## **GEOCHEMICAL SAMPLING REPORT** (2015 Soil, Stream Sediment and Rock Sampling)

on the

## PORCHER ISLAND PROPERTY

Tenure Nos. 250392, 250593, 252112, 252113, 255351, 255353

**Skeena Mining Division** 

NTS: 103J/02E

BCGS Map Sheets: 103J007 and 103J008

Latitude: 54° 00' 59" N; Longitude 130° 35' 20" W

UTM (NAD 83, Zone 9): 395 900E; 5 986 500N

**Owner:** 

Porcher Island Joint Venture 0847420 BC Ltd. (65%) Imperial Metals Corporation (35%)

**Operator:** 

**Imperial Metals Corporation** 

Author: Jim Miller-Tait, P. Geo.

December 15, 2015

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Ministry of Energy, Mines & Petroleum Resources Mining & Minerals Division BC Geological Survey	Assessment Report Title Page and Summary
TYPE OF REPORT [type of survey(s)]: GEOCHEMICAL ASSESSMEN	NT REPORT TOTAL COST: \$24,917.75
AUTHOR(S): Jim Miller-Tait, P. Geo.	SIGNATURE(S):
NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): N/A	V YEAR OF WORK: 2015
STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S):	5572348 and 5572350 / September 29, 2015
PROPERTY NAME: PORCHER ISLAND	
CLAIM NAME(S) (on which the work was done): 250392, 250593, 2521	12, 252113, 255351, 255353
COMMODITIES SOUGHT: <u>Au</u> MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: <u>103J 013, 014</u>	, 015, 016, 017, 018, 019, 020, 021, 022, 048
LATITUDE: 54 ° 00 '59 " LONGITUDE: 130	° 35 '20 " (st centre of work)
OWNER(S): 1) Imperial Metals Corporation	2) 0847420 BC Ltd.
35% Interest	65% Interest
MAILING ADDRESS: 200-580 Hornby Street	501-1155 Robson Street
Vancouver, BC V6C 3B6	Vancouver, BC V6E 3H2
OPERATOR(S) [who paid for the work]: 1) Imperial Metals Corporation	2) 0847420 BC Ltd.
MAILING ADDRESS: 200-580 Hornby Street	501-1155 Robson Street
Vancouver, BC V6C 3B6	Vancouver, BC V6E 3H2
PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, The Porcher Island claims are underlain by Ordovician andesite	alteration, mineralization, size and attitude): tuff, lapilli tuff and breccia. These rocks have been intruded by
Cretaceous aged West Porcher granodiorite and diorite. Gold be	aring quartz veins strike east-west and dip steeply north. The
claims cover the historic Edye Pass and Surf Point mines.	

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: 05728, 06195, 07194, 14602, 15225, 15411, 16735, 17076, 17861, 18737, 25073

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TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			. <u></u>
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for)			
Soil 32 samples / 36 elemen	t ICP-ES / MS		
Silt 12 samples / 36 element	ICP-ES / MS		
Rock 9 samples / 36 element	nt ICP-ES / MS		
Other Total			\$21,565.36
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying			\$1,035.19
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY / PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/ti	rail		
Trench (metres)			
Underground dev. (metres)			
Other Report preparation, pro	ogram administration		\$2.317.20
		TOTAL COST:	\$24,917,75

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### **SECTION A: REPORT**

### **INTRODUCTION:**

The Porcher Island Property (the "Property") is a gold-bearing quartz vein and shear hosted gold deposit operated by Imperial Metals Corporation ("Imperial" or the "Company") on behalf of the Porcher Island Joint Venture, the participants being 0847420 BC Ltd. and Imperial Metals Partnership, each holding 65% and 35% interests respectively.

This report summarizes stream sediment, rock and soil sampling programs carried out by the Company from July 30<sup>th</sup> to August 7<sup>th</sup>, 2015. Efforts were also made to verify and examine the locations of a number of Minfile occurrences that are situated on the Property. A total of 32 soil samples, 12 stream sediment and 9 rock samples were collected during the program by two geologists and one field technician. A converted fish boat, the "Albacore II", was used as a camp and for transport to and from Prince Rupert. A 14-foot aluminum boat with a 20 hp outboard motor was used to access the beaches for drop off and pick-ups at the end of each day.

### **PROPERTY:**

The Porcher Island Property is comprised of 26 mineral claims totaling 80 units and covering a gross area of 1895.3 hectares; 13 Crown granted mineral claims of 220.3 ha and 13 legacy mineral claims (67 units, 1675 ha). The claims are located in the Skeena Mining Division. The Crown granted claims are currently registered in the name of Imperial Metals Corporation while the legacy tenures show interests of 65% for 0847420 BC Ltd. and 35% for Imperial Metals Corporation. The location of the property and the mineral claims are shown on Plan Nos. PI-2015-01 to PI-2015-03 contained herein. The details of the mineral claims that comprise the Property are set out in Section B of this report. The Crown granted claims have their mineral land taxes paid to July 2, 2016 while the "good to dates" for the legacy claims are based on the Statements of Exploration and Development Work registered on September 29, 2015 as Event Nos. 5572348 and 5572350 and assume that the work contained in this report will be accepted for assessment purposes.

0847420 BC Ltd acquired its 65% interest in the Property from Cross Lake Minerals Ltd. in 2009 during a company re-organization. Cross Lake had acquired its 65% interest from Imperial Metals Corporation under the terms of an option agreement dated September 1, 2005 whereby it was required to carry out exploration and development expenditures of \$2,000,000, make aggregate cash options payments of \$100,000 and share option payments of 400,000 shares of the Company on or before December 31, 2008. The terms of the option agreement were satisfied in May 2007 and the Porcher Island Joint Venture was formed by an agreement dated May 31, 2007.

### **LOCATION AND ACCESS:**

The Porcher Island Property is located at the northwest corner of Porcher Island, approximately 35 km southwest of Prince Rupert, on the northern coast of British Columbia. The claim tenures are primarily situated on NTS map sheet 103J/02E and B.C. Geographic System map sheets 103J007 and 103J008. Geographic coordinates at the centre of the 2015 work area are 54° 00′ 59" north latitude, 130° 35′ 20" west longitude and the UTM coordinates (NAD 83 / Zone 9) in the centre of the work area are 395,900E and 5,986,500N. Soil sampling and mapping in 2015 was completed on mineral claim #250392 in the northwest corner of the property. The stream sediment sampling program was completed over the project area where traverses were completed to try and locate historic Minfile occurrences.







There is no road access to or on the Property. Access was provided by chartering a converted fish boat, the "Albacore II", for travel directly from Prince Rupert (35 km / 4.0 hour trip one way) and shore access for put outs and pick-ups was by using a 14 foot aluminum boat with a 20 hp outboard motor. A short boardwalk trail provides access to the Surf Point mine and the gentle to moderate slopes make for easy foot travel around the property. Communications between crews and the boat was by 2-way radio.

### **CLIMATE, TOPOGRAPHY AND VEGETATION:**

The climate is typical of northern coastal areas in British Columbia, relatively wet and windy, with moderate temperatures. Based on Prince Rupert weather data, rainfall is in the order of 240 cm and snowfall about 15 cm annually. The mean monthly temperature ranges from a low of -1° in January to 13° in August. Winds are predominantly from the southeast and blow, on average, 20 km per hour. The windiest months are April and October and the least windy month is July.

The weather during the exploration program, July 30<sup>th</sup> to August 7<sup>th</sup>, was very wet, cloudy and windy with low visibility due to extensive cloud and fog cover. The smaller boat could not be used along the exposed coast on some days due to high winds and waves.

Porcher Island is a large, sparsely-populated island with three small hunting and fishing communities on the eastern part of the island - Porcher Island, Hunts Inlet, and Oona River. These communities are serviced by BC Hydro. The western part of the island has very little development apart from the historic mining activities and seasonal exploration camps on the Porcher Island project. Porcher Island, the 8th largest island in BC, is on the eastern margin of the 120 km-wide central Coastal Trough of the Western Physiographic subdivision of the Canadian Cordillera (Hecate Lowland). The area of the historic Surf Point mine is about 120 m ASL. Two paths to tidewater, northerly to the Edye Pass mine and camp (15 m ASL) on the south shore of Edye Passage and westerly to Welcome Harbour are moderate to gentle in slope. The north/northeasterly-trending Bell Range rises very steeply above the Surf Point mine to 502 m ASL, with slopes frequently exceeding 35°.

The terrain is characterized by gentle to moderate slopes, increasing to over 35° at the higher elevations. Continuous and persistent rainfall provides an ample water supply to the many stream and creeks on the island. Fairly open to dense stands of cedar, hemlock and stunted lodgepole pine mixed with wetter patches of muskeg are typical of the vegetation cover; rock exposure is sparse.

### **HISTORY:**

Most of the early history is summarized from BC Ministry of Mines Annual Reports (1913, 1916-1920, 1934-35, 1939 and 1940). Exploration activity from 1975-1997 is summarized from Assessment Reports most notably report number 25,073 (Scott, 1997) which is the most recent assessment report on the property.

The northwest corner of Porcher Island has a long history of mineral exploration and production. The earliest report of exploration on Porcher Island dates from 1913 where surface showings of magnetite-iron ore of a highly encouraging nature were noted. The Property was initially located in 1916, with exploration by Belmont-Surf Inlet Mines starting in 1917. Known as the Patterson Group of claims (Trixie, Jeanie, and Western Hope) ore was first shipped in 1919 with 10 tons grading 3.76 oz/ton gold and 1.8 oz/ton silver. In 1937 the mill at the Surf Point mine burnt down and then in 1939 the concentrator at the Edye Pass mine burnt. Due to the fires and a labour shortage, the mines were closed in 1939. At the end of production, 77,952 tons of ore, grading 0.29 oz/ton had been removed with 6,500 tons attributed to the Surf Point mine.

Interest on the Property occurred again in 1975 when Tombill Mines Ltd. resumed exploration on the property and completed 736 m of underground drilling that examined the downward projections of the Surf Point veins. This was followed by limited surface exploration carried out by Carolin Mines in 1976.

After achieving encouraging results from four surface diamond drill holes in 1978, Banwan Gold Mines continued to receive funding from E&B Explorations Ltd., and embarked on a two-phase program of exploration and development throughout 1979/1980. During this period, the Edye Pass Adit (1015 Level) was advanced to below the Surf Point workings (1110 Level). In addition to detailed mapping on both levels and a complete survey of the underground workings, 40 underground diamond drill holes totalling 3470 m were also completed. These explored the continuity of vein systems on, above and below the 1015 Level. Contrary to recommendations for further development, Banwan ceased work on the Porcher Island Property.

Cathedral Gold Corporation ("CGC") resumed exploration of the Property in 1987, and continued field operations through to 1990. Surface work included soil geochemical surveys and IP surveys on selected areas, as well as an airborne VLF-EM and Magnetic Survey of the entire area. A surface diamond drilling program of 91 holes totaling 16,150 m was also completed. As a result, four drill-indicated gold zones, including the AT Zone (Surf Point Mine) were established. Others include the Edye, the Alder, and the Slope Zones.

Underground development by CGC included 110 m of raise development between the 1015 and 1110 levels, and 100 m of sub-level drifting (1010 level) on the 1896 gold-bearing shear. Associated engineering studies were completed that included metallurgical testing, ore reserve calculations and preliminary mine development planning. Subsequent to cessation of field work in 1990, CGC, in conjunction with Westmin Resources, initiated a preliminary feasibility study (1994) which, in addition to mine development, addressed environmental and cultural concerns.

In 1996, Porcher Island Gold Corporation signed an option agreement with CGC, and undertook a surface exploration program comprising VLF-EM, magnetic and HLEM geophysical surveys over selected portions of the property, as well as a surface diamond drill program. Drilling was designed to investigate possible extensions to previously outlined zones of gold mineralization.

There was a hiatus in exploration on the Porcher Island Property from 1997 to 2005. Exploration began again in November 2005 when the 42 hole drill program (Bjornson, 2009) began following Cross Lake Minerals Ltd. optioning the Property from Imperial Metals Corporation. Table 1 summarizes work and drilling completed to date on the Porcher Island Property. All core is stored on site and except for the drill core from the 2005-2007 program, is generally in poor condition or missing altogether.

