

BC Geological Survey  
Assessment Report  
37918



**ASSESSMENT REPORT TITLE PAGE AND SUMMARY**

**TITLE OF REPORT:** Summary of 2018 Exploration Work

**TOTAL COST:** \$6555

AUTHOR(S): Ben Richards  
SIGNATURE(S):

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): MX-8-286, July 13 2017 – July 13 2022  
STATEMENT OF WORK EVENT NUMBER(S)/DATE(S): 5716604, 5717302

YEAR OF WORK: 2018

PROPERTY NAME: Zeballos

CLAIM NAME(S) (on which work was done):  
1055827, 1059310

COMMODITIES SOUGHT: Au

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:

MINING DIVISION: Alberni  
NTS / BCGS: 92L/2W

LATITUDE: 50 ° 01 ' \_\_\_\_\_ "

LONGITUDE: 126 ° 48 ' \_\_\_\_\_ " (at centre of work)

UTM Zone: 9 EASTING: 657000 NORTHING: 5543000

OWNER(S): 640895 BC Ltd

MAILING ADDRESS: 38-301 Fell Avenue, North Vancouver BC, V7P3S2

OPERATOR(S) [who paid for the work]: 640895 BC Ltd

MAILING ADDRESS: 38-301 Fell Avenue, North Vancouver BC, V7P3S2

REPORT KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude. **Do not use abbreviations or codes**)

Gold, Bonanza

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK  (in metric units)	ON WHICH CLAIMS	PROJECT COSTS  APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for ...)			
Soil	8	1055 827	
Silt			
Rock			
Other	7	1055 827	
DRILLING (total metres, number of holes, size, storage location)			
Core			
Non-core			

RELATED TECHNICAL			
Sampling / Assaying	15 sa mp les	1055 827	1170
Petr ogra phic			
Mineralog raphic			
Meta llurgi c			
PROSPECTI NG (scale/area)			
PREPATOR Y / PHYSICAL			
Line/grid (km)			
Topo/Photogramme tric (scale, area)			
Legal Surveys (scale, area)			
Road, local access (km)/trail			
Trench (number/ metres)			
Underground development (metres)			
Othe r			
		<b>T o t a l C o s t</b>	6555

# **ASSESSMENT REPORT**

**Prospecting and Geochemistry**

**on the**

**640895 BC Ltd Mineral Tenures  
1055827, 1059310**

**Alberni Mining Division, British Columbia**

**CANADA**

**NTS 92L/2W**

**Latitude 50° 01' N, Longitude 126° 48' W**

**U.T.M. 5,543,000 m North 657,000 m East  
(NAD83 Zone 9)**

**For  
640895 BC Ltd  
38-301 Fell Avenue  
North Vancouver BC**

**Report Prepared By  
Ben Richards**

**January 27, 2018**

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# **1 Introduction**

This report was prepared for 640895 BC Ltd. of Vancouver, BC, Canada (the “Company”). This company is a private corporation that conducts mineral exploration on various properties held or controlled by the company. This report describes the 2018 prospecting and geochemistry done on the Zeballos Gold Project.

The Zeballos Gold Property is located on Vancouver Island about 180 kilometres northwest of Vancouver, 100 kilometres west of Campbell River and five kilometres north of the village of Zeballos. The mineral tenures cover approximately 400 hectares and is accessible by gravel road.

The property covers several historic underground mines within the Zeballos gold mining camp, with total historic production estimated at 635,590 tonnes mined, 333,783 tonnes milled with production of 304,309 ounces of gold, 132,432 ounces of silver, and minor copper and lead. The mineral occurrences at these sites are classified as gold-quartz veins.

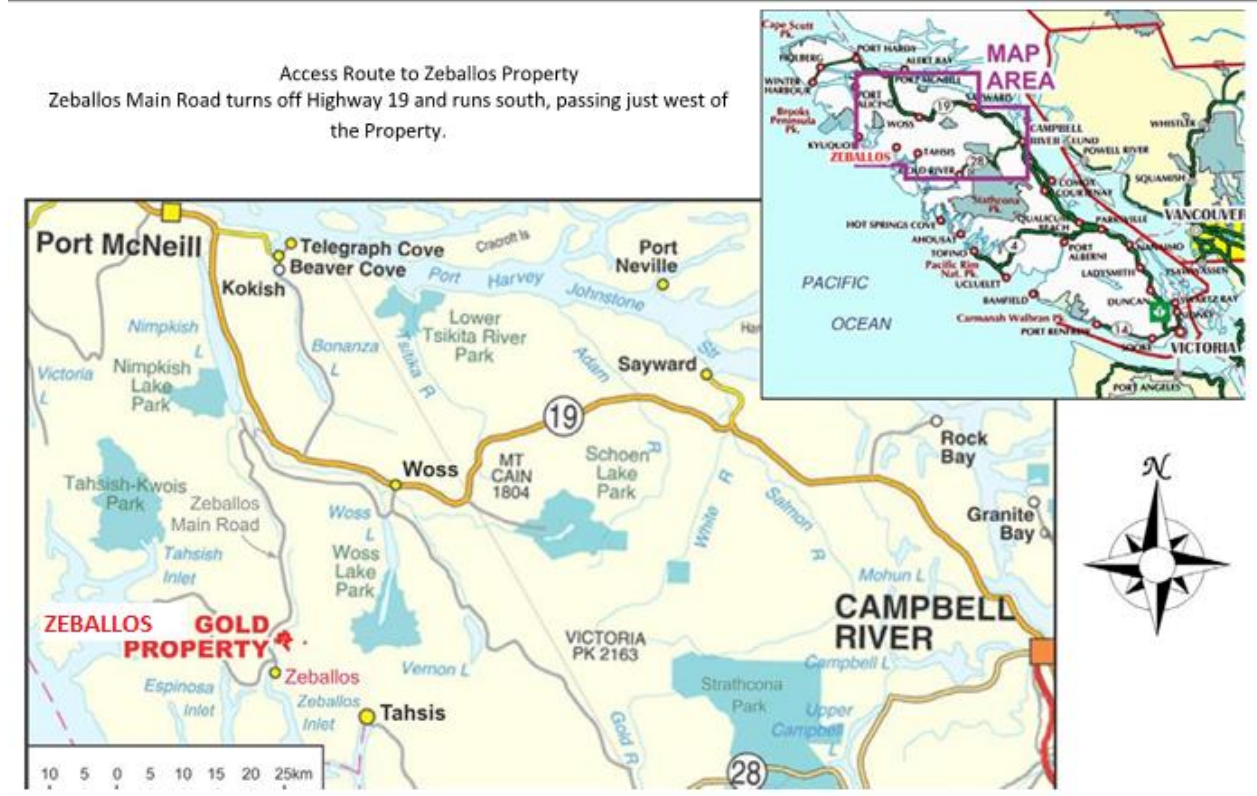
Exploration work was conducted by the company in 2018 consisting of research and prospecting, and soil and pan concentrate sampling. A total of 15 samples were taken for geochemical analysis.

Further exploration of the property is recommended, including follow up sampling in prospective areas and diamond drilling.

## **2 Property Description and Location**

The Zeballos gold property is situated near the town of Zeballos on Vancouver Island, British Columbia, Canada. The property is situated about 180 kilometres northwest of Vancouver and about 100 kilometres west of the town of Campbell River.

A central point in the property is located at UTM coordinates 657,000 m East and 5,543,000 m North (NAD83 Datum, UTM Zone 9) or Latitude 50.018 N and Longitude 126.808 W. The property falls within the Alberni Mining District and straddles NTS Topographic Map Sheet 092L02 and TRIM 092L.006, 092L.007 and 092E.097.



### 3 Mineral Claims

Title No.	Type	Date Granted	Expiry Date	Owner	Area (ha)
1055827	Mineral Claim	October 27, 2017	October 27, 2019	Richards, Benjamin Michael	415.3
1059310	Mineral Claim	March 15, 2018	March 15, 2020	Richards, Benjamin Michael	20.8

### 4 Accessibility, Climate, Local Resources, Infrastructure and Physiography

The property is accessible year-round from BC Highway 19 north of Campbell River, the nearest major town on Vancouver Island. The turnoff to Zeballos is 150 kilometres north from Campbell River. From there, the unpaved Zeballos Main Road extends west for 35 kilometres to a bridge that crosses over the Zeballos River. Immediately after the bridge on the left (south) is a gravel road that leads to the historic Privateer mine camp. The village of Zeballos is another 6 kilometres further west along the Main Road past the bridge.

Access to the property beyond the Privateer mine is by gravel road that continues south following the east bank of Spud Creek. A branch road switches back and

climbs eastward. There is also a second road that branches from the access road west of Spud Creek that extends part way up the valley.

