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PRIMAVERA PROJECT RESOURCE ESTIMATE

REGIÓN AUTÓNOMA DE LA COSTA CARIBE NORTE, NICARAGUA

CONFIDENTIAL



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APPENDIX C - VARIOGRAM MODELS

ABBREVIATIONS

UNITS OF MEASURE

above mean sea level	amsl
acre	ac
ampere	A
annum (year)	а
billion	B
billion tonnes	Bt
billion years ago	Ga
British thermal unit	BTU
Centimetre	cm
cubic centimetre	cm ³
cubic feet per minute	cfm
cubic feet per second	ft³/s
cubic foot	ft ³
cubic inch	in
cubic metre	m ³
cubic vard	vd ³
Coefficients of Variation	Cvs
dav	b, o b
days per week	d/wk
days per vear (annum)	d/a
dead weight tonnes	
decibel adjusted	DWT Ra
decibel	Da dR
decider	۵۵۰
degrees Coloius	• ^
diameter	U
deller (American)	שש חבר
dollar (American)	
dollar (Canadian)	
	بر ۱۱۱
	π
gallon	gai
galions per minute	gpm
Gigajoule	
Gigapascal	GPA
Gigawatt	GW
Gram	g
grams per litre	g/L
grams per tonne	g/t
greater than	>
hectare (10,000 m2)	ha
hertz	Hz
horsepower	hp
hour	h
hours per day	h/d
hours per week	h/wk
hours per year	h/a

inch	in
kilo (thousand)	k
kilogram	kg
kilograms per cubic metre	kg/m ³
kilograms per hour	kg/h
kilograms per square metre	kg/m ²
kilometre	km
kilometre	km
kilometres per hour	km/h
kilopascal	kPa
kiloton	kt
kilovolt	kV
kilovolt-ampere	kVa
kilowatt	kW
kilowatt hour	kWh
kilowatt hours per tonne	kWh/t
kilowatt hours per year	kWh/a
less than	<
litre	L
litres per minute	L/m
megabytes per second	Mb/s
megapascal	Мра
megavolt-ampere	Mva
megawatt	MW
metre	m
metres above sea level	masl
metres Baltic sea level	mbsl
metres per minute	m/min
metres per second	m/s
microns	µm
milligram	mg
milligrams per litre	mg/Ľ
millilitre	mL
millimetre	mm
million	M
million bank cubic metres	Mbm ³
million bank cubic metres per annum	. Mbm3/a
million tonnes	Mt
minute (plane angle)	'
minute (time)	min
month	mo
ounce	oz
pascal	Pa
centipoise	mPa·s
parts per million	ppm
parts per billion	ppb

	o /
percent	%
pound(s)	lb
pounds per square inch	psi
revolutions per minute	rpm
second (plane angle)	····· "
second (time)	S
short ton (2,000 lb)	st
short tons per day	st/d
short tons per year	st/y
specific gravity	SŚ
square centimetre	cm ²
square foot	ft²
square inch	in ²
square kilometre	km2
1	

square metre	m²
three-dimensional	3D
tonne (1,000 kg) (metric ton)	t
tonnes per day	t/d
tonnes per hour	t/h
tonnes per year	t/a
tonnes seconds per hour metre cubed volt	. ts/hm³ V
week	wk
weight/weight	w/w
wet metric ton	wmt

ACRONYMS

AAS	Atomic Absorption Spectroscopy
AES	Atomic Emission Spectroscopy
Calibre	Calibre Mining Corp.
ELA	Ernest Lehman & Associates
FA	Fire Assay
GPS	Global Positioning System
ICP	Inductively Coupled Plasma
ID ²	Inverse Distance Squared
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
NAD	North American Datum
NN	Nearest Neighbour
NSR	Net Smelter Return
OK	Ordinary Kriging
PEA	Preliminary Economic Assessment
Project (the)	Primavera Project
QA/QC	Quality Assurance / Quality Control
SERENA	Secretaria de Recursos Natural
SG	Specific Gravity
SRM	Standard Reference Materials
WSP	WSP Canada Inc.
UTM	Universal Transverse Mercator

1 SUMMARY

The Primavera Project is located in north-central Nicaragua, in the Rosita municipalities of the Región Autónoma de la Costa Caribe Norte, approximately 275 km northeast of Managua and 80 km west of the coastal town of Puerto Cabezas. The Project is centred at 13° 50' north latitude and 84° 23' west longitude and consists of two exploration concessions. Mineral titles are held by CXB Nicaragua, wholly-owned subsidiaries of Calibre.

In July 2016, Calibre commissioned WSP Canada Inc. (WSP) to complete a resource estimate and technical report on the Primavera Project. The resource estimation was based on diamond drillholes completed up to the end of 2012. This technical report complies with disclosure and reporting requirements set forth in National Instrument 43-101 (NI 43-101) Standards of Disclosure for Mineral Projects, Companion Policy 43-101CP, and Form 43-101F.

1.1 GEOLOGY

The Primavera Project is regionally underlain by the Chortis Block, which consists of phyllites and mica schists. The Chortis Block is unconformably overlain by Mesozoic stratigraphy represented by limestone, mudstone, greywacke, and calcareous mudstone, with lesser andesite tuff and flows, of the Early Cretaceous Todos Santos Formation. Cenozoic aged volcanic rocks of calc-alkaline, high-alumina basalts, and basaltic andesites composition are extensively exposed in the vicinity of the concessions. The Cenozoic volcanics are overlain by regionally extensive Miocene ignimbrites and by mid-Miocene to Pliocene mafic flows.

A series of intrusive bodies extend northeasterly through northeastern Nicaragua, including the concession areas. Age dating of the intrusions suggests ages from Cretaceous to Tertiary. The intrusives consist of fine- to medium-grained diorite, granodiorite, syenite, monzonite and alaskite stocks, plugs, and dykes.

1.1.1 PRIMAVERA

Gold and copper mineralization at the Primavera Project is associated with a swarm of NE-trending equigranular diorite dykes intruding variably porphyritic andesite and minor tuffaceous rocks of intermediate composition. The dyke swarm coincides with a major NE trending fault zone on the west side of the principal mineralized zone. The fault zone itself hosts sulphide rich quartz veins and breccias that occasionally contain highly anomalous gold.

As is common in porphyry systems, a series of dykes and intrusive breccias of principally intermediate composition temporally span the evolution of the porphyry cell. Textural variations within the diorite may indicate multiple pulses that have yet to be correlated with variations in grade.

The geophysical signatures present at Primavera show a complex relationship. The surveys indicate that magnetic highs and lows, as well as IP anomalies, correlate well with major structures. Looking at the magnetic signature over the principal zone, where secondary magnetite is known to occur, it generally appears as a magnetic low. This highlights the relatively magnetic nature of the local host lithologies as the magnetite destruction plus secondary magnetite replacement observed in the main zone is often lower than the adjacent host rocks which contain only primary magnetite.

A large radiometric anomaly underlies Primavera which highlights the potential volume of fertile intrusive and hypabyssal volcanic host rocks in the target area. Future drilling will focus on potential satellite mineralization related to multiple stocks or apophyses of similar composition to that of the main zone.

The Primavera zone shows classic porphyry stockwork mineralization consisting of millimetre to centimetre quartz-pyrite-chalcopyrite+bornite-magnetite veins associated with primary potassic and secondary propylitic alteration of the host rock. Structural measurements collected in the Primavera trenches show that the sheeted and stockwork quartz veins have a dominant NE-SW orientation in the southern portion of the zone but switch to dominantly NW-SE oriented further to the north. The mineralization starts at surface and reaches depths of as much as 250 m (true vertical).

The highest grades are associated with strong potassic alteration in the form of K-spar with secondary magnetite in diorite and secondary biotite in the andesite porphyry. Bornite is common in these zones. Multi-stage quartz veining indicates that the earliest mineralization predates intrusion of the diorite as diorite cuts both the andesite porphyry and earliest veins, but is itself cut by later veins. Parts of the Primavera system show a strong propylitic overprint consisting of chlorite-epidote-pyrite-calcite, and grades are commonly lower where propylitic alteration intensity is at its highest.

The resource estimate for the Primavera Project is supported by 32 diamond drillholes and 6 surface trenches.

1.2 CONCLUSION

The Primavera Project comprises a land package in the historical Rosita mining camp of northeast Nicaragua. The Primavera Project displays classic copper–gold porphyry characteristics. The geological dataset generated by Calibre, consisting of data derived from diamond drilling, soil and rock sampling, trenching and geophysics has been deemed suitable to support geological interpretation and resource estimation at Primavera.

The Primavera mineral resource was developed on a porphyry copper–gold model, and contains an Inferred Resource of approximately 45 Mt with an average grade of 0.54 g/t gold, 1.15 g/t silver, and 0.22 copper using a 0.5g/t gold equivalent cut-off (Table 1.1).

The Primavera pit constrained mineral resource contains an Inferred Resource of approximately 28 Mt with an average grade of 0.60 g/t gold, 1.22 g/t silver and 0.23 copper using a 0.5g/t gold equivalent cut-off.(Table 1.2).

Classification	Zone	Tonnage	Au (g/t)	Ag (g/t)	Cu (%)	Aueq (g/t)	Au oz	Ag oz	Cu lbs	Aueq oz
Inferred	SP	2,555,000	0.71	0.51	0.10	0.84	59,000	42,000	5,480,000	70,000
	HG	18,609,000	0.69	1.29	0.28	1.06	410,000	774,000	116,597,000	630,000
	LG	23,810,000	0.41	1.10	0.18	0.65	313,000	845,000	96,593,000	500,000
	Subtotal	44,974,000	0.54	1.15	0.22	0.84	782,000	1,661,000	218,670,000	1,200,000

Table 1.1 Primavera Resource Summary

Table 1.2 Primavera Pit Constrained Resource Summary

Classification	Zone	Tonnage	Au (g/t)	Ag (g/t)	Cu (%)	Aueq (g/t)	Au oz	Ag oz	Cu lbs	Aueq oz
Inferred	SP	2,274,000	0.59	0.44	0.08	0.70	52,110	39,200	5,438,300	62,772
	HG	15,072,000	0.70	1.37	0.31	1.07	337,300	663,390	92,400,000	518,530
	LG	10,442,000	0.43	1.17	0.18	0.68	145,700	391,470	42,232,100	229,860
	Subtotal	27,790,000	0.60	1.22	0.23	0.91	535,110	1,094,060	140,070,400	811,162

1.3 **RECOMMENDATIONS**

It is WSP's opinion that additional exploration expenditures are warranted. Two separate exploration programs are proposed. Each can be carried out concurrently and independently of each other, and neither is contingent on the results of the other

1.3.1 PHASE 1 – PRIMAVERA EXTENSION

Phase 1 is designed primarily to expand the current resource at the Primavera Project by testing the strike and dip extension of the deposit as well as other geochemical and geophysics targets. This will entail diamond and RC drilling with additional work on metallurgical testing, rock mechanics and surveying.

The drilling campaign should be designed to target the potential strike extensions of the Project, particularity the northeast. Drillhole spacing should continue at approximately 50 m along section and 50 to 75 m vertically on section in order to support an Inferred Resource. Any opportunity to drill some of the structural targets should be made.

The proposed budget for Phase 1 is estimated at \$2.0 million.

1.3.2 PHASE 2 – PRIMAVERA EXPANSION

Phase 2 is designed to delineate the resource at the Project by infilling of the deposit and providing the level of detail to conduct a PEA. This will entail a diamond and RC drilling programs, addition metallurgical testing, other technical studies, and environmental base lining.

The drilling campaign should be designed to target the core areas of the Primavera deposit, particularly in the areas where widths are wider and grades are higher. Drillhole spacing should be at approximately 25 to 30 m along section and 30 to 50 m vertically on section in order to improve the resource classification.

The proposed budget for Phase 2 is estimated at \$2.5 million.

2 INTRODUCTION

The Primavera Project (the Project) is located in north-central Nicaragua in the Rosita municipality of the Región Autónoma de la Costa Caribe Norte and is currently 100% owned by CXB Nicaragua, S.A., a wholly-owned subsidiary of Calibre.

In July 2016, Calibre commissioned WSP to complete a resource estimate and technical report on the Project. The resource estimation was based on diamond drillholes and trenches completed on the Property to the end of 2012.

The object of the technical report is as follows:

- → Compile historical work and activities on the Property;
- → Generate a resource estimate on the Primavera deposit;
- → Summarize all land tenures, exploration history, trenching and drilling;
- > Provide recommendations and budget for additional work on the Project.

This report has been compiled in accordance with NI 43-101, Companion Policy 43- 101CP, and Form 43-101F1.

All the data files that were reviewed for the report were provided by Calibre in digital format, and access to paper reports and logs was granted when requested. Calibre made its own work available and compiled historical work conducted by previous operators on the Project.

The primary author of this report is Todd McCracken, P. Geo., who is a Professional Geologist with 25 years of experience in exploration and operations, including several years working in epithermal and replacement gold deposits. Mr. McCracken visited the Project from September 22 to 24, 2016 inclusive and was accompanied by Mr. Greg Smith, President and Mr. Marc Cianci, Senior Project Geologist for Calibre.

RELIANCE ON OTHER EXPERTS

WSP has reviewed and analyzed data and reports provided by Calibre Mining, together with publicly available data, drawing its own conclusions augmented by direct field examination.

This report includes technical information, which required subsequent calculations to derive subtotals, totals and weighted averages. Such calculations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, the QP does not consider them to be material.

The QP who prepared this report relied on information provided by experts who are not QPs. The QP believes that it is reasonable to rely on these experts, based on the assumption that the experts have the necessary education, professional designations, and relevant experience on matters relevant to the technical report.

- → Todd McCracken, P. Geo., relied upon Greg Smith, President and CEO of Calibre Mining for information pertaining to mineral claims and mining leases as well as the acquisition agreement as disclosed in Section 4.0.
- → Todd McCracken, P. Geo., relied upon Greg Smith, President and CEO of Calibre Mining for information pertaining to metallurgical test results as disclosed in Section 13.0.

4 PROPERTY DESCRIPTION AND LOCATION

4.1 LOCATION

The Project is located in north-central Nicaragua, in the Rosita municipalities of the Región Autónoma de la Costa Caribe Norte, approximately 275 kilometres northeast of Managua and 80 kilometres west of the coastal town of Puerto Cabezas (Figure 4.1).

Figure 4.1 Location Map



4.2 MINERAL DISPOSITION

The Project is centred at 13° 50' north latitude and 84° 23' west longitude and consists of two exploration concessions. Mineral titles are held by CXB Nicaragua, wholly owned subsidiaries of Calibre. The mineral titles are detailed in Table 4.1 and on Figure 4.2.

Table 4.1 N	lineral Title				
Mineral Title	Ownership	Claim	Ministry Accord	На	Due Date
Rosita H-2	CXB Nicaragua, S. A	767	81-DM-62-2007	2,500	July 28 2027
Nueva America	H-1 CXB Nicaragua, S. A	825	76-DM-57-2007	3,200	July 28 2027





In Nicaragua, concessions are demarcated by east-west and north-south lines as defined by Universal Transverse Mercator (UTM) coordinates (North American Datum (NAD)-27). Annual payments are required for maintenance of exploration and mining concessions. Prior to enactment of Nicaragua's Law 387 of 2001, both exploration and exploitation concessions were granted by the government; after 2001, mineral concessions with rights for both exploration and exploitation were granted.

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For mineral concessions granted after 2001, the annual payments are US\$0.25/ha in Year 1, US\$0.75/ha in Year 2, US\$1.50/ha in Years 3 and 4, US\$3.00/ha in Years 5 and 6, US\$4.00/ha in Years 7 and 8, US\$8.00/ha in Years 9 and 10 and US\$12.00/ha for every year thereafter. Exploitation concessions, which predate Nicaragua's Law 387 of 2001, require payments of US\$2.00/ha in Years 1 and 2, US\$4.00/ha in Years 3 and 4 and US\$8.00/ha for every year thereafter.

Both exploitation and mineral concessions are granted for a term of 25 years and can be renewed for an additional 25 years. Artisanal miners are permitted to conduct hand mining on concessions held by others, but artisanal miners not already active by 2001 are limited to a maximum of 1% of the concession area and their activities are regulated by the Ministerio de Fomento, Industria y Comercio (MIFIC). The area of the mineral title Rosita H-2 which comprises a portion of the Primavera Project is defined by the following set of UTM coordinates (Table 4.2).

|--|

4.3 TENURE RIGHTS

Calibre hold certain surface titles in the Project consisting of an area of 114.62 hectares, largely covering area of existing field camp.

4.4 ROYALTIES AND RELATED INFORMATION

Calibre owns 100% of the mineral titles which comprise the Project subject to a 1.5% net smelter return royalty on production with B2Gold. B2Gold is entitled to an aggregate net smelter returns royalty of 1.5% on production generated on the Property (the "1.5% NSR") pursuant to the NSR Royalty Agreement.

All royalty or provisional royalty payments will be payable on or before the 30th day following each Calendar Quarter defined by each three-month period ending March 31st, June 30th, September 30th, and December 31st of each calendar year following the commencement of production.

Net Smelter Returns or "NSR" for a Calendar Quarter in respect of all of the Products means the sum of (i) for each of the products, the average mineral price quotation for the Product for a Calendar Quarter multiplied by the total number of appropriate units of measurement of the Product beneficiated by Calibre or credited by the smelter, refiner or other bona fide purchaser to Calibre during that Calendar Quarter; less (ii) the deductions, adjustments and credits. Products means all subject ores produced from the Property and prepared for sale. Mineral Content means all marketable ores, metals and minerals contained in subject ore as separately estimated by Calibre using head grade or assays taken prior to entering mill or heap leach facilities, mill or heap leach operation recovery levels, and adjustments at the refinery, as key components in the calculation of mineral content.

Smelter Returns for a Calendar Quarter in respect of all of the products means, for each of the products, the average mineral price quotation for the product for a calendar quarter multiplied by the total number of appropriate units of measurement of the product beneficiated by Calibre or credited by the smelter, refiner or other bona fide purchaser to Calibre during that calendar quarter

The Project is also subject to a 3% net smelter return (NSR) royalty payable to the Nicaraguan government, as dictated by law.

