

**Corazon Gold Corp.**  
**2012 TECHNICAL REPORT ON THE RÍO COCO  
PROPERTY, NICARAGUA**

Waspán Municipality  
Región Autónoma Atlántico Norte (RAAN), Nicaragua  
14° 41' N Latitude; 84° 43' W Longitude  
UTM 1 614 500N, 747 000E (NAD 27 Zone 16N)

-prepared for-  
**CORAZON GOLD CORP.**  
Suite 300, 1055 West Hastings Street  
Vancouver, British Columbia, Canada V6E 2E9

-prepared by-  
Henry J. Awmack, P.Eng.  
**EQUITY EXPLORATION CONSULTANTS LTD.**  
Suite 200, 900 West Hastings Street  
Vancouver, British Columbia, Canada, V6C 1E5

Effective Date: July 25, 2012

## TABLE OF CONTENTS

TABLE OF CONTENTS .....	1
LIST OF APPENDICES.....	2
LIST OF TABLES .....	2
LIST OF FIGURES.....	2
1.0 SUMMARY.....	3
2.0 INTRODUCTION.....	3
3.0 RELIANCE ON OTHER EXPERTS.....	5
4.0 PROPERTY DESCRIPTION AND LOCATION.....	5
5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, PHYSIOGRAPHY .....	8
5.1 Accessibility .....	8
5.2 Local Resources and Infrastructure .....	8
5.3 Climate and Physiography .....	9
6.0 HISTORY .....	9
7.0 GEOLOGICAL SETTING AND MINERALIZATION .....	10
7.1 Regional Geology .....	10
7.2 Property Geology.....	10
7.3 Mineralization.....	14
8.0 DEPOSIT TYPES.....	14
8.1 Skarns .....	14
8.2 Porphyry Deposits .....	15
8.3 Low-Sulphidation Epithermal .....	16
8.4 Coco Mina Analogue.....	16
9.0 EXPLORATION.....	17
10.0 DRILLING .....	17
11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY .....	17
12.0 DATA VERIFICATION.....	18
13.0 MINERAL PROCESSING AND METALLURGICAL TESTING .....	18
14.0 MINERAL RESOURCE ESTIMATES .....	18
15.0 ADJACENT PROPERTIES .....	18
16.0 OTHER RELEVANT DATA AND INFORMATION .....	19
17.0 INTERPRETATION AND CONCLUSIONS.....	19
18.0 RECOMMENDATIONS .....	19
18.1 Phase I .....	20
18.1.1 Program .....	20
18.1.2 Budget.....	20
18.2 Phase II .....	20
18.2.1 Program and Budget .....	20

## LIST OF APPENDICES

Appendix A: References

Appendix B: Qualified Person's Certificate

## LIST OF TABLES

Table 1: Río Coco Property Tenure .....	5
Table 2: Author's Silt Samples.....	17

## LIST OF FIGURES

Figure 1: Location Map.....	6
Figure 2: Tenure Map.....	7
Figure 3: Regional Geology.....	11
Figure 4: Property Geology and Geochemistry.....	13
Figure 5: Model of skarn and porphyry Cu-Au-Mo deposits and the relationship between lithologies and related mineralization styles (from Sillitoe, 2010). .....	15
Figure 6: Alteration-mineralization zonation model for the geological system shown in Figure 5 (from Sillitoe, 2010). .....	15

## 1.0 SUMMARY

The Río Coco property in north-central Nicaragua covers 305 km<sup>2</sup> of low-relief terrain south of the Río Coco flood-plain. It consists of three concessions owned by a subsidiary of Corazon Gold Corp. (“Corazon”), with no underlying royalties or interests. It lies within the Li Lamni Tasbaika Kum indigenous territory, whose communities have approved of mineral exploration on Corazon’s concessions. It is located within the Bosawas Biosphere Reserve, but outside its Zona Núcleo where mineral exploration and development are not allowed.

The Río Coco property currently lacks all but the most basic infrastructure and is not connected to the national electrical, telephone or road systems. Access to the property is currently by river-boat and dugout canoe from Waspán, a town of about 5,000 inhabitants located 60-100 kilometres east of the property on Río Coco. Waspán has several flights weekly to Managua and is connected to the national electrical, telephone and highway systems. Access within the property is limited to foot-paths and creeks navigable by dugout canoes.

In northern Nicaragua, Cretaceous sedimentary rocks of the Todos Santos Formation are overlain by mixed volcanic rocks of the Oligocene to mid-Miocene Matagalpa Formation. These are intruded by a belt of Cretaceous and Tertiary stocks, plugs and dykes that extends northeasterly toward the Río Coco property. Very little mapping has been reported on the Río Coco property, but rocks of both the Todos Santos and Matagalpa formations have been reported. Cu-Au skarn, Au-Ag low sulphidation epithermal vein and Au-Cu porphyry deposits and prospects within the Todos Santos and Matagalpa formations have been explored and mined, in some cases, approximately 100 kilometres south of the Río Coco property, where they are closely associated with intrusive bodies.

Very little mineral exploration has been reported on the Río Coco property, despite reports of widespread artisanal placer gold mining. Follow-up of placer gold workings led to the discovery in the 1970’s by Rosario Resources Corp. (“Rosario”) of the Coco Minas Au-Zn deposit, located a few kilometres south of the southern boundary of the Río Coco property. At that time, Rosario also carried out silt sampling over a 2 x 4 km area of placer workings on what is now the Río Coco property, confirming the presence of gold in streams but without discovering a bedrock source for it. With the exception of Rosario’s limited work, there has been no reported mapping or sampling over the Río Coco property.

A two-phase exploration program is recommended for the Río Coco property, with advancement to the second phase contingent upon favourable results from the first. The C\$220,000 first phase program will consist of reconnaissance-scale mapping and silt/rock sampling over the entire property. If the second phase proceeds, it will consist of some combination of more detailed mapping, soil geochemistry, ground and airborne geophysical surveying, and hand-trenching. Design of the second phase, including which techniques are most appropriate, which areas should be covered, and what survey parameters should be used, will depend upon the results of the first phase, but it is considered that C\$700,000 should be sufficient to cover its costs.

## 2.0 INTRODUCTION

Equity Exploration Consultants Ltd. (“Equity”) was contracted by Corazon Gold Corp. (“Corazon”) to examine the Río Coco property in Nicaragua, and to compile all available exploration data, prepare recommendations for future exploration and prepare a technical report on the Río Coco property in compliance with the requirements of National Instrument 43-101 (“NI 43-101”). The technical report will be used by Corazon in fulfilment of its requirements for continuous disclosure. This report is based upon information and private reports provided by Corazon, publicly-available journal articles, maps and publications, and the author’s personal observations. A list of references used in the preparation of this report is provided in Appendix A (References).

The author, an independent Qualified Person under the meaning of NI 43-101, personally inspected the Río Coco property during the period May 31 - June 2, 2012, accompanied by Corazon personnel and local residents. The property examination consisted of boat traverses along Río Coco and for several kilometres up Río Umbra south from San Carlos and a foot-traverse to the site of former artisanal placer gold workings west of Asang.

The author is not a director, officer or shareholder of Corazon and has no interest in the Río Coco property or any nearby properties.

Units and abbreviations used in this report are as follows:

Units:

cm	centimetre
C\$	Canadian dollar
g/t	grams/tonne
ha	hectare
km	kilometre
km <sup>2</sup>	square kilometre
oz	troy ounce
ppm	part per million
US\$	United States dollar
yr	year
μ	micron (1/1000 of a millimeter)

Abbreviations:

Ag	silver
Au	gold
Cu	copper
E	east
Fe	iron
ICP-AES	induced coupled plasma – atomic emission spectroscopy
INTER	Instituto Nicaragüense de Estudios Territoriales
ISO	International Standards Organization
K	potassium
MIFIC	Ministerio de Fomento, Industria y Comercio (Nicaragua national government)
MIM	Ministerio de Energía y Minas (Nicaragua national government)
Mo	molybdenum
N	north
NAD-27	North American Datum (1927)
NI 43-101	National Instrument 43-101
Pb	lead
QA	quality assurance
RAAN	Región Autónoma del Atlántico Norte (administrative region in Nicaragua)
QC	quality control
S	south
Sb	antimony
SERENA	Secretaría de Recursos Naturales (RAAN government)
Sn	tin
Te	tellurium
UTM	Universal Transverse Mercator
W	west
W	tungsten
Zn	zinc

### 3.0 RELIANCE ON OTHER EXPERTS

The author has relied entirely on Corazon for information regarding ownership of mineral tenure and the presence or absence of any underlying property or royalty interests in the Río Coco property (Section 4). The author relied on publications and websites of the Nicaraguan Ministerio de Energía y Minas (“MIM”) and on discussions with Corazon personnel for general information on mineral tenure and permitting regulations in Nicaragua (Section 4). The author has relied on Nicaraguan government websites and on discussions with Corazon personnel for information on land use within the Bosawas Biosphere Reserve. The author has not relied on a report, opinion or statement of an expert for other information concerning environmental, political or other issues.