Table 1										
Porcher Island Property: Summary of Activities										
Year	Year Company Type of Work									
			Holes	Metres						
1975	TomBill Mines	Diamond drilling	8	736						
1976	Carolin Mines	Geochemistry, geophysical surveys, mapping,								
		sampling.								
1978	Banwan Gold Mines	Diamond drilling	4	624						
	(E&B Exploration)									
1979/80	Banwan Gold Mines	Edye Pass adit extended, diamond drilling.	40	3,470						
	(E&B Exploration)									
1987-90	Cathedral Gold Corp	Diamond drilling, geophysical survey (12.85	91	16,150						

		line km)		
1988	Cathedral Gold Corp	Geochemical survey (941 soils, 132 silt and 6		
		rock).		
1988	Cathedral Gold Corp	Geophysical survey		
1987-90	Cathedral Gold Corp	110 m raise connecting Edye Pass mine with		
		Surf Point mine constructed		
1996-97	Porcher Island Gold	Diamond drilling, geophysical survey	22	3,483
	Corp.			
2005-07	Cross Lake Minerals	Diamond drilling	42	12,681
	Ltd.			
2007-08	Cross Lake Minerals	Geochemical Survey (991 soils, 228 MMI, and		
	Ltd.	38 rock)		
2015	Imperial Metals	Geochemical Surveying (32 soils, 12 stream		
	Corporation	Sediment, 9 rock)		

### **REGIONAL GEOLOGY:**

Mineralization on the Porcher Island Property is hosted by a composite stock of middle Cretaceous Age (Figure 3). The ovoid stock, measuring approximately 2.4 km in diameter, comprises a biotite quartz diorite core and a hornblende quartz diorite periphery. This offshoot from the western margin of the Coast Plutonic Complex intrudes Ordovician to Triassic Alexander Terrane lithologies which trend northwesterly, underlying much of the Alaskan Panhandle.

On Porcher Island, the Alexander Terrane comprises rhyolite, green phyllite, micaceous quartzite, metasediments displaying metamorphic facies ranging from greenschist to amphibilitic, volcanics and crystalline carbonates (MacIntyre et al, 1994). Large scale folds are rare; however, minor north-northwesterly overturned folds display steep, north-northeast plunges occurring in the northeastern portion of Porcher Island. Schistocity is predominantly northwest.

In the northwest sector of Porcher Island, adjacent to the Surf Point and Edye Pass mines, Carboniferous to Devonian heterogeneous plutonic rock is seen to intrude the layered strata of the Alexander Terrane. This in turn is cut by granodiorite and greenstone dykes. Middle to lower Triassic quartz diorite intrudes Alexander rocks in the south of Porcher, while to the southwest, early Cretaceous granodiorite occurs, fault-contacted against the older stratigraphy.

Middle Cretaceous plutonic rocks occur in composite circular and linear bodies. Paralleling regional stratigraphy, the latter crosses eastern Porcher and trend northwesterly through Stephens Island. The central island is dominated by a 12 km diameter, middle Cretaceous, composite stock, comprising a granodiorite core with a quartz diorite periphery. On its northern flank, a 2.4 km diameter apophyses of similar character hosts the Porcher Island gold prospect. A strongly developed, closely-spaced shearing strikes north-northwest and dips gently to moderately northeast throughout the region.

### **PROPERTY GEOLOGY:**

The quartz diorite stock underlying the Porcher Island Gold Project is somewhat regular in outline and is uniform in composition and texture (see Figure PI-2015-4). Towards the core, however, the rock becomes more leucocratic, grading into granodiorite (Smith 1947 & 1948). This is reflected in an inward reduction in mafic content and a gradation from hornblende, dominant through hornblende biotite, to a biotite dominant core. On the northwest sector of the stock, proximal to the indistinct boundary between quartz diorite and granodiorite, occurs a sheeting of pre-vein andesite dykes, striking northwesterly, with

![](_page_11_Figure_0.jpeg)

moderate southwesterly dip. A swarm of later l to 2 m wide basalt dykes transect the pluton along a N20°E / 85°SE trend. This trend is deflected for short distances to the southwest and southeast when the basalt dykes cross earlier vein-fault structures.

Three prominent structural features dominate the property:

- (1) the north/northwesterly stratigraphic trend;
- (2) N30°E shears and such as the Edye and Edwin faults; and
- (3) an arch-forming array of flow layers within the quartz diorite stock (Smith 1947 & 1948).

The flow layers, displaying concentricity with the perimeter of the stock, are defined by a platy alignment of small inclusions and hornblende crystals. Flow lines, the elongation of these inclusions and crystals, display an almost constant north-northeasterly trend, and commonly lie within the plane of the flow layers (Smith, 1947, 1948). Both flow lines and layers are less conspicuous towards the core of the stock.

The axial plane of this flow layer strikes N10°E and dips 85° subparallel to the N30°E shears. Flow line orientation suggests a northeasterly plunge of 55° to 85° for the stock. This appears to reflect the attitudes of minor, overturned folds in older strata to the northeast as described by Hutchison (1982) and suggests that the structural geometry of the schists controlled the emplacement of the stock.

Smith (1947, 1948) suggests that "the joint systems in the quartz diorite are more closely related in orientation to linear structures in the intrusive and to regional jointing in the schists than to the arch of flow layers" and that "the frequency and persistency of joints of a given orientation" are influenced by "the attitude of the flow layers" and resulting anisotropicity of the stock. The pattern of auriferous structures in the vicinity of the AT Zone, as interpreted by Hawking (1987) from more recent underground development and surface diamond drilling, supports Smith's analysis.

Gold mineralization tends to be concentrated in semi-massive to massive pyrite seams, associated with quartz veins controlled by joint and shear structures and often occur as subparallel clusters spanning several meters. Individual veins vary from greater than 1cm to greater than 1m in width. Pyrite is the dominant vein sulphide mineral. Gold values are derived from minute blebs of telluride ( $Bi_2Te_2S$ ) tetradymite and free gold, enclosed in the pyrite (Warren and Cummings, 1936). Metallurgical testwork by Sumitomo Metal Mining Co. Ltd. in 1989 disclosed that the tellurides krennerite ( $AuTe_2$ ) and Petzite ( $Ag_3AuTe_2$ ) were also enclosed by pyrite. Traces of chalcopyrite and molybdenite occur sporadically

throughout the vein system.

### Lithologies:

Rocks types encountered during the mapping program were typical of the composite dioritic stock; quartz diorite and hornblende quartz diorite. Granodiorite is encountered to the northwest and there are minor occurrences of quartz veins and occasional narrow fine grained intrusions. Units listed below represent the suite of rock types found on the property.

Quartz Diorite: The most commonly encountered rock unit is a quartz-diorite of variable mafic composition ranging from hornblende biotite quartz diorite, to biotite hornblende quartz diorite and typically referred to as hornblende quartz diorite and quartz diorite, respectively. This dark- to mediumgrey, equigranular, massive to weakly foliated unit has a mafic content ranging from 7% to 20%, in which biotite varies from much less than, to equal to hornblende. The plagioclase content is 65% to 80%, with quartz ranging from 10% to 20%. Honey-yellow titanite is conspicuous at 0.5%. Metallic minerals include traces of magnetite and pyrite. General trends within this unit include an increase in biotite and a slight increase in a generally weak rock alteration, represented by chloritized mafics and epidotized plagioclase inward from the periphery of the stock. Granodiorite encountered to the northwest is light coloured and medium grained and variably weathered and hornfelsed; detailed studies have not been completed on this rock type.

In previous drilling, biotite and chlorite biotite quartz schists encountered to the southwest of the AT and Slope Zones in Holes 96-99, -100, 97-107 and 97-113 occur as magnetic, medium grey to dark green, finegrained, foliated rocks. They display strongly silicified sections and contain narrow intervals of garnetepidote skarn. Where these rocks have been intruded by numerous dioritic dykes, they have been logged as Mixed Biotite Hornblende Quartz Diorite/Biotite Schist, and most likely represent an assimilation process of the country rock by elements of the composite dioritic stock.

Mafic dykes: Mafic dykes encountered in drilling include:

- *diorite* moderately magnetic, dark greenish, fine-grained and equigranular; displays moderate epidote alteration;
- andesite non-magnetic, fine-grained, dark green and moderately epidote altered;
- *feldspar porphyritic andesite* moderately magnetic, dark grey to dark grey-green, fine grained, massive; contains 2% to 10%, 3 mm to 4 mm white feldspar phenocrysts; displays weak to moderate chlorite and carbonate alteration;
- *hornblende feldspar porphyrytic andesite* as above, with 2% to 3%, 3 mm to 5 mm hornblende and 10% feldspar phenocrysts;
- *basalt* moderately magnetic, black, fine grained, with 1% to 3% ovoid, 1-5mm calcite amygdules; sharp contacts; occasionally cut by 0.5 cm to 1.0 cm calcite stringers, subparallel to contacts.

Felsic Dykes: As in the dykes described above, the felsic dykes are often similar in appearance, but may be variable in composition. Generalized descriptions of these dykes are:

- *Aplite* greyish-white to yellowish or pinkish-brown, fine grained, with a weak sugary texture; parallel, distinct but slightly diffused contacts due to sericitization of wallrock; commonly 2cm to 2 cm in width; has a tendency to occur in swarms; cut by quartz-epidote veins
- *Leucocratic* white to greyish-white, medium grained, equigranular, quartz/feldspar composition, may contain up to 2% biotite, may display moderate feldspar alteration envelope up to 2 cm wide; may be discoloured due to sericite/feldspar alteration; 2 cm to 6 cm in width; cut by quartz/epidote veins.
- *Felsic* fine- to medium-grained; white to pinkish; displays feldspar/epidote alteration as well as feldspar alteration of wallrock; 3 cm to 4 cm in width.

### **2015 SOIL GEOCHEMISTRY PROGRAM:**

The majority of the 32 samples collected in the 2015 soil sampling program was completed on tenure 250392 located in the northwest corner of the Porcher Island Gold Property for assessment credit. Tenure 250392 is not contiguous with the other legacy claims. There were a total of 30 soil samples collected from the B-Horizon on two parallel north-south lines located 200 m apart in an east-west direction. A two man crew used a long-handled shovel to collect the samples at an approximate depth of 25cm, the soil sample stations were flagged and the location surveyed using a hand held GPS (NAD83). Notes describing the samples were documented at each site. In the grid area there were a total of 8 samples where a soil sample was attempted but a representative B-horizon sample could not be collected. Also, at the sample at station 5400E + 8425, there was not enough of sample material collected to be analyzed and the result is labeled insufficient sample (I.S.) on the Certificate of Analysis. The soil sampling results were disappointing with the highest gold value being only 28.0 ppb Au. No other elements correlate with the elevated gold samples. The sample descriptions are appended in Section E.

There were two additional B-horizon soil samples collected and documented as the samples described above while conducting traverses when prospecting and looking for the historic Minfile occurrences. These two samples were labeled tag #780403 and #780404. These samples returned disappointing results as well.

Bureau Veritas Mineral Laboratories, Canada, of Vancouver, BC was engaged to carry out the analytical work on the soil samples. The analytical procedure utilized was AQ201, a 36 multi-element assay by ICP-MS analysis. The assay certificates and analytical procedures are appended in Section D.

### 2015 STREAM SEDIMENT SAMPLING PROGRAM:

Part of the 2015 exploration program was to collect stream sediment samples from various drainages hosted in major structural corridors or shear zones such as the Edye Shear Zone. Also, when traversing to try and locate the historic Minfile occurrences, some streams with prospective underlying geology were stream sediment sampled. The sampling method was to identify a catchment trap in a stream, remove the active sediment and collect the underlying stream sediment with a long handled shovel. The sediment was screened through a 50 mesh screen into a gold pan, Once a 1-2 kg sample was collected it was placed in a plastic bag and secured for analysis. The sites were flagged and labelled and the NAD 83 UTM coordinates collected using a hand held GPS and documented. The sample descriptions are appended in Section E.

There were a total of 12 stream sediment samples collected from the various drainages during the 2015 exploration program. There were three samples anomalous in gold, higher than 30 ppb, with no other element correlation. The highest gold stream sediment sample, 128.8 ppb at site PIG-15-05, is located on the drainage of the regional depression of the Edye Structural corridor which contains gold bearing veins and structures. The other two anomalous gold stream sediment samples were collected east of the known developed prospects but in the vicinity of the Bell Mtn Minfile gold occurrence and also the linear ravine which contains this drainage probably hosts a parallel structure to the Edye Shear Zone, located 1.5 km to the west. The Bell Mtn Minfile prospect (103J 018) was not located due to the inclement weather, low visibility and the extreme coverage by rain forest.

