

**Ministry of Energy & Mines**  
Energy & Minerals Division  
Geological Survey Branch

**ASSESSMENT REPORT  
TITLE PAGE AND SUMMARY**

TITLE OF REPORT [type of survey(s)]	TOTAL COST
2017 Stream Sediment, Tree Bark and Soil Geochemical Survey	\$58,963.70

AUTHOR(S) W.R. Gilmour, PGeo, A. Koffyberg, PGeo SIGNATURE(S) *Original signed by Authors*

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S) n/a YEAR OF WORK 2017

STATEMENT OF WORK - CASH PAYMENT EVENT NUMBER(S)/DATE(S) \_\_\_\_\_

PROPERTY NAME Spanish Mountain Gold Placer Property

CLAIM NAME(S) (on which work was done) 514562, 837888, 837889, 837890, 837891

COMMODITIES SOUGHT Placer gold

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN n/a

MINING DIVISION Cariboo NTS 093A/11

LATITUDE 52 ° 35 ' \_\_\_\_\_ " LONGITUDE 121 ° 26 ' \_\_\_\_\_ " (at centre of work)

OWNER(S)

1) Spanish Mountain Gold Ltd 2) \_\_\_\_\_

MAILING ADDRESS

1120 - 1095 West Pender Street

Vancouver, BC, V6E 2M6

OPERATOR(S) [who paid for the work]

1) as above 2) \_\_\_\_\_

MAILING ADDRESS

as above

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):

finely disseminated gold within interbedded slaty to phyllitic argillite, dark grey to black siltstone, carbonaceous

mudstone, greywacke, tuff and minor conglomerate; stream sediment geochemistry - heavy mineral samples and

tree bark (spruce, pine) samples

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS \_\_\_\_\_

AR 26477, 33272, 36708

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
<b>GEOLOGICAL (scale, area)</b>			
Ground, mapping _____			
Photo interpretation _____			
<b>GEOPHYSICAL (line-kilometres)</b>			
Ground			
Magnetic _____			
Electromagnetic _____			
Induced Polarization _____			
Radiometric _____			
Seismic _____			
Other _____			
Airborne _____			
<b>GEOCHEMICAL</b>			
(number of samples analysed for ...)			
Soil _____	30	837890	5,124.70
Silt _____			
Rock _____			
Other _____	35 heavy mineral; 37 spruce/pine bark	514562,837888,837889,837890,837891	53,839.00
<b>DRILLING</b>			
(total metres; number of holes, size)			
Core _____			
Non-core _____			
<b>RELATED TECHNICAL</b>			
Sampling/assaying _____			
Petrographic _____			
Mineralographic _____			
Metallurgic _____			
<b>PROSPECTING (scale, area) _____</b>			
<b>PREPARATORY/PHYSICAL</b>			
Line/grid (kilometres) _____			
Topographic/Photogrammetric (scale, area) _____			
Legal surveys (scale, area) _____			
Road, local access (kilometres)/trail _____			
Trench (metres) _____			
Underground dev. (metres) _____			
Other _____			
<b>TOTAL COST</b>			<b>58,963.70</b>

ASSESSMENT REPORT

on the

2017 Stream Sediment Geochemical and Tree Bark Biogeochemical  
Surveys and Soil Geochemical Survey

on the

**SPANISH MOUNTAIN GOLD  
PLACER TITLES**

Cariboo Mining Division, BC  
BCGS 093A.053, 063

**For  
Owner/Operator**

**SPANISH MOUNTAIN GOLD LTD.**

1120 – 1095 West Pender Street  
Vancouver, British Columbia  
V6E 2M6

By

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**Exploration on Placer titles:** 514562, 837888, 837889, 837890, 837891

**Work filed on Placer titles:** 514562, 837888, 837889, 837890, 837891, 839884

NTS: 093A/11W  
BCGS MAP SHEETS: 93A.053, 063  
LATITUDE: 52° 35' N  
LONGITUDE: 121° 26' W  
AUTHORS: W.R. Gilmour, PGeo; A. Koffyberg, PGeo  
CONSULTANT: Discovery Consultants  
DATE: March 31, 2018

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## 1.0 SUMMARY

Discovery Consultants, at the request of Ms Judy Stoeterau, Vice-president, Geology, of Spanish Mountain Gold Ltd ("SMG"), designed and carried out a stream sediment sampling program over portions of placer titles owned by SMG on its Spanish Mountain Property. This program is a continuation of the program that was carried out in 2016. The survey was carried out in July and August 2017. An orientation biogeochemical (tree bark) survey and an orientation soil survey were also conducted.

SMG's Placer Property is located in the Cariboo region of central British Columbia, approximately 10 km southeast of Likely and 68 km northeast of Williams Lake. Access from Williams Lake is via a paved secondary road that leaves Highway 97 at 150 Mile House, approximately 16 km east-southeast of Williams Lake, and continues for 87 km to Likely. From Likely, access is to the east and southeast via the Spanish Lake Road and the Cedar Creek / Winkley Creek Road.

Physiographically, the area is situated within the Quesnel Highland, which is transitional between the gently undulating topography of the Cariboo Plateau to the west, and the steeper, sub-alpine to alpine terrain of the Cariboo Mountains to the east. The terrain is moderately mountainous with rounded ridge tops and U-shaped valleys. Elevations range from 916 m at Spanish Lake to 1,600 m along the northern edge of the Placer Property to 1,480 m along a ridge south of Spanish Lake.

The Placer Property consists of six MTO placer titles that form a contiguous block covering an area of approximately 1,964 ha. The titles lie on BCGS Map Sheets 093A.053 and 063. All titles are 100% owned by SMG.

The vast majority of the recent mineral exploration in the area has been for lode gold mineralization on mineral titles. A Preliminary Economic Assessment has been completed on the SMG deposit. Although there has been historical placer gold mining west of Likely and on Cedar Creek, there are few published records of placer gold mining in the area of the Placer Property. However, placer titles, including placer leases, existed previous to the SMG placer titles.

In the area, historic placer mining was centred on Cedar Creek, south of Likely, where in 1921 placer gold was discovered, a distance of 4 km from the SMG deposit. Total production from the Cedar Creek Camp in all years up to 1945 was 37,784 ounces. Spanish Creek had sporadic placer production, with a total production up to 1945 of 3,706 ounces; with most of the work appearing to have been at the mouth of the creek where it drains into the Cariboo River.

Locally, McKeown Mines has an active placer operation, within placer leases located to the northwest of the SMG deposit and adjacent to SMG's current Placer Property. This placer

deposit has had intermittent production since the 1920s. Gold at this mine is found in both poorly sorted and crudely stratified, compact, silty, coarse gravel, interpreted as debris-flow deposits; and in interbedded lenses of better sorted gravel, sand and silt, interpreted as intermittent fluvial deposits. The sedimentology of the gold-bearing sequence is suggestive of an alluvial fan depositional environment. It occurs to a depth of 27 metres and is overlain by poorly exposed diamicton, interpreted as till and glacially derived debris-flow deposits, suggesting that the placer deposits predate the last glaciation in the area.

The SGM deposit seems a reasonable source for these placer gold deposits. These deposits indicate that any significant placer gold deposits on the Placer Property are most likely in areas where pre-Pleistocene gravels have been preserved.

SMG's Placer Property has been well explored as mineral tenures, which underlie the placer tenures. Placer work was done in 1993, when it was reported that Renoble Holdings mined auriferous soil and colluvium (and till?) in the Madre Zone (now part of the SMG deposit). About 7,000 m<sup>3</sup>, estimated to grade 1.0 g/m<sup>3</sup> gold (or 0.6 g/t gold), was stockpiled. Renoble set up a pilot plant and processed about 150 to 200 t, producing 106 g of gold.

In 2000, Imperial Metals collected a small sample from the stockpile. After processing, an average grade of 0.43 g/t was calculated, with 81% of the gold values being in the -10 mesh fraction.

The Placer Property lies within the Quesnel Terrane of the Intermontane Belt, predominantly sedimentary and volcanic rocks of the middle to upper Triassic Nicola Group, representing an island arc and marginal basin assemblage. East of the Placer Property, the regional, southwesterly dipping Eureka Thrust marks the western extent of pre-Quesnel Terrane rocks. Recent work reassigns the Nicola Group rocks north of Spanish Lake to the middle to upper Triassic Slocan Group, with rocks to the south remaining as Nicola Group.

The SMG lode gold deposit is a bulk-tonnage, gold system of finely disseminated gold within interbedded slaty to phyllitic argillite, dark grey to black siltstone, carbonaceous mudstone, greywacke, tuff and minor conglomerate. The main host of the gold mineralization is black graphitic phyllitic argillite. Gold grain size is typically less than 30 µm, and is often associated with pyrite. As well, local high-grade, gold-bearing quartz veins occur within siltstones, greywackes and tuff.

A previous orientation stream sediment geochemical (heavy mineral) program was carried out on the Placer Property in October 2016. The survey comprised the sampling of 31 sites from which 16 heavy mineral samples, 29 sieved silt samples and 2 moss mat samples were collected. The focus on the 2017 program [this report] was to complete the heavy mineral sampling program, carry out an orientation soil sampling program, and perform a limited pine/spruce bark sampling survey to test the viability of the method as an exploration tool on

the Placer Property. In total, 35 stream sediment, 30 soil and 37 biogeochemical bark samples were collected.

From the 2016 results, the first two drainages east of the SMG deposit have the highest values in both heavy mineral and silt samples. In 2017, these drainages were sampled upslope and within 200 to 900 m east of the deposit, and have the highest values of the 2017 program, of 84.2, >64, 67.2, 40.3 and 39.9  $\mu\text{g Au}$ . This area is east of the delineated resource. However, the source of the gold may be an anomalous gold shell around the resource, or some undiscovered mineralization. It is not likely that the source of these anomalous values is placer gold as most of this steep, north facing slope comprises a thin organic soil on top of broken argillaceous sediments weathering from bedrock.

Lower gold values in creek sediments further to the east possibly indicate a somewhat elevated gold level in some of the local bedrock. However, further to the east gold continue to decline.

There are also anomalous gold drainages sourced from Slovan Group rocks to the north of Spanish Lake. This can indicate that both Nicola and Slovan Group sedimentary rocks are enriched in gold in this region.

In addition, heavy mineral samples collected on drainages that drain into Cedar Creek on the southwest side of Spanish Mountain are anomalous in gold. Underlying rocks also belong to the Nicola Group.

As well, sampling about 300 m northwest of the SMG deposit on southwesterly draining creeks returned five samples with  $>30 \mu\text{g Au}$ .

An orientation soil survey was completed near and on top of the ridge south-southeasterly of the SMG deposit as follow up of the gold-anomalous stream sediments downslope. Soil development was poor in this area. An anomalous gold area occurs near the top of the ridge sloping southwesterly and a second area occurs sloping to the northeast on the other side of the ridge.

Spruce bark sampling was successful in outlining a higher response in gold values down-ice versus up-ice of the SMG deposit. This technique appears to respond to the conditions of the substrate. However, although based on only three samples, it appears that pine has higher gold values than nearby spruce. This suggests that pine is better able to uptake gold than spruce and may better reveal gold geochemical haloes over a mineral occurrence. The scarcity of pine on the Placer Property is a limiting factor in considering the use of tree bark for future exploration.

It is recommended that the heavy mineral concentrates from the 2017 survey be further processed and picked for gold grains. These grains could be scanned to get an understanding of



the trace element composition of the grains and distance travelled, augmenting the previous gold grain analysis done in 2016.

Recent research has been conducted on Cariboo placer and lode deposits, comparing trace element contents of gold grains (Chapman et al, 2016 and 2017). Gold grains from the SMG Placer Property could be compared with gold grains from stream sediments and from local placer deposits to determine a likely source.

## **2.0 INTRODUCTION**

Discovery Consultants, at the request of Ms Judy Stoeterau, Vice-president, Geology, of Spanish Mountain Gold Ltd ("SMG"), designed and carried out a stream sediment sampling program over portions of placer titles (the "Placer Property") owned by SMG. This program was a continuation of a program that was carried out in 2016. An orientation biogeochemical (tree bark) survey and an orientation soil survey were also conducted, to aid in the understanding of the results of the stream sediment surveys as well as to determine the potential source of possible placer mineralization.

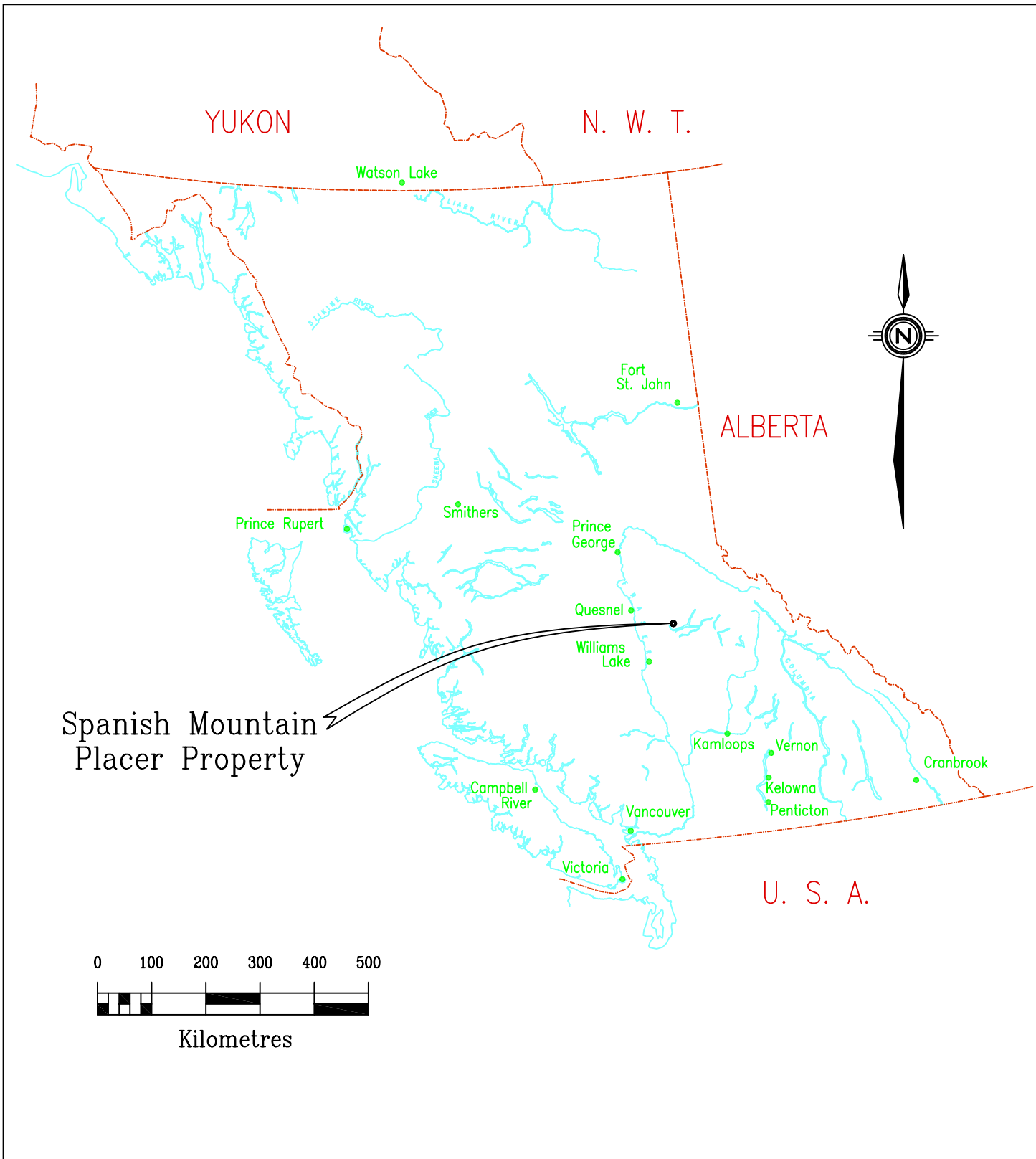
The Placer Property overlies portions of the mineral titles ("Property") held by SMG over its Spanish Mountain gold deposit. The surveys were carried out within the period July to September 2017, interrupted by a forest closure due to wildfires. This assessment report (the "Report") describes sampling procedures, analytical methods, analytical results, and conclusions, and makes recommendations for further exploration. Figures were prepared by Discovery Consultants.

No permitting was required for this exploration program.

## **3.0 LOCATION AND ACCESS**

The Placer Property is located in the Cariboo region of central British Columbia, approximately 10 km southeast of the village of Likely and 66 km northeast of the City of Williams Lake (Figure 3.1). The Placer Property covers an area of approximately 10 km north to south by 10 km east to west, situated west, south and north of the western portion of Spanish Lake, with the property centre at approximate latitude 52° 35' north and longitude 121° 26' west.

The Placer Property can be reached from the town of Williams Lake via a paved secondary road that leaves Highway 97 at 150 Mile House, approximately 16 km east-southeast of Williams Lake, and continues for 87 km to Likely (Figure 3.1). From Likely, the central and northern part of the Placer Property is accessed via the Spanish Lake Forest Service Road (FSR 1300), which begins east of Likely and continues through the centre of the Placer Property. The southern portion of the Placer Property is accessed from Likely along the Cedar Creek / Winkley Creek Forest Service Road (FSR 3900), for a distance of about 10 km. Numerous logging roads offer fair access to areas south of Spanish Lake. North of the lake access is poor.



Spanish Mountain  
Placer Property

**DISCOVERY** Consultants Spanish Mountain Gold Ltd.

Spanish Mountain Placer Property **Property Location**

Date: Mar.2, 2018 Project: 886 Scale: 1:10,000,000 N.T.S.: 093A Mining Div: Cariboo Figure: 3.1

#### **4.0 TOPOGRAPHY, VEGETATION & CLIMATE**

Physiographically, the area is situated within the Quesnel Highland, which is transitional between the gently undulating topography of the Cariboo Plateau to the west, and the steeper, sub-alpine to alpine terrain of the Cariboo Mountains to the east. The terrain is moderately mountainous with rounded ridge tops and U-shaped valleys. Within the Placer Property, elevations range from 910 m above sea level ("asl") at Spanish Lake to 1470 m asl near the summit of Spanish Mountain. Drainage is via Spanish Creek, which drains northwesterly into Cariboo Creek, and via Cedar Creek, which drains westerly into Quesnel Lake. Quesnel Lake flows into Quesnel River, and, joined by Cariboo Creek, flows westerly to eventually join the Fraser River near the town of Quesnel.

Overburden depths are quite variable, ranging from one to ten metres in most of the Main Zone, to over 50 m further west in the Phoenix area. During the last glacial period, the ice advanced in a northwesterly direction (Tipper, 1971; Eyles and Kocsis, 1988). Rock outcroppings are scarce and are typically found along the crest of ridges, in incised river and creek gullies, and along shorelines.

Vegetation in the area consists of hemlock, balsam, cedar, fir and cottonwood in valley bottoms, and spruce, fir and pine at higher elevations. Alder, willow and devil's club grow as part of the underbrush, which can be locally thick. Parts of the Placer Property have been logged at various times, resulting in areas having open hillsides with younger forest growth. In addition, large sections of the pine forest have been recently affected by mountain pine beetle infestation.

The climate of the Likely area is modified continental with cold snowy winters and warm summers. Likely has an annual average precipitation of approximately 70 cm. Snowfall on the Placer Property averages approximately 200 cm between the months of October and April. Most small drainages tend to dry up in the late summer.

#### **5.0 PROPERTY DESCRIPTION**

The Placer Property consists of six MTO placer titles that form a contiguous block covering an area of approximately 1,964 ha (Figure 5.1). The titles lie on BCGS Map Sheets 093A.053 and 063. All titles are 100% owned by SMG. Table 5.1 lists the title details.

**TABLE 5.1: Placer Title Descriptions**

Placer Title Number	Issue Date	Good To Date*	Area** (ha)
514562	2005/JUN/15	2020/JUL/01	176.77
837888	2010/NOV/09	2020/JUL/01	490.8558
837889	2010/NOV/09	2020/JUL/01	333.8681
837890	2010/NOV/09	2020/JUL/01	432.2604
837891	2010/NOV/09	2020/JUL/01	432.29
839884	2010/DEC/05	2020/JUL/01	98.2323
		Total hectares	1,964.28

\* Pending acceptance of this Report

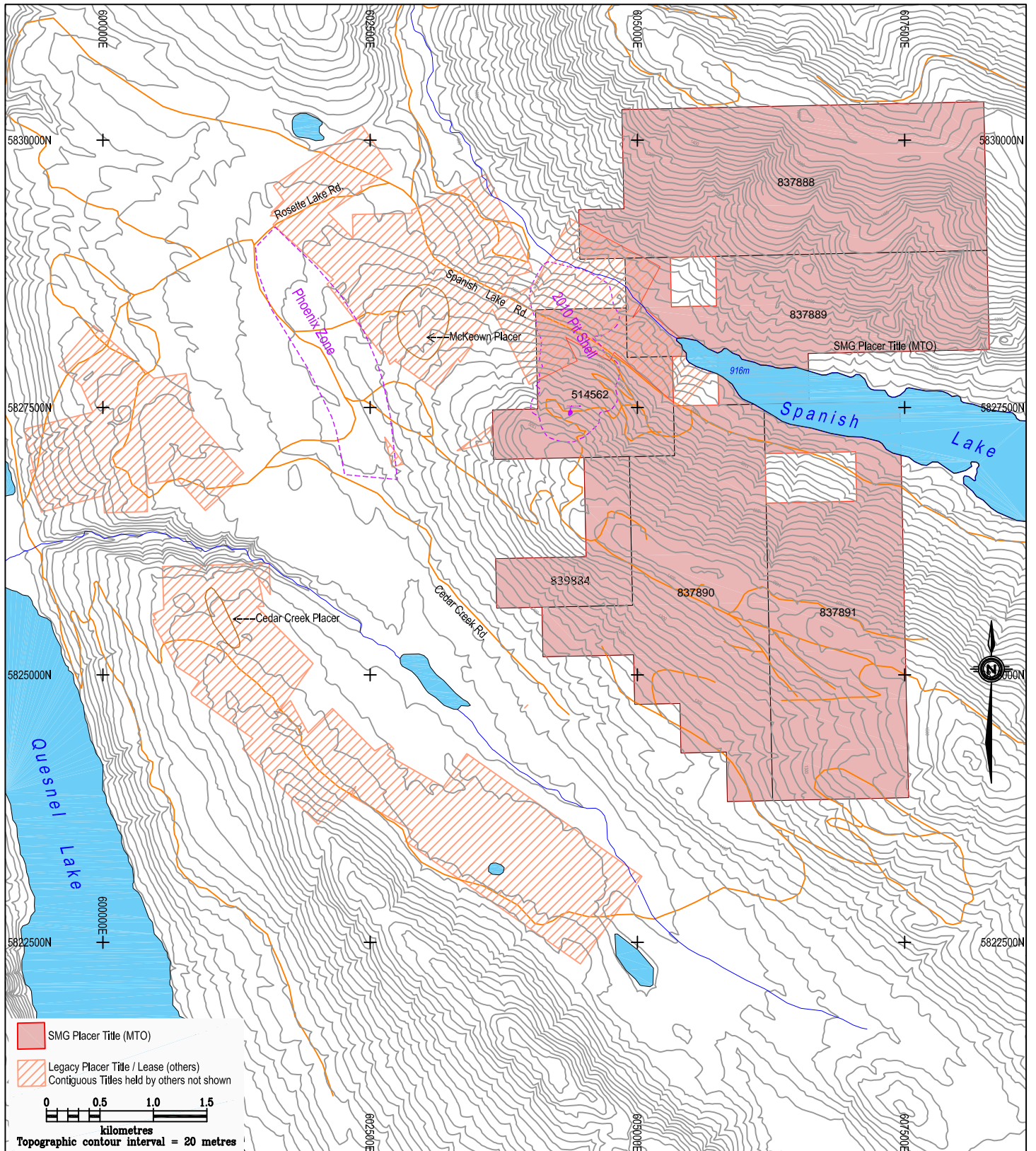
\*\* Note that in places some of the placer titles overlie pre-existing, third-party placer titles, totalling 91.5 ha, which reduces the effective area of the Placer Property to 1876.78 ha (Figure 5.1).

The placer titles overlie in whole or in part mineral titles held by SMG as follows:

**TABLE 5.2: Placer Titles overlying SMG Mineral Titles**

204021	204667	399415	512544
201224	205151	399417	512547
204225	373355	399419	512549
204227	399410	403303	517446
204274	399412	512541	521302
204334	399413	512542	822682

A multi-year Mines Act Permit for the mineral titles is held by SMG on the Property. However, no permits regarding the placer titles have been needed to date.



**DISCOVERY** Consultants

Spanish Mountain Gold Ltd.

Spanish Mountain Placer Property

**Placer Title Locations**



## 6.0 EXPLORATION HISTORY

The vast majority of the recent mineral exploration activity in the area has been for lode gold mineralization. A Preliminary Economic Assessment has been completed on the Spanish Mountain Gold deposit (Schulte et al., 2017). The 2010 proposed pit outline, based on a previous resource estimate, is shown on Figure 8.1.

Historic placer mining was centred on Cedar Creek (just to the west of Figure 5.1), south of Likely, where in 1921 placer gold was discovered by J. Lyne and A.E. Platt on a small flat draw about 800 m south of Cedar Creek. This placer discovery is a distance of 4 km from the SMG deposit. The placer gold at Cedar Creek was described in the BC Minister of Mines Annual Report of 1922 as follows:

At the discovery workings, a layer of 2 feet of black muck and organic matter overlies the surface; below this was a blueish-grey clayey gravel and broken bedrock from 2 to 8 feet thick. The gold occurred in the lower 2 feet of this zone. On the Platt ground, overlying glacial drift is 1 to 6 feet thick, barren of gold and from 2 to 4 feet of brownish gravel below which is gold-bearing. A characteristic of the pay-gravel is the presence of small cubic crystals of iron which occur in considerable quantity and consist of pseudomorphic crystal of limonite after pyrite. The gold was described as coarse and typically well worn. The author's opinion was that the rich gravels are of Tertiary age and probably in the place where it was formed. The pay gravels of the discovery draw and Platt draw represent various degrees of intermixing of the original Tertiary gravels with glacial clays and broken bedrock gravels.

Gold-bearing gravels were also found in the Sheridan lease to the south the following year. The gold-bearing gravels were in about 3 feet of gravel lying on bedrock and overlain by 12 to 15 feet of barren or low grade gravels. In 1926, a rich gold-bearing zone was found and in 9 months, 4,700 oz of gold was recovered, including one nugget weighing 17 oz. At that location, the thickness of the overlying glacial material was not over 20 feet, and the coarse, nuggety gold occurred in the 2 to 3 feet immediately above bedrock (BC Ministry of Mines Annual Report of 1926).