### 4.0 PROPERTY DESCRIPTION AND LOCATION

The Río Coco property is located in north-central Nicaragua, in the Waspán municipality of the Región Autónoma del Atlántico Norte (RAAN) (Figure 1). The property is centred at 14° 41’ north latitude and 84° 43’ west longitude and consists of three mining concessions totaling 305 km<sup>2</sup>, as summarized in Table 1 (Figure 2).

**Table 1: Río Coco Property Tenure**

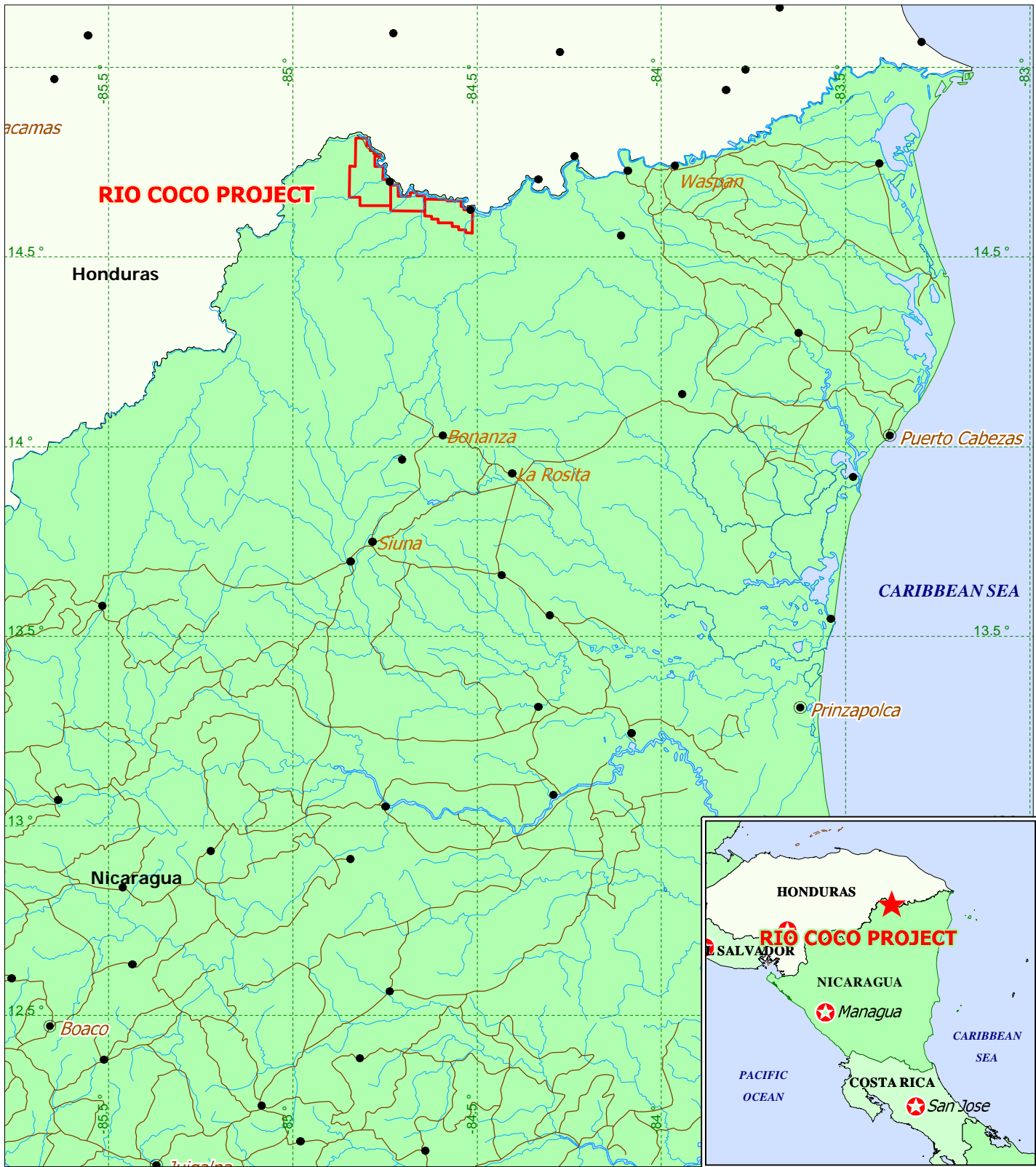
Concession Name	Accord #	Size (Ha)	Type	Expiration Date	Annual Payment (US\$/ha/yr)
Calcedonia	017-DM-335-2012	9,077.89	Mining	February 29, 2027	\$0.25 <sup>1</sup>
Azul	019-DM-337-2012	5,251.40	Mining	February 29, 2027	\$0.25 <sup>1</sup>
Arcosa	018-DM-336-2012	16,147.12	Mining	February 29, 2027	\$0.25 <sup>1</sup>
		30,476.41			

<sup>1</sup>In first year. Annual payments rise in subsequent years.

The concessions which comprise the Río Coco property are held by Corazón Exploraciones Sociedad Anonima, a wholly-owned Nicaraguan subsidiary of Corazon. To the best of the author’s knowledge, the property is not subject to any royalties, back-in rights, payments or other agreements and encumbrances, other than a 3% net smelter return royalty payable to the Nicaraguan government.

In Nicaragua, concessions are demarcated by E-W and N-S lines as defined by UTM coordinates using map 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, mining concessions with rights for both exploration and exploitation were granted. For mining concessions granted after 2001, including the three concessions which constitute Corazon’s Río Coco property, the annual payments to the government 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. Both exploitation and mining 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”).