The topography is rugged, with steep forested mountain sides incised by creek gullies. The principal drainage, Spud Creek, bisects the claim group and flows northwest into the Zeballos River. About a kilometre to the southwest of Spud Creek, Van Isle Creek also flows northwest. Elevations range from 40 to 1,160 metres from the bank of Zeballos River to the flank of Beano Mountain.

Vegetation on the highest elevations is alpine type above tree line, descending into cedar and hemlock that dominate the upper slopes. On the lower slopes consist of mainly hemlock and balsam, Douglas fir and cedar. Recent satellite imagery indicates that about half the property has been logged.

The hyper-marine climate of coastal BC enjoys temperate but wet weather conditions. Near the center of the Property at about 225m elevation the mean annual temperature is 8.2°C, varying between -0.6°C. in January to 20.7°C. in August. A characteristic of the coastal climate is frequent rainfall which averages 4,432 mm annually; 296mm falls as snow over an average of 91 days of frost per year.

Facilities in Zeballos village are limited to basic accommodation. The town is connected to the electrical grid and telephone, high-speed internet and television are provided by satellite service. There is no cellular telephone coverage.

About three kilometres northeast of the Property, the Zeballos Lake Hydroelectric Project is a 23 megawatt, run-of-river project owned and operated by the Zeballos Hydro Limited Partnership. The facility is connected to the BC Hydro grid via a 20-kilometre transmission line that runs south to the town of Tahsis.

Exploration and mining supplies, equipment and experienced labor may be available in Campbell River, which has a long history of servicing the nearby Myra Falls zinc mine.

## **5 History**

Zeballos inlet was explored by Spanish in the 1700's. Ciriaco Cevallos y Bustillo was a Spanish sailor, explorer and cartographer who joined Alessandro Malaspina in Acapulco, Mexico aboard the Descubierta in 1791. The Descubierta and its sister ship Atrevida were twin corvettes of the Spanish Navy, designed as special exploration and scientific research vessels for the Malaspina Expedition. Spanish expeditions to the Pacific Northwest were carried out at that time to reassert longheld navigation and territorial claims to the area. Zeballos inlet was named after Lieutenant Cevallos by Captain Malaspina.



Stephenson (1950) noted that small amounts of placer gold had been obtained from the Zeballos River as early as 1907 but it was not until 1924 that the first gold vein was staked. Small pockets of coarse placer gold had been found under large boulders at the mouth of Spud Creek and in the autumn of 1933 rich gold-quartz float was found near the mouth of the creek. In 1934, the veins on the White Star property were found. In 1935 the Goldfield vein on the Spud Valley property was found, and in 1936 the No. 1 vein on the Privateer.

In the beginning, the miners carried the sacks of ore out on their backs down the narrow, slippery trails, through the mud and windfalls to the Zeballos River. From there the ore was transported downstream in a dugout boat to the mouth of the river where it was again backpacked over land to the beach (Stevenson, 1950).

Industrial scale mining really began in the winter of 1934-35 when high-grade ore was shipped from the property of White Star Gold Mines. In 1937 shipments of highgrade ore were made from No. 1 vein on the Privateer. In 1938 the Privateer mill and Spud Valley Gold Mines mill began operating. In 1939, mills were built at the Mount Zeballos and Central Zeballos mines, and in 1941 a mill was built at the Homeward.

“It was the richest ore ever to be received by the Tacoma Smelters. The outside world soon took notice of the Zeballos “wonder mine”, the Privateer, which produced 30 to 40 ounces of gold to the ton of ore. When the war came in 1939, many of the miners left to fight in the armed forces and the mines began to close.

By 1942 they were all shut down. When the war ended in 1945 the fixed price of gold, at that time \$35.00 an ounce, wasn't enough to keep the mines in operation. By the time the price of gold climbed on the open market 20 years later, it was too late for Zeballos.” (<https://www.zeballos.com/home/history/>)

## 5.1 Historic Production

Total production for the Zeballos Gold camp is estimated at 304,309 ounces of gold. Average precious metal grades calculated from recoveries are 14.89 grams per tonne gold, 6.48 g/t silver. Milled material was 52.5% of that mined as ore, primarily due to hand sorting.

Deposit	MINFILE	Production [Years]	Mined tonnes	Milled tonnes	Au Oz	Ag Oz.	Cu Kg	Pb Kg	Au g/t	Ag g/t	Cu %	Pb %
Privateer	092L008	1934-53, 1975	282,328	146,798	170,440	69,452	4,063	10,093	18.78	7.65	0.0014	0.004

Gold Field(L.1020) Spud Valley	092L211	1936, 1939-42, 1951	190,754	95,876	54,105	18,494	9195	8093	8.8	3.0	0.005	0.004
Mount Zeballos	092L012	1939-42, 1944	74,268	51,540	30,434	14,288	2,408	12,726	12.75	5.98	0.003	0.017
Central Zeballos	092L212	1938-42, 1946-47	52,596	37,789	20,473	13,897	7,370	71,140	12.11	8.22	0.014	0.135
Prident	092L009	1941-43, 1947-48	21,585		13,935	7,710			20.08	11.11		
White Star	092L010	1935-42, 1952, 1957	1,293		7,105	2,975	1,563	17,144	170.91	71.56	0.121	1.326
Lone Star (L.1052) C.D.	092L015	1938-41	5,645	405	4,600	1,425	470	2,982	25.35	7.85	0.008	0.053
Homeward	092L019	1941-42	3,586	1,375	1,491	3,495	318	347	12.93	30.31	0.009	0.010
Van Isle	092L038	1940	3,044		1,155	530			11.80	5.41		
Golden Peak(L.1035) Zeballos Pacific	092L011	1934	393		359	0			28.43			
Beano	092E002	1948-49	21		106	45	33		157.00	66.67	0.157	
Rimy 1-8	092L016	1938	17		44	51			80.53	93.29		
Tagore	092L006	1930, 1932	14		40	65	23	20	88.93	144.43	0.164	0.164
Golden Gate	092L005	1940	22		12	5	44	39	16.95	7.09	0.200	0.177
Barnacle	092L029	unknown	2		5	0			70.00			
Cordova No. 1	092L027	1939	1		5	1	0	4	156.00	31.00	0	0.400
King Midas No. 1 Vein	092L020	1940	1				10		156.00	31.00	1.00	
IXL (L.1054)	092L081	1945-49	20									
<b>TOTAL</b>	<b>18</b>		<b>635,590</b>	<b>333,783</b>	<b>304,309</b>	<b>132,432</b>	<b>25,497</b>	<b>245,179</b>	<b>14.89</b>	<b>6.48</b>	<b>0.004</b>	<b>0.019</b>

*Abbreviations: Oz = ounces, g/t = grams per tonne, Au = gold, Ag = silver  
Source: modified from Hanson and Sinclair, 1982.*

## 6 Geological Setting

### 6.1 Regional Geology

The project area lies within the region of the Wrangellia terrane. Wrangellia is a large, volcano-plutonic and sedimentary oceanic terrane that is dominated by extensive accumulations of Karmutsen Formation flood basalt. Wrangellia was accreted onto the western margin of the North American plate by the Late Jurassic to Early Cretaceous.

In general, Vancouver Island is characterized by a structural style of north-westerly trending structural culminations, north-westerly and northerly trending plutons and by north- westerly and southwesterly directed faults. Minor northeasterly striking faults interrupt these trends. The Karmutsen Formation is the most competent unit and has been warped into broad culminations and depressions between important faults. Less competent underlying and overlying units are more intensely deformed, locally exhibiting penetrative deformation features. Northwesterly trending faults, some of which may be thrusts, disrupt the sequence (Gabrielse, 1991).

The Alert Bay map area (092L), within which the project area lies, is underlain by the Vancouver Group, consisting of a basal Middle Triassic sediment-sill unit, a thick pile of Triassic basaltic volcanic rocks (Karmutsen Formation), Upper Triassic carbonate, pelitic and volcanoclastic sediments (Quatsino and Parson Bay formations), and a Lower Jurassic sequence of basaltic to dacitic effusive and pyroclastic volcanic rocks with minor intercalated sediments (Bonanza Subgroup). The Vancouver Group is intruded by large and small bodies of Middle Jurassic Island Intrusions and is overlain unconformably by remnants of a Lower Cretaceous clastic wedge on the southwest side, and similar Upper Cretaceous beds on the northwest side of Vancouver Island. The region may be divided into several coherent structural blocks, separated by important near-vertical faults and themselves fractured into many small fault-segments. The Zeballos gold camp is situated in the Karmutsen Block, between the Woss and Ououkinsh major faults of Muller and others (1974).