4.5 ENVIRONMENTAL LIABILITIES

There has been surface disturbance by past mining activities in parts of the Project. It is believed that Calibre, as the current concession owner, is not liable for the effects of mining and exploration prior to the privatization of the concessions in 1994. This liability has been accepted by the government of Nicaragua. Calibre is responsible only for any environmental disturbances generated through the exploration activities conducted by Calibre.

4.6 PERMITS

Prior to any type of mineral exploration, an environmental permit is required from the Región Autónoma de la Costa Caribe Norte. An exploration plan with proposed field work, time-line and cost estimate must be submitted to the Secretaria de Recursos Natural (SERENA) of the Región Autónoma de la Costa Caribe Norte. An independent environmental impact study and public consultations are required for programs with significant ground disturbance, such as trenching or drilling. WSP has been informed that the Rosita H-2 exploration concession are currently permitted to allow for additional drilling and trenching (Table 4.3).

Title Name	Ministry Accord	Permit Type	Status	Authorized by SERENA	Expiry
Rosita H-2	38-DM-161-2009	Exploration	Active	Apr. 7, 2010	Dec. 18, 2017
Nueva América H-I	37-DM-160-2009	Exploration	Active	Dec. 9, 2011	Apr. 13, 2018

Table 4.3 Primavera Permits

4.7 OTHER RELEVANT FACTORS

WSP is not aware of any other relevant factors that would have material impact on the Project.

ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 SITE TOPOGRAPHY, ELEVATION, AND VEGETATION

The Project lies within Nicaragua's Atlantic coastal plain and is characterized byflat to hummocky terrain reaching and elevation of 50 to 100 masl and is crossed by numerous dirt trails and roads. Small subsistence type farms are common through the area and separated by heavy second-growth jungle and swamps. Numerous small creeks which cross the area provide seasonal water for drilling and eventually feed into the much larger Okonwas River to the west.

Northeast Nicaragua is covered by lowland humid tropical forest, much of which has been converted to pasture land on the Property (Figure 5.1 and Figure 5.2).



Figure 5.1 Tropical Forest





5.2 ACCESS

The Property is located 230 air kilometres northeast of Managua and 100 air kilometres west of the Caribbean port town of Puerto Cabezas. The closest main population centre to the concession is Rosita.

Rosita has a population of 22,500 (https://www.citypopulation.de/php/nicaragua-

<u>admin.php?adm2id=9115</u>). Ground access to the area is provided by paved state highways from the south, east and west. The southern and western access roads connect Siuna to Matagalpa, Nicaragua's fifth-largest city, a distance of approximately 140 km.

Currently, it takes about five hours to drive from Managua to Siuna. From Siuna, this road extends eastward through Rosita to Puerto Cabezas on the Caribbean Sea. Another road connects Rosita and Bonanza. Aside from the principal paved roads, the area is traversed by a series of dirt tracks and footpaths, some accessible by four-wheel drive truck, that connect outlying villages and farms.

Bonanza and Siuna have daily scheduled flights to Managua with La Costeña, a commercial airline.

The Project is located 7 km south of the town of Rosita and is accessed by an all-weather road with a one-way travel time of approximately 20 minutes. Following the principal highway west from Rosita toward Siuna, the access road to the Project is on the south side, approximately 660 m past the village of Sulivan. The area surrounding the Project is accessible by all-wheel drive vehicle during the dry season and by foot on numerous trails through the rest of the year (Figure 5.3).



Figure 5.3 Project Access

5.3 CLIMATE

The area undergoes a dry season from December to May and a rainy season from June to November. The transition between the two seasons varies slightly from year to year and across the Property. The rainy season is marked by generally clear mornings and daily cloudbursts in the afternoon. Fieldwork is possible throughout the year, with access generally being easier during the dry season.

5.4 INFRASTRUCTURE

The town of Rosita have municipal water systems serviced by reservoir, although water for industrial use and drilling is limited in the dry season.

Water for drilling purposes at the Project can be obtained year-round from water trucks pulling water from the numerous creeks and rivers in the region.

Rosita is connected to the national electricity grid. Intermittent power failures are common, and generator backups are recommended. Currently, the Nicaraguan government is upgrading the transmission lines in the region. A hydroelectric facility on the Río Way at El Salto, approximately 25 km northeast of Siuna, provided ample power for the La Luz and Rosita mines and communities before failing in 1968 due to heavy rain fall.

Telephone service is provided by landline to Rosita through the national telephone company, ENEL. A number of companies also currently provide cellular and satellite communication services across the Property.

Aside from mining, the principal economic activities in the area are logging, small-scale farming, ranching and service industries. Rosita was built to support the formerly active mines, and their population would provide a good supply of unskilled and semi-skilled labour, as well as heavy equipment and supplies.

The fully-equipped field camp at Primavera includes accommodations for logging and food for up to 35 persons. Additional infrastructure includes offices, kitchen, storage, as well as a core logging and storage facility. The camp is connected to the national electrical grid and includes telephone communications.

The exploration and mining history are summarized from Arengi (2003) and Hendrickson (1995). The recorded history of the region is not well documented as numerous records were destroyed initially in the early 1980s during the Nicaraguan Civil war.

6.1 HISTORY OF THE PRIMAVERA PROJECT

Over the last 40 years, the Project area has sustained a variety of exploration programs. Table 6.1 summarizes the exploration history of the region.

Year	Company / Entity	Exploration Activities
1969	United Nations	"Primavera" target area included in regional aeromagnetics and radar imagery survey; "Primavera" area includes Copper Hill, Porvenir, Primavera, Santa Juana and San Francisco gold-copper targets
1974-75	Rosario Resources Corp.	Acquired property from La Luz Mining Ltd. (1973); stream sediment, soil, surface rock and trench sampling at Copper Hill
1977	Agilis Engineering	Trenching and geochemical surface sampling at Primavera; data not preserved
1978	Toronto Development Company	Two (2) drillholes; data not preserved; locations not known
1981-82	Ernest Lehman & Associates (ELA)	Nationalization of Rosario Resources Corp. assets (1979); work completed by ELA on behalf of Corporacion Nicaraguense de Minas (CONDEMINA); 52 trenches totaling 595 metres at Copper Hill, Porvenir, Primavera, Santa Juan and San Francisco; 396 channel samples collected from trenches
2008	Yamana Gold Inc.	Yamana Gold Inc. acquired project from RNC Gold Inc. (2006); geologic mapping and surface rock sampling; 26 surface rock samples
2009	Calibre Mining Corp./B2Gold Corp. Option	NEN Gold-Copper Project acquired from Yamana Gold Inc.; NEN project includes "Primavera" target area; Calibre Mining Corp. acting as Operator
2010-2011	Calibre Mining Corp./B2Gold Corp. Option	Calibre Mining Corp. acting as Operator; geologic mapping, 497 surface rock samples, 4,072 soils, 7 trenches totaling 513.85 metres, 45 exploration pits; 403 channel samples collected from trenches and pits; 111 line-km ground magnetics; 3 DDH holes totaling 867.20 metres
2012 to Nov 3 rd , 2016	Calibre Mining Corp./B2Gold Corp. JV	B2Gold Corp. acting as Operator; geologic mapping, 722 surface rock and channel samples, 1,897 soils; 143 sq. km aeromagnetic and radiometric survey; 18 line- km IP; LiDAR topographic survey; 29 DDH holes totaling 12,546 metres
Nov. 3 rd , 2016 to Current	Calibre Mining Corp.	Calibre acquires 100% of "Primavera" gold-copper porphyry project

Table 6.1 Exploration Summary

GEOLOGICAL SETTING AND MINERALIZATION

7.1 REGIONAL GEOLOGY

Nicaragua is underlain by the Chortis block of the Caribbean plate. Basement rocks in the Chortis block are dominantly phyllites and mica schists which are unconformably overlain by Mesozoic stratigraphy (Sundblad 1991). The Mesozoic stratigraphy is represented by limestone, mudstone, greywacke and calcareous mudstone, with lesser andesite tuff and flows, of the Early Cretaceous Todos Santos Formation. Around the projects, the Todos Santos Formation is exposed as a series of northeast trending isolated windows within pre-Tertiary and Tertiary volcanics and intrusives (Arengi 2003) (Figure 7.1).

Subduction of the Farallon and later the Cocos plates beneath the Caribbean plate along the Middle America Trench, southwest of Nicaragua, resulted in extensive accumulation of Cenozoic volcanic rocks (Donnelly 1990). The volcanic rocks are dominated by calc-alkaline, high-alumina basalts and basaltic andesites, with locally important ignimbrites of rhyolitic to andesitic composition. The Matagalpa Formation is a widespread, but poorly defined Oligocene to mid-Miocene volcanogenic formation composed of rhyodacite and rhyolite flows and tuffs, andesitic flows and tuffs, basalt and lesser epiclastic material, and is extensively exposed in the vicinity of the Project. The Matagalpa Formation is overlain by regionally extensive Miocene ignimbrites (Tamarindo Formation) and by mid-Miocene to Pliocene mafic flows of the Coyol Group; these are exposed mainly in a northwest-trending band east of Lake Nicaragua. Pliocene and younger volcanism has shifted southwest toward the Pacific coastline, where several volcanoes are currently active.

A series of intrusive bodies extend northeasterly through northeastern Nicaragua, including the Project areas. Limited age dating suggests the oldest of these are Cretaceous; however there is field evidence that some of them are Tertiary in age. The intrusives consist of fine- to medium-grained diorite, granodiorite, syenite, monzonite and alaskite stocks, plugs and dykes. Most of these intrusives occur along a northeast trend similar to the distribution of the sedimentary rocks (Arengi 2003).

Northeastern Nicaragua has been subjected to a variety of compressional and extensional events. One of the earliest structural elements is folding about north-trending axes in the Cretaceous sediments. Tertiary-age extensional tectonics produced numerous northeast-trending faults, veins and magnetic/ topographic lineaments on the Project.



Figure 7.1 Regional Geology

7.2 **PROPERTY GEOLOGY**

7.2.1 GEOLOGY

Gold and copper mineralization at the Project is associated with a swarm of NE-trending equigranular diorite dykes intruding variably porphyritic andesite and minor tuffaceous rocks of intermediate composition. The dyke swarm coincides with a major NE trending fault zone on the west side of the principal mineralized zone. The fault zone itself hosts sulphide rich quartz veins and breccias that occasionally contain highly anomalous gold. These veins have been mapped elsewhere in the Primavera area and occur along major structures. Artisanal miners have successfully mined gold from these veins in the past (i.e. Porvenir shafts). Two of these structures (Porvenir, Santa Juana) have been drill tested and returned discrete mineralized intervals with anomalous gold (Figure 7.2)

As is common in porphyry systems, a series of dykes and intrusive breccias of principally intermediate composition temporally span the evolution of the porphyry cell. In general, the equigranular diorite hosts "ore grade" mineralization, but the diorite itself is also much more widespread. Textural variations within the diorite may indicate multiple pulses that have yet to be correlated with variations in grade. Future petrographic work will help in this regard.

The geophysical signatures present at Primavera show a complex relationship. The surveys indicate that magnetic highs and lows, as well as IP anomalies, correlate well with major structures. Looking at the magnetic signature over the principal zone, where secondary magnetite is known to occur, it generally appears as a magnetic low. This highlights the relatively magnetic nature of the local host lithologies as the magnetite destruction plus secondary magnetite replacement observed in the main zone is often lower than the adjacent host rocks which contain only primary magnetite.

A large radiometric anomaly underlies Primavera which highlights the potential volume of fertile intrusive and hypabyssal volcanic host rocks in the target area. Future drilling will focus on potential satellite mineralization related to multiple stocks or apophyses of similar composition to that of the main zone.





7.2.2 WIDESPREAD LOCAL LITHOLOGIES:

7.2.2.1 **COARSE FELDSPAR PORPHYRY**

Hypabyssal, coarse andesite porphyry with 0.5cm to 1cm feldspar phenocrysts (plagioclase) set in a medium to dark grey groundmass (feldpar + mafics). Total phenocrysts range from 15-40%. Crowded textures with 30-40% lathe shaped feldspar phenocrysts are common. The unit is distinguished based on phenocryst size and composition (lack of coarse hornblende) and likely represents a separate magmatic event, sourced from an evolving magma chamber underlying the Primavera property (Figure 7.3). The unit is moderately magnetic.

The timing relationship between the coarse feldspar porphyry and the more common sparsely porphyritic to aphanitic andesite volcanic package is not well known. The unit may represent an early, "crowded", dyke-like phase forming multiple apophyses common to many volcano-plutonic intrusive centers, or a later, slightly less basic dyke phase which became emplaced parallel or sub-parallel to localized northeast trending structures on the Property.



Figure 7.3

7.2.2.2 SPARSELY PORPHYRITIC TO APHANITIC ANDESITE

Porphyritic phase contains 2 mm to 8 mm coarse feldspar and hornblende phenocrysts set in a fine to medium grained, medium to dark grey-green groundmass (feldspar + mafics). Total phenocrysts range from 10-20%. Textures range from sparse to moderately crowded (Figure 7.4).

Aphanitic phase characterized by 0.5mm to 3mm feldspar and hornblende phenocrysts set in a fine grained, dark grey- green groundmass (feldspar + mafics). Total phenocrysts range from 5-10%. Unit is distinguished from porphyritic phase by finer grained matrix and lower percentage of phenocrysts (Figure 7.5).

Both phases are weakly to moderately magnetic. The spatial relationship between phases is not well constrained. The unit appears to coarsen (porphyritic phase) towards the northeast corner of the Nueva America H-1 concession boundary near Wasaking. The textural variation between phases may be explained by variable ascension rates and cooling/quenching during emplacement.





Figure 7.5 Aphanitic Andesite



7.2.2.3 DIORITE

Holocrystalline, medium grained (0.4 to 0.7mm), light grey, equigranular diorite with a plagioclase, hornblende, and biotite rich groundmass. Unit is similar in composition to the andesitic volcanics on property and may represent an exposed, "deeper", crystalline intrusive feeder stock for the coeval volcanic package. Unit is moderately magnetic. The diorite unit is an important host for gold and copper porphyry mineralization at Primavera (Figure 7.6).



7.2.2.4 SILTSTONE / HORNFELS

Laminated, alternating light and dark grey, medium to fine grained siltstone. Unit is weakly to strongly magnetic. The strongest magnetic susceptibilities were taken from pyritic, fine grained, dark grey hornfels. Unit is inferred to outcrop as small lenses of exposed basement rock in the central portion of the property where float is found scattered within drainages and gullies. A larger volume of siltstone occurs at Copper Hill near the western margin of the Primavera property (Figure 7.7).

The siltstone unit is commonly found interbedded with volcaniclastics and is variably calcareous.




7.3 MINERALIZATION

The Primavera zone shows classic porphyry stockwork mineralization consisting of millimetre to centimetre quartz-pyrite-chalcopyrite+bornite-magnetite veins associated with primary potassic and secondary propylitic alteration of the host rock. Structural measurements collected in the Primavera trenches show that the sheeted and stockwork quartz veins have a dominant NE-SW orientation (205° to 240° RHR) in the southern portion of the zone but switch to dominantly NW-SE oriented (117° to 156° RHR) further to the north (i.e. conjugate). Dips are to the northwest and southwest respectively and range from 50° to 80°. Thick intervals of porphyry style mineralization were cut in drill holes PR-11-001, 002, 003 and PR-12-005, 008, 011, 012, and 016. The mineralization starts at surface and reaches depths of as much as 250 metres (true vertical).

The highest grades are associated with strong potassic alteration in the form of K-spar with secondary magnetite in diorite and secondary biotite in the andesite porphyry. Bornite is common in these zones. Multi-stage quartz veining indicates that the earliest mineralization predates intrusion of the diorite as diorite cuts both the andesite porphyry and earliest veins, but is itself cut by later veins. Parts of the Primavera system show a strong propylitic overprint consisting of chlorite-epidote-pyrite-calcite and grades are commonly lower where propylitic alteration intensity is at its highest.

8 DEPOSIT TYPES

8.1 PORPHYRY

Porphyry gold-copper deposits are associated with intrusive rocks intruding coeval volcanic rocks. Both the intrusive and volcanic rocks are locally brecciated (Sillitoe, 1977) (McMillan & Panteleyev, 1988). The porphyry bodies may be dykes. The intrusive rocks tend to be porphyritic with fine- to medium-grained aplitic groundmass. The volcanic rocks tend to be tonalite to monzogranite; dacite, andesite flows and tuffs.

Alteration of a porphyry system is quartz \pm magnetite \pm biotite (chlorite) \pm K-feldspar \pm actinolite, \pm anhydrite in interior of system. Outer propylitic zone. Late quartz + pyrite + white mica \pm clay may overprint early feldspar-stable alteration.

Porphyry deposits are marked by large-scale, markedly zoned metal and alteration assemblages. Central parts of mineralized zones appear to have higher Au/Cu ratios than the margins.

Mineralization within a porphyry can be in the form of stockwork veinlets of chalcopyrite, bornite, and magnetite in porphyritic intrusions and coeval volcanic rocks. Mineralization is controlled by veinlets and fractures. Ore zone has a bell shape centered on the volcanic-intrusive center. Highest grade ore is commonly at the level at which the stock divides into branches.

The geochemical signature is enriched in copper, gold in silver in the core and molybdenum around the peripheral. Late sericite pyrite alteration is strong. Gold enriched in residual soil over a deposit is common. Porphyry systems may have a magnetic low signature over the area characterized by the pyrite halo.

9 EXPLORATION

9.1 PRIMAVERA EXPLORATION

Calibre has completed several phases of exploration work on the Project, including geologic mapping, the collection of 1,219 rock samples and 5,969 soil samples, excavation of trenches, and the flying of a high-resolution LiDAR topographic survey.

Mapping as well as rock and soil sampling was initially completed by Calibre personnel in 2010. Following this, a soil-sampling program was completed along the strike length of the Primavera system in early 2011. A regional soil investigation was completed in outlying areas in mid-2012 following up on LiDAR generated targets.