Production in the Cedar Creek Camp was greatest from 1921 to 1925, with a recorded total of 20,749 ounces of gold. Total production from the creek in all years up to 1945 was 37,784 ounces (Holland, 1950), which is the fifth largest recorded placer gold production in the Cariboo. By comparison, the Keithley Creek gold placers in the Barkerville area have a recorded gold production of 35,395 ounces for the same time period. In general, the gold placer deposits of the Cedar Creek Camp were thought to be fairly locally derived (Johnston, 1922).

The Cedar Creek placer has been privately owned and operated since the 1920s, and although very little public information is available, the placer tenures currently owned by J.H and G.E.

Rasmussen have likely been worked until recently. A similar active placer operation exists to the north of Cedar Creek, called the Hampton Placer, which has been worked intermittently for the past 65 years (Dawson, 2006).

Spanish Creek had sporadic placer production, with a total production up to 1945 of 3,706 ounces (Holland, 1950); most of the work appears to have been at the mouth of the creek where it drains into the Cariboo River. Locally, McKeown Mines has an active placer operation, within placer leases located to the northwest of the SMG deposit and adjacent to SMG's current Placer Property. Levson and Giles (1993) classified this deposit as a Pre-Late Wisconsinan, large paleochannel type deposit. They write:

The deposit appears to fill the upper part of an elevated channel cut in bedrock. The channel is approximately 1 km long, 300 m wide and, as indicated by drilling results, at least 74 metres deep. The lower 50 metres is filled with clean pebble and boulder gravel.... The orientation of the channel is not well defined but appears to be oblique to the regional northwesterly strike of bedrock, topography and glacial ice-flow. This orientation could provide an ideal situation for minimal glacial erosion and may account for the preservation of the placer deposits in the paleochannel. Currently mined deposits, filling the upper part of the channel, are interpreted as alluvial fan sediments.

This area was first staked by J. Lyne in 1927 and production occurred from 1927 to 1938 by sluicing in Lyne, Oliver and Hurley gulches. Some tunneling was also undertaken. Mechanized mining began in 1981 and the owners have operated the mine every season since then [that is, to 1993].

Gold content is generally consistent throughout the mined sequence, averaging about 1 g/m<sup>3</sup>, not including gold finer than 100 mesh. In the lower gravel zone, gold concentrations are higher closer to the bedrock which is approximately 60 to 80 m below surface. The gold is both fine and coarse; nuggets up to 185 g (6 oz) have been recovered. They are often associated with quartz and tend to be rough surfaced and chunky; flattened or flaky gold is rare.

Gold at this mine is found in both poorly sorted and crudely stratified, compact, silty, coarse gravel, interpreted as debris-flow deposits; and in interbedded lenses of better sorted gravel, sand and silt, interpreted as intermittent fluvial deposits. The sedimentology of the gold-bearing sequence is suggestive of an alluvial fan depositional environment. It occurs to a depth of 27 m and is overlain by poorly exposed diamicton, interpreted as till and glacially derived debris-flow deposits, suggesting that the placer deposits predate the last glaciation in the area.

SMG's Placer Property has been well explored as mineral titles, which underlie the placer titles. Placer work was done in 1993, when it was reported by Renoble Holdings ("Renoble") "that at



that time, all drainages on Spanish Mountain were being worked by placer miners” (Robertson, 2001b). In 1993, Renoble mined auriferous soil and colluvium (and till?) in the Madre Zone (now part of the SMG deposit), an area overlying known auriferous veins on former placer claims 373356 and 373357 (now placer title 514562). The material was stockpiled about 200 m to the north and totalled about 7,000 m<sup>3</sup> (Figure 8.1). Renoble reported the grade to be 1.0 g/m<sup>3</sup>. In 2001, Imperial Metals, assuming a specific gravity of 1.72 and Renoble’s grade estimate, calculated a grade of 0.60 g/t gold.

Renoble set up a pilot plant just north of the stockpile. A 1.7 km long, 10 cm steel water line was installed from Spanish Lake, with a 250 m vertical lift, to a 5,000 m<sup>3</sup> reservoir, located about 200 m north of the plant. Water was then pumped 80 m higher to the processing area as needed. The plant comprised a grizzly; trammel; primary and secondary jigs; a Knelson concentrator and a washing plant.

Approximately 150 to 200 t of the stockpile was run through the plant, with 106 g of gold recovered. The process was reported to have had many inefficiencies and no further work was done.

In 2000, Imperial Metals collected a small sample from the stockpile to determine if a screening process would “concentrate the gold enough that it would warrant studying the possibility of including placer soil with the [Mount Polley] hard rock feed” (Robertson, 2001b).

Sampling comprised a shovelful, from about 50 cm depth, at six locations around the base of the stockpile. The sample was placed in 20-litre plastic buckets, sealed, and transported to the Mount Polley metallurgical lab. After processing, an average grade of 0.43 g/t was calculated; this is lower than the 0.60 g/t estimate by Renoble. The discrepancy is likely due to inhomogeneous gold distribution and small sample size. The gold values and corresponding grain sizes are shown in Table 3 (Robertson, 20001b).

**Table 6.1: Imperial Metals 2000 Sampling and Metallurgical Testing**

Screen Fractions microns	Screen Fractions Tyler Mesh	Sample Weight g	Gold Grade g/t	Gold Distribution %	Cumulative Gold Grade g/t
37500		523	0.09	1.6	0.43
25000		104	0.04	0.1	0.46
19000		158	0.01	0.1	0.47
12500		318	0.02	0.2	0.48
9500		231	0.03	0.2	0.51
4750	4 mesh	725	0.38	9.5	0.53
2360	8 mesh	837	0.07	2.0	0.55
1700	10 mesh	512	0.28	4.9	0.65
<1700	-10 mesh	3324	0.71	81.3	0.71

The 1993 and 2000 testing programs demonstrate that an anomalous concentration of gold is present in surficial sediments overlying the SMG deposit.

## **7.0 GEOLOGY**

### **7.1 Regional Geology**

The Placer Property lies within the Quesnel Terrane of the Intermontane Belt. The rocks of the Quesnel Terrane are predominantly sedimentary and volcanic rocks of the middle to upper Triassic Nicola Group, representing an island arc and marginal basin assemblage. East of the Placer Property, the regional, southwesterly dipping Eureka Thrust marks the western extent of pre-Quesnel Terrane rocks; notably the intensely deformed, variably metamorphosed Proterozoic and Paleozoic pericratonic rocks of the Barkerville Subterrane of the Omineca Terrane.

Schiarizza (2017) subdivided the Nicola Group rocks in the Spanish Mountain area into three assemblages, two of which occur on the Placer Property. Assemblage One, of Middle Triassic age, consists of siltstone and argillite with lesser pillowed basalt and volcanic sandstone. These rocks form a northwest trending belt that dips steeply to the southwest and is stratigraphically overlain by Late Triassic Nicola Group Assemblage Two, which comprises volcanic sandstone, conglomerate and siltstone.

In addition, Schiarizza (2016, 2017) reassigned the Nicola Group rocks north of Spanish Lake to the middle to upper Triassic Slokan Group, with rocks to the south remaining as Nicola Group (Figure 7.1). The stratigraphic/structural relationship between the Nicola and Slokan Group sedimentary rocks is uncertain. West of Spanish Lake the contact trends northwesterly and east of the lake trends southeasterly. The rock types within these two units are very similar, except that volcanoclastic sediments are restricted to the Nicola Group rocks.

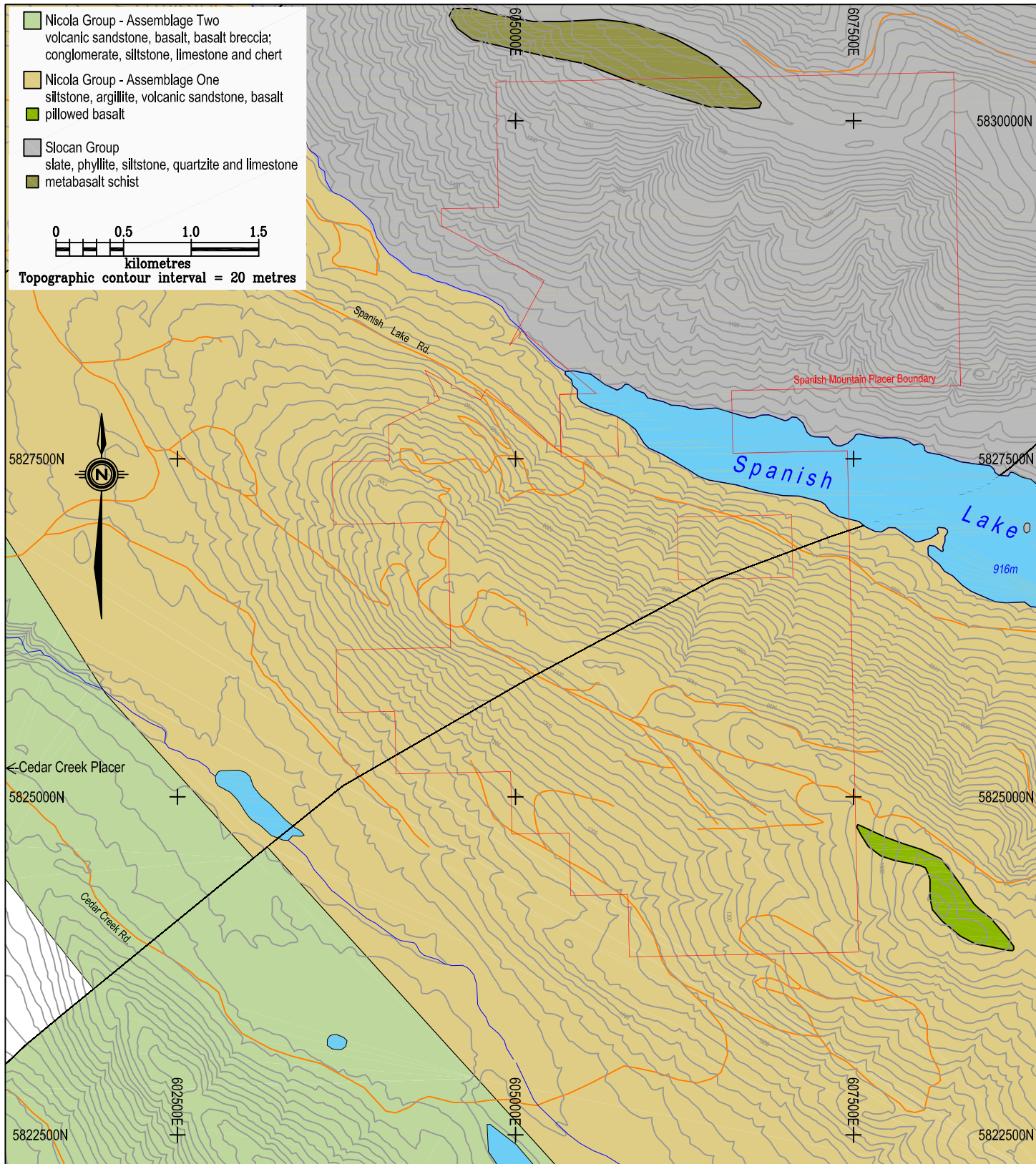
### **7.2 Property Geology**

This section is after Giroux and Koffyberg (2014). Although it mainly pertains to the SMG deposit area, it is believed that the geology is similar to that underlying much of the Placer Property.

The SMG deposit is within Nicola Group metasediments of the Quesnel Terrane. The deposit is a bulk-tonnage, gold system of finely disseminated gold within interbedded slaty to phyllitic argillite, dark grey to black siltstone, carbonaceous mudstone, greywacke, tuff and minor conglomerate. The main host of the gold mineralization is black, graphitic phyllitic argillite. As well, local high-grade, gold-bearing quartz veins occur within siltstones, greywackes and tuff. The largest zone carrying significant gold mineralization is called the Main Zone, which has been traced by drilling over a length of approximately 900 m north-south and a width of 800 m. The stratigraphy of the smaller North Zone is less well understood, but consists of argillites, siltstones and lesser mafic volcanic dykes and sills, covering an area of about 400 m north-

south, with similar width as the Main Zone (Figure 7.1).

The sedimentary units have been intruded by plagioclase-quartz-hornblende sills and dykes, which range in thickness from tens of centimetres to as much as 100 m. These intrusions have also been affected by phases of folding, alteration and quartz veining.



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Spanish Mountain Placer Property		<b>Property Geology</b>									
Date:	Mar.2, 2018	Project:	886	Scale:	1:40,000	N.T.S.:	93A/11	Mining Div:	Cariboo	Figure:	7.1

### 7.3 Mineralization

Although the following description (after Giroux and Koffyberg, 2014) relates to lode mineralization at the SMG deposit, it indicates the types of gold mineralization that may have been the source gold in local placer gold occurrences. Also, the historical information may be useful in interpreting the results of the 2016 and 2017 surveys.

Gold mineralization occurs as two main types:

1. Disseminated within the black, graphitic argillite. This is the most economically significant form. Gold grain size is typically less than 30  $\mu\text{m}$ , and is often, but not always, associated with pyrite. Disseminated gold has also been associated with quartz veins within fault zones in the argillite.
2. Within quartz veins in the siltstone/tuff/greywacke sequences. It occurs as free, fine to coarse (visible) gold and can also be associated with sulphides including galena, chalcopyrite and sphalerite. Highest grades have come from coarse gold within quartz veins.

Disseminated gold within the argillite units is by far the most potentially economically important type of mineralization, and has been traced for over 2 km, occurring in multiple stratigraphic horizons. From drill core, elevated gold content has been noted within fault zones as well as within quartz veins in fault zones. However, the influence of fault zones in relation to the gold content of the deposit is not certain.

Examination of 15 representative core samples of disseminated gold in thin section work by Ross (2006) has concluded the following:

Native gold (electrum) was identified in four samples, and it occurred as inclusions and fracture fill in pyrite, on crystal boundaries between pyrite crystals and in the gangue adjacent to pyrite. It is very fine grained, <20  $\mu\text{m}$ , and generally <5  $\mu\text{m}$ . It is associated with equally fine-grained chalcopyrite-galena-sphalerite, which occur in all the same habits. All of the mineralized samples occurred in variably carbonaceous mudstones/siltstones to fine-grained greywackes, with quartz-carbonate-pyrite veinlets and disseminations. There is no clear indication from this study that the gold is preferentially associated with any particular habit of pyrite (i.e., disseminated or veinlet, euhedral or subhedral). The deformation state (i.e., degree of cataclastic deformation) of the host rock does not appear to be significant, at least not on the thin section scale; however a larger scale relationship to position on fold limbs should not be ruled out.

Although a lesser component, quartz veins carrying free gold have yielded the highest grade individual samples on the Property. These veins tend to occur in the more competent facies such as siltstone and tuff/greywacke. The veins are discontinuous on surface and exhibit a strong nugget effect. Gold is often associated with base metals in these veins. In particular, sphalerite, galena and chalcopyrite are commonly associated with free gold. Economically, the

base metals are insignificant, but mineralogically they are a good indicator of gold mineralization. It is thought that gold and base metals may have been re-mobilized into these veins.

These veins typically crosscut all foliation fabrics and thus appear to have been emplaced late in the tectonic history. From work done by geological mapping and on oriented core data, it is known that the veins generally strike between 010° and 050°, and dip at various angles to the southeast and northwest.

Tertiary gravels in the Horsefly area have been mapped and dated as Miocene (Levson and Giles, 1993), although there are no firm dates on the Cedar Creek gold-bearing gravels. The BC Ministry of Mines report from 1922 makes a good case for the gold-bearing gravels at Cedar Creek being pre-glacial (pre-Pleistocene); the bedrock exhibits no glacial striations and gravels are reddish (due to small pseudomorphic crystals of limonite after pyrite) with much clay (“undoubtedly this clay represents a weathering of some of the gravel in-place and is therefore a good indication that the gravels are not of recent origin”).

The elevation of the Cedar Creek gold-bearing gravels is about 1,000 m. In the area of the Phoenix zone, glacial deposits are thick, with drill indicated bedrock at about 950 m elevation. The present surface elevation of the SMG deposit ranges from 950 to 1300 m elevation. The elevation of the McKeown placer is about 1000 m. If the source of the Cedar Creek placer was the SMG deposit and Phoenix mineralization, with a southerly Tertiary drainage, it appears that any Tertiary gravels in the Phoenix area may have been eroded.

The Cedar Creek and McKeown placers are both pre-glacial although it is not known how else they may be related.

## **8.0 2017 STREAM SEDIMENT GEOCHEMISTRY (HEAVY MINERAL) SURVEY**

### **8.1 Sampling Method and Approach**

A stream sediment geochemical survey was carried out on the Placer Property in the summer of 2017, and was a continuation of a program initiated in October 2016, in which 31 sites were sampled. From this 2016 work, 16 heavy mineral samples, 29 sieved silt samples and 2 moss mat samples were collected, and described in the assessment report by Gilmour (2017).

The focus on the 2017 program was to complete the heavy mineral sampling program on the Placer Property. Fieldwork was carried out from July 6 to 16, 2017; however, forest fires in the region forced a temporary halt to the program, and the crew was unable to return until the end of August. The program was completed from August 28 to September 2, 2017.

Sites for heavy mineral stream sediment sampling were initially laid out on a topographic map. The sample collection method and subsequent analysis were designed to best evaluate the gold potential. If a sand or gravel bar is present, a concentration of heavy minerals typically



normally occurs at the head of the bar. In contrast to the classic base metal silt sampling procedure, where very fine grained particles of silt or clay are collected from quiet water sedimentation, high energy environments within the sediments provide the best material for heavy mineral sampling.

Fieldwork was performed by a 2-person crew. The samples were collected by carefully shovelling stream sediments, sampled down through the sediment layers, into a -20 mesh stainless steel sieve (diameter 36 cm, depth 17 cm) that rested in a large aluminum pan containing water. Some liquid detergent was added to the wash water to prevent flotation of small metallic mineral grains. Using handles on the sieve, a rotary-type motion was used to sieve the sediments. The weight of field samples ranged from 7.8 to 12.8 kg (Appendix I). Sieves and pans were thoroughly cleaned after each sample.

Ground control of sample sites was carried out with the use of a hand-held Garmin 62 GPS. At each location field observations about the sample site, float and in situ geology, as well as flow rates, were recorded. Sites were flagged and marked with an aluminum tag attached to a permanent object. In total, 35 sieved stream sediment samples were collected. Samples were collected in plastic bags, placed in rice bags and shipped to C.F. Mineral Research Ltd ("CFM") in Kelowna, BC.

## **8.2 Sample Preparation, Analysis, QC/QA**

The sieved stream sediment samples were sent to CFM for the production of heavy mineral concentrates.

The following is a description of the lab procedure. Firstly, the samples were wet sieved by Tyler mesh screen sizes, producing; a -16+60 mesh (<1000 to >250 microns) fraction and a -60 mesh (<250 µm) fraction, and then dried. The difference in weight between the original -20 mesh field sample weight and the -16 mesh lab washed and screened sample weight is mainly due to the loss of clay minerals.

The -60 mesh fraction was then slowly fed into the middle of a column of tetrabromoethane (TBE), with a specific gravity (sg) of 2.96, producing -60L (light) and -60IH (intermediate and heavy) fractions. The -60IH fraction was further separated by methylene iodide (MI), with a specific gravity of 3.27, producing -60I and -60H fractions. In summary, less than 2.96 sg is light (L), between 2.96 and 3.27 sg is intermediate (I) and greater than 3.27 sg is heavy (H). Further sieving of the -60H fraction produced -60+150H mesh (<250 µm to >106 µm) and -150H mesh (<106 µm) fractions. The sample weights for the various fractions are given in Appendix I.

A Frantz electromagnetic separator was then used on the -150H fraction to generate distinct fractions based on variations in magnetic susceptibility: magnetic (M), paramagnetic (P) and non-magnetic (N) fractions (Appendix I). The magnetic fraction comprises magnetite; the

paramagnetic (strong paramagnetic susceptibilities) has abundant iron-bearing calc-silicate minerals; and the non-magnetic (weak to no magnetic susceptibilities) contains gold, sulphides such as pyrite, chalcopyrite and galena, and accessory minerals such as zircon.

As heavy mineral studies have shown (Fletcher and Day, 1989), the fine-grained fraction (-150 mesh) is much less likely to be affected by hydraulic (placering) processes than coarser grain fractions. Therefore the -150HN fraction was analysed. All of the material in each -150HN fraction, ranging from 0.7 g to 6.7 g, was analysed. However, one sample (886HM039) had a mass of 63 g. This sample was collected in an old beaver dam area and contained a lot of organic matter and blue grey clay.

The -150HN fractions were shipped from CFM to MS Analytical Services Ltd ("MS") in Langley, BC, where, the heavy mineral concentrates were digested by aqua regia ( $\text{HNO}_3\text{-HCl-H}_2\text{O}$ ). Analysis was by ultra-trace ICP-AES/MS methods (code IMS-136-30) for 37 elements (Appendix II, V). Sample HM039 was divided and three analyses were completed and weighted average of the results was calculated. For QC/QA, MS analysed two analytical blanks and two standards.

### 8.3 Results

The concentration values for gold, in parts per billion (ppb), were converted to the weight of gold, in micrograms (" $\mu\text{g}$ "), in the -150HN fraction, then standardized to a 10 kg, -20 mesh field sample. It is the amount of gold present within the heavy mineral concentrate, and not a concentration value, and is more significant.

Locations of the heavy mineral samples are shown on Figure 8.1, and the gold values are shown on Figure 8.2 and listed in Appendix II. Photos of samples 886HM027 and 028 show examples of typical creeks sampled.



**Photos 8.1 and 8.2:** Location of heavy mineral samples 886HM027 and 028, showing the size of the creeks and the equipment used.



Heavy mineral samples from the 2016 and 2017 programs (n=51) have been used for statistical analysis. Based on a probability plot and experience with other such surveys, the following is a summary of gold results.

**Table 8.1: Heavy Mineral Anomalous Gold Classification**

	<b>Au (<math>\mu\text{g}</math>)</b>	<b>Number of Samples</b>
Anomalous III	> 30	14
Anomalous II	12 to 30	18
Anomalous I	5 to 11	11
Background	< 5	8

The 2016 stream sediment program outlined several creeks east of the SMG deposit that had anomalous gold, (43.6, 43.2, 22.6, 19.1  $\mu\text{g Au}$ ). These creeks were sampled upslope in 2017 and continue to show highly anomalous gold values (84.2, 67.2, >64, 39.9, 32.8  $\mu\text{g Au}$ ) on several creeks.

Several creeks were sampled in the valley near Spanish Creek, close to the outflow of Spanish Lake. These samples were all highly anomalous in gold (33.5, 50.3, 73, 51.4, 50.3, 33.5  $\mu\text{g Au}$ ). The area has been mapped as a large scale fault by Schiarizza (2017) that marks the boundary between the Slocan Group rocks and the Nicola Group rocks.

As only two creeks across the lake on the north side were sampled in 2016 (3 samples), this area was more intensely sampled in 2017. Three drainages sampled carried anomalous gold, having high values between 20 and 26  $\mu\text{g Au}$  in all drainages. The area is underlain by rocks of the Slocan Group. The source of the anomalous samples is a different geological unit from that of the SMG deposit.

Small intermittent creeks of the Cedar Creek drainage were followed up in 2017. These creeks drain the southwest facing slope of Spanish Mountain and lie southeasterly of the Spanish Mountain deposit. Four drainages carried anomalous gold value of 24.9, 24.6, 22.9 and 21.2  $\mu\text{g Au}$ .

## **9.0 ORIENTATION SOIL GEOCHEMICAL SURVEY**

### **9.1 Sampling Method and Approach**

Concurrent with the heavy mineral sampling, a small orientation soil survey, comprising 30 soil samples, was carried out. The soil grid was located along the top ridge of Spanish Mountain, which lies southeast and upslope of the Spanish Mountain deposit. Its location was to help identify a possible source up ice of gold-anomalous heavy mineral samples. The grid consisted

of five lines spaced at 100-m intervals, orientated at 45° azimuth, which is perpendicular to the ice direction. Sampling was done at 25-m intervals, for a total of 30 soil samples.

The surficial material along the ridge is somewhat more amenable to soil geochemistry than the surficial sediments on the steep northerly facing slope down to Spanish Lake, which comprise a thin organic soil on top of broken argillaceous sedimentary rocks weathering from bedrock.

Samples were collected at 10 to 25 cm depth. The soils at the top of the ridge are typically shallow, having poorly developed A and B horizons, and consist mainly of broken shale/tuff (C horizon). Samples were collected using a shovel, and placed in kraft paper bags. Samples were placed in rice bags and shipped to MS for analysis.