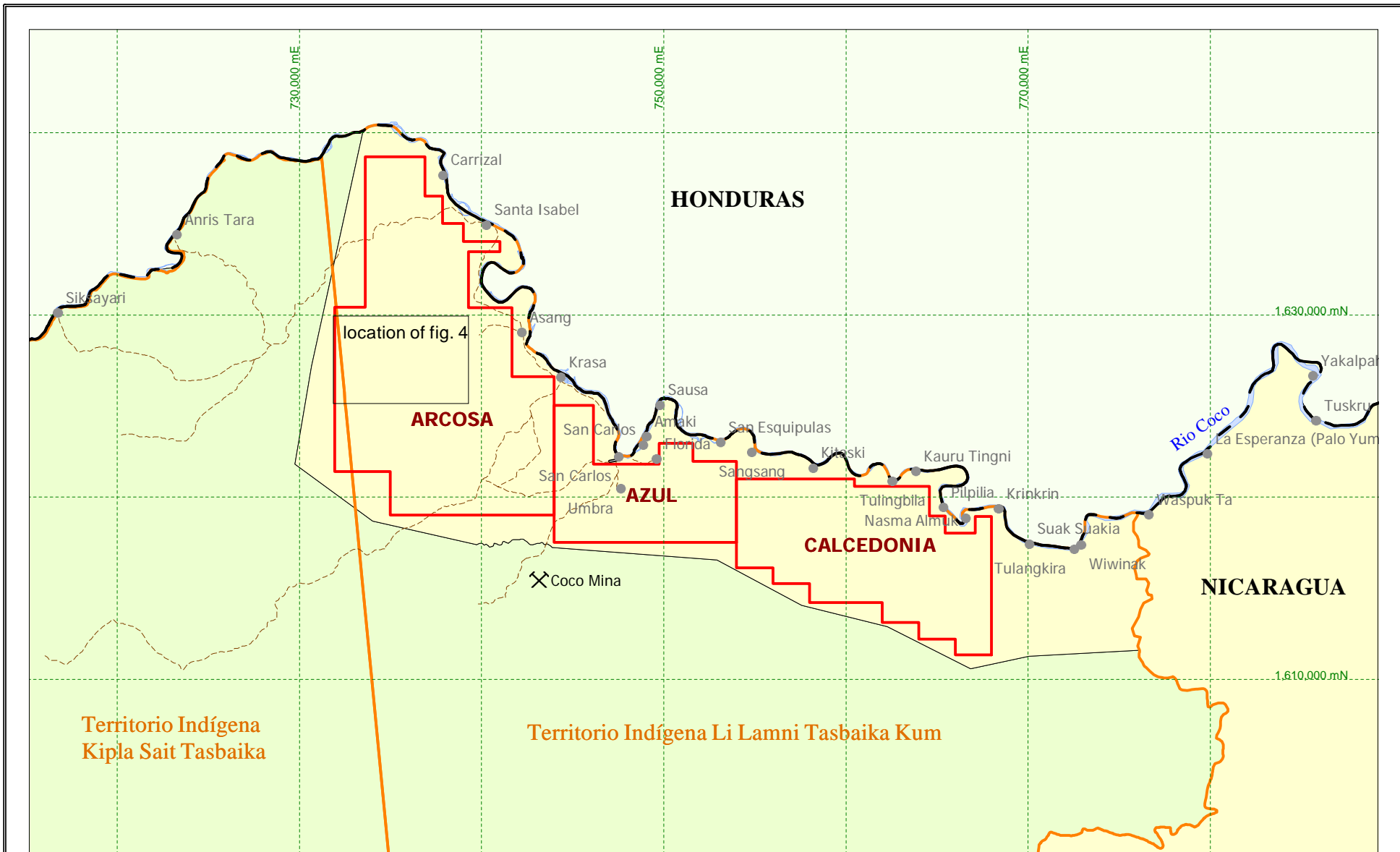
The Río Coco property lies entirely within the Li Lamni Tasbaika Kum indigenous territory (Figure 2) of the Meskito people, which is governed by representatives of the 27 communities within the territory. An assembly of the territorial government in December 2011, prior to granting of the concessions, approved mineral exploration by Corazon within the concession area. Surface rights within the indigenous territory are held communally, but may be rented to outside entities. Corazon does not hold any interest in surface rights within the concessions.



**CORAZON GOLD CORP.**

**Rio Coco Project  
Location Map**

	Date:	JUL 2012	Scale:	1:1.6 million	Figure
	Projection:	UTM 16N - NAD27	Country:	Nicaragua	1
	Waspan Municipality, R.A.A.N.				



**Legend**

- Deposits
- International Boundary
- Corazon Gold Corp. Tenure/  
Concesión Minera
- Indigenous Territory
- BOSAWAS (Núcleo)
- BOSAWAS (Biosfera)



**CORAZON GOLD CORP.**

**Rio Coco Project  
Tenure Map**

	Date:	JUL 2012	Scale:	1:300,000	Figure
	Projection:	UTM 16N - NAD27	Waspan Municipality		2
	Country:	Nicaragua	R.A.A.N.		



The Río Coco property lies within the Bosawas Biosphere Reserve, but outside its Zona Núcleo (Figure 2). The author has been informed that mineral exploration and development are permissible within the Bosawas Biosphere Reserve, except within the Zona Núcleo.

There has been artisanal placer gold extraction in several locations on the Río Coco concession, with very minor surface disturbance. It is probable that mercury has been used in the artisanal placer mining, but the extent of its use and contamination is not known to the author. It appears that a few dozen people dedicate themselves to artisanal placer mining on a seasonal basis and the environmental degradation by mercury is probably minor.

Prior to any type of mineral exploration, an environmental permit is required from the Región Autónoma del Atlántico Norte (“RAAN”). To obtain a permit, an exploration plan with proposed field work, time-line and cost estimate must be submitted to the Secretaria de Recursos Naturales (“SERENA”) of the RAAN. An independent environmental impact study and public consultations are required for programs with significant ground disturbance, such as trenching or drilling. For the Río Coco concessions, Corazon has obtained a prospecting permit, which does not require an environmental impact study, but which allows mapping, geochemical sampling and hand-trenching for a period of one year.

## **5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, PHYSIOGRAPHY**

### **5.1 Accessibility**

The Río Coco property is located 300 air kilometres northeast of Managua and 160 air kilometres northwest of the Caribbean port town of Puerto Cabezas (Figure 1). The closest town is Waspán, which lies 60-100 kilometres east of Corazon’s concessions, further down Río Coco. It has a population of about 5,000 inhabitants and has many of the basic services required for exploration, including fuel, food and transport. Waspán has scheduled flights to Managua most days with La Costeña, a commercial airline, and is connected to the national highway, telephone and electrical grids. A gravel highway connects Waspán with Puerto Cabezas, a 3-hour drive, from which gravel and paved highways pass through the mining towns of Rosita and Siuna en route to Managua.

There is no road access on the Río Coco property. At present, all transportation of freight and passengers is by river-boat or dugout canoe from Waspán; some tributaries of Río Coco are also accessible by dugout canoe for several kilometres upstream. There is a network of foot and horse trails throughout the concessions, with 27 indigenous communities, mainly along the bank of Río Coco, and widely scattered houses, cultivated patches and pastures.

### **5.2 Local Resources and Infrastructure**

The Río Coco property does not currently enjoy good infrastructure to support future mine development. The nearest connection to the Nicaraguan electrical grid would be 60-100 kilometres east at Waspán, although it is not known how much capacity is available or at what voltage. Telephone and internet service is currently limited to a few solar-powered satellite phones in the Meskito communities; the nearest landline or cellular connections are also in Waspán.

Water for drilling or future mine development is abundant. Surface rights are owned communally by the Meskito communities and arrangements would need to be made with them for leasing. Unskilled labour is relatively abundant in the communities within the property, but equipment operators and technical personnel would have to be brought in from elsewhere in Nicaragua, which has a long history of mining.

The principal economic activity in the area is small-scale farming, with pasturing of cattle and cultivation of rice and other crops using slash-and-burn techniques. In numerous creeks and river bars, dozens of men and women engage in artisanal placer gold mining between planting and harvest time, using short sluice-boxes and gold pans.

Río Coco forms the border between Nicaragua and Honduras, so police and army have a presence in the indigenous communities.

### 5.3 Climate and Physiography

Northeastern Nicaragua is covered by lowland humid tropical forest. Near communities on the Río Coco property, much of the forest has been converted to pasture land or is undergoing slash-and-burn agriculture. 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. The rainy season is marked by generally clear mornings and daily cloudbursts in the afternoon. Field work is possible throughout the year, but foot access is generally easier from November to June.

Higher water during the rainy season improves boat access along many smaller rivers and even along Río Coco, which can have shallow segments in the dry season. The concession extends south for a few kilometres from the Río Coco floodplain over gently rolling topography. Río Coco's elevation is approximately 50-100 metres above sea level, with an alluvial terrace 5-10 metres above river level. The highest points on the property are less than 150 metres above sea level.

Rocks outcrop sporadically in Río Coco, but are uniformly covered by alluvium of the river flood-plain. Further inland, bedrock is commonly exposed in creeks and residual soils appear to be developed from bedrock between them.



Plate 1: Bedrock in Río Coco beneath alluvium.

## 6.0 HISTORY

Very little is known about the exploration history of the Río Coco property and there has been almost no modern exploration. Other than very small-scale artisanal placer gold production, no mining has taken place.