9.1.1 GEOLOGICAL MAPPING

Reconnaissance scale geologic mapping and prospecting was initiated by Calibre geologists in late 2010. Texturally favourable sparsely porphyritic to porphyritic hypabyssal andesite volcanics and equigranular diorite were identified within the target area along with lesser andesite lithic tuffs and hornfelsed sediments. Local artisanal miners were observed working multiple northeast-southwest oriented gold bearing quartz veins which bisect the ridgetops southeast of the principal mineralized zone. Grab rock samples from the initial phases of exploration returned values up to 31.8 g/t Au and 2.41% Cu from the artisanal shafts and workings at Primavera and Porvenir.

A total of 5,969 soils and 1,219 rock samples have been collected over the Primavera and San Isidro (look-alike) targets to date.

9.1.2 2010 - 2016 ROCK SAMPLING

Samples are taken either by chip or grab sampling styles, and placed inside the bags, which are then sealed with plastic ties.

- → When chip sampling, small chips are taken evenly from the entire outcrop. In the case where a defined structure is found, the sample is taken across the structure, at an angle perpendicular to the structure trend.
- → When grab sampling, larger sample pieces are taken randomly from the areas of greater interest (or greater potential for mineralization) in the outcrop.

A total of 1,219 rock samples have been collected over the Primavera and San Isidro targets to date (Figures 9.1 and 9.2).



Figure 9.1 2010 – 2016 Rock Samples – Gold Results





9.1.3 2010 – 2013 SOIL SAMPLING

Based on the strong gold and copper values returned from grab rock samples, soil grids were completed over the Primavera, Porvenir, Santa Juana and San Francisco sub-targets. The soil grids were systematically extended based on higher than anticipated gold and copper values in soils (>100 ppb Au, >250 ppm).

Soil samples are taken using an auger device. Depending on the deposit model target, soil lines are typically spaced between 100 to 200 m apart and samples are spaced 20 to 100 m apart. The Primavera soil grids were completed using a combination of 40 m (sample) x 200 m (line) and 400 m (sample) x 400 m (line) sample spacing.

Whenever possible, the sample is taken at a maximum depth of 1.2 m, from the last three auger loads. These are placed in two separate paper bags, which are attached to each other by a pre labeled flagging tape. Each sample is then put inside a new, plastic bag and sealed in the same way as rock samples. Samples are identified with a combination of Line No + Station No.

The auger is thoroughly cleaned after each sample to avoid contamination.

All soil and rock sample locations and descriptions are collected in the field using mobile mapper units. The trench data is recorded manually in paper formats, and it is later entered by the sampling geologist into an online access database template.

The mobile mapper data is downloaded every day to the office server. All the data is checked for accuracy, which are readily corrected in ArcMap or in the Microsoft Access® database. After checking the data, the database manager exports it to Datashed[™], where the master database is stored and managed.

A total of 5,969 samples were collected. Figures 9.3 and 9.4 display the results of the soil sampling campaign.







Figure 9.4 2010 – 2013 Soil Survey – Copper Results

9.1.4 2011 TRENCHING

Seven trenches were completed at Primavera between June 4, 2011 and November 12, 2011 for a total of 513.85 m. The objective of trenching was to test the strong and coincident gold-copper soil anomalies located northwest and adjacent to the Porvenir vein target (Figure 9.5).

Trenches were completed approximately 500 m northwest of Porvenir and extends 1,250 m x 400 m in a northeast-southwest elongated direction.

Trenches are hand dug to a depth of 1 to 2 metres and a width of 2 to 3 metres using a tiered 1:1 ratio for safety whenever possible (Figure 9.6). Samples are collected by chiseling a continuous channel on the trench wall approximately 10 to 20 cm from the floor of the trench (Figure 9.7). The minimum sampling interval at Primavera was 0.5 m and the maximum was 2.0 m. Sample depths from surface ranged from 0.85 m to 2.0 m.

A similar QA/QC program as applied in the diamond drilling program was used during the Primavera trenching program. All trenches were fully reclaimed by early 2012.

Multiple trenches from the central part of the soil anomaly returned significant results including 51.25 m @ 1.53 g/t Au, 680 ppm Cu (PRTR11-005) (Figure 9.8), and 107.00m @ 0.78 g/t Au, 980 ppm Cu (PRTR11-010) (Figure 9.9). Elevated gold values in trench PRTR11-005 were associated with a high density of sheeted and stockwork style quartz-pyrite-chalcopyrite-magnetite veins indicating the potential for gold-copper porphyry style mineralization. The collar coordinates for the trenches and pits are found in Appendix A. The trench assay results greater than 0.4 g/t Au are found in Appendix B. A total of 403 samples were collected from the trenches with 224 samples grading greater than 0.4 g/t Au.

For all rock and trench duplicate samples, a larger amount of material is taken for each sample, which is split in half and placed in two separate bags. Duplicate samples are labeled with a consecutive higher number relative to the original sample.







Figure 9.6 Primavera Trench PRTR11-005



Figure 9.7 Example of Trench Sample



Figure 9.8 PRTR11-005



Figure 9.9 PRTR11-010

9.1.5 GEOPHYSICS

9.1.5.1 2011 GROUND MAGNETICS

Ernesto Lunes Gonzalez and Manuel Trana Perez, based out of Managua, Nicaragua, were contracted by CXB, to conduct a total of 111 lineal km of ground magnetic lines on La Primavera gold prospect. The data were acquired over fifteen days from November 21, 2011 to December 6, 2011. The total magnetic intensity field data were acquired by one field crew, deploying two magnetometers: one G859 vapour cesium with internal GPS as rover, and other the G856AX proton as the base station. Final measured and processed data quality was of high-quality for the entire area. No intense thunderstorm activity occurred during the field measurements.

As a result, the La Primavera gold prospect has been mapped by a high-resolution and high-quality ground magnetic survey. A high-contrast magnetic anomaly has been obtained. A wide zone of high magnetic anomalies was detected, and SW-NE and N-S structural trends were detected with NW dip. Magnetic lows were found to correspond to the sedimentary rocks and fracture zones, and magnetic highs coincide with the presence of igneous bodies (Figure 9.10) (Perez and Gonzalez, 2012).



Figure 9.10 Total Ground Magnetics Intensity Map

9.1.5.2 2012 AIRBORNE MAGNETICS AND RADIOMETRICS

In 2012, Firefly Geophysics performed a high-resolution aeromagnetic and radiometric survey over the Primavera Project.

The survey extends five kilometres in each direction from the centre point of the Primavera target. The survey collected approximately 330 line km of aeromagnetic and radiometric data at 200 m line spacing covering a total area of 144 km².

The data were processed and presented in series of contour maps of magnetic (Total Magnetic Intensity, Reduced to Pole) (Figure 9.11) and radiometric (TC, K, Th, U) data (Figure 9.12).



Figure 9.11 Primavera Airborne Magnetic Survey (Reduced to Pole)



Figure 9.12 Primavera Airborne Radiometric (Potassium)

9.1.5.3 2012 INDUCED POLARIZATION SURVEY

The main objective of the Induced Polarization (IP) survey was to map mineralized zones structurally controlled by main fault lines and/or intrusions (Robillard, 2012).

The IP/Resistivity data was collected using a dipole length and dipole spacing of 50 m. The line spacing varied between 200 m and 500 m; with the main axis in the northwest-southeast orientation and two perpendicular control lines to the west. In total, approximately 18 line-km of Resistivity/IP data was collected. The survey was conducted from July 28 to August 15, 2012 by KTTM Geophysics Ltd based in Medellin, Colombia.

The results of the geophysical survey conducted at Primavera in the summer of 2012 show a number of high-amplitude IP anomalies that define structurally controlled mineralization along a southwest-northeast axis across the entire width of the survey area. The overall IP response reaches values in the 40s mV/V which are generally considered very high for most IP surveys. Generally, the IP anomalies appear deep-rooted reaching the maximum depth of penetration obtained in this survey (200 m). They also appear broad at depth and branching off as they get close to surface, possibly guided by fault zones. There are also major discontinuities appearing as IP low values that can be correlated from line to line.

Examples of an IP section are displayed on Figure 9.13. Figure 9.14 is the chargeability interpretation at 75 m depth.





Primavera Project Resource Estimate Calibre Mining Corp.





Primavera Project Resource Estimate Calibre Mining Corp.

WSP No 161-11102-00_RPT-01_R1

9.2 PRIMAVERA SURFACE SAMPLE HANDLING AND SAMPLING PROCEDURES

For all surface and trench samples, sample IDs are clearly written on each sample bag using a permanent marker. The sample IDs are also written on flagging tape tags which are inserted in each sample bag. All bags are new, transparent plastic bags.

All soil and rock sample locations and descriptions are collected in the field using mobile mapper units. The trench data is recorded manually in paper formats, and is later entered by the sampling geologist into an online access database template.

The mobile mapper data is downloaded every day to the office server. All the data are checked for accuracy, which are readily corrected in ArcMap or in the Microsoft Access® database. After checking the data, the database manager exports it to Datashed[™], where the master database is stored and managed.

Sample shipments are prepared and sent to Managua once a week. In the case of soils, samples are organized based on the Line/Station No sequence, and then they are randomized and a Sample ID is assigned to each sample using a predetermined prefix. For the Primavera program, the following prefixes have been used: B10S, B11S, B12S, PR12S, PR13S. A four-digit numbered sequence follows the prefix (e.g. B10S###). In the case of rocks, the sample IDs are the same as those recorded at the time of sampling. The following prefixes have been used for historic Primavera rock and trench samples: B11R, B12R (e.g. B11R####).

The weekly samples are placed in order of numbered sequence to check for discrepancies and then are placed into rice bags. Each rice bags holds approximately 25 kg of weight, and is labeled with the sample range, customs broker information, laboratory name, and appropriate addresses.

The laboratory submittal form is completed by the QA/QC supervisor and authorized by the Project Manager, or the person designated for this purpose. The laboratory is given instruction to notify Calibre of any missing or damaged bag, as well as any missing security seal. The submittal form is put in a plastic bag and placed in the first rice bag of the shipment. Each rice bag is secured with two plastic ties and a uniquely numbered security strap. The security tag number is recorded in the sample shipment tracking log.

The rice bags are delivered directly from the Rosita office to Calibre's Managua office in a company truck the same day.

When shipping to ALS Minerals, the samples are picked up at the Calibre office by courier personnel (UPS) and shipped by airfreight to ALS Minerals in Vancouver where the samples are prepared and analysed.

When shipping to Inspectorate, the samples are delivered by Calibre personnel to the Inspectorate preparation laboratory located in Managua. The samples are received by Inspectorate personnel where they are subsequently prepared. Inspectorate then ships pulps of the samples by airfreight to their lab located in Vancouver.

While on the site, all the samples are stored in a secure warehouse, accessible only to select Calibre personnel.

10 DRILLING

10.1 CALIBRE 2011 - 2012 DIAMOND DRILLING

Drilling commenced at Primavera in November of 2011. Thirty-two (32) diamond drill holes were completed between November 24th, 2011 and December 2nd, 2012 for a total of 13,413.20 metres. These holes were largely successful and confirmed the presence of a gold – copper porphyry system on the Project.

Drilling for Calibre and B2 Gold was completed by Rodio Swissboring Guatemala S.A (Figure 10.1) and Klune Nicaragua S.A (Figure 10.2). Rodio Swissboring completed drillholes in HQ size and NQ size. Klune Nicaragua completed drillholes in HTW size and NTW size. All drill runs were either 1.52 m or 3.05 m in length.

Initial surveying of diamond drillholes was completed using a Magellan Mobile Mapper 6 handheld global positioning system (GPS) unit; collar azimuths were determined using a handheld compass. Following completion of the drill programs, a surveyor was contracted to accurately locate the drillhole collars using a Trimble R3 differential GPS unit. Additional surveying work performed as part of the high- resolution LiDAR topographic survey in March 2012 confirmed the accuracy and elevations of the drillhole collars (Table 10.1).



Figure 10.1 Rodio Swissboring Diamond Drill Rig

INSERT Figure 10.2 Klune Nicaragua Diamond Drill Rig

Hole ID	Easting	Northing	Elevation	Length	Azimuth	Dip
PR-11-001	781063.3	1532477	55.52	276.8	45	-45
PR-11-002	781060.7	1532475	54.19	263.2	120	-50
PR-11-003	781174.3	1532295	49.3	327.2	300	-50
PR-12-004	781030.1	1532095	43.83	163.55	120	-60
PR-12-005	780936.7	1532676	42.71	380.85	120	-60
PR-12-006	781202.3	1532591	44.86	197.3	120	-60
PR-12-007	781196	1532594	44.88	279.8	300	-60
PR-12-008	780944	1532535	44.03	517.9	120	-60
PR-12-009	781013	1532294	44.94	406.45	120	-60
PR-12-010	781418.8	1531946	62.38	386.05	15	-55
PR-12-011	781142.9	1532381	64.74	371.3	120	-60
PR-12-012	781166.1	1532520	50.11	207.55	120	-60
PR-12-013	781179	1532295	51.88	160.65	120	-60
PR-12-014	780593.4	1532681	46.98	461.8	120	-60
PR-12-015	780432.8	1532528	47.48	542.45	120	-55
PR-12-016	781112.6	1532529	60.56	511.2	300	-60
PR-12-017	781759.4	1532249	91.74	164.71	150	-80
PR-12-018	781653.6	1532072	96.84	494.1	330	-65
PR-12-019	781012.1	1532290	46.39	591.9	270	-60
PR-12-020	781208.1	1531788	57.9	510.58	360	-70
PR-12-021	781016.6	1532293	46.34	533.8	225	-70
PR-12-022	781206.4	1531787	57.92	524.83	280	-55
PR-12-023	781077.8	1532360	54.6	495.2	290	-55
PR-12-024	781023.3	1532629	47.72	728.4	45	-70
PR-12-025	780693.7	1532326	54.26	600.76	225	-60
PR-12-026	780297.1	1532196	51.69	489.2	120	-60
PR-12-027	781118.2	1532781	48.22	564.35	90	-65
PR-12-028	782367.1	1531327	101.63	451.1	25	-50
PR-12-029	781601.2	1531674	83.32	458	150	-60
PR-12-030	781598.4	1532630	47.66	468.3	330	-60
PR-12-031	780105.6	1530874	44.28	489.2	30	-60
PR-12-032	780299.1	1531362	47.43	394.72	30	-60
PR-12-WW1	780599.3	1532703	47.43	78	0	-90

Table 10.1Diamond Drill Collars

Downhole survey readings were collected at approximately 50 m intervals using a FlexIT or Reflex survey tool. Each of the drillholes was sealed with a cement pad and a concrete filled 3" polyvinyl chloride (PVC) pipe was installed in the orientation of the drill casing. Upon pouring of the cement, the drillhole number was scribed into the cement pad for ease of identification in the future (Figure 10.2).



Table 10.2 highlights some of the significant intersections encountered in the drilling campaign. Figure 10.3 illustrates a typical drill section through the Primavera mineralized zone.

Figure 10.2 Casing Marker

Hole ID	From (m)	To (m)	Length (m)	Au (g/t)	Cu (ppm)		
PR-11-001	0	276.8	276.8	0.5	0.2146		
PR-11-002	1.5	263.2	261.7	0.78	0.2966		
PR-11-003	4	127.85	123.85	0.65	0.2752		
PR-12-004				NSV	NSV		
PR-12-005	207.5	372.5	165	0.31	0.1713		
PR-12-006	12	102	90	0.21	0.1315		
PR-12-007	7.7	255	247.3	0.22	0.1097		
PR-12-008	107.65	280	172.35	0.48	0.2401		
PR-12-009				NSV	NSV		
PR-12-010	79	94.4	15.4	0.59	0.4325		
PR-12-011	6.95	166.48	159.53	0.46	0.2008		
PR-12-012	6	103	97	0.34	0.1646		
PR-12-013	24	46.5	22.5	0.44	0.209		
PR-12-014	269	275	6	0.61	0.0212		
PR-12-014	330.5	378	47.5	0.19	0.0069		
PR-12-014	415.3	461.8	46.5	0.16	0.0496		
PR-12-015	0	52	52	0.14	0.0305		
PR-12-015	241.5	275	33.5	0.12	0.1289		
PR-12-015	365	397.5	32.5	0.11	0.0489		
PR-12-015	435	517.5	82.5	0.14	0.0532		
PR-12-016	0	201.35	201.35	0.77	0.3567		
PR-12-016	315	325.3	10.3	1.26	0.0025		
PR-12-017	0	28.3	28.3	0.11	0.0615		
PR-12-018	63.3	93.6	30.3	0.07	0.0743		
PR-12-018	417	472.9	55.9	0.09	0.0413		
PR-12-019	2.05	181.5	179.45	0.17	0.105		
PR-12-019	295	420	125	0.16	0.0795		
PR-12-020	0	22	22	0.25	0.0637		
PR-12-020	365	410	45	0.11	0.0448		
PR-12-021	125	330	205	0.13	0.1007		
PR-12-022	171.4	177.4	6	0.02	0.9139		
PR-12-023	0	346	346	0.23	0.1269		
PR-12-024	65.5	79.75	14.25	0.33	0.0075		
PR-12-024	496.55	536.55	40	0.21	0.0656		
PR-12-024	595	613.35	18.35	0.38	0.053		
PR-12-024	653.2	656.7	3.5	6.9	0.0404		
PR-12-024	673	674.5	1.5	11.95	0.2373		
	(table continues on next page,						

Table 10.2 Calibre Drill Results

Hole ID	From (m)	To (m)	Length (m)	Au (g/t)	Cu (ppm)
PR-12-025	65.53	129.24	63.71	0.11	0.0407
PR-12-025	320.2	325	4.8	0.19	0.054
PR-12-025	385.15	420.55	35.4	0.13	0.0329
PR-12-025	534.92	547.11	12.19	0.09	0.0521
PR-12-025	560.83	566.93	6.1	0.18	0.1438
PR-12-026	18.29	28.96	10.67	0.24	0.029
PR-12-026	62.05	68.58	6.53	0.41	0.07
PR-12-026	92.4	110.2	17.8	0.28	0.0441
PR-12-026	265.3	267	1.7	2.45	0.0404
PR-12-027	142	142.95	0.95	0.93	0.0054
PR-12-027	161.5	167.5	6	0.19	0.0561
PR-12-027	175.8	223.8	48	0.16	0.0379
PR-12-027	304.6	305.25	0.65	1.95	0.4285
PR-12-027	310.6	504	193.4	0.03	0.0372
PR-12-027	535	554.5	19.5	0.04	0.0564
PR-12-028	145.5	229.9	84.4	0.01	0.0238
PR-12-028	310.75	312.42	1.67	2.74	0.384
PR-12-028	332.35	447	114.65	0.01	0.0195
PR-12-029	0	170.15	170.15	0.04	0.0217
PR-12-029	189	310	121	0.02	0.0251
PR-12-030	0	142.6	142.6	0.05	0.0354
PR-12-030	186.8	336.7	149.9	0.05	0.0422
PR-12-030	412.5	420.8	8.3	0.04	0.8083
PR-12-031	0	72	72	0.05	0.0187
PR-12-031	176.75	253	76.25	0.04	0.0359
PR-12-031	300.5	489.2	188.7	0.05	0.0286
PR-12-032	163	377.05	214.05	0.11	0.0177
PR-12-032	232	263.65	31.65	0.24	0.016
PR-12-032	251	262	11	0.48	0.0151



Figure 10.3 Primavera Drill Cross-Section

The following description of the sampling methodology was provided by Mr. Marc Cianci, the Senior Project Geologist for the Project and is also available in a formal document. Drilling was not underway when WSP conducted the site visit. Field observations made during the site visits conclude that the logging and sampling methodology describe by Mr. Cianci are to industry standards, and are acceptable to support a resource estimate.