In the adjacent Nootka Sound map area (092E) the Karmutsen volcanic rocks, Quatsino limestone, and the mid-Jurassic Bonanza volcanic rocks, consisting of andesite pyroclastic rocks and flows, dacite tuffs and flows, and some calc-silicate rocks, are cut by mid-Jurassic granodiorite, diorite, hornblende diorite and gabbro of the Island Intrusive Suite. All these rocks are cut by Mount Washington intrusions of the Paleogene Catface intrusive suite (Marshall and others, 2005).

North to north-northwest trending faults are prominent in the Nootka Sound map area. The Tahsis fault can be traced from the Pacific coast near Nootka along Tahsis Inlet to the north and continues as Woss and Bonanza faults to Johnson Strait. Just west of, and apparently branching off the Tahsis fault, the Hecate Channel fault trends north-northwesterly to northerly up Friend Creek, the north tributary of Little Zeballos River. It is probably cut off by the Zeballos pluton but appears to continue north of the intrusion in Alert Bay map area as the North Zeballos River fault. The Zeballos fault continues into the Nimpkish fault to Broughton Strait. These major faults bracket the Zeballos gold camp.

Porphyry copper deposits on Vancouver Island are known to be associated with Jurassic as well as Tertiary Intrusions but gold-quartz veins appear to be mainly or exclusively related to Tertiary plutons. The Tertiary intrusions are confined to narrow belts crossing Vancouver Island and radiating out from the Tofino region. The least well-defined of these is the belt linking Tertiary Intrusions near Tofino with the Zeballos pluton which lacks other plutons in intermediate positions (Muller and others, 1974).

The south Zeballos pluton is the single Tertiary intrusion identified in the Alert Bay map area. This pluton was described first by Stevenson (1950) as the principal intrusive body in the Zeballos mining camp that contains most of the gold veins. Compared to Island Intrusions, these rocks contain more biotite and generally more quartz, are lacking in epidote, and low in chlorite and opaque minerals. Contact

breccia, consisting of recrystallized fragments of volcanic rock and fragments of older granodiorite in a matrix of quartz diorite, up to an outcrop width of 900 metres, is common around the plutons. Stevenson inferred that the contacts dip steeply away from the intrusion (Muller and others, 1974).

## ***6.2 Local Geology***

In the Zeballos area (Figure 5), volcanic and sedimentary rocks comprise a conformable series that generally strikes northerly to northwesterly and dips westward to southwestward. Andesitic lava of the Karmutsen (UTrVK) occurs in the north central part of the area. Massive limestone of the Quatsino formation (UTrVQ) overlies the lava to the west and is found adjacent to the andesite on the west. A large assemblage of volcanic rocks, mainly pyroclastic rocks with minor flows and comprising the Bonanza formation (IJBca), overlies the limestone conformably to the west and outcrops over the southwestern part of the area. All these rocks are invaded by a northwesterly trending belt of intrusive rocks (EmJlgd, EOIM) that include, from oldest to youngest, gabbro and hornblende diorite, granodiorite, quartz diorite, and several varieties of dykes. The mineral deposits of the camp are associated with this belt of intrusions (Stevenson, 1950).

## ***6.3 Property Geology***

The following is taken mostly from detailed descriptions of the geology of the Zeballos gold camp provided in Stevenson (1950). Figure 6 shows the geology of the property.

### **Triassic Units**

The Karmutsen formation (UTrVK) is over 3000 m thick and comprises tholeiitic pillow basalt, massive basaltic lavas and comagmatic dykes and sills, with minor sedimentary and volcanoclastic rocks. The origin of the Karmutsen formation is enigmatic but is presently thought to represent oceanic flood basalts associated with a back-arc rift or a primitive marine volcanic arc (Marshall and others, 2005).

Green volcanic rocks, mainly flow rocks, extend westerly from the north fork of the Zeballos River for a width of 600 metres and northerly from the Central Zeballos mine to the north edge of the Zeballos map area. The rocks are dark green, massive, fine grained, and largely amygdaloidal.

### ***Quatsino Formation***

The Quatsino limestone (UTrVQ) lies conformably on the Karmutsen formation but may be interfolded and inter-faulted with the Karmutsen. A gradational contact

separates the Quatsino formation from the overlying Parson Bay formation; however, in this area, the two units are mapped together as Quatsino (Marshall and others, 2005).

The principal areas of Quatsino formation limestone are on the northeastern side of the belt of intrusive rocks. The largest area is northwest of the Zeballos River and west of the north fork of the Zeballos River and extends northerly beyond the north edge of the map area. Two smaller, easterly trending areas of limestone outcrop north and south of the Central Zeballos mine. The limestone in all these areas is medium to coarsely crystalline and, owing to extensive recrystallization, has lost all evidence of bedding.

Alteration of the limestone, in addition to recrystallization and dolomitization, includes the development of zones of garnet and diopside a few centimetres thick along nearly all the contacts of the limestone with the intrusive rocks. At some places, magnetite, pyrrhotite, and chalcopyrite have formed in addition to the garnet and diopside.

## **Jurassic Units**

The Jurassic calc-alkaline rocks of the Bonanza Group unconformably over lie the Triassic rocks of the Vancouver Group. The Bonanza Group is interpreted to be an Early to Middle Jurassic island arc, intruded by the comagmatic Island Intrusive Suite.

### *Bonanza Formation*

The Bonanza (IJBca) is comprised of green volcanic rocks that are mainly pyroclastic, which underlie a northwesterly trending area 2,400 to 3,660 metres wide that lies between the Privateer mine on the northeast and the Tagore mine on the southwest. Most of the rocks are coarse tuffs and lapilli tuffs; volcanic breccias are found in some places and fine tuffs only locally.

Massive, fine-grained, dark-green andesitic lava, normally called greenstone, is found at several places interbedded with the tuffs and breccias. The largest area of lava is southwest of the Mount Zeballos mine where a band about 150 metres wide extends for an unknown distance northwesterly and southeasterly.

Small areas of limestone occur in the volcanic rocks southwest of the belt of intrusive rocks, and light-green to white calc-silicate rocks form a belt that extends southeasterly past the Privateer and Mount Zeballos mines to the south edge of the area. At the Mount Zeballos mine and southwards, the belt of light coloured rocks is divided into a western and an eastern belt by 30 to 100 metres of dark-green, fine-grained andesite lava. The dip in the northern part of the belt is nearly vertical,

but from the Mount Zeballos mine southerly the rocks dip 40 to 60 degrees southwestward and strike northwesterly. Another belt of similar calc-silicate rocks 1 to 300 metres wide extends for 2.7 km southeasterly from the Central Zeballos mine to Curly Creek.

The light coloured rocks are composed of calc-silicate minerals, quartz, and a little biotite. The principal calc-silicate minerals are diopside, wollastonite, and plagioclase feldspar (labradorite to anorthite). Limestone beds are interbedded with the calc-silicate rocks southeasterly from the Central Zeballos, but no limestone has been found in the Privateer belt.

From the Mount Zeballos mine southeasterly, the light-coloured belt is composed largely of massive rocks but includes some layered rocks. These rocks are light grey to brownish grey, or white to light greenish-white. They are principally crystal tuffs with minor flow rocks, and although largely non-calcareous they include occasional beds rich in diopside and garnet. The rocks of this belt are exposed best in the workings of the Mount Zeballos mine and on the hillside southerly from the mine. The light-grey to brownish rocks are andesite crystal tuffs that contain only a small amount of ferromagnesian minerals and hence lack the more typical dark green colour.

Dacite is closely associated with the feldspar crystal shard tuffs and is a striking white colour, with occasional green patches. The dacites are generally massive and porcelaneous in texture. Both dacite crystal tuffs and dacite lava flows are recognized. Beds of white-green dacite tuff 5 to 15 centimetres thick, which alternate with brown andesite tuff in beds of similar or less thickness occur at the Mount Zeballos mine in the adits on the Farris vein and in the 1600 and 1800 adits in the Mount Zeballos vein. Flows of dacite are interbedded with the tuffs and range in thickness from 5 to 15 metres. Like the tuffs they are white to pale green, but they differ from the tuffs in that usually they are not banded and have a much coarser groundmass, in which the individual plagioclase crystals are easily recognized with a hand lens.

A conspicuous alteration characterized by patches of light, apple-green, calc-silicate minerals is seen in the tuffs of the Privateer-Mount Zeballos belt and in volcanic breccia at the Mount Zeballos mine. The altered rock consists of a fine-grained intergrowth of quartz, diopside, epidote, andesine, and local wollastonite. Many of these apple-green patches contain kernels of pyrrhotite 1 to 5 centimetres across and locally up to 0.5 metres long. In the Mount Zeballos mine, both the pyrrhotite and patches of alteration have been cleanly cut by the vein shear. An advanced stage of this alteration occurs in the Privateer mine, where dark-brown volcanic rocks, close to and within the wide band of calc-silicate rocks, are extensively altered to dense, light-green rocks. Apple-green altered rock is found as inclusions in unaltered quartz diorite and is cut by aplite stringers; hence the apple-green alteration preceded the emplacement of the quartz diorite.