In the 1970's, Rosario Resources Corp. ("Rosario") carried out extensive exploration on their Coco Minas Au-Zn deposit located a few kilometres south of the Arcosa concession. They followed placer gold workings back to their source on Cerro Coco Minas and carried out large-scale geochemical and geophysical surveys (Middleton and Campbell, 1979). They discovered an extensively sericitized, argillized and pyritized intermediate volcanic breccia with gold, zinc and silver values. In 1975, they walked a cat across Río Coco from Honduras into Coco Minas and cored 31 diamond drill holes (5,140 metres) between 1975 and 1977. Subsequently, they drove a number of short adits and raises into the mineralized zone for bulk sampling. Rosario reported 10.3 million tonnes grading 1.7 g/t Au, 26 g/t Ag and 3.4% Zn in "proven and probable sulphide ore reserves", noting that "these grades are based on bulk sample grades factored against drill hole results with the drill results on their own giving lower grades possibly due to recovery problems" (Middleton and Campbell, 1979). This historical resource estimate is presented only for regional context; the Coco Minas deposit is not on the Río Coco property, the method and parameters of estimation are not reported and it is

not clear which (if any) of the current NI 43-101 resource categories this historical estimate would correspond to. This estimate has no current validity and should not be relied upon for any purpose.

While they were exploring the Coco Minas deposit, Rosario investigated placer gold workings in the west-central part of the current Arcosa concession, west of the village of Asang. Within this area, Rosario conducted reconnaissance geological mapping and collected silt samples at 150 metre intervals along streams and analyzed them for gold. Panning for gold was also done at each silt sample site (Campbell, 1976).

## **7.0 GEOLOGICAL SETTING AND MINERALIZATION**

### **7.1 Regional Geology**

Nicaragua, Honduras, El Salvador and southern Guatemala are underlain by the Chortis block of the Caribbean plate (Figure 3). Basement rocks in the Chortis block are dominantly phyllites and mica schists which are unconformably overlain by Mesozoic stratigraphy (Sundblad, 1991). In the vicinity of the Río Coco property, 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. They form a nearly continuous trend within the northeast-trending Iyas-Bocay graben which passes through the northwestern end of the concessions (Awmack, 2009; INETER, 2004).

Subduction of the Farallon and later the Cocos plates beneath the Caribbean plate along the Middle America Trench, southwest of Nicaragua, resulted in the extensive accumulation of Cenozoic volcanic rocks (Donnelly, 1990). These rocks are dominated by calc-alkaline, high alumina basalts and basaltic andesites, with locally important ignimbrites of rhyolitic to andesitic composition. They have been divided into several stratigraphic units, without complete agreement on their validity (Sundblad, 1991). 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, with a maximum thickness of 300 metres in western Honduras, and extensively exposed south of the Río Coco property. 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.

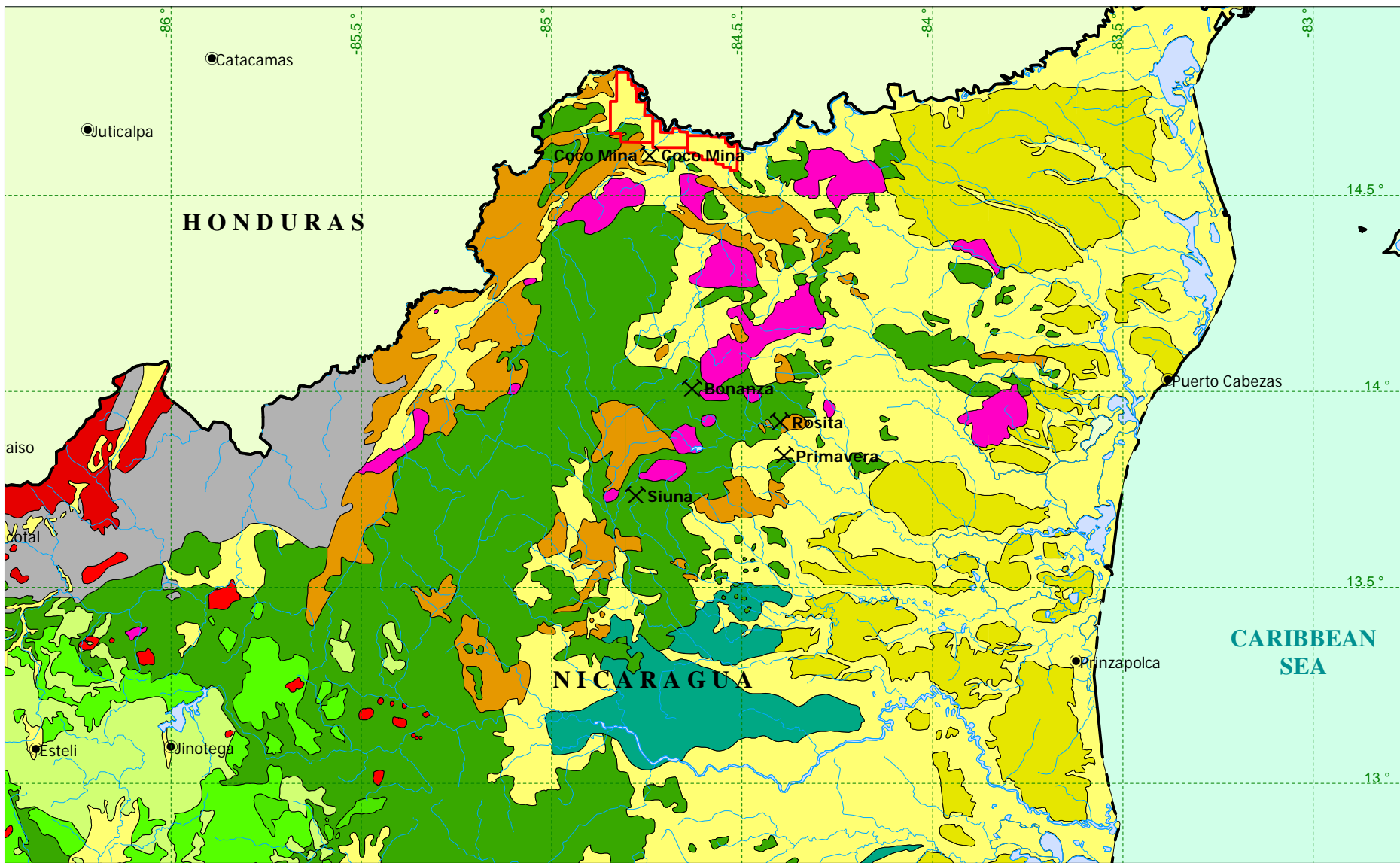
A series of intrusive bodies extend northeasterly through northeastern Nicaragua towards the Río Coco property. Limited age dating suggests the oldest of these are Cretaceous, however there is field evidence that some of them are Tertiary in age. The relation between age and composition of the intrusives has not been clearly defined. 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 (Awmack, 2009).

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 in the region.

### **7.2 Property Geology**

Almost no mapping has been reported on the Río Coco property (Figure 4). Campbell (1976) carried out reconnaissance mapping in the west-central part of the Arcosa concession in conjunction with Rosario's evaluation of gold placer workings in this area. Campbell differentiated:

- Mesozoic sedimentary rocks, presumably of the Early Cretaceous Todos Santos Formation, consisting of shale, limey shale, limestone and quartzite, and;



**Legend**

- Deposits/Prospects
- International Boundary
- Corazon Gold Corp. Tenure/  
Concesión Minera

Geology after Ineter (2004)

See figure 3b for Geology legend







**CORAZON GOLD CORP.**






**Rio Coco Project  
Regional Geology Map**

	Date:	JUL 2012	Scale:	1:1.6 million	Figure <b>3a</b>
	Projection:	UTM 16N - NAD27		Waspan Municipality,	
	Country:	Nicaragua		R.A.A.N.	