10.2.1 CORE PICK-UP

Core boxes are picked-up from the drill site by Calibre or B2 Gold personnel, at a regular schedule. The full boxes are stacked orderly on a pallet in the back of the company's truck. A wooden lid is put on top of all boxes and everything is secured to the pallet with ratchet straps. Care is taken so that the core boxes do not slide within the truck, and they are transported at slow speed back to the core facility at the Primavera camp.

10.2.2 CORE DELIVERY

Once the boxes are in the core facility, the drillhole numbers and box numbers are checked and reported to the logging geologists in order to confirm the correct core bench where the core will be transferred.

The boxes are laid out on the core bench maintaining numeric continuity. The core is cleaned to remove any drill grease or additive.

10.2.3 GEOTECHNICAL LOGGING

The steps to record geotechnical data for the core are as follows.

- → Load core boxes on logging benches in numerical order with box numbers increasing down rows and left to right. Check with the logging geologist beforehand to ensure correct placement.
- → Carefully inspect the new core, reconstructing blocky intervals wherever possible. Visually check that the metres written on the drill blocks increase down row, and left to right, and are in intervals of no more than 3.05 m. These intervals will be used as From-To intervals in the subsequent measurements below. Alert logging geologists of any discrepancies.
- → Take recovery length and rock quality designation (RQD) measurements:
 - Recovery Length: Measure length of core in core boxes between From- To intervals in metres. Enter the result into LogChief - "Geotech". With broken/rubbly core, record the best estimate of recovery by reconstructing, and measuring, competent pieces, while visualizing rubbles zones as whole core.
 - RQD: Measure the total length of solid core pieces (>10 cm) measured along the centerline of the core between From-To intervals. Record the result in LogChief - "Geotech" (in metres).
- Measure magnetic susceptibility between From-To intervals with KT-10 magnetic susceptibility metre. Take five measurements within each From- To interval. Record average calculated by unit in LogChief - "Mag Sus/Spec Grav".
- Mark metre intervals on core. Use drill blocks for reference. Use core recovery for intervals in which there is a discrepancy between blocks and metre intervals. Look for obvious breaks/fault zones, and signs of grinding/rounding from drilling, to account for missing core. Alert logging geologists of any discrepancies.

- Primavera Project Resource Estimate Calibre Mining Corp.

- Label core boxes with individual "From-To" intervals in the top left, and bottom right corners, using a permanent black felt marker. "From" equals the depth at start of box (top left corner) and "To" equals the depth at end of box (bottom right corner).
- Staple aluminum box tag to left end of box. Tag should include drillhole number (e.g. PR12-016-001), box number (e.g. BX 12), and "From-To" core box interval.
- → Wash core using bristle brush and hose. Core should be free of drill mud and dirt. Rock textures should be clearly visible. Scrub only solid, competent pieces of core. Care should be taken in fault gouge intervals, and in rubble zones, in order to preserve mineralization and maintain contact orientations. When in doubt consult logging geologist before washing.

10.2.4 CORE LOGGING

Core is logged in detail and all the data about lithology, alteration, mineralization, veining and structure is recorded digitally in the appropriate LogChief data entry forms (Figure 10.4)

Sample lengths are variable, 20 cm minimum sample length; 2 m maximum sample length and the samples do not cross lithological boundaries.

A daily back-up of the drillhole data is created by the logging geologist, and it is transferred to the main office server using a memory data stick.

The data is exported to excel files which are then imported to Datashed[™]. This procedure is done by the database manager every 2 to 3 days.





10.2.5 CORE PHOTOS

The core boxes are transferred to the photo station in numerical order. Three boxes are photographed at a time, using the Canon EOS Utility on logging laptop computers. Core photos are backed-up daily on the main office server by the logging geologist.

10.2.6 CORE SAMPLING

From the core station, core is transferred to pallets located outside the core cutting facility (Figure 10.5).



Figure 10.5 Core Cutting Facility

Sample intervals are transferred to a sample booklet with pre-printed sample numbers.

One box of core is loaded to the core-cutting bench at the time, and the interval of core to be sampled is cut in half using a top-mounted core saw with three stage decanted water. One-half of the core is placed in a clean transparent bag, which has been previously labeled, and a pre-printed sample tag is placed inside of the bag.

The bag is then sealed with a plastic tie strap and placed on the floor in an orderly manner for easy tracking. The core-cutting bench and saw are thoroughly cleaned after each sample to avoid contamination.

The remaining half of the core is put back in the core box, and it is transferred to covered storage racks where it will be kept future reference (Figure 10.6).

QA/QC samples are inserted into the sample stream (see Section 11.0 for details).

Figure 10.6 Core Storage Facility



The logging geologist is responsible for monitoring the sample progress and checking for sampling mistakes. He/she will inform the core cutter of any irregular sample intervals.

While on site, all the samples are stored in a secure warehouse, only accessible to key Calibre personnel.

10.2.7 SAMPLE SHIPPING

Sample shipments are prepared and sent to Managua once a week. All sample bags are placed in order of numbered sequence and put into rice bags. Each rice bag holds approximately 25 kg of weight, and it is previously labeled with the sample range, customs broker, and laboratory name and addresses.

The laboratory submittal form is filled by logging geologist and authorized by the Project Manager, or the person designated for this purpose. The laboratory is given instruction to notify Calibre of any missing or damaged bag, as well as any missing security seals. The submittal form is put in a plastic bag and placed in the first rice bag of the shipment. Each rice bag is secured with two plastic tie straps and a uniquely numbered non-re-sealable security strap. The security tag number is recorded in the sample shipment tracking log.

The rice bags are delivered directly from the Primavera camp to Calibre's Managua office in a company truck the same day.

When shipping to ALS Minerals the samples are picked up at the Calibre office by courier personnel (UPS) and shipped by airfreight to ALS Minerals in Vancouver where the samples are prepared and analysed.

When shipping to Inspectorate, the samples are delivered by Calibre personnel to the Inspectorate preparation laboratory located in Managua. The samples are received by Inspectorate personnel where they are subsequently prepared.

It is WSP's opinion that the drilling and logging procedures put in place by Calibre meet acceptable industry standards and that the information can be used for geological and resource modeling.

11 SAMPLE PREPARATION, ANALYSES, AND SECURITY

Calibre has sent all samples from the Project to ALS Minerals in Vancouver via the described chain of custody process until July 2011. As Inspectorate laboratories had opened a preparation laboratory in Managua several months previous to this, a decision was made to use their services as significant cost savings could be achieved through reduced shipping costs; the Inspectorate preparation laboratory subsequently sends the sample pulps to their laboratory in Vancouver for analysis.

ALS Minerals is accredited to international quality standards through the International Organization for Standardization (ISO)/International Electrotechnical Commission (IEC) 17025 (ISO/IEC 17025 includes ISO 9001 and ISO 9002 specifications) with CAN-P-1579 (Mineral Analysis).

Inspectorate is accredited to international quality standards through ISO; the analytical laboratory in Vancouver is ISO 9001:2008 certified.

11.1 SAMPLE PREPARATION

11.1.1 ALS MINERALS SOIL PREPARATION

All samples are processed using the sample preparation package PREP-41:

- → Samples dried;
- → Sieve sample to -180 µm (80 mesh);
- → Retain both fractions.

11.1.2 ALS MINERALS ROCK AND DRILL CORE PREPARATION

All samples are processed using both jaw crushers and ring mill pulverizes. Samples received by the laboratory are processed using the sample preparation package PREP-31:

- → Dry, crush (<5 kg) 70% -8 mesh (2 mm);</p>
- → Split (250 g);
- \rightarrow Pulverize (to 85% -75 µm).

11.1.3 INSPECTORATE SOIL PREPARATION

All samples are processed using the sample preparation package SP-SS-1K:

- Samples dried;
- → Sieve sample to -180 µm (80 mesh);
- → Riffle split.

11.1.4 INSPECTORATE ROCK AND DRILL CORE PREPARATION

All samples are processed using both jaw crushers and ring mill pulverizes. Samples received by the laboratory are processed using the sample preparation package SP- RX-2K:

→ Dry, crush (<2 kg) 70% -10 mesh (2 mm);</p>
- → Split (250 g);
- \rightarrow Pulverize (to 85% -200 mesh -74 µm).

11.2 SAMPLE ANALYSES

All samples are analyzed for gold by 30 g fire assay (FA)/inductively coupled plasma (ICP)-atomic emission spectroscopy (AES) technique in soils, and by 30 g FA/atomic absorption spectroscopy (AAS) technique in rock or drill core. Multi-element analysis is completed for 36 elements, using Aqua Regia/ICP-AES.

ALS Minerals codes are Au-ICP21 and ME-ICP41m, for soils; and Au-AA25 and ME- ICP41m, for rocks.

Corresponding Inspectorate codes are Au-1AT-ICP and 30M-AR-TR, for soils; and Au-1AT-AA and 30M-AR-TR, for rocks.

The gold assay methodology used a standard FA with AAS finish technique on a 30 g aliquot taken from the 250 g pulp. Samples that returned assays greater than 10 g/t gold re-run used a standard FA with gravimetric finish technique on a 30 g aliquot collected from the original 250 g pulp.

11.3 QA/QC PROGRAM

11.3.1 CALIBRE QA/QC PROGRAM

Calibre has a well-documented QA/QC program in place, managed by the Supervisor of Quality Control.

QA/QC samples, including pulp duplicates, crush duplicates, standard reference materials (SRM), and blanks were inserted in a predetermined sequence every 30th sample. This ensures that there is a least one of each QA/QC sample typed submitted in the assay batch:

- \rightarrow Pulp duplicate every 30th sample starting at the 10th sample;
- \rightarrow SRM every 30th sample starting at the 15th sample;
- \rightarrow Crush duplicate every 30th sample starting at the 20th sample;
- \rightarrow Blank every 30th sample starting at the 25th sample.

The SRMs were purchased from CDN Resource Laboratories Ltd. of Vancouver. The blanks consisted of small pieces of volcanic scoria, collected from Masaya volcano, near Managua. Table 11.1 summarizes the SRMs used during the 2011 - 2012 drilling campaign.

Standard ID	Au Grade (ppm)	2 Standard Dev. (ppm)	Cu Grade (ppm)	2 Standard Dev. (ppm)
CM-6	1.43	0.09	7370	390
CM-8	0.91	0.11	3640	240
CM-11A	1.014	0.106	3320	120
CM-17	1.37	0.13	7910	400
CM-21	0.467	0.052	5210	220
CGS-20	7.75	0.23	33600	1700

Table 11.1 SRM Certificate Summary

Only field duplicates are used for quality control in soil samples. Samples are taken randomly in every soil line (one in a group of 30 samples). The duplicates are taken at the same location of the original sample, and the suffix "A" is added to the sample ID.

All data is reported in .csv files which are directly imported into Datashed[™]. The results for quality control were reviewed as soon as a certificate is received.

The following criteria were used by Calibre to determine pass or fail of an assay batch:

- → SRM with gold values ±3 standard deviations was considered a failure and the whole batch re-assayed.
- → Two adjacent SRM for gold are ±2 standard deviation on the same side of the mean was considered a failure and an indication of bias.
- → Blanks more than three times the detection limit are considered a failure.

All the failures are logged in a table for failures, as well as the action taken to solve the issues.

11.3.2 BLANK QA/QC

The material used for the Calibre blank was scoria sourced from Masaya volcano outside of Managua. This is not certified blank, yet historically has been void of gold.

Over the course of the diamond drilling program, a total of 347 samples were submitted. WSP used a failure limit of three times detection limit.

Failures constituted three samples or 3% at the beginning of the Project. A break line indicating the change from ALS Minerals to Inspectorate explains the change on the chart (Figure 11.1).





11.3.3 DUPLICATE QA/QC

Field duplicates are generated by quarter cutting the drill core and submitting as a separate sample. A total of 47 field duplicate samples were submitted.

Course duplicates were created by generating a second pulp from the course reject material. Coarse reject duplicates were submitted every 30th sample starting at the 20th sample. A total of 45 coarse duplicates were submitted.

The pulp duplicates were created by analysing a second pulp. Pulp duplicates were submitted every 30th sample starting at the 10th sample. A total of 25 pulp duplicate samples were submitted.

WSP did not review the results of the duplicate program.

11.3.4 STANDARD REFERENCE MATERIAL CM-6

The standard reference material CM-6 has an expected value of 1.43 g/t gold. The 28 samples submitted by Calibre during the drilling campaigns averaged 1.40 g/t gold with one sample exceeding the accuracy thresholds (Figure 11.2). There is a trend shift between the results from ALS and Inspectorate.

The standard reference material CM-6 has an expected value of 7,370 ppm copper. The 28 samples submitted by Calibre during the drilling campaigns averaged 7,225 ppm copper with one sample exceeding the accuracy thresholds (Figure 11.3). There is a precision shift between the results from ALS and Inspectorate.









11.3.5 STANDARD REFERENCE MATERIAL CM-8

The standard reference material CM-8 has an expected value of 0.91 g/t gold. The 28 samples submitted by Calibre during the drilling campaigns averaged 0.90 g/t gold with no samples exceeding the accuracy thresholds (Figure 11.4).

The standard reference material CM-8 has an expected value of 3,640 ppm copper. The 28 samples submitted by Calibre during the drilling campaigns averaged 3,560 ppm copper with no samples exceeding the accuracy thresholds (Figure 11.5).







Figure 11.5 CM-8 Cu Control Chart

11.3.6 STANDARD REFERENCE MATERIAL CM-17

The standard reference material CM-17 has an expected value of 1.37 g/t gold. The 100 samples submitted by Calibre during the drilling campaigns averaged 1.33 g/t gold with no samples exceeding the accuracy thresholds (Figure 11.6).

The standard reference material CM-17 has an expected value of 7,910 ppm copper. The 100 samples submitted by Calibre during the drilling campaigns averaged 7,846 ppm copper with one sample exceeding the accuracy thresholds (Figure 11.7).



Figure 11.6 CM-17 Au Control Chart



Figure 11.7 CM-17 Cu Control Chart

11.3.7 STANDARD REFERENCE MATERIAL CM-21

The standard reference material CM-21 has an expected value of 0.467 g/t gold. The 99 samples submitted by Calibre during the drilling campaigns averaged 0.472 g/t gold with one sample exceeding the accuracy thresholds (Figure 11.8).

The standard reference material CM-21 has an expected value of 5,210 ppm copper. The 99 samples submitted by Calibre during the drilling campaigns averaged 5,223 ppm copper with one sample exceeding the accuracy thresholds (Figure 11.9).



Figure 11.8 CM-21 Au Control Chart



Figure 11.9 CM-21 Cu Control Chart

11.3.8 STANDARD REFERENCE MATERIAL CGS-20

Calibre used the standard reference material CGS-20 during the drilling campaign. Only seven samples were submitted. All samples fell within the accuracy threshold, yet with such a small data set, plots were not generated.

11.4 QP'S OPINION

It is WSP's opinion that the sample preparation and security are acceptable during the drilling program and are suitable to support resource estimation.

The QA/QC program conducted by Calibre during the drilling program was done appropriately and meeting industry standards.

12 DATA VERIFICATION

WSP carried out an internal validation of the diamond drillhole file against the original drillhole logs and assay certificates. The validation of the data files was completed on all thirty two drillholes in the database or 100% of the dataset. Data verification was completed on collar co-ordinates, end-of-hole depth, down-the-hole survey measurements, "From" and "To" intervals. No errors were encountered. A total of 25% of the assays data was validated against the original assay certificate. No errors were encountered.

All assays intervals below detection limit were converted to half the detection limit in the dataset.

The drillhole data was imported into the Surpac[™] program, which has a routine that checks for duplicate intervals, overlapping intervals and intervals beyond the end of hole. The errors identified in the routine were checked against the original logs and corrected.

WSP confirmed the locations of three surface drillhole collars during the site visit. WSP collected the collar locations using a Garmin GPSMAP62 handheld GPS unit. Table 12.1 displays the results of the collar validation. All three collars recorded by WSP were within eight metres of the collar data provided by Calibre. The elevation readings recorded by WSP's GPS are not as accurate and are not being used as reliable data.

BH ID		Calibre			WSP					
	Easting (UTM m)	Northing (UTM m)	Elevation (m)	Easting (UTM m)	Northing (UTM m)	Elevation (m)	Delta (m)			
PR12-024	781023	1532629	48	781026	1532636	55	8			
PR12-016	781113	1532529	61	781110	1532534	69	6			
PR11-002	781061	1532475	54	781065	1532481	72	7			

Table 12.1 Drill Collar Validation

Four independent samples of mineralized pulps were collected for check assaying representing different mineralization grade ranges. The samples were bagged, sealed on site and delivered to ALS Minerals in Vancouver, British Columbia.