Bureau Veritas Mineral Laboratories, Canada, of Vancouver, BC was engaged to carry out the analytical work on the stream sediment samples. The analytical procedure utilized AQ201, 36 multi-element assay by ICP-MS analysis. The assay certificates and analytical procedures are appended in Section D.

### 2015 ROCK SAMPLING PROGRAM:

During the 2015 exploration program if any prospective rock was observed then representative rock samples were collected. There were 9 rock samples collected. The rock description and location were documented, the location flagged in the field and the location surveyed using a hand held GPS. The sample descriptions are appended in Section E.

The two highest grade samples are in areas of high priority for additional work. The highest was sample #780401 with 44,985 ppb (45g/t Au) gold over a 45 cm width and still "open" in width. It was located 60 m west of the drill pad where earlier exploration was conducted on the Cedar Vein system 200 m east of the historic Dawson workings in the area of the lineament of the Edye Shear zone. The second high-grade sample #780402 assayed 13,067 ppb (13g/t Au) gold and was a grab sample of quartz with 10% pyrite collected at the historic Dawson underground workings dump.

Bureau Veritas Mineral Laboratories, Canada, of Vancouver, BC was engaged to carry out the analytical work on the rock samples. The analytical procedure utilized AQ201, 36 multi-element assay by ICP-MS analysis. The assay certificates and analytical procedures are appended in Section D.

### 2015 MINFILE SHOWINGS RECONNAISSANCE PROGRAM:

A considerable amount of time during the 2015 exploration program was spent on trying to locate the Minfile occurrences on the claim group. This proved difficult due to very low visibility in fog/clouds and rain during the entire program. Also hindering the confirmation of evidence of historic work is that the old workings are documented in the Annual Ministry of Mines Reports from the 1930's. This has resulted in inaccurate UTM coordinates being listed in the Minfile reports and in combination with high growth rate of vegetation covering the areas of the old workings make the showings difficult to locate. A description of the Minfile work is summarized below:

Minfile No.	Minfile Name	Comments
103J 013	EAGLE	Workings consist of Surf Point Mine area. Located.
103J 014	PROMISE	Prospect located 1.0km east of mine workings, not located.
103J 015	EDYE PASS	Edye Pass Mine workings. Located.
103J 016	MASCOT	Prospect located 1.5km east of mine workings, not located.
103J 017	PORCHER ISLAND	Workings consist of Surf Point Mine area. Located.
103J 018	BELL MTN	Prospect located 1.5km SSE of mine workings, possibly located.
103J 019	REDBIRD	Possible trenches located in area.
103J 020	COPPER COIN	Not located, thick old/new growth forest.
103J 021	IXL (L.6517)	Workings consist of Surf Point Mine area. Located.
103J 022	WREN	Not located, traverse was in very bad weather, low visibility.
103J 048	ALDER	Workings consist of Surf Point Mine area. Located.

### **CONCLUSIONS:**

The soil sampling program, the method proven successful in past exploration programs, was unsuccessful is delineating any high priority samples in the area surveyed on the Edye Pass claim #250392.

The stream sediment sampling proved successful in delineating the Edye Shear, a known gold bearing area, as a gold target. The sampling also had additional gold anomalies in the Bell Mtn. showing drainage area.

Prospecting on the Property was successful in discovering a "new" high grade gold outcrop (45 g/t Au over a 45 cm width, still open) 60 m west of the Cedar vein drill pad and 200 m west of the Dawson vein workings. Locating the historic Minfile occurrences proved difficult due to poor visibility, heavy vegetation and the inaccurate UTM coordinates based on the 1930's sources.

Due to the extensive cover by swamps, timber and ground vegetation, the target underlying host geology could host additional gold mineralizing systems.

After the field review and the results from the areas previously mined or explored by underground development, it is obvious that the veins and gold bearing quartz-shear zones are all structurally controlled in Riedel shear zone pattern. The most promising areas to discover economic gold mineralization would be where the tension quartz gold-bearing veins intersect at approximately 60 degrees the major topographic lows which represent major fault structures such as the Edye shear zone. The Edye shear zone was actually mined by the early explorers from underground in the Edye Pass mine to surface. The remaining pillars show a strong banded quartz vein contained within a wide shear zone.

### **RECOMMENDATIONS:**

Additional work should be completed to find all the historic Minfile occurrences when weather conditions are more favorable. To deal with the inaccuracy of the UTM values and the heavy overgrowth covering the area of historic workings, a 500 m by 500 m soil sampling grid should be sampled with the UTM coordinate of the approximate location being located in the center of each surveyed area.

There should also be follow-up work in the Bell Mtn. showing area drainage consisting of additional stream sediment, soil and rock sampling where the 2015 stream sediment sampling had anomalous values. No addition stream sediment sampling is needed along the Edye shear as it is a known gold area.

A drilling program should be completed testing two areas where the tension gold bearing quartz veins, the focus of historic mining, intersect the Edye shear zone, a major topographical depression and structure. As mentioned above the shear zone was mined in the original Edye Pass Mine. The program would be helicopter supported for drill movement and pad construction. A series of holes should be drilled below the Edye Pass Mine track elevation and below the old open stope, close to the existing camp. The second area to be drilled would be in the vicinity of the Dawson workings and Edye shear confluence. The holes could be fanned from one pad in each area and be planned to cross the shear zone and quartz veins.

Respectfully submitted,

Jim Miller-Tait, P. Geo.

### **STATEMENT OF QUALIFICATIONS:**

For: Jim Miller-Tait, P.Geo. of 828 Whitchurch Street, North Vancouver, B.C. V7L 2A4

I graduated from the University of British Columbia with a Bachelor of Sciences Degree in Geology (1987);

I have been practicing my profession as a geologist in mineral exploration and mining continuously since 1987;

I am a registered member in good standing as a Professional Geoscientist with the Association of Professional Engineers and Geoscientists of British Columbia;

I am a fellow in good standing with the Geological Association of Canada;

The observations, conclusions and recommendations contained in the report are based on supervision of the described program, field examinations, and the evaluation of results of the exploration program completed by the operator of the property.

Jim Miller-Tait, P.Geo.

### **REFERENCES:**

**Bjornson, L., 2009:** Diamond Drilling Report on the 2005-2007 Drill Program, Porcher Island. Internal report for Cross Lake Minerals Ltd.

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Hawkins, T.C., (1987): Report on the Porcher Island Property, Company Report, Cathedral Gold Corporation.

Hutchinson, W.W., (1982): Geology of the Prince Rupert – Skeena Map area, British Columbia, GSC Memoir 394.

MacIntyre, D., Ash, C.A., and Britton, J. (1994): Geological compilation, Skeena-Nass Area, West Central British Columbia: BCGS Open File 1994-14.

**Scott, T. C., (1997):** 1996-1997 Diamond Drilling Assessment Report on the Toby 1, L. 6513, L. 6515, L. 6516, L. 6517 and L. 7191 Mineral Claims, Porcher Island: by author for Cathedral Gold Corporation and Porcher Island Gold Corporation; BC Assessment Report #25073.

Smith, A., (1947): Control of ore by primary igneous structures, Porcher Island, British Columbia, Geol Soc. Amer., Bulletin v.58, pp. 245-252.

Smith, A., (1948): Surf Point and Edye Pass Mines. *In* Structural Geology of Canadian Ore Deposits, a symposium. Canadian Institute of Mining and Metallurgy., Mercury Press Ltd., pp 94-99.

**Taylor, A.B. (1988):** Diamond Drill and Geophysical Exploration Program, Porcher Island – November 1987 to January 1988, by author for Cathedral Gold Corporation; BC Assessment Report #16735.

**Taylor, A.B. (1988):** Geochemical Surveys on the Porcher Island Claims, by author for Cathedral Gold Corporation; BC Assessment Report #17076.

**Taylor, A.B. (1988):** Induced Polarization Survey, Porcher Island, by author for Cathedral Gold Corporation; BC Assessment Report #17861.

**Taylor, A.B. (1989):** Diamond Drill Exploration Program, Porcher Island – October to December 1988, by author for Cathedral Gold Corporation; BC Assessment Report #18737.

Warren, H.V., and Cummings, J.M., (1936): Mineralogy of the Surf Point and Hunter Veins, *in* The Miner, Vancouver, BC., pp. 26-27

### **SECTION B: PROPERTY**

PORCHER I	SLAND: MINER	AL TENURES							Date:	Dec 09 2015
<b>OWNER:</b>	0847420 BC Ltd.		65.0%		BC Client No.	222443			<b>Tenures:</b>	26
<b>OWNER:</b>	Imperial Metals	Corporation	35.0%		BC Client No.	144344			Cells/Units:	80
<b>ROYALTY:</b>	<b>Procon Mining H</b>	loldings Ltd.	2.0% NPR	(on 65% intere	est held by 0847	420 BC Ltd.)			Area (ha):	1,895.31
MINING DI	VISION: Skeena		LAND DISTR	ICT: Range 5 (	Coast		LAND TITLE	DISTRICT:	<b>Prince Rupert</b>	
LOCATION:	35 km south-south	west of Prince Rup	pert on the north	west side of Por	cher Island.					
MAP NO.	NTS:	103G/15E; 103J/2	E	GEOGRAPHIC	COORDINAT	ES:	54° 01.4' N;	130° 35.4' W		
	BCGS:	103G097, 098; 10	3J007, 008	UTM COORDI	NATES (NAD 8	83, ZONE 9):	5 987 200 N	395 800 E		
Crown Gran	ted Mineral Claim	18:								
Lot No.	Tenure Type	Claim Name	Map No.	Grant Date	Folio No.	<b>Taxes Paid To</b>	Units	Area (ha)	Tax Rate / ha	Taxes
L.6513	Crown Grant MC	Eagle	103J008	1921/jun/02	076694	2016/jul/02	1	17.22	\$1.25	\$21.53
L.6515	Crown Grant MC	Trixie	103J008	1927/sep/03	076708	2016/jul/02	1	18.28	\$1.25	\$22.85
L.6516	Crown Grant MC	Western Hope	103J008	1927/sep/03	076708	2016/jul/02	1	13.76	\$1.25	\$17.20
L.6517	Crown Grant MC	I.X.L	103J008	1930/oct/01	076724	2016/jul/02	1	20.87	\$1.25	\$26.09
L.6518	Crown Grant MC	I.X.L Fr.	103J007, 008	1930/oct/01	076724	2016/jul/02	1	20.25	\$1.25	\$25.31
L.6519	Crown Grant MC	Klim	103J007, 008	1930/oct/01	076724	2016/jul/02	1	20.90	\$1.25	\$26.13
L.6953	Crown Grant MC	Pirate	103J008	1950/may/22	076805	2016/jul/02	1	20.85	\$1.25	\$26.06
L.6955	Crown Grant MC	Reward	103J008	1950/may/27	076805	2016/jul/02	1	15.55	\$1.25	\$19.44
L.7188	Crown Grant MC	HED Fr.	103J007	1930/oct/01	076724	2016/jul/02	1	2.84	\$1.25	\$3.55
L.7189	Crown Grant MC	Starlight	103J007, 008	1930/sep/24	076724	2016/jul/02	1	20.90	\$1.25	\$26.13
L.7191	Crown Grant MC	Jeanie	103J008	1950/may/22	076805	2016/jul/02	1	16.29	\$1.25	\$20.36
L.7192	Crown Grant MC	Nabob	103J008	1950/may/22	076805	2016/jul/02	1	15.88	\$1.25	\$19.85
L.7312	Crown Grant MC	HSD	103J007	1931/oct/08	076724	2016/jul/02	1	16.72	\$1.25	\$20.90
Subtotal	13						13	220.31		\$275.39
Legacy Clain	ns:					-				
Tenure No.	Tenure Type	Claim Name	Map No.	<b>Record Date</b>	<b>Good To Date</b>	Work Year	Cells	Area (ha)	Work Factor	Work**
250392	Claim	Edye Pass	103J007, 008	1976/mar/19	2017/dec/31	5	4	100.00	\$15.00	\$1,500.00
250593	Claim	BR 1	103J008	1978/nov/14	2017/dec/31	5	12	300.00	\$15.00	\$4,500.00
250594	Claim	BR 2	103J008	1978/nov/14	2017/dec/31	5	3	75.00	\$15.00	\$1,125.00
251904	Claim	Pro Fraction	103J007, 008	1987/jul/07	2017/dec/31	5	1	25.00	\$15.00	\$375.00
251905	Claim	Jolt	103J007, 008	1987/jul/07	2017/dec/31	5	6	150.00	\$15.00	\$2,250.00
252112	Claim	DC	103G098,	1988/may/18	2017/dec/31	5	14	350.00	\$15.00	\$5,250.00
			103J008							
252113	Claim	Cola	103J007	1988/may/18	2017/dec/31	5	6	150.00	\$15.00	\$2,250.00
252114	Claim	CC	103G097, 098;	1988/may/18	2017/dec/31	5	16	400.00	\$15.00	\$6,000.00
			103J007,008							
253715	Claim	Old Kentucky	103J007	1990/mar/22	2017/dec/31	5	1	25.00	\$15.00	\$375.00