## SEDIMENTARY ROCKS

Quaternary	Holocene-Pleistocene		Alluvium/Colluvium
			Bragman's Bluff Fm. 60 m. sand and gravel
Tertiary	Paleocene-Eocene		Machuca Fm. limestones, graywackes
Mesozoic	Jurassic		Todos Santos Fm. limestone, schist, conglomerate, black calcareous shale, thin to thickly bedded tuffs, thin dark gray andesitic flows, local serpentinites in the Siuna-Rosaita-Bonanza area

## VOLCANIC ROCKS

Quaternary	Holocene-Pleistocene		Upper Coyol Group ignimbrites, dacitic tuffs & breccias, basaltic & andesite lava flows
	Mid-Miocene Pliocene		Coyol Group (undiff.) basaltic & basaltic andesite lavas, andesitic dacite, ignimbrites, tuffs, tuffaceous breccias, rhyodacites, agglomerates
Tertiary			Lower Coyol Group andesite & basaltic andesite lavas, dacitic andesite, rhyodacite, rhyolite & dacite tuffs and tuffaceous breccias, agglomerates
	Miocene		Tamarindo Fm. ignimbrites, lavas, tuffs, rhyolite & dacite tuffaceous breccias, basaltic andesite, tuffaceous sandstones, conglomerates
	Oligocene Mid-Miocene		Matagalpa Group rhyodacite & rhyolite tuffs, lavas, andesitic flow breccia, basalt, tuffaceous andesitic dacite, agglomerates, tuffaceous sandstone, clayey sandy breccias, ignimbrites

## METAMORPHIC ROCKS


Paleozoic			Nueva Segovia Schist
-----------	--	---	----------------------

## INTRUSIVE ROCKS

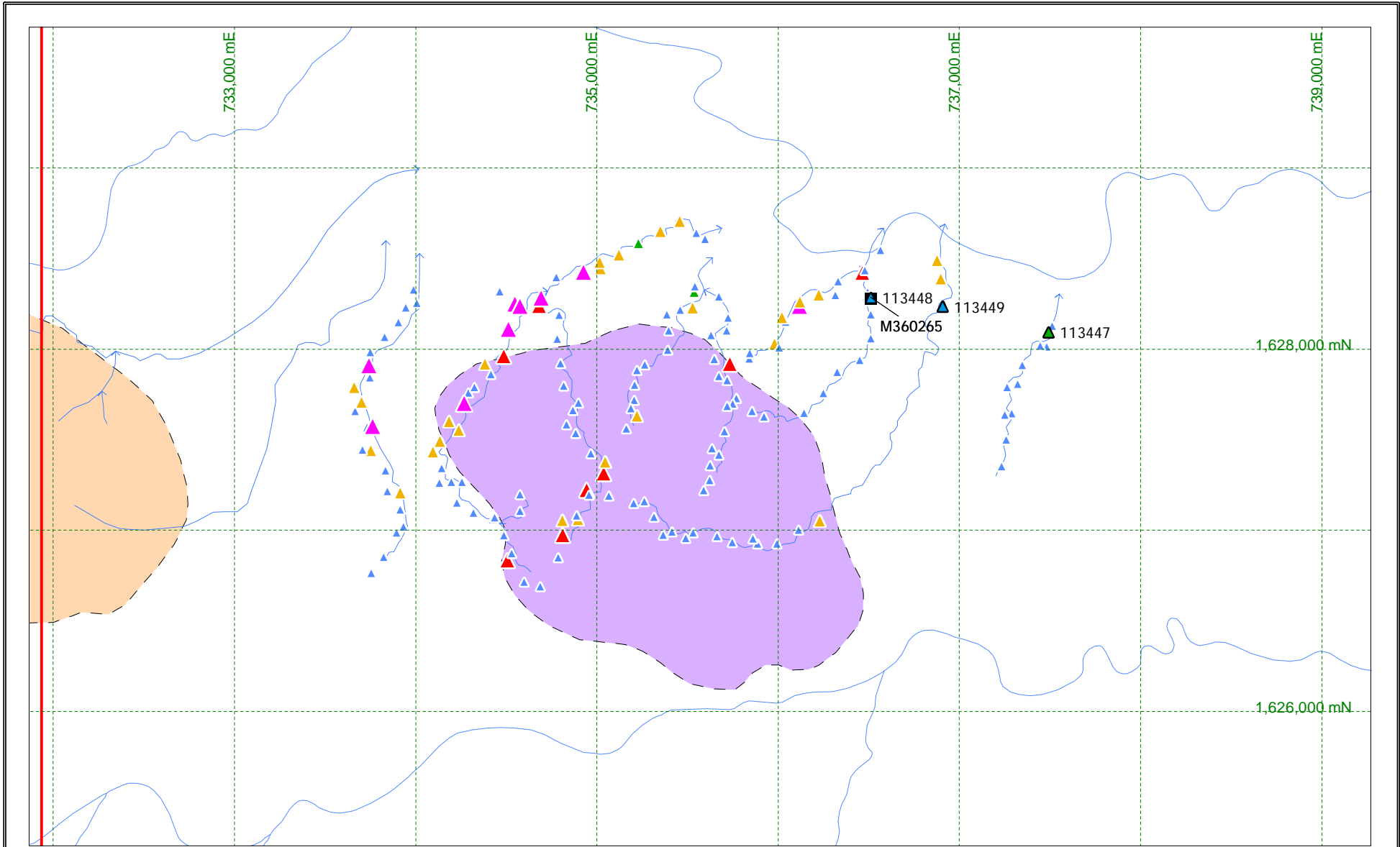
Tertiary	Miocene		Gabbro/Diorite/Granodiorite
	Eocene		Gabbro/Diorite
Mesozoic	Paleocene Upper Cretaceous		Granite/Syenite
	Cretaceous		Granite/Granodiorite

CORAZON GOLD CORP.

**Rio Coco Project  
Regional Geology  
Legend**

	Date:	JUL 2012	Scale:	Figure
	Projection:	UTM 16N - NAD27	Waspan Municipality,	3b
	Country:	Nicaragua	R. A. A.N.	





- ▲ 2012 Silt Sample
- 2012 Rock Sample

**1976 Silt Samples by Au ppm**

- ▲ > 1.0 ppm
- ▲ 0.201 to 1.0
- ▲ 0.051 to 0.201
- ▲ 0.011 to 0.051
- ▲ < 0.011 ppm

**Data for historic silt samples and mapping by Campbell (1976)**

- 50k Rivers
- Streams surveyed 1976

**Lithology**

- Matagalpa Formation
- Todos Santos Formation
- Corazon Gold Tenure Boundary



**CORAZON GOLD CORP.**

**Rio Coco Project  
Property Geology  
and Geochemistry**

	Date:	JUL 2012	Scale:	1:30,000	Figure <b>4</b>
	Projection:	UTM 16N - NAD27		Waspan Municipality,	
	Country:	Nicaragua		R.A.A.N.	

- Matagalpa Formation volcanic agglomerate and a “very hard dense tuff or lava with spherules of black obsidian”.

During his property examination, the author noted outcrops in small creeks near the area mapped by Rosario as Matagalpa Formation, consisting of non-magnetic, weakly chloritized, feldspar-phyric andesitic flow(?) and weakly epidotized andesitic tuff.

### 7.3 Mineralization

No hard-rock mineralization has been reported on the Río Coco property, although several creeks have been reported to yield placer gold to local artisanal miners.

At the site of his westernmost silt sample, the author sampled milky vein quartz float reported to be abundant in the vicinity of the placer gold workings. This sample (Figure 4), M360265, contained just 0.011 ppm Au and very low values of silver, arsenic, copper, molybdenum, antimony, lead and zinc. It is unlikely that similar quartz veining is the source of the placer gold.

## 8.0 DEPOSIT TYPES

There are several types of gold-bearing deposit which could account for the gold placers on the Río Coco property, but the exploration model must be kept very broad at this point considering the almost total lack of exploration done to date on the property. Possible deposit types which could be expected on the property would be those common to volcanic island arc settings, and in particular those found in similar lithologies elsewhere in Nicaragua. The most important gold-bearing deposit types associated with the Cretaceous to Tertiary sequence elsewhere in northeastern Nicaragua are: (1) Au-Cu skarn; (2) Cu-Au porphyry, and; (3) Au-Ag low-sulphidation epithermal deposits. The Coco Mina deposit, although poorly understood, offers a fourth possible analogue which should be kept in mind when evaluating the Río Coco property.