ALS Minerals is accredited to international quality standards through the ISO/IEC 17025 (ISO/IEC 17025 includes ISO 9001 and ISO 9002 specifications) with CAN-P-1579 (Mineral Analysis).

The four samples were analyzed for gold, silver, copper, lead and zinc using analysis package Au-AA25 which is a FA with an AAS finish for gold and ME-ICP41 for the remaining element (Table 12.2). WSP also ran a LOG-QC to ensure the pulps met the specification of 85% passing 75 μ m.

The check samples confirm the presence of gold and copper in the system. As would be expected in a gold bearing system, the grades display an erratic nature even when using pulps.

12.1 QP'S OPINION

The Primavera dataset is deemed to be valid and is acceptable for the use in a resource estimate.

	-	-					_					
Calibre								WSP				
BHID	Sample #	Au ppm	Ag ppm	Cu %	Pb %	Zn %	Au ppm	Ag ppm	Cu %	Pb %	Zn %	% passing 75 µm
PR11-002	B10C3716	0.900	3.00	0.3372	0.0004	0.0071	0.990	2.13	0.316	0.0003	0.0069	81
PR11-002	B10C3629	1.201	1.26	0.4109	0.0003	0.0039	1.390	1.31	0.447	0.00025	0.0035	95.2
PR12-008	B12C0887	0.780	1.33	0.3427	0.0002	0.0083	0.610	0.93	0.321	0.00025	0.0052	94.3
PR12-017	B12C3401	0.295	1.19	0.2086	0.0003	0.0048	0.230	0.92	0.1625	0.00044	0.0044	92.3

Table 12.2Assay Check Samples

13 MINERAL PROCESSING AND **METALLURGICAL TESTING**

The following section is summarized from the metallurgical report entitled "An Investigation into Scoping Level Testwork on Primavera Project Samples" dated February 8, 2013 by SGS Canada Inc. of North Vancouver ("SGS Canada")

Four composite samples of porphyry mineralization were collected from drill hole PR12-16 and submitted for initial metallurgical studies including rougher flotation kinetic and cleaner flotation tests and whole ore cyanide leach tests

Sample head assays are outlined in Table 13.1. Individual sample weights ranged from 18.6 kg to 30.3 kg.

Table 13.1	Head Ass	Head Assay								
	Sample ID									
Element	6261	6262	6263	6264						
Au (g/t)	0.98	1.26	0.52	0.86						
Cu (%)	0.52	0.7	0.26	0.27						

In optimized rougher flotation tests on the four Primavera samples, gold recoveries ranged from 86% to 91% and copper recoveries ranged from 94% to 98% (Table 13.2). The initial metallurgical tests indicate that the recovery of gold, copper, and sulphur are strongly related to each other and recovering sulphur by flotation will recover most of the copper and gold.

Table 13.2 Summary of Rougher Flotation Results

Sample	Test	Primary Grind		Mass Assay			Recovery			
ID	ID	<mark>K80 - μm</mark>	Product	%	Au (g/t)	Cu (%)	S (%)	Au (%t)	Cu (%)	S (%)
6261	F5	82	Rougher Conc.	18.0	4.1	2.4	3.0	90.8	97.7	97.1
6262	F6	83	Rougher Conc.	20.4	6.2	3.4	5.3	88.7	95.7	96.4
6263	F7	96	Rougher Conc.	16.0	2.4	1.5	1.9	86.2	96.6	94.9
6264	F8	75	Rougher Conc.	19.5	3.0	1.3	2.0	87.9	94.1	96.1

Two samples of the rougher concentrates (6,261 and a composite of all four samples) were reground to 80% passing \sim 30 µm and cleaned in two stages. The results are summarized in Table 13.3.

Sample	Test	Primary Grind		Mass Assay			Recovery			
ID	ID	K80 - µm	<mark>µm</mark> Product		Au (g/t)	<mark>Cu (%)</mark>	S (%)	Au (%t)	Cu (%)	<mark>S (%)</mark>
6261	F11	69	Cleaner 2 Conc.	1.7	37.2	24.8	30.9	83.9	87.5	86.0
P. Comp	F12	77	Cleaner 2 Conc.	1.8	36.5	20.5	29.9	80.0	84.4	81.8

Table 13.3 Summary of Cleaner Flotation Results

Whole ore leach tests at two different grind sizes were conducted on each of the samples. The leach extracted 90.0% to 96.6% of the gold using 1.2 kg/t to 2.43 kg/t of NaCN. Gold kinetics on the leach tests are moderately fast reaching plateau within 30 hours and gold in all leach tests exhibited free milling qualities. The summarized results are presented in Table 13.4.

Sample Test ID ID		Test	Prima	Gold Extraction	
		ID	K80 - µm	Product	(%)
	6261	L2	55	Preg. Solution - 96 hrs	95.2
	6262	L4	72	Preg. Solution - 96 hrs	90.0
	6263	L6	59	Preg. Solution - 96 hrs	96.6
	6264	L8	65	Preg. Solution - 96 hrs	93.0

 Table 13.4
 Summary of Leach Results

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14 MINERAL RESOURCE ESTIMATES

14.1 DATABASE

Calibre maintains all drillhole data in a Datashed[™] database. The headers, survey, lithology, assays tables were exported to .csv format then transferred to WSP. The .csv files were created in September 2016.

All resource estimations were conducted using Surpac[™] v. 6.7.2 (64-bit).

A total of 33 holes and 52 channel samples are present at Primavera. However, only the drillholes within the areas of interest and with exploration potential were included in the resource estimate. The remaining holes, while containing mineralization were outside the immediate area of interest.

Table 14.1 summarizes the statistics of the entire Primavera dataset.

	Number of Drillholes	Length
Project total	85	14,152
Channel samples	52	661
Drillholes	33	13,491
Host rock (hr)	32	7,011
Saprolite (SAPR + RSAP)	41	228
High grade (HG)	20	811
Low grade (LG)	27	1,681

Table 14.1 Primavera Dataset

14.2 SPECIFIC GRAVITY

A total of 1,157 specific gravity (SG) samples have been collected on the Project Measurements were collected using the traditional Dry – Wet method of weighting a piece of core dry and then weighting the same piece of core suspended in water.

WSP used the SG samples to estimate the SG into individual blocks for all the volcanics and sedimentary units using Inverse Distance Squared (ID²). The diorite intrusive was assigned a global SG of 2.76 based on the median value of the SG samples with the diorite.

WSP would recommend that Calibre continue to collect SG measurements from various rock types in order to continually build up the data set. A minimum of 2% of the data set should have a specific gravity measurement.

14.3 GEOLOGICAL INTERPRETATION

14.3.1 GOLD EQUIVALENT FORMULA

A gold equivalent value was assigned to all estimated blocks within the resource model. The gold equivalent value is based on a long-range pricing index updated quarterly. At the time the resource models were completed the following commodity prices were used:

→ Gold = \$US1300/oz

- → Silver = \$US20/oz
- → Copper = \$US2.40/lbs

The equation for the gold equivalent value is as follows:

Aueq = Au grade + (Cu grade x Cu price x 0.002204)/(Au price x 0.029167)

14.3.2 GEOLOGICAL WIREFRAMES

Three-dimensional wireframe models of mineralization was developed for the deposit based on a geology, structure and mineral distribution. A high grade core (HG), a lower grade envelope (LG) and a saprolite layer (SP).

Topographic digital terrain model was generated using LiDAR topographic data provided by Calibre.

Sectional interpretations were digitized in Surpac[™] software, and these interpretations were linked with tag strings and triangulated to build three-dimensional solids. Table 14.2 summarizes the solids and associated volumes. The solids were validated in Surpac[™] and no errors were found.

The zones of mineralization interpreted for each area were generally contiguous; however, due to the nature of the mineralization there are portions of the wireframe that contain zones of poor mineralization, yet are still within the mineralizing trend (Figures 14.1 and 14.2).

Zone	Minimum X	Maximum X	Minimum Y	Maximum Y	Minimum Z	Maximum Z	Surface Area (m²)	Volume (m³)
SP	780,930.00	781,330.00	1,532,110.00	1,532,780.00	15	70	491,315	2,547,833
HG	780,982.30	781,240.32	1,532,274.75	1,532,618.23	-391.1	65	500,691	7,605,202
LG	780,933.80	781,274.09	1,532,228.82	1,532,675.78	-466.643	65	609,291	25,941,136

Table 14.2 Solids Summary



Figure 14.1 Primavera Low Grade Shell (LG) (oblique view not to scale)

Figure 14.2 Primavera High Grade Shell (HG) (oblique view not to scale)



Primavera Project Resource Estimate Calibre Mining Corp.

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The portion of the deposit included in the mineral resource was sampled by a total of 1,866 assays (Table 14.3). Assay information was provided for gold silver, copper plus partial assays for 34 other elements.

EXPLORATORY DATA ANALYSIS

14.4

14.4.1

ASSAYS

Zone	Field	No of Records	Minimum	Maximum	Mean	Standard Deviation
SP	Length (m)	330	0.45	4.60	1.73	0.53
	Au (g/t)	330	0.00	4.18	0.75	0.55
	Ag (g/t)	330	0.05	11.26	0.38	0.81
	Cu (%)	330	0.0296%	1.04%	0.12300%	0.11368%
HG	Length (m)	768	0.40	6.10	1.29	0.35
	Au (g/t)	768	0.00	7.41	0.71	0.46
	Ag (g/t)	768	0.01	114.70	1.70	4.30
	Cu (%)	768	0.00104%	2.75%	0.30738%	0.17242%
LG	Length (m)	768	0.40	4.60	1.44	0.31
	Au (g/t)	768	0.00	4.93	0.25	0.29
	Ag (g/t)	768	0.01	7.38	0.85	0.71
	Cu (%)	768	0.00088%	1.50%	0.12664%	0.09790%

Table 14.3 Resource Drillhole Statistics

14.4.2 GRADE CAPPING

Raw assay data was examined to assess the amount of metal that is at risk from high-grade assays. WSP uses a combination of the Parrish analysis, cumulative histograms and spatial distribution to assist if and where to apply a top cut to the grades. Parrish analysis (Parrish 1997) indicates that if the metal content in the ninetieth (90th) decile exceeded 40%, capping may be required.

Based on the analysis, the top cuts that were applied to the individual zones within the Primavera dataset. Table 14.4 summarizes the results of the grade capping on the statistics.

Zone	Field	No of Records	Minimum	Maximum	Mean	Standard Deviation	Capping Level	# Records Capped
SP	Length (m)	330	0.45	4.60	1.73	0.53		
	Au (g/t)	330	0.00	2.70	0.74	0.51	2.70	3
	Ag (g/t)	330	0.05	9.00	0.37	0.73	9.00	1
	Cu (%)	330	0.030	1.00	0.123	0.113	1.00	1
HG	Length (m)	768	0.4	6.10	1.2937	0.3504		
	Au (g/t)	768	0.003	2.70	0.702	0.377	2.70	2
	Ag (g/t)	768	0.005	9.00	1.535	0.983	9.00	2
	Cu (%)	768	0.00104	1.00	0.305	0.150	1.00	2
LG	Length (m)	768	0.4	4.60	1.4434	0.3092		
	Au (g/t)	768	0.003	1.70	0.243	0.175	1.70	2
	Ag (g/t)	768	0.005	3.60	0.825	0.590	3.60	10
	Cu (%)	768	0.00088	0.46	0.124	0.078	0.46	7



14.4.3 COMPOSITES

Samples intervals were composited into 2 m downhole intervals honouring the interpreted geological solids. A 2 m composite length was selected as a majority of the assays are in the 2 m range for length, and it corresponds to approximately a half to a third the cell size in the shortest dimension to be used in the modelling process. The backstitching process was used in the compositing routine to ensure all captured sample material was included. Composites were complete separately for each of the zones. Table 14.5 summarizes the statistics of the boreholes after capping and compositing.

Table 14.5	Drillhole (Composites				
Zone	Field No of Records		Minimum	Minimum Maximum		Standard Deviation
SP	Length (m)	302	0.30	2.00	1.89	0.33
	Au (g/t)	302	0.00	2.54	0.72	0.47
	Ag (g/t)	302	0.05	9.00	0.45	0.92
	Cu (%)	302	0.033	1.000	0.126	0.110
HG	Length (m)	516	0.25	2.00	1.97	0.18
	Au (g/t)	516	0.00	2.10	0.68	0.32
	Ag (g/t)	516	0.01	9.00	1.54	0.87
	Cu (%)	516	0.0015	0.9030	0.2953	0.1299
LG	Length (m)	778	0.30	2.00	1.97	0.21
	Au (g/t)	778	0.00	1.16	0.24	0.14
	Ag (g/t)	778	0.01	3.60	0.74	0.49
	Cu (%)	778	0.004	0.460	0.123	0.068

14.5 SPATIAL ANALYSIS

Variography using Surpac[™] software was completed for gold, silver and copper on the HG, LG and SP zones. Downhole variograms were used to determine nugget effect and then semi-variograms were modeled with two structures to determine spatial continuity in each zone.

Table 14.6 summarizes results of the variography. Appendix C contains the details of the variogram models for each element in each zone.

			Geosta	ats Parameters		
Zone	Elements	Nugget	Sill 1st. S	Sill 2nd. S	Range 1st. S	Range 2nd. S
SP	Au	0.061	0.097	0.077	27.232	98.813
	Ag	0.015	0.018	0.027	61.972	94.054
	Cu	63488.280	107979.100	172629.800	39.840	62.545
HG	Au	0.042	0.011	0.049	42.428	66.619
	Ag	0.440	0.094	0.225	18.448	62.503
	Cu	587207.0	323858.2	772262.9	46.859	87.692
LG	Au	0.007	0.005	0.003	8.340	35.990
	Ag	0.067	0.024	0.153	41.834	210.817
	Cu	192208.5	170310.7	103574.5	60.042	135.662

Table 14.6	Semi-variogram	Model	Summary
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Table 14.7 demonstrates the size and rotations of the search ellipses created from the semi-variograms for each element in each zone.

Zone	Elements	Bearing	Plunge	Dip	Major	Semi-major	Minor	Anisotropy	Ratio
					Axis	Axis	Axis	Major / Semi-major	Major / Minor
SP	Au	15.00	0.00	-20.00	98.81	28.75	20.49	3.44	4.82
	Ag	25.00	0.00	20.00	94.05	54.78	19.52	1.72	4.82
	Cu	35.00	0.00	30.00	62.55	37.07	18.86	1.69	3.32
HG	Au	120.00	-80.00	30.00	66.62	40.34	30.11	1.65	2.21
	Ag	120.00	-85.00	10.00	62.50	27.26	20.10	2.29	3.11
	Cu	120.00	-85.00	40.00	87.69	32.93	25.58	2.66	3.43
LG	Au	120.00	-75.00	85.00	106.52	53.23	26.10	2.00	4.08
	Ag	120.00	-85.00	-75.00	210.82	79.19	30.57	2.66	6.90
	Cu	120.00	-75.00	75.00	135.66	58.27	37.86	2.33	3.58

Table 14.7 Search Ellipse Summary

14.6 RESOURCE BLOCK MODEL

A single block model was established in Surpac[™] for the HG, LG and SP zones using one parent model as the origin. The model is not rotated.

Drillhole spacing varies throughout the model area. A block size of 10 m x 10 m x 5 m in the X/Y/Z directions was selected in order to accommodate the nature of the mineralization. Sub-celling of the block model was not used.

A percent fill model was generated to accurately calculation the model volume

Table 14.8 summarizes details of the parent block model.

Parameter	
Minimum X Coordinate	780400
Minimum Y Coordinate	1532000
Minimum Z Coordinate	-500
Maximum X Coordinate	781750
Maximum Y Coordinate	1532850
Maximum Z Coordinate	160
Block Size (m)	10m x 10m x 5m
Rotation	0
Sub-block	10m x 10m x 5m
Total No. Blocks	1,514,700

 Table 14.8
 Primavera Parent Model Parameters

The interpolation of the model was completed using the estimation methods: ordinary kriging (OK), nearest neighbour (NN) and inverse distance squared (ID²). The estimations were designed for four passes. In each pass a minimum and maximum number of samples were required as well as a maximum number of samples from a borehole in order to satisfy the estimation criteria. Table 14.9 summarize the interpolation criteria for the Primavera resource model.

Table 14.9 Estimation Parameters

Estimation	Search Ellipse	Minimum no.	Maximum no.	Maximum no. of		
Pass no.	Factor	of Composites	of Composites	Composites per BH		
1	Ellipse	4	15	2		
2	Ellipse	3	15	2		
3	Ellipse	3	15	2		
4	Ellipse	3	15	2		

14.7 RESOURCE CLASSIFICATION

Several factors are considered in the definition of a resource classification:

- → NI 43-101 requirements;
- → Canadian Institute of Mining, Metallurgy and Petroleum guidelines;

- → Authors' experience with porphyry and epithermal gold deposits;
- \rightarrow Spatial continuity of the assays within the drillholes;
- \rightarrow Borehole spacing and estimate runs required to estimate the grades in a block;
- → The confidence with the dataset base on the results of the validation: and
- \rightarrow The number of samples and boreholes used in each of the block estimations.

No environmental, permitting, legal, title, taxation, socio-economic, marketing, or other relevant issues are known to the authors that may affect the estimate of mineral resources. Mineral reserves can only be estimated on the basis of an economic evaluation that is used in a preliminary feasibility study or a feasibility study of a mineral project; thus, no reserves have been estimated. As per NI 43-101, mineral resources, which are not mineral reserves, do not have to demonstrate economic viability.

14.8 MINERAL RESOURCE TABULATION

The resource has an effective date of December 13, 2016 has been tabulated in terms of a gold equivalent cut-off grade. A gold equivalent value was assigned to each block based on the estimated gold and copper for the block.