### **9.2 Sample Preparation, Analysis, QC/QA**

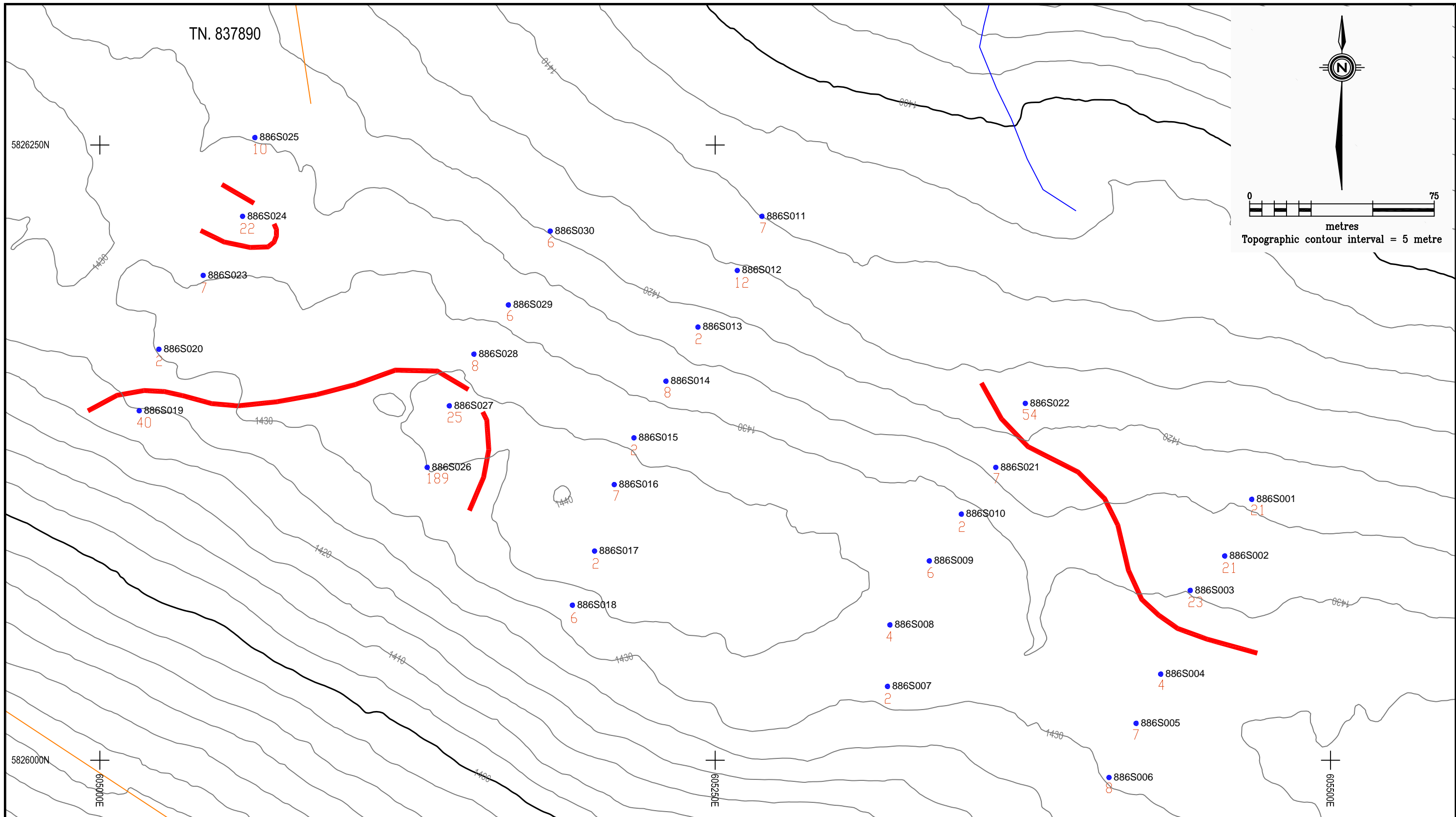
The soil samples were dried and sieved to -80 mesh (<180 µm); MS code PRP-757. A 30 g subsample was digested by aqua regia. Analysis was by ICP-AES/MS methods (code IMS-136-30) for 37 elements (Appendices III and V).

Because the level of exploration was reconnaissance in nature, no field standards, blanks or duplicates were added to the sample batches. The lab analysed one blank, one duplicate sample and one standard. No QC/QA problems were noted.

### **9.3 Results**

The orientation soil survey near and on top of the ridge was sampled as follow up of the gold-anomalous stream sediments down slope, as shown on Figure 8.1. Soil development was poor on the top of the ridge. Sample location and gold values are shown on Figure 9.1.

An anomalous gold area occurs near the top of the ridge sloping southwesterly, with three samples having 189, 40 and 25 ppb Au. A second area sloping to the northeast on the other side of the ridge has four values of 54, 23, 21 and 21 ppb Au. These are up-slope from several gold anomalous stream sediments, draining into Spanish Lake, east of the deposit.



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Spanish Mountain Gold Ltd.

Spanish Mountain Placer

Soil Sample Locations & Gold (ppb) Values

Date: Mar.2, 2018

Project: 886

Scale: 1:1500

N.T.S.: 093A/13

Mining Div: Cariboo

Figure: 9.1

## 10.0 ORIENTATION BIOGEOCHEMICAL (BARK) SURVEY

### 10.1 Sampling Method and Approach

Concurrent with the heavy mineral sampling, a pine/spruce bark sampling program, comprising 37 bark samples, was carried out.

Pine bark sampling has been carried out in till covered regions on BC's central interior by the BC Geological Survey (Dunn et al., 1996, 1997). Biogeochemical surveys that collect tree and shrub tissue can provide valuable information on the geochemistry of the substrate below, possibly helping to define areas of mineral exploration potential (Dunn, 1996). The rationale is that roots of trees extract elements, including metals, which are stored in the outer bark, twig ends and tree tops. However, it should be noted that the ability of plants to uptake or exclude metals varies by element, and so data interpretation needs to consider elements individually (Dunn, 1996). It was found that lodgepole pine, of at least 25 cm in diameter, is the optimum species to sample because of its widespread occurrence. The outer bark of the lodgepole pine is dead and thus not subject to seasonal variations, unlike twigs and leaves, and yields higher concentrations than the top stems, and so is recommended as the sampling medium (Dunn, 1997).

On the Placer Property, old growth forest, or at least mature stands of trees were targeted; and areas of logged and secondary growth trees were avoided if possible. However, in this area there were few pine trees, and those found were dead due to pine beetle infestation. As a result, spruce trees (Engelmann and white) were sampled, preferably of at least 25 cm in diameter. Approximately 100 g of bark sample were collected at each site into a kraft paper bag, to provide sufficient material to be ashed (about 2 g) for analysis. A paint scrapper was used to remove the outer bark scales, with the material caught using a dust pan modified to partially encircle the tree trunk. At each site, the tree species and diameter were recorded, as well as a description of the local forest.

Bark samples were placed in rice bags and shipped to MS for analysis.

### 10.2 Sample Preparation, Analysis, QC/QA

The bark samples were shipped directly to MS. The bark samples were ashed in a kiln at 470°C (prep code PRP-VG2), then a 0.5 g subsample was digested by aqua regia. Analysis was by the method used for vegetation samples: ultra-trace ICP-AES/MS method (code IMS-330) for 37 elements (Appendices IV and V). This is a "total" extraction of the ash sample.

Because the level of exploration was reconnaissance in nature, no field standards, blanks or duplicates were added to the sample batches. The lab analysed one blank, one duplicate sample and one standard in each batch. No QC/QA problems were noted.

### 10.3 Results

The biogeochemical survey was a simple orientation survey, designed to test the response in vegetation down-ice of the Spanish Mountain deposit, and compare it to vegetation up-ice. Samples were collected in two lines orientated perpendicular to the regional ice flow direction, which was to the northwest. In addition, one bark sample was collected from a spruce tree located within the deposit, above a known outcrop of gold-bearing quartz veins. In both lines, sites with pine trees were found, and a sample was collected from both the pine and nearby spruce. Table 10.1 compares the pine and spruce samples at the three sites where pine was found. Examples of spruce tree sampling are shown on Photos 10.1 and 10.2.

**Table 10.1: Gold Comparison of Spruce versus Pine Bark**

Bark Sample	Tree Type	Forest description	Au (ppb)
886B012	pine	medium size	4.2
886B013	spruce	medium size	0.6
886B025	spruce	old growth	1.7
886B026	pine	old growth	3.2
886B036	spruce	old growth	1.1
886B037	pine	standing dead	39.3



**Photos 10.1 and 10.2:** Sampling spruce bark. Sample 886B008 yielded 6.4 ppb Au; 886B009 yielded 2.5 ppb Au

The gold values in the bark samples ranged from negligible to a high of 39 ppb Au, sampled from a dead pine tree up-ice of the deposit. Although the sample size is small, consisting of 34 spruce and 3 pine tree bark samples; the following was noted:

- The bark spruce sample collected within the deposit has a high value of 34.9 ppb Au. This was collected above an outcrop of gold-bearing quartz veins in argillite. This value is significantly higher than the rest of the samples, except for one pine sample.
- Gold values are generally higher down-ice of the deposit versus those up-ice of the deposit.
- Pine bark samples have higher gold values than nearby spruce bark samples at the same sites. One pine bark sample has a value of 39.3 ppb Au, which is the highest value obtained in the orientation study.



## **11.0 DISCUSSION AND CONCLUSIONS**

From the 2016 results, the first two drainages east of the SMG deposit have the highest values in both heavy mineral and silt samples. In 2017, these drainages were sampled upslope and within 200 to 900 m east of the deposit, and have the highest values of the 2017 program, of 84.2, >64, 67.2, 40.3 and 39.9  $\mu\text{g Au}$ . This area is east of the delineated resource (Schultz, 2017). However, the source of the gold may be an anomalous gold shell around the resource, or some undiscovered mineralization. It is not likely that the source is placer gold as most of this steep, north facing slope comprises a thin organic soil on top of broken argillaceous sediments weathering from bedrock.

Lower gold values in creek sediments further east possibly indicate a somewhat elevated gold level in some of the local bedrock. This is in the area of and east of the strong magnetic low. Perhaps this magnetic low (fault zone?) has some property scale relationship to gold mineralization. There are also anomalous gold drainages sourced from Slocan Group rocks north of Spanish Lake. This can indicate that both Nicola and Slocan Group sedimentary rocks are enriched in gold in this region. In addition, heavy mineral samples collected on the southwest side of Spanish Mountain that drain into Cedar Creek are anomalous in gold. Underlying rocks also belong to the Nicola Group.

As well, sampling about 300 m northwest of the SMG deposit on southwesterly draining creeks return five samples with  $>30 \mu\text{g Au}$ .

The Cedar Creek placer deposit, mostly mined in the 1920s, contained significant gold. It is located about four km southwest of the centre of the SMG deposit. Reports describe the richer placers to be Tertiary in age. The SGM deposit seems a reasonable source. The McKeown placer west of the SMG deposit also appears to be pre-glacial in age. These deposits indicate that any significant placer gold deposits on the Placer Property are most likely in areas where pre-Pleistocene gravels have been preserved.

The orientation soil survey near and on top of the ridge was sampled as follow up of the gold-anomalous stream sediments downslope. Soil development was poor in this area. An anomalous gold area occurs near the top of the ridge sloping southwesterly and a second area occurs sloping to the northeast on the other side of the ridge.

Spruce bark sampling is successful in outlining a higher response in gold values down-ice versus up-ice of the deposit. This technique appears to respond to the conditions of the substrate. However, although based on only three samples, it appears that pine has higher gold values than nearby spruce. This suggests that pine is better able to uptake gold than spruce and may better reveal gold geochemical haloes over a mineral occurrence. The scarcity of pine on the Placer Property is a limiting factor in considering the use of tree bark for exploration.

## **12.0 RECOMMENDATIONS**

A review of past exploration in the area of the anomalous creeks east of the SMG deposit may shed light on the source of the gold in steam sediments.

The heavy mineral concentrates from the 2017 survey could be further processed and picked for gold grains. These grains could be scanned to get an understanding of the trace element composition of the grains and distance traveled, augmenting the previous gold grain analysis done in 2016.

Recent research has been conducted on Cariboo placer and lode deposits, comparing trace element contents of gold grains (Chapman et al, 2016 and 2017). Gold grains from the SMG could be compared with gold grains from stream sediments and from local placer deposits.

Hand trenching of the magnetic low area may shed light on the rock type causing this feature.

Respectfully submitted,



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A. Koffyberg, PGeo

**Discovery Consultants**

March 31, 2018



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- Tipper, H.W. (1971): Multiple Glaciation in Central British Columbia, *in* Canadian Journal of Earth Sciences, vol. 8, p. 743-752

## 14.0 STATEMENT OF COSTS

<b>1. Professional Services</b>					
W.R. Gilmour, PGeo					
Report Writing, Data Interpretation, Program Planning & Supervision					
60 hrs @	\$100 /hr		\$6,000.00		
T.H. Carpenter, PGeo					
Program Planning & Preparation					
24 hrs @	\$100 /hr		2,400.00		
A. Koffyberg, PGeo					
Report Writing					
31.5 hrs @	\$100 /hr		3,150.00		
R.A. Tilsley, PGeo					
Field Program (July 6-17, Aug 28-Sept 2, 2017)					
17.75 days @	\$750 /day		13,312.50		
			-----		\$24,862.50
<b>2. Personnel</b>					
Field					
D. Main (July 6-17, Aug 28-Sept 2, 2017)					
HM, Soil and Bark Sampling, MAG Survey					
17.50 days @	\$450 /day		\$7,875.00		
			-----		7,875.00
Office					
Drafting				2,280.00	
Data Compilation				690.00	
Secretarial				720.00	
Field Support				90.00	
			-----		3,780.00
			-----		11,655.00
<b>3. Expenses</b>					
Analysis - MS Analytical				2,444.67	
- CF Minerals Research				5,768.01	
Freight				260.48	
			-----		8,473.16
Equipment Rental				297.00	
Field Supplies				195.14	
Lodging & Meals				87.20	
Camp lodging and meals				4,080.00	
Office				86.82	
Map Prints				109.88	
Communication				15.00	
Transportation 4 x 4 truck					
	14.5 days@	\$45 /day	652.50		
	2897 km @	\$0.50 /km	1,448.50		
	fuel		486.54		
			-----		2,587.54
Discovery Management Fee				1,154.12	
			-----		17,085.86
			-----		
			<b>Exploration Expenditure:</b>		\$53,603.36
<b>4. SMG Corporate Management Fee (10%)</b>					
					5,360.34
			-----		
			<b>Total Expenditure:</b>		<b>\$58,963.70</b>

## 15.0 STATEMENTS OF QUALIFICATIONS

**I, William Gilmour, of Coldstream, British Columbia, do hereby certify that:**

- 1) I am a Geologist with Discovery Consultants, with a business address of 2916, 29<sup>th</sup> Street, Vernon, BC, V1T 5A6.
- 2) I graduated with a Bachelor of Science in Geology from the University of British Columbia in 1970.
- 3) I am a member of the Association of Professional Engineers and Geoscientists of British Columbia (membership #19743).
- 4) I have been practicing my profession since graduation from university. I have over 45 years of experience in mineral exploration for a variety of base and precious metals. My working experience includes grassroots and reconnaissance exploration, project evaluation, geological mapping, planning and execution of drill programs, and project reporting.
- 5) On the Spanish Mountain Gold Project, I have monitored the analytical results, including quality control and quality assurance analyses, for the 2012, 2013 and 2014 drill programs, and I have designed, monitored and interpreted the geochemical program on the placer titles that is the subject of this Report.
- 6) I authored a 2017 assessment report on the Placer Property (report 36708).
- 7) I am independent of Spanish Mountain Gold Ltd.

Dated this 31st day of March 2018



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William Gilmour, PGeo  
Discovery Consultants

**I, Agnes Koffyberg, an employee of Discovery Consultants of Vernon, British Columbia, do hereby certify that:**

- 1) I am a Geologist with Discovery Consultants, with a business address of 2916, 29<sup>th</sup> Street, Vernon, BC, V1T 5A6.
- 2) I am a graduate of Brock University of Ontario with a 1987 Bachelor of Science degree in combined Geological Sciences / Chemistry. In addition, I have obtained a M.Sc. degree in Geology at the University of Alberta in 1994.
- 3) I am a Professional Geoscientist with the Association of Professional Engineers and Geoscientists of British Columbia (membership #30384) and with the Association of Professional Engineers and Geoscientists of Alberta (membership #60148).
- 4) I have been practicing my profession for 20 years since graduation, with experience in mineral exploration in a variety of base and precious metals.
- 5) On the Spanish Mountain Gold Project, I have worked on the 2012, 2013 and 2014 drill programs, and have written several assessment reports on the Property.
- 6) I am independent of Spanish Mountain Gold Ltd.

Dated this 31st day of March, 2018

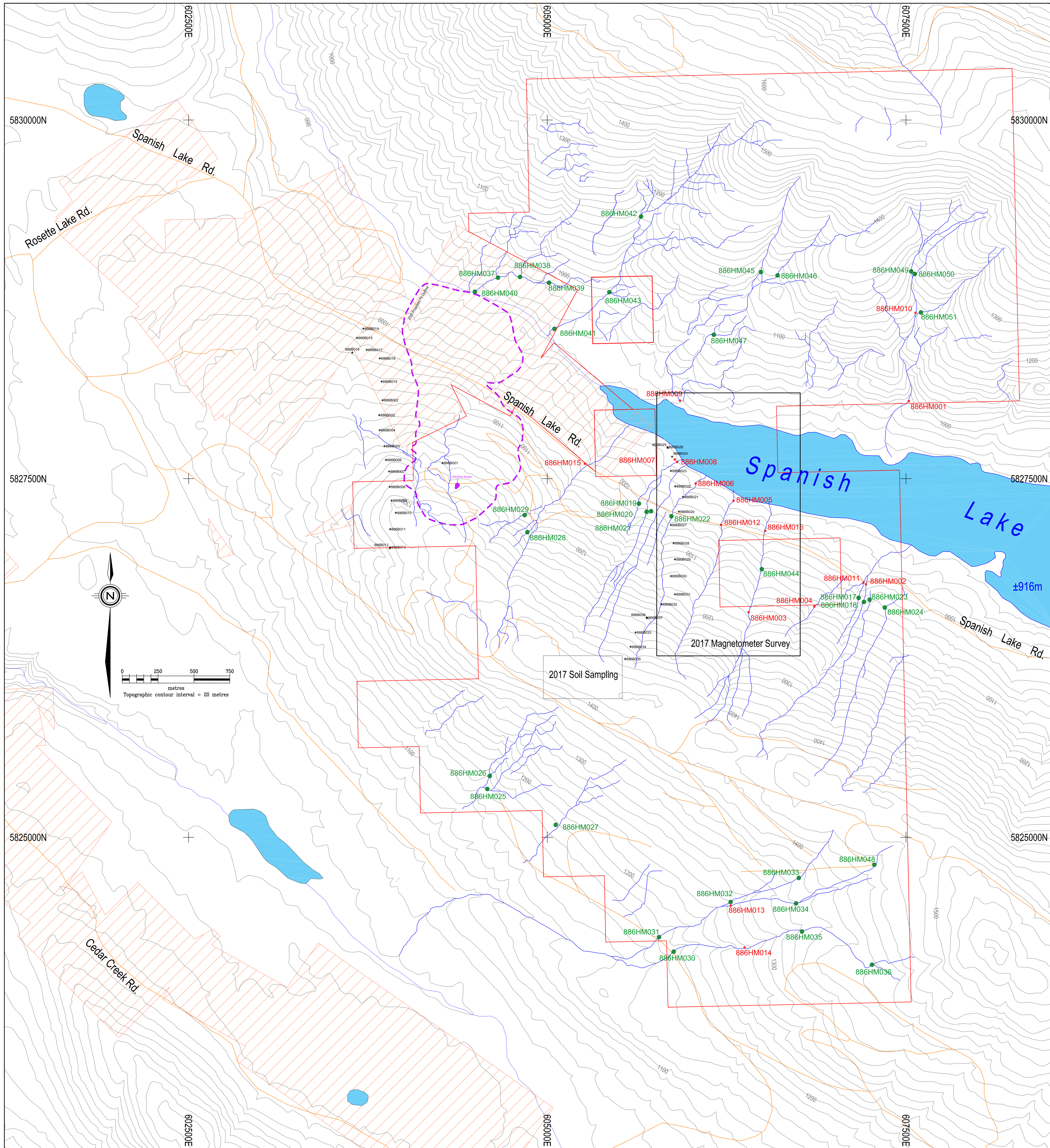


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Agnes Koffyberg, PGeo

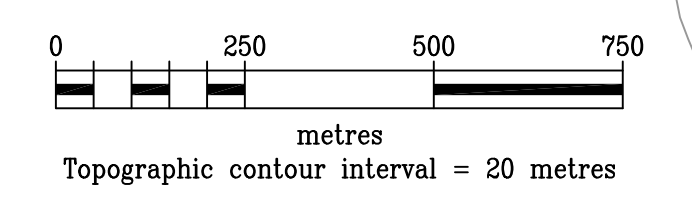
Discovery Consultants





- SMG Placer Title (MTO)
- Placer Title / Lease (others)

- 2016 Heavy mineral sample sites (16)
- 2017 Heavy mineral sample sites (35)
- + 2017 Bark sample sites (36)



2017 Magnetometer Survey

2017 Soil Sampling

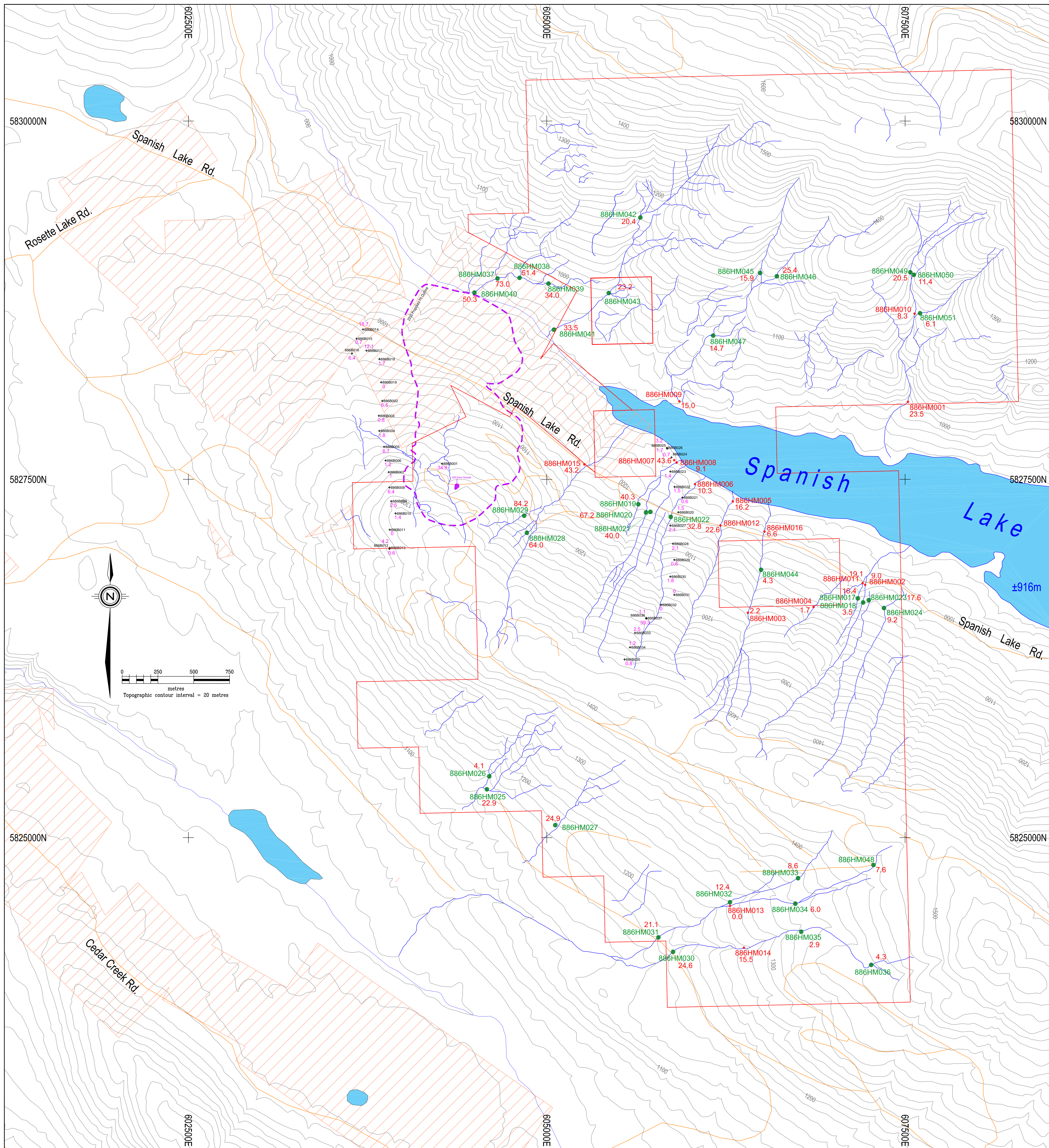
DISCOVERY Consultants

Spanish Mountain Gold Ltd.