### 8.1 Skarns

Most skarns are formed by the metasomatic replacement of calcareous sedimentary rocks by magmatic-derived hydrothermal fluids. They can form in a variety of rock types and tectonic settings, both within the sedimentary rocks and their associated intrusive rocks. The processes that lead to formation of skarn deposits include: (1) isochemical contact metamorphism during pluton emplacement; (2) prograde metasomatic skarn formation as the pluton cools and as the hydrothermal fluid develops, and; (3) retrograde alteration of earlier-formed mineral assemblages (Hammarstrom, 1995). Prograde skarn is dominated by anhydrous garnet and pyroxene, but commonly includes vesuvianite or pyroxenoids such as wollastonite, bustamite and rhodonite. Retrograde assemblages are generally lower temperature and hydrous, typically including epidote, amphibole and/or chlorite. Economically important metal-bearing minerals are commonly deposited with retrograde skarn but may also form with prograde skarn. Skarn deposits are typically zoned mineralogically with respect to pluton contacts, original lithology of host rocks, and/or fluid pathways. Later petrogenetic stages may partly or completely obliterate earlier stages of skarn development. As a rule, retrograde alteration is more intense and more pervasive in shallower skarn systems. Most economic skarn ore is present as exoskarn, which forms in calcareous rock intruded by a mineralizing intrusion. Endoskarn, which is variably developed on the intrusion side of intrusion-wallrock contacts, can be important when fluid flow was directed into the intrusion or channeled along the intrusion-wall rock contact.

Skarn deposits have been subdivided into seven major classes (Fe, Au, Cu, Zn, W, Mo and Sn). Each class of skarn deposit has a characteristic, though not necessarily unique, size, grade, tectonic setting, granitoid association, and mineralogy. Copper skarns are associated with I-type, magnetite-series, calc-alkaline, porphyritic plutons, many of which have cogenetic volcanic rocks and porphyry-style mineralization. Copper skarn mineralogy is dominated by andraditic garnet; in some shallow porphyry Cu-related skarn

systems, extensive retrograde alteration almost completely obliterates the prograde garnet and pyroxene. Calcic iron skarns are associated with Fe-rich plutons intruded into limestone and volcanic wall rocks in an oceanic arc setting. The amount of endoskarn may exceed exoskarn. Mineralogy consists dominantly of magnetite, garnet and pyroxene with lesser epidote, ilvaite and actinolite. Some contain significant amounts of Cu and are transitional to more typical copper skarns (Meinert, 2005).

In Nicaragua, the Siuna (past production of 2.3 million oz. Au) and Rosita (past production of 138,000 tonnes Cu with by-product Au) mines were developed on skarn deposits located approximately 100 kilometres south of the Río Coco property (Figure 3). Mineralization in each is hosted by garnet±epidote skarn formed where Cretaceous calcareous sedimentary rocks were intruded by Cretaceous to Tertiary granite to quartz diorite intrusive bodies. They are typical copper skarns, although Siuna had above-average gold content (Awmack, 2009).

Skarn deposits are commonly associated with other types of magmatic-hydrothermal deposits. In many districts, copper skarns are located between calc-alkaline porphyry deposits in the centre of the mining district and peripheral polymetallic vein/replacement and distal disseminated gold deposits.

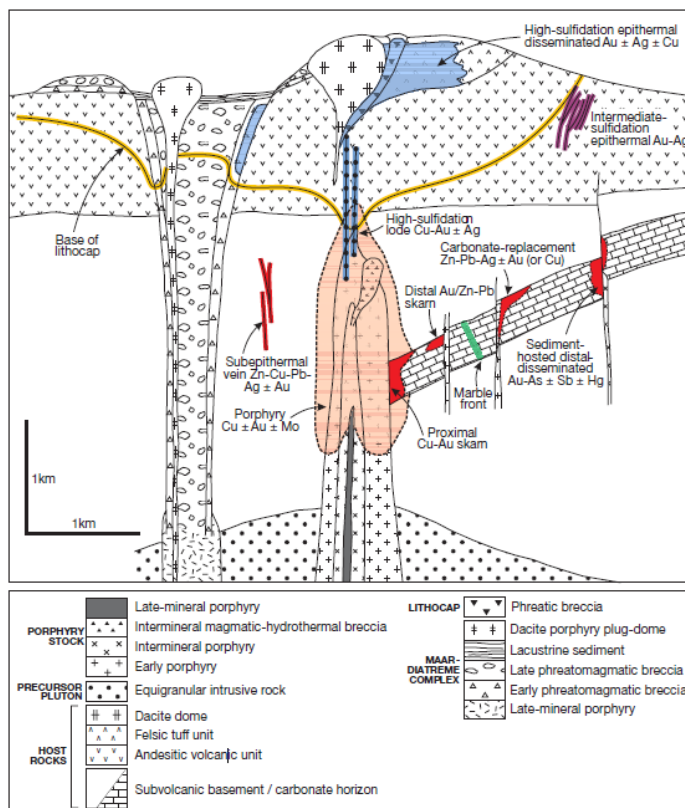


Figure 5: Model of skarn and porphyry Cu-Au-Mo deposits and the relationship between lithologies and related mineralization styles (from Sillitoe, 2010).

## 8.2 Porphyry Deposits

Calc-alkaline porphyry deposits are typically associated with zoned and/or multi-phase granodiorite to quartz monzonite intrusions into volcanic or sedimentary rocks. They are marked by complex alteration zones that are usually centred about the intrusive complex. The alteration systems are typically comprised of a potassic core enveloped by an overlapping peripheral zone of propylitic alteration. These alteration assemblages can be overprinted by zones of phyllic and/or argillic alteration that are either zonal in distribution (between the potassic and propylitic zones) or structurally-controlled. Copper, gold and molybdenum mineralization is more abundant in the potassic core while pyrite is more prevalent in the propylitic and phyllic zones. Sulphide minerals occur in quartz stockworks, filling fractures and disseminated.

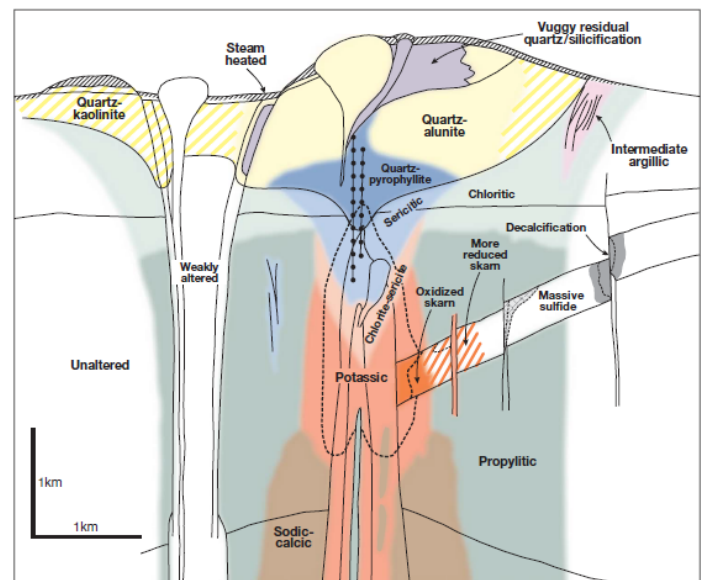


Figure 6: Alteration-mineralization zonation model for the geological system shown in Figure 5 (from Sillitoe, 2010).



Quartz-magnetite veining may be present with potassic alteration. Anhydrite veining is commonly late; quartz-galena-sphalerite veining is late and/or peripheral. Breccia pipes are common, both mineralized and unmineralized. Hypogene economic sulphide mineralization comprises chalcopyrite, bornite and molybdenite. The abundance of pyrite in these systems can result in the formation of strongly acidic groundwater that, under appropriate climactic conditions, generates argillically-altered leached caps and supergene sulphide copper mineralization. Secondary oxide/carbonate copper mineralization can form where weathering is extensive but groundwater is less acidic.

Prior to 2012, no significant porphyry deposits had been discovered in Nicaragua although major deposits have been explored elsewhere in Central America (for instance, Petaquilla and Cerro Colorado in Panamá). However, in January 2012, Calibre Mining Corp. announced initial drilling of their Primavera porphyry prospect, located 90 kilometres south of the Río Coco property (Figure 3). Their first hole intersected 276.8 metres averaging 0.5 g/t Au and 0.21% Cu in veining and stockwork hosted by potassically altered volcanic and intrusive rocks (Calibre, 2012).

### 8.3 Low-Sulphidation Epithermal

Low-sulphidation epithermal deposits are precious metal-bearing quartz veins, stockworks and breccias which formed from boiling of volcanic-related hydrothermal to geothermal systems. Emplacement of mineralization takes place at depths ranging from near-surface hot spring environments to ~1 km, from near-neutral pH chloride waters with metal deposition through boiling and fluid mixing. Gangue mineralogy is dominated by quartz and/or chalcedony, accompanied by lesser and variable amounts of adularia, calcite, pyrite, illite, chlorite and rhodochrosite. This gangue mineral assemblage can host a spectrum of Au- to Ag-rich ores, as well as the Au-Ag±Te ores associated with alkaline rocks and the Ag-Pb-Zn ores of northern Mexico.