255350	Claim	Tippy	103J008	1974/may/01	2017/dec/31	5	1	25.00	\$15.00	\$375.00
255351	Claim	Toby 1	103J008	1974/may/01	2017/dec/31	5	1	25.00	\$15.00	\$375.00
255352	Claim	Toby 2	103J008	1974/may/01	2017/dec/31	5	1	25.00	\$15.00	\$375.00
255353	Claim	Kerry	103J008	1974/may/01	2017/dec/31	5	<u>1</u>	25.00	\$15.00	\$375.00
Subtotal	13						67	1,675.00		\$25,125.00
TOTAL	26						80	1,895.31		\$25,400.39

\*\* Based on Mineral Tenure Act Regulation Amendments effective July 1, 2012: Year 1 and 2 / \$5.00/ha; Year 3 and 4 / \$10.00/ha; Year 5 and 6 / \$15.00/ha; Year 7 and beyond / \$20.00/ha

2017 Tenure	2017 Tenure Maintenance Requirements:								<u>or</u>	Cash-in-Lieu
Assessment or Cash-in-Lieu @ 2x work requirement \$25,125.00										\$50,250.00
Assessment F	iling Record:									
<b>Filing Date</b>	Event No.	<b>Total Value Filed</b>	Work-C/L	PAC Debit	PAC Credit	<b>Report Due</b>	<b>Report Filed</b>	Remarks	Approved	Report No.
2014/mar/02	5492705	\$16,750.00	Cash-in-lieu	\$0.00	\$0.00	N/A	N/A		2014/mar/02	N/A
2015/mar/10	5546143	\$9,290.29	Cash-in-lieu	\$0.00	\$0.00	N/A	N/A		2015/mar/10	N/A
2015/sep/29	5572348	\$2,028.16	\$1,500.00	\$528.16	\$0.00	2015/dec/28		250392		
2015/sep/29	5572350	\$31,943.49	\$23,000.00	\$8,943.49	\$0.00	2015/dec/28		12 claims		

### **SECTION C: EXPENDITURES**

# Imperial Metals CorporationPORCHER ISLAND PROJECTExpenditure: 2015 Geochemical / Geological Sampling Program

Dec 15 2015

Item / Contractor	Work	Period	Quantity	Unit	Rate	Amount
Personnel:						
Jim Miller-Tait, P.Geo.	Exploration Manager, general supervision	Jul 31 - Aug 7, 2015	8	days	\$550.00	\$4,400.00
Ben Eggers, P.Geo	Geologist	Jul 30 - Aug 7, 2015	9	days	\$450.00	\$4,050.00
George Frank	Field Assistant	Jul 30 - Aug 7, 2015	9	days	\$275.00	\$2,475.00
Subtotal						\$10,925.00
Accommodation & Meals:						
Accommodation - Enroute to site	Travel Accommodation	Jul 30, 2015	2	man days	\$91.80	\$183.60
Accommodation - Albacore II	Charter Boat - accommodation, transport & board	Jul 31 - Aug 4, 2015	14	man days	\$535.71	\$7,500.00
Accommodation - Enroute from site	Travel Accommodation	Aug 5, 2015	3	man days	\$189.57	\$568.70
Food / Meal Expenditures		Jul 30 - Aug 6, 2015	7	man days	\$41.89	\$293.26
Subtotal						\$8,361.96
Transportation (Vehicle):						
Flights - Expl Manager	Vancouver - Prince Rupert, Terrace - Vancouver	Aug 1 - Aug 6, 2015	1	units	\$0.00	\$630.78
Flights - Field Assistant	Prince Rupert - Tofino	Aug 7, 2015	1	units	\$0.00	\$322.95
Pickup - Geologist, Nissan Frontier	Tofino - Prince Rupert	Jul 30 - 31, 2015	1627	km	\$0.40	\$650.80
Fuel - Geologist, Nissan Frontier	Tofino - Prince Rupert	Jul 30 - 31, 2015	1	units	\$195.38	\$195.38
Parking - Geologist, Nissan Frontier	Prince Rupert	Aug 1 - Aug 6, 2015	1	units	\$35.00	\$35.00
BC Ferries - vehicle and personel	1x crossing with vehicle and crew	Jul 30 - 31, 2015	1	units	\$107.00	\$107.00
Subtotal						\$1,941.91
Assaying:						
Bureau Veritas (Acme Labs)	Stream Samples: AQ201 analytical code	Aug 2 - 5, 2015	12	samples	\$19.06	\$228.72
Bureau Veritas (Acme Labs)	Soil Samples: AQ201 analytical code	Aug 2 - 5, 2015	32	samples	\$18.53	\$592.96
Bureau Veritas (Acme Labs)	Rock Samples: AQ201 analytical code	Aug 2 - 5, 2015	9	samples	\$23.72	\$213.51
Subtotal			53			\$1,035.19
Field Supplies:						
Deakin Equipment Ltd.	Sampling supplies		1	units	\$0.00	\$212.10
Blackbird Geoscience Ltd.	VHF Radio rental x2	Aug 2 - 4, 2015	3	days	\$10.00	\$30.00
Satellite Phone - Globalstar	1 mo rental fee	Aug 1 - 31, 2015	1	units	\$60.00	\$60.00
Rona	Field Supplies		1	units	\$34.39	\$34.39
Subtotal						\$336.49
Drafting:						
Melissa Darney	GIS work: plan drafting		1.5	days	\$300.00	\$450.00
Subtotal						\$450.00
Report Preparation:						
Jim Miller-Tait, P.Geo.	Data compilation, report preparation		3	days	\$550.00	\$1,650.00
Erik Andersen	Report editing			hours	\$54.30	\$217.20

Subtotal				\$1,867.20
Total				\$24,917.75
Distribution	Tenures: 250392			\$1,917.75
	Tenures: 250593, 250593, 252112, 252113, 255351 &			
	255353			\$23,000.00

### SECTION D: ANALYTICAL REPORTS

1. Analyses carried out by Bureau Veritas Mineral Laboratories, Canada of Vancouver, B.C.

File Number	Date of Certificate	No. of Samples	Sample Type	Analytical Procedure
SMI15000044.1	Aug 27 2015	32	Soils	AQ201
SMI15000045.1	Aug 27 2015	12	Stream Sediment	AQ201
SMI15000046.1	Aug 27 2015	9	Rock	AQ201
Total		53		

2. Statement of Analytical Procedures: 1 data sheet

- Acme Labs AQ300, AQ200; Multi-Element (36) Assay by ICP-ES/MS; Aqua Regia Digestion

![](_page_26_Picture_0.jpeg)

Project:

Shipment ID:

P.O. Number

DISP-PLP

**DISP-RJT-SOIL** 

Number of Samples:

SAMPLE DISPOSAL

MINERAL LABORATORIES Canada

www.bureauveritas.com/um

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA PHONE (604) 253-3158

## CERTIFICATE OF ANALYSIS

Porcher Island

PIG2015-01

32

### **CLIENT JOB INFORMATION**

Client: **Imperial Metals Corporation** 200 - 580 Hornby St.

Vancouver BC V6C 3B6 CANADA

Submitted By:	Melissa Darney
Receiving Lab:	Canada-Smithers
Received:	August 10, 2015
Report Date:	August 27, 2015
Page:	1 of 3

## SMI15000044.1

### SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
Dry at 60C	32	Dry at 60C			SMI
SS80	32	Dry at 60C sieve 100g to -80 mesh			SMI
AQ201	31	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN
SHP01	32	Per sample shipping charges for branch shipments			SMI

### ADDITIONAL COMMENTS

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Immediate Disposal of Soil Reject

Dispose of Pulp After 90 days

Invoice To:	Imperial Metals Corporation
	200 - 580 Hornby St.
	Vancouver BC V6C 3B6
	CANADA

CC:

Erik Andersen Jim Miller-Tait

![](_page_26_Picture_20.jpeg)

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Bureau Veritas assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted. \*\*\* asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.

Client: Imperial Metals Corporation 200 - 580 Hornby St. Vancouver BC V6C 3B6 CANADA MINERAL LABORATORIES BUREAU www.bureauveritas.com/um Project: Porcher Island VERITAS Canada Report Date: August 27, 2015 Bureau Veritas Commodities Canada Ltd. 9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA 2 of 3 Page: Part: 1 of 2 CERTIFICATE OF ANALYSIS SMI15000044.1 Method AQ201 Analyte Pb Co Mn Fe Th Sr Cd Sb ٧ Р Мо Cu Zn Ag Ni As Au Bi Са Unit % ppm ppm ppm ppm ppm ppm ppm ppm % ppm ppb ppm ppm ppm ppm ppm ppm % ppm MDL 0.1 0.1 0.1 1 0.1 0.1 0.1 1 0.01 0.5 0.5 0.1 1 0.1 0.1 0.1 2 0.01 0.001 5400E+8075 Soil 0.8 6.6 5.9 15 < 0.1 10.4 0.7 16 0.12 0.9 22.5 0.5 6 0.1 <0.1 <0.1 8 0.02 0.028 5400E+8100 Soil 0.4 2.6 7.8 9 < 0.1 2.7 1.3 51 0.44 < 0.5 28.0 0.7 11 <0.1 < 0.1 0.1 34 0.08 0.006 5400E+8125 Soil 0.2 1.2 2.5 1 < 0.1 0.3 < 0.1 7 0.04 < 0.5 14.6 0.5 2 < 0.1 < 0.1 < 0.1 3 0.02 0.005 5400E+8150 0.3 1.2 2.9 2 0.2 0.2 < 0.5 <0.1 7 0.02 0.004 Soil < 0.1 17 0.15 1.6 2.4 3 < 0.1 < 0.1 5400E+8175 Soil 0.6 0.6 1.1 2 <0.1 1.0 0.1 15 0.25 <0.5 7.7 2.0 2 <0.1 <0.1 <0.1 4 0.01 0.003 5400E+8250 Soil <0.5 0.6 2.2 3.4 16 <0.1 0.8 119 2.88 <0.5 2.4 12 <0.1 <0.1 <0.1 25 0.07 0.007 2.7 Soil 5400E+8275 0.6 21.1 2.2 62 < 0.1 13.8 367 6.52 0.7 3.7 1.0 10 <0.1 <0.1 <0.1 209 0.11 0.014 5.6 Soil 2.4 5 5400E+8300 1.6 1.0 4.1 4 <0.1 0.9 29 0.94 <0.5 1.3 <0.1 <0.1 0.2 33 0.03 0.006 0.8