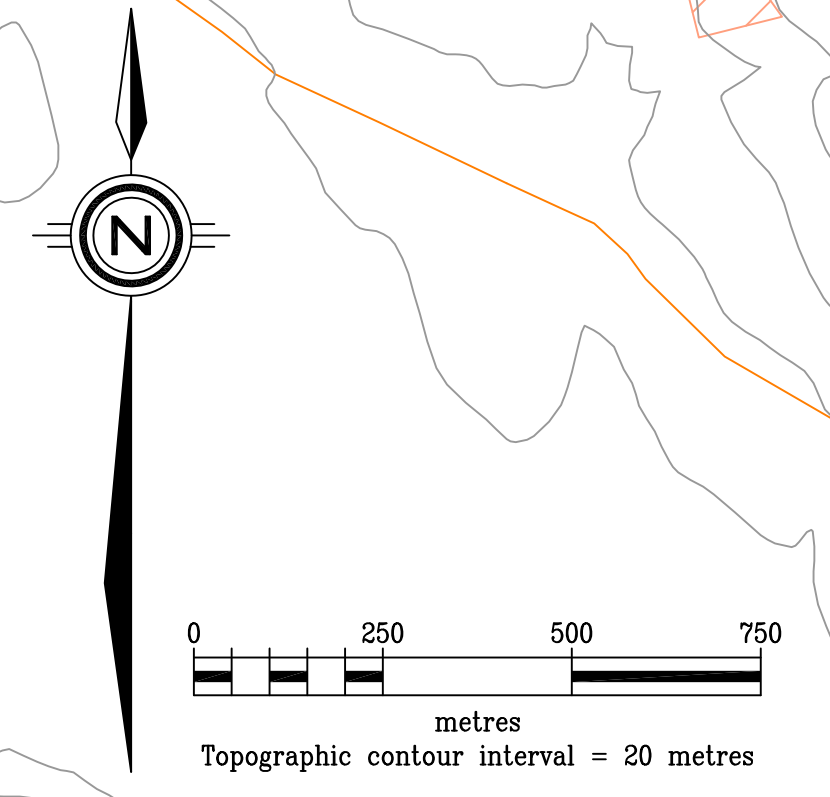
Placer Target  
2017 Geochemical Survey  
**Sample Locations**

Location: Spanish Lake	Mining Jurisdiction: Cariboo	
Datum: NAD83	Map Ref.: 093A/11	Scale: 1:10,000
Project: 886	Date: Mar.2, 2018	Drawn By: RM
		Figure: 8.1





- SMG Placer Title (MTO)
- Placer Title / Lease (others)
- 2016 Heavy mineral sample sites (16)  
Values shown in micrograms gold
- 2017 Heavy mineral sample sites (35)  
Values shown in micrograms gold
- + 2017 Bark sample sites (36)  
Values shown in parts per billion gold



<b>DISCOVERY</b> Consultants			
Spanish Mountain Gold Ltd.			
<b>Placer Target</b>			
Stream Sediment Geochemistry and Biogeochemistry			
<b>Gold Values</b>			
Location:	Spanish Lake	Mining Jurisdiction:	Cariboo
Datum:	NAD83	Map Ref.:	093A/11
Scale:	1:10,000	UTM:	10
Project:	886	Date:	Mar.2, 2018
Drawn By:	RM	Figure:	8.2



# **APPENDIX I**

**Heavy Mineral Samples**

**Fraction Weights**



**APPENDIX I**  
**HEAVY MINERAL SAMPLES - FRACTION WEIGHTS**  
Spanish Mountain Gold Placer Property

Sample ID	CFM Batch Number	CFM Number	CFM Report	-20 mesh Sample kg	-16+60 kg	-60 LIH kg	-60I g	-60+150H g	-150HM g	-150HP g	-150HN g
886HM017	17-8256	1	WTS8256	9.2	5.02	1.38	36.38	25.99	0.21	3.25	2.59
886HM018	17-8256	2	WTS8256	12.8	7.56	1.76	36.59	18.31	0.17	3.80	3.44
886HM019	17-8256	3	WTS8256	9.3	4.24	2.26	57.11	21.83	0.47	7.67	6.20
886HM020	17-8256	4	WTS8256	10.0	4.34	1.54	74.81	19.81	0.56	6.11	4.90
886HM021	17-8256	5	WTS8256	11.8	3.16	1.72	70.69	15.38	0.33	6.51	4.32
886HM022	17-8256	6	WTS8256	11.9	5.74	1.86	36.56	28.29	0.33	7.21	3.79
886HM023	17-8256	7	WTS8256	10.6	4.24	2.20	24.18	22.65	0.26	6.36	4.17
886HM024	17-8256	8	WTS8256	12.5	6.28	2.06	32.07	27.37	0.26	6.09	3.77
886HM025	17-8256	9	WTS8256	10.6	6.30	1.26	20.51	23.40	0.20	2.51	2.90
886HM026	17-8256	10	WTS8256	12.0	7.32	0.96	13.21	13.89	0.21	1.77	2.17
886HM027	17-8256	11	WTS8256	11.7	6.40	1.64	37.76	22.53	0.17	1.90	2.64
886HM028	17-8256	12	WTS8256	9.4	5.60	1.34	27.41	19.30	0.19	1.68	2.42
886HM029	17-8256	13	WTS8256	10.6	5.12	1.48	19.13	24.41	0.17	2.50	4.73
886HM030	17-8256	14	WTS8256	10.0	6.34	1.00	30.04	22.15	0.20	2.70	2.07
886HM031	17-8256	15	WTS8256	10.7	7.56	1.24	18.64	18.10	0.15	2.38	2.07
886HM032	17-8256	16	WTS8256	10.5	3.90	1.14	19.45	25.62	0.15	2.97	2.92
886HM033	17-8256	17	WTS8256	9.9	5.94	0.86	23.63	13.41	0.20	1.92	1.20
886HM034	17-8256	18	WTS8256	9.4	6.06	1.06	22.23	22.12	0.21	3.25	2.70
886HM035	17-8256	19	WTS8256	11.4	8.30	0.72	16.07	15.01	0.12	1.60	1.53
886HM036	17-8256	20	WTS8256	7.9	3.62	0.80	18.08	8.88	0.14	1.45	2.03
886HM037	17-8257	1	WTS8256	9.5	4.36	2.16	42.82	26.59	0.48	8.05	2.96
886HM038	17-8257	2	WTS8256	11.7	6.78	1.54	40.17	43.88	0.48	8.89	5.07
886HM039	17-8257	3	WTS8256	9.4	3.56	2.12	71.79	130.14	0.42	14.06	63.00
886HM040	17-8257	4	WTS8256	10.7	6.68	1.60	46.85	41.99	0.40	9.32	6.68
886HM041	17-8270	1	WTS8270	11.6	7.32	1.54	50.98	44.59	0.56	7.27	4.30
886HM042	17-8270	2	WTS8270	9.4	5.98	1.24	30.53	32.39	0.44	4.80	1.93

Sample ID	CFM Batch Number	CFM Number	CFM Report	-20 mesh Sample kg	-16+60 kg	-60 LIH kg	-60I g	-60+150H g	-150HM g	-150HP g	-150HN g
886HM043	17-8270	3	WTS8270	9.7	6.00	1.56	47.20	35.70	0.53	7.03	2.66
886HM044	17-8270	4	WTS8270	9.9	6.46	1.04	25.49	12.21	0.04	2.52	0.76
886HM045	17-8270	5	WTS8270	10.9	7.16	1.48	38.36	33.41	0.35	6.52	1.08
886HM046	17-8270	6	WTS8270	9.8	5.92	1.16	35.29	28.29	0.29	6.54	2.14
886HM047	17-8270	7	WTS8270	11.2	7.36	1.32	39.84	24.75	0.18	4.93	2.17
886HM048	17-8270	8	WTS8270	9.8	5.16	1.64	45.06	25.96	1.11	9.74	4.34
886HM049	17-8270	9	WTS8270	10.8	7.02	1.36	59.05	47.98	0.40	9.18	3.08
886HM050	17-8270	10	WTS8270	10.5	7.00	1.02	46.46	40.02	0.48	9.55	3.07
886HM051	17-8270	11	WTS8270	9.2	5.88	1.16	26.60	23.71	0.23	4.78	0.87

Discovery Consultants  
W.R. Gilmour, PGeo  
March 14, 2018

# **APPENDIX II**

**Heavy Mineral Samples**

**Analytical Results**

**APPENDIX II**  
**HEAVY MINERAL SAMPLES - ANALYTICAL RESULTS**  
Spanish Mountain Gold Placer Property

Sample ID	Datum	Zone	East m	North m	Elevation m	MS Analytical Report	Sample Type	Heavy Mineral Fraction	Weight -20 mesh kg	-150HN weight g
886HM017	NAD83	10	607170	5826669	1065	YVR1710812	Stream sediment	-150HN	9.18	2.59
886HM018	NAD83	10	607207	5826641	1066	YVR1710812	Stream sediment	-150HN	12.76	3.44
886HM019	NAD83	10	605639	5827326	1021	YVR1710812	Stream sediment	-150HN	9.26	6.20
886HM020	NAD83	10	605692	5827269	1019	YVR1710812	Stream sediment	-150HN	9.96	4.90
886HM021	NAD83	10	605723	5827273	1016	YVR1710812	Stream sediment	-150HN	11.78	4.32
886HM022	NAD83	10	605865	5827238	1007	YVR1710812	Stream sediment	-150HN	11.88	3.79
886HM023	NAD83	10	607246	5826657	1044	YVR1710812	Stream sediment	-150HN	10.64	4.17
886HM024	NAD83	10	607352	5826602	1057	YVR1710812	Stream sediment	-150HN	12.54	3.77
886HM025	NAD83	10	604582	5825337	1145	YVR1710812	Stream sediment	-150HN	10.62	2.90
886HM026	NAD83	10	604599	5825428	1188	YVR1710812	Stream sediment	-150HN	12.00	2.17
886HM027	NAD83	10	605059	5825087	1182	YVR1710812	Stream sediment	-150HN	11.70	2.64
886HM028	NAD83	10	604861	5827127	1231	YVR1710812	Stream sediment	-150HN	9.44	2.42
886HM029	NAD83	10	604842	5827246	1199	YVR1710812	Stream sediment	-150HN	10.56	4.73
886HM030	NAD83	10	605881	5824203	1165	YVR1710812	Stream sediment	-150HN	9.96	2.07
886HM031	NAD83	10	605779	5824304	1173	YVR1710812	Stream sediment	-150HN	10.68	2.07
886HM032	NAD83	10	606278	5824549	1267	YVR1710812	Stream sediment	-150HN	10.52	2.92
886HM033	NAD83	10	606753	5824717	1378	YVR1710812	Stream sediment	-150HN	9.92	1.20
886HM034	NAD83	10	606734	5824539	1349	YVR1710812	Stream sediment	-150HN	9.44	2.70
886HM035	NAD83	10	606775	5824343	1346	YVR1710812	Stream sediment	-150HN	11.44	1.53
886HM036	NAD83	10	607263	5824112	1405	YVR1710812	Stream sediment	-150HN	7.86	2.03
886HM037	NAD83	10	604656	5828901	941	YVR1710812	Stream sediment	-150HN	9.46	2.96
886HM038	NAD83	10	604810	5828906	957	YVR1710812	Stream sediment	-150HN	11.68	5.07
886HM039	NAD83	10	605012	5828866	964	YVR1710812	Stream sediment	-150HN	9.40	62.87
886HM040	NAD83	10	604495	5828803	916	YVR1710812	Stream sediment	-150HN	10.74	6.68
886HM041	NAD83	10	605050	5828544	926	YVR1710883	Stream sediment	-150HN	11.60	4.30
886HM042	NAD83	10	605653	5829327	1150	YVR1710883	Stream sediment	-150HN	9.42	1.93
886HM043	NAD83	10	605432	5828800	1016	YVR1710883	Stream sediment	-150HN	9.66	2.66

Method--> IMS-136-30

Sample ID	Analyte --> Units --> LOR -->	Au ppm 0.004	Au ppb 4	Au µg	Ag ppm 0.05	Al % 0.01	As ppm 0.2	B ppm 10	Ba ppm 10	Bi ppm 0.05	Ca % 0.01
886HM017		5.798	5,798	16.4	3.17	0.74	28.1	18	43	0.37	0.70
886HM018		1.322	1,322	3.6	0.79	0.84	41.1	12	57	0.17	0.66
886HM019		6.026	6,026	40.3	3.05	0.54	18.7	11	29	0.22	0.86
886HM020		13.661	13,661	67.2	4.59	0.60	22.6	<10	38	0.19	0.63
886HM021		10.891	10,891	39.9	4.55	0.58	39.9	11	39	0.26	0.78
886HM022		10.275	10,275	32.8	6.09	0.62	25.9	<10	34	0.66	1.42
886HM023		4.500	4,500	17.6	1.65	0.65	8.8	<10	33	0.21	0.61
886HM024		3.059	3,059	9.2	0.91	0.70	17.4	<10	32	0.26	0.47
886HM025		8.378	8,378	22.9	2.32	0.69	12.2	15	32	0.14	0.83
886HM026		2.246	2,246	4.1	1.21	0.52	66.1	32	62	0.30	0.75
886HM027		11.040	11,040	24.9	5.01	0.47	16.8	23	24	0.11	0.59
886HM028		>25	>25,000	>64.0	22.20	0.40	60.8	53	43	0.20	1.37
886HM029		18.789	18,789	84.2	8.41	0.19	85.6	<10	149	0.29	0.20
886HM030		11.847	11,847	24.6	5.40	0.57	30.2	24	36	0.31	0.66
886HM031		10.862	10,862	21.1	4.25	0.73	12.8	20	37	0.27	0.96
886HM032		4.465	4,465	12.4	1.95	0.73	18.1	26	38	0.14	0.97
886HM033		7.115	7,115	8.6	2.24	0.69	16.9	57	45	1.11	0.66
886HM034		2.088	2,088	6.0	1.10	0.74	9.5	14	45	0.31	1.05
886HM035		2.202	2,202	2.9	1.15	0.81	13.3	38	52	0.17	1.06
886HM036		1.646	1,646	4.3	0.52	0.70	9.3	31	45	0.14	0.70
886HM037		23.344	23,344	73.0	7.77	0.51	44.1	19	220	0.49	1.80
886HM038		11.851	11,851	51.4	3.74	0.52	23.0	<10	63	0.25	1.76
886HM039		0.538	538	36.0	0.23	0.47	4.6	<10	16	0.07	0.39
886HM040		8.083	8,083	50.3	2.84	0.48	53.6	11	66	0.59	1.96
886HM041		9.026	9,026	33.5	3.22	0.31	33.1	11	25	0.49	0.67
886HM042		9.95	9,950	20.4	3.38	0.32	15.2	<10	27	0.67	0.69
886HM043		8.421	8,421	23.2	3.30	0.33	31.4	31	30	1.23	0.71

Sample ID	Cd ppm 0.01	Co ppm 0.1	Cr ppm 1	Cu ppm 0.2	Fe % 0.01	Ga ppm 0.1	Hg ppm 0.01	K % 0.01	La ppm 0.5	Mg % 0.01	Mn ppm 5
886HM017	0.60	18.5	25	74.5	2.83	3.0	0.03	0.04	77.0	0.45	430
886HM018	0.57	22.4	23	87.9	3.48	3.2	0.02	0.04	44.2	0.52	446
886HM019	0.54	13.6	15	44.3	1.71	2.5	0.02	0.04	73.8	0.30	247
886HM020	0.55	10.7	14	52.3	2.14	3.1	0.04	0.03	105.6	0.28	436
886HM021	0.91	12.0	13	55.4	2.20	3.5	0.03	0.03	169.5	0.25	497
886HM022	0.52	18.5	23	52.5	2.32	2.7	0.06	0.05	67.1	0.38	335
886HM023	0.34	8.4	18	28.4	1.50	2.9	0.02	0.03	98.7	0.35	216
886HM024	0.74	12.5	23	45.0	2.01	3.5	0.01	0.03	128.9	0.41	271
886HM025	0.36	9.2	17	31.1	1.66	3.3	0.03	0.02	112.7	0.39	350
886HM026	1.16	25.0	14	102.4	5.82	2.4	0.04	0.04	83.6	0.22	560
886HM027	0.40	6.8	13	32.8	1.47	2.7	0.04	0.02	124.5	0.26	189
886HM028	0.43	22.0	12	52.9	3.25	2.6	0.08	0.03	153.5	0.17	385
886HM029	1.03	13.7	5	85.2	3.60	1.9	0.02	0.02	160.0	0.04	343
886HM030	0.53	11.0	23	70.8	2.43	2.4	0.15	0.03	58.0	0.35	291
886HM031	0.54	7.2	34	56.7	1.73	3.8	0.08	0.03	129.0	0.42	341
886HM032	0.57	8.7	23	49.9	1.91	3.2	0.06	0.03	74.5	0.41	339
886HM033	0.68	7.8	21	48.9	2.32	4.5	0.05	0.04	239.5	0.33	453
886HM034	0.51	6.9	18	41.8	1.57	3.8	0.10	0.03	118.5	0.33	373
886HM035	0.57	8.3	24	50.8	1.83	3.8	0.03	0.04	110.0	0.44	569
886HM036	0.85	5.6	16	37.9	1.63	4.6	0.03	0.02	216.4	0.32	505
886HM037	1.18	11.2	19	57.5	2.55	5.0	0.02	0.04	376.0	0.18	423
886HM038	0.78	15.1	21	37.5	2.59	2.9	0.02	0.04	126.1	0.22	197
886HM039	0.45	4.4	32	12.2	0.81	2.0	<0.01	0.02	26.4	0.20	84
886HM040	0.81	9.8	17	42.6	2.14	2.4	0.08	0.04	96.7	0.19	211
886HM041	1.19	21.7	14	58.0	3.54	1.7	0.02	0.02	94.3	0.15	236
886HM042	1.19	13.4	14	100.3	2.59	2.0	0.02	0.03	154.7	0.16	216
886HM043	1.26	21.8	14	52.3	3.53	1.8	0.02	0.02	107.6	0.15	279

Sample ID	Mo ppm 0.05	Na % 0.01	Ni ppm 0.1	P ppm 10	Pb ppm 0.2	S % 0.01	Sb ppm 0.05	Sc ppm 0.1	Se ppm 0.2	Sr ppm 0.5	Te ppm 0.05
886HM017	3.19	0.01	37.9	1785	11.1	0.69	1.05	3.4	1.8	51.1	0.09
886HM018	2.79	0.01	41.5	1619	9.6	1.28	0.94	3.8	2.9	52.8	0.10
886HM019	1.95	<0.01	33.1	2713	9.2	0.33	0.55	3.5	2.1	73.6	<0.05
886HM020	3.89	<0.01	27.8	1888	10.8	0.07	1.03	3.8	0.6	66.9	<0.05
886HM021	6.07	<0.01	35.3	2782	18.3	0.03	1.64	3.7	0.8	82.2	0.10
886HM022	2.17	<0.01	34.7	5155	69.2	0.78	0.74	4.0	4.3	88.3	<0.05
886HM023	1.65	<0.01	18.8	1534	6.1	0.08	0.53	3.0	0.2	50.2	<0.05
886HM024	3.97	<0.01	25.7	1323	8.9	0.14	0.95	3.2	0.6	39.2	0.08
886HM025	2.38	<0.01	19.0	1516	8.7	0.09	1.48	3.3	0.3	36.6	<0.05
886HM026	13.90	0.01	64.2	2229	24.0	1.08	12.44	5.0	3.2	45.7	0.22
886HM027	2.34	<0.01	18.2	1362	8.5	0.30	1.81	2.4	0.7	35.0	<0.05
886HM028	3.79	0.02	44.0	5565	16.0	1.11	1.19	2.8	3.8	90.7	0.08
886HM029	17.64	<0.01	65.1	961	26.2	0.58	5.79	1.9	2.6	34.6	0.21
886HM030	2.73	0.01	26.2	1327	8.3	1.14	3.33	2.7	2.6	26.0	0.11
886HM031	2.96	<0.01	28.0	2250	9.0	0.08	1.55	3.6	0.4	47.4	0.09
886HM032	3.00	<0.01	24.3	2320	8.9	0.36	2.07	3.5	1.0	45.8	<0.05
886HM033	5.64	0.02	32.0	1312	13.3	0.03	2.50	3.7	0.7	48.4	<0.05
886HM034	3.06	<0.01	22.1	2855	8.6	0.02	1.95	3.9	0.3	62.9	<0.05
886HM035	3.85	0.01	26.4	2335	9.5	0.09	1.44	4.5	0.6	48.9	<0.05
886HM036	4.76	0.01	20.3	1060	9.2	0.07	1.45	4.0	0.4	49.6	<0.05
886HM037	9.57	0.01	47.8	7476	20.6	0.34	1.46	3.9	3.6	217.1	0.23
886HM038	5.09	<0.01	38.8	6988	16.1	0.49	0.60	3.7	3.4	144.5	<0.05
886HM039	1.20	<0.01	15.7	204	7.5	0.03	0.19	2.9	0.5	75.0	<0.05
886HM040	5.74	0.01	31.1	7616	14.0	0.88	0.50	3.0	2.6	148.1	<0.05
886HM041	11.55	<0.01	54.9	2837	33.2	0.46	1.14	2.3	6.7	61.8	0.09
886HM042	8.67	<0.01	45.2	2949	28.0	0.15	0.84	2.3	3.0	56.3	0.07
886HM043	10.27	0.01	54.8	2983	44.1	0.56	1.05	2.5	6.7	65.2	0.18



Sample ID	Th ppm 0.2	Ti % 0.005	Tl ppm 0.05	U ppm 0.05	V ppm 1	W ppm 0.05	Zn ppm 2
886HM017	19.1	0.195	<0.05	4.52	33	1.95	80
886HM018	12.7	0.209	<0.05	1.80	40	0.79	91
886HM019	30.1	0.151	<0.05	1.47	23	2.24	59
886HM020	28.7	0.127	<0.05	1.93	27	0.90	75
886HM021	46.7	0.146	<0.05	2.85	26	1.30	99
886HM022	27.1	0.165	<0.05	3.47	27	3.31	55
886HM023	23.9	0.198	<0.05	2.82	29	1.41	61
886HM024	30.9	0.140	<0.05	5.18	30	0.45	68
886HM025	19.9	0.349	<0.05	1.68	39	0.85	55
886HM026	19.5	0.133	0.10	2.38	33	2.20	245
886HM027	21.6	0.240	<0.05	2.12	28	1.68	49
886HM028	43.8	0.101	<0.05	2.14	20	1.68	86
886HM029	44.9	0.005	0.06	3.84	12	1.14	168
886HM030	17.1	0.257	0.06	2.13	31	2.93	66
886HM031	23.9	0.360	<0.05	1.91	43	0.59	83
886HM032	15.9	0.291	<0.05	4.60	39	1.40	86
886HM033	42.2	0.338	<0.05	3.76	41	0.69	106
886HM034	24.3	0.242	<0.05	2.60	36	1.61	70
886HM035	21.0	0.431	0.07	2.40	49	1.31	76
886HM036	19.4	0.383	0.13	4.98	45	0.27	110
886HM037	143.7	0.088	0.05	5.82	22	8.84	137
886HM038	56.2	0.072	<0.05	3.29	22	20.40	90
886HM039	13.7	0.095	<0.05	0.89	19	0.22	25
886HM040	47.5	0.066	0.12	3.78	19	8.07	72
886HM041	53.3	0.028	<0.05	2.74	15	13.02	143
886HM042	92.4	0.034	<0.05	4.18	16	9.82	127
886HM043	53.6	0.037	<0.05	3.27	16	15.79	137

Sample ID	Datum	Zone	East m	North m	Elevation m	MS Analytical Report	Sample Type	Heavy Mineral Fraction	Weight -20 mesh kg	-150HN weight g
886HM044	NAD83	10	606495	5826869	1076	YVR1710883	Stream sediment	-150HN	9.92	0.76
886HM045	NAD83	10	606489	5828940	1167	YVR1710883	Stream sediment	-150HN	10.90	1.08
886HM046	NAD83	10	606605	5828917	1166	YVR1710883	Stream sediment	-150HN	9.84	2.14
886HM047	NAD83	10	606161	5828503	1054	YVR1710883	Stream sediment	-150HN	11.24	2.17
886HM048	NAD83	10	607279	5824809	1436	YVR1710883	Stream sediment	-150HN	9.80	4.34
886HM049	NAD83	10	607536	5828945	1208	YVR1710883	Stream sediment	-150HN	10.78	3.08
886HM050	NAD83	10	607561	5828927	1209	YVR1710883	Stream sediment	-150HN	10.52	3.07
886HM051	NAD83	10	607604	5828659	1159	YVR1710883	Stream sediment	-150HN	9.22	0.87
Au µg: micrograms of gold in -150HN fraction, standardized to a 10 kg -20 mesh field sample										
<u>Laboratory Analytical Blanks</u>										
STD BLANK						YVR1710812				
STD BLANK						YVR1710883				
<u>Laboratory Standards</u>										
STD OREAS 601						YVR1710812				
STD OREAS 24b						YVR1710883				

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Sample ID	Analyte --> Units --> LOR -->	Au ppm 0.004	Au ppb 4	Au µg	Ag ppm 0.05	Al % 0.01	As ppm 0.2	B ppm 10	Ba ppm 10	Bi ppm 0.05	Ca % 0.01
886HM044		5.714	5,714	4.4	3.88	0.51	40.6	26	42	0.25	0.33
886HM045		16.063	16,063	15.9	7.25	0.27	13.0	13	32	1.04	0.42
886HM046		11.659	11,659	25.4	3.33	0.32	69.0	12	44	2.36	0.41
886HM047		7.638	7,638	14.7	2.70	0.36	31.2	<10	39	0.70	0.48
886HM048		1.706	1,706	7.6	0.68	0.38	13.1	<10	30	0.35	0.70
886HM049		7.171	7,171	20.5	2.85	0.35	14.1	<10	25	0.58	0.65
886HM050		3.913	3,913	11.4	1.45	0.34	15.1	27	15	0.32	0.45
886HM051		6.413	6,413	6.1	2.64	0.31	5.2	17	16	0.96	0.68
Au µg: micrograms of											
Laboratory Analytical B											
STD BLANK		<0.004	<4		<0.05	<0.01	<0.2	<10	<10	<0.05	<0.01
STD BLANK		<0.004	<4		<0.05	<0.01	<0.2	<10	<10	<0.05	<0.01
Laboratory Standards											
STD OREAS 601		0.766	766		50.21	0.87	285.6	<10	283	21.34	1.06
STD OREAS 24b		<0.004	<4		0.08	3.00	8.5	18	145	0.69	0.44

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Sample ID	Cd ppm 0.01	Co ppm 0.1	Cr ppm 1	Cu ppm 0.2	Fe % 0.01	Ga ppm 0.1	Hg ppm 0.01	K % 0.01	La ppm 0.5	Mg % 0.01	Mn ppm 5
886HM044	0.81	22.8	18	78.8	2.85	2.1	0.03	0.02	62.1	0.32	763
886HM045	0.89	6.4	10	28.7	1.59	2.2	0.05	0.02	211.9	0.12	160
886HM046	2.68	29.6	17	104.1	6.51	1.9	0.04	0.02	87.1	0.13	483
886HM047	1.46	16.1	14	57.0	3.37	1.8	0.05	0.02	78.4	0.17	247
886HM048	0.53	8.3	9	52.0	1.58	1.7	0.07	0.02	48.6	0.19	361
886HM049	1.08	14.3	16	41.3	2.64	1.8	0.03	0.02	92.1	0.18	224
886HM050	1.39	14.2	21	41.2	2.94	1.9	0.01	0.01	91.1	0.20	189
886HM051	1.12	9.5	13	34.0	1.49	2.0	0.03	0.02	162.5	0.15	120
Au µg: micrograms of											
Labratory Analytical B											
STD BLANK	<0.01	<0.1	<1	<0.2	<0.01	<0.1	<0.01	<0.01	<0.5	<0.01	<5
STD BLANK	<0.01	<0.1	<1	<0.2	<0.01	<0.1	<0.01	<0.01	<0.5	<0.01	<5
Labratory Standards											
STD OREAS 601	7.30	4.6	42	995.0	2.19	4.8	0.28	0.27	21.1	0.20	433
STD OREAS 24b	0.05	15.5	103	35.8	3.75	11.2	<0.01	1.14	30.0	1.30	340

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Sample ID	Mo ppm 0.05	Na % 0.01	Ni ppm 0.1	P ppm 10	Pb ppm 0.2	S % 0.01	Sb ppm 0.05	Sc ppm 0.1	Se ppm 0.2	Sr ppm 0.5	Te ppm 0.05
886HM044	5.46	0.01	58.1	1191	13.1	0.37	2.05	2.7	3.8	30.1	0.08
886HM045	6.28	<0.01	25.8	1883	24.7	0.02	0.55	1.4	1.8	38.8	0.06
886HM046	29.97	0.01	100.6	1944	33.7	0.13	2.43	3.0	17.2	49.9	0.87
886HM047	13.37	<0.01	50.5	2044	23.1	0.26	1.05	2.1	9.7	43.9	0.17
886HM048	3.73	<0.01	26.7	2726	7.4	0.02	1.67	1.9	0.7	35.3	0.12
886HM049	7.51	<0.01	39.5	2625	27.7	0.13	0.67	2.2	3.9	54.4	0.08
886HM050	8.61	<0.01	43.5	1601	16.2	0.03	0.78	2.2	4.4	49.4	0.17
886HM051	5.52	<0.01	25.4	2912	15.4	0.21	0.34	1.7	2.6	58.6	<0.05
Au µg: micrograms of											
Labratory Analytical B											
STD BLANK	<0.05	<0.01	<0.1	<10	<0.2	<0.01	<0.05	<0.1	<0.2	<0.5	<0.05
STD BLANK	<0.05	<0.01	<0.1	<10	<0.2	<0.01	<0.05	<0.1	<0.2	<0.5	<0.05
Labratory Standards											
STD OREAS 601	3.55	0.08	22.8	346	277.0	1.02	21.84	1.7	12.4	34.6	13.98
STD OREAS 24b	3.78	0.11	58.3	601	9.0	0.19	0.54	9.6	<0.2	27.5	<0.05