The mineral resource for Primavera is tabulated in Table 14.10 in the form of grade tonnage table. The resources are tabulated using various gold equivalent cut-off grades up to an upper boundary of greater than 2.2 g/t gold equivalent. Figure 14.7 is the grade tonnage curves for the model. Tonnages and contained metal have been rounded to reflect the level of confidence in the estimation.

Aueq	Global Resource										
Cut-off	Tonnes	Au g/t	Ag g/t	Cu ppm	Aueq g/t	Au oz	Ag oz	Cu Ibs	Au Eq oz		
0.0	70,475,000	0.425	1.045	1767.8	0.665	962,729	2,368,001	274,089,508	1,506,002		
0.1	68,522,000	0.437	1.052	1817.6	0.683	962,729	2,317,265	274,001,899	1,505,040		
0.2	67,971,000	0.440	1.056	1827.0	0.687	961,435	2,308,051	273,197,205	1,502,116		
0.3	64,961,000	0.454	1.071	1872.9	0.707	947,401	2,236,619	267,662,523	1,476,720		
0.4	56,726,000	0.488	1.103	2003.1	0.758	889,419	2,010,783	249,983,173	1,382,608		
0.5	44,974,000	0.541	1.149	2210.1	0.838	782,116	1,661,293	218,670,212	1,212,132		
0.6	34,973,000	0.597	1.191	2411.5	0.921	671,828	1,338,789	185,544,569	1,035,729		
0.7	26,906,000	0.654	1.234	2605.5	1.003	565,752	1,067,503	154,230,473) <mark>,473</mark> 867,563		
0.8	20,231,000	0.712	1.278	2810.6	1.088	463,173	831,227	125,092,565	707,400		
0.9	15,838,000	0.758	1.320	2973.2	1.154	385,778	672,342	103,595,734	587,766		
1.0	12,293,000	0.796	1.372	3129.6	1.214	314,773	542,414	84,638,955	479,694		
1.1	8,821,000	0.841	1.413	3277.0	1.278	238,632	400,626	63,593,344	362,456		
1.2	5,591,000	0.894	1.459	3449.8	1.353	160,636	262,290	42,433,246	243,144		
1.3	3,031,000	0.957	1.541	3646.3	1.442	93,221	150,178	24,314,117	140,498		
1.4	1,542,000	1.026	1.611	3820.1	1.534	50,848	79,844	12,959,204	76,041		
1.5	765,000	1.088	1.717	4040.5	1.626	26,761	42,239	6,800,103	39,989		

Table 14.10 Primavera Grade Tonnage

(table continues on next page)

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Aueq	Global Resource										
Cut-off	Tonnes	Au g/t	Ag g/t	Cu ppm	Aueq g/t	Au oz	Ag oz	Cu Ibs	Au Eq oz		
1.6	364,000	1.156	1.818	4219.8	1.719	13,534	21,278	3,379,220	20,113		
1.7	158,000	1.235	1.931	4395.4	1.821	6,272	9,808	1,527,852	9,249		
1.8	84,000	1.270	1.981	4592.6	1.882	3,430	5,351	848,720	5,082		
1.9	31,000	1.291	2.081	5149.2	1.975	1,287	2,074	351,175	1,968		
2.0	11,000	1.334	1.991	5630.5	2.077	472	704	136,258	735		
2.1	5,000	1.448	1.639	6066.5	2.241	233	263	66,731	360		
2.2	3,000	1.430	1.673	6161.5	2.236	138	161	40,666	216		

Based on the results of similar gold operations located in Nicaragua, a 0.5 g/t gold equivalent cut-off was used to tabulate the total for the Primavera deposit. Table 14.11 contains the parameters used to generate a pit shell to constrain the resource.

Classification	Zone	Tonnage	Au (g/t)	Ag (g/t)	Cu (%)	Aueq (g/t)	Au oz	Ag oz	Cu Ibs	Aueq oz
Inferred	SP	2,555,000	0.71	0.51	0.10	0.84	59,000	42,000	5,480,000	70,000
	HG	18,609,000	0.69	1.29	0.28	1.06	410,000	774,000	116,597,000	630,000
	LG	23,810,000	0.41	1.10	0.18	0.65	313,000	845,000	96,593,000	500,000
	Subtotal	44,974,000	0.54	1.15	0.22	0.84	782,000	1,661,000	218,670,000	1,200,000

Table 14.11Resource Summary

Table 14.12 summarizes the pit constrained resource estimate at the 0.5 g/t gold equivalent cut-off for Primavera.

ltem	Unit	Amount
Gold price	U\$/troy ounce	1,300.00
Silver price	U\$/troy ounce	-
Copper price	US\$/pound	2.40
Mining cost (open pit)	US\$/t (ore)	2.25
Processing + G&A Cost	US\$/t (ore)	20.00
Mining dilution	%	5
Mining recovery	%	95
Metallurgical recovery - Au	%	90.00
Metallurgical recovery - Ag	%	-
Metallurgical recovery - Cu	%	90.00
Pit slope - overburden	degrees	20
Pit slope - saprolite	degrees	42
Pit slope - rock	degrees	44

Table 14.12 Pit Parameters

Table 14.13 summarizes the pit constrained resource estimate at the 0.5 g/t gold equivalent cut-off for Primavera.

Figures 14.3 to 14.5 are isometric views of the pit constrained resource.

Classification	Zone	Tonnage	Au (g/t)	Ag (g/t)	Cu (%)	Aueq (g/t)	Au oz	Ag oz	Cu Ibs	Aueq oz
Inferred	SP	2,274,000	0.59	0.44	0.08	0.70	52,110	39,200	5,438,300	62,772
	HG	15,072,000	0.70	1.37	0.31	1.07	337,300	663,390	92,400,000	518,530
	LG	10,442,000	0.43	1.17	0.18	0.68	145,700	391,470	42,232,100	229,860
	Subtotal	27,790,000	0.60	1.22	0.23	0.91	535,110	1,094,060	140,070,400	811,162

Table 14.13 Primavera Pit Constrained Resource Summary





WSP No 161-11102-00_RPT-01_R1

Primavera Project Resource Estimate Calibre Mining Corp.








WSP No 161-11102-00_RPT-01_R1

Primavera Project Resource Estimate Calibre Mining Corp.

14.9 VALIDATION

The Primavera model was validated by three methods:

- **1.** Visual comparison of colour-coded block model grades with composite drillhole grades on section.
- 2. Comparison of the global mean block grades for inverse distance squared, nearest neighbour and composites.
- 3. Swath plots.

14.9.1 VISUAL VALIDATION

The visual comparisons of block model grades with composite grades for the deposit show a reasonable correlation between the values. No significant discrepancies were apparent from the sections, yet grade smoothing is apparent in places (Figures 14.6 to 14.9).



Figure 14.6 Section 800 Au Model Validation



Figure 14.7 Section 800 Cu Model Validation



Figure 14.8 Section 900 Au Model Validation



Figure 14.9 Section 900 Cu Model Validation

14.9.2 GLOBAL COMPARISON

The global block model statistics for the OK interpolation were compared to the global ID² and NN interpolation as well as the composite capped drillhole data. Table 14.14 shows this comparison of the global estimates for the three estimation method calculations. In general, there is agreement between the models. Larger discrepancies are reflected as a result of lower drill density in some portions of the model. There is a degree of apparent smoothing when compared to the diamond drill statistics. Comparisons were made using all blocks at a 0 g/t gold equivalent cut-off.

		Gold Grade (g/t)						
		DDH cap/composite	NN Grade	ID ² Grade	OK Grade			
SP	Au (g/t)	0.72	0.64	0.30	0.63			
	Ag (g/t)	0.45	0.58	1.29	0.58			
	Cu (%)	0.126%	0.116%	0.065%	0.092%			
HG	Au (g/t)	0.68	0.67	0.68	0.69			
	Ag (g/t)	1.54	1.60	1.32	1.29			
	Cu (%)	0.295%	0.284%	0.286%	0.283%			
LG	Au (g/t)	0.240	0.27	0.32	0.33			
	Ag (g/t)	0.743	0.81	0.90	1.00			
	Cu (%)	0.123%	0.133%	0.144%	0.146%			

Table 14.14 Global Model Statistics

14.9.3 SWATH PLOTS

A series of swath plot were generated to compare the distribution of the grades in the OK method compared to the ID² and NN methods. The swaths are generated in elevation and easting orientations (Figures 14.10 to 14.15). As expected with a small data set, there is grade smoothing in the model compared to the drillhole composites. All plots show good correlations between the models and the composites.



Figure 14.10 Gold Elevation Swath Plot



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Figure 14.14 Copper Easting Swath Plot







15 ADJACENT PROPERTIES

Calibre has two joint venture partners currently working in areas west of the Project and within the Calibre concession block (Figure 15.1).





15.1 IAMGOLD JOINT VENTURE

Calibre Mining Corp. and IAMGOLD Corporation have signed an Option Agreement whereby IAMGOLD can earn a 51.0% interest and subsequently an additional 19.0% for a total of 70.0% interest in the Eastern Borosi Project consisting of 176 km2 within the Borosi Concessions, Northeast Nicaragua.

The Eastern Borosi Project hosts gold-silver resources in two deposits and a series of well-defined low sulphidation epithermal gold-silver targets. To earn a 51.0% interest in the Project, IAMGOLD must pay Calibre \$450,000 and invest \$5.0 million in exploration on the Property over three years. Once vested at 51.0%, IAMGOLD can elect to earn an additional 19.0% of the Project for a total of 70.0% by paying Calibre an additional \$450,000 and by investing \$5.0 million in exploration on the Project for a total of Project over a subsequent three-year term.

IAMGOLD and Calibre are in agreement on the objectives for the initial 2014 - \$1.5 million exploration program on the Eastern Borosi Project, and diamond drilling is expected to commence in the near term. Previous work by Calibre has outlined a series of high-priority drill targets including the existing Riscos de Oro and La Luna gold-silver deposits, the high-grade Guapinol and Blag gold systems, as well as the La Sorpresa and El Paraiso gold targets.

The Eastern Borosi Project includes the Riscos de Oro and La Luna NI 43-101 Inferred Mineral Resources which total 4.70 million tonnes grading 2.31 g/t Au and 34.99 g/t Ag containing 350,000 ounces of gold and 5.29 million ounces of silver. Both zones are open for potential expansion.

15.2 CENTERRA GOLD JOINT VENTURE

The 253 km² Siuna Gold-Silver Project is located in the south-west portion of the Borosi Concessions and contains the past producing La Luz Mine that produced 17.1 million tonnes of ore grading 4.14 g/t gold (2.3 million oz gold) between 1912 and 1968. One kilometre south of the La Luz Mine, Calibre has defined a NI 43-101 Inferred Mineral Resource, at the Cerro Aeropuerto gold-silver deposit containing 707,750 oz gold and 3.14 million oz silver.

Immediately adjacent to the La Luz Mine is the Cerro Potosi Target which hosts near-surface, gold-bearing garnet-epidote skarn mineralization parallel to and in the footwall of the historic mine. In 2008, Yamana Gold Inc. completed a drill program that highlighted several near-surface intercepts including 16.2 m grading 4.18 g/t gold (39.3 m -- 55.5 m), 32.0 m grading 2.50 g/t gold (56.0 m -- 88.0 m), and 15.0 m grading 1.78 g/t gold (39.0 m -- 54.0 m). Calibre completed sampling in 2015 at Cerro Potosi and continuous chip sampling of outcrop returned 10.2 m grading 2.05 g/t Au, and 178.1 g/t Ag. Additionally selected grab samples of mineralized skarn material included up to 18.9 g/t Au and 96.0 g/t Ag.

Calibre Mining Corp. and Centerra Gold Inc. signed an option agreement dated September 8, 2015 whereby Centerra can earn a 51% interest and subsequently an additional 19% for a total of 70% interest in the La Luz Gold-Silver Project. Under the La Luz First Option, Centerra can earn a 51% interest in the La Luz Project, by investing \$3.0 million in exploration on the Property prior to December 31, 2017 with a commitment to commence a drilling program in 2015. Under the La Luz Second Option, once vested at 51%, Centerra can elect to earn an additional 19% in the La Luz Project for a total of 70% by investing a further \$4.0 million in exploration on the Project over a subsequent two-year term. The total potential investment by Centerra under the La Luz First and Second Options is \$7.0 million from signing to December 31, 2019. On May24, 2016 Calibre Mining Corp. and Centerra Gold Inc. amended the Calibre/Centerra La Luz Option Agreement dated September 8, 2015 on the 12 km2 La Luz Project to include an additional 241 km2 of mineral concessions in the Northern Siuna Area of Northeast Nicaragua. With the addition of the Northern Siuna concessions, Centerra is required to spend an additional \$2.0 million to earn a 70% interest in the combined 253 km2 Project area by investing a total of \$9.0 million in exploration on the property before December 31, 2020. To earn 51% of the expanded Project area, Centerra is now required to spend \$5 million by December 31, 2018. Centerra has the further option to earn 70% of the Project by spending an additional \$4 million for a total spend of \$9 million by December 31, 2020.

The Cerro Aeropuerto prospect is located one kilometre south of Cerro Potosi. The system contains gold and base metal bearing quartz veins and replacement style mineralization. Drilling by Yamana Gold Inc. suggests that the system follows a north-trending, steeply west-dipping zone that can be traced for over 500 m along strike and over 300 m down-dip. Drilling highlights from 2007/2008 included an intercept of 24 m grading 5.75 g/t gold. In 2011, Calibre used the existing drilling data to prepare a NI 43-101 compliant inferred resource estimate of 707,750 oz of gold and 3,144,500 oz of silver at Cerro Aeropuerto.

15.3 ROSITA MINING JOINT VENTURE

Rosita Mining (formerly Alder Resources) signed an option agreement with Calibre in August 2011 to earn a 65% interest in the Rosita D concession by expending \$4 million on exploration and issuing Calibre one million common shares of over four years. Rosita Mining was designated as operator for the Project. Rosita Mining completed earn-in on the Property on November 30, 2015, and formally created a joint venture between Rosita Mining and Calibre on September 14, 2016. The Property hosts the historic open pit Santa Rita mine from which 5.37 Mt of ore grading 2.06% copper, 0.93 g/t gold, and 15.08 g/t silver was extracted by La Luz Mines Ltd. and Rosario Resources Corp. The mine closed in 1975 due to low copper prices.

Rosita Mining completed several drill programs and metallurgical test work at Santa Rita examining the six historic dumps and the tailing. The current resource estimation created in February 2016, contains a total Indicated resource in the six dumps of 6.5 million tonnes at 0.47 g/t Au, 0.50% Cu, and 7.32 g/t Ag. An additional Inferred resource in the six dumps contains 3.4 million tonnes at 0.46% Au, 0.61% Cu, and 8.66 g/t Ag. The tailings contain an Inferred resource of 2.0 million tonnes at 0.56 g/t Au and 9.65 g/t Ag.

15.4 BONANZA MINE

The Bonanza mine is located on an exploitation concession to the north of the Calibre concessions. The mine is presently owned and operated by HEMCO, a private arms-length company.

The mine has produced an estimated 3.1 M oz of gold from low sulphidation epithermal veins between 1939 and 2015 from both open pit and underground operations (<u>www.raregoldnugget.com</u>).

The last publicly stated resource for Bonanza was by RNC Gold Inc. in 2005 prior to RNC Gold being acquired by Yamana Gold.

15.5 OTHER CALIBRE PROJECTS

Calibre controls 100% of an additional 357 km² within the Borosi Concessions, Northeast Nicaragua.

The additional Projects include a series of mineralized zones and targets which have received variable amounts of exploration including soil and rock sampling, ground and airborne geophysical surveys, trenching, auger drill sampling, and in the one case of the Minnesota Project, limited shallow diamond drilling.

Mineralization consists of a number of different styles including high-grade gold skarn (Monte Carmelo – 20 km north of Primavera), low sulphidation epithermal gold-silver (Santa Maria – 15 km northwest of Primavera), and intrusive hosted gold (Minnesota – 25 km north of Primavera).

Calibre has plans to complete maiden diamond drilling programs on both the Monte Carmelo and Santa Maria Projects in 2017.

The Carpatos Project located 35 km northeast of Primavera includes a series of gold-silver and base metal anomalies in soil and rock sampling. The El Paste Concession 80 km west of Primavera covers a series of rhyolite domes where initial sampling consisting of wide spaced stream sediment samples has generated two gold anomalies.

16 OTHER RELEVANT DATA AND INFORMATION

There is no other relevant data or information for this report.

17 INTERPRETATIONS AND CONCLUSIONS

Based on the review of the available information and observations made during the site visit, WSP concludes the following, in no particular order of perceived importance.

- → The Property is currently held 100% by Calibre, through a wholly-owned subsidiary.
- → The Rosita H-2 and Nueva American H-1 concessions, which this report addresses are not subject to any current option agreements with any other company.
- The Project is analogous to a porphyry Cu-Au deposit and likely associated with the epithermal systems typical for the region. The system has a current strike length of 460 m and a current depth of 450 m
- → The Project has no historical production.
- → Drilling and sampling procedures, sample preparation and assay protocols are generally conducted in agreement with best practices.
- Verification of the drillhole collars, surveys, assays, core and drillhole logs indicates the Calibre data is reliable.
- Based on the QA/QC program, the data is sufficiently reliable to support the resource estimate generated for the Project.
- → The mineral models have been constructed in conformance to industry standard practices.
- The geological understanding is sufficient to support the resource estimation and the resource classification assigned.
- → Initial metallurgical test work indicates both the gold and copper have recoveries in the range of 86% to 90% with fine grind, while whole ore leach tests had gold recovery in the mid 90% range.
- → The specific gravity values used to determine the tonnages at the Project was derived from samples collected during the drilling program and estimated into the model.
- There are several drillhole with elevated gold results that were not included in the resource model. These holes are not part of the porphyry system, yet may be related in a structural system and require additional exploration to understand the potential contribution to the Project.
- → The Primavera deposit remains open at depth.
- → The Project has several addition un-tested soil anomalies and geophysical targets to be tested.

Table 17.1 summarizes the resource model at a 0.5 g/t Aueq cut-off.

Table 17.2 summarizes the pit constrained resource estimate at the 0.5 g/t gold equivalent cut-off for Primavera resource.