5400E+8325	Soil	0.5	0.6	1.4	1	<0.1	0.7	<0.1	14	0.04	<0.5	2.6	0.4	2	<0.1	<0.1	<0.1	<2	0.02	0.006	2
5400E+8375	Soil	0.2	0.4	0.2	1	<0.1	1.9	0.2	7	0.14	<0.5	1.3	1.1	2	<0.1	<0.1	<0.1	<2	0.01	0.004	<′
5400E+8425	Soil	I.S.	I.S																		
5400E+8450	Soil	0.2	1.2	9.0	3	<0.1	1.3	0.9	49	0.62	<0.5	5.0	<0.1	26	<0.1	<0.1	<0.1	49	0.27	0.009	<′
5600E+7900	Soil	0.5	17.2	2.0	99	<0.1	14.1	17.3	580	6.95	0.5	<0.5	3.6	22	<0.1	<0.1	<0.1	271	0.11	0.014	6
5600E+7925	Soil	0.3	19.6	2.8	18	<0.1	5.8	6.1	159	1.74	<0.5	15.6	1.1	16	<0.1	<0.1	<0.1	57	0.17	0.014	5
5600E+7950	Soil	0.6	19.8	6.4	22	<0.1	8.8	6.2	213	7.03	<0.5	0.7	4.0	14	<0.1	<0.1	<0.1	223	0.13	0.007	3
5600E+7975	Soil	0.3	0.2	1.2	1	<0.1	0.5	<0.1	22	0.11	<0.5	<0.5	2.7	2	<0.1	<0.1	<0.1	<2	0.02	0.004	8
5600E+8000	Soil	0.6	20.7	2.5	51	<0.1	18.7	15.0	466	7.58	<0.5	<0.5	0.7	23	<0.1	<0.1	<0.1	226	0.18	0.009	2
5600E+8050	Soil	1.3	1.9	3.1	14	<0.1	3.0	2.0	94	0.71	<0.5	2.2	1.0	9	<0.1	<0.1	<0.1	39	0.10	0.005	3
5600E+8075	Soil	0.8	9.1	2.4	26	<0.1	5.2	6.1	214	4.45	<0.5	<0.5	3.5	6	<0.1	<0.1	<0.1	103	0.07	0.007	6
5600E+8100	Soil	1.2	2.9	4.4	22	<0.1	2.2	2.8	260	3.67	<0.5	9.0	1.5	7	<0.1	<0.1	<0.1	74	0.10	0.005	Ę
5600E+8125	Soil	0.3	0.6	4.5	5	<0.1	1.3	1.6	97	0.75	<0.5	<0.5	0.6	56	<0.1	<0.1	<0.1	26	0.42	0.004	2
5600E+8150	Soil	0.2	1.5	1.4	<1	<0.1	0.5	0.1	7	0.09	<0.5	4.6	1.3	3	<0.1	<0.1	<0.1	2	0.02	0.004	2
5600E+8225	Soil	0.5	1.7	3.0	15	<0.1	7.9	3.4	121	0.77	<0.5	1.1	1.4	16	<0.1	<0.1	<0.1	32	0.13	0.005	2
5600E+8250	Soil	0.3	2.9	4.9	8	<0.1	5.1	2.5	68	0.72	<0.5	3.6	0.4	12	<0.1	<0.1	<0.1	36	0.16	0.014	2
5600E+8275	Soil	0.9	1.4	8.0	1	<0.1	2.7	0.2	13	0.07	<0.5	6.9	1.8	12	<0.1	<0.1	0.1	16	0.07	0.010	2
5600E+8325	Soil	0.2	0.5	2.2	2	<0.1	1.6	0.2	14	0.20	<0.5	1.0	11.2	6	<0.1	<0.1	<0.1	8	0.04	0.004	3
5600E+8350	Soil	1.2	10.4	4.9	19	<0.1	4.8	3.7	104	1.77	<0.5	1.0	2.0	10	<0.1	<0.1	0.1	97	0.07	0.007	Ę
5600E+8375	Soil	0.3	0.7	3.0	3	<0.1	2.4	1.0	46	0.28	<0.5	1.8	1.0	11	<0.1	<0.1	<0.1	28	0.07	0.007	4
5600E+8400	Soil	0.5	0.9	3.4	9	<0.1	4.3	2.7	60	0.74	<0.5	0.6	0.3	13	<0.1	<0.1	<0.1	39	0.10	0.008	3
5600E+8425	Soil	1.5	9.0	0.7	41	<0.1	12.3	15.2	371	4.08	0.5	1.8	1.3	16	<0.1	<0.1	<0.1	139	0.19	0.008	2

PHONE (604) 253-3158

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.

			Client:	Imperial Metals ( 200 - 580 Hornby St. Vancouver BC V6C 3B6 (	Corporation Canada		
B U R E A U VERITAS	MINERAL LABORATORIES Canada	www.bureauveritas.com/um	Project:	Porcher Island			
Bureau Veritas	Commodities Canada Ltd.		Report Date:	August 27, 2015			
9050 Shaughn	essy St Vancouver BC V6P 6E	5 CANADA					
PHONE (604)	253-3158		Page:	2 of 3	Part	:	2 of 2
CERTIF	ICATE OF ANAL	YSIS		SM	115000044.1	1	

	Method	AQ201															
	Analyte	Cr	Mg	Ва	Ti	в	AI	Na	κ	w	Hg	Sc	ті	S	Ga	Se	Те
	Unit	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
	MDL	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
5400E+8075 So	I	15	0.09	29	0.041	4	0.44	0.014	0.03	<0.1	0.14	1.0	<0.1	0.10	3	0.7	<0.2
5400E+8100 So	I	10	0.14	16	0.126	<1	0.67	0.006	0.04	<0.1	0.04	1.4	<0.1	<0.05	8	<0.5	<0.2
5400E+8125 So	I	1	<0.01	12	0.030	<1	0.18	0.008	0.01	<0.1	0.03	0.1	<0.1	<0.05	2	<0.5	<0.2
5400E+8150 So	I	1	0.03	11	0.082	<1	0.27	0.005	0.03	<0.1	0.02	0.5	<0.1	<0.05	4	<0.5	<0.2
5400E+8175 So	I	3	<0.01	11	0.022	<1	0.12	0.006	0.02	<0.1	0.01	0.2	<0.1	<0.05	2	<0.5	<0.2
5400E+8250 So	I	1	0.34	34	0.166	<1	0.99	0.007	0.09	<0.1	0.02	0.5	<0.1	<0.05	8	<0.5	<0.2
5400E+8275 So		4	1.21	114	0.416	1	2.89	0.010	0.36	<0.1	0.07	1.3	<0.1	<0.05	11	<0.5	<0.2
5400E+8300 So	l	2	0.06	9	0.092	1	0.42	0.004	0.03	<0.1	0.03	0.4	<0.1	<0.05	7	<0.5	<0.2
5400E+8325 So	I	1	0.01	11	0.015	<1	0.19	0.007	0.02	<0.1	0.02	0.2	<0.1	<0.05	2	<0.5	<0.2
5400E+8375 So	I	4	0.02	11	0.002	<1	0.15	0.006	0.02	<0.1	0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
5400E+8425 So		I.S.															
5400E+8450 So	I	3	0.10	5	0.152	3	0.48	0.012	0.02	<0.1	0.05	1.2	<0.1	<0.05	7	<0.5	<0.2
5600E+7900 So		37	1.69	329	0.511	<1	3.75	0.011	0.66	<0.1	0.09	6.2	0.2	<0.05	14	1.1	<0.2
5600E+7925 So	I	8	0.53	33	0.146	<1	2.71	0.013	0.15	<0.1	0.04	3.3	<0.1	0.06	6	0.8	<0.2
5600E+7950 So	l	20	0.74	18	0.478	<1	2.25	0.008	0.08	<0.1	0.05	2.6	<0.1	<0.05	20	0.6	<0.2
5600E+7975 So		<1	0.01	14	0.014	<1	0.28	0.006	0.02	<0.1	0.01	0.2	<0.1	<0.05	3	<0.5	<0.2
5600E+8000 So	I	10	1.91	115	0.939	<1	3.25	0.010	0.68	<0.1	0.02	0.2	0.1	<0.05	12	<0.5	<0.2
5600E+8050 So	l	9	0.30	18	0.139	1	1.12	0.008	0.05	<0.1	0.05	1.6	<0.1	<0.05	10	<0.5	<0.2
5600E+8075 So	l	2	0.97	61	0.285	<1	2.01	0.008	0.14	<0.1	0.04	2.6	<0.1	<0.05	11	<0.5	<0.2
5600E+8100 So		7	0.58	39	0.323	<1	2.21	0.008	0.13	<0.1	0.05	1.3	<0.1	<0.05	15	<0.5	<0.2
5600E+8125 So	I	3	0.16	10	0.228	<1	0.61	0.003	0.02	<0.1	0.02	0.4	<0.1	<0.05	5	<0.5	<0.2
5600E+8150 So	I	1	0.01	12	0.012	<1	0.24	0.006	0.02	<0.1	0.02	0.1	<0.1	<0.05	3	<0.5	<0.2
5600E+8225 So	I	12	0.43	13	0.187	<1	0.82	0.009	0.02	<0.1	0.02	1.8	<0.1	<0.05	8	<0.5	<0.2
5600E+8250 So	I	8	0.24	17	0.098	2	0.57	0.012	0.05	<0.1	0.08	1.5	<0.1	<0.05	4	<0.5	<0.2
5600E+8275 So	I	6	0.02	8	0.136	4	0.41	0.010	<0.01	<0.1	0.04	1.6	<0.1	<0.05	6	<0.5	<0.2
5600E+8325 So	I	4	0.04	13	0.052	2	0.16	0.009	0.02	<0.1	0.01	0.2	<0.1	<0.05	3	<0.5	<0.2
5600E+8350 So	I	8	0.41	11	0.224	<1	1.44	0.009	0.02	<0.1	0.05	1.2	<0.1	<0.05	13	<0.5	<0.2
5600E+8375 So		8	0.15	10	0.148	2	0.57	0.010	0.02	<0.1	0.03	2.6	<0.1	<0.05	7	<0.5	<0.2
5600E+8400 So		4	0.30	7	0.214	<1	0.52	0.011	<0.01	<0.1	0.03	0.8	<0.1	<0.05	9	<0.5	<0.2
5600E+8425 So	I	21	1.61	110	0.253	1	2.09	0.009	0.43	<0.1	0.02	2.3	<0.1	<0.05	7	<0.5	<0.2

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.

													Clier	nt:	<b>lmp</b> 200 - Vanc	580 Horn ouver BC	Metals nby St. C V6C 3B	<b>s Corp</b> 66 CANAI	D <b>oratio</b>	n		
B U R E A U VERITAS	<b>MINERAL LABOR</b> Canada	RATOR	IES		www	.burea	uverita	s.com/ı	um				Projec	xt:	Porcl	ner Island	t					
Bureau Veritas	s Commodities Can	ada Lto	d.										Repo	t Date:	Augu	st 27, 20	15					
9050 Shaughn PHONE (604)	essy St Vancouve 253-3158	r BC V	6P 6E5	CANAI	AC								Page:		3 of 3	3				Pa	art: 1	of 2
CERTIF	FICATE OF	AN	IALY	′SIS													SN	ЛІ15	000	044	.1	
	Ν	Method	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
	Į.	Analyte	Мо	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	v	Ca	Р	La
		Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
		MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
780403	Soil		0.7	4.5	3.6	13	<0.1	3.4	2.4	126	4.39	<0.5	<0.5	2.6	2	<0.1	<0.1	<0.1	51	0.01	0.008	5
780404	Soil		0.4	1.9	3.9	5	<0.1	1.9	0.7	37	0.40	<0.5	5.5	0.1	13	<0.1	<0.1	<0.1	25	0.08	0.011	2

			Client:	Imperial Metals 200 - 580 Hornby St. Vancouver BC V6C 3B6	<b>Corporation</b>	
BUREAU VERITAS	MINERAL LABORATORIES Canada	www.bureauveritas.com/um	Project:	Porcher Island		
Bureau Veritas	Commodities Canada Ltd.		Report Date:	August 27, 2015		
9050 Shaughne	essy St Vancouver BC V6P 6E	5 CANADA				
PHONE (604) 2	253-3158		Page:	3 of 3	Part:	2 of 2
CERTIF	ICATE OF ANAL	YSIS		SM	115000044.1	

		Method	AQ201	AQ201	AQ201	AQ201												
		Analyte	Cr	Mg	Ва	Ti	в	AI	Na	к	w	Hg	Sc	ті	S	Ga	Se	Те
		Unit	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
		MDL	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
780403	Soil		4	0.30	40	0.258	<1	1.60	0.006	0.10	<0.1	0.05	1.1	<0.1	<0.05	14	<0.5	<0.2
780404	Soil		6	0.08	10	0.105	2	0.33	0.010	0.01	<0.1	0.03	0.7	<0.1	< 0.05	5	<0.5	<0.2

												Clien	t:	Imp 200 - S Vanco	erial N 580 Horn ouver BC	<b>/letals</b> by St. V6C 3B6	Corpo CANADA	oratio	n		
BUREAU VERITAS Bureau Veritas	MINERAL LABORATORI Canada Commodities Canada I to	ES		www.	bureau	iveritas	.com/u	ım				Project Report	: Date:	Porch Augus	er Island t 27, 201	5					
			~ • • • • •																		
9050 Shaughne	essy St Vancouver BC V	6P 6E5	CANAL	)A																	
PHONE (604) 2	253-3158											Page:		1 of 1					Part	: 1 of	2
				г																1	
QUALII	Y CONTROL	REP	ΌR													210	1150	JUUL	)44.		
	Method	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
	Analyte	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	v	Ca	P	La