### *Island Intrusions (Jurassic)*

Jurassic granitic rocks (EMJIGd) generally occupy a northwesterly trending belt that extends through the central part of the area. However, at the Central Zeballos mine emplacement of an easterly trending body of granodiorite may have been influenced by the surrounding easterly trending sedimentary rocks. Gabbro, hornblende diorite, granodiorite and quartz diorite were distinguished by Stevenson (1950).

Gabbro occurs in part of the southwest corner of the area mapped and continues for unknown distances to the north- west and southeast as a narrow belt at least 600 metres wide. The gabbro contains patches of volcanic rocks and is cut by granodiorite dykes.

Hornblende diorite outcrops over a large area north of the Zeballos River. The hornblende diorite is fine-grained and contains inclusions of volcanic rocks in all stages of replacement.

Granodiorite underlies two areas, one southeasterly from the Cordova property and another on the Central Zeballos property. The granodiorite near the Cordova is a massive, light-coloured granitic rock. Its contacts with the surrounding diorite are irregular and gradational, with no contact breccia. Near the contact, the granodiorite is characterized by light-green mottling as though diorite had been assimilated by the granodiorite. The granodiorite at Central Zeballos differs in being markedly porphyritic in appearance and containing less orthoclase. The border zone of the Central Zeballos granodiorite is slightly schistose and contains numerous inclusions of volcanic rocks.

### *Paleogene Intrusions*

Paleogene Catface intrusions are the youngest intrusive rocks in the area. The Catface intrusions have been subdivided into the older (60–45 Ma) Clayoquot and younger (38–47 Ma) Mount Washington intrusions. The Zeballos Stock (EOIM) is part of the Mount Washington suite (Marshall and others, 2005).

The Zeballos Stock, composed of quartz diorite, is the principal intrusive body in the area and most of the rich gold veins of the camp are within or close to it. The average quartz diorite is a speckled black and white massive rock with conspicuous jointing. It has an even medium-grained texture and consists mainly of quartz, oligoclase-andesine feldspar, and biotite. Numerous quartz diorite dykes and, in places, contact breccia characterize the wall rocks of the quartz diorite. Several dykes and an isolated area of quartz diorite are found in the older rocks along the southwestern contact near the Privateer mine. Many quartz diorite dykes are found along the northeastern contact, on the Central Zeballos property, and southeasterly

along the contact to the edge of the map area. At the northwestern end of the quartz diorite, contact breccia is developed over a width of 600 to 900 metres. This suggests that the northwest contact of the quartz diorite dips much more gently than its sides where the contact zones are much narrower.

Dike rocks in the area include a wide variety of petrographic types, ranging from dark-green varieties rich in hornblende to light-grey varieties consisting mainly of feldspar, quartz, and very little hornblende. Small dikes or stringers of aplite cut the granodiorite at the Central Zeballos mine near the quartz diorite and are common along the northeastern contact of quartz diorite. They have also been found at several places within the quartz diorite but usually near its borders.

The youngest rock unit cut by gold mineralized structures is a granodiorite (adakitic) dike associated with the main phase of the Zeballos stock. U-Pb zircon geochronology of the dike yielded an age of  $35.413 \pm 0.063$  Ma. (Marshall and others, 2005b).

## **Local Structure**

In the Zeballos area, the major structure is a monocline that strikes northwesterly and dips, 40 to 60 degrees southwestward. This is modified by a major fold between Lime and Contact Creeks and by minor folds near the quartz diorite. Also, the limestone and sedimentary rocks on the Central Zeballos property and to the southwest trend easterly and all have steep to vertical dips, in contrast with the regional pattern. Cross-flexures also occur in the band of light-coloured rocks at the Privateer and Mount Zeballos mines, and vertical to northeastward dips in the tuffs up Van Isle Creek indicate a local fold. Farther to the southwest, steep and vertical dips in the limestone and associated tuffs at the Prosperity and the Beano mines, may be related to a nearby augite diorite intrusive body.

## **7 Exploration**

### **7.1 2018 Soil Geochemistry**

A soil geochemical survey was conducted in September of 2018 as a test to determine the practicality of collecting soil samples in the steep mountainous terrain and potential metals response.

A total of 8 samples were collected from about 30 cm depths with a standard issue garden shovel. Sampling was hampered by thick overgrowth. The samples were submitted for gold by 30 gram Fire Assay-AA (5-10,000 ppb limits) and multielement analyses (aqua regia digestion, ICP-AES, 34 Elements) at SGS Laboratories in Vancouver, BC.



Two of the samples returned gold values of interest at 119 and 72 ppb Au. This indicates good potential for application of soil geochemistry in the area, despite the difficult terrain and forest growth.

## **7.2 2018 Pan Concentrate Geochemistry**

A stream pan concentrate geochemical survey was conducted in September of 2018 as a test to determine the response from intermittent streams in the steep mountainous terrain.

A total of 7 samples were collected by panning out the coarse material to leave enough sample for analysis. Difficulty was experienced in collecting enough material after panning. Samples were submitted for gold by 30 gram Fire Assay-AA (5-10,000 ppb limits) and multi-element analyses (aqua regia digestion, ICP-AES, 34 Elements) at SGS Laboratories in Vancouver, BC.

Three samples returned relatively high results at 565, 41 and 17 ppb Au. The sample with 565 ppb Au is from a stream that drains the Farris vein area. This appears to validate the use of pan concentrate sampling to identify streams that drain across gold bearing veins. Follow-up prospecting and soil geochemistry is recommended in the area above the highest result, where there are no known mineral occurrences.

## **8 Conclusions and Recommended Work**

The property is situated on Vancouver Island and lies within the Wrangellia terrane. The area includes slightly deformed panels Mesozoic rocks, intruded by Mesozoic and Cenozoic intrusions, and disrupted in the Mesozoic and Cenozoic by regional and local faults of unknown displacements. The area is endowed with several styles and ages of mineral deposits, including porphyry copper, porphyry-related copper-gold skarns, and precious metal deposits related to Cenozoic metallogenic events.

Interesting results were obtained from the geochemical surveys (soil and pan) conducted in 2018. Additional pan concentrate, silt and soil sampling is recommended wherever feasible to identify areas to focus the search for new veins.

## 9 Statement of Qualifications

I, Ben Richards, residing at 175 West 1<sup>st</sup> Street, North Vancouver, British Columbia, hereby certify:

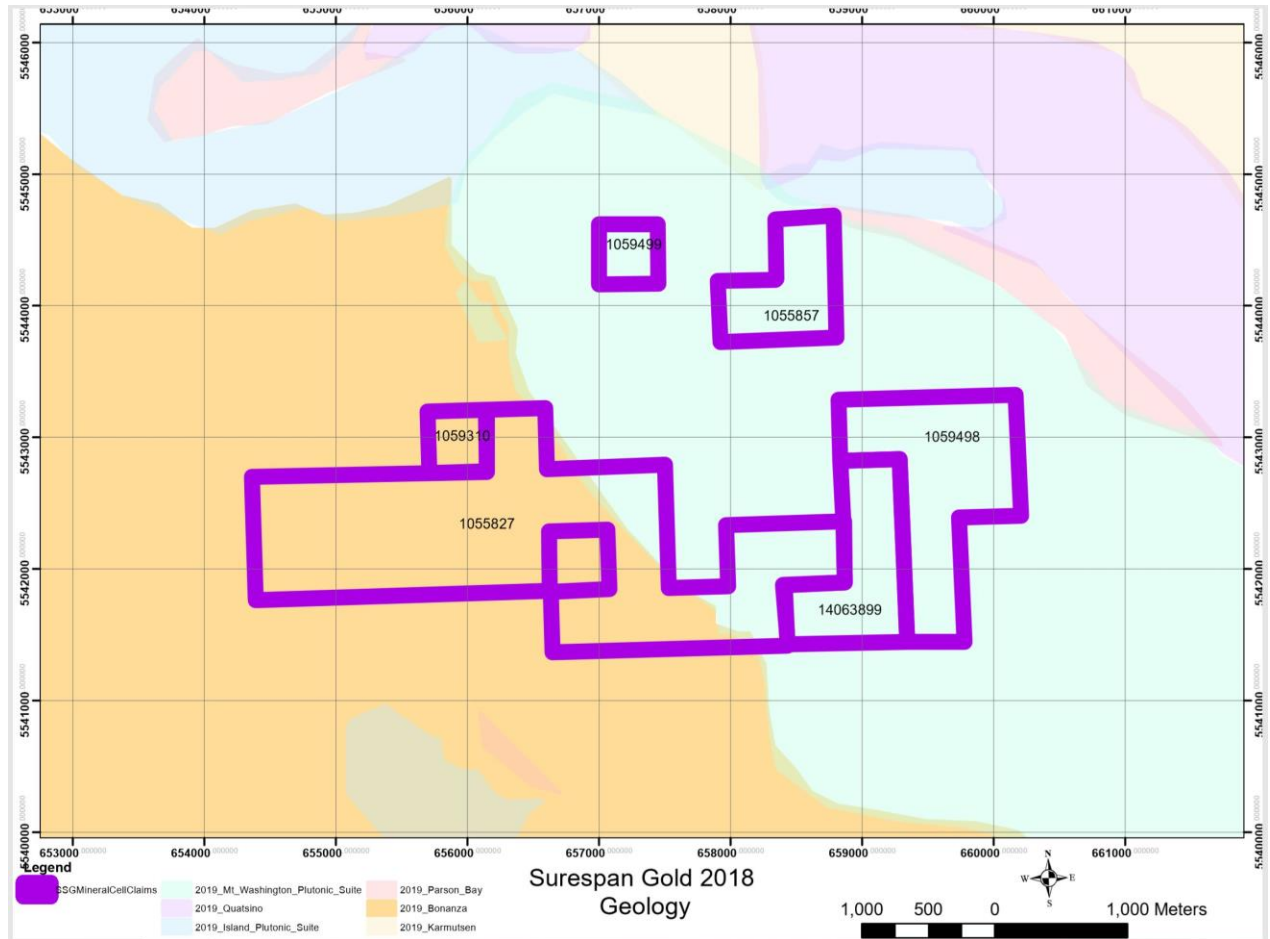
1. This certificate applies to this 2018 Assessment Report on mineral Claims 1055827 and 1059310
2. I have graduated with a bachelor's degree in Geology from Saint Mary's University in 2012 and have 3 years of mineral exploration experience since graduating
3. I have worked the mineral claims and surrounding area for 3 years as exploration manager
4. As of the date of the certificate, to the best of my knowledge, information and belief, the assessment report contains all information to make the assessment report not misleading