Classification	Zone	Tonnage	Au (g/t)	Ag (g/t)	Cu (%)	Aueq (g/t)	Au oz	Ag oz	Cu Ibs	Aueq oz
Inferred	SP	2,555,000	0.71	0.51	0.10	0.84	59,000	42,000	5,480,000	70,000
	HG	18,609,000	0.69	1.29	0.28	1.06	410,000	774,000	116,597,000	630,000
	LG	23,810,000	0.41	1.10	0.18	0.65	313,000	845,000	96,593,000	500,000
	Subtotal	44,974,000	0.54	1.15	0.22	0.84	782,000	1,661,000	218,670,000	1,200,000

Table 17.1 Primavera Resource Summary

Table 17.2 Primavera Pit Constrained Resource Summary

Classification	Zone	Tonnage	Au (g/t)	Ag (g/t)	Cu (%)	Aueq (g/t)	Au oz	Ag oz	Cu Ibs	Aueq oz
Inferred	SP	2,274,000	0.59	0.44	0.08	0.70	52,110	39,200	5,438,300	62,772
	HG	15,072,000	0.70	1.37	0.31	1.07	337,300	663,390	92,400,000	518,530
	LG	10,442,000	0.43	1.17	0.18	0.68	145,700	391,470	42,232,100	229,860
	Subtotal	27,790,000	0.60	1.22	0.23	0.91	535,110	1,094,060	140,070,400	811,162

18 RECOMMENDATIONS

It is WSP's opinion that additional exploration expenditures are warranted. Two separate exploration programs are proposed. Phase 2 is dependent on the results of Phase 1 and should be completed or adjusted upon the completion of Phase 1.

18.1 PHASE 1 – PRIMAVERA EXPANSION

Phase 1 is designed primarily to expand the current resource at the Project by testing the strike and dip extension of the deposit as well as other geochemical and geophysics targets. This will entail diamond and RC drilling with additional work on metallurgical testing, rock mechanics and surveying.

The drilling campaign should be designed to target the potential strike extensions of the Project, particularity the northeast. Drillhole spacing should continue at approximately 50 m along section and 50 m to 75 m vertically on section in order to support an Inferred Resource. Any opportunity to drill some of the structural targets should be made.

Table 18.1 summarizes the exploration program proposed.

Item	Note	Amount (\$)
Diamond Drilling	4,000 m @ \$150/m	600,000
RC Drilling	8,000 m @ \$75/m	600,000
Assays	12,000 samples @ \$30/sample	360,000
Salaries / Technical Support	-	170,000
Metallurgical Testing	-	40,000
Surveying	-	40,000
Additional Technical Studies	-	55,000
Resource Update	-	60,000
Consumable Supplies and Camp Costs	-	75,000
Total	-	2,000,000

Гable 18.1	Primavera	Phase	1	Exploration
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Note: Includes all drilling related charges.

18.2 PHASE 2 PRIMAVERA EXPANSION

Phase 2 is designed to delineate the resource at the Project by infilling of the deposit and providing the level of detail to conduct a PEA. This will entail a diamond and RC drilling programs, addition metallurgical testing, other technical studies, and environmental base lining.

The drilling campaign should be designed to target the core areas of the Primavera deposit, particularly in the areas where widths are wider and grades are higher. Drillhole spacing should be at approximately 25 to 30 m along section and 30 to 50 m vertically on section in order to improve the resource classification.

Table 18.2 summarizes the exploration program proposed.

Item	Note	Amount (\$)
Diamond Drilling	5,000 m @ \$150/m	750,000
RC Drilling	10,000 m @ \$75/m	750,000
Assays	12,500 samples @ \$30/sample	375,000
Salaries	-	170,000
Metallurgical Testing	-	65,000
Additional Technical Studies	-	65,000
Environmental Studies	-	65,000
Consumable Supplies and Camp Costs	-	115,000
Scoping Study	-	145,000
Total	-	2,500,000

Table 18.2	Primavera	Phase	2 Expl	oration
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Note: Includes all drilling related charges.

18.3 OTHER RECOMMENDATION

The following recommendation is to assist in moving the project forward.

→ For future drilling programs, continue to collect specific gravity measurement for the various rock types and alteration styles. Approximately 4 to 5% of the database should have a specific gravity measurement. This will allow for a more accurate calculation of the tonnage in the subsequent resource estimate.

19 REFERENCES

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20 CERTIFICATE OF QUALIFIED PERSON

TODD MCCRACKEN, P.GEO.

I, Todd McCracken, P.Geo. of Sudbury, Ontario do hereby certify:

- → I am a Manager Mining with WSP Canada Inc. with a business address at 2565 Kingsway, Unit 2, Sudbury, Ontario P3B 2G1.
- This certificate applies to the technical report entitled 'Primavera Project Resource Estimate' (the "Technical Report").
- → I am a graduate of the University of Waterloo, B.Sc. Honours, 1992. I am a member in good standing of Association of Professional Geoscientists of Ontario (#0631). My relevant experience includes 26 years of experience in exploration and operations, including several years working in gold deposits as well as over 10 years completing resource estimations. I am a "Qualified Person" for the purposes of National Instrument 43-101 (the "Instrument").
- → My personal inspections of the Property were from February 7 to 12, 2011, from August 8 to 11, 2012, and from September 22 to 24, 2016.
- \rightarrow I am responsible for Sections 1 to 20 of the Technical Report.
- → I am independent of Calibre Mining Corp. as defined by Section 1.5 of the Instrument.
- → I have had no prior involvement with the Property that is the subject of this Technical Report.
- → I have read the Instrument and the sections of the Technical Report that I am responsible for have been prepared in compliance with the Instrument.
- → As of the date of this certificate, to the best of my knowledge, information, and belief, the sections of the Technical Report that I am responsible for contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Signed and dated this 31st day of January, 2017 at Sudbury, Ontario.

"Original document signed and stamped by Todd McCracken, P.Geo.

Todd McCracken, P.Geo. Manager - Mining WSP Canada Inc.

Appendix A

COLLAR COORDINATES

Collar

Trench ID	WGS84_East	WGS84_North	WGS84_RL	Length	Azimuth	Dip	Туре
PRTR11-001a	781048.37	1532519.60	118.00	3.10	270.00	-10	PIT
PRTR11-001b	781048.37	1532519.60	120.00	2.30	0.00	-90	PIT
PRTR11-002a	781122.37	1532582.60	109.00	2.00	0.00	-90	PIT
PRTR11-002b	781124.37	1532582.60	109.00	2.00	0.00	-90	PIT
PRTR11-002c	781124.37	1532582.60	107.00	3.00	180.00	0	PIT
PRTR11-003a	781110.37	1532423.60	119.00	3.53	218.00	0	PIT
PRTR11-003b	781110.37	1532423.60	121.00	3.00	85.00	20	PIT
PRTR11-004a	781156.37	1532299.60	114.00	2.00	0.00	-90	PIT
PRTR11-004b	781156.37	1532299.60	112.00	3.00	178.00	0	PIT
PRTR11-005	781088.03	1532534.13	53.66	51.25	63.00	19	TR
PRTR11-006a	781056.37	1532290.60	112.00	2.90	0.00	-90	PIT
PRTR11-006b	781059.37	1532287.60	112.00	2.90	0.00	-90	PIT
PRTR11-007a	781179.37	1532473.60	113.00	2.90	0.00	-90	PIT
PRTR11-007b	781181.37	1532471.60	113.00	2.90	0.00	-90	PIT
PRTR11-008a	781242.37	1532571.60	110.00	1.85	0.00	-90	PIT
PRTR11-008b	781242.37	1532571.60	110.00	1.85	0.00	-90	PIT
PRTR11-009	780961.09	1532716.17	52.19	4.00	20.00	0	PIT
PRTR11-010	781112.54	1532476.93	63.99	107.00	162.00	1	TR
PRTR11-011	781134.84	1532309.03	54.75	179.40	28.00	6	TR
PRTR11-012	781105.70	1532488.74	65.36	58.00	89.00	-20	TR
PRTR11-013	781017.88	1532577.06	53.29	49.50	70.00	-10	TR
PRTR11-014	781159.77	1532499.47	51.32	51.70	56.00	8	TR
PRTR11-015	781422.37	1531788.47	165.00	17.00	150.00	-3	TR
PRTR11-016	781466.17	1531770.14	155.00	3.00	120.00	-6	PIT
PRTR11-017	781477.37	1531785.60	151.00	3.20	90.00	-8	PIT
PRTR11-018	781191.37	1532034.60	120.00	2.84	100.00	22	PIT
PRTR11-019	781167.37	1531950.60	115.00	3.00	120.00	10	PIT
PRTR11-020	781321.37	1532087.60	167.00	2.90	136.00	-23	PIT
PRTR11-021	781407.37	1532303.60	138.00	3.00	76.00	-20	PIT
PRTR11-022	781250.37	1532189.60	150.00	2.80	110.00	16	PIT
PRTR11-023	780938.37	1532362.60	108.00	2.86	90.00	20	PIT
PRTR11-024	780967.37	1532731.60	118.00	3.00	160.00	-21	PIT
PRTR11-025	781310.37	1531775.60	134.00	2.70	82.00	24	PIT
PRTR11-026	781405.37	1531625.59	142.00	2.76	64.00	28	PIT
PRTR11-027	781804.37	1531729.60	153.00	2.00	90.00	24	PIT
PRTR11-028	781868.37	1531857.60	170.00	3.05	118.00	14	PIT
PRTR11-029	781761.37	1532075.60	158.00	2.75	80.00	-18	PIT
PRTR11-030	781730.37	1532085.60	173.00	2.90	116.00	12	PIT
PRTR11-031	781950.37	1532093.60	136.00	3.34	96.00	22	PIT
PRTR11-032	781550.37	1531914.60	167.00	2.90	24.00	13	PIT
PRTR11-033	781539.37	1532394.60	136.00	2.80	136.00	23	PIT
PRTR11-034	781560.37	1531613.59	149.00	3.00	110.00	-16	PIT
PRTR11-035	781777.37	1531965.60	164.00	2.80	160.00	-26	PIT
PRTR11-036	781673.37	1532024.60	165.00	2.80	150.00	20	PIT
PRTR11-037	781421.37	1532676.60	140.00	3.10	138.00	11	PIT

Collar

PRTR11-038	781189.37	1532704.60	112.00	3.20	106.00	-10	PIT
PRTR11-039	781133.37	1532757.60	145.00	3.00	113.00	12	PIT
PRTR11-040	781798.37	1532442.60	148.00	3.00	148.00	0	PIT
PRTR11-041	781915.37	1532546.60	150.00	3.10	107.00	-18	PIT
PRTR11-042	781677.37	1532620.60	128.00	3.00	100.00	13	PIT
PRTR11-043	781485.37	1532521.60	112.00	3.00	140.00	17	PIT
PRTR12-044	782207.87	1531150.69	115.00	22.00	240.00	0	FACE

Appendix B

TRENCH ASSAY RESULTS

Trench ID	From m	To m	SampleID	Au ppm	Ag ppm	Cu ppm
PRTR11-001a	0.00	1.00	B11R1077	0.94	0.10	943
PRTR11-001a	1.00	2.00	B11R1078	1.07	0.10	696
PRTR11-001a	2.00	3.10	B11R1079	1.39	0.10	631
PRTR11-001b	0.00	0.80	B11R1073	0.46	0.10	517
PRTR11-001b	0.80	1.80	B11R1074	0.89	0.10	763
PRTR11-001b	1 80	2 30	B11R1076	0.41	0.10	2 350
PRTR11-002a	0.00	1 00	B11R7083	1.30	0.20	575
PRTR11-002a	1 00	2 00	B11R7084	0.94	0.10	691
PRTR11-002b	0.00	1.00	B11R7086	2 40	0.30	489
PRTR11_002b	1 00	2 00	B11R7087	1 14	0.30	665
PRTR11_002c	0.00	1 50	B11R7088	0.88	0.00	803
PRTR11_002c	1 50	3.00	B11R7080	0.00	0.20	761
PRTR11_0020	0.00	1 00	B11R7000	1 28	0.10	588
PRTR11_003a	1.00	1.00	B11R7090	1.20	0.00	1 320
DDTD11 003a	1.00	3 53	B11D7002	1.55	0.30	823
DDTD11 0026	0.00	0.06	B11D7002	1.11	0.40	647
DDTD11 003b	0.00	2.06	B11C7093	1.42	0.30	047 717
DDTD11 002b	0.90	2.00	D1107006	2.00	0.30	1 060
	2.00	3.00		2.00	0.30	1,000
PRIRII-004a	0.00	1.20	DIIR/09/	1.75	0.30	477
PRIRII-004a	1.20	2.00	DIIR/090	0.52	0.20	323
	0.00	1.45	BTIR/099	0.45	0.10	452
PRIRII-0040	1.45	3.00	BTIR/100	0.72	0.10	5/1
PRIRII-005	0.00	2.00	BTIR0083	1.18	0.05	362
PRIRII-005	2.00	4.00	BTIR0084	1.46	0.05	412
PRIR11-005	4.00	6.00	B11R0086	1.28	0.05	464
PRIR11-005	6.00	8.00	B11R0087	1.25	0.05	444
PRIR11-005	8.00	10.00	B11R0088	1.75	0.05	463
PRIR11-005	10.00	12.00	B11R0089	1.67	0.05	513
PRIR11-005	12.00	14.00	B11R0090	1.37	0.05	418
PRIR11-005	14.00	14.70	B11R0091	0.91	0.05	441
PRIR11-005	14.70	15.90	B11R0092	1./4	0.05	525
PRIR11-005	15.90	17.80	B11R0093	1.92	0.05	492
PRTR11-005	17.80	19.30	B11R0094	2.02	0.05	517
PRTR11-005	19.30	21.40	B11R0096	2.23	0.05	572
PRTR11-005	21.40	21.90	B11R7101	1.05	0.50	840
PRTR11-005	21.90	23.50	B11R7102	2.04	0.40	999
PRTR11-005	23.50	24.85	B11R7103	0.56	0.20	695
PRTR11-005	24.85	25.30	B11R7104	2.17	0.50	821
PRTR11-005	25.30	27.30	B11R7106	2.09	0.30	687
PRTR11-005	27.30	29.30	B11R7107	3.05	0.50	722
PRTR11-005	29.30	31.30	B11R7108	0.93	0.20	630
PRTR11-005	31.30	33.00	B11R7109	2.03	0.10	786
PRTR11-005	33.00	34.50	B11R7110	1.52	0.40	809
PRTR11-005	34.50	36.00	B11R7111	1.69	0.20	754
PRTR11-005	36.00	38.00	B11R7112	1.49	0.40	786
PRTR11-005	38.00	40.00	B11R7113	1.58	0.30	800
PRTR11-005	40.00	42.00	B11R7114	2.45	0.30	929
PRTR11-005	42.00	43.00	B11R7116	1.11	0.40	1,025
PRTR11-005	43.00	44.60	B11R7117	1.98	0.80	1,020
PRTR11-005	44.60	45.10	B11R7118	0.61	0.80	945
PRTR11-005	45.10	46.40	B11R7119	0.60	0.60	1,495
PRTR11-005	50.00	51.25	B11R7123	0.62	0.20	696
PRTR11-006a	0.00	1.00	B11R7124	0.63	0.10	416
PRTR11-006a	1.00	2.90	B11R7126	0.66	0.30	841

PRTR11-006b	0.00	1.00	B11R7127	0.58	0.10	433
PRTR11-006b	1.00	2.90	B11R7128	0.61	0.10	657
PRTR11-007a	0.00	1.00	B11R7129	0.53	0.10	635
PRTR11-007a	1.00	2.90	B11R7130	0.42	0.20	704
PRTR11-007b	1.00	2.90	B11R7132	0.53	0.20	887
PRTR11-010	0.00	2 00	B11R0097	0.42	0.20	803
PRTR11-010	2 00	4 00	B11R0098	0.65	0.20	795
PRTR11-010	4 00	6.00	B11R0099	1 64	1.30	867
PRTR11_010	6.00	8.00	B11R0100	0.95	0.30	597
PRTR11_010	8.00	10.00	B11R0101	1.06	0.00	912
PRTR11_010	10.00	12.00	B11R0102	0.83	0.10	415
PRTR11_010	12.00	14.00	B11R0102	0.00	0.10	577
PRTR11_010	14.00	15.00	B11R0104	1 10	0.10	583
PRTR11_010	15.00	16.00	B11R0104	1.10	0.10	721
PRTR11_010	16.00	18.00	B11R0100	0.84	0.00	886
PRTR11_010	18.00	20.00	B11R0108	0.04	0.00	782
PRTR11_010	20.00	20.00	B11R0100	1 33	0.20	1 1/7
PRTR11_010	20.00	23.00	B11R0103	0.70	0.00	505
PRTR11_010	21.40	25.00	B11R0110	0.75	0.20	550
DDTD11 010	25.00	23.00	B11D0112	1.03	0.20	476
	23.00	27.00	B11D0112	0.70	0.20	470
DDTD11 010	27.00	29.00	B11D0114	0.70	0.40	206
DDTD11 010	29.00	30.00	B11D0114	0.09	0.50	230
	22.00	32.00		0.71	0.20	221
	32.00	34.00		0.00	0.10	257
	34.00	30.00		0.74	0.05	337
PRIRII-010	30.00	37.50	DIIRUII9	0.00	0.10	400
PRIRII-010	37.50	39.00		0.01	0.40	1,000
PRIRII-UIU	39.00	41.00		0.05	0.30	591
PRIRII-UIU	41.00	43.00	B11R0122	0.64	0.50	090
PRIRII-UIU	43.00	45.00	B11R0123	0.50	0.20	910
PRIRII-UIU	45.00	47.00	B11R0124	0.44	1.30	2,032
PRIRII-UIU	47.00	49.00	B11R0120	0.69	0.30	1,555
PRIRII-UIU	51.00	53.00	B11R0128	0.50	0.10	1 5 6 0
PRIRII-UIU	53.00	55.00	B11R0129	0.53	0.20	1,509
PRIRII-UIU		57.00	B11R0130	1.00	0.30	3,473
PRIRII-UIU	57.00	59.00	BIIRUI3I	0.72	0.60	1 415
PRIRII-UIU	59.00	61.00	B11R0132	0.51	0.30	1,415
PRIRII-UIU	61.00	63.00	BIIRUI33	0.67	0.20	792
PRIRII-UIU	63.00	65.00	B11R0134	0.69	0.30	1 5 0 1
PRIRII-UIU	05.00	67.00	BIIRUI30	0.64	0.30	1,581
PRIRII-010	67.00	69.00	BIIRUI3/	0.68	0.20	/50
PRIRII-010	69.00 71.00	71.00	BIIRUI38	0.60	0.30	1,954
PRIR11-010	/1.00	73.00	B11R0139	1.28	0.40	//9
PRIR11-010	/3.00	75.00	B11R0140	1.06	0.20	565
PRIR11-010	/6.50	/8.30	B11R0142	0.84	0.20	/41
PRIR11-010	/8.30	80.00	B11R0143	1.22	0.30	441
PRIR11-010	80.00	82.00	B11R0144	0.89	0.20	1,2/1
PRIR11-010	82.00	84.00	B11R0146	0.65	0.20	866
PRTR11-010	84.00	86.00	B11R0147	0.51	0.20	819
PRTR11-010	86.00	88.00	B11R0148	0.69	0.50	474
PRTR11-010	88.00	90.00	B11R0149	0.78	0.40	731
PRTR11-010	90.00	92.00	B11R0150	1.29	0.30	1,249
PRTR11-010	92.00	94.00	B11R0151	0.69	0.30	1,571
PRTR11-010	94.00	96.00	B11R0152	0.80	0.20	610
PRTR11-010	96.00	98.00	B11R0153	0.71	0.30	655