%

0.01

0.11

0.11

2.66

2.92

3.065

< 0.01

875 2.7188

ppm

0.5

<0.5

<0.5

44.6

0.8

0.6

<0.5

43.7

ppb

0.5

<0.5

<0.5

83.8

91.9

195

<0.5

202.7

ppm

0.1

2.7

2.5

7.1

1.9

7.5

1.9

<0.1

ppm

1

2

2

69

177

67.1

<1

ppm

0.1

<0.1

<0.1

2.7

< 0.1

2.49

<0.1

ppm

<0.1

<0.1

8.7

<0.1

8.23

<0.1

0.1

ppm

0.1

<0.1

<0.1

12.1

<0.1

11.65

<0.1

ppm

2

<2

<2

43

50

51

<2

%

0.01

0.02

0.02

1.05

0.64

0.665

<0.01 <0.001

43 1.0625

%

0.001

0.004

0.004

0.072

0.096

0.073

0.102

ppm

18 13

17.5

13

<1

Unit

MDL

Soil

QC

Standard

Standard

Blank

Pulp Duplicates 5600E+7975

REP 5600E+7975

STD OXC129

BLK

Reference Materials STD DS10

STD DS10 Expected

STD OXC129 Expected

ppm

0.1

0.3

0.2

14.5

1.2

1.3

<0.1

14.69 154.61

ppm

0.1

0.2

0.2

155.4

25.5

28

<0.1

ppm

0.1

1.2

1.1

145.3

150.55

6.3

6.3

<0.1

ppm

1

1

1

355

40

370

42.9

<1

ppm

<0.1

<0.1

1.8

<0.1

2.02

<0.1

0.1

ppm

0.1

0.5

0.6

73.2

77.7

74.6

79.5

<0.1

ppm

0.1

<0.1

<0.1

12.5

19.8

12.9

20.3

<0.1

ppm

1

22

22

868

398

421

<1

			Client:	Imperial Metals Corporation 200 - 580 Hornby St. Vancouver BC V6C 3B6 CANADA		
B U R E A U VERITAS	MINERAL LABORATORIES Canada	www.bureauveritas.com/um	Project: Report Date:	Porcher Island		
Bureau Veritas	Commodities Canada Ltd.		Roport Buto.	August 27, 2015		
9050 Shaughne PHONE (604) 2	essy St_Vancouver BC V6P 6E5 CANAD 253-3158	A	Page:	1 of 1	Part:	2 of 2

# QUALITY CONTROL REPORT

# SMI15000044.1

	Method	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
	Analyte	Cr	Mg	Ва	Ti	в	AI	Na	к	w	Hg	Sc	ті	S	Ga	Se	Те
	Unit	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
	MDL	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
Pulp Duplicates																	
5600E+7975	Soil	<1	0.01	14	0.014	<1	0.28	0.006	0.02	<0.1	0.01	0.2	<0.1	<0.05	3	<0.5	<0.2
REP 5600E+7975	QC	1	0.01	14	0.015	<1	0.29	0.005	0.02	<0.1	0.02	0.3	<0.1	<0.05	3	<0.5	<0.2
Reference Materials																	
STD DS10	Standard	54	0.76	343	0.078	6	1.06	0.071	0.34	3.1	0.28	2.7	4.9	0.27	4	2.0	4.6
STD OXC129	Standard	49	1.53	49	0.378	<1	1.57	0.582	0.37	<0.1	<0.01	0.8	<0.1	<0.05	5	<0.5	<0.2
STD DS10 Expected		54.6	0.775	359	0.0817		1.0259	0.067	0.338	3.32	0.3	2.8	5.1	0.29	4.3	2.3	5.01
STD OXC129 Expected		52	1.545	50	0.4	1	1.58	0.6	0.37			1.1			5.6		
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2

![](_page_33_Picture_0.jpeg)

Project:

Shipment ID:

P.O. Number

DISP-PLP

**DISP-RJT-SOIL** 

Number of Samples:

SAMPLE DISPOSAL

MINERAL LABORATORIES Canada

www.bureauveritas.com/um

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA PHONE (604) 253-3158

## CERTIFICATE OF ANALYSIS

Porcher Island

PIG2015-01

12

### **CLIENT JOB INFORMATION**

Client: **Imperial Metals Corporation** 200 - 580 Hornby St.

Vancouver BC V6C 3B6 CANADA

Submitted By:	Melissa Darney
Receiving Lab:	Canada-Smithers
Received:	August 10, 2015
Report Date:	August 27, 2015
Page:	1 of 2

## SMI15000045.1

### SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
Dry at 60C	12	Dry at 60C			SMI
SS80	12	Dry at 60C sieve 100g to -80 mesh			SMI
AQ201	12	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN
SHP01	12	Per sample shipping charges for branch shipments			SMI

### ADDITIONAL COMMENTS

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Immediate Disposal of Soil Reject

Dispose of Pulp After 90 days

Invoice To:	Imperial Metals Corporation
	200 - 580 Hornby St.
	Vancouver BC V6C 3B6
	CANADA

1	~/	
ι	л	

Erik Andersen Jim Miller-Tait

![](_page_33_Picture_21.jpeg)

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Bureau Veritas assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted. \*\*\* asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.

												Clie	nt:	<b>Imj</b> 200 Vand	<b>Derial</b> - 580 Hor couver B(	Metals mby St. C V6C 3E	<b>s Corp</b> 36 canai	D <b>oratio</b>	on		
B U R E A U       MINERAL LABORATORIES         V E R I T A S       Canada							Proje	Project: Porcher Island													
ureau Veritas Commodities Canada Ltd. Report Date: August 27, 2015																					
9050 Shaughn PHONE (604)	nessy St Vancouver BC V 253-3158	'6P 6E5	CANA	DA								Page	:	2 of 2	2				Pa	art: 1	of 2
CERTIF	FICATE OF AN	JALY	′SIS													SN	AI15	000	045.	1	
	Method	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
	Analyte	Мо	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	v	Ca	Р	La
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
	MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
PIG15-01	Sediment	0.4	18.7	2.6	38	<0.1	7.7	9.8	430	3.03	0.6	4.7	1.1	102	<0.1	<0.1	<0.1	82	0.57	0.062	6

PIG15-02

PIG15-03

PIG15-04

PIG15-05

PIG15-06

PIG15-07

PIG15-08

PIG15-09

PIG15-10

PIG15-11

PIG15-12

Sediment

0.4

0.2

0.5

0.3

0.4

0.4

0.7

0.4

1.4

0.7

<0.1

11.1

7.3

30.5

1.4

0.7

3.9

52.5

13.7

5.6

7.1

17.4

1.1

0.9

0.7

1.6

0.8

1.1

1.1

2.1

1.5

1.2

1.7

28

15

27

16

4

15

68

32

25

29

47

<0.1

< 0.1

<0.1

<0.1

<0.1

<0.1

<0.1

<0.1

<0.1

<0.1

<0.1

7.2

4.5

15.0

1.1

0.5

4.3

8.9

7.5

7.3

10.3

23.1

7.1

5.2

12.6

2.7

0.5

2.8

16.4

7.5

5.1

7.3

11.6

242

143

247

155

62

120

472

226

178

225

363

1.80

2.12

2.21

0.73

0.15

0.75

3.57

1.43

1.11

1.31

2.11

<0.5

<0.5

<0.5

<0.5

<0.5

< 0.5

<0.5

0.6

0.9

1.1

0.8

6.1

1.2

0.9

6.8

42.4

32.5

1.8

2.1

0.6

1.0

128.8

1.2

1.3

1.3

0.4

0.2

1.0

1.6

1.2

1.1

0.8

1.5

34

22

26

43

16

19

21

35

29

33

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43

53

51

16

21

95

35

29

30

47

4

0.29

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0.34

0.19

0.09

0.25

0.31

0.28

0.25

0.21

0.41

0.042

0.005

0.061

0.028

0.001

0.046

0.062

0.034

0.031

0.026

0.088

5

			Client:	Imperial Metals Corpor 200 - 580 Hornby St. Vancouver BC V6C 3B6 CANADA	ation	
B U R E A U V E R I T A S	MINERAL LABORATORIES Canada	www.bureauveritas.com/um	Project:	Porcher Island		
Bureau Veritas	Commodities Canada Ltd.		Report Date:	August 27, 2015		
9050 Shaughn	essy St Vancouver BC V6P 6E	5 CANADA				
PHONE (604)	253-3158		Page:	2 of 2	Part:	2 of 2

Те

0.2

### CERTIFICATE OF ANALYSIS SMI15000045.1 Method AQ201 Analyte w ΤI s Se Cr Mg Ва Ti в AI Na κ Hg Sc Ga Unit % % % ppm % ppm ppm % ppm ppm ppm ppm % ppm ppm ppm MDL 0.01 1 0.001 1 0.01 0.001 0.01 0.1 0.01 0.1 0.1 0.05 1 0.5 1 PIG15-01 2 <0.2 Sediment 13 0.69 89 0.105 1.24 0.040 0.13 <0.1 0.02 1.7 <0.1 < 0.05 4 <0.5 PIG15-02 3 <0.5 Sediment 11 0.56 64 0.091 <1 0.86 0.013 0.12 < 0.1 < 0.01 1.3 < 0.1 < 0.05 < 0.2 2 PIG15-03 Sediment 8 0.30 26 0.080 <1 0.45 0.008 0.06 < 0.1 < 0.01 0.9 < 0.1 < 0.05 < 0.5 < 0.2 <0.5 PIG15-04 0.69 0.094 0.008 0.20 < 0.01 1.2 < 0.05 3 <0.2 Sediment 19 75 <1 0.97 <0.1 < 0.1 PIG15-05 Sediment 1 0.26 25 0.053 <1 0.47 0.009 0.03 0.2 < 0.01 0.7 <0.1 < 0.05 2 <0.5 <0.2 PIG15-06 0.07 <0.2 Sediment <1 6 0.037 <1 0.15 0.006 < 0.01 <0.1 < 0.01 0.3 <0.1 < 0.05 <1 <0.5 2 PIG15-07 Sediment 6 0.27 27 0.064 1 0.60 0.011 0.04 <0.1 < 0.01 1.1 <0.1 < 0.05 <0.5 <0.2 PIG15-08 Sediment 48 1.22 162 0.153 1.65 0.006 0.47 < 0.01 3.5 < 0.05 5 <0.5 <0.2 <1 0.2 < 0.1 PIG15-09 0.71 0.103 0.025 <0.1 < 0.01 1.2 < 0.05 3 <0.5 <0.2 Sediment 14 55 1 0.94 0.17 < 0.1 2 PIG15-10 Sediment 12 0.58 39 0.087 1 0.74 0.014 0.12 <0.1 <0.01 1.0 < 0.1 < 0.05 <0.5 < 0.2 PIG15-11 0.62 2 2 <0.2 Sediment 12 34 0.087 0.82 0.031 0.12 < 0.1 < 0.01 0.7 < 0.1 0.06 < 0.5 PIG15-12 Sediment 17 0.89 74 0.119 2 1.25 0.028 0.24 < 0.1 < 0.01 1.2 < 0.1 < 0.05 4 <0.5 <0.2

												Clien	t:	Imp 200 - S Vanco	<b>erial N</b> 580 Horn ouver BC	<b>letals</b> by St. V6C 3B6		oratio	n		
B U R E A U       MINERAL LABORATORIES         V E R I T A S       Canada    www.bureauveritas.com/um							Project: Porcher Island														
Bureau Veritas	ureau Veritas Commodities Canada Ltd. Report Date: August 27, 2015																				
9050 Shaughr	essy St Vancouver BC V	6P 6E5	CANAE	A																	
PHONE (604)	253-3158											Page:		1 of 1					Pari	t: 1 oʻ	f 2
QUALI	TY CONTROL	REP	POR	Т												S№	1115(	0000	)45.1	1	
	Method	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
	Analyte	Мо	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	v	Ca	Р	La
	Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm
	MDL	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001	1
Reference Mate	erials																				