## **10 Bibliography**

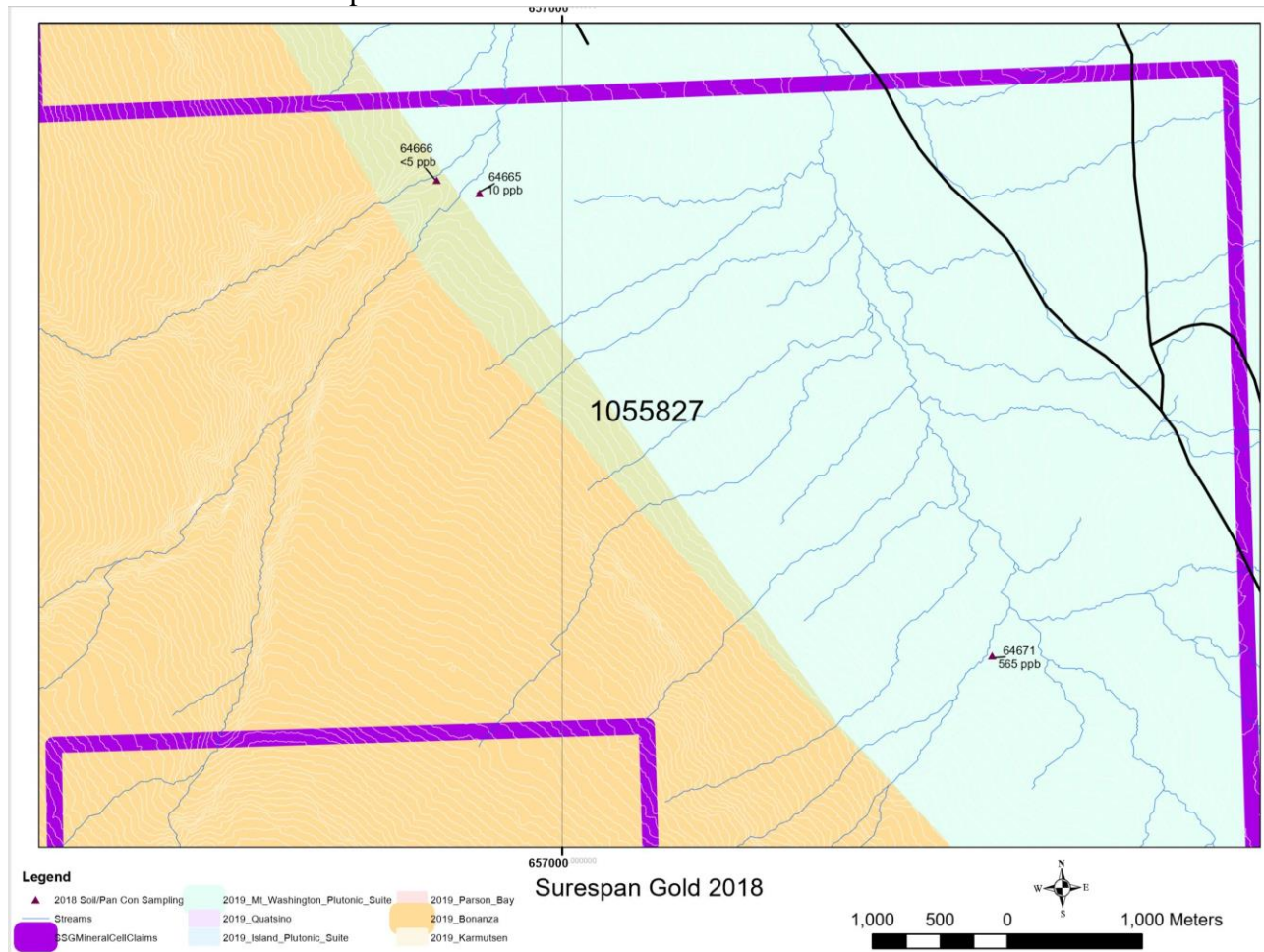
1. *INTERNAL NI43-101– Dr. M. Ball - Dec. 15, 2018 – Technical Report and Mineral Resource Estimate on the Surespan Gold Property*

# Appendix

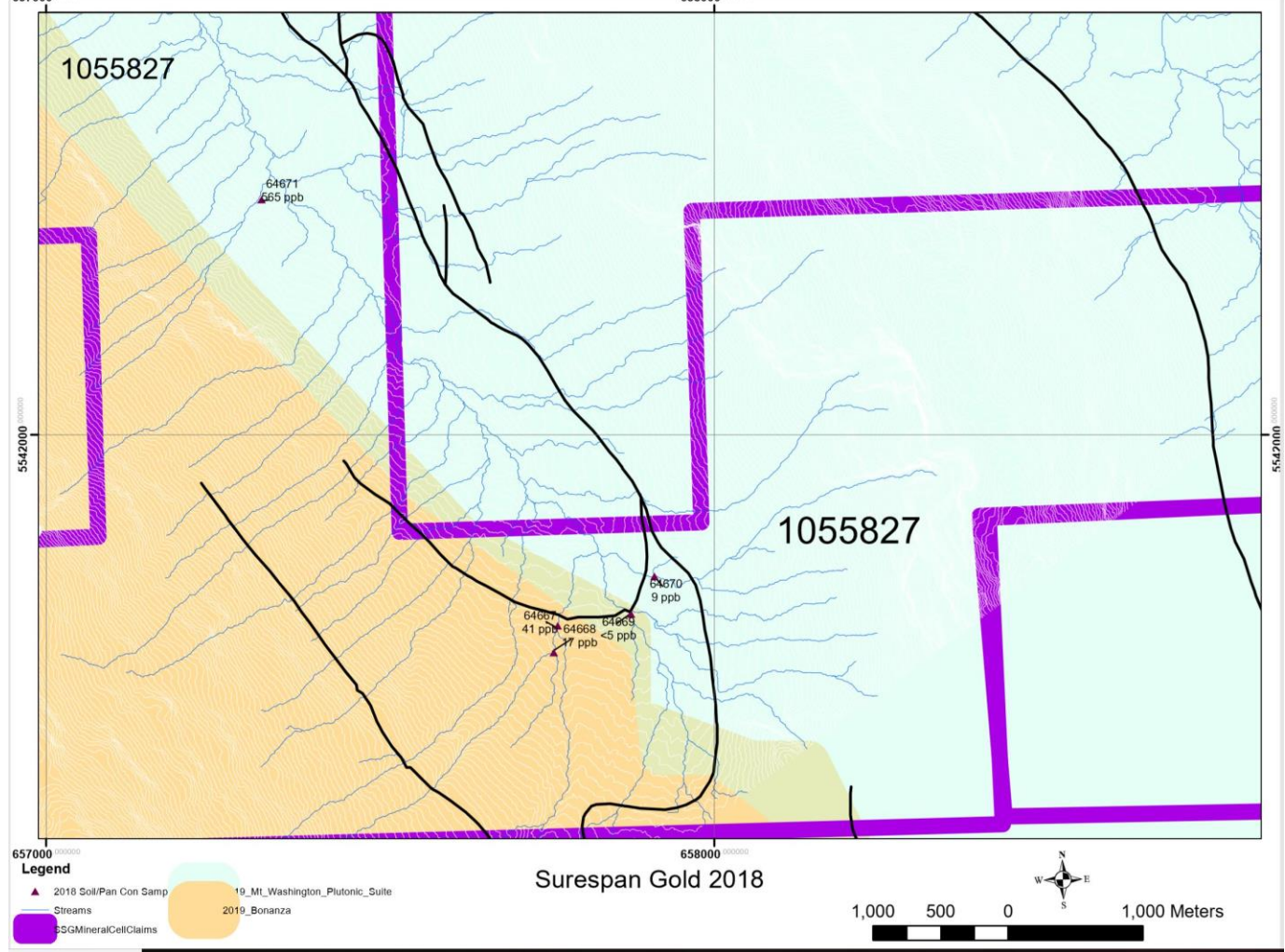
## Geology Map of Claims 1055827 & 1059310