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Sample ID	Th ppm 0.2	Ti % 0.005	Tl ppm 0.05	U ppm 0.05	V ppm 1	W ppm 0.05	Zn ppm 2
886HM044	18.0	0.065	<0.05	1.00	30	0.35	104
886HM045	65.7	0.022	<0.05	2.46	13	9.24	78
886HM046	35.4	0.020	<0.05	2.85	21	5.58	330
886HM047	31.0	0.023	<0.05	2.59	16	4.81	164
886HM048	15.3	0.040	<0.05	2.03	18	0.60	65
886HM049	33.5	0.030	<0.05	2.07	16	6.88	110
886HM050	30.0	0.035	<0.05	1.96	19	4.95	121
886HM051	51.1	0.032	<0.05	2.15	13	8.40	74
Au µg: micrograms of							
Labratory Analytical B							
STD BLANK	<0.2	<0.005	<0.05	<0.05	<1	<0.05	<2
STD BLANK	<0.2	<0.005	<0.05	<0.05	<1	<0.05	<2
Labratory Standards							
STD OREAS 601	6.6	0.009	0.68	1.80	10	1.12	1247
STD OREAS 24b	14.6	0.180	0.66	1.66	81	1.10	93

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November 20, 2017

# **APPENDIX III**

**Soil Samples**

**Analytical Results**



**APPENDIX III**  
**SOIL SAMPLES - ANALYTICAL RESULTS**  
Spanish Mountain Gold Placer Property

Sample ID	Datum	Zone	East m	North m	Elevation m	Soil Horizon	Sample Depth cm	Soil Colour	Description	MS Analytical Lab Report	Sample Weight kg	Method--> Analyte --> Units --> LOR -->
886S001	NAD83	10	605468	5826106	1425	BC	15			YVR1710848	0.48	
886S002	NAD83	10	605457	5826083	1432	C	12	lbrn	cut block	YVR1710848	0.49	
886S003	NAD83	10	605443	5826069	1433	C	20	lbrn	cut block	YVR1710848	0.48	
886S004	NAD83	10	605431	5826035	1436	C	10	lbrn	rocky	YVR1710848	0.45	
886S005	NAD83	10	605421	5826015	1436	C	12	lbrn	no soil dev.	YVR1710848	0.44	
886S006	NAD83	10	605410	5825993	1437	C	35	lbrn	no soil dev.	YVR1710848	0.32	
886S007	NAD83	10	605320	5826030	1443	C	20	lbrn	no soil dev.	YVR1710848	0.37	
886S008	NAD83	10	605321	5826055	1445	C	15	lbrn		YVR1710848	0.39	
886S009	NAD83	10	605337	5826081	1443	C	8	lbrn		YVR1710848	0.34	
886S010	NAD83	10	605350	5826100	1440	C	10	lbrn		YVR1710848	0.46	
886S011	NAD83	10	605269	5826221	1415	B	15	blk	loam	YVR1710848	0.22	
886S012	NAD83	10	605259	5826199	1421	C	15	yellow brn	cut block	YVR1710848	0.36	
886S013	NAD83	10	605243	5826176	1427	C	15	yellow brn	cut block	YVR1710848	0.28	
886S014	NAD83	10	605230	5826154	1430	C	15	yellow brn	cut block	YVR1710848	0.31	
886S015	NAD83	10	605217	5826131	1435	C	15	rocky	cut block	YVR1710848	0.39	
886S016	NAD83	10	605209	5826112	1442	BC	15	yellow brn	cut block-rocky	YVR1710848	0.39	
886S017	NAD83	10	605201	5826085	1443	C	15	yellow brn	cut block-summit	YVR1710848	0.38	
886S018	NAD83	10	605192	5826063	1438	C	15	yellow brn	forest	YVR1710848	0.34	
886S019	NAD83	10	605016	5826142	1431	TF	10	yellow brn		YVR1710848	0.27	
886S020	NAD83	10	605024	5826167	1434	TF	10	grey		YVR1710848	0.41	
886S021	NAD83	10	605364	5826119	1432	C	12	lbrn		YVR1710848	0.30	
886S022	NAD83	10	605376	5826145	1427	C	12	mbrn		YVR1710848	0.37	
886S023	NAD83	10	605042	5826197	1435	C	20	yellow brn		YVR1710848	0.32	
886S024	NAD83	10	605058	5826221	1437	C	20	yellow brn		YVR1710848	0.45	
886S025	NAD83	10	605063	5826253	1431	B	20	soil		YVR1710848	0.52	
886S026	NAD83	10	605133	5826119	1441	C	25	lbrn		YVR1710848	0.46	
886S027	NAD83	10	605142	5826144	1442	C	10	ltan	poor soil dev.	YVR1710848	0.65	
886S028	NAD83	10	605152	5826165	1437	C	25	ltan	poor soil dev.	YVR1710848	0.49	
886S029	NAD83	10	605166	5826185	1433	C	12	ltan	poor soil dev.	YVR1710848	0.48	
886S030	NAD83	10	605183	5826215	1424	C	10	lbrn	poor soil dev.	YVR1710848	0.48	

Sample ID	IMS-136-30														
	Au ppm 0.004	Au ppb 4	Ag ppm 0.05	Al % 0.01	As ppm 0.2	B ppm 10	Ba ppm 10	Bi ppm 0.05	Ca % 0.01	Cd ppm 0.01	Co ppm 0.1	Cr ppm 1	Cu ppm 0.2	Fe % 0.01	Ga ppm 0.1
886S001	0.021	21	1.98	1.44	43.4	15	133	0.18	0.66	1.43	16.7	17	53.5	3.42	4.3
886S002	0.021	21	0.74	0.50	35.8	15	156	0.17	0.13	0.24	6.1	9	38.8	2.95	3.6
886S003	0.023	23	0.81	0.82	53.4	<10	188	0.16	0.22	0.44	8.3	12	35.6	3.30	4.0
886S004	0.004	4	1.11	0.40	17.0	<10	46	0.17	0.04	0.06	2.9	9	22.7	1.24	3.3
886S005	0.007	7	0.36	0.52	8.6	11	34	0.10	0.06	0.05	2.9	12	10.1	1.29	4.8
886S006	0.008	8	0.40	0.98	26.5	15	162	0.13	0.16	0.35	13.7	26	33.7	3.27	5.1
886S007	<0.004	<4	0.27	0.86	33.6	11	134	0.09	0.09	0.15	13.2	26	30.3	2.54	4.4
886S008	0.004	4	0.16	0.68	24.5	11	38	0.11	0.05	0.12	8.1	15	22.7	2.17	4.3
886S009	0.006	6	0.34	2.31	53.5	13	102	0.10	0.08	0.16	15.6	63	49.8	4.26	7.0
886S010	<0.004	<4	0.44	0.65	23.0	13	58	0.19	0.02	0.10	3.7	7	29.3	1.64	3.4
886S011	0.007	7	1.39	1.61	33.9	<10	276	0.17	0.77	1.35	15.1	33	71.3	3.23	3.8
886S012	0.012	12	0.33	1.64	48.7	14	127	0.16	0.06	0.33	9.3	22	45.0	3.51	4.9
886S013	<0.004	<4	0.27	1.46	40.1	14	188	0.19	0.06	0.18	8.6	23	26.1	3.53	6.2
886S014	0.008	8	0.40	1.44	40.6	10	104	0.16	0.03	0.17	9.4	27	42.1	3.43	6.0
886S015	<0.004	<4	2.00	0.88	42.3	<10	125	0.22	0.07	0.15	12.1	17	30.4	3.21	4.4
886S016	0.007	7	0.28	0.98	20.7	11	71	0.16	0.04	0.14	5.2	18	35.9	2.49	5.6
886S017	<0.004	<4	0.29	0.97	14.6	11	76	0.16	0.05	0.17	5.4	24	13.6	1.98	5.3
886S018	0.006	6	0.16	0.82	8.8	<10	62	0.14	0.06	0.20	3.8	20	10.6	1.62	5.1
886S019	0.040	40	0.27	1.65	40.8	<10	103	0.22	0.13	0.19	14.9	31	33.0	3.62	6.2
886S020	<0.004	<4	0.22	0.61	12.1	<10	64	0.14	0.06	0.07	1.9	6	6.7	1.22	3.6
886S021	0.007	7	1.43	1.23	53.8	<10	145	0.44	0.05	0.27	9.1	9	79.3	2.34	3.0
886S022	0.054	54	0.53	1.27	61.4	<10	171	0.17	0.26	0.48	12.4	23	46.8	3.92	5.0
886S023	0.007	7	0.43	0.90	21.7	11	56	0.17	0.09	0.26	5.2	16	22.0	2.80	4.6
886S024	0.022	22	0.47	1.12	28.0	13	70	0.16	0.05	0.36	7.0	20	39.7	3.01	4.8
886S025	0.010	10	0.49	1.19	38.9	14	113	0.15	0.07	0.28	8.9	23	52.6	3.62	4.4
886S026	0.189	189	1.74	0.82	73.7	13	159	0.12	0.23	0.66	9.1	15	31.8	2.51	3.4
886S027	0.025	25	1.23	0.78	16.1	<10	65	0.13	0.05	0.10	4.6	8	14.4	1.46	3.4
886S028	0.008	8	1.09	0.56	21.1	12	97	0.12	0.09	0.11	6.9	10	19.6	1.87	3.5
886S029	0.006	6	1.61	0.54	40.1	13	125	0.16	0.07	0.35	9.7	9	26.5	2.42	3.5
886S030	0.006	6	1.06	1.71	44.4	11	155	0.13	0.07	0.21	12.5	32	46.2	3.94	6.2

Sample ID	Hg ppm 0.01	K % 0.01	La ppm 0.5	Mg % 0.01	Mn ppm 5	Mo ppm 0.05	Na % 0.01	Ni ppm 0.1	P ppm 10	Pb ppm 0.2	S % 0.01	Sb ppm 0.05	Sc ppm 0.1
886S001	0.09	0.05	11.4	0.14	1719	5.16	0.02	47.3	977	11.6	0.05	1.33	2.0
886S002	0.02	0.05	12.8	0.08	480	5.25	0.02	22.6	768	7.7	<0.01	0.97	2.5
886S003	0.05	0.06	9.9	0.11	1098	4.04	0.02	37.5	785	10.3	0.02	0.99	2.1
886S004	0.04	0.03	10.2	0.05	287	1.00	0.01	8.8	301	5.3	0.01	0.30	1.1
886S005	0.02	0.03	10.3	0.12	162	1.44	<0.01	9.1	300	3.7	<0.01	0.40	1.9
886S006	0.06	0.04	9.7	0.24	1541	2.11	0.02	24.1	673	5.6	0.02	0.51	5.2
886S007	0.02	0.04	8.1	0.26	781	3.13	0.02	29.3	668	3.8	<0.01	1.23	3.0
886S008	0.02	0.04	11.7	0.13	275	3.04	<0.01	19.9	432	4.0	<0.01	0.89	3.0
886S009	0.05	0.07	8.5	1.41	611	4.18	0.02	79.1	1071	5.5	0.01	1.11	5.6
886S010	0.02	0.04	15.0	0.06	737	2.71	0.01	13.8	412	7.6	<0.01	0.60	1.5
886S011	0.10	0.09	11.5	0.48	2230	4.73	0.03	63.9	942	12.4	0.05	1.61	4.6
886S012	0.05	0.06	12.7	0.25	293	6.04	0.02	38.4	583	9.6	0.02	1.76	3.3
886S013	0.05	0.04	11.1	0.23	485	4.32	0.02	33.1	566	9.6	0.01	1.07	3.8
886S014	0.04	0.04	12.2	0.33	366	5.67	0.02	32.4	887	10.1	<0.01	1.35	4.2
886S015	0.06	0.06	11.9	0.19	864	1.76	0.02	21.8	794	12.8	0.01	0.58	2.8
886S016	0.02	0.05	13.8	0.26	345	3.97	0.01	22.9	582	8.1	<0.01	1.05	2.3
886S017	0.03	0.04	15.5	0.23	548	3.11	0.01	16.6	418	9.4	<0.01	0.75	2.3
886S018	0.03	0.05	14.7	0.21	382	2.00	0.01	13.6	511	6.9	<0.01	0.55	1.9
886S019	0.04	0.06	13.8	0.53	1189	1.53	0.02	51.8	660	13.2	<0.01	0.59	3.3
886S020	0.02	0.05	19.0	0.05	251	0.77	0.01	5.2	212	4.3	<0.01	0.19	1.2
886S021	0.06	0.04	11.4	0.11	517	1.30	0.02	26.0	1062	11.3	0.01	0.40	1.8
886S022	0.04	0.08	12.7	0.28	752	5.02	0.02	44.2	807	9.6	0.01	1.35	3.4
886S023	0.04	0.05	13.8	0.15	306	3.50	0.01	17.5	1055	9.7	0.01	0.90	2.1
886S024	0.04	0.05	14.6	0.32	346	5.57	0.01	28.8	951	7.3	<0.01	1.40	2.5
886S025	0.03	0.05	13.2	0.37	527	4.86	0.02	39.2	837	8.4	<0.01	0.97	3.7
886S026	0.03	0.19	10.7	0.16	1879	2.24	0.03	46.2	1163	13.7	<0.01	0.81	2.3
886S027	0.15	0.05	16.7	0.11	470	1.45	0.01	10.0	441	5.3	<0.01	0.45	1.5
886S028	0.12	0.05	12.0	0.08	1118	1.90	0.01	14.0	431	5.0	0.01	0.49	1.4
886S029	0.10	0.05	15.6	0.06	3016	2.30	0.02	21.8	556	8.6	0.02	0.66	2.1
886S030	0.10	0.06	12.0	0.49	551	4.15	0.02	41.4	816	6.5	0.01	1.16	5.9

Sample ID	Se ppm 0.2	Sr ppm 0.5	Te ppm 0.05	Th ppm 0.2	Ti % 0.005	Tl ppm 0.05	U ppm 0.05	V ppm 1	W ppm 0.05	Zn ppm 2
886S001	1.5	37.7	0.2	0.2	0.006	0.13	2.00	34	0.14	122
886S002	0.8	9.8	<0.05	1.1	0.013	0.08	0.36	31	0.15	97
886S003	0.6	16.8	0.06	0.4	0.006	0.10	0.56	33	0.16	106
886S004	<0.2	3.6	0.13	0.5	0.014	0.06	0.14	23	0.12	36
886S005	<0.2	4.5	0.06	1.0	0.016	0.06	0.13	30	0.13	31
886S006	0.3	11.9	<0.05	0.9	0.021	0.08	0.26	48	0.16	76
886S007	<0.2	7.1	<0.05	0.5	0.008	0.07	0.19	49	0.26	61
886S008	0.4	4.7	<0.05	1.4	0.011	0.06	0.19	37	0.25	62
886S009	0.9	6.2	0.13	1.9	<0.005	0.08	0.27	53	0.15	123
886S010	0.5	2.9	0.19	1.1	0.006	0.08	0.18	24	0.16	54
886S011	1.7	64.9	0.05	1.0	0.008	0.12	0.70	35	0.11	169
886S012	1.4	8.9	0.06	2.1	0.007	0.12	0.59	44	0.19	148
886S013	0.7	8.7	0.13	1.2	0.008	0.10	0.30	58	0.24	120
886S014	0.8	5.0	0.07	2.2	0.007	0.13	0.35	60	0.19	90
886S015	0.3	7.7	0.13	1.2	0.009	0.09	0.20	41	0.52	90
886S016	0.8	5.5	0.13	1.8	0.014	0.08	0.32	39	0.17	84
886S017	0.4	5.4	0.2	2.6	0.021	0.11	0.24	41	0.13	78
886S018	0.3	5.1	0.13	2.3	0.024	0.09	0.21	35	0.14	73
886S019	0.3	10.4	<0.05	1.9	0.019	0.10	0.24	37	0.19	98
886S020	<0.2	5.5	<0.05	3.2	0.018	0.07	0.11	18	0.12	28
886S021	0.5	5.6	0.17	2.5	<0.005	0.06	0.25	13	0.16	122
886S022	1.1	19.8	0.33	1.3	0.012	0.11	0.59	42	0.15	154
886S023	0.5	6.2	0.06	1.9	0.013	0.08	0.23	38	0.13	93
886S024	1.0	6.6	0.19	3.1	0.018	0.11	0.43	36	0.12	118
886S025	1.2	7.0	0.06	3.1	0.009	0.08	0.44	36	0.14	120
886S026	0.4	15.4	<0.05	1.7	0.011	0.12	0.24	30	0.19	137
886S027	0.2	4.4	0.14	2.5	0.008	0.14	0.18	18	0.14	62
886S028	0.3	6.4	<0.05	0.3	0.009	0.10	0.17	26	0.12	56
886S029	0.4	5.5	<0.05	0.6	0.010	0.13	0.19	28	0.15	61
886S030	0.9	7.2	<0.05	2.0	0.007	0.12	0.34	58	0.23	123

Sample ID	Datum	Zone	East m	North m	Elevation m	Soil Horizon	Sample Depth cm	Soil Colour	Description	MS Analytical Lab Report	Sample Weight kg	Method--> Analyte --> Units --> LOR -->
<b>QA/QC</b>												
886S023												
DUP 886S023												
STD BLANK												
STD OREAS 601												

Discovery Consultants  
W.R. Gilmour, PGeo  
March 14, 2018

Sample ID	IMS-136-30														
	Au ppm	Au ppb	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm
	0.004	4	0.05	0.01	0.2	10	10	0.05	0.01	0.01	0.1	1	0.2	0.01	0.1
<b>QA/QC</b>															
886S023	0.007	7	0.43	0.90	21.7	11	56	0.17	0.09	0.26	5.2	16	22.0	2.80	4.6
DUP 886S023	0.011	11	0.43	0.93	21.6	14	57	0.18	0.09	0.24	5.2	16	21.6	2.81	4.8
STD BLANK	<0.004	<4	<0.05	<0.01	<0.2	<10	<10	<0.05	<0.01	<0.01	<0.1	<1	<0.2	<0.01	<0.1
STD OREAS 601	0.782	782	49.53	0.82	300.9	14	320	22.53	1.05	7.64	4.6	42	1010.9	2.15	4.8

Sample ID	Hg ppm 0.01	K % 0.01	La ppm 0.5	Mg % 0.01	Mn ppm 5	Mo ppm 0.05	Na % 0.01	Ni ppm 0.1	P ppm 10	Pb ppm 0.2	S % 0.01	Sb ppm 0.05	Sc ppm 0.1
<b>QA/QC</b>													
886S023	0.04	0.05	13.8	0.15	306	3.50	0.01	17.5	1055	9.7	0.01	0.90	2.1
DUP 886S023	0.05	0.06	14.6	0.16	312	3.50	0.01	17.6	1068	9.9	0.01	0.9	2.2
STD BLANK	<0.01	<0.01	<0.5	<0.01	<5	<0.05	<0.01	<0.1	<10	<0.2	<0.01	<0.05	<0.1
STD OREAS 601	0.28	0.25	22.4	0.18	429	3.63	0.09	23.2	349	280.6	1.02	23.08	1.7



Sample ID	Se ppm 0.2	Sr ppm 0.5	Te ppm 0.05	Th ppm 0.2	Ti % 0.005	Tl ppm 0.05	U ppm 0.05	V ppm 1	W ppm 0.05	Zn ppm 2
<b>QA/QC</b>										
886S023	0.5	6.2	0.06	1.9	0.013	0.08	0.23	38	0.13	93
DUP 886S023	0.5	5.7	0.07	2.1	0.014	0.09	0.24	40	0.14	96
STD BLANK	<0.2	<0.5	<0.05	<0.2	<0.005	<0.05	<0.05	<1	<0.05	<2
STD OREAS 601	11.6	34.6	16.27	7.0	0.008	0.75	1.93	9	1.09	1283

# **APPENDIX IV**

**Bark Samples**

**Analytical Results**

**APPENDIX IV**  
**HEAVY MINERAL SAMPLES - ANALYTICAL RESULTS**  
Spanish Mountain Gold Placer Property

MS Analytical Lab

PRP-VG2 Method--> IMS-330

Sample ID	Datum	Zone	East m	North m	Elevation m	Sample Type	Tree* Type	Tree Diameter cm	Description	Report	Veg. Rec. Wt. g 0.1	Veg. Ash Wt. g 0.1	Analyte --> Units --> LOR -->	Au ppm 0.0005	Au ppb 0.5
886B001	NAD83	10	604270	5827609		Bark	sw	30	deposit area	YRV1710647	88.2	1.2		0.0349	34.9
886B002	NAD83	10	603853	5828047		Bark	sw	70	old growth	YRV1710647	112.0	3.5		0.0065	6.5
886B003	NAD83	10	603829	5827943		Bark	se	75	old growth	YRV1710647	100.5	2.6		0.0008	0.8
886B004	NAD83	10	603832	5827838		Bark	se	65	old growth	YRV1710647	96.9	3.0		0.0018	1.8
886B005	NAD83	10	603865	5827727		Bark	se	80	old growth	YRV1710647	99.7	3.4		0.0067	6.7
886B006	NAD83	10	603876	5827631		Bark	se	60	old growth	YRV1710647	99.3	2.7		0.0012	1.2
886B007	NAD83	10	603898	5827550		Bark	se	38	old growth	YRV1710647	99.8	3.4		0.0010	1.0
886B008	NAD83	10	603902	5827443		Bark	se	30	medium size	YRV1710647	85.3	1.9		0.0064	6.4
886B009	NAD83	10	603915	5827347		Bark	se	33	medium size	YRV1710647	100.5	3.1		0.0025	2.5
886B010	NAD83	10	603945	5827262		Bark	sw	31	reforestation	YRV1710647	99.8	2.8		0.0014	1.4
886B011	NAD83	10	603905	5827148		Bark	sw	30	medium size	YRV1710647	100.0	3.0		<0.0005	0.0
886B012	NAD83	10	603903	5827015		Bark	pl	25	medium size	YRV1710647	80.4	1.5		0.0042	4.2
886B013	NAD83	10	603905	5827022		Bark	sw	26	medium size	YRV1710647	100.0	3.2		0.0006	0.6
886B014	NAD83	10	603718	5828546		Bark	sw	95	old growth	YRV1710647	99.9	3.6		0.0187	18.7
886B015	NAD83	10	603674	5828481	1030	Bark	sw	96	old growth	YRV1710647	100.5	4.1		0.0007	0.7
886B016	NAD83	10	603641	5828379	1051	Bark	sw	110	old growth	YRV1710647	100.0	3.7		0.0064	6.4
886B017	NAD83	10	603742	5828398	1042	Bark	sw	74	old growth	YRV1710647	99.4	1.9		0.0121	12.1
886B018	NAD83	10	603833	5828339	1053	Bark	sw	72	old growth	YRV1710647	99.8	2.3		0.0017	1.7
886B019	NAD83	10	603845	5828177	1089	Bark	se	110	old growth	YRV1710647	99.7	4.9		<0.0005	0.0
886B020	NAD83	10	605918	5827270	1001	Bark	sw	90	old growth	YRV1710647	100.5	4.5		0.0015	1.5
886B021	NAD83	10	605946	5827373	985	Bark	se	100	old growth	YRV1710647	99.8	3.5		0.0006	0.6
886B022	NAD83	10	605892	5827447	979	Bark	sw	35	medium size	YRV1710647	88.1	4.1		0.0015	1.5
886B023	NAD83	10	605862	5827554	965	Bark	se	42	old growth	YRV1710647	70.0	2.6		0.0014	1.4
886B024	NAD83	10	605870	5827653	943	Bark	se	90	old growth	YRV1710647	100.5	2.7		0.0007	0.7
886B025	NAD83	10	605840	5827714	946	Bark	se	25	old growth	YRV1710647	91.6	2.8		0.0017	1.7
886B026	NAD83	10	605839	5827720	945	Bark	pl	33	old growth	YRV1710647	57.0	0.9		0.0032	3.2
886B027	NAD83	10	605862	5827177	1052	Bark	se	94	old growth	YRV1710647	100.0	2.2		0.0024	2.4
886B028	NAD83	10	605881	5827050	1090	Bark	se	46	old growth	YRV1710647	86.3	2.8		0.0021	2.1
886B029	NAD83	10	605890	5826938	1134	Bark	se	45	old growth	YRV1710647	100.5	2.8		0.0006	0.6
886B030	NAD83	10	605862	5826821	1170	Bark	se	40	old growth	YRV1710647	85.8	2.7		0.0018	1.8
886B031	NAD83	10	605890	5826694	1198	Bark	se	43	old growth	YRV1710647	100.5	2.8		<0.0005	0.0
886B032	NAD83	10	605797	5826624	1233	Bark	se	50	old growth	YRV1710647	100.0	3.8		<0.0005	0.0
886B033	NAD83	10	605616	5826428	1329	Bark	se	55	old growth	YRV1710647	83.9	2.1		0.0025	2.5
886B034	NAD83	10	605581	5826328	1358	Bark	se	50	old growth	YRV1710647	100.5	1.9		0.0012	1.2
886B035	NAD83	10	605543	5826243	1391	Bark	se	40	old growth	YRV1710647	99.7	2.8		0.0008	0.8
886B036	NAD83	10	605694	5826528	1299	Bark	se	42	old growth	YRV1710647	91.3	2.7		0.0011	1.1
886B037	NAD83	10	605695	5826532	1298	Bark	pl	32	standing dead	YRV1710647	92.3	1.8		0.0393	39.3
STD BLANK														<0.0005	
STD SRM 1573a														0.0008	