0.079

0.105

0.073

0.102

18 13

17.5

13

<1

STD DS10

BLK

STD OXC129

STD DS10 Expected

STD OXC129 Expected

Standard

Standard

Blank

14.1

1.3

1.3

<0.1

14.69 154.61

164.2

29.1

28

<0.1

151.6

150.55

5.8

6.3

<0.1

371

40

370

42.9

<1

1.8

<0.1

2.02

<0.1

77.0

84.0

74.6

79.5

<0.1

13.2

22.3

12.9

20.3

<0.1

898

431

421

<1

875 2.7188

2.75

3.09

3.065

< 0.01

46.4

0.6

43.7

0.6

<0.5

109.4

186.1

91.9

195

<0.5

7.6

1.9

7.5

1.9

<0.1

66

190

67.1

<1

2.9

<0.1

2.49

< 0.1

9.7

<0.1

8.23

<0.1

12.2

<0.1

<0.1

11.65

45

53

51

<2

1.06

0.67

0.665

<0.01 <0.001

43 1.0625

			Client:	Imperial Metals Corporation 200 - 580 Hornby St. Vancouver BC V6C 3B6 CANADA	)n	
BUREAU VERITAS Bureau Veritas	MINERAL LABORATORIES Canada Commodities Canada Ltd.	www.bureauveritas.com/um	Project: Report Date:	Porcher Island August 27, 2015		
9050 Shaughn PHONE (604) 2	essy St Vancouver BC V6P 6E5 CANAD 253-3158	A	Page:	1 of 1	Part:	2 of 2
QUALIT	Y CONTROL REPOR	Г		SMI15000	045.1	

# QUALITY CONTROL REPORT

	Method	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
	Analyte	Cr	Mg	Ва	Ti	в	AI	Na	κ	w	Hg	Sc	ті	S	Ga	Se	Те
	Unit	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
	MDL	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
Reference Materials																	
STD DS10	Standard	59	0.78	353	0.081	8	1.05	0.063	0.34	3.2	0.29	2.8	5.0	0.28	4	2.2	4.6
STD OXC129	Standard	54	1.57	49	0.427	<1	1.59	0.572	0.37	<0.1	<0.01	0.6	<0.1	<0.05	5	<0.5	<0.2
STD DS10 Expected		54.6	0.775	359	0.0817		1.0259	0.067	0.338	3.32	0.3	2.8	5.1	0.29	4.3	2.3	5.01
STD OXC129 Expected		52	1.545	50	0.4	1	1.58	0.6	0.37			1.1			5.6		
BLK	Blank	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2

![](_page_38_Picture_0.jpeg)

MINERAL LABORATORIES Canada

www.bureauveritas.com/um

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA PHONE (604) 253-3158

## CERTIFICATE OF ANALYSIS

### **CLIENT JOB INFORMATION**

Project:	Porcher Island
Shipment ID:	PIG2015-01
P.O. Number	
Number of Samples:	9

### SAMPLE DISPOSAL

DISP-PLP	Dispose of Pulp After 90 days
DISP-RJT	Dispose of Reject After 90 days

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Invoice To:	Imperial Metals Corporation
	200 - 580 Hornby St.
	Vancouver BC V6C 3B6
	CANADA

CC:

Erik Andersen Jim Miller-Tait eritas.com/um

Client: Imperial Metals Corporation 200 - 580 Hornby St. Vancouver BC V6C 3B6 CANADA

Submitted By:	Melissa Darney
Receiving Lab:	Canada-Smithers
Received:	August 10, 2015
Report Date:	August 27, 2015
Page:	1 of 2

## SMI15000046.1

### SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP70-250	9	Crush, split and pulverize 250 g rock to 200 mesh			SMI
AQ201	9	1:1:1 Aqua Regia digestion ICP-MS analysis	15	Completed	VAN
SHP01	9	Per sample shipping charges for branch shipments			SMI

### ADDITIONAL COMMENTS

![](_page_38_Picture_21.jpeg)

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Bureau Veritas assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted. \*\*\* asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.

												Clier	nt:	<b>Imp</b> 200 - Vanc	<b>Derial</b> - 580 Hor couver BC	Metals nby St. C V6C 3B	6 CANAI	DA DA	on		
B U R E A U V E R I T A S	MINERAL LABORATORI Canada	IES		www	.bureau	uverita	s.com/ı	um				Projec	st:	Porc	her Island	d					
Bureau Veritas	Commodities Canada Lto	d.										Repor	t Date:	Augu	ust 27, 20	15					
9050 Shaughn PHONE (604) 2	essy St_Vancouver BC V6 253-3158	6P 6E5	CANAE	A								Page:		2 of 2	2				Pa	art: 1	of 2
CERTIF	ICATE OF AN	IALY	′SIS													SN	/II15	000	046	.1	
	Method	WGHT	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
	Analyte	Wgt	Мо	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	v	Ca	Р
	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%

MDL

Rock

Rock

Rock

Rock

Rock

Rock

Rock

Rock

Rock

780982

780983

780984

780985

780986

780987

780988

780401

780402

0.01

0.30

1.12

0.30

0.44

1.65

1.51

1.24

1.47

1.59

0.1

< 0.1

1.8

<0.1

0.1

0.1

0.2

<0.1

6.8

0.3

0.1

1.8

52.7

3.0

3.4

2.5

4.4

1.8

5.0

2.3

0.1

1.3

2.0

1.2

1.3

0.8

1.1

0.5

1.9

0.9

1

4

3

4

4

5

1

3

5

18

0.1

<0.1

0.1

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<0.1

<0.1

<0.1

9.1

2.7

0.2

0.1

1.0

2.7

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1.1

1.0

2.8

1.8

0.1

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8.2

0.3

2.6

0.5

0.5

0.3

79.4

12.1

1

26

207

19

72

62

78

19

249

61

0.01

0.25

1.98

0.16

0.62

0.28

0.68

0.18

6.00

1.49

0.5

<0.5

0.6

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< 0.5 44985.3

< 0.5 13067.3

0.5

< 0.5

9.7

0.9

0.8

1.7

0.9

137.7

0.1

0.1

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0.7

1.6

0.1

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1

3

48

<1

3

1

9

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3

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<0.1

22.9

5.7

2

2

21

<2

3

<2

2

<2

8

5

0.01

0.27

<0.01

0.03

0.05

0.05

<0.01

0.40

0.02

0.02 < 0.001

0.001

0.007

< 0.001

0.002

0.002

0.003

0.002

0.009

< 0.001

			Client:	Imperial Metals C 200 - 580 Hornby St. Vancouver BC V6C 3B6 C/	orporation ANADA	
B U R E A U V E R I T A S	MINERAL LABORATORIES Canada	www.bureauveritas.com/um	Project:	Porcher Island		
Bureau Veritas	Commodities Canada Ltd.		Report Date:	August 27, 2015		
9050 Shaughne	essy St Vancouver BC V6P 6E5 C	ANADA				
PHONE (604) 2	253-3158		Page:	2 of 2	Part:	2 of 2
CERTIF	ICATE OF ANALYS	SIS		SMI	15000046.1	

	Method	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
	Analyte	La	Cr	Mg	Ва	Ti	в	AI	Na	ĸ	w	Hg	Sc	ті	S	Ga	Se	Те
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
	MDL	1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
780982	Rock	<1	2	0.02	10	0.009	<1	0.06	0.005	0.02	<0.1	<0.01	0.1	<0.1	<0.05	<1	<0.5	<0.2
780983	Rock	1	4	0.40	33	0.075	<1	0.63	0.023	0.08	<0.1	<0.01	0.9	<0.1	0.11	2	1.1	<0.2
780984	Rock	<1	2	<0.01	3	<0.001	<1	<0.01	0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
780985	Rock	<1	4	0.02	5	0.005	<1	0.05	0.006	<0.01	<0.1	0.01	0.1	<0.1	<0.05	<1	<0.5	0.4
780986	Rock	<1	5	0.05	8	0.009	<1	0.09	0.013	0.03	<0.1	<0.01	0.2	<0.1	<0.05	<1	<0.5	<0.2
780987	Rock	2	4	0.02	9	0.005	<1	0.11	0.056	0.01	<0.1	<0.01	0.1	<0.1	<0.05	<1	<0.5	<0.2
780988	Rock	<1	2	<0.01	3	<0.001	<1	0.01	0.002	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
780401	Rock	<1	4	<0.01	10	<0.001	<1	0.03	0.004	0.02	0.1	0.05	0.1	<0.1	6.57	<1	0.7	78.2
780402	Rock	<1	2	0.07	31	<0.001	<1	0.16	0.012	0.05	<0.1	0.02	0.2	<0.1	1.24	<1	<0.5	23.0

												Clien	t:	Imp 200 - S Vanco	erial N 580 Horn ouver BC	<b>letals</b> by St. V6C 3B6	Corpo	oration	n		
BUREAU VERITAS	<b>MINERAL LABORATORI</b> Canada	ES		www.	bureau	iveritas	s.com/u	ım				Project	:: Data:	Porche	er Island	_					
Bureau Veritas	s Commodities Canada Lto	d.										кероп	Dale.	Augus	st 27, 201	5					
9050 Shaughn	essy St Vancouver BC Ve	6P 6E5	CANAE	A																	
PHONE (604)	253-3158											Page:		1 of 1					Part	:: 1 of	12
QUALI	TY CONTROL	REP	POR	Т												SM	1150	0000	)46.1	1	
	Method	WGHT	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
	Analvte	Wat	Мо	Cu	Pb	Zn	Αα	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	v	Са	Р

	Analyte	Wgt	Мо	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	v	Ca	Р
	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2	0.01	0.001
Pulp Duplicates																					
780402	Rock	1.59	0.3	2.3	0.9	5	2.7	1.8	12.1	61	1.49	<0.5 1	3067.3	0.2	3	<0.1	<0.1	5.7	5	0.02	0.009
REP 780402	QC		0.3	2.2	0.8	4	2.7	1.8	12.5	60	1.49	<0.5 1	4145.8	0.2	3	<0.1	<0.1	5.8	5	0.02	0.009
Reference Materials																					
STD DS10	Standard		14.1	164.2	151.6	371	1.8	77.0	13.2	898	2.75	46.4	109.4	7.6	66	2.9	9.7	12.2	45	1.06	0.079
STD OXC129	Standard		1.3	29.1	5.8	40	<0.1	84.0	22.3	431	3.09	0.6	186.1	1.9	190	<0.1	<0.1	<0.1	53	0.67	0.105
STD DS10 Expected			14.69	154.61	150.55	370	2.02	74.6	12.9	875	2.7188	43.7	91.9	7.5	67.1	2.49	8.23	11.65	43	1.0625	0.073
STD OXC129 Expected			1.3	28	6.3	42.9		79.5	20.3	421	3.065	0.6	195	1.9					51	0.665	0.102
BLK	Blank		<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	<0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001
Prep Wash																					
ROCK-SMI	Prep Blank		0.6	6.7	3.8	39	<0.1	1.2	4.1	495	1.72	0.5	<0.5	2.2	29	<0.1	<0.1	<0.1	26	0.61	0.038
ROCK-SMI	Prep Blank		0.4	5.7	3.0	39	<0.1	0.9	3.8	493	1.80	0.7	<0.5	2.1	26	<0.1	<0.1	<0.1	25	0.63	0.039

			Client:	Imperial Metals Co 200 - 580 Hornby St. Vancouver BC V6C 3B6 CA	orporation	
BUREAU VERITAS	MINERAL LABORATORIES Canada	www.bureauveritas.com/um	Project:	Porcher Island		
Bureau Veritas	Commodities Canada Ltd.		Report Date:	August 27, 2015		
9050 Shaughn	essy St Vancouver BC V6P 6E5 C	ANADA				
PHONE (604)	253-3158		Page:	1 of 1	Part:	2 of 2
		DT				