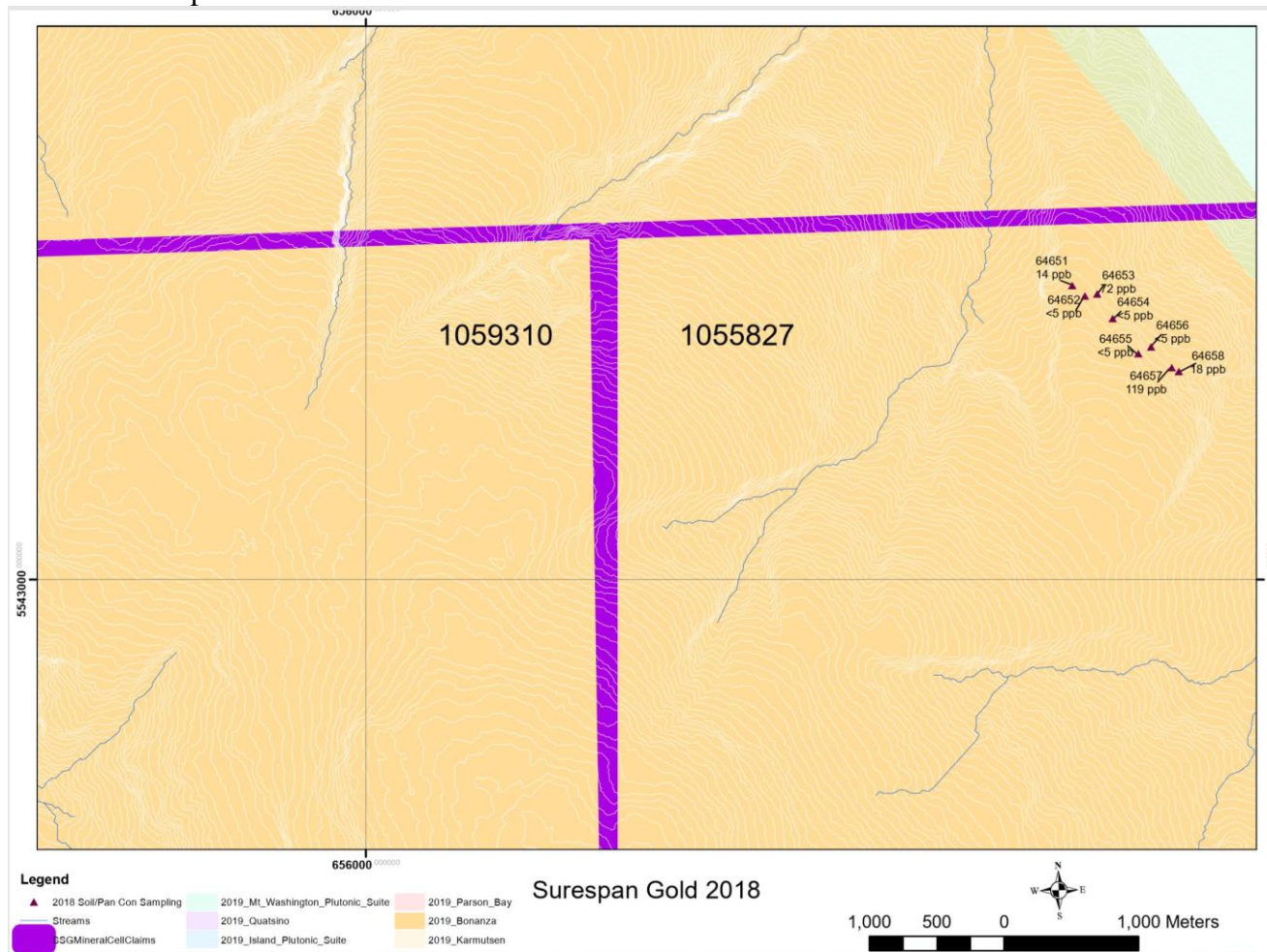
# 2018 Pan Concentrate Samples labeled with values Claim 1055827



# 2018 Pan Concentrate Samples labeled with values Claim 1055827



## 2018 Soil Samples labeled with values Claim 1055827



## Sample Coordinates with Au values

Sample	Easting	Northing	Au ppb
64651	656424	5543177	14
64652	656432	5543170	<5
64653	656439	5543172	72
64654	656448	5543157	<5
64655	656464	5543136	<5
64656	656471	5543140	<5
64657	656484	5543127	119
64658	656488	5543125	18
64665	656938	5542699	10
64666	656906	5542709	<5
64667	657765	5541714	41
64668	657760	5541675	17
64669	657875	5541732	<5
64670	657910	5541788	9
64671	657322	5542352	565

# Cost Statement

Exploration Work type	Comment	Days			Totals
<b>Personnel (Name)* / Position</b>	<b>Field Days (list actual days)</b>	<b>Days</b>	<b>Rate</b>	<b>Subtotal*</b>	
Ben Richards / Mine Manager	Sept 11-13 2018	3	\$250.00	\$750.00	
Mustafa Gok / Geologist	Sept 11-13 2018	3	\$375.00	\$1,125.00	
Keith / Field Tech	Sept 11 2018	1	\$160.00	\$160.00	
Stephen / Field Tech	Sept 11-13 2018	3	\$160.00	\$480.00	
Tyler / Field Tech	Sept 12-13 2018	2	\$160.00	\$320.00	
			\$0.00	\$0.00	
				\$2,835.00	<b>\$2,835.00</b>
<b>Office Studies</b>	<b>List Personnel (note - Office only, do not include field days)</b>				
Literature search				\$0.00	
Database compilation				\$0.00	
Computer modelling			\$0.00	\$0.00	
Reprocessing of data			\$0.00	\$0.00	
General research			\$0.00	\$0.00	
Report preparation	Ben Richards	3.0	\$250.00	\$750.00	
Other (specify)					
				\$750.00	<b>\$750.00</b>
<b>Airborne Exploration Surveys</b>	<b>Line Kilometres / Enter total invoiced amount</b>				
Aeromagnetics			\$0.00	\$0.00	
Radiometrics			\$0.00	\$0.00	
Electromagnetics			\$0.00	\$0.00	
Gravity			\$0.00	\$0.00	
Digital terrain modelling			\$0.00	\$0.00	
Other (specify)			\$0.00	\$0.00	
				\$0.00	<b>\$0.00</b>
<b>Remote Sensing</b>	<b>Area in Hectares / Enter total invoiced amount or list personnel</b>				
Aerial photography			\$0.00	\$0.00	
LANDSAT			\$0.00	\$0.00	
Other (specify)			\$0.00	\$0.00	
				\$0.00	<b>\$0.00</b>
<b>Ground Exploration Surveys</b>	<b>Area in Hectares/List Personnel</b>				
Geological mapping					
Regional					
Reconnaissance					
Prospect					
Underground	Define by length and width				
Trenches	Define by length and width			\$0.00	<b>\$0.00</b>
<b>Ground geophysics</b>	<b>Line Kilometres / Enter total amount invoiced list personnel</b>				
Radiometrics					
Magnetics					
Gravity					
Digital terrain modelling					
Electromagnetics					
SP/AP/EP					
IP					
AMT/CSAMT					
Resistivity					
Complex resistivity					
Seismic reflection					

*note: expenditures here should be captured in Personnel field expenditures above*

*note: expenditures for your crew in the field should be captured above in Personnel field expenditures above*



Seismic refraction  
 Well logging Define by total length  
 Geophysical interpretation  
 Petrophysics  
 Other (specify)