Vein mineralogy is characterized by gold, silver, electrum and argentite with variable amounts of pyrite, sphalerite, chalcopyrite, galena, tellurides, rare tetrahedrite and sulphosalt minerals. Crustiform banded quartz veining is common, typically with interbanded layers of sulphide minerals, adularia and/or illite. At relatively shallow depths, the bands are colloform in texture and millimetre-scale, whereas at greater depths, the quartz becomes more coarsely crystalline. Lattice textures, composed of platy calcite and its quartz pseudomorphs, indicate boiling. Breccias in veins and subvertical pipes commonly show evidence of multiple episodes of formation. Quartz, adularia, illite and pyrite alteration commonly surround ores; envelope width depends on host rock permeability. Propylitic alteration dominates at depth and peripherally.

Regional structural control is important in localization of low-sulphidation epithermal deposits. Brittle extensional structures (normal faults, fault splays, ladder veins, cymoid loops, etc.) are common. Veins typically have strike lengths in the range of 100's to 1000's of metres; productive vertical extent is seldom more than a few hundred metres and closely related to elevation of paleo-boiling. Vein widths vary from a few centimetres to metres or tens of metres. High-grade ores are commonly found in dilational zones in faults at flexures, splays and in cymoid loops.

Several mines produce gold and silver from low-sulphidation epithermal veins in Nicaragua. Most prominent are Bonanza (65 kilometres south of Río Coco) and Límon (260 kilometres southwest of Río Coco). Each of these is hosted by Tertiary volcanic rocks and has produced over one million ounces of gold (Nelson, 1995).

### 8.4 Coco Mina Analogue

Coco Mina is a poorly described Au-Zn deposit located a few kilometres south of the Río Coco concessions. Middleton and Campbell (1979) describe it as an altered (kaolinized-sericitized-pyritized) intermediate volcanic breccia with black sphalerite in the matrix between clasts. Pyrite, which forms 7-10% of the rock, occurs as 2-5 cm crystalline masses in the matrix as well as finely disseminated throughout the altered zone. Quartz veining is absent. The main zone of mineralization has been drilled over an area of 200 x 300 metres.

Descriptions of Coco Mina are too vague to allow definitive classification into a deposit type, but its characteristics should be borne in mind during future exploration of the Río Coco concessions.

## 9.0 EXPLORATION

Corazon has not carried out any exploration work on the Río Coco property.

In 1976, Rosario collected several dozen silt samples at 150-metre intervals from streams within a 2 x 4 km area in the western part of the Arcosa concession (Figure 4), with analysis for gold only (Campbell, 1976). This area was selected because of extensive artisanal gold placer workings. Four streams returned numerous samples with elevated gold values, including nine samples with >1 ppm Au. Rosario did not determine a bedrock source for the gold in stream sediments.

During the course of his property examination, the author took silt samples from three creeks at the eastern end of the area sampled by Rosario (Table 2). Former placer test-workings were visible at the site of two of these samples (113447 and 113448). The third sample was taken from an intermediate creek which was reported to only yield placer gold at a considerable distance upstream.

**Table 2: Author's Silt Samples**

SAMPLE	Au (ppm)	Ag (ppm)	As (ppm)	Cu (ppm)	Mo (ppm)	Pb (ppm)	Sb (ppm)	Zn (ppm)
113447	0.036	<0.2	<2	76	<1	3	<2	51
113448	0.004	<0.2	4	105	<1	4	<2	61
113449	0.004	<0.2	5	82	<1	3	<2	55

Results of the author's silt samples were not particularly encouraging. Sample 11347 contains a moderately elevated gold content and sample 113449 contains a moderately elevated copper content. However, these three samples were taken from creeks which also returned background Au values for Rosario, so they are not surprising.



**Plate 2: Evidence of testing for placer gold at the site of silt sample 113447**

## 10.0 DRILLING

No drilling has been reported on the Río Coco property.

## 11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

No information is available for the silt samples collected during the 1976 reconnaissance of the western part of the Arcosa concession, regarding their sample preparation, analytical procedures, laboratory or quality control measures. The author's silt samples were taken from silty backwaters in the creeks and

couriered to ALS Minerals laboratory in North Vancouver, British Columbia, Canada. ALS Minerals is accredited to ISO 9001:2008, and a number of their analytical facilities have received ISO 17025 accreditations for specific laboratory procedures. The silt samples were screened to  $-180\mu$ , fire assayed for gold (ICP-AES finish on 30 gram portion) and analyzed geochemically for 35 other elements (ICP-AES with aqua regia digestion). The author relied on ALS Minerals internal QA/QC measures.

The adequacy of sample preparation, security and analytical procedures for the historic work is suspect; that area should be re-sampled in conjunction with a property-wide reconnaissance exploration program.

## **12.0 DATA VERIFICATION**

There is very little data to verify on the Río Coco property and the author limited himself to verifying the existence of reported gold-panning. The author was able to confirm the presence of previous test-panning on the Arcosa concession but was unable to arrive at the site of any active placer activity. Data for the 1976 Rosario reconnaissance was only unearthed after the author's property examination, so his silt samples only verified the background gold content previously reported by Rosario for the sampled creeks. Even so, one of the silt samples collected by the author at the site of previous test-panning contained moderately elevated gold content.

The author believes the existing data to be adequate for the purposes of the technical report. That is, although current data on the property is negligible, the mere presence of gold-panning is sufficient to justify an initial reconnaissance of the property.

## **13.0 MINERAL PROCESSING AND METALLURGICAL TESTING**

No mineral processing or metallurgical testing analyses have been reported for the Río Coco property.

## **14.0 MINERAL RESOURCE ESTIMATES**

No estimates of mineral resources or mineral reserves have been reported for the Río Coco property.

## **15.0 ADJACENT PROPERTIES**

The Coco Mina Au-Zn deposit is located approximately five kilometres south of the southern boundary of the Arcosa concession, within the Zona Núcleo of the Bosawas Biosphere Reserve (Figure 2). As such, mineral exploration and development are not allowed in the vicinity of the Coco Mina deposit.

Middleton and Campbell (1979) describe the Coco Mina deposit as an altered (kaolinized-sericitized-pyritized) intermediate volcanic breccia with black sphalerite in the matrix between clasts. Pyrite, which forms 7-10% of the rock, occurs as 2-5 cm crystalline masses in the matrix as well as finely disseminated throughout the altered zone. Quartz veining is absent. The main zone of mineralization has been drilled over an area of 200 x 300 metres.

In 1979, Rosario, which controlled the Coco Mina deposit at the time, reported 10.3 million tonnes grading 1.7 g/t Au, 26 g/t Ag and 3.4% Zn in "proven and probable sulphide ore reserves", noting that "these grades are based on bulk sample grades factored against drill hole results with the drill results on their own giving lower grades possibly due to recovery problems" (Middleton and Campbell, 1979). The method and parameters of estimation are not reported and it is not clear which (if any) of the current NI 43-101 resource categories this historical estimate would correspond to. This estimate has no current validity and should not be relied upon for any purpose.

The qualified person has been unable to verify the information on the Coco Mina deposit, and the information is not necessarily indicative of mineralization on the Río Coco property.

## **16.0 OTHER RELEVANT DATA AND INFORMATION**

No other information or explanation is necessary to make this technical report understandable and not misleading.

## **17.0 INTERPRETATION AND CONCLUSIONS**

The Río Coco property covers 305 square kilometres of northern Nicaragua which has received essentially no modern mineral exploration, despite the presence of artisanal placer workings. Very little is known of the geology of the property, although parts of it at least are underlain by Early Cretaceous Todos Santos Formation sedimentary rocks and by Tertiary Matagalpa Formation volcanic rocks.