# QUALITY CONTROL REPORT

## SMI15000046.1

	Method	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201	AQ201
	Analyte	La	Cr	Mg	Ва	Ti	в	AI	Na	к	w	Hg	Sc	ті	S	Ga	Se	Те
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
	MDL	1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
Pulp Duplicates																		
780402	Rock	<1	2	0.07	31	<0.001	<1	0.16	0.012	0.05	<0.1	0.02	0.2	<0.1	1.24	<1	<0.5	23.0
REP 780402	QC	<1	2	0.07	29	<0.001	<1	0.17	0.012	0.05	<0.1	0.02	0.2	<0.1	1.23	<1	<0.5	23.9
Reference Materials																		
STD DS10	Standard	18	59	0.78	353	0.081	8	1.05	0.063	0.34	3.2	0.29	2.8	5.0	0.28	4	2.2	4.6
STD OXC129	Standard	13	54	1.57	49	0.427	<1	1.59	0.572	0.37	<0.1	<0.01	0.6	<0.1	<0.05	5	<0.5	<0.2
STD DS10 Expected		17.5	54.6	0.775	359	0.0817		1.0259	0.067	0.338	3.32	0.3	2.8	5.1	0.29	4.3	2.3	5.01
STD OXC129 Expected		13	52	1.545	50	0.4	1	1.58	0.6	0.37			1.1			5.6		
BLK	Blank	<1	<1	<0.01	<1	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
Prep Wash																		
ROCK-SMI	Prep Blank	7	2	0.47	75	0.088	<1	1.07	0.127	0.13	0.1	<0.01	3.2	<0.1	<0.05	4	<0.5	<0.2
ROCK-SMI	Prep Blank	7	3	0.45	71	0.086	2	1.11	0.136	0.13	0.1	<0.01	3.0	<0.1	<0.05	4	<0.5	<0.2

![](_page_43_Picture_0.jpeg)

![](_page_43_Picture_1.jpeg)

# AQ300, AQ200

Package Description
Sample Digestion
Instrumentation Method
Legacy Code
Applicability

Geochemical aqua regia digestion HNO3-HCl acid digestion ICP-ES (AQ300, AQ200), ICP-MS (AQ200) 1D, 1DX Sediment, Soil, Non-mineralized Rock and Drill Core

### **METHOD DESCRIPTION:**

Prepared sample is digested with a modified Aqua Regia solution of equal parts concentrated HCl, HNO3 and DI H2O for one hour in a heating block or hot water bath. Sample is made up to volume with dilute HCl. Sample splits of 0.5g are analyzed optional 15g or 30g digestion available for AQ200.

Element	AQ300	AQ200	Upper	Element	AQ300	AQ200	Upper
	Detection	Detection	Limit		Detection	Detection	Limit
Ag	0.3 ppm	0.1 ppm	100 ppm	Na*	0.01 %	0.001 %	5 %
Al*	0.01 %	0.01 %	10 %	Ni	1 ppm	0.1 ppm	10000 ppm
As	2 ppm	0.5 ppm	10000 ppm	P*	0.001 %	0.001 %	5 %
Au	-	0.5 ppb	100 ppm	Pb	3 ppm	0.1 ppm	10000 ppm
B*^	20 ppm	20 ppm	2000 ppm	S	0.05 %	0.05 %	10 %
Ba*	1 ppm	1 ppm	10000 ppm	Sb	3 ppm	0.1 ppm	2000 ppm
Bi	3 ppm	0.1 ppm	2000 ppm	Sc	-	0.1 ppm	100 ppm
Ca*	0.01 %	0.01 %	40 %	Se	-	0.5 ppm	100 ppm
Cd	0.5 ppm	0.1 ppm	2000 ppm	Sr*	1 ppm	1 ppm	10000 ppm
Со	1 ppm	0.1 ppm	2000 ppm	Те	-	0.2 ppm	1000 ppm
Cr*	1 ppm	1 ppm	10000 ppm	Th*	2 ppm	0.1 ppm	2000 ppm
Cu	1 ppm	0.1 ppm	10000 ppm	Ti*	0.01 %	0.001 %	5 %
Fe*	0.01 %	0.01 %	40 %	ті	5 ppm	0.1 ppm	1000 ppm
Ga*	-	1 ppm	1000 ppm	U*	8 ppm	0.1 ppm	2000 ppm
Hg	1 ppm	0.01 ppm	50 ppm	V*	1 ppm	2 ppm	10000 ppm
К*	0.01 %	0.01 %	10 %	W*	2 ppm	0.1 ppm	100 ppm
La*	1 ppm	1 ppm	10000 ppm	Zn	1 ppm	1 ppm	10000 ppm
Mg*	0.01 %	0.01 %	30 %				
Mn*	2 ppm	1 ppm	10000 ppm				
Мо	1 ppm	0.1 ppm	2000 ppm				

\* Solubility of some elements will be limited by mineral species present. ^Detection limit = 1 ppm for 15g / 30g analysis.

### Limitations:

Au solubility can be limited by refractory and graphitic samples.

### SECTION E: SAMPLE LOCATIONS & DESCRIPTIONS

2015 Geochemical Sampling - Soils

- 2015 Geochemical Sampling Rocks
- 2015 Geochemical Sampling Stream Sediments

Porcher Isla	nd Property: 20	15 Geochemica	ll Sampling	/ Soils				
Sample Type	Sample ID	Sample Date	Sampler	Easting NAD83 09	Northing NAD83 09	Depth	Colour	Notes
B-Horizon	5400F+8075N	03-Aug-15	BF	395400	5988075	15	BR	
B-Horizon	5400E+8100N	03-Aug-15	BE	395400	5988100	20	BR	
B-Horizon	5400E+8125N	03-Aug-15	BE	395400	5988125	25	GY	
B-Horizon	5400E+8150N	03-Aug-15	BE	395400	5988150	20	GY	
B-Horizon	5400E+8175N	03-Aug-15	BE	395400	5988175	10	GY	
B-Horizon	5400E+8200N	05 Hug 15	DL	575100	5700175	10	01	NO SAMPLE
B-Horizon	5400E+8225N							NO SAMPLE
B-Horizon	5400E+8250N	03-Aug-15	BE	395400	5988250	3	LB	
B-Horizon	5400E+8275N	03-Aug-15	BE	395400	5988275	20	RB	
B-Horizon	5400E+8300N	03-Aug-15	BE	395400	5988300	20	GY	
B-Horizon	5400E+8325N	03-Aug-15	BE	395400	5988325	20	LB	
B-Horizon	5400E+8350N	00 Hug 10	BL	575100	5700525	20	LD	NO SAMPLE
B-Horizon	5400E+8375N	03-Aug-15	BE	395400	5988375	20	GY	
B-Horizon	5400E+8400N	00 1146 10	55	272.00	0,000,0	20	01	NO SAMPLE
B-Horizon	5400E+8425N	03-Aug-15	BE	395400	5988425	35	LB	
B-Horizon	5400E+8450N	03-Aug-15	BE	395400	5988450	20	GY	
B-Horizon	5600E+7900N	03-Aug-15	BE	395600	5987900	5	RB	
B-Horizon	5600E+7925N	03-Aug-15	BE	395600	5987925	10	BR	
B-Horizon	5600E+7950N	03-Aug-15	BE	395600	5987950	30	RB	
B-Horizon	5600E+7975N	03-Aug-15	BE	395600	5987975	10	GV	
B-Horizon	5600E+8000N	03-Aug-15	BE	395600	5988000	15	RB	
B-Horizon	5600E+8025N	05-11ug-15	DL	373000	5788000	15	KD	NO SAMPLE
B-Horizon	5600E+8050N	03-Aug-15	BE	395600	5988050	20	DB	
B-Horizon	5600E+8075N	03-Aug-15	BE	395600	5988030	15	GV	
B-Horizon	5600E+8100N	03-Aug-15	BE	395600	5988100	30	GV	
B Horizon	5600E+8100N	03-Aug-15	DE	395600	5088100	10	GV	
B-Horizon	5600E+8125N	03-Aug-15	DE	395600	5988125	10	GV	
B-Horizon	5600E+8150N	03-Aug-15	DL	393000	5988150	40	UI	NO SAMPLE
B Horizon	5600E+8175N							NO SAMPLE
B-Horizon	5600E+8200N	03 Aug 15	DE	395600	5088775	20	DD	NO SAMI LE
B-Horizon	5600E+8250N	03-Aug-15	BE	395600	5988250	<u>20</u> <u>40</u>	BB	
B-Horizon	5600E+8275N	03-Aug-15	BE	395600	5988275	35		
B-Horizon	5600E+8275N	05-Aug-15	DL	373000	5788275	55	DD	NO SAMPI F
B-Horizon	5600E+8305N	03-Aug-15	BE	395600	5988375	35	GV	
B-Horizon	5600E+8350N	03-Aug-15	BE	395600	5988350	35	GV	
B-Horizon	5600E+8375N	03-Aug-15	BE	395600	5988375	20		
B-Horizon	5600E+8375N	03-Aug-15	BE	395600	5088/00	20	DB	
B-Horizon	5600E+8400N	03-Aug 15	BE	305600	5088400	<u>20</u> <u>40</u>	DD DD	
B-Horizon	780403	03-Aug-15	DE IMT	393000	5987368	40 58	OR OR	Ovidized orange soil with
D-110112011	700405	05-Aug-15	51711	<i>, c+c, c</i>	5707500	50	UK	quartz fragments
<b>B-Horizon</b>	780404	04-Aug-15	BE	396625	5985650	35	DB	

Sample	Sample	Sample	Sampler	Easting	Northing	Elevation	Lithology	Mineralisation	Veining	Structure	Description	
RCK-OUT	780982	02-Aug-15	BE	396536	5987801	64	VQZ		mul	014/90	Quartz-carbonate vein within quartz diorite, multiphasal shear vein, 3cm wide	
RCK-OUT	780983	02-Aug-15	BE	396617	5987856	42	VQZ	trace slf	sht	018/90	Quartz-carbonate veins within quartz diorite with trace weathered sulphide 0.5 - 2cm wide	
RCK-FLT	780984	02-Aug-15	BE	397166	5987417	52	VQZ				Bull quartz vein in quartz diorite, near contact with andesite to east	
RCK-OUT	780985	02-Aug-15	BE	397091	5987390	56	VQZ			102/80N	Bull quartz vein exposed in creek, 30cm wide	
RCK-OUT	780986	03-Aug-15	BE	395605	5987927	42	VQZ	trace pyr		082/??	Bull quartz vein with trace pyrite, 20cm wide, dip unknown	
RCK-OUT	780987	03-Aug-15	BE	395433	5988356	26	VQZ				Bull guartz vein	
RCK-OUT	780988	03-Aug-15	BE	395373	5988067	31	VQZ			012/??	Bull quartz vein in quartz diorite, 30cm wide	
RCK-OUT	780401	03-Aug-15	JMT	395837	5987585	97	VQZ	5% Py	Qtz	E-W?	O/C qtz, 45cm? W Py.	
RCK-OUT	780402	02-Aug-15	JMT	395580	5987515	60	VQZ	10% Py	Qtz	UG Dump	Qtz w Py at Dawson adit.	

Porcher Island Property: 2015 Geochemical Sampling / Stream Sediments							
Sample	Sample ID	Sample	Sampler	Easting	Northing	Sieve	Notes
Туре		Date		NAD83_09	NAD83_09	Mesh	
SSED	PIG15-01	02-Aug-15	BE	396984	5987430	-50	
SSED	PIG15-02	02-Aug-15	BE	397084	5987422	-50	
SSED	PIG15-03	02-Aug-15	BE	397108	5987383	-50	
SSED	PIG15-04	02-Aug-15	BE	397263	5987533	-50	
SSED	PIG15-05	03-Aug-15	BE	395871	5987847	-50	
SSED	PIG15-06	03-Aug-15	BE	395860	5987839	-50	
SSED	PIG15-07	04-Aug-15	BE	396337	5986264	-50	
SSED	PIG15-08	04-Aug-15	BE	396457	5985398	-50	
SSED	PIG15-09	05-Aug-15	BE	393814	5985727	-50	
SSED	PIG15-10	05-Aug-15	BE	393909	5985784	-50	
SSED	PIG15-11	05-Aug-15	BE	393856	5986050	-50	
SSED	PIG15-12	05-Aug-15	BE	394206	5986114	-50	

### SECTION F: ILLUSTRATIONS

Figure Number	Title	Scale
PI-2015-1 (after P.3)	BC Location Plan	1:8 000 000
PI-2015-2 (after P.3)	General Location Plan	1:260 000
PI-2015-3 (after P.3)	Mineral Tenure Plan	1:30 000
PI-2015-4 (after P.6)	Regional Geology	1:150 000
PI-2015-5 (in pocket)	2015 Rock, Soil and Stream Sediment Sampling	1:5 000
	Locations	
PI-2015-6 (in pocket)	2015 Sampling Results - Au	1:5 000

![](_page_49_Picture_0.jpeg)

![](_page_50_Figure_0.jpeg)