**\$0.00** **\$0.00**

<b>Geochemical Surveying</b>	<b>Number of Samples</b>	<b>No.</b>	<b>Rate</b>	<b>Subtotal</b>
Drill (cuttings, core, etc.)			\$0.00	\$0.00
Stream sediment		7.0	\$78.00	\$546.00
Soil	<i>note: This is for assays or laboratory costs</i>	8.0	\$78.00	\$624.00
Rock			\$0.00	\$0.00
Water			\$0.00	\$0.00
Biogeochemistry			\$0.00	\$0.00
Whole rock			\$0.00	\$0.00
Petrology			\$0.00	\$0.00
Other (specify)			\$0.00	\$0.00

**\$1,170.00**

<b>Drilling</b>	<b>No. of Holes, Size of Core and Metres</b>	<b>No.</b>	<b>Rate</b>	<b>Subtotal</b>
Diamond			\$0.00	\$0.00
Reverse circulation (RC)			\$0.00	\$0.00
Rotary air blast (RAB)			\$0.00	\$0.00
Other (specify)			\$0.00	\$0.00

**\$0.00**

**\$0.00**

<b>Other Operations</b>	<b>Clarify</b>	<b>No.</b>	<b>Rate</b>	<b>Subtotal</b>
Trenching			\$0.00	\$0.00
Bulk sampling			\$0.00	\$0.00
Underground development			\$0.00	\$0.00
Other (specify)			\$0.00	\$0.00

**\$0.00**

**\$0.00**

<b>Reclamation</b>	<b>Clarify</b>	<b>No.</b>	<b>Rate</b>	<b>Subtotal</b>
After drilling			\$0.00	\$0.00
Monitoring			\$0.00	\$0.00
Other (specify)			\$0.00	\$0.00

<b>Transportation</b>	<b>No.</b>	<b>Rate</b>	<b>Subtotal</b>
Airfare		\$0.00	\$0.00
Taxi		\$0.00	\$0.00
truck rental		\$0.00	\$0.00
kilometers		\$0.00	\$0.00
ATV		\$0.00	\$0.00
fuel		\$0.00	\$0.00
Helicopter (hours)		\$0.00	\$0.00
Fuel (litres/hour)		\$0.00	\$0.00
Other			

**\$0.00**

**\$0.00**

<b>Accommodation &amp; Food</b>	<b>Rates per day</b>	<b>No.</b>	<b>Rate</b>	<b>Subtotal</b>
Hotel			\$0.00	\$0.00
Camp	Ben & Mustafa \$200/day/person	6.00	\$200.00	\$1,200.00
Meals	Ben & Mustafa \$50/day/person	6.00	\$50.00	\$300.00

**\$1,500.00**

**\$1,500.00**

<b>Miscellaneous</b>	<b>No.</b>	<b>Rate</b>	<b>Subtotal</b>
Telephone		\$0.00	\$0.00
Other (Specify)			

**\$0.00**

**\$0.00**

<b>Equipment Rentals</b>	<b>No.</b>	<b>Rate</b>	<b>Subtotal</b>	
Field Gear (Specify)		\$0.00	\$0.00	
Other (Specify)	Truck	3.00	\$100.00	\$300.00

		\$300.00	\$300.00
<b>Freight, rock samples</b>			
	\$0.00	\$0.00	
	\$0.00	\$0.00	
		\$0.00	\$0.00
<hr/> <hr/>			
<b><i>TOTAL Expenditures</i></b>			<b>\$6,555.00</b>



**Certificate of Analysis**  
**Work Order : VC183576**  
**[Report File No.: 000032176]**

Date: October 19, 2018

To: **Ben Richards**  
 SURESPAN CONSTRUCTION LTD  
 #301-38 FELL AVE  
 NORTH VANCOUVER BC V7P 3S2

P.O. No.: [REDACTED] Gold Shipmnt / TEST: 21 ICP  
 Project No.: [REDACTED]  
 Samples: 21  
 Received: Sep 28, 2018  
 Pages: Page 1 to 6  
 (Inclusive of Cover Sheet)

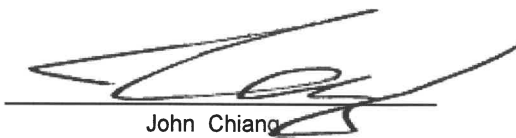
**Methods Summary**

<u>No. Of Samples</u>	<u>Method Code</u>	<u>Description</u>
21	G_LOG02	Pre-preparation processing, sorting, logging, boxing
21	G_WGH79	Weighing of samples and reporting of weights
21	GE_ICP14B	Aqua Regia digestion/ICP-AES package

**Storage: Pulp & Reject**

REJECT STORAGE : PAID STORE AFTER 30 DAYS  
 PULP STORAGE : PAID STORE AFTER 90 DAYS

Certified By : \_\_\_\_\_



John Chiang  
 QC Chemist

**SGS Minerals Services Geochemistry Vancouver conforms to the requirements of ISO/IEC 17025 for specific tests as listed on their scope of accreditation which can be found at <http://www.scc.ca/en/search/palcan/sgs>**

Report Footer: L.N.R. = Listed not received I.S. = Insufficient Sample  
 n.a. = Not applicable - = No result  
 \*INF = Composition of this sample makes detection impossible by this method  
 M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion  
 Methods marked with an asterisk (e.g. \*NAA08V) were subcontracted  
 Elements marked with the @ symbol (e.g. @Cu) denote assays performed using accredited test methods

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Element Method Det.Lim. Units	WtKg G_WGH79 0.01 kg	@Ag GE_ICP14B 2 ppm	@Al GE_ICP14B 0.01 %	@As GE_ICP14B 3 ppm	@Ba GE_ICP14B 5 ppm	@Be GE_ICP14B 0.5 ppm	@Bi GE_ICP14B 5 ppm	@Ca GE_ICP14B 0.01 %
064651	0.315	<2	0.08	<3	7	<0.5	<5	0.04
064652	0.220	<2	0.35	<3	72	<0.5	<5	0.15
064653	0.390	<2	0.60	<3	<5	<0.5	<5	0.08
064654	0.300	<2	9.81	12	105	<0.5	<5	0.18
064655	0.360	<2	2.66	<3	127	<0.5	<5	0.08
064656	0.360	<2	3.65	7	56	<0.5	<5	0.11
064657	0.375	<2	2.14	5	52	<0.5	<5	0.12
064658	0.265	<2	5.02	11	36	<0.5	<5	0.07
064659	0.240	<2	2.00	41	119	<0.5	<5	0.66
064660	0.500	<2	2.24	90	158	<0.5	<5	0.77
064661	0.410	<2	1.40	29	59	<0.5	<5	0.64
064662	0.645	<2	1.35	31	57	<0.5	<5	0.71
064663	0.360	<2	0.98	14	42	<0.5	<5	0.46
064664	0.320	<2	2.18	57	201	<0.5	<5	0.96
064665	0.305	<2	1.81	45	130	<0.5	<5	1.26
064666	0.390	<2	2.17	63	129	<0.5	<5	1.06
064667	0.450	<2	1.98	201	79	<0.5	<5	0.86
064668	0.350	<2	1.70	63	63	<0.5	<5	0.63
064669	0.330	<2	0.95	<3	60	<0.5	<5	0.33
064670	0.635	<2	0.49	<3	58	<0.5	<5	0.20
064671	0.395	<2	1.45	60	64	<0.5	<5	0.41
*Rep 064652		<2	0.36	<3	77	<0.5	<5	0.15
*Std OREAS209		<2	1.27	1050	66	<0.5	<5	1.45
*Blk BLANK		<2	<0.01	<3	<5	<0.5	<5	<0.01

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Element Method Det.Lim. Units	@Cd GE_ICP14B 1 ppm	@Co GE_ICP14B 1 ppm	@Cr GE_ICP14B 1 ppm	@Cu GE_ICP14B 0.5 ppm	@Fe GE_ICP14B 0.01 %	@Hg GE_ICP14B 1 ppm	@K GE_ICP14B 0.01 %	@La GE_ICP14B 0.5 ppm
064651	<1	<1	2	0.7	0.44	<1	<0.01	1.4
064652	<1	<1	2	7.6	0.15	<1	0.02	0.9
064653	5	<1	4	3.3	2.67	<1	<0.01	2.1
064654	7	7	24	101	4.74	<1	0.15	3.2
064655	11	7	10	60.4	7.16	<1	0.20	3.0
064656	8	7	20	37.9	5.31	<1	0.05	2.6
064657	6	4	3	33.2	3.58	<1	0.08	2.9
064658	3	3	5	38.7	2.07	<1	0.04	3.4
064659	4	9	13	80.7	2.37	<1	0.19	4.6
064660	5	11	16	87.9	3.13	<1	0.26	5.6
064661	4	7	17	93.5	2.03	<1	0.07	4.4
064662	4	7	19	74.6	2.09	<1	0.05	4.9
064663	4	7	8	73.9	2.21	<1	0.07	3.2
064664	5	17	16	99.3	3.26	<1	0.23	5.6
064665	5	16	16	121	2.90	<1	0.15	8.4
064666	6	16	22	110	3.43	<1	0.18	6.8
064667	7	12	19	35.4	4.02	<1	0.24	3.9
064668	7	12	17	24.0	4.19	<1	0.22	3.8
064669	8	9	21	14.6	5.51	<1	0.22	3.5
064670	7	8	21	10.1	4.09	<1	0.18	3.3
064671	5	10	7	29.1	3.23	<1	0.22	3.5
*Rep 064652	<1	<1	2	7.3	0.16	<1	0.02	0.9
*Std OREAS209	10	25	45	82.3	6.31	<1	0.07	13.7
*Blk BLANK	<1	<1	<1	<0.5	<0.01	<1	<0.01	<0.5