Approximately 100 kilometres south of the Río Coco property, several significant Au±Cu deposits and prospects are hosted by the Todos Santos and Matagalpa formations where they are intruded by a series of Cretaceous and Tertiary stocks, plugs and dykes. The intrusions form a northeast trend through this part of Nicaragua, projecting through the Río Coco property. The Siuna and Rosita skarn Cu-Au deposits are hosted by Todos Santos sedimentary rocks, the Bonanza low sulphidation epithermal Au deposit is hosted by Matagalpa Formation volcanic rocks and the Primavera porphyry Au-Cu prospect is contained within both Matagalpa Formation and an intruding stock. The Río Coco property is permissive for skarn, porphyry and low-sulphidation epithermal targets, given the presence of Todos Santos and Matagalpa formation rocks, and the projection of the belt of intrusions through the property.

A fourth style of mineralization which could be present on the Río Coco property is more enigmatic. Five kilometres south of the property's southern boundary is the Coco Minas deposit explored by Rosario in the 1970's. It is an extensive area of Au-Zn mineralization within an argillized, sericitized and pyritized volcanic breccia. Little is known about Coco Minas or the controls on its mineralization, let alone what the prospectivity of the Río Coco property would be for this style of mineralization.

Exploration of the Río Coco property will be made difficult by its low relief and extensive alluvial cover. Much of the property may not be amenable to surface mapping, prospecting or geochemical methods. However, away from the Río Coco alluvial plain, outcrop is present in creeks and much of the soil appears residual.

Because the concession lies within the Li Lamni Tasbaika Kum indigenous territory, any mining development would require appropriate arrangements for leasing of surface rights from the indigenous communities. At present, the communities have signified their interest in mineral exploration and development and there is no reason to believe this will not continue.

The author believes that the Río Coco property warrants at least an initial reconnaissance to determine the extent of its potential for gold and other metals.

## **18.0 RECOMMENDATIONS**

A two-phase exploration program is recommended for the Río Coco property, with advancement to the second phase contingent upon favourable results from the first.



## 18.1 Phase I

### 18.1.1 Program

A property-wide reconnaissance exploration program is recommended for the Río Coco property. Silt samples should be collected at 500-metre intervals from all flowing streams on the property and analyzed for gold and a wide suite of pathfinder elements. In areas of extensive placer workings, they should be collected at 200 metre intervals. Test-panning should be done at each silt sample site, with mineralogy of the heavy minerals noted along with the presence or absence of gold.

In conjunction with the silt sampling, reconnaissance geological mapping should be carried out along all streams and float should be examined to supplement bedrock mapping. Any altered or mineralized outcrops or float should be sampled. At the conclusion of the program, the property will be covered by reconnaissance geological mapping which should provide a context for any rock samples or drainages anomalous in gold and/or other metals.

### 18.1.2 Budget

(All figures are in Canadian dollars)

Supervising Geologist	\$ 30,000
Personnel	44,000
Chemical Analyses	30,000
Camp and Support	48,000
Topographic Maps	39,000
Report	10,000
Contingency (10%)	20,100
	<u>\$ 221,100</u>

The proposed Phase I program will cost approximately C\$220,000 to implement.

## 18.2 Phase II

### 18.2.1 Program and Budget

Advancement to the second phase program is contingent upon receipt of favourable results from Phase I. If it proceeds, the second phase will consist of some combination of:

- an airborne magnetic±EM survey;
- soil geochemical sampling;
- more detailed geological mapping;
- hand-trenching, and;
- ground geophysical surveys.

The details of the second phase will depend upon the results of the first phase, determining:

- whether follow-up investigation is warranted;
- which areas should be covered;
- which techniques are most applicable, and;
- the parameters (orientation, spacing, etc) of those techniques.

However, it is felt that the second phase program, if warranted, would likely cost about C\$700,000.

Respectfully submitted,

*“signed and sealed”*

---

Henry J. Awmack, P.Eng.

EQUITY EXPLORATION CONSULTANTS LTD.

Vancouver, British Columbia

Effective Date: July 25, 2012

**Appendix A: References**

## REFERENCES

- Awmack, H. J., 2009, 2009 Technical Report on the NEN Property, Nicaragua, p. 49.
- Calibre, 2012, B2Gold Corp. and Calibre Mining Corp. Announce New Drill Results Discover Significant Porphyry Style Gold and Copper Mineralization at the Primavera Project in Nicaragua, p. 2.
- Campbell, E. E., 1976, Preliminary Report on Barkadia - Michahead Gold District, p. 11.
- Donnelly, T. W., Horne, G. S., Finch, R. C. and Lopez-Ramos, E., 1990, Northern Central America; the Maya and Chortis Blocks, *in* Dengo, G., Case, J. E, ed., *Geology of North America Volume H, The Caribbean Region*, Geological Society of America, p. 37-76.
- Hammarstrom, J. M., Kotlyar, B.B. Theodore, T.G., Elliott, J.E., John, D.A., Doebrich, J.L., Nash, J.T., Carlson, R.R., Lee, G.K., Livo, K.E., Klein, D.P., 1995, Cu, Au, and Pb-Zn skarn deposits, Preliminary compilation of descriptive geoenvironmental mineral deposit models, Open File Report 95-831, USGS, p. 90-111.
- INETER, 2004, Mapa Geologico de Nicaragua (1:750,000).
- Meinert, L. D., Dipple, G.M., Nicolescu, S., 2005, World Skarn Deposits, *Economic Geology* 100th Anniversary Volume, Society of Economic Geologists, p. 299-336.
- Middleton, R. S., and Campbell, E. E., 1979, Geophysical and Geochemical Methods for Mapping Gold-bearing Structures in Nicaragua, *in* Hood, P. J., ed., *Geophysics and Geochemistry in the Search for Metallic Ores*, Geological Survey of Canada, *Economic Geology Report* 31 p. 779-798.
- Nelson, C. E., 1995, Gold and Copper Metallogeny of Central America, *in* Coyner, A. R., and Fahey, P. L., eds., *Geology and Ore Deposits of the American Cordillera*, Geological Society of Nevada Symposium Proceedings, p. 1397-1411.
- Sillitoe, R. H., 2010, Porphyry Copper Systems: *Economic Geology*, v. 105, p. 3-41.
- Sundblad, K., Cumming, G. L. and Krstic, D., 1991, Lead Isotope Evidence for the Formation of Epithermal Gold Quartz Veins in the Chortis Block, Nicaragua: *Economic Geology*, v. 86, p. 944-959.



**Appendix B: Qualified Person's Certificate**

## QUALIFIED PERSON'S CERTIFICATE

I, Henry Awmack, P.Eng., do hereby certify:

THAT I am a Professional Engineer with offices at 200-900 West Hastings Street and residing at 1735 Larch Street, Vancouver, British Columbia, Canada.

THAT I am an author of the Technical Report entitled "2012 Technical Report on the Río Coco Property, Nicaragua" and with an effective date of July 25, 2012, relating to the Río Coco property (the "Technical Report"). I am responsible for all items within it.

THAT I am a member in good standing (#15,709) of the Association of Professional Engineers and Geoscientists of British Columbia and a Fellow of the Society of Economic Geologists.

THAT I graduated from the University of British Columbia with a Bachelor of Applied Science (Honours) degree in geological engineering (Mineral Exploration Option) in 1982, and I have practiced my profession continuously since 1982.

THAT since 1982, I have been involved in mineral exploration for gold, silver, copper, lead, zinc, cobalt, nickel and tin in Canada, Costa Rica, Panama, Chile, Argentina, Brazil, Peru, Ecuador, Venezuela, Nicaragua, Bolivia, Mexico, Indonesia, China, Sénégal, Colombia and Egypt.

THAT I am a Consulting Geological Engineer and principal of Equity Exploration Consultants Ltd., a geological consulting and contracting firm, and have been so since February 1987.

THAT I have read the definition of "independence" set out in Part 1.5 of National Instrument 43-101 ("NI 43-101") and certify that I am independent of Corazon Gold Corp..

THAT I have examined the property which is the subject of the Technical Report in the field (May 31 - June 2, 2012) and that I have had no prior involvement with that property.

THAT I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

THAT as of the effective date of the Technical Report, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

THAT I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form. I am responsible for the entire content of this report.

THAT I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated at Vancouver, British Columbia, with effective date of July 25, 2012

*"signed and sealed"*

\_\_\_\_\_  
Henry J. Awmack, P. Eng.