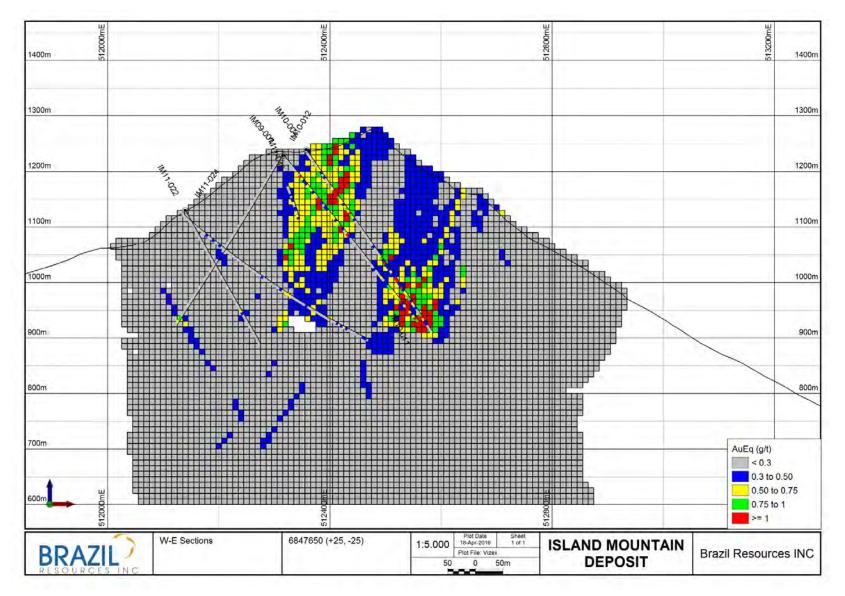




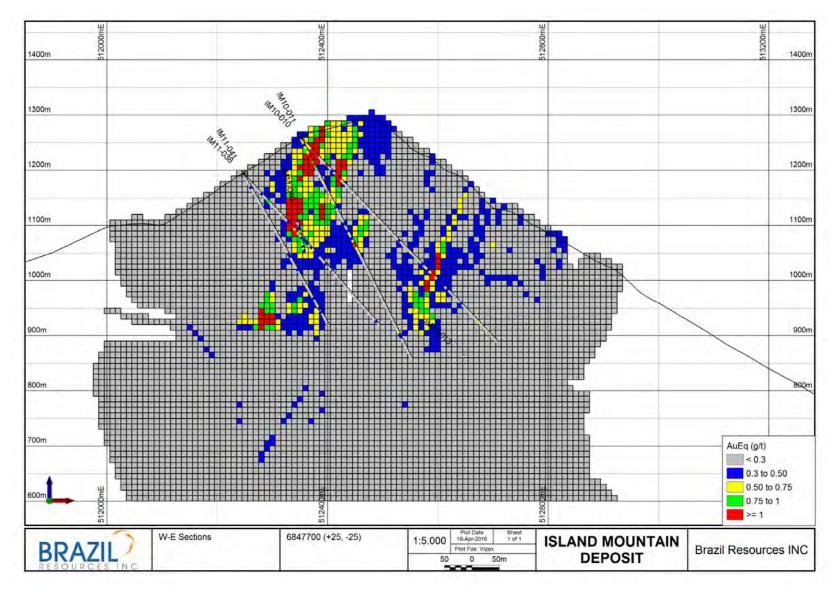
APPENDIX F: CROSS SECTIONS FOR ISLAND MOUNTAIN

Cross sections show colour coded AuEq grades, drill holes and colour coded assays.

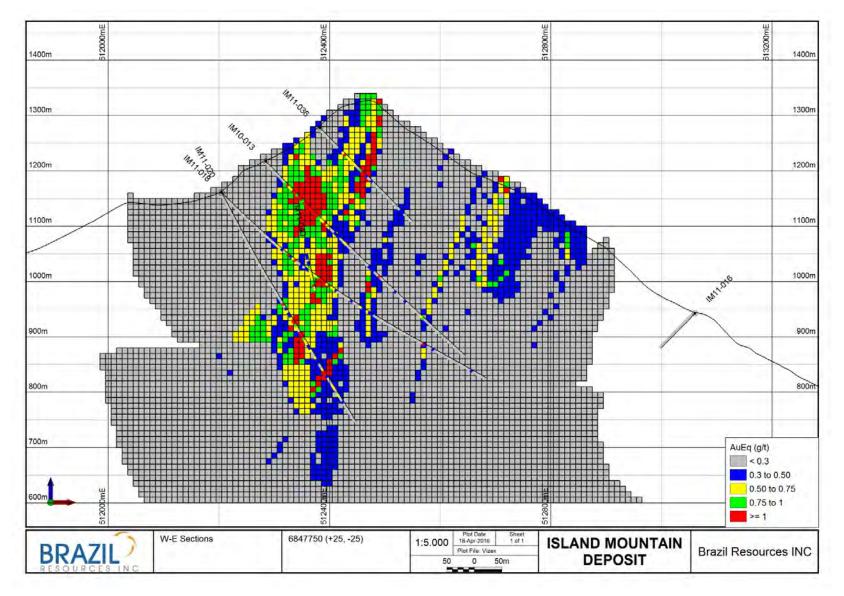




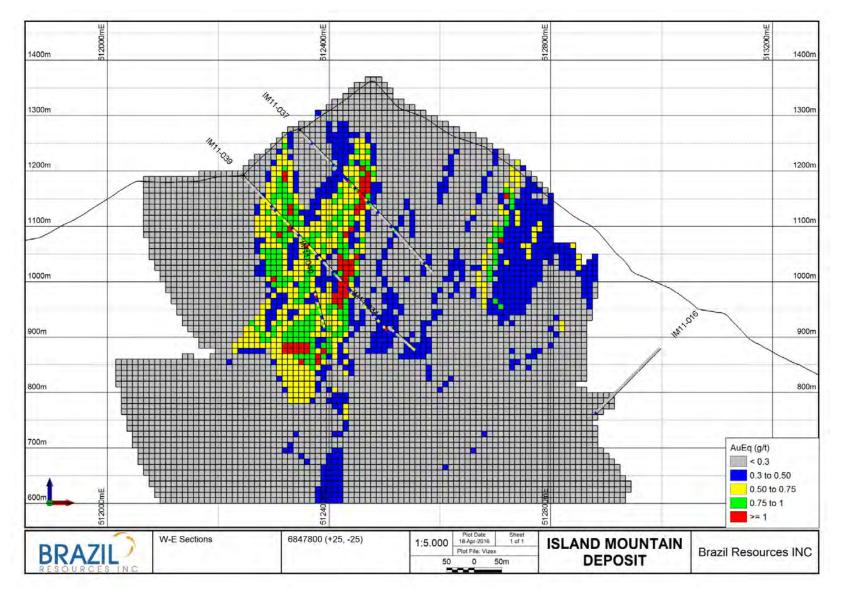














APPENDIX G: CROSS SECTIONS FOR RAINTREE WEST

Cross sections show colour coded AuEq grades, drill holes and colour coded assays.