PRTR11-010	98.00	99.50	B11R0154	0.61	0.30	478
PRTR11-010	99.50	101.00	B11R0156	0.64	0.30	1.308
PRTR11-010	101.00	102.00	B11R0157	0.51	0.70	2,307
PRTR11-010	102.00	104.00	B11R0158	0.86	0.30	1.076
PRTR11-010	104.00	105.50	B11R0159	0.90	0.40	824
PRTR11-011	0.00	2.00	B11R7171	0.44	0.05	661
PRTR11-011	2.00	4.00	B11R7172	0.64	0.05	582
PRTR11-011	4.00	6.00	B11R7173	0.50	0.05	405
PRTR11-011	6.00	8.00	B11R7174	0.43	0.05	326
PRTR11-011	8.00	11.00	B11R7176	0.67	0.05	558
PRTR11-011	8.00	9.50	B11R7339	2.98	0.40	726
PRTR11-011	9.50	11.00	B11R7340	0.75	0.05	345
PRTR11-011	11.00	13.00	B11R7177	0.71	0.05	339
PRTR11-011	14.50	16.60	B11R7179	0.57	0.05	586
PRTR11-011	15.60	16.70	B11R7336	1.21	0.05	545
PRTR11-011	16.60	18.00	B11R7180	0.74	0.05	485
PRTR11-011	18.00	20.00	B11R7181	0.73	0.05	383
PRTR11-011	20.00	22.00	B11R7182	0.60	0.05	447
PRTR11-011	30.00	32.00	B11R7188	0.50	0.05	474
PRTR11-011	40.20	42.00	B11R7196	0.64	0.05	508
PRTR11-011	42.00	44 00	B11R7197	1.52	0.05	721
PRTR11_011	44.00	46.00	B11R7198	1.62	0.05	748
PRTR11_011	46.00	48.00	B11R7199	1.00	0.00	803
PRTR11_011	48.00	50.00	B11R7200	1.10	0.00	836
PRTR11_011	50.00	52.00	B11R7201	1.58	0.00	930
PRTR11_011	52.00	54.00	B11R7201	2.54	0.00	927
PRTR11_011	54.00	56.00	B11R7202	1 30	0.20	944
PRTR11_011	56.00	58.00	B11R7203	1.00	0.05	1 014
DRTR11_011	58.00	60.00	B11R7204	0.62	0.05	936
DRTR11_011	60.00	62.00	B11R7200	0.02	0.05	789
DRTR11_011	62.00	64.00	B11R7207	0.03	0.05	703
PRTR11_011	64.00	66.00	B11R7200	0.71	0.05	959
DRTR11_011	66.00	68.00	B11R7200	0.52	0.00	967
DRTR11_011	68.00	70.00	B11R7210	0.04	0.00	1 266
PRTR11_011	70.00	70.00	B11R7212	0.40	0.00	642
DRTR11_011	76.00	77.00	B11R7212	0.44	0.20	517
DRTR11_011	70.00	80.00	B11R7270	0.40	0.05	1 601
DRTR11_011	80.00	82.00	B11R7220	0.02	0.05	1,001
DRTR11_011	84.00	86.00	B11R7221	0.70	1 20	969
DRTR11_011	87.00	88 50	B11R7226	0.41	0.05	1 753
DRTR11_011	91 50	93.00	B11R7220	0.54	0.05	1,755
DRTR11_011	91.50	94.00	B11R7223	0.75	0.05	2 5/3
DRTR11_011	94.00	96.00	B11R7230	0.44	0.05	2,343
DDTD11 011	94.00	90.00	B11D7237	0.07	0.05	528
DRTR11_011	98.00	100.00	B11R7232	0.00	0.05	664
DRTR11_011	100.00	102.00	B11R723	0.50	0.05	1 353
DRTR11_011	102.00	102.00	B11R7234	1 13	0.05	1,000
DDTD11 011	102.00	104.00	B11D7230	0.73	0.05	2 1 2 8
	104.00	100.00	B11D7238	0.75	0.05	2,420
	100.00	110.00	B11D7230	0.70	0.05	1,140
DRTR11 011	110.00	112.00	B11P70/0	0.04	0.05	1,233
DRTD11 011	11/ 00	116.00	B11D70/0	0.40	0.05	207 1 122
DRTD11 011	116.00	112.00	B11D70/2	0.50	0.05	1,132
PRTR11_011	112 00	120.00	B11R7011	0.01	0.05	1,307
PRTR11_011	122 00	120.00	B11R7244	0.56	0.05	756
			<u></u>	0.00	0.00	,00

PRTR11-011	124.00	126.00	B11R7248	0.62	0.05	750
PRTR11-011	126.00	128.00	B11R7249	0.80	0.05	716
PRTR11-011	128.00	130.00	B11R7250	0.67	0.05	659
PRTR11-011	130.00	132.00	B11R7251	1.08	0.05	725
PRTR11-011	132.00	134.00	B11R7252	0.44	0.05	1,334
PRTR11-011	134.00	136.00	B11R7253	0.77	0.05	699
PRTR11-011	136.00	138.00	B11R7254	0.43	0.05	768
PRTR11-011	138.00	140.00	B11R7256	0.68	0.05	1.078
PRTR11-011	140.00	142.00	B11R7257	0.80	0.05	1.085
PRTR11-011	142.00	144.00	B11R7258	0.77	0.05	939
PRTR11-011	146.00	148.00	B11R7260	0.75	0.05	1.634
PRTR11-011	148.00	150.00	B11R7261	0.48	0.05	1,111
PRTR11-011	154.00	156.00	B11R7264	0.50	0.05	1,239
PRTR11-011	156.00	158.00	B11R7266	0.47	0.05	1 494
PRTR11-011	160.00	162.00	B11R7268	0.75	0.05	1 180
PRTR11-011	162.00	164.00	B11R7269	0.42	0.05	1 495
PRTR11-011	164.00	166.00	B11R7270	0.52	0.05	1 812
PRTR11_011	172.00	174 00	B11R7274	0.54	0.05	1 021
PRTR11_011	172.00	176.00	B11R7276	0.69	0.00	1,021
PRTR11_011	176.00	178.00	B11R7277	0.00	0.00	1 308
PRTR11_011	178.00	179.00	B11R7278	1 10	0.00	1,000
PRTR11_012	0.00	1 50	B11R5124	1.10	0.00	1,000
PRTR11_012	1 50	3.00	B11R5124	1.00	0.30	1,073
DRTR11_012	3.00	4.00	B11R5120	1.54	0.40	010
DRTR11_012	0.00 ∕ 00	5.00	B11R5128	0.04	0.40	676
DRTR11_012	4.00 5.00	6 50	B11R5080	1.05	0.20	680
DDTD11 012	5.00 6.50	8 30	B11D5000	2 44	0.40	550
DDTD11 012	0.30 8 30	10.00	B11D5001	2.44	0.30	5/3
DDTD11 012	10.00	12.00	B11D5002	1.21	0.40	496
DDTD11 012	16.00	12.00	B11D5006	0.40	0.40	490
	18.00	10.00	B11D5007	0.49	0.30	836
DDTD11 012	10.00	21.00	B11D5008	0.59	0.40	1 006
DDTD11 012	21.00	21.00	B11D5000	0.04	0.00	1,000
	21.00	22.50	B11D5100	1 00	0.50	1,210
DDTD11 012	22.30	24.00	B11D5100	0.57	0.30	903 970
DDTD11 012	24.00	20.00	B11D5101	0.57	0.40	072
DDTD11 012	20.00	27.40	D11D5102	0.00	0.50	1 061
	37.00	20.30		0.03	0.00	1,001 CT0
	20.30	39.70		0.00	0.40	072
DDTD11 012	39.70 41.20	41.20		0.52	0.80	1,404
	41.20	43.00		0.49	0.40	1,134
	43.00	44.50		1.31	0.90	1,139
PRIRII-012	44.50	40.00		0.52	0.30	030
	40.00	40.00		0.59	0.50	974
	40.00	50.00		0.50	0.50	004 625
	50.00 EE 00	52.00	DIIR3119	0.41	0.60	030
	55.00	50.50		0.50	0.30	/0/
PRIRII-UIZ	50.50	58.00	D11D5123	0.50	0.40	070
PRIRII-013	7.00	8.50	B11R3139	0.41	0.05	890
PRIKII-UIJ	43.50	45.00		4.1ŏ	0.20	2,749
	0.00	2.00	B11R5191	0.67	0.05	568
	2.00	4.00	BT1R5192	0.56	0.05	615
PRIR11-014	4.00	6.00	B11R5193	0.46	0.05	5/4
PRIR11-014	6.UU	8.00	B11R5194	1.62	0.05	529
PRIR11-014	8.00	10.00	B11R5196	1./3	0.05	607
PRIR11-014	10.00	12.00	B11R519/	0.69	0.05	605

PRTR11-014	12.00	14.00	B11R5198	0.60	0.05	617
PRTR11-014	14.00	16.00	B11R5199	0.77	0.05	564
PRTR11-014	16.00	18.00	B11R5200	0.74	0.05	571
PRTR11-014	40.00	41.50	B11R5214	0.55	0.05	1,626
PRTR11-016	0.00	1.00	B11R5238	0.56	0.05	377

Appendix C

VARIOGRAM MODELS

High Grade DDH – Au (ppm)

Variogram map calc	ulation		×	
Basic Advanced				
Location Id range	05b_geostatistics_s ↓ 0	D field Minimum value	D1 -	
Data Selection	J	Maximum Value		
Plane dip	-70	Search type	e 💿 Cone	
Dip direction Number of variograms	36 ▼	Spread	Pyramid 20	
Angular increment	10	Spread limit	t 20	
		Vertical spread Vertical spread limit		
Lag	16			
Maximum distance	160			
Output report file name	09_reports/03_geostats/eval_geostats_201 .not - Surpac Note File			
Output report file format				
Display report				
			Apply X Cancel	

Basic Ad	vanced		
Geographic	al Constraints		
Minimum:			
x	Y	Z	
Maximum:			
x	Y	4	
Lag slider			
Minimum	1.0		
Maximum	150.0		
Increment	0.2		
Treat negat			
neurnegut	O ZEROES	O UNDEFINED O NEGA	TIVES
Cross vario	graphy		
Calculate o	ross-variogram		
Se	condary D field D1	T	
	Minimum value		
9	Maximum value		






GEOVIA C	Oct 20	2016
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Anisotropy Ellipse Parameters			
Orientation			
Surpac ZXY LRL			
Parameter	Value	у	1,532,550.00
Bearing	136.7807	x	780,900.00
Plunge	-62.0092	z	0.00
Dip	39.7807		

Anisotropy factors	
Parameter	Value
major / semi-major	1.655
major / minor	2.705





Cu HG Variogram – Version 3

Variogram map calco	ulation		×	Variogram map calculation
Basic Advanced				Basic Advanced
Location Id range	05b_geostatistics_s → 0	D field D Minimum value	3 •	Geographical Constraints Minimum: XI M Y Z
String range		Maximum value		
Data Selection				Maximum:
Plane dip	-90	Search type	One	X Y Z
Dip direction	30		Pyramid	Lag slider
Number of variograms	36 👻	Spread	35	Minimum 1.0
Angular increment	10	Spread limit	30	Maximum 100.0
		Vertical spread		Increment 0.1
		Vertical spread limit		Treat negatives as O ZEROES O UNDEFINED O NEGATIVES
Lag	8			Cross variography
Maximum distance	150			Calculate cross-variogram
Output report file name	09_reports/03_geostats/hg	g/v05_ag_eval	-	Secondary D field D1 +
Output report file format	.not - Surpac Note File			Minimum value
Display report				Maximum value
		~	Apply 🔀 Cancel	Apply X Cancel







GEOVIA – Oct 21 2016

Anisotropy Ellipse Parameters

Orientation

Surpac ZXY LRL

Parameter	Value		
i alametei	Value		
Bearing	120	Y	1,532,700.00
Plunge	-85	Х	781,200.00
Dip	40	Z	0.00

Anisotropy factors

Parameter	Value
major / semi-major	2.663
major / minor	3.428



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Arrisotropy Rasos Max Search Rackas 87.642 Migor Search Rockas 97.642 Migor Minor 3.428 Purper 45.00 Migor Minor 3.428 Purper 45.00 Dip 40.000 Arrisotropy Rasos Migor Minor 3.428 Purper 45.00 Dip 40.000 Purper 45.00 Dip 40.000 Purper 45.00 Dip 40.000 Purper 45.00 Dip 40.000 Purper 45.00 Dip 40.000 Purper 45.00 Dip 40.000 Dip 40.0000 Dip 40.00000 Dip 40.000	Arrisobooy Ratoe Oversition Max Search Racka 67.601 Bearing 120.001 May Kennik 13.438 Do 49.0001 Arrisobooy Ratoe Tompe Tables Do 49.0001 Arrisobooy Ratoe Tompe Tables Tompe Tables Tompe Tables Suppe ZWLBL Tompe Tables Tompe Tables Tompe Tables Fr. Scond Third Area Tompe Tables Stationt 2.00 K States Tompe Tables Tompe Tables
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Au LG Variogram – Version 1

Variogram map calc	ulation	×	Variogram map calculation
Basic Advanced			Basic Advanced
Location Id range String range	05b_geostatistics_s → D field 0 Minimum value Maximum value	01 •	Geographical Constraints Minimum: X Y Y Z Maximum
Plane dip Dip direction Number of variograms Angular increment	-90 Search type 30 Spread 10 Spread limit Vertical spread limit Vertical spread limit	Cone Pyramid 35 35	X Y Z Lag sider Minimum 1.0 Maximum 100.0 Increment 0.1 Treat negatives as © ZEROES
Lag Maximum distance Output report file name Output report file format Display report	8 150 09_reports/03_geostats/lg/v01_au_eval .not - Surpac Note File	Apply X Cancel	Cross variography Calculate cross-variogram Secondary D field D1 - Maximum value -1 Maximum value -1







GEOVIA – Oct 21 2016

Anisotropy Ellipse Parameters

Orientation			
Surpac ZXY LRL			
Parameter	Value		
Bearing	120	Y	1,532,500.00
Plunge	-75	Х	781,500.00
Dip	85	Z	0.00

Anisotropy factors	
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Parameter	Value
major / semi-major	2.001
major / minor	4.082

Ellipsoid Visualiser	Elliptoid Vipueliser
Arisobropy Asise Orientation Mask samp hasise 105.05 Major (Semination) Bearing Major (Semination) 2000 Major Minitor 2002 Dig B5.000 Dig B5.000 Arisobropy Asise Image 75:00 Major Minitor 2002 Dig B5.000 Dig B5.000 Arisobropy Asise Image 75:00 Major Minitor Image 75:00 Prime Scootly Image 75:00 Bit Rotat Image 75:00 Dig Section Long Section Dig Section Image 75:00 Dig Section I	Arisobopy Asise Mark Saard Radau May Saard Radau May Marr 2002 Do 85.000 Aser of Rotation Funce 270 Linu Funce 270 Linu
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OF LOW LOW RELATION View Plan Durrent View: Long Section Durrent View: Long Section Durrent View: Long Section Create String File String File To View Ideation View Ideation View Ideation View View Ideation View View	View View View View View View View View

Cu LG Variogram – Version 1

Variogram map calc	ulation	×	Variogram map calculation	×
Basic Advanced			Basic Advanced	
Location Id range String range Data Selection	05b_geostatistics_s D field Minimum value Maximum value	D3 •	Geographical Constraints Minimum: X Y Z	
Plane dip Dip direction Number of variograms Angular increment	-90 Search type 30 Spread 10 Spread limit Vertical spread Vertical spread limit	Cone Pyramid 35 35	Monitoria M Z Lag silder Minimum 1.0 Maximum 100.0 Increment Increment 0.1 Treat negatives as © ZEROES © UNDEFINED @ NEGATIVES	
Lag Maximum distance Output report file name Output report file format Display report	25 250 09_reports/03_geostats/g/v1_cu_jg_eval .not - Surpac Note File	Apply X Cancel	Cross variography Calculate cross-variogram	Cancel







GEOVIA – Oct 21 2016

Anisotropy Ellipse Parameters

Orientation			
Surpac ZXY LRL			
Parameter	Value		
Bearing	120	Y	1,532,600.00
Plunge	-75	Х	782,600.00
Dip	75	Z	0.00

Anisotro	opy factors	
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Parameter	Value
major / semi-major	2.328
major / minor	3.583



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