\*se = Engelmann Spruce; sw = white pine; pl= pine

Sample ID	Ag ppm 0.01	Bi ppm 0.01	As ppm 0.1	Sb ppm 0.05	Mn ppm 5	Fe % 0.01	S % 0.01	Cu ppm 0.2	Mo ppm 0.05	Pb ppm 0.2	Zn ppm 1	Cd ppm 0.01	Co ppm 0.1	Cr ppm 1
886B001	0.78	0.22	40.3	0.77	5112	0.87	1.16	602.5	6.02	31.1	1450	13.24	6.2	9
886B002	0.43	0.03	9.4	0.31	3152	0.35	0.28	171.6	1.41	7.4	1847	1.48	4.0	4
886B003	0.25	0.01	2.0	0.13	2224	0.07	0.45	324.4	0.31	5.5	3084	0.14	2.5	1
886B004	0.29	0.03	2.1	0.20	1132	0.13	0.46	288.7	0.67	14.0	1676	4.86	2.1	2
886B005	0.32	0.05	2.8	0.38	6795	0.19	0.65	221.4	1.35	16.2	2073	25.26	5.9	3
886B006	0.32	0.02	1.5	0.19	5378	0.09	0.30	142.9	0.60	7.8	2009	9.71	1.5	2
886B007	0.40	0.03	1.5	0.21	4895	0.14	0.37	195.5	0.69	7.0	2633	16.66	2.9	2
886B008	0.77	0.08	3.0	0.43	8996	0.47	0.62	351.6	2.69	22.4	3045	4.86	3.7	6
886B009	0.41	0.02	1.8	0.13	11130	0.12	0.45	203.6	0.72	6.2	2420	2.69	1.1	2
886B010	1.10	0.05	1.7	0.26	14300	0.19	0.44	214.6	0.93	12.6	1558	2.49	1.5	3
886B011	0.55	0.02	1.2	0.09	8924	0.08	0.28	139.8	0.40	6.0	1945	2.02	0.9	1
886B012	1.60	0.17	3.7	0.93	9062	0.47	0.59	134.5	2.37	53.5	1411	14.90	3.4	5
886B013	0.40	0.04	1.9	0.20	15270	0.16	0.32	102.3	0.73	12.4	2384	10.56	1.3	2
886B014	0.43	0.08	22.2	0.38	2503	1.70	0.46	212.6	2.76	19.1	2679	3.23	10.7	15
886B015	0.27	0.02	3.7	0.10	390	0.18	0.24	179.2	0.80	4.9	1095	0.59	1.4	2
886B016	0.29	0.01	1.4	0.08	1858	0.06	0.24	180.5	0.42	3.1	1369	15.85	1.2	<1
886B017	0.47	0.13	10.6	0.60	3496	0.97	0.76	258.3	3.35	22.2	3002	6.32	7.8	10
886B018	0.42	0.03	4.2	0.23	1519	0.17	0.45	235.9	0.89	5.1	2634	0.50	1.7	2
886B019	0.26	0.04	2.3	0.11	1032	0.14	0.21	74.9	0.78	8.8	1290	8.03	1.5	2
886B020	0.75	0.04	11.0	0.16	1072	0.74	0.18	149.2	1.32	6.1	917	6.92	4.8	7
886B021	0.16	0.02	4.5	0.12	2811	0.24	0.26	199.0	0.68	4.6	2569	6.53	2.8	3
886B022	0.35	0.05	3.6	0.27	1267	0.26	0.38	94.6	1.23	15.5	1107	4.34	2.9	3
886B023	0.42	0.05	4.4	0.19	2480	0.28	0.33	132.2	1.07	9.0	2092	7.95	2.1	3
886B024	0.22	0.01	1.8	0.07	1907	0.07	0.26	123.7	0.32	1.9	1949	14.33	1.4	1
886B025	0.54	0.07	3.3	0.24	10030	0.23	0.27	194.3	1.33	9.2	2894	54.60	3.6	3
886B026	0.89	0.17	8.0	0.98	6063	0.64	0.68	262.8	3.72	39.0	1700	84.97	5.5	7
886B027	0.33	0.06	4.5	0.19	2538	0.35	0.27	205.4	1.50	10.0	2950	5.35	3.6	4
886B028	0.20	0.06	4.1	0.23	2934	0.39	0.36	115.0	1.95	11.9	2484	4.87	3.6	4
886B029	0.22	0.03	2.2	0.18	5840	0.13	0.30	108.1	0.84	6.8	2669	7.23	2.3	2
886B030	0.36	0.03	2.8	0.16	2996	0.11	0.33	184.4	0.85	6.6	2389	24.47	2.5	2
886B031	0.12	0.03	1.3	0.08	4053	0.11	0.22	140.2	0.63	5.5	3118	9.78	1.3	2
886B032	0.19	0.04	1.5	0.13	4965	0.16	0.27	174.6	0.85	7.4	1939	9.51	1.7	2
886B033	0.20	0.05	3.0	0.22	7775	0.20	0.50	205.7	1.35	12.5	2642	7.87	2.2	3
886B034	0.52	0.05	2.4	0.25	3117	0.14	0.48	539.2	1.19	14.4	3154	2.99	1.9	2
886B035	0.19	0.05	1.8	0.22	8020	0.19	0.27	130.2	1.24	11.1	2131	8.96	5.3	3
886B036	0.17	0.05	2.1	0.24	6256	0.16	0.31	132.0	0.89	11.0	1923	3.01	1.2	2
886B037	3.02	0.12	5.1	0.76	10060	0.28	0.63	205.8	1.61	43.9	1267	16.01	1.7	4
STD BLANK	<0.01	<0.01	<0.1	<0.05	<5	<0.01	<0.01	<0.2	<0.05	<0.2	<1	<0.01	<0.1	<1
STD SRM 1573a	0.02	<0.01	0.2	0.06	223	0.03	0.86	4.2	0.43	0.8	28	1.54	0.5	1

Sample ID	Ni ppm 0.2	Mg % 0.01	Ca % 0.01	Sr ppm 0.2	B ppm 10	Ba ppm 10	Ga ppm 0.05	Al % 0.01	Be ppm 0.05	Ce ppm 0.02	Cs ppm 0.05	Ge ppm 0.05	In ppm 0.005	K % 0.01
886B001	23.5	1.00	23.11	1754.0	261	330	1.47	0.69	0.14	5.12	0.91	0.07	0.032	3.12
886B002	10.1	0.65	21.95	780.0	146	739	0.54	0.17	<0.05	1.97	0.37	<0.05	0.008	4.32
886B003	4.5	0.88	23.53	1605.0	254	563	0.12	0.04	<0.05	0.39	0.7	0.06	<0.005	6.39
886B004	5.7	0.79	>25.00	1659.8	210	549	0.20	0.08	<0.05	0.9	0.24	0.06	0.007	3.59
886B005	18.2	0.73	24.09	854.9	179	205	0.45	0.17	<0.05	1.79	0.24	<0.05	0.009	3.63
886B006	10.3	0.60	>25.00	1040.0	226	421	0.20	0.07	<0.05	0.64	0.55	<0.05	<0.005	2.91
886B007	16.2	0.86	>25.00	1318.0	210	488	0.21	0.09	<0.05	0.76	0.24	<0.05	0.005	4.47
886B008	28.7	1.17	>25.00	1135.0	236	285	0.96	0.36	0.09	3	0.85	<0.05	0.011	4.59
886B009	17.8	0.87	>25.00	1429.0	234	423	0.21	0.15	<0.05	0.81	0.62	<0.05	<0.005	4.29
886B010	23.4	0.54	>25.00	864.2	159	293	0.39	0.27	0.06	1.42	0.7	<0.05	0.01	2.29
886B011	28.7	0.97	>25.00	1413.0	217	1168	0.15	0.31	<0.05	0.68	0.4	<0.05	<0.005	3.23
886B012	26.2	1.07	>25.00	895.3	162	336	1.16	1.73	0.10	5.73	0.5	0.06	0.026	1.61
886B013	6.3	0.67	>25.00	1978.0	260	602	0.30	0.15	<0.05	1.23	0.23	<0.05	0.008	3.15
886B014	31.9	1.23	20.89	2233.0	164	392	1.43	0.66	0.14	5.97	0.41	<0.05	0.016	4.52
886B015	4.4	0.68	>25.00	1662.0	116	1047	0.22	0.08	<0.05	0.85	0.14	<0.05	<0.005	5.38
886B016	5.2	0.44	>25.00	3008.0	142	1680	0.08	0.03	<0.05	0.32	0.15	<0.05	<0.005	2.12
886B017	27.5	1.91	23.12	1658.0	275	292	1.14	0.51	0.13	4.69	0.51	0.07	0.017	5.95
886B018	7.1	1.42	23.91	1698.0	270	1030	0.20	0.08	<0.05	0.9	0.32	0.06	<0.005	8.79
886B019	3.8	0.46	19.31	954.7	91	892	0.24	0.08	<0.05	1.07	0.18	<0.05	<0.005	0.89
886B020	19.1	0.49	12.99	506.3	88	682	0.74	0.28	0.07	3.58	0.13	0.05	0.008	3.91
886B021	7.6	0.92	>25.00	1383.0	193	896	0.24	0.15	<0.05	1.15	0.1	<0.05	<0.005	6.88
886B022	7.3	0.77	24.02	1571.0	130	330	0.41	0.13	<0.05	2.35	0.17	<0.05	0.007	3.12
886B023	7.9	0.86	>25.00	1424.0	209	686	0.37	0.15	<0.05	1.54	0.21	<0.05	<0.005	4.05
886B024	2.7	0.75	>25.00	1373.0	163	1563	0.08	0.04	<0.05	0.43	0.23	<0.05	<0.005	3.35
886B025	10.7	0.93	>25.00	1290.0	271	492	0.36	0.15	<0.05	1.51	0.44	<0.05	0.006	2.84
886B026	49.3	1.42	23.61	497.2	228	411	1.16	2.57	0.12	6.33	0.78	0.08	0.021	3.46
886B027	13.7	1.19	24.02	2322.0	273	751	0.45	0.19	0.06	2.06	0.41	<0.05	0.005	7.12
886B028	10.3	1.02	>25.00	1638.0	199	543	0.55	0.22	0.06	2.31	0.25	<0.05	0.008	2.06
886B029	8.7	0.94	>25.00	1282.0	234	830	0.24	0.13	<0.05	1.15	0.4	<0.05	<0.005	4.06
886B030	18.4	1.05	>25.00	1870.0	187	574	0.20	0.10	<0.05	0.8	0.23	<0.05	<0.005	7.33
886B031	12.6	1.22	22.68	1438.0	236	582	0.16	0.08	<0.05	0.79	0.31	<0.05	<0.005	4.58
886B032	16.6	0.79	23.78	1399.0	157	348	0.24	0.18	<0.05	1.21	0.31	<0.05	<0.005	2.82
886B033	13.2	1.09	23.14	768.0	290	291	0.35	0.19	<0.05	1.79	2.25	0.05	0.009	9.22
886B034	6.4	1.10	>25.00	1458.0	304	449	0.24	0.10	<0.05	1.31	0.73	0.06	0.006	5.57
886B035	13.4	0.96	>25.00	913.6	261	709	0.35	0.31	<0.05	1.74	1.97	<0.05	0.006	3.49
886B036	39.9	0.70	>25.00	1818.0	248	427	0.30	0.21	0.06	1.48	0.73	<0.05	0.006	5.03
886B037	48.4	1.63	21.63	720.4	244	368	0.57	1.91	0.08	2.67	1.94	0.06	0.011	8.40
STD BLANK	<0.2	<0.01	<0.01	<0.2	<10	<10	<0.05	<0.01	<0.05	<0.02	<0.05	0.05	<0.005	<0.01
STD SRM 1573a	1.5	0.93	4.59	76.7	28	47	0.12	0.03	<0.05	1.34	<0.05	0.06	<0.005	2.45

Sample ID	La ppm 0.2	Li ppm 0.1	Na % 0.01	Nb ppm 0.05	P ppm 10	Rb ppm 0.1	Sc ppm 0.1	Sn ppm 0.2	Th ppm 0.2	Ti % 0.005	Tl ppm 0.02	U ppm 0.05	V ppm 1	W ppm 0.05
886B001	2.5	2.8	0.12	0.16	>10000	37.4	1.6	0.8	0.4	0.015	<0.02	0.31	14	0.44
886B002	0.9	1.7	0.08	0.08	3436	43.6	0.7	<0.2	0.2	0.007	<0.02	0.13	4	0.20
886B003	<0.2	0.6	0.03	<0.05	4363	67.5	0.2	<0.2	<0.2	<0.005	<0.02	<0.05	<1	0.05
886B004	0.4	1.2	0.04	<0.05	4397	29.0	0.3	<0.2	<0.2	<0.005	<0.02	<0.05	2	0.07
886B005	0.9	1.0	0.06	0.09	6161	31.9	0.5	0.3	<0.2	0.007	<0.02	0.08	4	0.10
886B006	0.3	0.5	0.04	<0.05	3687	34.2	0.2	0.2	<0.2	<0.005	<0.02	<0.05	1	0.06
886B007	0.4	0.5	0.04	<0.05	5904	25.8	0.2	<0.2	<0.2	<0.005	<0.02	<0.05	2	0.07
886B008	1.5	2.0	0.09	0.16	>10000	42.5	0.9	0.4	0.2	0.018	<0.02	0.13	9	0.17
886B009	0.4	0.7	0.05	0.06	5989	41.4	0.3	<0.2	<0.2	<0.005	<0.02	<0.05	1	0.10
886B010	0.7	0.9	0.05	0.08	4809	32.3	0.4	0.2	<0.2	0.007	<0.02	0.06	2	0.07
886B011	0.4	0.4	0.03	<0.05	3588	33.6	0.2	<0.2	<0.2	<0.005	0.08	<0.05	<1	<0.05
886B012	2.6	3.2	0.06	0.15	5418	14.8	1.0	0.7	0.4	0.014	0.08	0.20	10	0.19
886B013	0.6	1.1	0.04	0.06	5661	18.5	0.3	0.3	<0.2	0.006	<0.02	<0.05	2	0.06
886B014	2.7	5.3	0.13	0.08	4734	37.3	2.1	0.2	0.7	0.019	0.06	0.28	16	0.22
886B015	0.4	0.7	0.04	<0.05	4134	34.5	0.3	<0.2	<0.2	<0.005	<0.02	<0.05	2	0.05
886B016	<0.2	0.3	0.02	<0.05	3063	18.3	0.1	<0.2	<0.2	<0.005	0.02	<0.05	<1	<0.05
886B017	2.2	3.3	0.11	0.17	9509	32.9	1.5	0.5	0.5	0.02	0.06	0.25	14	0.23
886B018	0.4	1.2	0.04	0.05	6004	57.2	0.4	<0.2	<0.2	<0.005	<0.02	0.06	2	0.08
886B019	0.5	1.0	0.02	<0.05	2185	8.7	0.3	<0.2	<0.2	<0.005	0.03	0.05	2	0.05
886B020	1.6	3.0	0.04	0.09	3453	20.6	1.2	<0.2	0.5	0.009	<0.02	0.14	8	0.11
886B021	0.5	1.1	0.04	<0.05	5871	31.1	0.4	<0.2	<0.2	<0.005	<0.02	0.05	2	0.06
886B022	1.1	1.0	0.03	0.06	4435	19.2	0.5	<0.2	<0.2	<0.005	<0.02	0.08	4	0.07
886B023	0.8	1.3	0.04	0.07	5294	22.2	0.5	<0.2	<0.2	0.005	<0.02	0.07	3	0.07
886B024	0.2	0.4	0.02	<0.05	2963	34.8	0.2	<0.2	<0.2	<0.005	<0.02	<0.05	<1	<0.05
886B025	0.7	1.2	0.03	0.07	7127	28.7	0.4	0.2	<0.2	0.006	0.07	0.07	3	0.07
886B026	3.1	2.2	0.08	0.17	>10000	35.0	1.2	0.7	0.3	0.014	0.03	0.23	11	0.21
886B027	0.9	1.7	0.06	0.08	5561	55.1	0.6	0.2	<0.2	0.007	<0.02	0.10	5	0.12
886B028	1.1	2.5	0.04	0.09	4560	18.4	0.7	0.2	0.2	0.008	0.02	0.10	6	0.09
886B029	0.6	1.4	0.03	<0.05	5023	35.4	0.2	<0.2	<0.2	<0.005	<0.02	<0.05	2	0.05
886B030	0.4	1.0	0.03	<0.05	5380	53.9	0.2	<0.2	<0.2	<0.005	<0.02	<0.05	2	0.05
886B031	0.4	1.1	0.02	<0.05	5168	38.7	0.2	<0.2	<0.2	<0.005	0.03	<0.05	1	<0.05
886B032	0.6	1.1	0.03	<0.05	6002	27.0	0.3	<0.2	<0.2	<0.005	<0.02	0.05	2	0.05
886B033	0.9	1.7	0.08	0.09	7772	100.4	0.4	0.3	<0.2	0.006	0.03	0.07	3	0.08
886B034	0.6	0.7	0.07	0.06	7469	80.1	0.3	0.7	<0.2	<0.005	<0.02	0.06	2	0.10
886B035	0.8	1.1	0.04	0.08	5451	49.9	0.3	0.2	<0.2	0.006	0.05	0.06	3	0.08
886B036	0.7	1.2	0.05	0.06	6259	58.6	0.3	<0.2	<0.2	<0.005	0.04	0.06	2	0.08
886B037	1.3	1.5	0.04	0.11	>10000	80.5	0.5	0.4	<0.2	0.006	0.22	0.11	4	0.12
STD BLANK	<0.2	<0.1	<0.01	<0.05	<10	<0.1	<0.1	<0.2	<0.2	<0.005	<0.02	<0.05	<1	<0.05
STD SRM 1573a	1.9	0.3	0.01	<0.05	2009	14.1	0.1	<0.2	<0.2	<0.005	0.03	<0.05	<1	<0.05

Sample ID	Y ppm 0.05	Zr ppm 0.5	Hf ppm 0.02	Hg ppm 0.005	Re ppm 0.001	Se ppm 0.2	Ta ppm 0.01	Te ppm 0.01
886B001	2.12	0.8	<0.02	<0.005	0.002	1.8	<0.01	0.06
886B002	0.89	1.3	0.03	<0.005	<0.001	0.4	<0.01	0.01
886B003	0.17	<0.5	<0.02	<0.005	<0.001	0.2	<0.01	<0.01
886B004	0.39	<0.5	<0.02	<0.005	<0.001	0.2	<0.01	0.01
886B005	0.80	0.8	<0.02	<0.005	<0.001	0.3	<0.01	0.02
886B006	0.29	<0.5	<0.02	<0.005	<0.001	<0.2	<0.01	0.01
886B007	0.34	<0.5	<0.02	<0.005	0.001	<0.2	<0.01	<0.01
886B008	1.16	1.2	0.03	<0.005	<0.001	0.4	<0.01	0.03
886B009	0.35	<0.5	<0.02	<0.005	<0.001	<0.2	<0.01	<0.01
886B010	0.56	0.7	<0.02	<0.005	<0.001	0.2	<0.01	0.01
886B011	0.32	<0.5	<0.02	<0.005	<0.001	<0.2	<0.01	<0.01
886B012	2.35	1.7	0.04	<0.005	<0.001	0.6	<0.01	<0.01
886B013	0.52	0.6	<0.02	<0.005	<0.001	<0.2	<0.01	<0.01
886B014	2.80	1.2	0.02	<0.005	<0.001	0.6	<0.01	0.01
886B015	0.41	<0.5	<0.02	<0.005	<0.001	<0.2	<0.01	0.01
886B016	0.18	<0.5	<0.02	<0.005	<0.001	<0.2	<0.01	0.02
886B017	2.08	1.2	0.02	<0.005	0.001	0.7	<0.01	<0.01
886B018	0.44	0.6	<0.02	<0.005	<0.001	<0.2	<0.01	0.01
886B019	0.44	<0.5	<0.02	<0.005	<0.001	<0.2	<0.01	<0.01
886B020	1.64	1.4	0.03	<0.005	<0.001	0.3	<0.01	<0.01
886B021	0.56	0.6	<0.02	<0.005	<0.001	0.2	<0.01	<0.01
886B022	1.18	0.7	<0.02	<0.005	<0.001	0.3	<0.01	0.04
886B023	0.68	0.7	<0.02	<0.005	<0.001	0.3	<0.01	0.01
886B024	0.18	<0.5	<0.02	<0.005	<0.001	<0.2	<0.01	0.01
886B025	0.58	0.6	<0.02	<0.005	<0.001	0.4	<0.01	0.01
886B026	2.68	1.6	0.03	<0.005	<0.001	0.8	<0.01	<0.01
886B027	0.99	0.7	<0.02	<0.005	0.002	0.2	<0.01	0.01
886B028	1.00	0.8	<0.02	<0.005	<0.001	<0.2	<0.01	0.01
886B029	0.53	<0.5	<0.02	<0.005	<0.001	<0.2	<0.01	0.03
886B030	0.39	<0.5	<0.02	<0.005	<0.001	<0.2	<0.01	0.01
886B031	0.33	<0.5	<0.02	<0.005	<0.001	<0.2	<0.01	0.01
886B032	0.48	<0.5	<0.02	<0.005	<0.001	<0.2	<0.01	0.01
886B033	0.82	0.7	<0.02	<0.005	0.002	<0.2	<0.01	0.02
886B034	0.53	0.6	<0.02	<0.005	0.001	<0.2	<0.01	0.03
886B035	0.73	0.8	<0.02	<0.005	0.001	<0.2	<0.01	0.02
886B036	0.68	0.6	<0.02	<0.005	0.002	<0.2	<0.01	0.02
886B037	1.13	1.1	0.03	<0.005	<0.001	0.6	<0.01	<0.01
STD BLANK	<0.05	<0.5	<0.02	<0.005	<0.001	<0.2	<0.01	<0.01
STD SRM 1573a	0.72	<0.5	<0.02	0.03	0.003	<0.2	<0.01	<0.01

# **APPENDIX V**

## **Certificates of Analysis**





**MS Analytical**

An A2 Global Company

MS Analytical  
Unit 1, 20120 102nd Avenue  
Langley, BC V1M 4B4  
Phone: +1-604-888-0875

To: **Discovery Consultants**  
**Box 933**  
**Vernon, BC**  
**V1T 6M8**

**CERTIFICATE OF ANALYSIS: YVR1710812**

Project Name: 886  
Job Received Date: 14-Sep-2017  
Job Report Date: 09-Oct-2017  
Report Version: Final

**COMMENTS:**

Test results reported relate only to the samples as received by the laboratory. Unless otherwise stated above, sufficient sample was received for the methods requested and all samples were received in acceptable condition. Analytical results in unsigned reports marked "preliminary" are subject to change, pending final QC review. Please refer to MS Analyticals' *Schedule of Services and Fees* for our complete Terms and Conditions

SAMPLE PREPARATION	
METHOD CODE	DESCRIPTION
PLG-100	Log Sample - No preparation required

ANALYTICAL METHODS	
METHOD CODE	DESCRIPTION
IMS-136-30	Multi-Element, 30g, 1:1 Aqua Regia, ICP-ES/MS, Ultra Trace Level

**Signature:**

Yvette Hsi, BSc.  
Laboratory Manager  
MS Analytical



An A2 Global Company

MS Analytical
Unit 1, 20120 102nd Avenue
Langley, BC V1M 4B4
Phone: +1-604-888-0875

To: Discovery Consultants
Box 933
Vernon, BC
V1T 6M8

CERTIFICATE OF ANALYSIS: YVR1710812

Project Name: 886
Job Received Date: 14-Sep-2017
Job Report Date: 09-Oct-2017
Report Version: Final

Table with 15 columns: Sample ID, Sample Type, PWE-100 Rec. Wt. kg, Method Analyte Units, and 12 columns for various elements (Ag, Al, As, Au, B, Ba, Bi, Ca, Cd, Co, Cr) in ppm or %.

\*\*\*Please refer to the cover page for comments regarding this certificate. \*\*\*



An A2 Global Company

MS Analytical  
Unit 1, 20120 102nd Avenue  
Langley, BC V1M 4B4  
Phone: +1-604-888-0875

To: **Discovery Consultants**  
**Box 933**  
**Vernon, BC**  
**V1T 6M8**

**CERTIFICATE OF ANALYSIS: YVR1710812**

Project Name: 886  
Job Received Date: 14-Sep-2017  
Job Report Date: 09-Oct-2017  
Report Version: Final

Sample ID	Sample Type	PWE-100 Rec. Wt. kg	Method Analyte Units	IMS-136-30 Ag ppm	IMS-136-30 Al %	IMS-136-30 As ppm	IMS-136-30 Au ppm	IMS-136-30 B ppm	IMS-136-30 Ba ppm	IMS-136-30 Bi ppm	IMS-136-30 Ca %	IMS-136-30 Cd ppm	IMS-136-30 Co ppm	IMS-136-30 Cr ppm
886HM040	Con	0.01	LOR	2.84	0.48	53.6	8.083	11	66	0.59	1.96	0.81	9.8	17
STD BLANK				<0.05	<0.01	<0.2	<0.004	<10	<10	<0.05	<0.01	<0.01	<0.1	<1
STD OREAS 601				50.21	0.87	285.6	0.766	<10	283	21.34	1.06	7.30	4.6	42

\*\*\*Please refer to the cover page for comments regarding this certificate. \*\*\*



An A2 Global Company

MS Analytical
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Phone: +1-604-888-0875

To: Discovery Consultants
Box 933
Vernon, BC
V1T 6M8

CERTIFICATE OF ANALYSIS: YVR1710812

Project Name: 886
Job Received Date: 14-Sep-2017
Job Report Date: 09-Oct-2017
Report Version: Final

Table with 15 columns (Sample ID, Cu, Fe, Ga, Hg, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, S) and 30 rows of data.

\*\*\*Please refer to the cover page for comments regarding this certificate. \*\*\*



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**V1T 6M8**

**CERTIFICATE OF ANALYSIS: YVR1710812**

Project Name: 886  
Job Received Date: 14-Sep-2017  
Job Report Date: 09-Oct-2017  
Report Version: Final

	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30
Sample ID	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %
886HM040	42.6	2.14	2.4	0.08	0.04	96.7	0.19	211	5.74	0.01	31.1	7616	14.0	0.88
STD BLANK	<0.2	<0.01	<0.1	<0.01	<0.01	<0.5	<0.01	<5	<0.05	<0.01	<0.1	<10	<0.2	<0.01
STD OREAS 601	995.0	2.19	4.8	0.28	0.27	21.1	0.20	433	3.55	0.08	22.8	346	277.0	1.02

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CERTIFICATE OF ANALYSIS: YVR1710812

Project Name: 886
Job Received Date: 14-Sep-2017
Job Report Date: 09-Oct-2017
Report Version: Final

Table with 13 columns (Sample ID, Sb, Sc, Se, Sr, Te, Th, Ti, Tl, U, V, W, Zn) and 30 rows of data points.