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Final : VC183576 Order: ██████████ Gold Shipment / TEST: 21 ICP

Report File No.: 0000032176

Element Method Det.Lim. Units	@Li GE_ICP14B 1 ppm	@Mg GE_ICP14B 0.01 %	@Mn GE_ICP14B 2 ppm	@Mo GE_ICP14B 1 ppm	@Na GE_ICP14B 0.01 %	@Ni GE_ICP14B 1 ppm	@P GE_ICP14B 0.01 %	@Pb GE_ICP14B 2 ppm
064651	<1	0.05	70	<1	0.02	<1	<0.01	<2
064652	<1	0.12	17	<1	0.03	2	0.03	<2
064653	<1	0.08	70	<1	0.02	<1	0.02	<2
064654	9	0.73	135	<1	0.07	11	0.06	<2
064655	9	1.20	242	<1	0.05	6	0.05	<2
064656	14	0.73	140	<1	0.06	8	0.04	<2
064657	4	0.48	136	<1	0.06	6	0.04	<2
064658	2	0.19	84	<1	0.03	5	0.09	<2
064659	12	0.62	208	<1	0.10	18	0.07	<2
064660	14	0.66	300	<1	0.08	20	0.09	<2
064661	14	0.47	290	<1	0.06	20	0.07	<2
064662	12	0.45	323	<1	0.05	23	0.07	9
064663	12	0.40	245	<1	0.05	10	0.07	<2
064664	17	0.83	404	<1	0.10	27	0.10	<2
064665	14	0.64	339	<1	0.09	41	0.11	<2
064666	16	0.74	441	<1	0.10	43	0.11	<2
064667	16	1.05	358	<1	0.12	19	0.07	<2
064668	20	1.01	361	<1	0.09	15	0.07	<2
064669	11	0.74	328	<1	0.04	8	0.08	<2
064670	6	0.42	220	<1	0.02	7	0.07	<2
064671	21	0.69	316	<1	0.05	7	0.08	2
*Rep 064652	<1	0.13	19	<1	0.03	3	0.03	2
*Std OREAS209	6	2.48	1450	<1	0.21	118	0.17	<2
*Blk BLANK	<1	<0.01	<2	<1	<0.01	<1	<0.01	<2

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Element Method Det.Lim. Units	@S GE_ICP14B 0.01 %	@Sb GE_ICP14B 5 ppm	@Sc GE_ICP14B 0.5 ppm	@Sn GE_ICP14B 10 ppm	@Sr GE_ICP14B 0.5 ppm	@Ti GE_ICP14B 0.01 %	@V GE_ICP14B 1 ppm	@W GE_ICP14B 10 ppm
064651	0.03	<5	0.7	<10	4.9	0.10	32	<10
064652	0.07	<5	<0.5	<10	48.5	<0.01	4	<10
064653	0.03	<5	1.7	<10	4.4	0.40	165	10
064654	0.14	<5	8.5	<10	20.1	0.26	125	20
064655	0.08	<5	4.9	<10	12.3	0.44	177	30
064656	0.03	<5	2.6	<10	18.5	0.40	177	20
064657	0.03	<5	1.5	<10	15.0	0.33	108	10
064658	0.11	<5	1.5	<10	12.6	0.08	35	<10
064659	0.02	<5	2.7	<10	57.9	0.17	62	<10
064660	0.04	<5	2.9	<10	79.6	0.20	76	10
064661	0.02	<5	2.1	<10	43.2	0.12	50	<10
064662	0.02	<5	2.0	<10	38.3	0.13	50	<10
064663	0.02	<5	2.7	<10	14.4	0.13	60	<10
064664	0.04	<5	3.3	<10	74.6	0.18	73	10
064665	0.07	<5	3.0	<10	76.4	0.15	52	10
064666	0.06	<5	3.7	<10	79.9	0.17	64	10
064667	0.03	<5	5.1	<10	45.5	0.19	98	20
064668	0.02	<5	5.2	<10	31.5	0.20	103	20
064669	0.02	<5	5.5	<10	11.1	0.20	133	20
064670	<0.01	<5	2.2	<10	4.0	0.17	126	10
064671	0.02	<5	4.7	<10	15.6	0.16	71	10
*Rep 064652	0.08	<5	<0.5	<10	50.5	<0.01	4	<10
*Std OREAS209	0.92	<5	3.3	<10	66.9	0.16	41	30
*Blk BLANK	<0.01	<5	<0.5	<10	<0.5	<0.01	<1	<10

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Final : VC183576 Order: [REDACTED] Gold Shipment / TEST: 21 ICP

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Report File No.: 0000032176

Element Method Det.Lim. Units	@Y	@Zn	@Zr
	GE_ICP14B	GE_ICP14B	GE_ICP14B
	0.5	1	0.5
	ppm	ppm	ppm
064651	0.8	4	0.6
064652	<0.5	18	<0.5
064653	1.7	5	1.4
064654	4.2	25	5.6
064655	1.0	29	1.4
064656	1.0	22	1.5
064657	1.0	21	0.8
064658	3.3	11	0.7
064659	5.9	33	1.9
064660	6.3	52	2.9
064661	6.2	47	1.7
064662	7.5	54	1.7
064663	6.4	40	1.2
064664	8.3	50	1.7
064665	10.3	47	3.2
064666	10.4	48	2.4
064667	9.5	42	2.0
064668	9.3	44	1.8
064669	7.9	46	1.3
064670	6.2	27	0.8
064671	8.5	43	1.1
*Rep 064652	0.6	19	<0.5
*Std OREAS209	12.5	73	27.2
*Blk BLANK	<0.5	<1	<0.5

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**Certificate of Analysis**  
**Work Order : VC183576A**  
**[Report File No.: 0000032648]**

Date: November 14, 2018

To: **Ben Richards**  
 [REDACTED]  
 #301-38 FELL AVE  
 NORTH VANCOUVER BC V7P 3S2

P.O. No.: **Surespa Gold Shipmnt** / TEST: 21 ICP  
 Project No.: **SURESPAN GOLD**  
 Samples: 21  
 Received: Oct 30, 2018  
 Pages: Page 1 to 2  
 (Inclusive of Cover Sheet)

**Methods Summary**

<u>No. Of Samples</u>	<u>Method Code</u>	<u>Description</u>
21	GE_FAA313	@Au, FAS, AAS, 30g-5ml(Final Mode)

**Storage: Pulp & Reject**

REJECT STORAGE : PAID STORE AFTER 30 DAYS  
 PULP STORAGE : PAID STORE AFTER 90 DAYS

Certified By :

Gerald Chik  
 Operations Manager/Chief Chemist

*SGS Minerals Services Geochemistry Vancouver conforms to the requirements of ISO/IEC 17025 for specific tests as listed on their scope of accreditation which can be found at <http://www.scc.ca/en/search/palcan/sgs>*

Report Footer: L.N.R. = Listed not received I.S. = Insufficient Sample  
 n.a. = Not applicable -- = No result  
 \*INF = Composition of this sample makes detection impossible by this method  
 M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion  
 Methods marked with an asterisk (e.g. \*NAA08V) were subcontracted  
 Elements marked with the @ symbol (e.g. @Cu) denote assays performed using accredited test methods

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Final : VC183576A Order: [REDACTED] Gold Shipment / TEST: 21 ICP  
Report File No.: 0000032648

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Element Method Det.Lim. Units	@Au GE_FAA313 5 ppb
064651	14
064652	<5
064653	72
064654	<5
064655	<5
064656	<5
064657	119
064658	18
064659	93
064660	19
064661	7
064662	947
064663	29
064664	18
064665	10
064666	<5
064667	41
064668	17
064669	<5
064670	9
064671	565
*Rep 064656	<5
*Std OREAS251	530
*Std BN_73948	1030
*Blk BLANK	<5

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