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**CERTIFICATE OF ANALYSIS: YVR1710812**

Project Name: 886  
Job Received Date: 14-Sep-2017  
Job Report Date: 09-Oct-2017  
Report Version: Final

	IMS-136-30 Sb ppm	IMS-136-30 Sc ppm	IMS-136-30 Se ppm	IMS-136-30 Sr ppm	IMS-136-30 Te ppm	IMS-136-30 Th ppm	IMS-136-30 Ti %	IMS-136-30 Tl ppm	IMS-136-30 U ppm	IMS-136-30 V ppm	IMS-136-30 W ppm	IMS-136-30 Zn ppm
Sample ID 886HM040	0.05 0.50	0.1 3.0	0.2 2.6	0.5 148.1	0.05 <0.05	0.2 47.5	0.005 0.066	0.05 0.12	0.05 3.78	1 19	0.05 8.07	2 72
STD BLANK STD OREAS 601	<0.05 21.84	<0.1 1.7	<0.2 12.4	<0.5 34.6	<0.05 13.98	<0.2 6.6	<0.005 0.009	<0.05 0.68	<0.05 1.80	<1 10	<0.05 1.12	<2 1247

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To: **Discovery Consultants**  
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**V1T 6M8**

**CERTIFICATE OF ANALYSIS: YVR1710883**

Project Name: 886  
Job Received Date: 06-Oct-2017  
Job Report Date: 30-Oct-2017  
Report Version: Final

**COMMENTS:**

Test results reported relate only to the samples as received by the laboratory. Unless otherwise stated above, sufficient sample was received for the methods requested and all samples were received in acceptable condition. Analytical results in unsigned reports marked "preliminary" are subject to change, pending final QC review. Please refer to MS Analyticals' *Schedule of Services and Fees* for our complete Terms and Conditions

SAMPLE PREPARATION	
METHOD CODE	DESCRIPTION
PLG-100	Log Sample - No preparation required

ANALYTICAL METHODS	
METHOD CODE	DESCRIPTION
IMS-136-30	Multi-Element, 30g, 1:1 Aqua Regia, ICP-ES/MS, Ultra Trace Level

**Signature:**

Yvette Hsi, BSc.  
Laboratory Manager  
MS Analytical





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**CERTIFICATE OF ANALYSIS: YVR1710883**

Project Name: 886  
 Job Received Date: 06-Oct-2017  
 Job Report Date: 30-Oct-2017  
 Report Version: Final

Sample ID	Sample Type	PWE-100 Rec. Wt. kg	Method Analyte Units	IMS-136-30 Ag ppm	IMS-136-30 Al %	IMS-136-30 As ppm	IMS-136-30 Au ppm	IMS-136-30 B ppm	IMS-136-30 Ba ppm	IMS-136-30 Bi ppm	IMS-136-30 Ca %	IMS-136-30 Cd ppm	IMS-136-30 Co ppm
		0.01	LOR	0.05	0.01	0.2	0.004	10	10	0.05	0.01	0.01	0.1
886HM041	Con	0.01		3.22	0.31	33.1	9.026	11	25	0.49	0.67	1.19	21.7
886HM042	Con	<0.01		3.38	0.32	15.2	9.950	<10	27	0.67	0.69	1.19	13.4
886HM043	Con	0.01		3.30	0.33	31.4	8.421	31	30	1.23	0.71	1.26	21.8
886HM044	Con	<0.01		3.88	0.51	40.6	5.714	26	42	0.25	0.33	0.81	22.8
886HM045	Con	<0.01		7.25	0.27	13.0	16.063	13	32	1.04	0.42	0.89	6.4
886HM046	Con	<0.01		3.33	0.32	69.0	11.659	12	44	2.36	0.41	2.68	29.6
886HM047	Con	<0.01		2.70	0.36	31.2	7.638	<10	39	0.70	0.48	1.46	16.1
886HM048	Con	<0.01		0.68	0.38	13.1	1.706	<10	30	0.35	0.70	0.53	8.3
886HM049	Con	<0.01		2.85	0.35	14.1	7.171	<10	25	0.58	0.65	1.08	14.3
886HM050	Con	<0.01		1.45	0.34	15.1	3.913	27	15	0.32	0.45	1.39	14.2
886HM051	Con	<0.01		2.64	0.31	5.2	6.413	17	16	0.96	0.68	1.12	9.5
STD BLANK				<0.05	<0.01	<0.2	<0.004	<10	<10	<0.05	<0.01	<0.01	<0.1
STD OREAS 24b				0.08	3.00	8.5	<0.004	18	145	0.69	0.44	0.05	15.5

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**V1T 6M8**

**CERTIFICATE OF ANALYSIS: YVR1710883**

Project Name: 886  
 Job Received Date: 06-Oct-2017  
 Job Report Date: 30-Oct-2017  
 Report Version: Final

	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30
	Cr	Cu	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P
	ppm	ppm	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm
Sample ID	1	0.2	0.01	0.1	0.01	0.01	0.5	0.01	5	0.05	0.01	0.1	10
886HM041	14	58.0	3.54	1.7	0.02	0.02	94.3	0.15	236	11.55	<0.01	54.9	2837
886HM042	14	100.3	2.59	2.0	0.02	0.03	154.7	0.16	216	8.67	<0.01	45.2	2949
886HM043	14	52.3	3.53	1.8	0.02	0.02	107.6	0.15	279	10.27	0.01	54.8	2983
886HM044	18	78.8	2.85	2.1	0.03	0.02	62.1	0.32	763	5.46	0.01	58.1	1191
886HM045	10	28.7	1.59	2.2	0.05	0.02	211.9	0.12	160	6.28	<0.01	25.8	1883
886HM046	17	104.1	6.51	1.9	0.04	0.02	87.1	0.13	483	29.97	0.01	100.6	1944
886HM047	14	57.0	3.37	1.8	0.05	0.02	78.4	0.17	247	13.37	<0.01	50.5	2044
886HM048	9	52.0	1.58	1.7	0.07	0.02	48.6	0.19	361	3.73	<0.01	26.7	2726
886HM049	16	41.3	2.64	1.8	0.03	0.02	92.1	0.18	224	7.51	<0.01	39.5	2625
886HM050	21	41.2	2.94	1.9	0.01	0.01	91.1	0.20	189	8.61	<0.01	43.5	1601
886HM051	13	34.0	1.49	2.0	0.03	0.02	162.5	0.15	120	5.52	<0.01	25.4	2912
STD BLANK	<1	<0.2	<0.01	<0.1	<0.01	<0.01	<0.5	<0.01	<5	<0.05	<0.01	<0.1	<10
STD OREAS 24b	103	35.8	3.75	11.2	<0.01	1.14	30.0	1.30	340	3.78	0.11	58.3	601

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**CERTIFICATE OF ANALYSIS: YVR1710883**

Project Name: 886  
 Job Received Date: 06-Oct-2017  
 Job Report Date: 30-Oct-2017  
 Report Version: Final

	IMS-136-30 Pb ppm	IMS-136-30 S %	IMS-136-30 Sb ppm	IMS-136-30 Sc ppm	IMS-136-30 Se ppm	IMS-136-30 Sr ppm	IMS-136-30 Te ppm	IMS-136-30 Th ppm	IMS-136-30 Ti %	IMS-136-30 Tl ppm	IMS-136-30 U ppm	IMS-136-30 V ppm	IMS-136-30 W ppm	IMS-136-30 Zn ppm
Sample ID	0.2	0.01	0.05	0.1	0.2	0.5	0.05	0.2	0.005	0.05	0.05	1	0.05	2
886HM041	33.2	0.46	1.14	2.3	6.7	61.8	0.09	53.3	0.028	<0.05	2.74	15	13.02	143
886HM042	28.0	0.15	0.84	2.3	3.0	56.3	0.07	92.4	0.034	<0.05	4.18	16	9.82	127
886HM043	44.1	0.56	1.05	2.5	6.7	65.2	0.18	53.6	0.037	<0.05	3.27	16	15.79	137
886HM044	13.1	0.37	2.05	2.7	3.8	30.1	0.08	18.0	0.065	<0.05	1.00	30	0.35	104
886HM045	24.7	0.02	0.55	1.4	1.8	38.8	0.06	65.7	0.022	<0.05	2.46	13	9.24	78
886HM046	33.7	0.13	2.43	3.0	17.2	49.9	0.87	35.4	0.020	<0.05	2.85	21	5.58	330
886HM047	23.1	0.26	1.05	2.1	9.7	43.9	0.17	31.0	0.023	<0.05	2.59	16	4.81	164
886HM048	7.4	0.02	1.67	1.9	0.7	35.3	0.12	15.3	0.040	<0.05	2.03	18	0.60	65
886HM049	27.7	0.13	0.67	2.2	3.9	54.4	0.08	33.5	0.030	<0.05	2.07	16	6.88	110
886HM050	16.2	0.03	0.78	2.2	4.4	49.4	0.17	30.0	0.035	<0.05	1.96	19	4.95	121
886HM051	15.4	0.21	0.34	1.7	2.6	58.6	<0.05	51.1	0.032	<0.05	2.15	13	8.40	74
STD BLANK	<0.2	<0.01	<0.05	<0.1	<0.2	<0.5	<0.05	<0.2	<0.005	<0.05	<0.05	<1	<0.05	<2
STD OREAS 24b	9.0	0.19	0.54	9.6	<0.2	27.5	<0.05	14.6	0.180	0.66	1.66	81	1.10	93

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**V1T 6M8**

**CERTIFICATE OF ANALYSIS: YVR1710848**

Project Name: 886  
Job Received Date: 27-Sep-2017  
Job Report Date: 19-Oct-2017  
Report Version: Final

**COMMENTS:**

Test results reported relate only to the samples as received by the laboratory. Unless otherwise stated above, sufficient sample was received for the methods requested and all samples were received in acceptable condition. Analytical results in unsigned reports marked "preliminary" are subject to change, pending final QC review. Please refer to MS Analyticals' *Schedule of Services and Fees* for our complete Terms and Conditions

SAMPLE PREPARATION	
METHOD CODE	DESCRIPTION
PRP-757	Dry, Screen to 80 mesh, discard plus fraction

ANALYTICAL METHODS	
METHOD CODE	DESCRIPTION
IMS-136-30	Multi-Element, 30g, 1:1 Aqua Regia, ICP-ES/MS, Ultra Trace Level

**Signature:**

Yvette Hsi, BSc.  
Laboratory Manager  
MS Analytical



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<b>CERTIFICATE OF ANALYSIS:</b>	<b>YVR1710848</b>
---------------------------------	-------------------

Project Name: 886  
 Job Received Date: 27-Sep-2017  
 Job Report Date: 19-Oct-2017  
 Report Version: Final

Sample ID	Sample Type	PWE-100 Rec. Wt. kg	Method Analyte Units	IMS-136-30 Ag ppm	IMS-136-30 Al %	IMS-136-30 As ppm	IMS-136-30 Au ppm	IMS-136-30 B ppm	IMS-136-30 Ba ppm	IMS-136-30 Bi ppm	IMS-136-30 Ca %	IMS-136-30 Cd ppm	IMS-136-30 Co ppm
		0.01	LOR	0.05	0.01	0.2	0.004	10	10	0.05	0.01	0.01	0.1
886S001	Soil	0.48		1.98	1.44	43.4	0.021	15	133	0.18	0.66	1.43	16.7
886S002	Soil	0.49		0.74	0.50	35.8	0.021	15	156	0.17	0.13	0.24	6.1
886S003	Soil	0.48		0.81	0.82	53.4	0.023	<10	188	0.16	0.22	0.44	8.3
886S004	Soil	0.45		1.11	0.40	17.0	0.004	<10	46	0.17	0.04	0.06	2.9
886S005	Soil	0.44		0.36	0.52	8.6	0.007	11	34	0.10	0.06	0.05	2.9
886S006	Soil	0.32		0.40	0.98	26.5	0.008	15	162	0.13	0.16	0.35	13.7
886S007	Soil	0.37		0.27	0.86	33.6	<0.004	11	134	0.09	0.09	0.15	13.2
886S008	Soil	0.39		0.16	0.68	24.5	0.004	11	38	0.11	0.05	0.12	8.1
886S009	Soil	0.34		0.34	2.31	53.5	0.006	13	102	0.10	0.08	0.16	15.6
886S010	Soil	0.46		0.44	0.65	23.0	<0.004	13	58	0.19	0.02	0.10	3.7
886S011	Soil	0.22		1.39	1.61	33.9	0.007	<10	276	0.17	0.77	1.35	15.1
886S012	Soil	0.36		0.33	1.64	48.7	0.012	14	127	0.16	0.06	0.33	9.3
886S013	Soil	0.28		0.27	1.46	40.1	<0.004	14	188	0.19	0.06	0.18	8.6
886S014	Soil	0.31		0.40	1.44	40.6	0.008	10	104	0.16	0.03	0.17	9.4
886S015	Soil	0.39		2.00	0.88	42.3	<0.004	<10	125	0.22	0.07	0.15	12.1
886S016	Soil	0.39		0.28	0.98	20.7	0.007	11	71	0.16	0.04	0.14	5.2
886S017	Soil	0.38		0.29	0.97	14.6	<0.004	11	76	0.16	0.05	0.17	5.4
886S018	Soil	0.34		0.16	0.82	8.8	0.006	<10	62	0.14	0.06	0.20	3.8
886S019	Soil	0.27		0.27	1.65	40.8	0.040	<10	103	0.22	0.13	0.19	14.9
886S020	Soil	0.41		0.22	0.61	12.1	<0.004	<10	64	0.14	0.06	0.07	1.9

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**V1T 6M8**

**CERTIFICATE OF ANALYSIS: YVR1710848**

Project Name: 886  
 Job Received Date: 27-Sep-2017  
 Job Report Date: 19-Oct-2017  
 Report Version: Final

Sample ID	Sample Type	PWE-100 Rec. Wt. kg	Method Analyte Units	IMS-136-30 Ag ppm	IMS-136-30 Al %	IMS-136-30 As ppm	IMS-136-30 Au ppm	IMS-136-30 B ppm	IMS-136-30 Ba ppm	IMS-136-30 Bi ppm	IMS-136-30 Ca %	IMS-136-30 Cd ppm	IMS-136-30 Co ppm
		0.01	LOR	0.05	0.01	0.2	0.004	10	10	0.05	0.01	0.01	0.1
886S021	Soil	0.3		1.43	1.23	53.8	0.007	<10	145	0.44	0.05	0.27	9.1
886S022	Soil	0.37		0.53	1.27	61.4	0.054	<10	171	0.17	0.26	0.48	12.4
886S023	Soil	0.32		0.43	0.90	21.7	0.007	11	56	0.17	0.09	0.26	5.2
886S024	Soil	0.45		0.47	1.12	28.0	0.022	13	70	0.16	0.05	0.36	7.0
886S025	Soil	0.52		0.49	1.19	38.9	0.010	14	113	0.15	0.07	0.28	8.9
886S026	Soil	0.46		1.74	0.82	73.7	0.189	13	159	0.12	0.23	0.66	9.1
886S027	Soil	0.65		1.23	0.78	16.1	0.025	<10	65	0.13	0.05	0.10	4.6
886S028	Soil	0.49		1.09	0.56	21.1	0.008	12	97	0.12	0.09	0.11	6.9
886S029	Soil	0.48		1.61	0.54	40.1	0.006	13	125	0.16	0.07	0.35	9.7
886S030	Soil	0.48		1.06	1.71	44.4	0.006	11	155	0.13	0.07	0.21	12.5
DUP 886S023				0.43	0.93	21.6	0.011	14	57	0.18	0.09	0.24	5.2
STD BLANK				<0.05	<0.01	<0.2	<0.004	<10	<10	<0.05	<0.01	<0.01	<0.1
STD OREAS 601				49.53	0.82	300.9	0.782	14	320	22.53	1.05	7.64	4.6

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CERTIFICATE OF ANALYSIS: YVR1710848

Project Name: 886
Job Received Date: 27-Sep-2017
Job Report Date: 19-Oct-2017
Report Version: Final

Table with 14 columns (Sample ID, Cr, Cu, Fe, Ga, Hg, K, La, Mg, Mn, Mo, Na, Ni, P) and 20 rows of data.

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Job Report Date: 19-Oct-2017  
Report Version: Final

	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30
	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm
Sample ID	1	0.2	0.01	0.1	0.01	0.01	0.5	0.01	5	0.05	0.01	0.1	10
886S021	9	79.3	2.34	3.0	0.06	0.04	11.4	0.11	517	1.30	0.02	26.0	1062
886S022	23	46.8	3.92	5.0	0.04	0.08	12.7	0.28	752	5.02	0.02	44.2	807
886S023	16	22.0	2.80	4.6	0.04	0.05	13.8	0.15	306	3.50	0.01	17.5	1055
886S024	20	39.7	3.01	4.8	0.04	0.05	14.6	0.32	346	5.57	0.01	28.8	951
886S025	23	52.6	3.62	4.4	0.03	0.05	13.2	0.37	527	4.86	0.02	39.2	837
886S026	15	31.8	2.51	3.4	0.03	0.19	10.7	0.16	1879	2.24	0.03	46.2	1163
886S027	8	14.4	1.46	3.4	0.15	0.05	16.7	0.11	470	1.45	0.01	10.0	441
886S028	10	19.6	1.87	3.5	0.12	0.05	12.0	0.08	1118	1.90	0.01	14.0	431
886S029	9	26.5	2.42	3.5	0.10	0.05	15.6	0.06	3016	2.30	0.02	21.8	556
886S030	32	46.2	3.94	6.2	0.10	0.06	12.0	0.49	551	4.15	0.02	41.4	816
DUP 886S023	16	21.6	2.81	4.8	0.05	0.06	14.6	0.16	312	3.50	0.01	17.6	1068
STD BLANK	<1	<0.2	<0.01	<0.1	<0.01	<0.01	<0.5	<0.01	<5	<0.05	<0.01	<0.1	<10
STD OREAS 601	42	1010.9	2.15	4.8	0.28	0.25	22.4	0.18	429	3.63	0.09	23.2	349

\*\*\*Please refer to the cover page for comments regarding this certificate. \*\*\*





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 Phone: +1-604-888-0875

To: **Discovery Consultants**  
**Box 933**  
**Vernon, BC**  
**V1T 6M8**

<b>CERTIFICATE OF ANALYSIS:</b>	<b>YVR1710848</b>
---------------------------------	-------------------

Project Name: 886  
 Job Received Date: 27-Sep-2017  
 Job Report Date: 19-Oct-2017  
 Report Version: Final

	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30
	Pb	S	Sb	Sc	Se	Sr	Te	Th	Ti	Tl	U	V	W	Zn
Sample ID	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
	0.2	0.01	0.05	0.1	0.2	0.5	0.05	0.2	0.005	0.05	0.05	1	0.05	2
886S001	11.6	0.05	1.33	2.0	1.5	37.7	0.20	0.2	0.006	0.13	2.00	34	0.14	122
886S002	7.7	<0.01	0.97	2.5	0.8	9.8	<0.05	1.1	0.013	0.08	0.36	31	0.15	97
886S003	10.3	0.02	0.99	2.1	0.6	16.8	0.06	0.4	0.006	0.10	0.56	33	0.16	106
886S004	5.3	0.01	0.30	1.1	<0.2	3.6	0.13	0.5	0.014	0.06	0.14	23	0.12	36
886S005	3.7	<0.01	0.40	1.9	<0.2	4.5	0.06	1.0	0.016	0.06	0.13	30	0.13	31
886S006	5.6	0.02	0.51	5.2	0.3	11.9	<0.05	0.9	0.021	0.08	0.26	48	0.16	76
886S007	3.8	<0.01	1.23	3.0	<0.2	7.1	<0.05	0.5	0.008	0.07	0.19	49	0.26	61
886S008	4.0	<0.01	0.89	3.0	0.4	4.7	<0.05	1.4	0.011	0.06	0.19	37	0.25	62
886S009	5.5	0.01	1.11	5.6	0.9	6.2	0.13	1.9	<0.005	0.08	0.27	53	0.15	123
886S010	7.6	<0.01	0.60	1.5	0.5	2.9	0.19	1.1	0.006	0.08	0.18	24	0.16	54
886S011	12.4	0.05	1.61	4.6	1.7	64.9	0.05	1.0	0.008	0.12	0.70	35	0.11	169
886S012	9.6	0.02	1.76	3.3	1.4	8.9	0.06	2.1	0.007	0.12	0.59	44	0.19	148
886S013	9.6	0.01	1.07	3.8	0.7	8.7	0.13	1.2	0.008	0.10	0.30	58	0.24	120
886S014	10.1	<0.01	1.35	4.2	0.8	5.0	0.07	2.2	0.007	0.13	0.35	60	0.19	90
886S015	12.8	0.01	0.58	2.8	0.3	7.7	0.13	1.2	0.009	0.09	0.20	41	0.52	90
886S016	8.1	<0.01	1.05	2.3	0.8	5.5	0.13	1.8	0.014	0.08	0.32	39	0.17	84
886S017	9.4	<0.01	0.75	2.3	0.4	5.4	0.20	2.6	0.021	0.11	0.24	41	0.13	78
886S018	6.9	<0.01	0.55	1.9	0.3	5.1	0.13	2.3	0.024	0.09	0.21	35	0.14	73
886S019	13.2	<0.01	0.59	3.3	0.3	10.4	<0.05	1.9	0.019	0.10	0.24	37	0.19	98
886S020	4.3	<0.01	0.19	1.2	<0.2	5.5	<0.05	3.2	0.018	0.07	0.11	18	0.12	28

\*\*\*Please refer to the cover page for comments regarding this certificate. \*\*\*



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To: **Discovery Consultants**  
**Box 933**  
**Vernon, BC**  
**V1T 6M8**

**CERTIFICATE OF ANALYSIS: YVR1710848**

Project Name: 886  
 Job Received Date: 27-Sep-2017  
 Job Report Date: 19-Oct-2017  
 Report Version: Final

	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30	IMS-136-30
	Pb	S	Sb	Sc	Se	Sr	Te	Th	Ti	Tl	U	V	W	Zn
	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Sample ID	0.2	0.01	0.05	0.1	0.2	0.5	0.05	0.2	0.005	0.05	0.05	1	0.05	2
886S021	11.3	0.01	0.40	1.8	0.5	5.6	0.17	2.5	<0.005	0.06	0.25	13	0.16	122
886S022	9.6	0.01	1.35	3.4	1.1	19.8	0.33	1.3	0.012	0.11	0.59	42	0.15	154
886S023	9.7	0.01	0.90	2.1	0.5	6.2	0.06	1.9	0.013	0.08	0.23	38	0.13	93
886S024	7.3	<0.01	1.40	2.5	1.0	6.6	0.19	3.1	0.018	0.11	0.43	36	0.12	118
886S025	8.4	<0.01	0.97	3.7	1.2	7.0	0.06	3.1	0.009	0.08	0.44	36	0.14	120
886S026	13.7	<0.01	0.81	2.3	0.4	15.4	<0.05	1.7	0.011	0.12	0.24	30	0.19	137
886S027	5.3	<0.01	0.45	1.5	0.2	4.4	0.14	2.5	0.008	0.14	0.18	18	0.14	62
886S028	5.0	0.01	0.49	1.4	0.3	6.4	<0.05	0.3	0.009	0.10	0.17	26	0.12	56
886S029	8.6	0.02	0.66	2.1	0.4	5.5	<0.05	0.6	0.010	0.13	0.19	28	0.15	61
886S030	6.5	0.01	1.16	5.9	0.9	7.2	<0.05	2.0	0.007	0.12	0.34	58	0.23	123
DUP 886S023	9.9	0.01	0.90	2.2	0.5	5.7	0.07	2.1	0.014	0.09	0.24	40	0.14	96
STD BLANK	<0.2	<0.01	<0.05	<0.1	<0.2	<0.5	<0.05	<0.2	<0.005	<0.05	<0.05	<1	<0.05	<2
STD OREAS 601	280.6	1.02	23.08	1.7	11.6	34.6	16.27	7.0	0.008	0.75	1.93	9	1.09	1283

\*\*\*Please refer to the cover page for comments regarding this certificate. \*\*\*



**MS Analytical**

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To: **Discovery Consultants**  
**Box 933**  
**Vernon, BC**  
**V1T 6M8**

**CERTIFICATE OF ANALYSIS: YVR1710647**

Project Name:  
Job Received Date: 24-Jul-2017  
Job Report Date: 05-Sep-2017  
Report Version: Final

**COMMENTS:**

This certificate contains results for the following subcontracted tests: PRP-VG2. Entire samples were ashed.

Test results reported relate only to the samples as received by the laboratory. Unless otherwise stated above, sufficient sample was received for the methods requested and all samples were received in acceptable condition. Analytical results in unsigned reports marked "preliminary" are subject to change, pending final QC review. Please refer to MS Analyticals' *Schedule of Services and Fees* for our complete Terms and Conditions

SAMPLE PREPARATION	
METHOD CODE	DESCRIPTION
PRP-VG2	Dry and ash at 475°C

ANALYTICAL METHODS	
METHOD CODE	DESCRIPTION
IMS-330	Multi-Element, 0.5g, Vegetation, ICP-AES/MS, Ultra Trace Level

**Signature:**

Yvette Hsi, BSc.  
Laboratory Manager  
MS Analytical



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**Vernon, BC**  
**V1T 6M8**

**CERTIFICATE OF ANALYSIS: YVR1710647**

Project Name:  
 Job Received Date: 24-Jul-2017  
 Job Report Date: 05-Sep-2017  
 Report Version: Final

Sample ID	Sample Type	PWE-100 Rec. Wt. kg	Method Analyte Units	PRP-VG2 Veg. Rec. Wt. g	PRP-VG2 Veg. Ash. Wt. g	IMS-330 Ag ppm	IMS-330 Al %	IMS-330 As ppm	IMS-330 Au ppm	IMS-330 B ppm	IMS-330 Ba ppm	IMS-330 Be ppm	IMS-330 Bi ppm	IMS-330 Ca %
		0.01	LOR	0.1	0.1	0.01	0.01	0.1	0.0005	10	10	0.05	0.01	0.01
886B001	Bark	0.01		88.2	1.2	0.78	0.69	40.3	0.0349	261	330	0.14	0.22	23.11
886B002	Bark	0.01		112.0	3.5	0.43	0.17	9.4	0.0065	146	739	<0.05	0.03	21.95
886B003	Bark	0.01		100.5	2.6	0.25	0.04	2.0	0.0008	254	563	<0.05	0.01	23.53
886B004	Bark	0.01		96.9	3.0	0.29	0.08	2.1	0.0018	210	549	<0.05	0.03	>25
886B005	Bark	0.01		99.7	3.4	0.32	0.17	2.8	0.0067	179	205	<0.05	0.05	24.09
886B006	Bark	0.01		99.3	2.7	0.32	0.07	1.5	0.0012	226	421	<0.05	0.02	>25
886B007	Bark	0.01		99.8	3.4	0.40	0.09	1.5	0.0010	210	488	<0.05	0.03	>25
886B008	Bark	0.01		85.3	1.9	0.77	0.36	3.0	0.0064	236	285	0.09	0.08	>25
886B009	Bark	0.01		100.5	3.1	0.41	0.15	1.8	0.0025	234	423	<0.05	0.02	>25
886B010	Bark	0.01		99.8	2.8	1.10	0.27	1.7	0.0014	159	293	0.06	0.05	>25
886B011	Bark	0.01		100.0	3.0	0.55	0.31	1.2	<0.0005	217	1168	<0.05	0.02	>25
886B012	Bark	0.01		80.4	1.5	1.60	1.73	3.7	0.0042	162	336	0.10	0.17	>25
886B013	Bark	0.01		100.0	3.2	0.40	0.15	1.9	0.0006	260	602	<0.05	0.04	>25
886B014	Bark	0.01		99.9	3.6	0.43	0.66	22.2	0.0187	164	392	0.14	0.08	20.89
886B015	Bark	0.01		100.5	4.1	0.27	0.08	3.7	0.0007	116	1047	<0.05	0.02	>25
886B016	Bark	0.01		100.0	3.7	0.29	0.03	1.4	0.0064	142	1680	<0.05	0.01	>25
886B017	Bark	0.01		99.4	1.9	0.47	0.51	10.6	0.0121	275	292	0.13	0.13	23.12
886B018	Bark	0.01		99.8	2.3	0.42	0.08	4.2	0.0017	270	1030	<0.05	0.03	23.91
886B019	Bark	0.01		99.7	4.9	0.26	0.08	2.3	<0.0005	91	892	<0.05	0.04	19.31
886B020	Bark	0.01		100.5	4.5	0.75	0.28	11.0	0.0015	88	682	0.07	0.04	12.99
886B021	Bark	0.01		99.8	3.5	0.16	0.15	4.5	0.0006	193	896	<0.05	0.02	>25
886B022	Bark	0.01		88.1	4.1	0.35	0.13	3.6	0.0015	130	330	<0.05	0.05	24.02
886B023	Bark	0.01		70.0	2.6	0.42	0.15	4.4	0.0014	209	686	<0.05	0.05	>25
886B024	Bark	0.01		100.5	2.7	0.22	0.04	1.8	0.0007	163	1563	<0.05	0.01	>25
886B025	Bark	0.01		91.6	2.8	0.54	0.15	3.3	0.0017	271	492	<0.05	0.07	>25

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To: **Discovery Consultants**  
**Box 933**  
**Vernon, BC**  
**V1T 6M8**

**CERTIFICATE OF ANALYSIS: YVR1710647**

Project Name:  
 Job Received Date: 24-Jul-2017  
 Job Report Date: 05-Sep-2017  
 Report Version: Final

Sample ID	Sample Type	PWE-100 Rec. Wt. kg	Method Analyte Units	PRP-VG2 Veg. Rec. Wt. g	PRP-VG2 Veg. Ash. Wt. g	IMS-330 Ag ppm	IMS-330 Al %	IMS-330 As ppm	IMS-330 Au ppm	IMS-330 B ppm	IMS-330 Ba ppm	IMS-330 Be ppm	IMS-330 Bi ppm	IMS-330 Ca %
		0.01	LOR	0.1	0.1	0.01	0.01	0.1	0.0005	10	10	0.05	0.01	0.01
886B026	Bark	0.01		57.0	0.9	0.89	2.57	8.0	0.0032	228	411	0.12	0.17	23.61
886B027	Bark	0.01		100.0	2.2	0.33	0.19	4.5	0.0024	273	751	0.06	0.06	24.02
886B028	Bark	0.01		86.3	2.8	0.20	0.22	4.1	0.0021	199	543	0.06	0.06	>25
886B029	Bark	0.01		100.5	2.8	0.22	0.13	2.2	0.0006	234	830	<0.05	0.03	>25
886B030	Bark	0.01		85.8	2.7	0.36	0.10	2.8	0.0018	187	574	<0.05	0.03	>25
886B031	Bark	0.01		100.5	2.8	0.12	0.08	1.3	<0.0005	236	582	<0.05	0.03	22.68
886B032	Bark	0.01		100.0	3.8	0.19	0.18	1.5	<0.0005	157	348	<0.05	0.04	23.78
886B033	Bark	0.01		83.9	2.1	0.20	0.19	3.0	0.0025	290	291	<0.05	0.05	23.14
886B034	Bark	0.01		100.5	1.9	0.52	0.10	2.4	0.0012	304	449	<0.05	0.05	>25
886B035	Bark	0.01		99.7	2.8	0.19	0.31	1.8	0.0008	261	709	<0.05	0.05	>25
886B036	Bark	0.01		91.3	2.7	0.17	0.21	2.1	0.0011	248	427	0.06	0.05	>25
886B037	Bark	0.01		92.3	1.8	3.02	1.91	5.1	0.0393	244	368	0.08	0.12	21.63
STD BLANK						<0.01	<0.01	<0.1	<0.0005	<10	<10	<0.05	<0.01	<0.01
STD SRM 1573a						0.02	0.03	0.2	0.0008	28	47	<0.05	<0.01	4.59

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To: **Discovery Consultants**  
**Box 933**  
**Vernon, BC**  
**V1T 6M8**

**CERTIFICATE OF ANALYSIS: YVR1710647**

Project Name:  
 Job Received Date: 24-Jul-2017  
 Job Report Date: 05-Sep-2017  
 Report Version: Final

Sample ID	IMS-330 Cd ppm	IMS-330 Ce ppm	IMS-330 Co ppm	IMS-330 Cr ppm	IMS-330 Cs ppm	IMS-330 Cu ppm	IMS-330 Fe %	IMS-330 Ga ppm	IMS-330 Ge ppm	IMS-330 Hf ppm	IMS-330 Hg ppm	IMS-330 In ppm	IMS-330 K %	IMS-330 La ppm
886B001	13.24	5.12	6.2	9	0.91	602.5	0.87	1.47	0.07	<0.02	<0.005	0.032	3.12	2.5
886B002	1.48	1.97	4.0	4	0.37	171.6	0.35	0.54	<0.05	0.03	<0.005	0.008	4.32	0.9
886B003	0.14	0.39	2.5	1	0.70	324.4	0.07	0.12	0.06	<0.02	<0.005	<0.005	6.39	<0.2
886B004	4.86	0.90	2.1	2	0.24	288.7	0.13	0.20	0.06	<0.02	<0.005	0.007	3.59	0.4
886B005	25.26	1.79	5.9	3	0.24	221.4	0.19	0.45	<0.05	<0.02	<0.005	0.009	3.63	0.9
886B006	9.71	0.64	1.5	2	0.55	142.9	0.09	0.20	<0.05	<0.02	<0.005	<0.005	2.91	0.3
886B007	16.66	0.76	2.9	2	0.24	195.5	0.14	0.21	<0.05	<0.02	<0.005	0.005	4.47	0.4
886B008	4.86	3.00	3.7	6	0.85	351.6	0.47	0.96	<0.05	0.03	<0.005	0.011	4.59	1.5
886B009	2.69	0.81	1.1	2	0.62	203.6	0.12	0.21	<0.05	<0.02	<0.005	<0.005	4.29	0.4
886B010	2.49	1.42	1.5	3	0.70	214.6	0.19	0.39	<0.05	<0.02	<0.005	0.010	2.29	0.7
886B011	2.02	0.68	0.9	1	0.40	139.8	0.08	0.15	<0.05	<0.02	<0.005	<0.005	3.23	0.4
886B012	14.90	5.73	3.4	5	0.50	134.5	0.47	1.16	0.06	0.04	<0.005	0.026	1.61	2.6
886B013	10.56	1.23	1.3	2	0.23	102.3	0.16	0.30	<0.05	<0.02	<0.005	0.008	3.15	0.6
886B014	3.23	5.97	10.7	15	0.41	212.6	1.70	1.43	<0.05	0.02	<0.005	0.016	4.52	2.7
886B015	0.59	0.85	1.4	2	0.14	179.2	0.18	0.22	<0.05	<0.02	<0.005	<0.005	5.38	0.4
886B016	15.85	0.32	1.2	<1	0.15	180.5	0.06	0.08	<0.05	<0.02	<0.005	<0.005	2.12	<0.2
886B017	6.32	4.69	7.8	10	0.51	258.3	0.97	1.14	0.07	0.02	<0.005	0.017	5.95	2.2
886B018	0.50	0.90	1.7	2	0.32	235.9	0.17	0.20	0.06	<0.02	<0.005	<0.005	8.79	0.4
886B019	8.03	1.07	1.5	2	0.18	74.9	0.14	0.24	<0.05	<0.02	<0.005	<0.005	0.89	0.5
886B020	6.92	3.58	4.8	7	0.13	149.2	0.74	0.74	0.05	0.03	<0.005	0.008	3.91	1.6
886B021	6.53	1.15	2.8	3	0.10	199.0	0.24	0.24	<0.05	<0.02	<0.005	<0.005	6.88	0.5
886B022	4.34	2.35	2.9	3	0.17	94.6	0.26	0.41	<0.05	<0.02	<0.005	0.007	3.12	1.1
886B023	7.95	1.54	2.1	3	0.21	132.2	0.28	0.37	<0.05	<0.02	<0.005	<0.005	4.05	0.8
886B024	14.33	0.43	1.4	1	0.23	123.7	0.07	0.08	<0.05	<0.02	<0.005	<0.005	3.35	0.2
886B025	54.60	1.51	3.6	3	0.44	194.3	0.23	0.36	<0.05	<0.02	<0.005	0.006	2.84	0.7

\*\*\*Please refer to the cover page for comments regarding this certificate. \*\*\*



An A2 Global Company

MS Analytical  
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 Phone: +1-604-888-0875

To: **Discovery Consultants**  
**Box 933**  
**Vernon, BC**  
**V1T 6M8**

**CERTIFICATE OF ANALYSIS: YVR1710647**

Project Name:  
 Job Received Date: 24-Jul-2017  
 Job Report Date: 05-Sep-2017  
 Report Version: Final

Sample ID	IMS-330 Cd ppm	IMS-330 Ce ppm	IMS-330 Co ppm	IMS-330 Cr ppm	IMS-330 Cs ppm	IMS-330 Cu ppm	IMS-330 Fe %	IMS-330 Ga ppm	IMS-330 Ge ppm	IMS-330 Hf ppm	IMS-330 Hg ppm	IMS-330 In ppm	IMS-330 K %	IMS-330 La ppm
886B026	84.97	6.33	5.5	7	0.78	262.8	0.64	1.16	0.08	0.03	<0.005	0.021	3.46	3.1
886B027	5.35	2.06	3.6	4	0.41	205.4	0.35	0.45	<0.05	<0.02	<0.005	0.005	7.12	0.9
886B028	4.87	2.31	3.6	4	0.25	115.0	0.39	0.55	<0.05	<0.02	<0.005	0.008	2.06	1.1
886B029	7.23	1.15	2.3	2	0.40	108.1	0.13	0.24	<0.05	<0.02	<0.005	<0.005	4.06	0.6
886B030	24.47	0.80	2.5	2	0.23	184.4	0.11	0.20	<0.05	<0.02	<0.005	<0.005	7.33	0.4
886B031	9.78	0.79	1.3	2	0.31	140.2	0.11	0.16	<0.05	<0.02	<0.005	<0.005	4.58	0.4
886B032	9.51	1.21	1.7	2	0.31	174.6	0.16	0.24	<0.05	<0.02	<0.005	<0.005	2.82	0.6
886B033	7.87	1.79	2.2	3	2.25	205.7	0.20	0.35	0.05	<0.02	<0.005	0.009	9.22	0.9
886B034	2.99	1.31	1.9	2	0.73	539.2	0.14	0.24	0.06	<0.02	<0.005	0.006	5.57	0.6
886B035	8.96	1.74	5.3	3	1.97	130.2	0.19	0.35	<0.05	<0.02	<0.005	0.006	3.49	0.8
886B036	3.01	1.48	1.2	2	0.73	132.0	0.16	0.30	<0.05	<0.02	<0.005	0.006	5.03	0.7
886B037	16.01	2.67	1.7	4	1.94	205.8	0.28	0.57	0.06	0.03	<0.005	0.011	8.40	1.3
STD BLANK	<0.01	<0.02	<0.1	<1	<0.05	<0.2	<0.01	<0.05	0.05	<0.02	<0.005	<0.005	<0.01	<0.2
STD SRM 1573a	1.54	1.34	0.5	1	<0.05	4.2	0.03	0.12	0.06	<0.02	0.030	<0.005	2.45	1.9

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To: **Discovery Consultants**  
**Box 933**  
**Vernon, BC**  
**V1T 6M8**

**CERTIFICATE OF ANALYSIS: YVR1710647**

Project Name:  
 Job Received Date: 24-Jul-2017  
 Job Report Date: 05-Sep-2017  
 Report Version: Final

Sample ID	IMS-330 Li ppm	IMS-330 Mg %	IMS-330 Mn ppm	IMS-330 Mo ppm	IMS-330 Na %	IMS-330 Nb ppm	IMS-330 Ni ppm	IMS-330 P ppm	IMS-330 Pb ppm	IMS-330 Rb ppm	IMS-330 Re ppm	IMS-330 S %	IMS-330 Sb ppm	IMS-330 Sc ppm
886B001	2.8	1.00	5112	6.02	0.12	0.16	23.5	>10000	31.1	37.4	0.002	1.16	0.77	1.6
886B002	1.7	0.65	3152	1.41	0.08	0.08	10.1	3436	7.4	43.6	<0.001	0.28	0.31	0.7
886B003	0.6	0.88	2224	0.31	0.03	<0.05	4.5	4363	5.5	67.5	<0.001	0.45	0.13	0.2
886B004	1.2	0.79	1132	0.67	0.04	<0.05	5.7	4397	14.0	29.0	<0.001	0.46	0.20	0.3
886B005	1.0	0.73	6795	1.35	0.06	0.09	18.2	6161	16.2	31.9	<0.001	0.65	0.38	0.5
886B006	0.5	0.60	5378	0.60	0.04	<0.05	10.3	3687	7.8	34.2	<0.001	0.30	0.19	0.2
886B007	0.5	0.86	4895	0.69	0.04	<0.05	16.2	5904	7.0	25.8	0.001	0.37	0.21	0.2
886B008	2.0	1.17	8996	2.69	0.09	0.16	28.7	>10000	22.4	42.5	<0.001	0.62	0.43	0.9
886B009	0.7	0.87	11130	0.72	0.05	0.06	17.8	5989	6.2	41.4	<0.001	0.45	0.13	0.3
886B010	0.9	0.54	14300	0.93	0.05	0.08	23.4	4809	12.6	32.3	<0.001	0.44	0.26	0.4
886B011	0.4	0.97	8924	0.40	0.03	<0.05	28.7	3588	6.0	33.6	<0.001	0.28	0.09	0.2
886B012	3.2	1.07	9062	2.37	0.06	0.15	26.2	5418	53.5	14.8	<0.001	0.59	0.93	1.0
886B013	1.1	0.67	15270	0.73	0.04	0.06	6.3	5661	12.4	18.5	<0.001	0.32	0.20	0.3
886B014	5.3	1.23	2503	2.76	0.13	0.08	31.9	4734	19.1	37.3	<0.001	0.46	0.38	2.1
886B015	0.7	0.68	390	0.80	0.04	<0.05	4.4	4134	4.9	34.5	<0.001	0.24	0.10	0.3
886B016	0.3	0.44	1858	0.42	0.02	<0.05	5.2	3063	3.1	18.3	<0.001	0.24	0.08	0.1
886B017	3.3	1.91	3496	3.35	0.11	0.17	27.5	9509	22.2	32.9	0.001	0.76	0.60	1.5
886B018	1.2	1.42	1519	0.89	0.04	0.05	7.1	6004	5.1	57.2	<0.001	0.45	0.23	0.4
886B019	1.0	0.46	1032	0.78	0.02	<0.05	3.8	2185	8.8	8.7	<0.001	0.21	0.11	0.3
886B020	3.0	0.49	1072	1.32	0.04	0.09	19.1	3453	6.1	20.6	<0.001	0.18	0.16	1.2
886B021	1.1	0.92	2811	0.68	0.04	<0.05	7.6	5871	4.6	31.1	<0.001	0.26	0.12	0.4
886B022	1.0	0.77	1267	1.23	0.03	0.06	7.3	4435	15.5	19.2	<0.001	0.38	0.27	0.5
886B023	1.3	0.86	2480	1.07	0.04	0.07	7.9	5294	9.0	22.2	<0.001	0.33	0.19	0.5
886B024	0.4	0.75	1907	0.32	0.02	<0.05	2.7	2963	1.9	34.8	<0.001	0.26	0.07	0.2
886B025	1.2	0.93	10030	1.33	0.03	0.07	10.7	7127	9.2	28.7	<0.001	0.27	0.24	0.4

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To: **Discovery Consultants**  
**Box 933**  
**Vernon, BC**  
**V1T 6M8**

**CERTIFICATE OF ANALYSIS: YVR1710647**

Project Name:  
 Job Received Date: 24-Jul-2017  
 Job Report Date: 05-Sep-2017  
 Report Version: Final

Sample ID	IMS-330 Li ppm	IMS-330 Mg %	IMS-330 Mn ppm	IMS-330 Mo ppm	IMS-330 Na %	IMS-330 Nb ppm	IMS-330 Ni ppm	IMS-330 P ppm	IMS-330 Pb ppm	IMS-330 Rb ppm	IMS-330 Re ppm	IMS-330 S %	IMS-330 Sb ppm	IMS-330 Sc ppm
	0.1	0.01	5	0.05	0.01	0.05	0.2	10	0.2	0.1	0.001	0.01	0.05	0.1
886B026	2.2	1.42	6063	3.72	0.08	0.17	49.3	>10000	39.0	35.0	<0.001	0.68	0.98	1.2
886B027	1.7	1.19	2538	1.50	0.06	0.08	13.7	5561	10.0	55.1	0.002	0.27	0.19	0.6
886B028	2.5	1.02	2934	1.95	0.04	0.09	10.3	4560	11.9	18.4	<0.001	0.36	0.23	0.7
886B029	1.4	0.94	5840	0.84	0.03	<0.05	8.7	5023	6.8	35.4	<0.001	0.30	0.18	0.2
886B030	1.0	1.05	2996	0.85	0.03	<0.05	18.4	5380	6.6	53.9	<0.001	0.33	0.16	0.2
886B031	1.1	1.22	4053	0.63	0.02	<0.05	12.6	5168	5.5	38.7	<0.001	0.22	0.08	0.2
886B032	1.1	0.79	4965	0.85	0.03	<0.05	16.6	6002	7.4	27.0	<0.001	0.27	0.13	0.3
886B033	1.7	1.09	7775	1.35	0.08	0.09	13.2	7772	12.5	100.4	0.002	0.50	0.22	0.4
886B034	0.7	1.10	3117	1.19	0.07	0.06	6.4	7469	14.4	80.1	0.001	0.48	0.25	0.3
886B035	1.1	0.96	8020	1.24	0.04	0.08	13.4	5451	11.1	49.9	0.001	0.27	0.22	0.3
886B036	1.2	0.70	6256	0.89	0.05	0.06	39.9	6259	11.0	58.6	0.002	0.31	0.24	0.3
886B037	1.5	1.63	10060	1.61	0.04	0.11	48.4	>10000	43.9	80.5	<0.001	0.63	0.76	0.5
STD BLANK	<0.1	<0.01	<5	<0.05	<0.01	<0.05	<0.2	<10	<0.2	<0.1	<0.001	<0.01	<0.05	<0.1
STD SRM 1573a	0.3	0.93	223	0.43	0.01	<0.05	1.5	2009	0.8	14.1	0.003	0.86	0.06	0.1

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**Vernon, BC**  
**V1T 6M8**

**CERTIFICATE OF ANALYSIS: YVR1710647**

Project Name:  
 Job Received Date: 24-Jul-2017  
 Job Report Date: 05-Sep-2017  
 Report Version: Final

Sample ID	IMS-330 Se ppm	IMS-330 Sn ppm	IMS-330 Sr ppm	IMS-330 Ta ppm	IMS-330 Te ppm	IMS-330 Th ppm	IMS-330 Ti %	IMS-330 Tl ppm	IMS-330 U ppm	IMS-330 V ppm	IMS-330 W ppm	IMS-330 Y ppm	IMS-330 Zn ppm	IMS-330 Zr ppm
886B001	1.8	0.8	1754.0	<0.01	0.06	0.4	0.015	<0.02	0.31	14	0.44	2.12	1450	0.8
886B002	0.4	<0.2	780.0	<0.01	0.01	0.2	0.007	<0.02	0.13	4	0.20	0.89	1847	1.3
886B003	0.2	<0.2	1605.0	<0.01	<0.01	<0.2	<0.005	<0.02	<0.05	<1	0.05	0.17	3084	<0.5
886B004	0.2	<0.2	1659.8	<0.01	0.01	<0.2	<0.005	<0.02	<0.05	2	0.07	0.39	1676	<0.5
886B005	0.3	0.3	854.9	<0.01	0.02	<0.2	0.007	<0.02	0.08	4	0.10	0.80	2073	0.8
886B006	<0.2	0.2	1040.0	<0.01	0.01	<0.2	<0.005	<0.02	<0.05	1	0.06	0.29	2009	<0.5
886B007	<0.2	<0.2	1318.0	<0.01	<0.01	<0.2	<0.005	<0.02	<0.05	2	0.07	0.34	2633	<0.5
886B008	0.4	0.4	1135.0	<0.01	0.03	0.2	0.018	<0.02	0.13	9	0.17	1.16	3045	1.2
886B009	<0.2	<0.2	1429.0	<0.01	<0.01	<0.2	<0.005	<0.02	<0.05	1	0.10	0.35	2420	<0.5
886B010	0.2	0.2	864.2	<0.01	0.01	<0.2	0.007	<0.02	0.06	2	0.07	0.56	1558	0.7
886B011	<0.2	<0.2	1413.0	<0.01	<0.01	<0.2	<0.005	0.08	<0.05	<1	<0.05	0.32	1945	<0.5
886B012	0.6	0.7	895.3	<0.01	<0.01	0.4	0.014	0.08	0.20	10	0.19	2.35	1411	1.7
886B013	<0.2	0.3	1978.0	<0.01	<0.01	<0.2	0.006	<0.02	<0.05	2	0.06	0.52	2384	0.6
886B014	0.6	0.2	2233.0	<0.01	0.01	0.7	0.019	0.06	0.28	16	0.22	2.80	2679	1.2
886B015	<0.2	<0.2	1662.0	<0.01	0.01	<0.2	<0.005	<0.02	<0.05	2	0.05	0.41	1095	<0.5
886B016	<0.2	<0.2	3008.0	<0.01	0.02	<0.2	<0.005	0.02	<0.05	<1	<0.05	0.18	1369	<0.5
886B017	0.7	0.5	1658.0	<0.01	<0.01	0.5	0.020	0.06	0.25	14	0.23	2.08	3002	1.2
886B018	<0.2	<0.2	1698.0	<0.01	0.01	<0.2	<0.005	<0.02	0.06	2	0.08	0.44	2634	0.6
886B019	<0.2	<0.2	954.7	<0.01	<0.01	<0.2	<0.005	0.03	0.05	2	0.05	0.44	1290	<0.5
886B020	0.3	<0.2	506.3	<0.01	<0.01	0.5	0.009	<0.02	0.14	8	0.11	1.64	917	1.4
886B021	0.2	<0.2	1383.0	<0.01	<0.01	<0.2	<0.005	<0.02	0.05	2	0.06	0.56	2569	0.6
886B022	0.3	<0.2	1571.0	<0.01	0.04	<0.2	<0.005	<0.02	0.08	4	0.07	1.18	1107	0.7
886B023	0.3	<0.2	1424.0	<0.01	0.01	<0.2	0.005	<0.02	0.07	3	0.07	0.68	2092	0.7
886B024	<0.2	<0.2	1373.0	<0.01	0.01	<0.2	<0.005	<0.02	<0.05	<1	<0.05	0.18	1949	<0.5
886B025	0.4	0.2	1290.0	<0.01	0.01	<0.2	0.006	0.07	0.07	3	0.07	0.58	2894	0.6

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**V1T 6M8**

**CERTIFICATE OF ANALYSIS: YVR1710647**

Project Name:  
 Job Received Date: 24-Jul-2017  
 Job Report Date: 05-Sep-2017  
 Report Version: Final

Sample ID	IMS-330 Se ppm	IMS-330 Sn ppm	IMS-330 Sr ppm	IMS-330 Ta ppm	IMS-330 Te ppm	IMS-330 Th ppm	IMS-330 Ti %	IMS-330 Tl ppm	IMS-330 U ppm	IMS-330 V ppm	IMS-330 W ppm	IMS-330 Y ppm	IMS-330 Zn ppm	IMS-330 Zr ppm
	0.2	0.2	0.2	0.01	0.01	0.2	0.005	0.02	0.05	1	0.05	0.05	1	0.5
886B026	0.8	0.7	497.2	<0.01	<0.01	0.3	0.014	0.03	0.23	11	0.21	2.68	1700	1.6
886B027	0.2	0.2	2322.0	<0.01	0.01	<0.2	0.007	<0.02	0.10	5	0.12	0.99	2950	0.7
886B028	<0.2	0.2	1638.0	<0.01	0.01	0.2	0.008	0.02	0.10	6	0.09	1.00	2484	0.8
886B029	<0.2	<0.2	1282.0	<0.01	0.03	<0.2	<0.005	<0.02	<0.05	2	0.05	0.53	2669	<0.5
886B030	<0.2	<0.2	1870.0	<0.01	0.01	<0.2	<0.005	<0.02	<0.05	2	0.05	0.39	2389	<0.5
886B031	<0.2	<0.2	1438.0	<0.01	0.01	<0.2	<0.005	0.03	<0.05	1	<0.05	0.33	3118	<0.5
886B032	<0.2	<0.2	1399.0	<0.01	0.01	<0.2	<0.005	<0.02	0.05	2	0.05	0.48	1939	<0.5
886B033	<0.2	0.3	768.0	<0.01	0.02	<0.2	0.006	0.03	0.07	3	0.08	0.82	2642	0.7
886B034	<0.2	0.7	1458.0	<0.01	0.03	<0.2	<0.005	<0.02	0.06	2	0.10	0.53	3154	0.6
886B035	<0.2	0.2	913.6	<0.01	0.02	<0.2	0.006	0.05	0.06	3	0.08	0.73	2131	0.8
886B036	<0.2	<0.2	1818.0	<0.01	0.02	<0.2	<0.005	0.04	0.06	2	0.08	0.68	1923	0.6
886B037	0.6	0.4	720.4	<0.01	<0.01	<0.2	0.006	0.22	0.11	4	0.12	1.13	1267	1.1
STD BLANK	<0.2	<0.2	<0.2	<0.01	<0.01	<0.2	<0.005	<0.02	<0.05	<1	<0.05	<0.05	<1	<0.5
STD SRM 1573a	<0.2	<0.2	76.7	<0.01	<0.01	<0.2	<0.005	0.03	<0.05	<1	<0.05	0.72	28	<0.5

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